

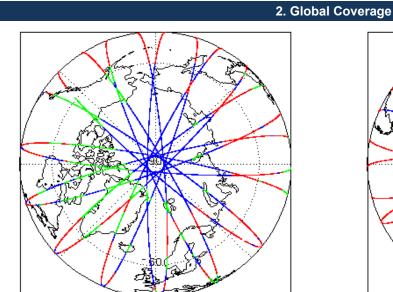
## **QA4EO Daily Report for IOP data:**

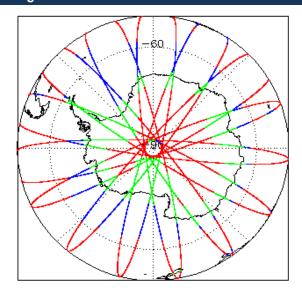
<u>17/12/2020</u>

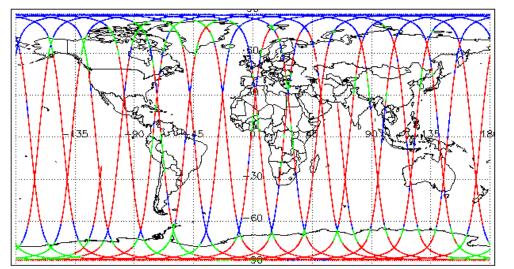
Panart Braduction	06-Jan-2021	Check	L1 & L2	P2P
Report Production:	06-Jan-2021	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Useu.	Cryosal Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Used:	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	Nominal
		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		
16-Dec-20	20 SIRAL Unavailability due to planned On-board Maintenance on 2020-12-16 from 13:35:00 to 13:50:02 UTC.	
17-Dec-20	20 None	
18-Dec-20	20 Nothing planned	







# Mode Coverage



## 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).

4.2 L1B Product Header Analysis				
For all products, a series of pre-defined checks are performed on the MPH an	d SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain.		
L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1 OSARIn chains. A modification is required in the next release.	B IOPR and IOPN products bec	ause the I1b_processing_quality_hr field is not correctly configured in the OSAR and		
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 pr	e-determined baseline and also	to check the validity of Auxiliary Data Files is correct.		
Number of products with errors: 0				
4.4 L1B Auxiliary Correction Error Check				
•	ud. The hit velue of this flow indi			
CryoSat L1B data includes a correction error flag for each measurement recor Number of products with errors: 0	a. The bit value of this hag indic	ates any problems when set.		
4.5 L1B Measurement Confidence Data Check				
CryoSat L1B data includes a measurement confidence flag for each measure	ment record. The bit value of thi	s flag indicates any problems when set.		
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts due to a configuration issue	e. This is being investigated and will be updated in the next SW update.		
Number of products with errors: 0				
4.6 L1B Waveform Group Data Check				
•				
CryoSat L1B data includes a waveform data flag for each measurement recor	-	ates any problems when set.		
Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 17	to be expected.			
Product CS_OEEL_SID_LODM1B_20201217T011012_20201217T015051_C001	Test Failed Loss of Echo	Description The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPM1B_20201217T011912_20201217T015051_C001 CS_OFFL_SIR_IOPM1B_20201217T080115_20201217T081045_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_20201217102013_202012171001043_C001 CS_OFFL_SIR_IOPN1B_20201217T024423_20201217T024524_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T060343_20201217T060500_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T074237_20201217T074413_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T092057_20201217T092303_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T123202_20201217T123819_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T192207_20201217T192328_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T210131_20201217T210345_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201217T224045_20201217T224536_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T084625_20201217T084923_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T091530_20201217T091752_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T143536_20201217T143626_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T173202_20201217T173334_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T182000_20201217T182659_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T205837_20201217T210131_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201217T211051_20201217T211152_C001	Loss of Echo	The tracking echo is missing for one or more records		
5. 10	P Level 2 Data Qu			
5.1 L2 Product Format Check				
Each product, retrieved and unpacked from the science server, is checked to	ensure it consists of both an XM	IL header file (.HDR) and a binary product file (.DBL).		
Number of products with errors: 0				
5.2 L2 Product Header Analysis				
For all products, a series of pre-defined checks are performed on the MPH an	d SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain.		
Number of products with errors: 0				
5.3 L2 Auxiliary Data File Usage Check				
	- determined becaling and also	to shoeld the unlittle of Auvilian Data Files is somest		
Each product is checked for missing Data Set Descriptors with respect to a pr Number of products with errors: 0	e-determined baseline and also	to check the validity of Auxiliary Data Files is correct.		
5.4 L2 Auxiliary Correction Error Check				
For all products, the auxiliary corrections within the Geophysical Group are ch	ecked for the default error value	ə (32767).		
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 a	nd sea ice, but this is to be expe	ected.		

> 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.

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Paraturat	T	Description
Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20201217T110949_20201217T111244_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_20201217T001425_20201217T001603_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_20201217T015418_20201217T015802_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_20201217T033351_20201217T033707_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_20201217T034219_20201217T034344_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_20201217T042441_20201217T042534_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_20201217T052128_20201217T052235_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_20201217T060343_20201217T060500_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_20201217T074237_20201217T074413_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_20201217T075707_20201217T080114_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_20201217T083701_20201217T084314_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_20201217T091901_20201217T092057_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_20201217T092057_20201217T092303_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_20201217T101624_20201217T101942_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_20201217T105736_20201217T110125_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_20201217T123202_20201217T123819_C001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOPN_2_20201217T133629_20201217T133747_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_20201217T143627_20201217T143812_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_20201217T151321_20201217T151630_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_20201217T160928_20201217T161052_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_20201217T165221_20201217T165548_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_20201217T182659_20201217T182934_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_20201217T200223_20201217T200824_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_20201217T201539_20201217T201716_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_20201217T210131_20201217T210345_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_20201217T210526_20201217T210741_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_20201217T215446_20201217T215639_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_20201217T224045_20201217T224536_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_20201217T010445_20201217T011327_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_20201217T024524_20201217T025312_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_20201217T042534_20201217T043530_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_20201217T060500_20201217T061225_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T074414_20201217T074934_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) the matching of the term of of term o	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T092303_20201217T093006_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (s	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T110126_20201217T110949_C001 Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) Total Geocentric Ocean Tide (GOT) GOT) for one or more records	
CS_OFFL_SIR_IOPR_2_20201217T123819_20201217T124718_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) Topography height (solution 1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T141749_20201217T142657_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) Topography height (solution 1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T142905_20201217T143122_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography he more records	ight for one or
CS_OFFL_SIR_IOPR_2_20201217T143536_20201217T143626_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography he more records	ight for one or
CS_OFFL_SIR_IOPR_2_20201217T155348_20201217T160310_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) Topography height (solution 1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T160310_20201217T160444_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) Topography height (solution 1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T173533_20201217T174209_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (s	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T174209_20201217T174338_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (s	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T191457_20201217T192054_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) the matching of the term of of term o	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T192054_20201217T192207_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (s	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T194432_20201217T194646_C001 Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) Tote is an error with the MSS height (solution 1), the Total Geocentric Ocean Tide (GOT) GOT) for one or more records	
CS_OFFL_SIR_IOPR_2_20201217T205716_20201217T205837_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1)	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T205837_20201217T210131_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (s	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T211051_20201217T211152_C001 Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT) Total Geocentric Ocean Tide (GOT) GOT) for one or more records	
CS_OFFL_SIR_IOPR_2_20201217T223415_20201217T224045_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Topography (1) There is an error with the MSS height (solution 1) and the topography (1) the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) and the topography (1) the topography height (solution 1) and the topography height (solution 1) the topography (1) the topography height (solution 1) the topography height (solut	e Mean Dynamic
CS_OFFL_SIR_IOPR_2_20201217T224602_20201217T224823_C001 Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide for one or the Non-Equilibrium Long Period	on 2: FES) and

## 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:
0

## 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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20201216T234638_20201217T001152_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_20201217T001850_20201217T002306_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_20201217T002703_20201217T005326_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_20201217T005406_20201217T005611_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_20201217T005858_20201217T005909_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

B         One _ BRI (OPK _ 2001)11111122 2001 111111001, DOI 1001         One _ ARRING Rays 2004 0111111111111111111111111111111111	CS_OFFL_SIR_IOPM_2_20201217T010306_20201217T010445_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.
DC://DC:UNIC.VOM.CLAMINICITIONSCLAM	CS_OFFL_SIR_IOPM_2_20201217T011912_20201217T015051_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
City DRL	CS_OFFL_SIR_IOPM_2_20201217T015802_20201217T020345_C001		
CS, OFT, LSR, JOPU, 20001017100445_0001017100445_0001       and the DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       DOD Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       Done Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       Done Alinear Rage as Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0001       Done Alinear Rage SSN, NVI and Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_000121/T00000_0001       Done Alinear Rage SSN, NVI and Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_000121/T00000_0001       Done Alinear Rage SSN, NVI and Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_00121/T00000_0001       Done Alinear Rage SSN, NVI and Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_00121/T00000_0011       Done Alinear Rage SSN, NVI and Backastic Calify Fing I non-team         CS, OFT, LSR, JOPU, 20001017103000_0	CS_OFFL_SIR_IOPM_2_20201217T020643_20201217T021125_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
BL_DFFL_SRL_DFML_2.00011171152760_20011171323807_0001       Intel Seasouth Quality Course       Intel Seasouth Quality Course         GB_DFFL_SRL_DFML_2.0001117152760_2001117132587_00001       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00011171525700_2001117132587_00001       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.0001117152569_20001217132534_0001       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00011217152559_200012171732534_0001       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_00012171732534_000121       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_00012171732534_000121       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_00012171732534_00011       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_00011       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_00011       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DFML_2.00012171732534_0.0001       COURS Attractor Range SEAS_DITH       The Occar Attractor Range SEAS_DITH         GB_DFFL_SRL_DF	CS_OFFL_SIR_IOPM_2_20201217T024244_20201217T024357_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CSULTO-CRUCCULUM UNITABLE_CONT (1100000_CONT)         Hodsenter Casity         for one monitored.           CSULTO-CRUCCULUM UNITABLE_CONT (1100000_CONT)         Cont Alterator Range, SSIA, SWH and Backscater Casity Flags Inter- Senge of Backscater Casity Flags Inter- Backscater	CS_OFFL_SIR_IOPM_2_20201217T025706_20201217T033037_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_0FFL_SR_JOPK_2_20201217104458_20201217104458_001       Imid Baskaster Dunity Flags with Exercise Mailing COG Amore Frage and Baskaster Dunity Flags with Exercise Counter Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at the Coord Amireer Frage and Baskaster Dunity Flags have been at th	CS_OFFL_SIR_IOPM_2_20201217T033708_20201217T034219_C001		
CS_OFFL_SR_UOPM_2_20201217104215_202012171054216_20201       and Backscatter Cuality Flags wine been Administer Range and Bac	CS_OFFL_SIR_IOPM_2_20201217T034656_20201217T040348_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SR_UPHL2_20201217106303_202012171063082_001       and the 3000 and the COG Allmeter Range and Backscatter Quality Flage have been Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been at the COG Allmeter Range and Backscatter Quality Flage have been Allmeter	CS_OFFL_SIR_IOPM_2_20201217T042155_20201217T042204_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217705430_20201217705436_0001       and Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Allimeter Range, SHA, SWH and Backscatter Quality, Flags, have been set for one or more records.         CS_OFFL_SIR_IOPM_2_202012177054714_202012177054728_COOI       OCOG Allimeter Range, SHA, SWH and Backscatter Quality, OCOG Allimeter Range, SHA, SWH and Backscatter Quality, Flags, have been set for one or more records.         CS_OFFL_SIR_IOPM_2_202012177055408_20201217705549_COOI       Ocean Altimeter Range, SHA, SWH and Backscatter Quality, COOG Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been affinierer Range and Backscatter Quality, Flags have been Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been Allimeter Range, SHA, SWH and Backscatter Quality, Flags have been Allimeter Range, SHA,	CS_OFFL_SIR_IOPM_2_20201217T043530_20201217T050427_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Column 2_stand         Demos or more records.           CB_OFFL_SIR_IOPM_2_202012171052608_202012171055054_C001         Ocean Altimeter Range SHA, SWH and Backscatter Quality Flags and Backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and the COG Altimeter Range. SHA, SWH and Backscatter Quality Flags have been and the Company flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and Backscatter Quality Flags have been and the COG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality COG Altimeter Range and	CS_OFFL_SIR_IOPM_2_20201217T050430_20201217T050928_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CB_OFFL_SIR_IOPM_2_20201217T05508_0201117T055084_C001       and Backscatter Quality, PGOG Allmeter Range and Backscatter Quality, Flags have been Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range and Backscatter Quality, COG Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range and Backscatter Quality, COG Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range and Backscatter Quality, COG Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range and Backscatter Quality, COG Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been Allmeter Range and Backscatter Quality, COG Allmeter Range, SHA, SWH and Backscatter Quality, Flags have been all Backscatter Quality, Flags	CS_OFFL_SIR_IOPM_2_20201217T051714_20201217T052128_C001		
CS_OFFL_SIR_IOPM_2_20201217T05593_20201217T05593_C001       and Backscatter Quality Cooperating and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T05593_20201217T055947_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T05193_020201217T055947_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T05193_020201217T05195_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T061837_20201217T062644_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T061837_20201217T062644_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T065320_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T064344_20201217T065835_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T065667_20201217T065685_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been at for one or more necotis.         CS_OFFL_SIR_IOPM_2_20201217T065667_20201217T065685_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range a	CS_OFFL_SIR_IOPM_2_20201217T052608_20201217T055054_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T05593_20201217T055947_C001       and Backscatter Quality CCCG       and the CCCO Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been and the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the CCO Altimeter Range and Backscatter Quality Flags have been at the core or more records.         Cs_OFFL_SIR_IOPM_2_20201217T064344_20201217T065608_C001       OCG Altimeter Range and Backscatter Quality Flags have been at the core or more records.         Cs_OFFL_SIR_IOPM_2_20201217T065607_20201217T065608_C001       OCGA Altimeter Range Altimeter Range Altimeter Range Altimeter Range Altimeter Range Altimeter Range and Backscatter Quality Flags have been at the core or more records.	CS_OFFL_SIR_IOPM_2_20201217T055219_20201217T055933_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_JOPM_2_20201217T061830_20201217T061755_C001       and Backscatter Quality, CCCG       and the OCCG Altimeter Range and Backscatter Quality Flags have been af Mirmeter Range, SSHA, SWH and Backscatter Quality, CCCG       and the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality, CCCG Altimeter Range, SSHA, SWH and Backscatter Quality, CCCG Altimeter Range, and Backscatter Quality, Flags have been set for one or more records.         CS_OFFL_SIR_JOPM_2_20201217T065047_20201217T065689_C001       DCCG Altimeter Range Quality, CCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_JOPM_2_20201217T065647_20201217T065635_C001       DCCG Altimeter Range Quality, CCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_JOPM_2_20201217T065637_20201217T076133_C001       DCcGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_JOPM_2_20201217T07713_20201217T073847_C0	CS_OFFL_SIR_IOPM_2_20201217T055933_20201217T055947_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T061837_20201217T062844_C001       and Backscatter Quality, COGG       and the COCG Altimeter Range and Backscatter Quality Flags have been         CS_OFFL_SIR_IOPM_2_20201217T063125_20201217T063320_C001       Dcean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range and Backscatter Quality Flags have been         CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T064346_C001       Dcean Altimeter Range, SSHA, SWH       The OCGG Altimeter Range and Backscatter Quality Flags have been         CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T064846_C001       Dcean Altimeter Range, SSHA, SWH       The OCGG Altimeter Range and Backscatter Quality Flags have been         CS_OFFL_SIR_IOPM_2_20201217T065047_20201217T065608_C001       DCOG Altimeter Range Quality, OCOG       The OCGG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_IOPM_2_20201217T065607_20201217T065685_C001       DCOG Altimeter Range Quality, OCOG       The OCCG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_IOPM_2_20201217T065627_20201217T065835_C001       DCOG Altimeter Range, SSHA, SWH       The OCCG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_IOPM_2_20201217T070719_20201217T07830_C001       Dcean Altimeter Range, SSHA, SWH       The OCCG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_IOPM_2_20201217T07719_20201217T07310_C001       Dcean Altimeter Range, SSHA, SWH       The OCCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OF	CS_OFFL_SIR_IOPM_2_20201217T061630_20201217T061755_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T063125_20201217T063320_C001       and Backscatter Quality.OCOG       and the OCCG Altimeter Range and Backscatter Quality       and the OCCG Altimeter Range and Backscatter Quality       set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T064846_C001       Ocean Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality       The Ocean Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality         CS_OFFL_SIR_IOPM_2_20201217T066047_20201217T065608_C001       OCCG Altimeter Range Quality, OCCG Backscatter Quality       The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T065627_20201217T065635_C001       OCCG Altimeter Range Quality, OCCG Backscatter Quality       The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T070719_20201217T071830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at the OCCG Altimeter Range, SSHA, SWH	CS_OFFL_SIR_IOPM_2_20201217T061837_20201217T062644_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T064846_C001       and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T065047_20201217T065608_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_20201217T065627_20201217T065635_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_20201217T065627_20201217T0719_20201217T071830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been adtimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T072131_20201217T071830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been adt be OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been adt be OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been ad the OCOG Altimeter Range and Backscatter Quality Flags and backscatter Quality, OCOG Altimeter Ran	CS_OFFL_SIR_IOPM_2_20201217T063125_20201217T063320_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_202012171065607_202012171065608_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T065627_20201217T065835_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_20201217T070719_20201217T071830_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range, and Backscatter Quality, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, and Backscatter Quality, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, and Backscatter Quality, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COGG Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, 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, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and	CS_OFFL_SIR_IOPM_2_20201217T064334_20201217T064846_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_202012171063627_202012171063835_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T070719_20201217T071830_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 Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimet	CS_OFFL_SIR_IOPM_2_20201217T065047_20201217T065608_C001		
CS_OFFL_SIR_IOPM_2_20201217T07019_20201217T071830_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T072131_20201217T073010_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality, OCOG       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T073137_20201217T073010_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality, OCOG       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T073137_20201217T073847_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been attimeter Range and Backscatter Quality, OCOG         CS_OFFL_SIR_IOPM_2_20201217T080115_20201217T081045_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Flags have been and the OCOG Altimeter Range and Backscatter Quality Fla	CS_OFFL_SIR_IOPM_2_20201217T065627_20201217T065835_C001		
CS_OFFL_SIR_IOPM_2_20201217T072131_20201217T073010_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_IOPM_2_20201217T073137_20201217T073847_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG       The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags         CS_OFFL_SIR_IOPM_2_20201217T080115_20201217T081045_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags         Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_IOPM_2_20201217T070719_20201217T071830_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T073137_20201217T073847_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flags have been         Altimeter Range and Backscatter Quality, OCOG       and the OCOG Altimeter Range, SSHA, SWH       and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been         CS_OFFL_SIR_IOPM_2_20201217T080115_20201217T081045_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG       The Ocean Altimeter Range and Backscatter Quality Flags have been         Ocean Altimeter Range and Backscatter Quality, OCOG       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range and Backscatter Quality Flags have been         Ocean Altimeter Range, SSHA, SWH       Ocean Altimeter Range, SSHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_IOPM_2_20201217T072131_20201217T073010_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T080115_20201217T081045_C001       and Backscatter Quality, OCOG       and the OCOG Altimeter Range and Backscatter Quality Flags have been         Altimeter Range and Backscatter Range       SHA, SWH       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_IOPM_2_20201217T073137_20201217T073847_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_IOPM_2_20201217T080115_20201217T081045_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201217T081248_20201217T082004_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality set for one or more records.	CS_OFFL_SIR_IOPM_2_20201217T081248_20201217T082004_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been

CS_OFFL_SIR_IOPM_2_20201217T082119_20201217T082742_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_20201217T083014_20201217T083508_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_20201217T084314_20201217T084624_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_20201217T090516_20201217T090923_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_20201217T093549_20201217T093550_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_20201217T095112_20201217T100705_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_20201217T100956_20201217T101437_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_20201217T102110_20201217T104356_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_20201217T104400_20201217T105528_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_20201217T112041_20201217T114617_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_20201217T114937_20201217T115338_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_20201217T120049_20201217T122719_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_20201217T122915_20201217T122953_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_20201217T125900_20201217T130515_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_20201217T130518_20201217T132508_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_20201217T132811_20201217T133253_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_20201217T133257_20201217T133628_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_20201217T134121_20201217T141416_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_20201217T145844_20201217T150107_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_20201217T151955_20201217T154126_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_20201217T154412_20201217T155348_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_20201217T160535_20201217T160928_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_20201217T162532_20201217T163022_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_20201217T163210_20201217T164236_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_20201217T164729_20201217T165221_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_20201217T165901_20201217T170437_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.

	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_IOPM_2_20201217T170446_20201217T173158_C001		
CS_OFFL_SIR_IOPM_2_20201217T175137_20201217T175531_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_20201217T175702_20201217T182000_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_20201217T182934_20201217T183127_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_20201217T183826_20201217T184429_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_20201217T190028_20201217T190751_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_20201217T191143_20201217T191148_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_0FFL_SIR_IOPM_2_20201217T191452_20201217T191457_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_20201217T192328_20201217T192642_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_20201217T192901_20201217T193449_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_20201217T193616_20201217T194432_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_20201217T194646_20201217T200147_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_20201217T200825_20201217T201042_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_20201217T201119_20201217T201539_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_20201217T201749_20201217T203217_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_20201217T203530_20201217T204613_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_20201217T211152_20201217T211801_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_20201217T211923_20201217T212133_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_20201217T212800_20201217T214303_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_20201217T214615_20201217T215446_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_20201217T215716_20201217T221946_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_0FFL_SIR_IOPM_2_20201217T224536_20201217T224602_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_20201217T225723_20201217T232155_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_0FFL_SIR_IOPM_2_20201217T232524_20201217T232717_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_0FFL_SIR_IOPM_2_20201217T232810_20201217T233253_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_20201217T233631_20201217T233853_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_20201217T234036_20201218T000207_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_20201217T034219_20201217T034344_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_20201217T050427_20201217T050430_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_IOPN_2_20201217T075707_20201217T080114_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_20201217T025439_20201217T025518_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_20201217T041233_20201217T041347_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_20201217T042204_20201217T042441_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter 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_20201217T061349_20201217T061417_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_20201217T071941_20201217T072130_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201217T091826_20201217T091901_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201217T141541_20201217T141558_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_20201217T145706_20201217T145843_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201217T184429_20201217T184511_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.

## 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: These flags are currently set for occasional records over sea ice.

> 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_20201217T002306_20201217T002558_C001	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_20201217T011327_20201217T011724_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_20201217T015418_20201217T015802_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_20201217T020345_20201217T020459_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_20201217T022037_20201217T022410_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_20201217T023951_20201217T024013_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_20201217T024423_20201217T024524_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_20201217T025312_20201217T025439_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_20201217T034219_20201217T034344_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_20201217T040349_20201217T040707_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_20201217T051106_20201217T051503_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_20201217T052128_20201217T052235_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_20201217T065835_20201217T070017_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_20201217T073847_20201217T074232_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_20201217T075707_20201217T080114_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_20201217T083701_20201217T084314_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_20201217T085337_20201217T085436_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_20201217T085507_20201217T090109_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_20201217T091407_20201217T091529_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_20201217T094047_20201217T094246_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_20201217T111656_20201217T112041_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_20201217T115338_20201217T115342_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_20201217T115723_20201217T115838_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_20201217T123202_20201217T123819_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_20201217T141619_20201217T141721_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_20201217T141721_20201217T141749_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_20201217T143627_20201217T143812_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_20201217T144657_20201217T144737_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_20201217T162212_20201217T162532_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_20201217T174745_20201217T174837_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_20201217T182659_20201217T182934_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_20201217T183541_20201217T183754_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_20201217T192207_20201217T192328_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_20201217T200223_20201217T200824_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_20201217T210526_20201217T210741_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_20201217T212408_20201217T212759_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_20201217T222127_20201217T222454_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_20201217T222538_20201217T222650_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_20201217T224045_20201217T224536_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_20201217T232717_20201217T232810_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_20201217T002559_20201217T002702_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_20201217T015051_20201217T015418_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_20201217T020459_20201217T020643_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_20201217T021126_20201217T021617_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_20201217T023826_20201217T023950_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_20201217T024013_20201217T024141_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_20201217T024524_20201217T025312_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_20201217T025439_20201217T025518_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_20201217T033037_20201217T033351_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_20201217T042204_20201217T042441_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_20201217T042534_20201217T043530_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_20201217T055948_20201217T060024_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_20201217T060500_20201217T061225_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_20201217T061349_20201217T061417_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_20201217T064846_20201217T064914_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_20201217T070017_20201217T070719_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_20201217T071941_20201217T072130_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_20201217T074414_20201217T074934_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_20201217T075000_20201217T075126_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_20201217T083509_20201217T083512_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_20201217T091530_20201217T091752_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_20201217T092303_20201217T093006_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_20201217T094620_20201217T095112_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_20201217T100705_20201217T100745_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_20201217T114617_20201217T114719_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_20201217T115838_20201217T120048_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_20201217T123819_20201217T124718_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_20201217T133747_20201217T134121_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_20201217T141749_20201217T142657_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_20201217T142905_20201217T143122_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_20201217T151631_20201217T151955_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_20201217T155348_20201217T160310_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_20201217T173202_20201217T173334_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_20201217T174344_20201217T174745_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_20201217T182000_20201217T182659_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_20201217T191457_20201217T192054_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_20201217T194432_20201217T194646_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_20201217T203217_20201217T203356_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_20201217T205446_20201217T205630_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_20201217T205716_20201217T205837_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_20201217T210345_20201217T210526_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_20201217T210741_20201217T210901_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_20201217T212133_20201217T212237_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_20201217T223325_20201217T223415_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_20201217T223415_20201217T224045_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_20201217T225314_20201217T225524_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG 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 Level 2 products, which are summarised below.

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> 1Hz and 1Hz Ocean SSHA Quality Flags: These flags are currently set for products over sea ice, which is to be expected.

#### 5.8 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20Hz)

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and 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:

#### L2 Retracking Flags (20Hz, 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.

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Number of products with errors:

## 6. IOP L2 Pole-to-Pole Data Quality Check

### 6.1 P2P 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 NetCDF product file (.nc).

Number of products with errors:

#### 6.2 P2P Product Header Analysis

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

Number of products with errors:

### 6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

### 6.4 P2P Auxiliary Correction Error Check

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

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 Correction, 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_IOP_220201216T232934_20201217T001913_C002	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOP_220201217T001913_20201217T010849_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_220201217T010849_20201217T015828_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_220201217T015828_20201217T024803_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_220201217T024803_20201217T033742_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_220201217T033742_20201217T042718_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_220201217T042718_20201217T051657_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_220201217T051657_20201217T060633_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_220201217T060633_20201217T065611_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_220201217T065611_20201217T074547_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_220201217T074547_20201217T083526_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_220201217T083526_20201217T092502_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_220201217T092502_20201217T101441_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_0FFL_SIR_IOP_2_20201217T101441_20201217T110417_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_220201217T110417_20201217T115356_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc 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_220201217T115356_20201217T124331_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_IOP_2_20201217T124331_20201217T133310_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_20201217T133310_20201217T142246_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_20201217T142246_20201217T151225_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_20201217T151225_20201217T160201_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_20201217T160201_20201217T165140_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_220201217T165140_20201217T174115_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_220201217T174115_20201217T183054_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_20201217T183054_20201217T192030_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_220201217T192030_20201217T201009_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_220201217T201009_20201217T205945_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_220201217T205945_20201217T214923_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_220201217T214923_20201217T223859_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_220201217T223859_20201217T232838_C002	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc 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
6.5 P2P Measurement Confidence Data Check		
CryoSat P2P data includes a measurement confidence flag for each 20-Hz me	easurement record. The bit value of this flag in	dicates any problems when set.

0

Number of products with errors:

6.6 P2P Measurement Quality	.6 P2P Measurement Quality Flag Check						
P2P Quality Flags (20Hz)							
CryoSat P2P data includes Quality Flags for	r each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.						
Since the P2P Quality Flags are copied of	lirectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.						
Number of products with errors:	30						
P2P Quality Flags (20Hz PLRM)							
Since the P2P Quality Flags are copied of	lirectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.						
Number of products with errors:	29						
P2P Quality Flags (1 Hz & 1Hz P	LRM)						
Since the P2P Quality Flags are copied of	lirectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.						
Number of products with errors:	30						
6.8 P2P Ocean Retracking Qu	Jality 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.

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30

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.

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	204	204	4	200	0
SIR_IOPR1B	135	104	3	101	0

SIR_IOPN1B	104	135	0	135	0
SIR_IOPM_2	204	204	144	60	0
SIR_IOPR_2	135	104	39	65	0
SIR_IOPN_2	104	135	55	76	4
SIR_IOP_P2P	29	29	0	26	3

## 7.1 QCC Errors

Number of QCC r	QCC reports with errors: 13										
					Total number	of occurrences	of each error				
Product Type RL	OBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOPR_2	4	4	4	4							
Product Type RL	OBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2_	3	3	3	3							
Test Description	Key:										
Abbreviation	Test na	me		Details							
RLOBOPNCDF	RangeLa	titudeOrBlankOF	P_7NetCDF	Latitude should be between -90E7 and 90E7							
RL	RangeLa	titude_7		Latitude should be between -90E7 and 90E7							
RLOBOPNCDF	RangeLo	ngitudeOrBlank	DP_7NetCDF	Longitude should be between -180E7 and 180E7							
RL	RangeLo	ngitude_7		Longitude should b	e between -180E7	and 180E7					

## 7.2 QCC Warnings

•	orts with warnings	2329	Total num	ber of occurrences of	each warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMM
SIR IOPM1B	200	0	0	0	0	0	0
SIR IOPM 2	0	0	39	41	1	48	0
SIR_IOPN1B	101	0	0	0	0	0	0
SIR_IOPN_2	0	0	10	35	3	30	29
SIR_IOPR1B	133	0	0	0	0	0	0
SIR_IOPR_2	0	4	42	54	4	30	32
					-	T	1
Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF		CERPEPOPFDPLRMSINNC		RPEPOPFDSINNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	36	0	38	0	0	0	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	22	0	0	0	29	0	36
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	8	1	0	55	0	60	0
		RPEPOPSARNCDF	RPEPOPSINNCDF	DOODOONODE	RSSHAOFDNCDF		DOOLLA ONODE
Product Type	RPEPOPLRMNCDF			RSSBCONCDF		RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_IOPM1B	0 30	0	0	6	0 19	0	0 3
SIR_IOPM_2		0	0	0	0	0	0
SIR_IOPN1B	0			, e			31
SIR_IOPN_2	· ·	0	29 0	13	42 0	55	-
SIR_IOPR1B	0	0 54	0	0		0	0
SIR_IOPR_2	0	54	0	4	63	38	9
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR IOPM 2	32	0	2	0	0	0	0
SIR IOPN1B	0	0	0	0	0	48	1
SIR IOPN 2	30	28	15	0	2	0	0
SIR IOPR1B	0	0	0	1	0	135	7
SIR_IOPR_2	45	55	2	0	5	0	0
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	
SIR_IOP_2_	15	29	29	6	29	18	27
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCD
SIR IOP 2	1	16	28	23	17	29	19
	•	10	20	20		20	10
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-
SIR_IOP_2_	25	29	19	16	29		
	· ·	· ·		·		•	·
Product Type	-	-	-	-	-	-	-
SIR IOP 2							

Test Description Key:	est Description Key:						
Abbreviation	Test name	Details					
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter					
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	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
	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 DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
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