

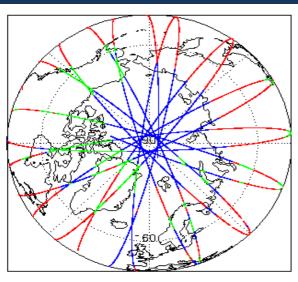
1. Overview

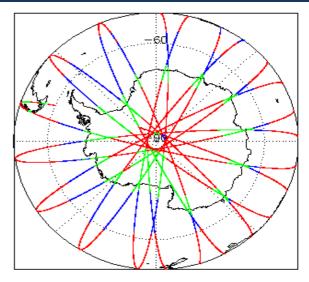
Report Production:	17-Nov-2021		
Processor Used:	CryoSat Ocean Processor		
Data Used:	Intermediate Ocean Products (IOP)		

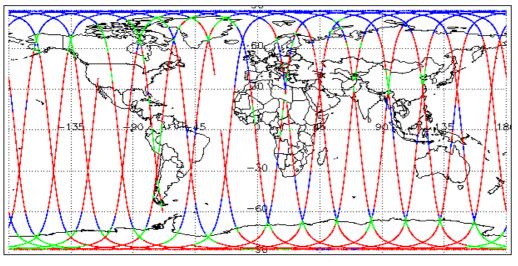
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	#REF!
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary 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, 7.2	See Section 7.1 and 7.2

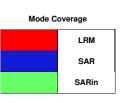
Mission / Instrument News	
13-Nov-2021	None
14-Nov-2021	None
15-Nov-2021	Nothing planned

2. Global Coverage









3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

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 inconsistencies and/or errors raised by the ground-segment processing chain.

L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B IOPR and IOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

Number of products with errors:

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 check the validity of Auxiliary Data Files is correct.

Number of products with errors:

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4.4 L1B Auxiliary Correction Error Check

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

Attitude Correction Missing: This flag is currently set in error for IOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

Number of products with errors:

3

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_202111114T025454_202111114T030910_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_202111114T142943_202111114T143044_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM1B_202111114T222517_202111114T222550_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

4.6 L1B Waveform Group Data Check

CryoSat L1B data includes a waveform data flag for each measurement record. The bit value of this flag indicates any problems when set.

Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.

Number of products with errors:

19

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_202111114T085915_202111114T090143_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_202111114T103843_202111114T103846_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20211114T161013_202111114T162402_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_202111114T013935_202111114T014515_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_202111114T023023_202111114T023250_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_202111114T023412_202111114T023531_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_202111114T044551_202111114T044636_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20211114T171422_20211114T171935_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_202111114T203015_202111114T203452_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T012806_20211114T013504_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T054322_20211114T054848_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T072240_20211114T072341_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_202111114T090143_202111114T091106_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T100132_20211114T100419_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T114027_20211114T114433_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T122240_20211114T123003_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T130545_20211114T130734_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T171935_202111114T172604_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20211114T212112_20211114T212349_C001	Loss of Echo	The tracking echo is missing for one or more records

5. IOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors:

5.2 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 inconsistencies 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 check 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 Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.

50

- > 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.

Number of products with errors:

Product Test Failed Description Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean There is an error with the MSS height (solution 1), the Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T000030_20211114T000344_C001 Topography (solution 1), and tidal corrections for one or more records Tide (FES), Non-Equilibrium Long Period Ocean Tide Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T013505_20211114T013741_C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T013935 20211114T014515 C001 Topography height (solution 1) Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T023023 20211114T023250 C001 Topography height (solution 1) Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T031340 20211114T031642 C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T040933 20211114T041040 C001 Topography height (solution 1) Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T045236_20211114T045442_C001 Topography (1) Topography height (solution 1) There is an error with the MSS height (solution 1), the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T054849_20211114T055438_C001 Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: Topography (1), Total Geocentric Ocean Tide (GOT) GOT) for one or more records There is an error with the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPN_2_20211114T064130_20211114T064402_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPN_2_20211114T081130_20211114T081250_C001 Mean Dynamic Topography (1) more records There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20211114T091106 20211114T091458 C001 Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T095120 20211114T095447 C001 Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T113028 20211114T113348 C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPN_2_20211114T113904_20211114T114027_C001 Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T122028_20211114T122240_C001 Topography height (solution 1) Topography (1) There is an error with the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPN_2_20211114T131802_20211114T131912_C001 Mean Dynamic Topography (1) more records Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T140038 20211114T140143 C001 Topography (1) Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS_OFFL_SIR_IOPN_2_20211114T145504_20211114T145702_C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPN 2 20211114T153842 20211114T154059 C001 Topography (1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20211114T164135 20211114T164249 C001 Mean Dynamic Topography (1) more records There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20211114T180419 20211114T180725 C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20211114T181406 20211114T181635 C001 Mean Dynamic Topography (1) more records There is an error with the Total Geocentric Ocean Tide height (solution 1: CS_OFFL_SIR_IOPN_2_20211114T203015_20211114T203452_C001 Total Geocentric Ocean Tide (GOT) GOT) for one or more records There is an error with the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPN_2_20211114T212349_20211114T212513_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or CS OFFL SIR IOPN 2 20211114T223313 20211114T223441 C001 Mean Dynamic Topography (1) more records There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS OFFL SIR IOPN 2 20211114T231003 20211114T231306 C001 Topography (1) Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS OFFL SIR IOPR 2 20211114T004341 20211114T005021 C001 Topography (1) Topography height (solution 1) Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS OFFL SIR IOPR 2 20211114T005021 20211114T005430 C001 Topography (1) Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS OFFL SIR IOPR 2 20211114T022314 202111114T022912 C001 Topography (1) Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Mean Sea Surface (1), Mean Dynamic CS_OFFL_SIR_IOPR_2_20211114T022912_20211114T023023_C001 Topography (1) Topography height (solution 1)

CS_OFFL_SIR_IOPR_2_20211114T030910_20211114T031340_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_20211114T040256_20211114T040553_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_20211114T040553_20211114T040933_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_20211114T054322_20211114T054848_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_20211114T072406_20211114T072905_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_20211114T090143_20211114T091106_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_20211114T104156_20211114T105000_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_20211114T122240_20211114T123003_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_20211114T140144_20211114T140856_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_20211114T151628_20211114T151842_C001	Mean Sea Surface (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPR_2_20211114T154059_20211114T154453_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_20211114T154453_20211114T154800_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_20211114T171935_20211114T172604_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_20211114T185759_20211114T190637_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_20211114T190637_20211114T190716_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_20211114T203452_20211114T204234_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_20211114T221420_20211114T222055_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_20211114T222055_20211114T222340_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_20211114T235259_20211114T235955_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_20211114T235955_20211115T000151_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)

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20211114T025454_20211114T030910_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOPM_2_20211114T142943_20211114T143044_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOPM_2_20211114T222517_202111114T222550_C001		There is an error in the scaling of the L2 waveform for one or more records

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20Hz)

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

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20211114T000721_20211114T004245_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.
	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_20211114T005431_202111114T005453_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_20211114T010525_20211114T012806_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_20211114T013741_20211114T013935_C001 CS_OFFL_SIR_IOPM_2_20211114T014705_20211114T015932_C001 CS_OFFL_SIR_IOPM_2_20211114T020053_20211114T020054_C001 CS_OFFL_SIR_IOPM_2_20211114T020054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030052_20211114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030054_20011114T030054_C001 CS_OFFL_SIR_IOPM_2_20211114T030055_20211114T030056_C001 CS_OFFL_SIR_IOPM_2_20211114T030056_C001 CS_OFFL_SIR_IOPM_2_20211114T030
and Backscatter Quality. CCOG Altimeter Range, SSHA, SWH and Backscatter Quality. CCOG Altimeter Range and Backscatter Quality. CCOG Altimeter Range, SSHA, SWH and Backscatter Quality. CCOG Backscatter Quality. CCOG Altimeter Range, SSHA, SWH and Backscatter Quality. CCOG Altime
and Backscatter Quality. COCG Altimeter Range and Backscatter Quality Flags have be Altimeter Range and Backscatter Quality Flags have be Altimeter Range and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T020836_20211114T022106_CO01 CS_OFFL_SIR_IOPM_2_20211114T023537_20211114T025304_CO01 CS_OFFL_SIR_IOPM_2_20211114T02554_20211114T03910_CO01 CS_OFFL_SIR_IOPM_2_20211114T035454_20211114T03910_CO01 CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T031846_CO01 CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T033933_CO01 CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_CO01 CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T033932_CO01 CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T034748_CO01 CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T035226_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T035226_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T035226_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034554_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034544_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034544_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034544_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034544_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034546_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034546_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034546_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034546_CO01 CS_OFFL_SIR_IOPM_2_20211114T034532_20211114T034546_CO01 CS_OFFL_SIR_IOPM_2_20211114T034534_CO01 CS_OFFL_SIR_IOPM_2_20211114T034534_CO01 CS_OFFL_SIR_IOPM_2_20211114T034554_CO01 CS_OFFL_SIR_IOPM_2_20211114T034554_CO01 CS_OFFL_SIR_IOPM_2_20211114T044554_CO01 CS_OFFL_SIR_IOPM_2_20211114T0
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Step for one or more records. CS_OFFL_SIR_IOPM_2_20211114T023537_20211114T025304_C001 CS_OFFL_SIR_IOPM_2_20211114T025357_20211114T039010_C001 CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T031846_C001 CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T034730_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034754_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041554_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041554_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041554_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041554_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T0415450_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041544_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041544_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T041544_C001 CS_OFF
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Set for one or more records. CS_OFFL_SIR_IOPM_2_20211114T035454_20211114T030910_C001 CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T031846_C001 CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T033934_C001 CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T034730_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034730_20211114T034750_C001 CS_OFFL_SIR_IOPM_2_20211114T034730_20211114T03455_C001 CS_OFFL_SIR_IOPM_2_20211114T034730
and Backscatter Quality, COOG Altimeter Range and Backscatter Quality Flags have been for one or more records. CS_OFFL_SIR_IOPM_2_20211114T031642_20211114T031846_C001 CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T032348_C001 CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034750_20211114T034750_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20
Backscatter Quality CS_OFFL_SIR_IOPM_2_20211114T031944_20211114T032348_C001 CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T034750_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T04350_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 COEAN Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be a company to the company to
Backscatter Quality CS_OFFL_SIR_IOPM_2_20211114T032551_20211114T033933_C001 CS_OFFL_SIR_IOPM_2_20211114T034551_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035246_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T04350_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T043550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T034303_20211114T034748_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Qualit
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T035226_C001 CS_OFFL_SIR_IOPM_2_20211114T034750_20211114T043154_C001 CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 And Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality
and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T043750_20211114T043154_C001 and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality Flags have be CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality Flags h
CS_OFFL_SIR_IOPM_2_20211114T041532_20211114T043154_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be set for one or more records. Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be set for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T043730_20211114T044550_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have be
CS_OFFL_SIR_IOPM_2_20211114T044636_20211114T045019_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T045442_20211114T050251_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T050546_20211114T052046_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T060342_20211114T062940_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T063609_20211114T064130_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T064549_20211114T070801_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T071147_20211114T071158_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T074243_20211114T080755_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have by altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T081537_20211114T082139_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T082453_20211114T085125_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T085915_20211114T090142_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have by altimeter Range and Backscat
CS_OFFL_SIR_IOPM_2_20211114T091459_20211114T094651_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have by altimeter Range and Backscatter Quality Flags have by set for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T095447_20211114T100015_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags have been for one or more records.
CS_OFFL_SIR_IOPM_2_20211114T100420_20211114T100804_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be altimeter Range and Backscat

CS_OFFL_SIR_IOPM_2_20211114T103901_20211114T104155_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_20211114T105351_20211114T110359_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_20211114T110536_20211114T112654_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_20211114T113348_20211114T113452_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_20211114T113455_20211114T113904_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_20211114T114433_20211114T120041_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_20211114T123021_20211114T130544_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_20211114T131357_20211114T131404_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_20211114T131410_20211114T131802_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_20211114T132452_20211114T133837_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_20211114T134957_20211114T135631_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_20211114T135744_20211114T140037_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_20211114T141148_20211114T142330_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_20211114T143159_20211114T144532_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_20211114T144733_20211114T145250_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_20211114T145324_20211114T145503_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_20211114T150312_20211114T151628_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_20211114T151842_20211114T153519_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_20211114T155307_20211114T155504_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_20211114T155809_20211114T160703_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_20211114T161013_20211114T162402_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_20211114T162700_20211114T163202_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_20211114T163239_20211114T163340_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_20211114T164034_20211114T164135_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_20211114T164709_20211114T165254_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_20211114T170344_20211114T170438_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_20211114T170505_20211114T171053_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_20211114T171216_20211114T171357_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_20211114T174230_20211114T180247_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_20211114T181833_20211114T184614_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_20211114T191816_20211114T194159_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_20211114T194512_20211114T195034_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_20211114T195041_20211114T195406_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_20211114T195810_20211114T203015_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_20211114T210037_20211114T211400_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_20211114T211704_20211114T212112_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_20211114T212514_20211114T213313_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_20211114T213843_20211114T221022_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_20211114T222341_20211114T222448_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_20211114T223612_20211114T223703_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_20211114T225218_20211114T225908_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_20211114T230448_20211114T231002_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_20211114T231659_20211114T233814_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_20211114T234100_20211114T235126_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_20211114T050252_20211114T050439_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_20211114T082139_20211114T082302_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_20211114T102021_20211114T102049_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_20211114T113028_20211114T113348_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_20211114T212349_20211114T212513_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_20211114T023532_20211114T023536_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_20211114T034102_20211114T034303_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_20211114T041239_20211114T041420_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_20211114T094651_20211114T095120_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_20211114T120912_20211114T120923_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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20211114T000030_20211114T000344_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_20211114T013505_20211114T013741_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_20211114T023412_20211114T023531_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_20211114T032348_20211114T032525_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_20211114T035226_20211114T035451_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_20211114T043155_20211114T043730_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_20211114T052948_20211114T053330_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_20211114T054849_20211114T055438_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_20211114T063142_20211114T063148_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_20211114T063533_20211114T063608_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_20211114T071159_20211114T071300_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_20211114T071849_20211114T071908_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_20211114T081349_20211114T081537_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_20211114T082139_20211114T082302_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_20211114T091106_20211114T091458_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_20211114T095120_20211114T095447_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_20211114T113028_20211114T113348_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_20211114T120041_20211114T120408_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_20211114T122028_20211114T122240_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_20211114T145504_20211114T145702_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_20211114T153842_20211114T154059_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_20211114T155505_20211114T155808_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_20211114T162512_20211114T162700_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_20211114T164135_20211114T164249_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_20211114T165254_20211114T165731_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_20211114T171422_20211114T171935_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_20211114T181406_20211114T181635_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_20211114T184615_20211114T184815_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_20211114T191406_20211114T191552_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_20211114T195407_20211114T195528_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_20211114T204234_20211114T204310_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_20211114T213313_20211114T213425_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_20211114T222631_20211114T222754_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_20211114T224030_20211114T224214_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_20211114T224443_20211114T224536_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_20211114T000345_20211114T000721_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_20211114T005021_20211114T005430_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_20211114T012806_20211114T013504_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_20211114T014515_20211114T014705_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_20211114T022314_20211114T022912_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_20211114T030910_20211114T031340_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_20211114T040256_20211114T040553_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_20211114T040553_20211114T040933_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_20211114T041239_20211114T041420_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_20211114T050439_20211114T050546_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_20211114T052047_20211114T052325_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_20211114T054152_20211114T054322_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_20211114T054322_20211114T054848_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_20211114T062940_20211114T063141_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_20211114T080755_20211114T081130_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.

	Ocean Altimeter Range, SSHA, SWH	
CS_OFFL_SIR_IOPR_2_20211114T090143_20211114T091106_C001	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_20211114T094651_20211114T095120_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_20211114T100132_20211114T100419_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_20211114T103449_20211114T103744_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_20211114T104156_20211114T105000_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_20211114T112655_20211114T113027_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_20211114T114027_20211114T114433_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_20211114T121436_20211114T121844_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_20211114T122240_20211114T123003_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_20211114T123007_20211114T123020_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_20211114T130545_20211114T130734_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_20211114T131913_20211114T132305_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_20211114T140144_20211114T140856_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_20211114T145702_20211114T150312_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_20211114T151628_20211114T151842_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_20211114T154453_20211114T154800_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_20211114T160833_20211114T161012_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_20211114T171935_20211114T172604_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_20211114T185759_20211114T190637_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_20211114T195528_20211114T195810_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_20211114T203452_20211114T204234_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_20211114T204537_20211114T204713_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_20211114T212112_20211114T212349_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_20211114T213425_20211114T213842_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_20211114T221142_20211114T221233_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_20211114T221420_20211114T222055_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_20211114T222055_20211114T222340_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_20211114T222550_20211114T222631_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_20211114T222755_20211114T222912_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_20211114T224922_20211114T225018_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_20211114T225909_20211114T230322_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_20211114T231307_20211114T231659_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_20211114T235241_20211114T235256_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_20211114T235259_20211114T235955_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

L2 Quality Flags (1 Hz & 1Hz PLRM)

Currently, there are several common flags raised in the Level 2 products, which are summarised below.

> 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: 187

5.8 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20Hz)

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors:

L2 Retracking Flags (20Hz, PLRM)

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

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

Number of products with errors: 14

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: 0

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

6.4 P2P Auxiliary Correction Error Check

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

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

- > ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.
- > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.
- > Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.
- > 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.

Number of products with errors: 30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20211113T235956_20211114T004933_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	Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20211114T004933_20211114T013910_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_20211114T013910_20211114T022848_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_20211114T022848_20211114T031825_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_20211114T031825_20211114T040803_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_20211114T040803_20211114T045740_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_20211114T045740_20211114T054717_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_20211114T054717_20211114T063654_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_20211114T063654_20211114T072632_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_20211114T072632_20211114T081609_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_20211114T081609_20211114T090547_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_20211114T090547_20211114T095524_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_20211114T095524_20211114T104502_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_20211114T104502_20211114T113439_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_20211114T113439_20211114T122416_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_20211114T122416_20211114T131353_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_20211114T131353_20211114T140331_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_20211114T140331_20211114T145308_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_20211114T145308_20211114T154246_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_20211114T154246_20211114T163222_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_20211114T163222_20211114T172200_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_20211114T172200_20211114T181137_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_20211114T181137_20211114T190115_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_20211114T190115_20211114T195052_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_20211114T195052_20211114T204030_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_20211114T204030_20211114T213007_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_20211114T213007_20211114T221944_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_20211114T221944_20211114T230921_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_20211114T230921_20211114T235859_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_20211114T235859_20211115T004836_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

6.5 P2P Measurement Confidence Data Check

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

Number of products with errors:

	l	I
Product	Test Failed	Description
CS_OFFL_SIR_IOP_220211114T022848_20211114T031825_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOP_220211114T140331_20211114T145308_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOP_220211114T221944_202111114T230921_C001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

6.6 P2P Measurement Quality Flag Check

P2P Quality Flags (20Hz)

CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.

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

P2P Quality Flags (20Hz PLRM)

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

Number of products with errors:

20

P2P Quality Flags (1 Hz & 1Hz PLRM)

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

Number of products with errors:

6.8 P2P Ocean Retracking Quality Check

P2P Retracking Flags (20Hz)

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

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

Number of products with errors:

28

30

P2P Retracking Flags PLRM

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

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

Number of products with errors:

7. IOP QCC Report Analysis

The Quality Control for CryoSat (QCC) facility performs a primary survey of data products immediately after production by the PDS and LTA processing facilities. A list of the tests which raised errors or warnings is provided below.

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_IOPM1B	172	172	5	167	0
SIR_IOPR1B	112	98	1	97	0
SIR_IOPN1B	98	112	0	112	0
SIR_IOPM_2	172	172	113	59	0
SIR_IOPR_2	112	98	41	57	0
SIR_IOPN_2	98	112	32	79	1
SIR IOP P2P	29	29	0	28	1

7.1 QCC Errors

Number of QCC reports with errors:

8

Total number of occurrences of each error

Product Type R	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOPR_2	1	1	1	1							
·	·			•				•			
Product Type R	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
CID IOD 0	1	4	1	4							

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

7.2 QCC Warnings

Number of QCC reports with warnings

2161

Total number of occurrences of each warning

Total number of occurrences of each warming							
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_IOPM1B	167	0	0	0	0	0	0
SIR_IOPM_2	0	0	47	45	0	42	0
SIR_IOPN1B	96	0	0	0	0	0	0
SIR_IOPN_2	0	0	11	29	3	25	29
SIR_IOPR1B	110	0	0	0	0	0	0
SIR IOPR 2	0	1	36	45	1	29	22

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	RPEPOPFDPLRMSINNC	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	30	1	37	0	0	0	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR IOPN 2	21	0	0	0	23	0	31
SIR IOPR1B	0	0	0	0	0	0	0
SIR IOPR 2	15	0	0	45	0	52	0

Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	31	0	0	5	35	0	5
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	0	24	23	39	48	28
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	0	44	0	3	62	41	15

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_IOPM1B	0	0	0	1	0	0	0
SIR_IOPM_2	38	0	3	1	0	0	0
SIR_IOPN1B	0	0	0	0	0	44	0
SIR_IOPN_2	27	26	13	0	1	0	0
SIR_IOPR1B	0	0	0	0	0	112	3
SIR_IOPR_2	36	47	2	0	4	0	0

Floudet Type	ioi ii iii ooi i	III VIOLI I DIVODI	III VIOLI NODI	III VIOITODI	TIDOLOT OLI I DITODI	TIDOZOT OLI I DI LITIMITOL	IIDOLOI OLI NODI
SIR_IOP_2_	18	29	29	3	29	17	28

Product Type	THE LEGIT DE LITINGININO	TIFEFOFT DOMINODI	TIP EF OF SHANODI	HOODEONCDI	HOSHAOI DIVODI	113311AOI DE LITIMINODI	HOSHAONODI
SIR_IOP_2_	18	29	21	20	29	17	28
		•	•				
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-	-

SIR_IOP_2_							
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	e in the range 0 to (number of	f 1 Hz samples - 1)	
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF		The value should not be a	missing value' for surface ty	pe 0 only for latitudes between	en -70 and 70 degrees	
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF		The value should not be a	missing value' for surface ty	pe 0 only for latitudes between	en -70 and 70 degrees	
MVIONCDF	MissingValueIntOceanNetCDF		The value should not be a	missing value' for surface ty	pe 0 only		
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPo	larFD2NetCDF	The backscatter sigma zero between -70 and 70 degree		d 7500 (or missing) for surfac	e type = ocean for latitudes	
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPo	olarFD2PLRMNetCDF		should be between 700 and	d 7500 (or missing) for surfac	e type = ocean for latitudes	
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPo	larNetCDF		should be between 700 and	d 7500 (or missing) for surfac	e type = ocean for latitudes	
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF				ght should be between -40mm	n and 40mm (or missing) fo	
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDI	F		etween 0 and 6400 (or missi	ing) for surface type = ocean	for latitudes between -70	
RPEPOPFDPLRMSAR	RangePeakinessExcludingPolarOPFD2PLRMSARN	letCDF		etween 0 and 15000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
	RangePeakinessExcludingPolarOPFD2PLRMSINN	etCDF		etween 0 and 90000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
CDF RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDI	=		etween 0 and 15000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF			etween 0 and 90000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF			etween 0 and 6400 (or missi	ing) for surface type = ocean	for latitudes between -70	
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF			etween 0 and 15000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF			etween 0 and 90000 (or mis	sing) for surface type = ocean	n for latitudes between -70	
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF			on should be between -500m	nm and 0mm (or missing) for	surface type = ocean	
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCD	F	The sea surface height and ocean	omaly should be between -30	000mm and 3000mm (or miss	ing) for surface type =	
RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMN	NetCDF		omaly should be between -30	000mm and 3000mm (or miss	ing) for surface type =	
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF		The sea surface height and	omaly should be between -30	000mm and 3000mm (or miss	ing) for surface type =	
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolar	FD2NetCDF	ocean The significant wave height latitudes between -70 and 7		nd 15000mm (or missing) for	surface type = ocean for	
RSWHOEPFDPLRMN	RangeSignificantWaveHeightOceanExcludingPolar	FD2PLRMNetCDF	The significant wave height	t should be between 0mm an	nd 15000mm (or missing) for	surface type = ocean for	
CDF RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolar	NetCDF		t should be between 0mm an	nd 15000mm (or missing) for	surface type = ocean for	
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF		latitudes between -70 and 7 Rel_Time_ASC_Node_Sta	rt mismatch (DBL ASC, roun	ided up to 0.1)		
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 sho	uld be modulo 4 higher with r	regard to the previous seque	nce counter	
SCSTODNCDF	SequenceCounterStepTODNetCDF		The sequence counter sho	uld be one higher (modulo 16	6384) with regard to the previ	ous sequence counter	

7.3 Missing QCC Reports

Product Type

Number of products with missing QCC reports:

2

Product name

CS_OFFL_SIR_IOPN1B_20211114T071849_202111114T071849_C001

CS_OFFL_SIR_IOPN_2_20211114T071849_20211114T071908_C001

Product name
0
0