



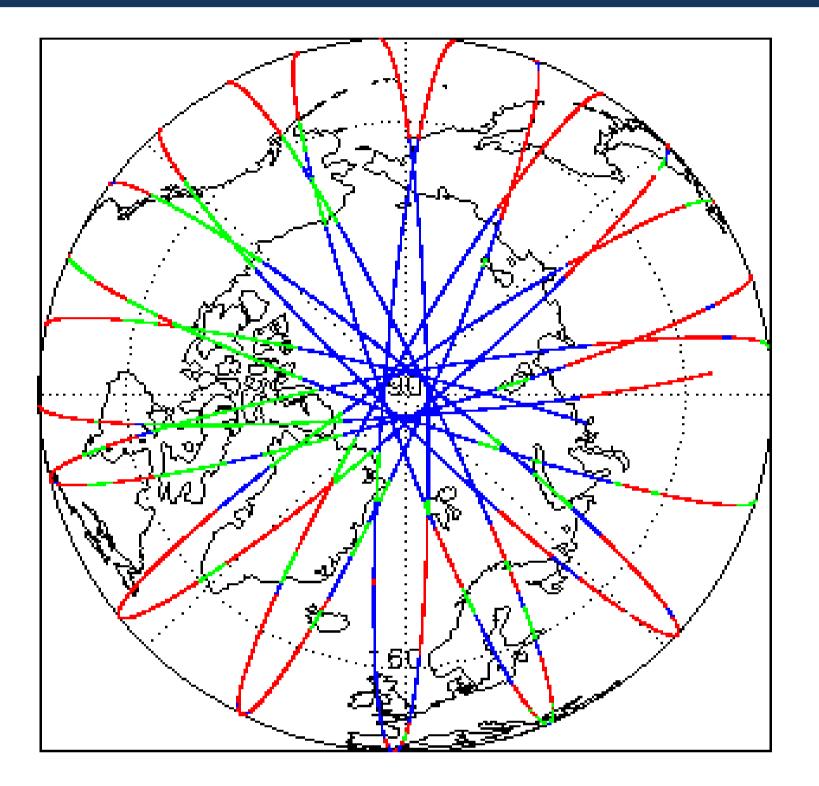
## 1. Overview

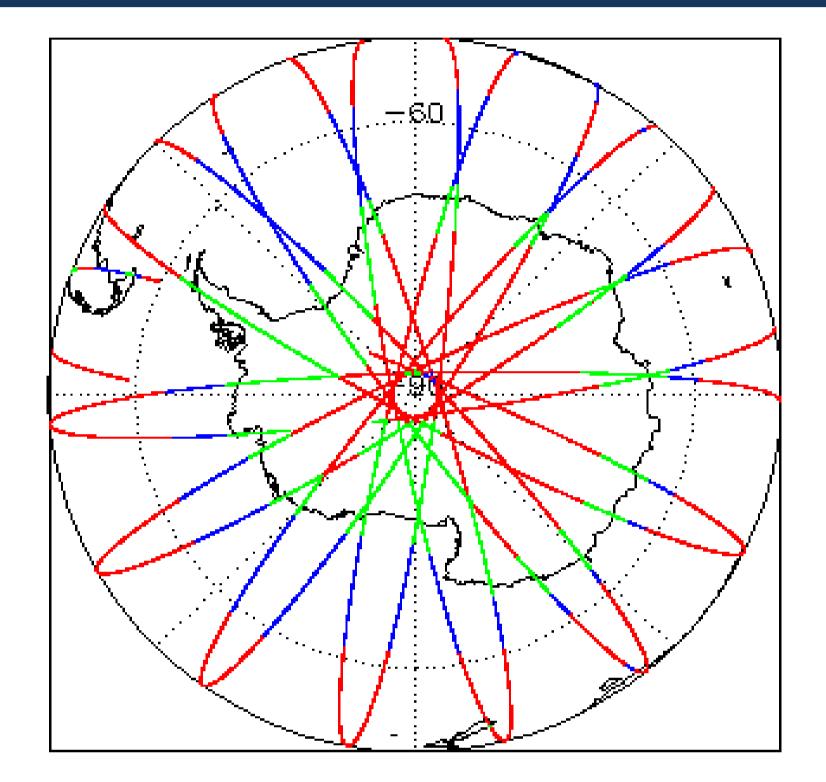
<b>Report Production:</b>	09-Nov-2020
Processor Used:	CryoSat Ocean Processor
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data

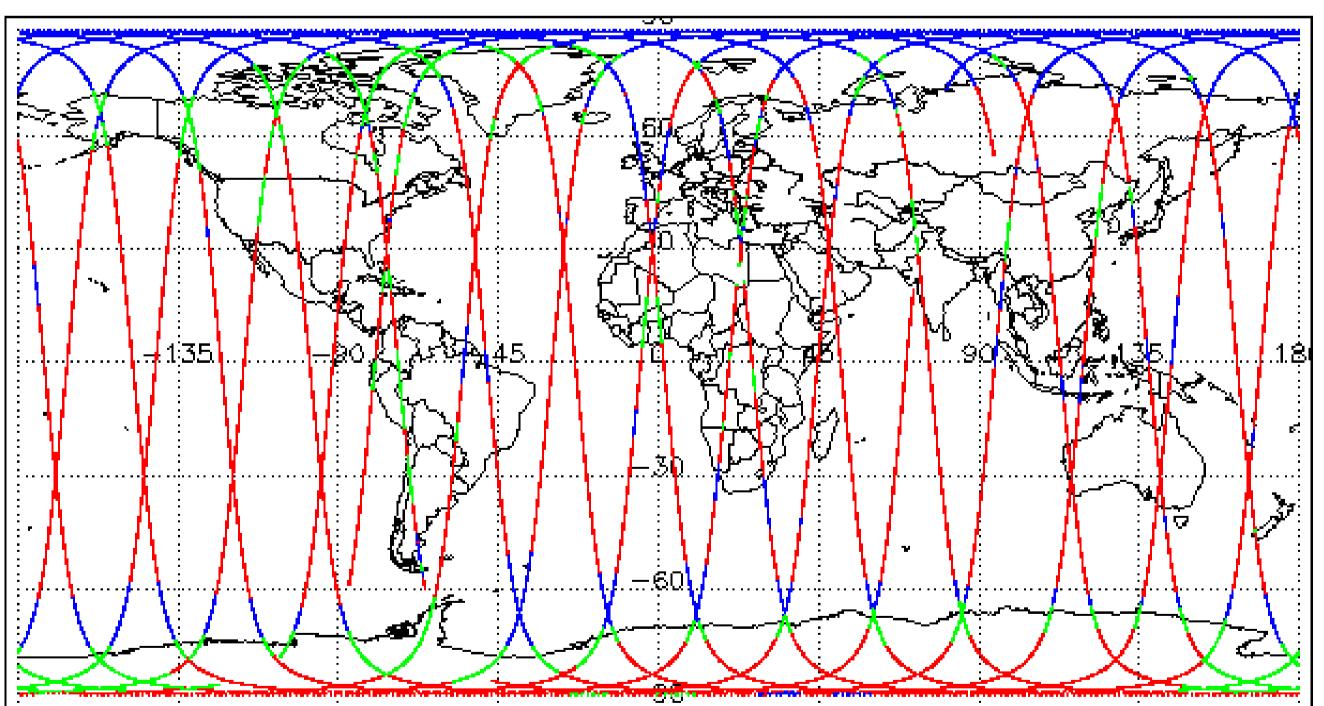
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

04-Nov-2020       None         05-Nov-2020       SIRAL unavailability on the 05/11/2020 from 13:28:24 to 13:34:01 due to MMFU packet store recovery	
05-Nov-2020 SIRAL unavailablility on the 05/11/2020 from 13:28:24 to 13:34:01 due to MMFU packet store recovery	
06-Nov-2020 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
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# 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).

Number of products with errors:

#### **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.

.1B 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 a	nd
DSARIn 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:

#### 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

0

0

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:

#### 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:

16

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20201105T030628_20201105T031359_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201105T151816_20201105T153857_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20201105T192335_20201105T194504_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T001119_20201105T001708_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T033327_20201105T033753_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T113743_20201105T114213_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T141636_20201105T141755_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T165534_20201105T165652_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T165715_20201105T165740_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T182406_20201105T182428_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20201105T232054_20201105T232304_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201105T045127_20201105T045203_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201105T050433_20201105T051225_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201105T074145_20201105T074534_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201105T171412_20201105T171646_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20201105T173540_20201105T173925_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:

0

#### **5.2 L2 Product Header Analysis**

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any 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:



#### **5.4 L2 Auxiliary Correction Error Check**

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

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

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

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

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

- > 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
CS_OFFL_SIR_IOPM_2_20201105T020337_20201105T023044_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPM_2_20201105T102032_20201105T103004_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T001119_20201105T001708_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T005405_20201105T005555_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T010409_20201105T010632_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T015128_20201105T015542_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T033327_20201105T033753_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_IOPN_2_20201105T041341_20201105T041716_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T042251_20201105T042406_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T055300_20201105T055620_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T060133_20201105T060258_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T064346_20201105T064503_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T074036_20201105T074145_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T082305_20201105T082415_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T090841_20201105T091001_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T091739_20201105T091931_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T100104_20201105T100331_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20201105T113743_20201105T114213_C001	Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-	There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_IOPN_2_20201105T122644_20201105T122932_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_20201105T131650_20201105T132036_C001	Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-	There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_IOPN_2_20201105T173233_20201105T173540_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T190533_20201105T190823_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T204612_20201105T204847_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T214121_20201105T214242_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T222147_20201105T222731_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20201105T231554_20201105T231646_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20201105T232054_20201105T232304_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. DFF. SR. KOFK 2. 2001/02/104/06.2001/101/02/02/01       Mark Soc Subtrol (1). Man Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynamic Doct Structure and the MSS height (calume 1) and her Mark Dynami	CS_OFFL_SIR_IOPN_2_20201105T234345_20201105T234541_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CBLOFFL_SRLOPFL_2.00211051011422_00211051016122_0021         Tecomparity (1)         Tecomparity (1)         Tecomparity (1)           CB_OFFL_SRLOPFL_2.0021105103122_0021105103122_0001         Mean Bea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.0021105103042_02001105103122_0001         Wean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.00211051030429_02001105103414_0001         Wean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.002111051034539_02001105103415_02001         Wean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.00211105103453_02001105110403_0001         Mean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.00211105110303_02001         Mean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.00211105110303_0200201105110303_0001         Mean Sea Surface (1), Mean Dynamic Tecomparity (1)         There is an enror with the MSB height (adulant 1) and the Mean Dynamic Tecomparity (1)           CB_OFFL_SRLOPFL_2.002	CS_OFFL_SIR_IOPR_2_20201105T000505_20201105T001119_C001		
Case UPIC SIX UPIC 2 20201100T000433_20201100T061222_C0011         Topography (1)         Topography height (solution 1)           CS_OFFL_SIR_IOPR_2_20201100T060433_20201100T061222_C0011         Mean Son Suffice (1), Mean Dynamic Topography height (solution 1)         There is an environ with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)           CS_OFFL_SIR_IOPR_2_20201100T06403_20201100T06420_C0011         Mean Son Suffice (1), Mean Dynamic Topography Height (solution 1)         There is an environ with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)           CS_OFFL_SIR_IOPR_2_20201100T06403_20201100T06420_C0011         Mean Sea Suffice (1), Mean Dynamic Topography Height (solution 1)         There is an environ with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)           CS_OFFL_SIR_IOPR_2_20201100T100331_20201100T106133_C0011         Mean Sea Suffice (1), Mean Dynamic Topography Height (solution 1)         There is an environ the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)           CS_OFFL_SIR_IOPR_2_20201100T113206_20201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D0201100T10332_D02001100T10332_D0201100T10332_D0201100T10332_D0201100T10332	CS_OFFL_SIR_IOPR_2_20201105T014643_20201105T015128_C001		
CB_OFFL_SIR_JOPR_2_20201105T063040_20201105T064114_C001         Mean Dynamic Topography (1)         Trace is an error with the Mean Dynamic Topography height for one or non-resolution (1)           CB_OFFL_SIR_JOPR_2_20201105T063040_20201105T064114_C001         Mean Sus Surface (1), Mean Dynamic Topography neight (ocution 1)         There is an error with the MSS height (ocution 1) and the Mean Dynamic Topography neight (ocution 1)           CS_OFFL_SIR_JOPR_2_20201105T063040_20201105T064114_C001         Mean Sus Surface (1), Mean Dynamic Topography neight (ocution 1)         There is an error with the MSS height (ocution 1) and the Mean Dynamic Topography neight (ocution 1)           CS_OFFL_SIR_JOPR_2_20201105T10630343         Court         Mean Sus Surface (1), Mean Dynamic Topography neight (ocution 1)         There is an error with the MSS height (ocution 1) and the Mean Dynamic Topography neight (ocution 1)           CS_OFFL_SIR_JOPR_2_20201105T110333         Court         Mean Sus Surface (1), Mean Dynamic Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1). The Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1). The Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1). The Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1). The Topography neight (ocution 1) and the Mean Dynamic Topography neight (ocution 1) and the M	CS_OFFL_SIR_IOPR_2_20201105T032414_20201105T033327_C001		
Concern Service Process         Concern Code           CB_OFFL_SR_UORR_2_20201105T064503_20201105T065246_20201         Main Sub Suitace (1), Mean Dynamic Topography (10)         There is an enror with the MSS height (solution 1) and the Mean Dynamic Topography (11)           CB_OFFL_SR_UORR_2_20201105T062415_20201105T065246_20201         Mean Sea Suiface (1), Mean Dynamic Topography (11)         There is an enror with the MSS height (solution 1) and the Mean Dynamic Topography (11)           CB_OFFL_SR_UORR_2_20201105T062415_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T114923_20201105T164327_0001         Mean Sea Sulface (1), Mean Dynamic Topography (11)         There is an enror with the MSS height (solution 1) and the Mean Dynamic Topography (11)           CS_OFFL_SR_UORR_2_20201105T164327_0001         Mean Sea Sulface (1), Mean Dynamic Topography (11)         There is an enror with the MSS height (solution 1) and the Mean Dynamic Topography (11)           CS_OFFL_SR_UORR_2_20201105T164327_20201105T164327_0001         Mean Sea Sulface (1), Mean Dynamic Topography Height (solution 1)         There is an enror with the MSS height (solution 1) and the Mean Dynamic Topography (11)           CS_O	CS_OFFL_SIR_IOPR_2_20201105T050433_20201105T051225_C001		
CS_OFFL_SIR_LOPR_2_20201105110508240_0001         Topography (1)         Topography height (solution 1)           CS_OFFL_SIR_LOPR_2_202011057100231_202011057101033_C001         Mean Ses Surface (1), Mean Dynamic         Topography height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_2020110571100231_202011057101033_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_202011057114213_202011057114225_C001         Topography (1)         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_202011057114223_2020110571142824_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_202011057114272_2020110571142824_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_202011057114572_2020110571142824_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_2020110571164727_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_2020110571164727_202011057164827_C001         Mean Ses Surface (1), Mean Dynamic         Tore is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_LOPR_2_202011057184527_202011057184227_C001 <td>CS_OFFL_SIR_IOPR_2_20201105T063649_20201105T064114_C001</td> <td>Mean Dynamic Topography (1)</td> <td></td>	CS_OFFL_SIR_IOPR_2_20201105T063649_20201105T064114_C001	Mean Dynamic Topography (1)	
CS_OFFSIR_OPR_2_20201105T103031_20201105T101033_C0001         Tooggraphy (1)         Topography (e)           CS_OFFSIR_OPR_2_20201105T103031_20201105T114205_C001         Mean Sea Surface (1). Mean Dynamic Topography (e) Look toon 1).         There is an error with the MSS height (solution 1).         Index (e) Content of the Mean Dynamic Topography (e) Look toon 1).           CS_OFFI_SIR_OPR_2_20201105T114213_20201105T114225_C001         Mean Sea Surface (1). Mean Dynamic Topography (e) Look toon 1).         There is an error with the MSS height (solution 1).         Index (e) Content of the Mean Dynamic Topography (e) Look toon 1).           CS_OFFI_SIR_OPR_2_20201105T132036_20201105T132824_C001         Mean Sea Surface (1). Mean Dynamic Topography (e) Look toon 1).         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1).           CS_OFFI_SIR_OPR_2_20201105T165702_C001         Mean Sea Surface (1). Mean Dynamic Topography height (solution 1).         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1).           CS_OFFI_SIR_OPR_2_20201105T164327_20201105T164327_C001         Mean Sea Surface (1). Mean Dynamic Topography height (solution 1).         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1).           CS_OFFI_SIR_OPR_2_20201105T184237_20201105T184206_C001         Mean Sea Surface (1). Mean Dynamic Topography height (solution 1).         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1).           CS_OFFI_SIR_OPR_2_20201105T184237_20201105T184246_C0	CS_OFFL_SIR_IOPR_2_20201105T064503_20201105T065246_C001		• • • •
CS. DFFL_SIR_IOFR_2_2020110511005110051114925_C001         Topography (1)         The is an error with the MSS height (solution 1), the Mean Dynamic Gaugery (2), Total Geocentric Orean         Topography (1)         The is an error with the MSS height (solution 1), the Mean Dynamic Gaugery (2), Total Geocentric Orean         Topography (1)         The is an error with the MSS height (solution 1), and the Mean Dynamic Gaugery (2), Total Geocentric Orean         Topography (1)         The is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_IOPR_2_20201105T145729_20201105T150507_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_IOPR_2_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164327_20201105T164606_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         Topography (1)	CS_OFFL_SIR_IOPR_2_20201105T082415_20201105T083131_C001		
CS_OFFL_SIR_IOPR_2_20201105T114223_20201105T114225_C001       Topography (1), Total Geocentric Ocean       Topography (solution 1), the Total Geocentric Ocean         CS_OFFL_SIR_IOPR_2_20201105T132036_20201105T132824_C001       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_20201105T145729_20201105T150507_C001       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_20201105T164327_C001       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_20201105T164327_C001       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_20201105T164327_20201105T164606_C001       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_20201105T18227_C001       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_20201105T18227_20201105T182406_C001       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_20201105T182262_0201105T200126_C001       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_20201	CS_OFFL_SIR_IOPR_2_20201105T100331_20201105T101033_C001		
CS_OFFL_SIR_IOPR_2_20201105T145729_20201105T150507_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T163702_20201105T150507_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T163702_20201105T164327_C001Mean 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_20201105T164327_20201105T164506_C001Mean 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_20201105T181517_20201105T182227_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T18227_20201105T18227_20201105T182267_20201105T18227_20201105T18227_20201105T18227_20201105T18227_20201105T18227_20201105T18227_20201105T18227_20201105T200126_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T200126_20201105T200126_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T200126_20201105T214008_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T214029_20201105T2	CS_OFFL_SIR_IOPR_2_20201105T114213_20201105T114925_C001	Topography (1), Total Geocentric Ocean	Topography (solution 1), the Total Geocentric Ocean Tide (solution 1:
CS_OFFL_SIR_IOPR_2_20201105T163702_20201105T164327_C001Mean Sea Surface (1), Mean Dynamic Topography Height (solution 1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T164327_20201105T164327_C001Mean 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_20201105T164327_20201105T164606_C001Mean Sea Surface (1), Mean Dynamic Topography Height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T181617_20201105T182227_C001Mean 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_20201105T182227_20201105T182406_C001Mean Sea Surface (1), Mean Dynamic Topography Height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T182227_20201105T200126_C001Mean 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_20201105T200126_20201105T200246_C001Mean Sea Surface (1), Mean Dynamic Topography Height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T214200_02001105T214400_20011Mean Sea Surface (1), Mean Dynamic Topography Height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography Height (solution 1)CS_OFFL_SIR_IOPR_2_202011	CS_OFFL_SIR_IOPR_2_20201105T132036_20201105T132824_C001		
CS_OFFL_SIR_IOPR_2_20201105T164327_20201105T164606_C001       Topography (1)       Topography height (solution 1)         CS_OFFL_SIR_IOPR_2_20201105T164327_20201105T164606_C001       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_20201105T181517_20201105T182227_C001       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_20201105T182227_20201105T182207_C001       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_20201105T182227_20201105T182406_C001       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_20201105T18200126_C001       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_20201105T200126_C001       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_20201105T200126_20201105T200246_C001       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_20201105T213427_20201105T214009_C001       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_20201105T214009_20201105T214121_C001	CS_OFFL_SIR_IOPR_2_20201105T145729_20201105T150507_C001		
CS_OFFL_SIR_IOPR_2_20201105T184227_20201105T184306_C001       Topography (1)       Topography height (solution 1)         CS_OFFL_SIR_IOPR_2_20201105T181517_20201105T182227_C001       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_20201105T182227_20201105T182206_C001       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_20201105T182207_20201105T2800126_C001       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_20201105T2800126_C001       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_20201105T200126_20201105T200126_C001       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_20201105T200126_20201105T200246_C001       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_20201105T213427_20201105T2144009_C001       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_20201105T231646_20201105T231735_C001       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_20201105T231735_C001	CS_OFFL_SIR_IOPR_2_20201105T163702_20201105T164327_C001		
CS_OFFL_SIR_IOPR_2_20201105T182227_20201105T182406_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T182227_20201105T182406_C001Mean 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_20201105T195200126_C001Mean 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_20201105T200126_20201105T200246_C001Mean 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_20201105T213427_20201105T214009_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)CS_OFFL_SIR_IOPR_2_20201105T214009_20201105T214121_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)CS_OFFL_SIR_IOPR_2_20201105T214009_20201105T214121_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001Mean Sea Surface (1), Mean Dynamic Topography height (solution 1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topo	CS_OFFL_SIR_IOPR_2_20201105T164327_20201105T164606_C001		
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CS_OFFL_SIR_IOPR_2_20201105T200126_20201105T2100246_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T213427_20201105T214009_C001Mean 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_20201105T214009_20201105T214121_C001Mean 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_20201105T231646_20201105T231735_C001Mean 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_20201105T231646_20201105T231735_C001Mean 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_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T231735_20201105T23	CS_OFFL_SIR_IOPR_2_20201105T195639_20201105T200126_C001		
CS_OFFL_SIR_IOPR_2_20201105T214009_20201105T214121_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T214009_20201105T214121_C001Mean 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_20201105T231646_20201105T231735_C001Mean 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_20201105T231735_20201105T231735_C001Mean 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_20201105T200126_20201105T200246_C001		
CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001Mean 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_20201105T231735_20201105T231735_C001Mean 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_20201105T213427_20201105T214009_C001		
CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001 Topography (1) Topography height (solution 1) Topography height (solution 1) Topography height (solution 1) and the Mean Dynamic	CS_OFFL_SIR_IOPR_2_20201105T214009_20201105T214121_C001		
	CS_OFFL_SIR_IOPR_2_20201105T231646_20201105T231735_C001		
	CS_OFFL_SIR_IOPR_2_20201105T231735_20201105T232054_C001		

### **5.5 L2 Measurement Confidence Data Check**

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

Number of products with errors:

0

## 5.6 L2 Measurement Quality Flag Check

## L2 Quality Flags (20Hz)

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

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

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

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

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20201105T001734_20201105T001919_C001	<b>C</b>	The Ocean Altimeter Range, SSHA, SWH 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_20201105T001930_20201105T003012_C001	0	The Ocean Altimeter Range, SSHA, SWH 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_20201105T003015_20201105T005218_C001	-	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20201105T005827_20201105T010409_C001	OCOG Altimeter Range Quality, OCOG	The OCOG Altimeter Range and Backscatter Quality Flags have been set
	Backscatter Quality	for one or more records.
CS_OFFL_SIR_IOPM_2_20201105T010807_20201105T013205_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_20201105T013600_20201105T014054_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_20201105T020337_20201105T023044_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_20201105T023805_20201105T024239_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_20201105T024351_20201105T024359_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_20201105T024723_20201105T030625_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_20201105T030628_20201105T031359_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_20201105T032158_20201105T032414_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_20201105T033753_20201105T040901_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_20201105T041716_20201105T042251_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_20201105T042638_20201105T043037_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_20201105T050045_20201105T050049_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_20201105T050147_20201105T050349_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_20201105T051634_20201105T054925_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_20201105T055620_20201105T060133_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_20201105T060706_20201105T062318_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_20201105T064114_20201105T064136_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_20201105T065404_20201105T071615_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_20201105T071724_20201105T072808_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_20201105T073316_20201105T073621_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_20201105T074534_20201105T081141_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_20201105T081156_20201105T081907_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_20201105T082036_20201105T082305_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_20201105T083358_20201105T084558_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_20201105T085039_20201105T085159_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_20201105T085231_20201105T090746_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_20201105T091001_20201105T091520_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_20201105T091539_20201105T091739_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_20201105T092611_20201105T093859_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_20201105T094113_20201105T095905_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_20201105T101212_20201105T101331_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_20201105T102032_20201105T103004_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_20201105T103238_20201105T104626_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_20201105T104927_20201105T105432_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_20201105T111245_20201105T111449_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_20201105T112027_20201105T112452_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_20201105T112614_20201105T113326_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_20201105T113448_20201105T113626_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_20201105T120158_20201105T120159_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_20201105T120505_20201105T120712_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_20201105T120916_20201105T122531_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_20201105T122932_20201105T123350_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_20201105T124100_20201105T130339_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_20201105T134301_20201105T140431_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_20201105T140741_20201105T141305_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_20201105T141311_20201105T141636_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_20201105T142039_20201105T144713_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_20201105T144753_20201105T145204_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_20201105T151816_20201105T153857_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_20201105T153924_20201105T154342_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_20201105T154735_20201105T155544_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

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CS_OFFL_SIR_IOPM_2_20201105T160109_20201105T163314_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_20201105T164606_20201105T164724_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_20201105T171646_20201105T172138_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_20201105T172714_20201105T173233_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_20201105T173925_20201105T180046_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_20201105T180331_20201105T181349_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_20201105T182431_20201105T182904_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_20201105T184453_20201105T184937_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_20201105T185124_20201105T190137_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_20201105T190823_20201105T191134_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_20201105T191845_20201105T192331_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_20201105T192335_20201105T194504_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_20201105T194631_20201105T195229_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_20201105T200753_20201105T201452_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_20201105T201509_20201105T203912_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_20201105T204847_20201105T205041_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_20201105T205808_20201105T210253_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_20201105T210346_20201105T211506_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_20201105T211649_20201105T212506_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_20201105T213049_20201105T213101_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_20201105T213310_20201105T213319_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_20201105T214242_20201105T214651_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_20201105T214806_20201105T220151_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_20201105T221006_20201105T222144_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_20201105T222731_20201105T222958_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_20201105T223026_20201105T223450_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_20201105T223713_20201105T225135_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_20201105T225314_20201105T230304_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_20201105T232641_20201105T232842_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_20201105T233328_20201105T233714_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_20201105T233837_20201105T234345_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_20201105T234541_20201106T000146_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_20201105T013358_20201105T013600_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_20201105T172548_20201105T172714_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_20201105T200709_20201105T200753_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_20201105T233714_20201105T233837_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_20201105T014513_20201105T014609_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_20201105T165022_20201105T165107_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_20201105T165659_20201105T165715_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_20201105T232304_20201105T232411_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

## L2 Quality Flags (20Hz PLRM)

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

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

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

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20201105T001119_20201105T001708_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_20201105T005405_20201105T005555_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_20201105T010409_20201105T010632_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_20201105T013205_20201105T013316_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_20201105T013358_20201105T013600_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_20201105T014609_20201105T014643_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_20201105T015128_20201105T015542_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_20201105T020006_20201105T020333_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_20201105T023337_20201105T023518_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_20201105T023628_20201105T023805_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_20201105T024239_20201105T024351_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_20201105T033327_20201105T033753_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_20201105T041341_20201105T041716_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_20201105T044033_20201105T044202_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_20201105T045203_20201105T045353_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_20201105T050049_20201105T050147_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_20201105T051225_20201105T051405_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_20201105T055300_20201105T055620_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_20201105T060133_20201105T060258_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_20201105T062318_20201105T062636_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20201105T064346_20201105T064503_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_20201105T101657_20201105T102032_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_20201105T110925_20201105T111245_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_20201105T111449_20201105T112027_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_20201105T112452_20201105T112614_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_20201105T113743_20201105T114213_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_20201105T122644_20201105T122932_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_20201105T131650_20201105T132036_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_20201105T145204_20201105T145729_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_20201105T154611_20201105T154735_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_20201105T163528_20201105T163702_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_20201105T164900_20201105T165022_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_20201105T171115_20201105T171141_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_20201105T184121_20201105T184453_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_20201105T191134_20201105T191511_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_20201105T200246_20201105T200321_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_20201105T205041_20201105T205318_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_20201105T212635_20201105T212746_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_20201105T214121_20201105T214242_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_20201105T220900_20201105T221006_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_20201105T222147_20201105T222731_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_20201105T222958_20201105T223026_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_20201105T232054_20201105T232304_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_20201105T232411_20201105T232641_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_20201105T232842_20201105T233004_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_20201105T233714_20201105T233837_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_20201105T234345_20201105T234541_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_20201105T000505_20201105T001119_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_20201105T014234_20201105T014455_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_20201105T014643_20201105T015128_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_20201105T023044_20201105T023337_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_20201105T024522_20201105T024723_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_20201105T032414_20201105T033327_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_20201105T040901_20201105T041341_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_20201105T042406_20201105T042638_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_20201105T043037_20201105T043410_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_20201105T045726_20201105T050045_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T050433_20201105T051225_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_20201105T051405_20201105T051511_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T054925_20201105T055300_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_20201105T060258_20201105T060706_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_20201105T063343_20201105T063649_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_20201105T064136_20201105T064346_C001	Initimatar Randa and Rackscatter ( Inality)	The Ocean Altimeter Range, SSHA, SWH 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_20201105T064503_20201105T065246_C001	Altimeter Rande and Backscatter () lality	The Ocean Altimeter Range, SSHA, SWH 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_20201105T065249_20201105T065404_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T072808_20201105T073013_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T074145_20201105T074534_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T082415_20201105T083131_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH 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_20201105T091931_20201105T092611_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_20201105T100331_20201105T101033_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_20201105T110402_20201105T110423_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T114213_20201105T114925_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T132036_20201105T132824_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T141755_20201105T142039_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T145729_20201105T150507_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T154342_20201105T154611_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T155657_20201105T160109_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T163702_20201105T164327_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_20201105T164829_20201105T164900_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T172138_20201105T172548_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_20201105T181349_20201105T181512_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T181517_20201105T182227_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_20201105T182904_20201105T183239_C001		The OCOG Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T190137_20201105T190533_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T191511_20201105T191845_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T195639_20201105T200126_C001	PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20201105T200321_20201105T200401_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPR_2_20201105T203912_20201105T204612_C001	Altimeter Rande and Backscatter (Juality)	The Ocean Altimeter Range, SSHA, SWH 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_20201105T213427_20201105T214009_C001	Altimeter Rande and Backscatter (Juality)	The Ocean Altimeter Range, SSHA, SWH 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_20201105T220151_20201105T220529_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_20201105T231735_20201105T232054_C001	LAITIMPTER Rande and Backscatter Ullality	The Ocean Altimeter 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.

206

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

Number of products with errors:

#### **5.8 L2 Ocean Retracking Quality Check**

#### L2 Retracking Flags (20Hz)

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

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

Number of products with errors:

67

#### 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:

156

## 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: 0
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: 0
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,

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

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

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

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followed by a table highlighting any additional issues which may arise from this test.

> 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
CS_OFFL_SIR_IOP_220201104T231959_20201105T000937_C002	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_220201105T000937_20201105T005914_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_220201105T005914_20201105T014851_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_220201105T014851_20201105T023829_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_220201105T023829_20201105T032806_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_220201105T032806_20201105T041743_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_220201105T041743_20201105T050721_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_220201105T050721_20201105T055658_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_220201105T055658_20201105T064635_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_220201105T064635_20201105T073613_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_220201105T073613_20201105T082550_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_220201105T082550_20201105T091527_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_220201105T091527_20201105T100505_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_220201105T100505_20201105T105442_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_220201105T105442_20201105T114419_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_220201105T114419_20201105T123357_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_220201105T123357_20201105T132334_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_220201105T132334_20201105T141311_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_220201105T141311_20201105T150249_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_220201105T150249_20201105T155226_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_220201105T155226_20201105T164203_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_220201105T164203_20201105T173141_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_220201105T173141_20201105T182118_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_220201105T182118_20201105T191055_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_220201105T191055_20201105T200033_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_220201105T200033_20201105T205010_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_220201105T205010_20201105T213947_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_220201105T213947_20201105T222925_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_220201105T222925_20201105T231902_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_220201105T231902_20201106T000839_C002	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:

6.6 P2P Measurement Quality Flag Check

#### P2P Quality Flags (20Hz)

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

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

Number of products with errors:

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:

29

29

0

#### 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 retracki	ng quality flag (field 19) for each	20-Hz measurement record. The bit value of this flag indicates any problems when set.
<b>Ocean Retracking Quality Flag (PLRM):</b> T	his flag is currently set for produc	cts IOPR and IOPN products over sea ice, but this is to be expected.
Number of products with errors:	28	
P2P Retracking Flags PLRM		
CryoSat L2 data includes an ocean retrackin	g quality flag for each 20-Hz PLF	RM measurement record. The bit value of this flag indicates any problems when set.
Ocean Retracking Quality Flag (PLRM): T	his flag is currently set for produc	cts IOPR and IOPN products over sea ice, but this is to be expected.
Number of products with errors:	30	

# 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	195	195	9	186	0
SIR_IOPR1B	116	109	1	108	0
SIR_IOPN1B	109	116	0	116	0
SIR_IOPM_2	195	195	136	59	0
SIR_IOPR_2	116	109	38	71	0
SIR_IOPN_2	109	116	33	81	2
SIR_IOP_P2P	29	29	0	27	2

## 7.1 QCC Errors

Number of QCC reports with errors:

10

#### Total number of occurrences of each error

Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOPR_2	2	2	2	2							

Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2_	2	2	2	2							

<b>Test Description Key:</b>	est 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

			Total n	umber of occurrences	of each warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_IOPM1B	186	0	0	0	0	0	0
SIR_IOPM_2	0	0	40	41	0	50	0
SIR_IOPN1B	105	0	0	0	0	0	0
SIR_IOPN_2	0	0	10	36	5	30	34
SIR_IOPR1B	111	0	0	0	0	0	0
SIR_IOPR_2	0	2	42	48	1	43	32

Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	46	0	37	0	0	0	0
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	22	0	0	0	26	0	39
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	16	1	0	47	0	53	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	7	30	0	3
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	0	30	20	47	56	36
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	0	45	0	2	69	51	9

Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_IOPM1B	0	0	0	0	0	3	
SIR_IOPM_2	34	0	2	0	0	0	
SIR_IOPN1B	0	0	0	0	50	5	
SIR_IOPN_2	31	34	14	2	0	0	
SIR_IOPR1B	0	0	0	0	116	5	
SIR_IOPR_2	44	53	4	7	0	0	

Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_IOP_2_	16	29	29	4	29	18	29

Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF
SIR_IOP_2_	1	19	28	22	19	29	18

Pro	oduct Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-
SIF	IR_IOP_2_	27	29	19	14	29		

Test Description Key:						
Abbreviation	Test name	Details				
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter				
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				

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

## 7.3 Missing QCC Reports

Number of products with missing QCC reports: 0