

## IDEAS+ Daily Report for IOP data:

## 09/06/2019

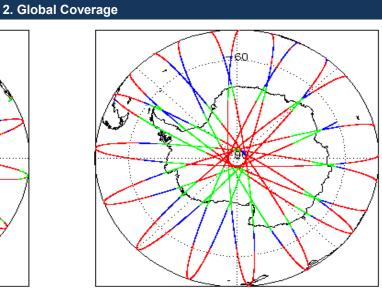


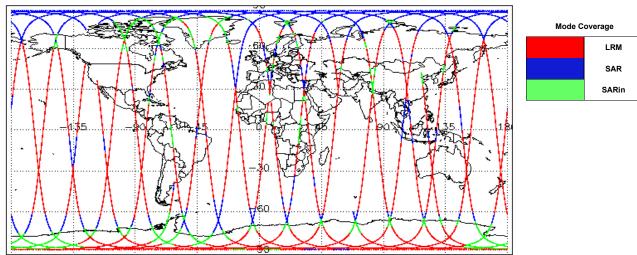
1. Overview				
	40 km 0040	Check	L1 & L2	P2P
Report Production:	19-Jun-2019	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	Crucest Occar Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used.	essor Used: CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Oseu.	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
		Measurement Confidence Data Check	See Section 4.5, 4.6	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

#### Mission / Instrument News 08-Jun-2019 None

09-Jun-2019 IOP P2P from 09-Jun-2019 from 01:03:57 to 23:23:32 missing SAR and SIN inputs.

10-Jun-2019	Nothing planned	





## 3. Instrument Configuration

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

SIRAL instrument(s) in use:

n use: SIRAL - A

4. IOP Level 1B Data Quality Check

### 4.1 L1B Product Format Check

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

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.

L1B Processing Quality HR: The I1b\_proc\_flag\_hr flag is currently set all L1B IOPR and IOPN products because the I1b\_processing\_quality\_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.

0

#### 4.3 L1B Auxilary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to 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:

#### 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.

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20190609T070708_20190609T071658_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T092624_20190609T092931_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T092934_20190609T100147_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T111234_20190609T112404_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T161334_20190609T163849_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T201222_20190609T204826_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20190609T234817_20190609T235739_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T000604_20190609T001218_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T010548_20190609T010758_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T010853_20190609T011122_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T055810_20190609T055903_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T060842_20190609T061004_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T091252_20190609T091339_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T091418_20190609T091703_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T123102_20190609T123408_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20190609T164953_20190609T165133_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T073703_20190609T073828_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T083616_20190609T083935_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T091833_20190609T092624_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T142047_20190609T142218_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T155233_20190609T160030_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T205536_20190609T205954_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20190609T213319_20190609T214018_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:

#### 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).

0

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

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

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

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190609T054346_20190609T054520_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_20190609T174058_20190609T174406_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_20190609T175233_20190609T175407_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_20190609T000604_20190609T001218_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_20190609T010548_20190609T010758_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_20190609T010853_20190609T011122_C001	Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOPN_2_20190609T014828_20190609T015004_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_20190609T024503_20190609T024948_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20190609T033645_20190609T033918_C001	Mean Sea Surface (1), Mean Dynamic Topography (1) wean Sea Surface (1), wean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20190609T050744_20190609T051135_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (EES), Non-Equilibrium Long Period	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20190609T060842_20190609T061004_C001	Total Geocentric Ocean Tide (GOT)	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20190609T064726_20190609T065040_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_20190609T065555_20190609T065709_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_20190609T082444_20190609T082908_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_20190609T083458_20190609T083616_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_20190609T091418_20190609T091703_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20190609T091706_20190609T091833_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_20190609T101226_20190609T101412_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_20190609T105636_20190609T105738_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_20190609T115036_20190609T115303_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_20190609T123430_20190609T123640_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_20190609T132940_20190609T133350_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_20190609T142012_20190609T142046_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_20190609T151053_20190609T151236_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_20190609T164953_20190609T165133_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_20190609T181959_20190609T182118_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_20190609T182648_20190609T183004_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_20190609T191801_20190609T191851_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_20190609T195924_20190609T200038_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_20190609T200545_20190609T200901_C001	wean Sea Surface (1), wean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (EES), Non-Equilibrium Long Deriod	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20190609T214018_20190609T214255_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_20190609T214449_20190609T215033_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_20190609T223535_20190609T223657_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_20190609T231842_20190609T232153_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T010131_20190609T010548_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T023711_20190609T023728_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20190609T023728_20190609T024503_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T041751_20190609T042537_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T054805_20190609T054944_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20190609T055904_20190609T060651_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T073840_20190609T074758_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T091833_20190609T092624_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T105739_20190609T110305_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T122615_20190609T122722_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20190609T123640_20190609T124342_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T141502_20190609T142011_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T155233_20190609T160030_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T173107_20190609T173837_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T174747_20190609T174937_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20190609T190829_20190609T191638_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T191639_20190609T191800_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T204827_20190609T205536_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T205536_20190609T205954_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T222816_20190609T223426_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T223427_20190609T223534_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20190609T231649_20190609T231841_C001	Mean Sea Surface (1)	There is an error with the MSS height (solution 1) for one or more records

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## 5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.
Number of products with errors:
0

## 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20Hz)

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

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

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

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

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#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20190609T000145_20190609T000603_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T001515_20190609T001942_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_20190609T002230_20190609T003628_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T003808_20190609T004050_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20190609T012329_20190609T012620_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality,	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
	Ocean Backscatter Quality Ocean Altimeter Range Quality, Ocean	have been set for one or more records. The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_IOPM_2_20190609T012623_20190609T014650_C001	SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T015005_20190609T015854_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_20190609T020156_20190609T022507_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T030222_20190609T032552_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T033221_20190609T033645_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_20190609T041735_20190609T041751_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T043341_20190609T044835_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T045410_20190609T050426_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T051135_20190609T051723_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_20190609T051956_20190609T052541_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T052722_20190609T054240_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T061004_20190609T064337_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T065041_20190609T065554_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_20190609T065929_20190609T070040_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T070241_20190609T070655_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T070708_20190609T071658_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T073311_20190609T073703_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T074759_20190609T075844_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T080130_20190609T082239_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T082908_20190609T083041_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_20190609T083048_20190609T083458_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_20190609T083935_20190609T085910_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T090005_20190609T090424_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T090905_20190609T091207_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T092934_20190609T100147_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T100412_20190609T100939_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_20190609T102044_20190609T103312_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T103355_20190609T105043_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T105502_20190609T105636_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_20190609T111234_20190609T112404_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T112608_20190609T114046_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T114339_20190609T114836_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_20190609T115737_20190609T120958_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T121439_20190609T122614_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20190609T130530_20190609T131956_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T132304_20190609T132749_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_20190609T132754_20190609T132806_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_20190609T133538_20190609T140107_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T143505_20190609T145854_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T150327_20190609T150703_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_20190609T150711_20190609T150720_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_20190609T150726_20190609T151053_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_20190609T151414_20190609T152805_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T153054_20190609T154203_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T161334_20190609T163849_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T164121_20190609T164617_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_20190609T165404_20190609T170432_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T171007_20190609T172800_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T181306_20190609T181428_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T181628_20190609T181743_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T182119_20190609T182648_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_20190609T183340_20190609T190829_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T191933_20190609T192114_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T193901_20190609T195615_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T200038_20190609T200545_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_20190609T201222_20190609T204826_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T211037_20190609T213319_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T214256_20190609T214449_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_20190609T215222_20190609T220011_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T220014_20190609T220632_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T221351_20190609T222815_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T224115_20190609T225809_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T230004_20190609T231425_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T232455_20190609T232901_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_20190609T233112_20190609T234616_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20190609T234817_20190609T235739_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T014828_20190609T015004_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_20190609T033111_20190609T033221_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_20190609T101226_20190609T101412_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPN_2_20190609T132940_20190609T133350_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T231842_20190609T232153_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_20190609T003628_20190609T003808_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T041536_20190609T041735_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T055733_20190609T055809_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T101413_20190609T102043_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T114046_20190609T114156_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T181744_20190609T181958_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T191639_20190609T191800_C001	Ocean Altimeter Range Quality, Ocean SSHA Quality, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH 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.

Toot Foiled

Description

> 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.

67

#### Number of products with errors:

Broduct

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20190609T000604_20190609T001218_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T001454_20190609T001515_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_20190609T001943_20190609T002123_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T010548_20190609T010758_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T014828_20190609T015004_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_20190609T015855_20190609T020053_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T024503_20190609T024948_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T033111_20190609T033221_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_20190609T050744_20190609T051135_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_20190609T065555_20190609T065709_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Aumiteter Kange Quality PLKM,	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T082444_20190609T082908_C001	OCOG Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T091252_20190609T091339_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T091418_20190609T091703_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_20190609T101226_20190609T101412_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_20190609T105104_20190609T105237_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_20190609T105307_20190609T105502_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_20190609T115036_20190609T115303_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_20190609T150056_20190609T150327_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T151053_20190609T151236_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T163953_20190609T164120_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_20190609T172800_20190609T172912_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T191801_20190609T191851_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPN_2_20190609T193640_20190609T193901_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPN_2_20190609T195924_20190609T200038_C001
CS_OFFL_SIR_IOPN_2_20190609T200545_20190609T200901_C001
CS_OFFL_SIR_IOPN_2_20190609T214018_20190609T214255_C001
CS_OFFL_SIR_IOPN_2_20190609T214449_20190609T215033_C001
CS_OFFL_SIR_IOPN_2_20190609T231612_20190609T231649_C001
CS_OFFL_SIR_IOPN_2_20190609T232902_20190609T233038_C001
CS_OFFL_SIR_IOPR_2_20190609T003628_20190609T003808_C001
CS_OFFL_SIR_IOPR_2_20190609T010131_20190609T010548_C001
CS_OFFL_SIR_IOPR_2_20190609T011122_20190609T011207_C001
CS_OFFL_SIR_IOPR_2_20190609T023728_20190609T024503_C001
CS_OFFL_SIR_IOPR_2_20190609T032552_20190609T032803_C001
CS_OFFL_SIR_IOPR_2_20190609T041751_20190609T042537_C001
CS_OFFL_SIR_IOPR_2_20190609T050426_20190609T050743_C001
CS_OFFL_SIR_IOPR_2_20190609T055904_20190609T060651_C001
CS_OFFL_SIR_IOPR_2_20190609T064338_20190609T064726_C001
CS_OFFL_SIR_IOPR_2_20190609T073022_20190609T073310_C001
CS_OFFL_SIR_IOPR_2_20190609T073840_20190609T074758_C001
CS_OFFL_SIR_IOPR_2_20190609T082239_20190609T082444_C001
CS_OFFL_SIR_IOPR_2_20190609T083041_20190609T083047_C001
CS_OFFL_SIR_IOPR_2_20190609T091833_20190609T092624_C001
CS_OFFL_SIR_IOPR_2_20190609T100148_20190609T100250_C001
CS_OFFL_SIR_IOPR_2_20190609T100952_20190609T100958_C001
CS_OFFL_SIR_IOPR_2_20190609T101413_20190609T102043_C001
CS_OFFL_SIR_IOPR_2_20190609T105739_20190609T110305_C001
CS_OFFL_SIR_IOPR_2_20190609T114836_20190609T114843_C001
CS_OFFL_SIR_IOPR_2_20190609T115304_20190609T115538_C001
CS_OFFL_SIR_IOPR_2_20190609T123640_20190609T124342_C001
CS_OFFL_SIR_IOPR_2_20190609T125715_20190609T130427_C001
CS_OFFL_SIR_IOPR_2_20190609T141502_20190609T142011_C001
CS_OFFL_SIR_IOPR_2_20190609T142047_20190609T142218_C001
CS_OFFL_SIR_IOPR_2_20190609T155233_20190609T160030_C001
CS_OFFL_SIR_IOPR_2_20190609T173107_20190609T173837_C001
CS_OFFL_SIR_IOPR_2_20190609T173857_20190609T174058_C001
CS_OFFL_SIR_IOPR_2_20190609T181744_20190609T181958_C001
CS_OFFL_SIR_IOPR_2_20190609T183005_20190609T183339_C001

Joean Allimeter Range Quality PLRIVI, OCOG Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM. Ocean N/H Quality Oco OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Ocean Allimeter Range Quality PLRIVI. OCOG Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM. OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM. Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM. Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM. Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM. Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM. Ocean

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records.

The OCOG Range and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags, and the OCOG Altimeter Range and Backscatter Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The OCOG Range and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

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The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The OCOG Range and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The OCOG Range and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The OCOG Range and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.

Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPR_2_20190609T190829_20190609T191638_			
	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T200901_20190609T201222_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T204827_20190609T205536_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T205536_20190609T205954_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T213319_20190609T214018_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T215033_20190609T215221_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T222816_20190609T223426_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T223427_20190609T223534_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20190609T231649_20190609T231841_	_C001	Ocean Altimeter Range Quality PLRM, Ocean SSHA Quality PLRM, Ocean SWH Quality, Ocean Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.
Currently, there are several common flags raised in the Level > 1Hz and 1Hz Ocean SSHA Quality Flags: These flags are curr Number of products with errors: 194	• •		
5.8 L2 Ocean Retracking Quality Check			
L2 Retracking Flags (20Hz)			
CryoSat L2 data includes an ocean retracking quality flag for each	20-Hz measuren	ment record. The bit value of this flag indica	tes any problems when set.
Ocean Retracking Quality Flag: This flag is currently set for prod	lucts over land ar	nd sea ice, but this is to be expected. The r	number of products with this error flag set is given below.
Number of products with errors: 68			
L2 Retracking Flags (20Hz, PLRM)			
CryoSat L2 data includes an ocean retracking quality flag for each	20-Hz PLRM me	easurement record. The bit value of this flag	g indicates any problems when set.
Ocean Retracking Quality Flag (PLRM): This flag is currently set	t for products NO	PR and NOPN products over sea ice, but t	his is to be expected.
Number of products with errors: 147			
c		Pole-to-Pole Data Quality	Chook
	. IOP L2 P		Check
6.1 P2P Product Format Check			
6.1 P2P Product Format Check Each product, retrieved and unpacked from the science server, is	checked to ensur	re it consists of both an XML header file (.F	DR) and a NetCDF product file (.nc).
	checked to ensur	re it consists of both an XML header file (.H	DR) and a NetCDF product file (.nc).
Each product, retrieved and unpacked from the science server, is a Number of products with errors: 0	checked to ensur	re it consists of both an XML header file (.H	DR) and a NetCDF product file (.nc).
Each product, retrieved and unpacked from the science server, is	checked to ensur	re it consists of both an XML header file (.F	DR) and a NetCDF product file (.nc).
Each product, retrieved and unpacked from the science server, is a Number of products with errors: 0			
Each product, retrieved and unpacked from the science server, is Number of products with errors: 0 6.2 P2P Product Header Analysis			
Each product, retrieved and unpacked from the science server, is a 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 science server.			
Each product, retrieved and unpacked from the science server, is a         Number of products with errors:       0         6.2 P2P Product Header Analysis         For all products, a series of pre-defined checks are performed on to         Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check	the MPH and SPI	H in order to identify any inconsistencies an	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a Number of products with errors: 0 6.2 P2P Product Header Analysis For all products, a series of pre-defined checks are performed on t Number of products with errors: 0	the MPH and SPI	H in order to identify any inconsistencies an	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is Number of products with errors: 0 6.2 P2P Product Header Analysis For all products, a series of pre-defined checks are performed on t Number of products with errors: 0 6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with res Number of products with errors: 0	the MPH and SPI	H in order to identify any inconsistencies an	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a Number of products with errors:       0         6.2 P2P Product Header Analysis       0         For all products, a series of pre-defined checks are performed on the Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check       0         Each product is checked for missing Data Set Descriptors with rest       0         6.4 P2P Auxiliary Correction Error Check       0	the MPH and SPH	H in order to identify any inconsistencies and the second se	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a Number of products with errors:       0         6.2 P2P Product Header Analysis       0         For all products, a series of pre-defined checks are performed on the Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check       0         Each product is checked for missing Data Set Descriptors with rest       0         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check       0         For all products, the auxiliary corrections with the Geophysical G       0         Currently, there are some common auxiliary correction errors       0	the MPH and SPH spect to a pre-dete sroup are checked s raised in the Le	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a Number of products with errors:	the MPH and SPH spect to a pre-dete group are checked araised in the Le nay arise from the s are not compute	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph	nd/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a 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 Number of products with errors:  0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors:  0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind and V-Wind components of the ECMWF model with in the table below.	the MPH and SPH spect to a pre-dete proup are checked traised in the Le nay arise from the s are not compute ind vector. This is	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph s a known anomaly (CRYO-COP-3) and wil	Ind/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a Number of products with errors:  0  6.2 P2P Product Header Analysis  For all products, a series of pre-defined checks are performed on 1  Number of products with errors:  0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors:  0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m  > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind components of the ECMWF model wi in the table below.  > Sea State Bias & Sea State Bias PLRM: The error value is currently	the MPH and SPH spect to a pre-dete group are checked a raised in the Le nay arise from th s are not compute ind vector. This is rently set for proc	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph s a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected	Ind/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a 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 Number of products with errors:  0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors:  0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m  > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind and V-Wind components of the ECMWF model wi in the table below.  > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products	the MPH and SPH spect to a pre-dete proup are checked raised in the Le nay arise from th s are not compute ind vector. This is rently set for proc over land and se	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph is a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected.	Ind/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is a 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 Number of products with errors:  0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors:  0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind and V-Wind components of the ECMWF model wi in the table below. > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products > Mean Sea Surface: The error value is currently set for products > Mean Dynamic Topography: The error value is currently set for	the MPH and SPH spect to a pre-dete group are checked araised in the Le nay arise from the s are not compute ind vector. This is rently set for proce over land and se r products over la	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph s a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected. and and sea ice, but this is to be expected.	nd/or errors raised by the ground-segment processing chain. Idity of Auxiliary Data Files is correct. Ito surface type. All common flags are summarised in the list below, eric Corection, Wet Tropospheric Correction, Inverse Barometric Correction I be resolved in a future IPF update. The affected products are not reported d.
Each product, retrieved and unpacked from the science server, is a 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 Number of products with errors:  0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors:  0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors and the U-Wind and V-Wind components of the ECMWF model with the table below.  > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products > Mean Dynamic Topography: The error value is currently set for > Altimetric Wind Speed Error: The error value is currently set for	the MPH and SPH spect to a pre-dete group are checked araised in the Le nay arise from the s are not compute ind vector. This is rently set for proce over land and se r products over la	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph s a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected. and and sea ice, but this is to be expected.	nd/or errors raised by the ground-segment processing chain. Idity of Auxiliary Data Files is correct. Ito surface type. All common flags are summarised in the list below, eric Corection, Wet Tropospheric Correction, Inverse Barometric Correction I be resolved in a future IPF update. The affected products are not reported d.
Each product, retrieved and unpacked from the science server, is         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 Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with ress         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical G         Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently in the below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products is checked Error: The error value is currently set for products with errors:         > Mean Dynamic Topography: The error value is currently set for products with errors:         > Mumber of products with errors:       3	the MPH and SPH spect to a pre-dete group are checked araised in the Le nay arise from the s are not compute ind vector. This is rently set for proce over land and se r products over la	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). <b>evel 2 products which are expected due his test.</b> ed over CONTINENTAL ICE: Dry Troposph is a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected.	Ind/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is Number of products with errors: 0  6.2 P2P Product Header Analysis  For all products, a series of pre-defined checks are performed on th Number of products with errors: 0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with res Number of products with errors: 0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind and V-Wind components of the ECMWF model wi in the table below. > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products > Mean Dynamic Topography: The error value is currently set for > Altimetric Wind Speed Error: The error value is currently set for	the MPH and SPH spect to a pre-dete group are checked araised in the Le nay arise from the s are not compute ind vector. This is rently set for proce over land and se r products over la	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph is a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. land and sea ice, but this is to be expected.	Ind/or errors raised by the ground-segment processing chain. Idity of Auxiliary Data Files is correct. Ito surface type. All common flags are summarised in the list below, eric Corection, Wet Tropospheric Correction, Inverse Barometric Correction I be resolved in a future IPF update. The affected products are not reported d. Description
Each product, retrieved and unpacked from the science server, is         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 Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with rest         Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical G         Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which model with the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products is checked Error: The error value is currently set for products is Alimetric Wind Speed Error: The error value is currently set for products with errors:	the MPH and SPH spect to a pre-deter aroup are checker araised in the Le nay arise from the sare not compute ind vector. This is rently set for proc over land and se r products over la	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). <b>evel 2 products which are expected due his test.</b> ed over CONTINENTAL ICE: Dry Troposph is a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected.	Ind/or errors raised by the ground-segment processing chain.
Each product, retrieved and unpacked from the science server, is         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 Number of products with errors:       0         6.3 P2P Auxiliary Data File Usage Check         Each product is checked for missing Data Set Descriptors with rest Number of products with errors:       0         6.4 P2P Auxiliary Correction Error Check         For all products, the auxiliary corrections within the Geophysical G         Currently, there are some common auxiliary corrections errors followed by a table highlighting any additional issues which mis and the U-Wind and V-Wind components of the ECMWF model with in the table below.         > Sea State Bias & Sea State Bias PLRM: The error value is currently set for products is Altimetric Wind Speed Error: The error value is currently set for products with errors:       3         Product       3	the MPH and SPH spect to a pre-dete proup are checked raised in the Le may arise from the s are not compute ind vector. This is rently set for proc over land and se r products over la or products over la C002	H in order to identify any inconsistencies and ermined baseline and also to check the val d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph s a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected.	Ind/or errors raised by the ground-segment processing chain. Idity of Auxiliary Data Files is correct. Ito surface type. All common flags are summarised in the list below, eric Corection, Wet Tropospheric Correction, Inverse Barometric Correction I be resolved in a future IPF update. The affected products are not reported d. Description There is an error with the MSS height (solution 1) and the Mean Dynamic
Each product, retrieved and unpacked from the science server, is Number of products with errors: 0  6.2 P2P Product Header Analysis  For all products, a series of pre-defined checks are performed on th Number of products with errors: 0  6.3 P2P Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with ress Number of products with errors: 0  6.4 P2P Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical G Currently, there are some common auxiliary correction errors followed by a table highlighting any additional issues which m > ECMWF Meteo Corrections: Currently the following corrections and the U-Wind and V-Wind components of the ECMWF model wi in the table below. > Sea State Bias & Sea State Bias PLRM: The error value is currently set for > Mean Sea Surface: The error value is currently set for > Altimetric Wind Speed Error: The error value is currently set for Number of products with errors: 3 Product CS_OFFL_SIR_IOP_2_20190608T232443_20190609T001422_	the MPH and SPH spect to a pre-dete group are checked traised in the Le may arise from the s are not compute ind vector. This is rently set for proce over land and se r products over la or products over la concert.	H in order to identify any inconsistencies and ermined baseline and also to check the value d for the default error value (32767). evel 2 products which are expected due his test. ed over CONTINENTAL ICE: Dry Troposph is a known anomaly (CRYO-COP-3) and will ducts over sea ice, but this is to be expected as ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. and and sea ice, but this is to be expected. Test Failed Mean Sea Surface (1), Mean Dynamic Topography (1)	Ind/or errors raised by the ground-segment processing chain. Idity of Auxiliary Data Files is correct. Ito surface type. All common flags are summarised in the list below, eric Corection, Wet Tropospheric Correction, Inverse Barometric Correction I be resolved in a future IPF update. The affected products are not reported d. Description There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the Mean Dynamic Topography height for one or

# 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	e L2 Quality Flags, please see Section 5.6 for the full list of products affected.			
Number of products with errors: 30				
P2P Quality Flags (20Hz PLRM)				
Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.				
Number of products with errors: 2				
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: 27				
6.8 P2P Ocean Retracking Quality Check				
P2P Retracking Flags (20Hz)				
Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.				
Ocean Retracking Quality Flag (PLRM): This flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.				
Number of products with errors: 26				
P2P Retracking Flags PLRM				
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz PLRM measurement record. The bit value of this flag indicates any problems when set.				
Ocean Retracking Quality Flag (PLRM): This flag is currently set for products NOPR and NOPN products over sea ice, but this is to be expected.				
Number of products with errors: 3				