

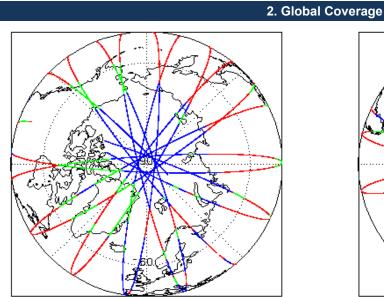
QA4EO Daily Report for IOP data:

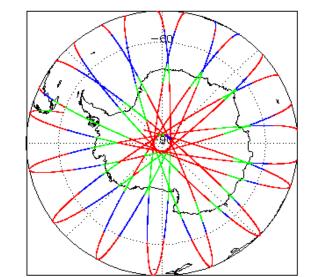
25/10/2020

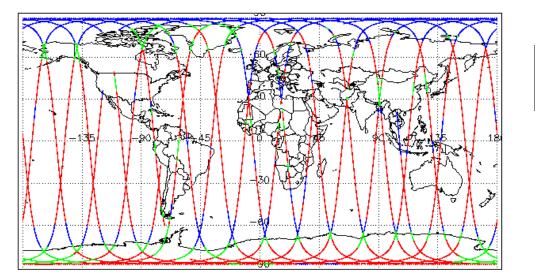
Papart Braduation	28-Oct-2020	Check	L1 & L2	P2P
Report Production:	28-Oct-2020	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used: CryoSat Ocean Processor		Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used.	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Oseu.	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
		Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
		Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
		Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

1. Overview

Mission / Instr	ument News
24-Oct-2020	None
25-Oct-2020	SIRAL unavailability on the 25/10/2020 from 16:07:12 UTC (to StandBy) to 16:21:51 UTC (to LRM) due to MMFU packet store recovery
26-Oct-2020	Nothing planned











3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

0

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

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis		
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any inconsi	stencies and/or errors raised by the ground-segment processing chain
		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 pre-	determined baseline and also to ch	eck the validity of Auxiliary Data Files is correct
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement record	l. The bit value of this flag indicates a	any problems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag for each measurem	ent record. The bit value of this flag	indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for IOPR produc	cts due to a configuration issue. This	is being investigated and will be updated in the next SW update.
Number of products with errors: 1		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20201025T102515_20201025T103905_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
		records
4.6 L1B Waveform Group Data Check		
CryoSat L1B data includes a waveform data flag for each measurement record	The bit value of this flag indicates a	ny problems when set.
Loss of Echo Flag: This flag is currently set for products over land, but this is	o be expected.	
Number of products with errors: 23		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20201025T011626_20201025T012412_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T012635_20201025T012944_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T034732_20201025T040824_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T072636_20201025T073104_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T104128_20201025T105735_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T122742_20201025T123750_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201025T162833_20201025T163431_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T024426_20201025T024502_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T024619_20201025T024641_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T073946_20201025T074014_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T110117_20201025T110332_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T120445_20201025T120651_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T210238_20201025T210646_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201025T231920_20201025T232015_C001 CS_OFFL_SIR_IOPR1B_20201025T015223_20201025T015443_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_202010251015223_202010251015443_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_IOFRIB_20201025T041439_20201025T041340_0001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201025T101937_20201025T102514	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201025T124201_20201025T124429_C001	Loss of Echo	The tracking echo is missing for one or more records
CS OFFL SIR IOPR1B 20201025T124429 20201025T124721 C001	Loss of Echo	The tracking echo is missing for one or more records
	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201025T200124_20201025T200615_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201025T221312_20201025T221514_C001	Loss of Echo	The tracking echo is missing for one or more records
5. <mark>10</mark>	P Level 2 Data Qualit	y Check
5.1 L2 Product Format Check		
Each product, retrieved and unpacked from the science server, is checked to e	nsure it consists of both an XML hea	der 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 and	SPH in order to identify any inconsi	stencies and/or errors raised by the ground-segment processing chain.
Number of products with errors: 0	,,	
5.3 L2 Auxiliary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre-	-determined baseline and also to ch	eck the validity of Auxiliary Data Files is correct.
Number of products with errors: 0		
-		

5.4 L2 Auxiliary Correction Error Check

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

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

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

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

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20201025T005730_20201025T010420_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_IOPM_2_20201025T095151_20201025T100742_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPM_2_20201025T104128_20201025T105735_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_IOPM_2_20201025T122742_20201025T123750_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_20201025T001509_20201025T001702_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_20201025T002526_20201025T002713_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_20201025T011127_20201025T011626_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20201025T033605_20201025T033810_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_20201025T051400_20201025T051719_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_20201025T052242_20201025T052400_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_20201025T065253_20201025T065614_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_20201025T070136_20201025T070300_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_20201025T074223_20201025T074516_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20201025T082926_20201025T083122_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_20201025T083958_20201025T084132_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_20201025T092316_20201025T092416_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_20201025T101729_20201025T101936_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_20201025T110117_20201025T110332_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_20201025T114745_20201025T114932_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_20201025T120445_20201025T120651_C001	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 Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_IOPN_2_20201025T133712_20201025T133915_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_20201025T164628_20201025T164753_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_20201025T182556_20201025T182722_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_20201025T183234_20201025T183537_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_20201025T200616_20201025T200916_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_20201025T201137_20201025T201654_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_20201025T210238_20201025T210646_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocear Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20201025T214614_20201025T214849_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_20201025T224130_20201025T224244_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_20201025T224432_20201025T224705_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_20201025T232116_20201025T232715_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T010420_20201025T010524_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20201025T010524_20201025T011126_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_20201025T024641_20201025T025148_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_20201025T041439_20201025T041546_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T041606_20201025T041636_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T042017_20201025T042206_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T042540_20201025T043348_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_20201025T055116_20201025T055518_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T060427_20201025T061254_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_20201025T074516_20201025T075218_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_20201025T092417_20201025T093000_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_20201025T110332_20201025T111016_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_20201025T124201_20201025T124429_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_20201025T124429_20201025T124721_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_20201025T142024_20201025T143022_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_20201025T155735_20201025T160428_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_20201025T173757_20201025T174537_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_20201025T191515_20201025T192229_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_20201025T192230_20201025T192435_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_20201025T205521_20201025T205607_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20201025T205658_20201025T210125_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_20201025T210126_20201025T210238_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_20201025T223501_20201025T223940_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_20201025T223940_20201025T224130_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_20201025T235639_20201026T000031_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

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. 1

Number of products with errors:

Product

Power scaling error

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_20201024T235924_20201025T001236_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_20201025T001702_20201025T002525_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_20201025T002855_20201025T005030_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_20201025T011626_20201025T012412_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_20201025T012635_20201025T012944_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_20201025T012946_20201025T015223_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_20201025T015603_20201025T015800_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_20201025T015848_20201025T020344_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_20201025T020920_20201025T023225_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_20201025T024503_20201025T024535_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_20201025T030517_20201025T033022_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_20201025T033810_20201025T034409_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_20201025T034732_20201025T040824_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_20201025T041546_20201025T041605_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_20201025T041636_20201025T041747_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_20201025T042206_20201025T042456_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_20201025T043705_20201025T050922_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_20201025T051719_20201025T052241_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_20201025T053327_20201025T053658_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_20201025T053821_20201025T054302_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_20201025T054642_20201025T054827_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_20201025T060042_20201025T060426_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_JOPM_2_20201025106109_202010251062023_C001 Deex Minneter Range_SSIA_SWH The Ocean Altimeter Range_SSIA_SWH CS_OFFL_SIR_JOPM_2_20201025106209_20201025106429_C001 Deex Altimeter Range and Backscatter Quality The Ocean Altimeter Range_SSIA_SWH The Ocean Altimeter Range_SSIA_SWH and Backscatter Quality CS_OFFL_SIR_JOPM_2_202010251061292_02010251070138_0001 DOEs Altimeter Range Quality, OCOG The Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range SSIA_SWH The Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range SSIA_SWH The Ocean Altimeter Range SSIA_SWH and Backscatter Quality Flags have CS_OFFL_SIR_JOPM_2_202010251071042_202010251005200_C001 Deexe Altimeter Range SSIA_SWH The Ocean Altimeter Range SSIA_SWH and Backscatter Quality Flags have The Ocean Altimeter Range SSIA_SWH and Backscatter Quality Flags have CS_OFFL_SIR_JOPM_2_202010251063120_202010251005200_C001	ave been ty Flags ave been been set ty Flags ave been ty Flags ave been been set been set been set been set been set
CS_OFFL_SIR_IOPM_2_20201025T068280_20201025T070136_0001 and Backscatter Quality. COCG Backscatter Quality. COCG Backscatter Quality. The OCCG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T07010_20201025T071642_CO01 COCG Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Backscatter Quality. The OCCG Altimeter Range. SSHA. SWH and the OCGG Altimeter Range. SSHA. SWH and the OCGG Altimeter Range. SSHA. SWH and the OCGG Altimeter Range. SSHA. SWH and Backscatter Quality. Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T071630_20201025T071642_CO01 Ocean Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality. The Ocean Altimeter Range. SSHA. SWH and Backscatter Quality. Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T075422_0201025T076422_0201025T084802_C001 OCean Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality. Altimeter Range and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality. Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T08123_20201025T081802_C001 OCCGA Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T08123_20201025T091800_C001 OCCGA Altimeter Range. SSHA. SWH and Backscatter Quality. COCG Altimeter Range. SSHA. SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T08125_020312_0001 OC	been set ty Flags ave been ty Flags ave been ty Flags ave been ty Flags ave been been set been set been set
Dis_OPPL_SIR_IOPM_2_00010261006123_0001025107032 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_202010251070700_202010251071642_C001 Costan Altmeter Range, SSHA, SWH and Backscatter Quality The Ocean Altmeter Range, SSHA, SWH and Backscatter Quality The Ocean Altmeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_IOPM_2_202010251071830_202010251072429_C001 Costan Altmeter Range, SSHA, SWH and Backscatter Quality, Flags T Altmeter Range, SSHA, SWH and Backscatter Quality, Flags T Altmeter Range, SSHA, SWH and Backscatter Quality, Costan Altmeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T085123_20201025T095109_C001 Costan Altmeter Range, SSHA, SWH and Backscatter Quality, Costan Altmeter Range and Backscatter Quality, Costan Altmeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092119_20201025T092316_C001 Costan Altmeter Range Quality, Costan Altmeter Range Quality, Costan Altmeter Range Quality, Costan Altmeter Range Quality, Costan Backscatter Quality The OCOG Altmeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093126_20201025T093236_C001 Costan Altmeter Range, SSHA, SWH and Backscatter Quality, Costan Backscatter Quality, Costan A	ty Flags ave been ty Flags ave been ty Flags ave been been set been set been set
CS_OFFL_SIR_IOPM_2_20201025T0700_20201025T071422_C001 and Backscatter Quality, OCCG mit the CCG Altimeter Range and Backscatter Quality Plags in Alticenter Range and Backscatter Quality Plags in Alticenter Range and Backscatter Quality Plags in Alticenter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG Go Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, ELG GO Altimeter Range, SNA, SWH and Backscatter Quality, COCG A	ave been ty Flags ave been ty Flags ave been been set been set been set
CS_OFFL_SIR_JOPM_2_20201025T07830_20201025T072429_C001 and Backscatter Quality, CCCG and the OCCG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T075422_20201025T082809_C001 Ocean Altimeter Range, SSHA, SVH and Backscatter Quality, CCCG The Ocean Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T083123_20201025T083822_C001 OcCG Altimeter Range Quality, OCCG The OCGA Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T084723_20201025T091900_C001 OcCGA Altimeter Range Alter Range, SSHA, SVH and Backscatter Quality Flags have for one or more records. The OCGA Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T08203_20201025T092119_C001 OCCGA Altimeter Range Quality, OCCG The OCGA Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T0920119_20201025T092316_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T093036_20201025T093231_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_JOPM_2_20201025T093036_20201025T093327_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have for one or more records.	ty Flags ave been been set ty Flags ave been been set been set
CS_OFFL_SIR_IOPM_2_20201025T078422_20201025T082809_C001 and Backscatter Quality God Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T083123_20201025T083622_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T084723_20201025T09100_C001 Cean Altimeter Range, SHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092003_20201025T092119_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092003_20201025T092119_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092003_20201025T092119_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092119_20201025T092316_C001 OCOG Altimeter Range Quality, OCCG Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093125_20201025T093231_C001 OCOG Altimeter Range Quality, OCCG Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093332_20201025T093327_C001 OCOG Altimeter Range Quality, OCCG Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093333_20201025T096137_C001 Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have for one or more records. CS	been set ty Flags ave been been set been set
CS_OFFL_SIR_IOPM_2_20201025T084723_20201025T091900_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201025T084723_20201025T091900_C001 Ocean Attimeter Range and Backscatter Quality The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092003_20201025T092119_C001 OCOG Attimeter Range Quality, OCOG Backscatter Quality, OCOG The OCGO Attimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092119_20201025T092316_C001 OCOG Attimeter Range Quality, OCOG Backscatter Quality, OCOG Backscatter Quality The OCGO Attimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093125_20201025T093231_C001 OCOG Attimeter Range Quality, OCOG Backscatter Quality Flags have for one or more records. The OCOG Attimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093306_20201025T093327_C001 OCOG Attimeter Range Quality, OCOG Attimeter Range and Backscatter Quality Flags have for one or more records. The OCOG Attimeter Range, SHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 Ocean Attimeter Range, SHA, SWH and Backscatter Quality, OCOG Attimeter Range, SHA, SWH and Backscatter Quality, Flags Fard Parad Backscatter Quality, OCOG Attimeter Range, S	ty Flags ave been been set been set
CS_OFFL_SIR_IOPM_2_20201025T084723_20201025T091900_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. and the OCOG Altimeter Range and Backscatter Quality Flags I set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T09203_20201025T092119_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092119_20201025T092316_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093125_20201025T093231_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093306_20201025T093327_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 OCCA Altimeter Range, SHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags H and the OCOG Altimeter Range, SHA, SWH and Backscatter Quality, OCOG Altimeter Range, SHA, SWH and Backscatter Quality, OCOG Altimeter Range, SHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags H and the OCOG Altimeter Range, SHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags H and the OCOG Altimeter Range, SHA, SWH and Backscatter Quality Flags H and the OCOG Altimeter Range and Backscatter Quality Flags H and the O	been set been set
CS_OFFL_SIR_IOPM_2_202010251092003_202010251092119_20001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201025T092119_20201025T092316_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093125_20201025T093231_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093306_20201025T093327_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more record	been set been set
CS_OFFL_SIR_IOPM_2_202010251092119_202010251093316_C0011 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093125_20201025T093231_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093306_20201025T093327_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality, OCOG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have and Backscatter Quality Fl	been set
CS_OFFL_SIR_IOPM_2_202010251093125_202010251093231_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093306_20201025T093327_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T1010742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have for one or more records. CS_OFFL_SIR_IOPM_2_20201025T1010742_C001 Ocean Altimeter Range and Backscatter Quality flags have for one or more records.	
CS_OFFL_SIR_IOPM_2_202010251093306_202010251093327_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have and Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have and Backscatter Quality, OCOG	been set
CS_OFFL_SIR_IOPM_2_20201025T093353_20201025T094605_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T100742_C001 Ocean Altimeter Range and Backscatter Quality. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags is set for one or more records. CS_OFFL_SIR_IOPM_2_20201025T100742_C001 OCOG Altimeter Range Quality. The Ocean Altimeter Range and Backscatter Quality Flags is set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201025T095046_20201025T095137_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have CS_OFFL_SIR_IOPM_2_20201025T100742_C001 Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have CS_OFFL_SIR_IOPM_2_20201025T100742_C001 OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality Flags have CS_OFFL_SIR_IOPM_2_20201025T10110_20201025T101521_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have	
CS_OFFL_SIR_IOPM_2_20201025T095151_20201025T100742_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.	
	been set
CS_OFFL_SIR_IOPM_2_20201025T102515_20201025T103905_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Adtimeter Range and Backscatter Quality Flags H Additional Backscatter Quality Flags H Additio	
CS_OFFL_SIR_IOPM_2_20201025T104128_20201025T105735_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags h and the OCOG Altimeter Range and Backscatter Quality Flags h set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201025T112049_20201025T113006_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been been been been been been been be	
CS_OFFL_SIR_IOPM_2_20201025T113246_20201025T114618_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been been been been been been been be	
CS_OFFL_SIR_IOPM_2_20201025T114932_20201025T115433_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Cocod Altimeter Range and Backscatter Quality Flags have for one or more records.	been set
CS_OFFL_SIR_IOPM_2_20201025T120309_20201025T120445_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Set on one or more records.	
CS_OFFL_SIR_IOPM_2_20201025T120652_20201025T121715_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags here for one or more records.	
CS_OFFL_SIR_IOPM_2_20201025T121932_20201025T122458_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags here for one or more records.	y Flags
CS_OFFL_SIR_IOPM_2_20201025T122742_20201025T123750_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG And the OCOG Altimeter Range and Backscatter Quality Flags have been been been been been been been be	
CS_OFFL_SIR_IOPM_2_20201025T130346_20201025T132437_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags h set for one or more records. The Ocean Altimeter Range, SSHA, SWH and the OCOG Altimeter Range and Backscatter Quality Flags h set for one or more records.	ave been ty Flags

CS_OFFL_SIR_IOPM_2_20201025T133009_20201025T133350_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_20201025T133412_20201025T133712_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_20201025T134115_20201025T140558_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_20201025T144020_20201025T150417_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_20201025T150752_20201025T151305_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_20201025T151312_20201025T151639_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_20201025T152038_20201025T155335_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_20201025T162153_20201025T162831_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_20201025T163943_20201025T164329_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_20201025T164753_20201025T165340_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_20201025T170124_20201025T173318_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_20201025T174538_20201025T174725_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_20201025T180843_20201025T181033_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_20201025T181113_20201025T182150_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_20201025T182722_20201025T183234_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_20201025T183942_20201025T190050_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_20201025T190313_20201025T191514_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_20201025T192436_20201025T192658_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_20201025T193711_20201025T193739_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_20201025T194326_20201025T200124_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_20201025T201908_20201025T205252_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_20201025T210701_20201025T212627_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_20201025T212651_20201025T213947_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_20201025T215224_20201025T215549_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_20201025T215821_20201025T221312_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_20201025T221515_20201025T222436_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_20201025T224245_20201025T224432_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_20201025T224706_20201025T230353_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_20201025T232015_20201025T232115_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_20201025T233019_20201025T233451_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_20201025T233802_20201025T235141_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_20201025T011127_20201025T011626_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_20201025T055640_20201025T055658_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_20201025T082926_20201025T083122_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_20201025T155335_20201025T155734_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_20201025T173427_20201025T173639_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_20201025T194317_20201025T194326_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_20201025T015223_20201025T015443_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_20201025T020610_20201025T020839_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_20201025T101937_20201025T102514_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_20201025T174822_20201025T175214_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	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_20201025T005205_20201025T005553_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_20201025T011127_20201025T011626_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_20201025T015443_20201025T015602_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_20201025T015801_20201025T015847_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_20201025T020344_20201025T020609_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_20201025T024426_20201025T024502_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_20201025T034410_20201025T034539_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_20201025T043349_20201025T043705_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_20201025T052242_20201025T052400_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_20201025T053659_20201025T053821_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_20201025T054457_20201025T054641_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_20201025T061255_20201025T061608_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_20201025T065253_20201025T065614_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_20201025T070136_20201025T070300_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_20201025T072429_20201025T072635_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_20201025T101729_20201025T101936_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_20201025T110117_20201025T110332_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_20201025T111834_20201025T112049_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_20201025T114745_20201025T114932_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_20201025T120445_20201025T120651_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_20201025T122458_20201025T122620_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_20201025T123750_20201025T124200_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_20201025T125814_20201025T130213_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_20201025T132703_20201025T133009_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_20201025T133712_20201025T133915_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_20201025T140855_20201025T141146_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_20201025T143038_20201025T143201_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_20201025T164628_20201025T164753_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_20201025T165542_20201025T165655_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_20201025T173319_20201025T173422_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_20201025T174726_20201025T174813_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_20201025T180303_20201025T180447_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_20201025T201137_20201025T201654_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_20201025T210238_20201025T210646_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_20201025T215549_20201025T215720_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_20201025T222436_20201025T222815_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_20201025T224432_20201025T224705_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_20201025T230354_20201025T230741_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_20201025T231920_20201025T232015_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_20201025T232116_20201025T232715_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_20201025T001237_20201025T001509_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_20201025T010420_20201025T010524_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_20201025T010524_20201025T011126_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_20201025T012448_20201025T012634_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_20201025T033023_20201025T033409_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_20201025T034540_20201025T034731_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_20201025T042017_20201025T042206_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_20201025T042540_20201025T043348_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_20201025T050923_20201025T051359_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_20201025T055727_20201025T055929_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_20201025T060427_20201025T061254_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_20201025T064929_20201025T065253_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_20201025T070301_20201025T070700_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_20201025T074516_20201025T075218_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_20201025T082809_20201025T082925_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_20201025T084133_20201025T084516_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_20201025T093014_20201025T093125_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_20201025T101937_20201025T102514_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_20201025T103905_20201025T104009_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_20201025T104013_20201025T104128_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_20201025T110332_20201025T111016_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_20201025T113111_20201025T113245_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_20201025T114618_20201025T114745_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_20201025T124429_20201025T124721_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_20201025T124748_20201025T124849_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_20201025T142024_20201025T143022_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_20201025T150417_20201025T150615_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_20201025T155735_20201025T160428_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_20201025T164330_20201025T164627_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_20201025T165656_20201025T170124_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_20201025T173757_20201025T174537_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_20201025T182150_20201025T182556_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_20201025T183537_20201025T183942_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_20201025T191515_20201025T192229_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_20201025T193558_20201025T193710_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_20201025T200124_20201025T200615_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_20201025T201654_20201025T201908_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_20201025T210126_20201025T210238_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_20201025T213947_20201025T214614_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_20201025T223501_20201025T223940_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_20201025T233635_20201025T233802_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_20201025T235639_20201026T000031_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.

175

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

Number of products with errors:

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.

L2 Retracking Flags (20Hz, PLR)

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.

137

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 Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.

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

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

30

> 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_220201024T233028_20201025T002004_C002	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOP_220201025T002004_20201025T010943_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201025T010943_20201025T015919_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_220201025T015919_20201025T024858_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_220201025T024858_20201025T033834_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201025T033834_20201025T042813_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_220201025T042813_20201025T051749_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_220201025T051749_20201025T060727_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_220201025T060727_20201025T065703_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_220201025T065703_20201025T074642_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_220201025T074642_20201025T083618_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_220201025T083618_20201025T092557_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_220201025T092557_20201025T101532_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_220201025T101532_20201025T110511_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_220201025T110511_20201025T115447_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_220201025T115447_20201025T124426_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records			
CS_OFFL_SIR_IOP_220201025T124426_20201025T133402_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_20201025T133402_20201025T142341_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_220201025T142341_20201025T151317_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_20201025T151317_20201025T160255_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_220201025T160255_20201025T165231_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_220201025T165231_20201025T174210_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_220201025T174210_20201025T183146_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_20201025T183146_20201025T192125_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_220201025T192125_20201025T201101_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_20201025T201101_20201025T210039_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_220201025T210039_20201025T215015_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_220201025T215015_20201025T223954_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_220201025T223954_20201025T232930_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records			
CS_OFFL_SIR_IOP_2_20201025T232930_20201026T001909_C002	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records			
6.5 P2P Measurement Confidence Data Check					
CryoSat P2P data includes a measurement confidence flag for each 20-Hz measu	rement record. The bit value of this flag inc	licates any problems when set.			
Number of products with errors: 1					
Product	Test Failed	Description			
CS_OFFL_SIR_IOP_220201025T101532_20201025T110511_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records			

6.6 P2P Measurement Quality	[,] Flag Check
P2P Quality Flags (20Hz)	
CryoSat P2P data includes Quality Flags for	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 d	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 d	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 d	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	ality Check
P2P Retracking Flags (20Hz)	
Cryosat P2P data includes an ocean retrack	king quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.
Ocean Retracking Quality Flag (PLRM): ⊺	This flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.
Number of products with errors:	27

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.

30

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	173	173	2	171	0
SIR_IOPR1B	104	98	2	96	0
SIR_IOPN1B	98	104	0	104	0
SIR_IOPM_2	173	173	120	53	0
SIR_IOPR_2	104	98	42	56	0
SIR_IOPN_2	98	104	20	83	1
SIR_IOP_P2P	29	29	0	27	2

7.1 QCC Errors

Number of QCC	mber of QCC reports with errors: 9										
	Total number of occurrences of each error										
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOPR_2	1	1	1	1							
		•					•				
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2_	2	2	2	2							
Test Description Key:											
Abbreviation	on Test name Details										
RLOBOPNCDF	RangeL	atitudeOrBlankOP	7NetCDF	Latitude should be between -90E7 and 90E7							
RL	RangeL	atitude_7		Latitude should be between -90E7 and 90E7							
RLOBOPNCDF	RangeL	ongitudeOrBlankO	P_7NetCDF	Longitude should be between -180E7 and 180E7							
RL	RangeL	ongitude_7		Longitude should be between -180E7 and 180E7							

7.2 QCC Warnings

				per of occurrences of e			
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMN
SIR_IOPM1B	171	0	0	0	0	0	0
SIR_IOPM_2	0	0	39	38	2	44	0
SIR_IOPN1B	95	0	0	0	0	0	0
SIR_IOPN_2	0	0	12	34	6	27	26
SIR_IOPR1B	103	0	0	0	0	0	0
SIR_IOPR_2	0	1	41	48	0	38	36
Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCI	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	39	30	0	0	0	0	27
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	19	0	0	24	0	33	0
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	15	0	51	0	57	0	0
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	0	6	31	0	8	34
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	27	20	44	50	32	32
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	49	0	4	74	45	11	44
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_IOPM1B	0	0	0	0	0	0	8
SIR_IOPM_2	0	1	0	0	0	0	0
SIR_IOPN1B	0	0	0	1	0	44	3
SIR_IOPN_2	31	15	1	0	1	0	0
SIR_IOPR1B	0	0	0	0	0	104	6
SIR_IOPR_2	52	2	0	0	1	0	0
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCI	
SIR_IOP_2_	15	29	29	8	29	17	29
Product Type	RPEPOPFDPLRMSINNCE		RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_IOP_2_	17	29	24	23	29	18	27
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF		SPHLPQWNCDF	-	-	-
SIR IOP 2	29	18	14	29			

Test 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
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
	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	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_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)
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