

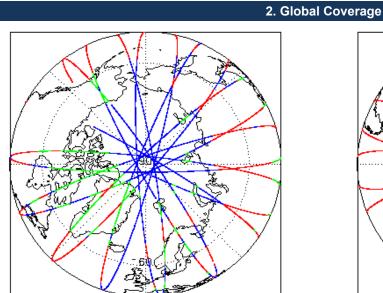
# **QA4EO Daily Report for IOP data:**

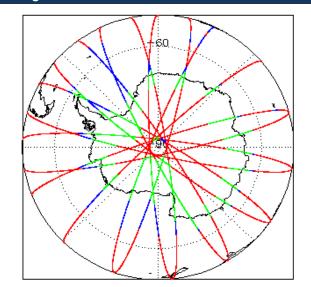
26/01/2021

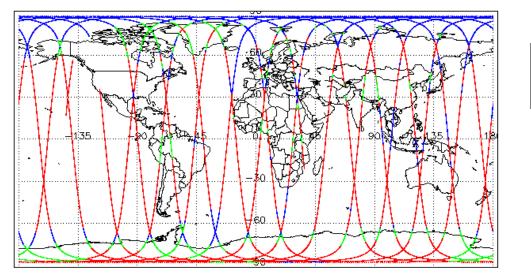
Papart Braduction	29-Jan-2021	Check	L1 & L2	P2P
Report Production:	29-Jan-2021	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CrucSet Occor Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used.	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Oseu.	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
		Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
		Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
		Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

1. Overview

Mission / Instrument News		
25-Jan-2021	None	
26-Jan-2021	Siral Unavailability due to Orbit Control Manoeuvre, on 26/01/2021 from 22:00:40 to 23:49:17 UTC.	
27-Jan-2021	Nothing planned	











# 3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

0

The SIRAL instrument configuration for the day of acquisition is provided below.

4. IOP Level 1B Data Quality Check

## 4.1 L1B 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).

For all products, a series of pre-defined checks are performed on the MPH ar	nd SPH in order to identify any inconsis	tencies and/or errors raised by the ground-segment processing chain.
	1B IOPR and IOPN products because the	he I1b_processing_quality_hr field is not correctly configured in the OSAR and
DSARIn chains. A modification is required in the next release. Number of products with errors: 0		
4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a p	re-determined baseline and also to che	ck the validity of Auxiliary Data Files is correct.
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement reco	ord. The hit value of this flag indicates a	ny problems when set
Number of products with errors: 0	a the bit value of this hay indicates a	
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag for each measure	ement record. The bit value of this flag in	ndicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for IOPR prod	lucts due to a configuration issue. This	is being investigated and will be updated in the next SW update.
Number of products with errors: 3		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20210126T064347_20210126T065527_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_20210126T083134_20210126T083804_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_20210126T172922_20210126T174350_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more
		records
4.6 L1B Waveform Group Data Check		
CryoSat L1B data includes a waveform data flag for each measurement reco	rd. The bit value of this flag indicates ar	ny problems when set.
.oss of Echo Flag: This flag is currently set for products over land, but this i	s to be expected.	
Number of products with errors: 19		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20210126T003916_20210126T011351_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20210126T015235_20210126T015518_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20210126T054352_20210126T055316_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20210126T104051_20210126T110850_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T003750_20210126T003916_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T025348_20210126T025809_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T025348_20210126T025809_C001 CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001	Loss of Echo Loss of Echo	
		The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T171008_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170451_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001 CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001           CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001           CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001           CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001           CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T134830_C001           CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001           CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T171008_C001           CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001           CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001           CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001           CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001           CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121332_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records         The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001 CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121332_C001 CS_OFFL_SIR_IOPR1B_20210126T185312_20210126T185429_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001 CS_OFFL_SIR_IOPN1B_20210126T202754_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T1215035_20210126T121322_C001 CS_OFFL_SIR_IOPR1B_20210126T1215035_20210126T121322_C001 CS_OFFL_SIR_IOPR1B_20210126T185312_20210126T185429_C001 CS_OFFL_SIR_IOPR1B_20210126T215431_20210126T215635_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T21843_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T21843_C001 CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121322_C001 CS_OFFL_SIR_IOPR1B_20210126T185312_20210126T125635_C001 CS_OFFL_SIR_IOPR1B_20210126T215431_20210126T215635_C0	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121332_C001 CS_OFFL_SIR_IOPR1B_20210126T1215431_20210126T215635_C001 CS_OFFL_SIR_IOPR1B_20210126T215431_20210126T215635	Loss of Echo Loss of Echo DP Level 2 Data Quality	The tracking echo is missing for one or more records The tracking echo is missing for
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T215706_C001 CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121332_C001 CS_OFFL_SIR_IOPR1B_20210126T185312_20210126T125635_C001 CS_OFFL_SIR_IOPR1B_20210126T215431_20210126T215635_C001 CS_OFFL_SIR_IOPR1B_20210126T215635_C001 CS_OFFL_SIR_IOPR1B_20210126T215635_C001 CS_OFFL_SIR_IOPR1B_2021012	Loss of Echo Loss of Echo DP Level 2 Data Quality	The tracking echo is missing for one or more records The tracking echo is missing for
CS_OFFL_SIR_IOPN1B_20210126T034323_20210126T034603_C001 CS_OFFL_SIR_IOPN1B_20210126T070017_20210126T070333_C001 CS_OFFL_SIR_IOPN1B_20210126T125559_20210126T125914_C001 CS_OFFL_SIR_IOPN1B_20210126T134717_20210126T134830_C001 CS_OFFL_SIR_IOPN1B_20210126T170452_20210126T170613_C001 CS_OFFL_SIR_IOPN1B_20210126T170851_20210126T171008_C001 CS_OFFL_SIR_IOPN1B_20210126T184406_20210126T184512_C001 CS_OFFL_SIR_IOPN1B_20210126T202320_20210126T202831_C001 CS_OFFL_SIR_IOPN1B_20210126T215635_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T020754_20210126T021843_C001 CS_OFFL_SIR_IOPN1B_20210126T121109_20210126T121332_C001 CS_OFFL_SIR_IOPR1B_20210126T1215431_20210126T215635_C001 CS_OFFL_SIR_IOPR1B_20210126T215431_20210126T215635	Loss of Echo Loss of Echo DP Level 2 Data Quality	The tracking echo is missing for one or more records The tracking echo is missing for

# 5.3 L2 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:

## 5.4 L2 Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

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Currently, there are some common auxiliary correction errors raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

> ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.

> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.

> Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.

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> Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.

> Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20210126T003750_20210126T003916_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1:
		GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20210126T011630_20210126T011944_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T012457_20210126T012614_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T020734_20210126T020754_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20210126T030404_20210126T030519_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T034323_20210126T034603_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20210126T034617_20210126T034742_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T052016_20210126T052426_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20210126T052546_20210126T052650_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T061941_20210126T062212_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T070017_20210126T070333_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T070341_20210126T070550_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T075850_20210126T080226_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T084022_20210126T084413_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T084921_20210126T084958_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T094001_20210126T094144_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T124910_20210126T125031_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T125559_20210126T125914_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T134717_20210126T134830_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T142840_20210126T142954_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T160933_20210126T161210_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T161403_20210126T162029_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T174734_20210126T175107_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T184406_20210126T184512_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20210126T192705_20210126T192904_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20210126T202320_20210126T202831_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20210126T210639_20210126T210757_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T001705_20210126T001815_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

CS_OFFL_SIR_IOPR_2_20210126T002809_20210126T003557_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T020754_20210126T021843_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T034742_20210126T035447_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T052650_20210126T053214_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T062212_20210126T062438_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20210126T065527_20210126T065632_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPR_2_20210126T070550_20210126T071248_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T072626_20210126T073441_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T084413_20210126T084921_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T102133_20210126T102945_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T120023_20210126T120756_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T121109_20210126T121332_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T121709_20210126T121856_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T133537_20210126T134553_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T134553_20210126T134717_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T151751_20210126T152452_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T152452_20210126T153941_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T165736_20210126T170343_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T170343_20210126T170452_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T174615_20210126T174734_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20210126T183722_20210126T183826_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T183829_20210126T183917_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T183933_20210126T184048_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T184048_20210126T184406_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T200102_20210126T200259_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20210126T201740_20210126T202320_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20210126T215835_20210126T220041_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

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# 5.5 L2 Measurement Confidence Data Check

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

Number of products with errors: 3		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20210126T064347_20210126T065527_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOPM_2_20210126T083134_20210126T083804_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOPM_2_20210126T172922_20210126T174350_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

# 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20Hz)

CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record. The bit value of this flag indicates any problems when set.

Currently, there are several common flags raised in the Level 2 products, which are summarised below. The table provides the full list of products flagged.

> Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags: These flags are currently set for some records over ocean.

> OCOG Altimeter Range and Backscatter Quality Flags: These flags are currently set for some records over continental ice.

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20210126T001950_20210126T002148_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T002535_20210126T002621_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T003916_20210126T011351_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T011944_20210126T012457_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T012654_20210126T012945_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T013112_20210126T014113_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T014137_20210126T014605_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T020218_20210126T020358_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T021843_20210126T022754_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T023039_20210126T025229_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T025809_20210126T025945_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T025952_20210126T030403_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T030608_20210126T032817_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T032902_20210126T033331_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T033619_20210126T034123_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T040016_20210126T040322_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T040449_20210126T043157_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T043320_20210126T043845_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T043851_20210126T043858_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T044950_20210126T050219_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T050314_20210126T052016_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T053405_20210126T053435_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T053438_20210126T053500_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T054352_20210126T055316_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

GS_OFFL_SIR_IOPM_2_20210126T0655519_20210126T061047_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Coulity Statistic To ore or more records.           CS_OFFL_SIR_IOPM_2_20210126T061246_20210126T061743_C001         OCOG Altimeter Range and Backscatter Quality Flags I backscatter Quality.           CS_OFFL_SIR_IOPM_2_20210126T061246_20210126T061915_C001         OCOG Altimeter Range Quality.         The OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T061903_20210126T061915_C001         OCOG Altimeter Range Quality.         The OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T062838_20210126T063908_C001         Admeter Range, SSHA, SWH and Backscatter Quality.         The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality.           CS_OFFL_SIR_IOPM_2_20210126T062838_20210126T063592_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality.         The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality.           CS_OFFL_SIR_IOPM_2_20210126T0641347_20210126T065527_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality.         The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality.           CS_OFFL_SIR_IOPM_2_20210126T073441_20210126T074948_C001         Ocean Altimeter Range and Backscatter Quality.         The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality.           CS_OFFL_SIR_IOPM_2_20210126T075217_20210126T075959_C001         OCOG Altimeter Range and Backscatter Quality.         The OCOG Altitmeter Range, SSHA, SWH and Backscatter Quality. <th>ags have been set have been set Quality Flags ags have been Quality Flags ags have been Quality Flags ags have been Anave been set Quality Flags ags have been set have been set have been set Quality Flags Quality Flags</th>	ags have been set have been set Quality Flags ags have been Quality Flags ags have been Quality Flags ags have been Anave been set Quality Flags ags have been set have been set have been set Quality Flags Quality Flags
LS_OFFL_SIR_IOPM_2_20210126T061803_20210126T061815_C001         Backscatter Quality         for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T061803_20210126T061815_C001         OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records.         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T064347_20210126T065527_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality.         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T073441_20210126T074946_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality.         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records.           CS_OFFL_SIR_IOPM_2_20210126T073441_20210126T074946_C001         Ocean Altimeter Range and Backscatter Quality File and Backscatter Quality.         The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range	have been set Quality Flags ags have been Quality Flags ags have been Quality Flags ags have been have been set have been set have been set Quality Flags
CS_OFFL_SIR_JOPM_2_20210126106103_202101261063096_C001         Backscatter Quality         for one or more records.           GS_OFFL_SIR_JOPM_2_202101261062638_202101261063906_C001         Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality File addite Coord Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality File and the OCOG Altimeter Range, SSHA, SWH and the OCOG Altimeter Range, SSHA, SWH an	Quality Flags ags have been Quality Flags ags have been Quality Flags ags have been have been set have been set have been set Quality Flags
CS_OFFL_SIR_IOPM_2_20210126T062638_20210126T062638_20210126T063306_C001       and Backscatter Quality Fla       and the COCG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T064347_20210126T066527_C001       Decan Atimeter Range, SSHA, SWH and Backscatter Quality Fla       The Occan Altimeter Range, SSHA, SWH and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T073441_20210126T074946_C001       Decan Atimeter Range, SSHA, SWH and Backscatter Quality Fla       The Occan Altimeter Range, SSHA, SWH and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T075217_20210126T075658_C001       Decan Altimeter Range, SSHA, SWH and Backscatter Quality Fla       The OCCG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T075217_20210126T075658_C001       DCCG Altimeter Range Quality, OCCG       The OCCG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T080309_20210126T083021_C001       Decan Altimeter Range Quality, OCCG       The OCCGA Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T083028_20210126T084022_C001       DCCGA Altimeter Range Quality, OCCG       The OCCGA Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T098303_20210126T095906_C001       DCCGA Altimeter Range Quality, OCCG       The OCCGA Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T099407_20210126T092450_C001       DCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Fla       The OCCGA Altimeter Range and Backscatter Quality Fla         <	ags have been Quality Flags ags have been Quality Flags ags have been have been set have been set have been set Quality Flags
CS_OFFL_SIR_JOPM_2_20210126T064347_20210126T076527_C001       and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality set for one or more records.         CS_OFFL_SIR_JOPM_2_20210126T073441_20210126T074946_C001       Decan Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Backscatter Quality, OCOG Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_JOPM_2_20210126T075217_20210126T075658_C001       OCCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_JOPM_2_20210126T080309_20210126T0803021_C001       OCCOG Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality       The OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T085903_20210126T085905_C001       OCCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T09240_20210126T09242_C001       Occean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I for one or more r	ags have been Quality Flags ags have been have been set Quality Flags ags have been have been set have been set Quality Flags
CS_OFFL_SIR_IOPM_2_20210126T073441_20210126T074946_C001       and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       and the OCOG Altimeter Range and Backscatter Quality Fia set for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T075217_20210126T075658_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality       The OCOG Altimeter Range and Backscatter Quality Fia set for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T080309_20210126T083021_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Fia set for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T083928_20210126T084022_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Fias I or one or more records.         CS_OFFL_SIR_IOPM_2_20210126T085903_20210126T085906_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimete	ags have been have been set Quality Flags ags have been have been set have been set Quality Flags
CS_OFFL_SIR_IOPM_2_2021012610/5217_2021012610/5058_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_20210126108309_202101261083021_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality. OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261083928_202101261084022_C001       OCOG Altimeter Range Quality. OCOG Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261085903_202101261085906_C001       OCOG Altimeter Range Quality. OCOG Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261085903_202101261085906_C001       OCOG Altimeter Range Quality. OCOG Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261092450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126109240_202101261092450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Flags I and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Flags I and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261092540_202101261092942_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_202101261093233_202101261093612_C001       OCOG Altimeter Range Qu	Quality Flags ags have been have been set have been set Quality Flags
CS_OFFL_SIR_IOPM_2_20210126T080309_20210126T083021_C001       and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       and the OCOG Altimeter Range and Backscatter Quality         CS_OFFL_SIR_IOPM_2_20210126T083928_20210126T084022_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality       The OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T085903_20210126T085906_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality       The OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T090407_20210126T092450_C001       OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags I and the OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range Quality, O	have been set have been set Quality Flags
CS_OFFL_SIR_IOPM_2_202101261083928_202101261084022_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T085903_20210126T085906_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T090407_20210126T092450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality, OCOG       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality Flags I and Backscatter Quality, OCOG         CS_OFFL_SIR_IOPM_2_20210126T092540_20210126T092942_C001       Ocean Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality, OCOG         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       Ocean Altimeter Range Quality, OCOG       The OCCOG Altimeter Range and Backscatter Quality Flags I and the OCOG Altimeter Range and Backscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Gackscatter Quality Flags I for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T094226_20210126T101113_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags I and Backscatter Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags I for one or more records.	have been set Quality Flags
CS_OFFL_SIR_IOPM_2_202101261085903_202101261085906_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_202101261090407_202101261092450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Image and Backscatter Quality, Ima	Quality Flags
CS_OFFL_SIR_IOPM_2_20210126T090407_20210126T092450_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flaget for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T092540_20210126T092942_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range and Backscatter Quality Flaget for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T092540_20210126T092942_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range and Backscatter Quality Flaget for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flaget for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range, Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flaget for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T101113_C001       Ocean Altimeter Range, SSHA, SWH       The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flaget for one or more records.	
CS_OFFL_SIR_IOPM_2_20210126T092540_20210126T092942_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093612_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Fla         CS_OFFL_SIR_IOPM_2_20210126T093232_20210126T101113_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Fla	
CS_OFFL_SIR_IOPM_2_20210126T093233_20210126T093012_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_20210126T094226_20210126T101113_C001       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fla	
CS_OFFL_SIR_IOPM_2_20210126T094226_20210126T101113_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Fla	have been set
Altimeter Range and Backscatter Quality set for one or more records.	
CS_OFFL_SIR_IOPM_2_20210126T104051_20210126T110850_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20210126T111033_20210126T111527_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags I for one or more records.	have been set
CS_OFFL_SIR_IOPM_2_20210126T112304_20210126T115711_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and	
CS_OFFL_SIR_IOPM_2_20210126T120951_20210126T121109_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat the OCOG Altimeter Range	
CS_OFFL_SIR_IOPM_2_20210126T130154_20210126T133537_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Fla	
CS_OFFL_SIR_IOPM_2_20210126T134854_20210126T135041_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat the OCOG Altimeter Range	
CS_OFFL_SIR_IOPM_2_20210126T140810_20210126T142746_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Fla	
CS_OFFL_SIR_IOPM_2_20210126T144102_20210126T151412_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20210126T153941_20210126T160235_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20210126T161210_20210126T161403_C001 OCOG Altimeter Range Quality, OCOG for one or more records.	have been set
CS_OFFL_SIR_IOPM_2_20210126T162048_20210126T163256_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Interest Range and Backscatter Quality Flatimeter Range and Backscatter Quality Fl	
CS_OFFL_SIR_IOPM_2_20210126T163348_20210126T163604_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Fla Set for one or more records.	

CS_OFFL_SIR_IOPM_2_20210126T163641_20210126T163825_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T164307_20210126T165139_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T165708_20210126T165717_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T171027_20210126T172717_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T172922_20210126T174350_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T175406_20210126T175817_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T180003_20210126T181232_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T181344_20210126T181531_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T181732_20210126T182655_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T184512_20210126T184559_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T185521_20210126T190427_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T191142_20210126T192610_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T192904_20210126T193720_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T193937_20210126T195558_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T195851_20210126T200102_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T203820_20210126T210527_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T210757_20210126T210959_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T211039_20210126T211550_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T211837_20210126T214355_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T214656_20210126T215304_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20210126T234917_20210127T002255_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T003750_20210126T003916_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T002621_20210126T002731_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T025229_20210126T025348_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T025945_20210126T025952_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T044313_20210126T044950_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
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	<b>0 3</b>	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS OFFE SIR JOPR 2 202101261053911 202101261053920 CO01	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T201620_20210126T201740_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

# L2 Quality Flags (20Hz PLRM)

Currently, there are several common flags raised in the Level 2 products, which are summarised below. The table provides the full list of products flagged.

> Ocean Altimeter Range, SSHA, SWH and Backscatter PLRM Quality Flags: T	These flags are currently set for occasional records over sea ice.
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> OCOG Altimeter Range and Backscatter PLRM Quality Flags: These flags are currently set for occasional records over continental ice.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20210126T000453_20210126T000648_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T001145_20210126T001251_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T002231_20210126T002354_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T011630_20210126T011944_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T012457_20210126T012614_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T015707_20210126T015746_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T034323_20210126T034603_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T052016_20210126T052426_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T053214_20210126T053306_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T061941_20210126T062212_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T063906_20210126T063958_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T063958_20210126T064347_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T070017_20210126T070333_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T070341_20210126T070550_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T083804_20210126T083928_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T084022_20210126T084413_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T085906_20210126T090039_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T110907_20210126T111033_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T111904_20210126T112045_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPN_2_20210126T123137_20210126T123228_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T124910_20210126T125031_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T125559_20210126T125914_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T135540_20210126T135723_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T160933_20210126T161210_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T161403_20210126T162029_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T170452_20210126T170613_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T170851_20210126T171008_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T174734_20210126T175107_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T184559_20210126T184653_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T190623_20210126T191142_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T192705_20210126T192904_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T202320_20210126T202831_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20210126T214609_20210126T214612_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T002354_20210126T002424_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T002809_20210126T003557_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T003708_20210126T003750_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T011351_20210126T011630_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T020443_20210126T020734_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T034742_20210126T035447_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T035633_20210126T035812_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T035815_20210126T035822_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T052650_20210126T053214_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T054153_20210126T054352_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T065527_20210126T065632_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T065928_20210126T070017_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPR_2_20210126T070550_20210126T071248_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T072626_20210126T073441_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T083021_20210126T083134_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T084413_20210126T084921_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T094144_20210126T094226_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T102133_20210126T102945_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T103209_20210126T103241_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T120023_20210126T120756_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T120811_20210126T120951_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T121109_20210126T121332_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T121709_20210126T121856_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T122008_20210126T122252_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T133537_20210126T134553_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T135319_20210126T135512_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T151751_20210126T152452_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T152452_20210126T153941_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T165202_20210126T165217_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T165736_20210126T170343_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T172717_20210126T172922_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T183722_20210126T183826_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T183829_20210126T183917_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T184653_20210126T184840_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T185008_20210126T185129_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T200102_20210126T200259_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T201620_20210126T201740_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20210126T201740_20210126T202320_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPR_2_20210126T202903_20210126T20312	5_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.							
CS_OFFL_SIR_IOPR_2_20210126T210527_20210126T21063	9_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.							
CS_OFFL_SIR_IOPR_2_20210126T215431_20210126T21563	5_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.							
CS_OFFL_SIR_IOPR_2_20210126T215706_20210126T21581	5_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.							
CS_OFFL_SIR_IOPR_2_20210126T215835_20210126T22004	1_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.							
L2 Quality Flags (1 Hz & 1Hz PLRM)										
Currently, there are several common flags raised in the Levi	el 2 products, whi	ch are summarised below.								
> 1Hz and 1Hz Ocean SSHA Quality Flags: These flags are cu	irrently set for prod	lucts over sea ice, which is to be expected								
Number of products with errors: 197										
5.8 L2 Ocean Retracking Quality Check										
L2 Retracking Flags (20Hz)										
CryoSat L2 data includes an ocean retracking quality flag for each	ch 20-Hz measurer	nent record. The bit value of this flag indic	ates any problems when set.							
Ocean Retracking Quality Flag: This flag is currently set for pr	oducts over land a	nd sea ice, but this is to be expected. The	number of products with this error flag set is given below.							
Number of products with errors: 58										
L2 Retracking Flags (20Hz, PLRM)										
CryoSat L2 data includes an ocean retracking quality flag for each	ch 20-Hz PLRM me	easurement record. The bit value of this fla	g indicates any problems when set.							
Ocean Retracking Quality Flag (PLRM): This flag is currently s	set for products IOF	PR and IOPN products over sea ice, but th	is is to be expected.							
Number of products with errors: 145										
	6. <mark>IOP</mark> L2 P	ole-to-Pole Data Quality	Check							
6.1 P2P Product Format Check										
Each product, retrieved and unpacked from the science server, i	s checked to ensu	re it consists of both an XML header file (.h	HDR) and a NetCDF product file (.nc).							
ch product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).										
Number of products with errors: 0										
Number of products with errors:     0       6.2 P2P Product Header Analysis										
	n the MPH and SP	H in order to identify any inconsistencies a	nd/or errors raised by the ground-segment processing chain.							
6.2 P2P Product Header Analysis	n the MPH and SP	H in order to identify any inconsistencies a	nd/or errors raised by the ground-segment processing chain.							
6.2 P2P Product Header Analysis For all products, a series of pre-defined checks are performed o	n the MPH and SP	H in order to identify any inconsistencies a	nd/or errors raised by the ground-segment processing chain.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0										
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check										
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with restrict the set of the										
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with moments         Number of products with errors:       0	espect to a pre-det	ermined baseline and also to check the va								
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with moments         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical	espect to a pre-det Group are checke <b>rs raised in the Le</b>	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due								
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with r         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction Correction and the U-Wind and V-Wind components of the ECM	espect to a pre-det Group are checke rs raised in the Le may arise from t ns are not compute	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi	lidity of Auxiliary Data Files is correct.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed on Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with moment of products with errors:         0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction correction and the U-Wind and V-Wind components of the ECM not reported in the table below.	espect to a pre-det Group are checker rs raised in the Le may arise from t ms are not compute WF model wind ve	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed of Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with response of products with errors:         0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction correction and the U-Wind and V-Wind components of the ECM	Group are checkers raised in the Le may arise from t ns are not compute WF model wind ve	ermined baseline and also to check the va d for the default error value (32767). avel 2 products which are expected due his test. ad over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with r         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error         followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction         Correction and the U-Wind and V-Wind components of the ECM not reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is c	espect to a pre-det Group are checke <b>rs raised in the Le</b> <b>may arise from t</b> ns are not compute WF model wind ve urrently set for prod ts over land and se	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected. ea ice, but this is to be expected.	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ad.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed of Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with r         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction Correction and the U-Wind and V-Wind components of the ECM not reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is correction products	Group are checked rs raised in the Le may arise from t WF model wind ve urrently set for proot ts over land and set for products over la	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected a ice, but this is to be expected. and and sea ice, but this is to be expected.	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ed.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed of Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with momentary of products with errors:         0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction Correction and the U-Wind and V-Wind components of the ECM not reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is c         > Mean Sea Surface: The error value is currently set for product         > Mean Dynamic Topography: The error value is currently set	Group are checked rs raised in the Le may arise from t WF model wind ve urrently set for proot ts over land and set for products over la	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected a ice, but this is to be expected. and and sea ice, but this is to be expected.	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ed.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed of Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with momer of products with errors:         0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction for reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is correction and the U-Wind and V-Wind components of the ECM of the analyse below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products         > Mean Dynamic Topography: The error value is currently set for products with errors:         > Altimetric Wind Speed Error: The error value is currently set         > Altimetric Wind Speed Error: The error value is currently set	Group are checked rs raised in the Le may arise from t WF model wind ve urrently set for proot ts over land and set for products over la	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected and and sea ice, but this is to be expected. and and sea ice, but this is to be expected.	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, neric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ad.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with r         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error         followed by a table highlighting any additional issues which         > ECMWF Meteo Corrections: Currently the following correction         Correction and the U-Wind and V-Wind components of the ECM not reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for product         > Mean Dynamic Topography: The error value is currently set         > Altimetric Wind Speed Error: The error value is currently set	espect to a pre-det Group are checker rs raised in the Le may arise from t ms are not compute WF model wind ve urrently set for prod ts over land and set for products over la for products over la	ermined baseline and also to check the va d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected and and sea ice, but this is to be expected. and and sea ice, but this is to be expected.	lidity of Auxiliary Data Files is correct. to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ed.							
6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed or Number of products with errors:         0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with momentary of products with errors:         0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical         Currently, there are some common auxiliary correction error followed by a table highlighting any additional issues which of reported in the table below.         > ECMWF Meteo Corrections: Currently the following correction correction and the U-Wind and V-Wind components of the ECM not reported in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for product a Mean Dynamic Topography: The error value is currently set of altimetric Wind Speed Error: The error value is currently set of products with errors:         27       Product	Group are checker rs raised in the Le may arise from t ms are not compute WF model wind ve urrently set for proo ts over land and set for products over la for products over la	ermined baseline and also to check the va d for the default error value (32767). avel 2 products which are expected due his test. ad over CONTINENTAL ICE: Dry Tropospi ctor. This is a known anomaly (CRYO-CO ducts over sea ice, but this is to be expected and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. Test Failed Mean Sea Surface (1), Mean Dynamic	lidity of Auxiliary Data Files is correct.  to surface type. All common flags are summarised in the list below, heric Corection, Wet Tropospheric Correction, Inverse Barometric P-3) and will be resolved in a future IPF update. The affected products are ed							

Ocean Tide

Mean Sea Surface (1), Mean Dynamic CS\_OFFL\_SIR\_IOP\_2\_20210126T020952\_20210126T025927\_C001 Topography (1)

CS\_OFFL\_SIR\_IOP\_2\_20210126T025927\_20210126T034906\_C001

Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period

There is an error with the MSS height (solution 1) and the Mean Dynamic

Topography height (solution 1)

CS_OFFL_SIR_IOP_220210126T034906_20210126T043841_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T043841_20210126T052821_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20210126T052821_20210126T061756_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T061756_20210126T070736_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20210126T070736_20210126T075711_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T075711_20210126T084650_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20210126T084650_20210126T093625_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T093625_20210126T102605_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T102605_20210126T111540_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T111540_20210126T120520_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20210126T120520_20210126T125455_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T125455_20210126T134434_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T134434_20210126T143409_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T143409_20210126T152349_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220210126T152349_20210126T161324_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T161324_20210126T170304_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T170304_20210126T175239_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_220210126T175239_20210126T184218_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T184218_20210126T193153_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T193153_20210126T202133_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220210126T202133_20210126T211108_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_220210126T211108_20210126T220048_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

# 6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

3

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220210126T061756_20210126T070736_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOP_220210126T075711_20210126T084650_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOP_220210126T170304_20210126T175239_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

# 6.6 P2P Measurement Quality Flag Check

## P2P Quality Flags (20Hz)

CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.						
Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.						
Number of products with errors: 28						
P2P Quality Flags (20Hz PLRM)						

# Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. Number of products with errors: 27

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.

28

24

27

Number of products with errors:

## 6.8 P2P Ocean Retracking Quality Check

#### P2P Retracking Flags (20Hz) Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag (PLRM): This flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.

Number of products with errors:

#### P2P Retracking Flags PLRM

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

Ocean Retracking Quality Flag (PLRM): This flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.

19

2109

Number of products with errors:

## 7. IOP 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	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_IOPM1B	178	178	3	175	0
SIR_IOPR1B	141	99	1	98	0
SIR_IOPN1B	99	141	0	141	0
SIR_IOPM_2	178	178	122	56	0
SIR_IOPR_2	141	99	41	58	0
SIR_IOPN_2	99	141	54	80	7
SIR_IOP_P2P	27	27	0	23	4

#### 7.1 QCC Errors

Number of QCC reports with errors:

	Total number of occurrences of each error										
Product Typ	De RLOBOPNCE	DF RL	RL	RLOBOPNCDF	RL	RL	-	-	-	-	-
SIR_IOPR_	2 7	1	7	7	1	7					
Product Typ		)F RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2	_ 4	4	4	4							

Fest Description Key:					
Abbreviation	Test name	Details			
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7			
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6			
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7			
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7			
RL	RangeLongitude_6	Longitude should be between -180E6 and 180E6			
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7			

#### 7.2 QCC Warnings

Number of QCC reports with warnings

Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMM
SIR_IOPM1B	175	0	0	0	0	0	0
SIR_IOPM_2	0	0	36	36	0	49	0
SIR_IOPN1B	98	0	0	0	0	0	0
SIR IOPN 2	0	0	11	26	6	22	25
SIR_IOPR1B	140	0	0	0	0	0	0
SIR_IOPR_2	0	7	26	40	1	30	21
Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSAR		DIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR IOPM1B	0	0	0	0	0	0	0
SIR IOPM 2	41	0	33	0	0	0	0
SIR IOPN1B	0	0	0	0	0	0	0
SIR IOPN 2	14	1	0	0	22	0	27
SIR IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	8	1	0	43	0	54	0
		·				·	·
Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	28	0	0	6	31	0	5
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	0	23	10	38	44	27
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	0	46	0	4	55	35	6
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR IOPM1B	0	0	0	0	0	1	
SIR IOPM 2	35	0	2	0	0	0	
SIR_IOPN1B	0	0	0	0	45	3	
SIR IOPN 2	26	23	9	0	0	0	
SIR IOPR1B	0	0	0	0	141	10	
SIR_IOPR_2	25	46	2	18	0	0	
	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	
Product Type	17	27	27		27	15	27
SIR_IOP_2_	17	21	21	1	21	15	21
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNC
SIR_IOP_2_	2	14	24	21	17	27	17
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCD	F RSWHOEPNCDF	SPHLPQWNCDF	-	-
	21	27	17	11	27		1

BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter
BCSHNCDF	bulstoounterotepzonzivetobi	
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

# 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0