

QA4EO Daily Report for IOP data:

<u>15/01/2020</u>

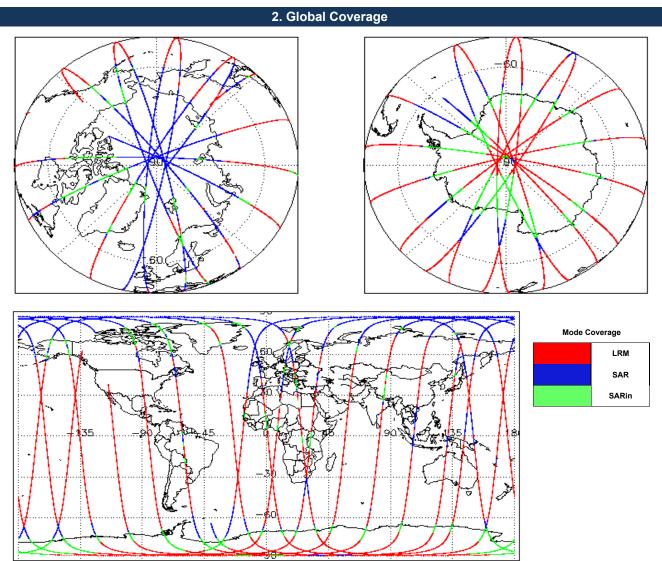
Demant Developetions	00.1 0000	Check	L1 & L2	P2P
Report Production:	20-Jan-2020	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CriveSet Occar Brosser	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used.	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
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

1. Overview

Mission / Instrument News

14-Jan-2020 None

15-Jan-2020 SIRAL unavailability on 15-Jan-2020 from 11:29:30 to 18:13:02 due to a planned orbit manoeuvre & on-board maintenance. 16-Jan-2020 Nothing planned



3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

Number of products with errors:

0

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 l1b_proc_flag_hr flag is currently set all L16 OSARIn chains. A modification is required in the next release.	3 IOPR and IOPN products because the I1b_r	processing_quality_hr field is not correctly configured in the OSAR and
Number of products with errors: 0		
4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre-	e-determined baseline and also to check the v	alidity of Auxiliary Data Files is correct.
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement recorr	d. The bit value of this flag indicates any probl	ems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag for each measurem	nent record. The bit value of this flag indicates	any problems when set.
Attitude Correction Missing: This flag is currently set in error for IOPR produ	-	
Number of products with errors: 0		······3···· ··· ··· ·· ·· ·· ·· ·· ·· ··
4.6 L1B Waveform Group Data Check		
•	The hit value of this flag indicatos any proble	-
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is		und moll du.
Number of products with errors: 10		
Product	Test Failed	Description
CS_OFFL_SIR_IOPN1B_20200115T000557_20200115T000634_C001	Loss of Echo	Description The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200115T012913_20200115T013125_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200115T203854_20200115T204019_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20200115T212102_20200115T212222_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T004743_20200115T005238_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T044751_20200115T045801_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T102800_20200115T103452_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T184806_20200115T185106_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T192849_20200115T192928_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20200115T220602_20200115T220732_C001	Loss of Echo	The tracking echo is missing for one or more records
5. 10	P Level 2 Data Quality Ch	eck
5.1 L2 Product Format Check		
Each product, retrieved and unpacked from the science server, is checked to e	ensure it consists of both an XML beader file (HDR) and a binary product file (DBI)
Number of products with errors: 0		
5.01.0 Product Hander Archivia		
5.2 L2 Product Header Analysis		and/an away pained by the ground assumptions there are in a shall
For all products, a series of pre-defined checks are performed on the MPH and Number of products with errors: 0	3 SPH in order to identify any inconsistencies	and/or errors raised by the ground-segment processing chain.
5 2 1 2 Auviliant Data File Usage Chack		
5.3 L2 Auxiliary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre Number of products with errors: 0	e-determined baseline and also to check the v	alidity of Auxiliary Data Files is correct.
5.4 L2 Auxiliary Correction Error Check		
For all products, the auxiliary corrections within the Geophysical Group are che	ecked for the default error value (32767)	
Currently, there are some common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise from the source of the s	ne Level 2 products which are expected du	e to surface type. All common flags are summarised in the list below,
> ECMWF Meteo Corrections: Currently the following corrections are not con and the U-Wind and V-Wind components of the ECMWF model wind vector. T 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 expec	ted.
> Mean Sea Surface: The error value is currently set for products over land an		
> Mean Dynamic Topography: The error value is currently set for products or	ver land and sea ice, but this is to be expected	1.
> Altimetric Wind Speed Error: The error value is currently set for products of	over land and sea ice, but this is to be expecte	d.
Number of products with errors: 37		
Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20200115T043448_20200115T043701_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_20200115T101021_20200115T102800_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

Total Geocentric Ocean Tide (GOT)

CS_OFFL_SIR_IOPM_2_20200115T181301_20200115T184806_C001

There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records

CS_PFL_SR_JOPN_2_202001157012527_20200115701282_C001 Topography (1) Topography (1) Topography (1) CS_OFFL_SR_JOPN_2_20200115701281_20200115701282_C001 Topography (1) Topography (1) There is an enror with the Tool Geocomic Desam Tide (ER) in the Tool Secomic Desam Tide (ER) in the Tool Geocomic Desam Tide (ER) in the Geocomic Desam Tide	PM_2_20200115T232758_20200115T234538_C001	_OFFL_SIR_IOPM_2_20200115T232758_20200115T234538_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
C5. OFFL_SIR_JOPN_2_20200115T012527_20200115T012523_0001 Traductional top decamine (LTS), more records FES) and the Non-squitterium Long Petrol Oceam Toe head of the Mean Dynamic Topography (1) C5_OFFL_SIR_JOPN_2_20200115T012913_20200115T012152_C001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T022421_20200115T022486_C001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T032566_20200115T030546_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T03556_20200115T036618_C001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T035663_20200115T036613_C001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T036402_02001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) C6_OFFL_SIR_JOPN_2_20200115T036402_02001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an eroro with the MSS height (solution 1) and the			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_JOPN_2_202001157012913_20200115703132_0001 Mean Ses Surface (1), Mean Dynamic Topography (1) (1) (add Geosenito Coest GOT) for an ornal me tools the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202001157021534_202001157021736_C001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_20200115702451_20200115702452 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202001157035546_202001157035818_0001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202001157035546_202001157035818_0001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202001157035542_202001157035818_0001 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_2020011570354252 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202001157035425 Mean Ses Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (doubton 1) and the Mean Dynamic Topography (1)<				There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOPN_2_20200115T02242_20200115T02286_0001 Teopography (1) Teopography (2) CS_OFFL_SIR_IOPN_2_20200115T02242_20200115T02286_0001 Mean Sea Surface (1), Mean Dynamic Teopography (1) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T035646_20200115T035618_C0001 Mean Sea Surface (1), Mean Dynamic Teopography (2) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (2) CS_OFFL_SIR_IOPN_2_20200115T035646_20200115T035618_C0001 Mean Sea Surface (1), Mean Dynamic Teopography (2) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T06447_20200115T056463_C0001 Mean Sea Surface (1), Mean Dynamic Teopography (1) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T076443_20200115T072452_C001 Mean Sea Surface (1), Mean Dynamic Teopography (1) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T072452_C001 Mean Sea Surface (1), Mean Dynamic Teopography (1) There is an error with the MSS height (doution 1) and the Mean Dynamic Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T072452_C001 Mean Sea Surface (1), Mean Dynamic Teopography (1) There is an error with the MSS height (doution 1) and the Mean Dyna Teopography (1) CS_OFFL_SIR_IOPN_2_20200115T085400_20200115T1085720_0001 Mean Sea Surface (1),	PN_2_20200115T012913_20200115T013125_C001 To	_OFFL_SIR_IOPN_2_20200115T012913_20200115T013125_C001 Topography (1), Total (There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1:
DFL_SIR_IOPN_2_20200115102242_20200115103055_202001151030546_20001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115103055_020201151030546_202001151030546_20001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_202001151035546_202001151040723_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115104437_202001151044613_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_202001151072134_202001151072452_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_202001151072134_202001151072452_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_IOPN_2_202001151072134_20200115106520_C001 Mean Ses Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_IOPN_2_20200115106029_20200115106520_C001 Mean Ses Surface (1), Mean Dynamic Topography (solution 1), and tidal corrections for one or more records Topography (solution 1), and tidal corrections for one or more records Topography (solution 1), and tidal corrections for one or more records Topography (solution 1). CS_OFFL_SIR_IOPN_2_202001151103532_202001151103732_C001 Mean Ses Surface (1),			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
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CS_OFFL_SIR_IOPN_2_2020011S1040332_020011ST040125_0001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_2020011ST054437_2020011ST054613_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST072134_2020011ST072452_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST085400_2020011ST085520_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST080540_2020011ST080520_C001 There is an error with the MSS height (solution 1), the Mean Dynamic There is an error with the MSS height (solution 1), the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST080028_2020011ST080340_C001 There is an error with the MSS height (solution 1), and the Mean Dynamic There is an error with the MSS height (solution 1), and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST103032_2020011ST103732_C001 Mean Saa Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST103932_2020011ST104503_C001 Mean Saa Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_2020011ST103932_2020011ST104503_C001 Mean Saa Surface (1), Mean Dynamic There is an error with the	PN 2 202001151035546 202001151035818 C001	OFFL SIR JOPN 2 202001151035546 202001151035818 C001	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
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CS_OFFL_SIR_IOPN_2_2020011510/2134_2020011510/2452_C001 Topography (1) Topography height (solution 1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T085400_20200115T085520_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 (1). Total Geoentric Ocean Tide (SGT). Total Geoentric Ocean Tide (GGT). Total Geoentric Ocean Tide (SGT). Topography height (solution 1) and the Mean Dynamic Topography (1)<	PN_2_20200115T054437_20200115T054613_C001	_OFFL_SIR_IOPN_2_20200115T054437_20200115T054613_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPN_2_202001151085400_202001151085520_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T090029_20200115T090340_C001 Mean Sea Surface (1), Mean Dynamic Topography (solution 1), and tidal corrections for one or more records CS_OFFL_SIR_IOPN_2_20200115T103452_20200115T103732_C001 Mean Sea Surface (1), Mean Dynamic Topography (solution 1), and tidal corrections for one or more records CS_OFFL_SIR_IOPN_2_20200115T103452_20200115T104503_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) CS_OFFL_SIR_IOPN_2_20200115T103932_20200115T104503_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_OFFL_SIR_IOPN_2_20200115T105106_20200115T105439_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_OFFL_SIR_IOPN_2_20200115T203021_20200115T203342_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_OFFL_SIR_IOPN_2_20200115T212120_20200115T212222_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) CS_OFFL_SIR_IOPN_2_20200115T221756_20200115T22			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20200115T090029_20200115T090340_C001 Topography (1), Toial Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide There is an error with the MSS height (solution 1), and tidal corrections for one or more records Topography (1) CS_OFFL_SIR_IOPN_2_20200115T103452_20200115T103732_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 (1) CS_OFFL_SIR_IOPN_2_20200115T103832_20200115T104503_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 (1) CS_OFFL_SIR_IOPN_2_20200115T105106_20200115T185439_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) CS_OFFL_SIR_IOPN_2_20200115T203021_20200115T203342_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 (1) CS_OFFL_SIR_IOPN_2_20200115T221202_0200115T212222_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 (1) CS_OFFL_SIR_IOPN_2_20200115T221756_20200115T221905_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 (1)	PN 2 202001151085400 202001151085520 C001	OFFL SIR JOPN 2 202001151085400 202001151085520 C001	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_202001151103432_202001151103432_20001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T103932_20200115T104503_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_20200115T185106_20200115T185439_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_20200115T203021_20200115T203342_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_20200115T212102_20200115T212222_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_20200115T212102_20200115T212222_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_20200115T235458_20200115T235650_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_20200115T012117_20200115T012228_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) There is an error with the Mean Dynamic Topography height	PN_2_20200115T090029_20200115T090340_C001	_OFFL_SIR_IOPN_2_20200115T090029_20200115T090340_C001 Tide (GOT), Total Geo Tide (GOT), Total Geo Tide (FES), Non-Equili	Geocentric Ocean	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_202001151103932_202001151104303_C001Topography (1)Topography height (solution 1)CS_OFFL_SIR_IOPN_2_20200115T185106_20200115T185439_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1)CS_OFFL_SIR_IOPN_2_20200115T203021_20200115T203342_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1)CS_OFFL_SIR_IOPN_2_20200115T212102_20200115T212222_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dyna Topography height (solution 1)CS_OFFL_SIR_IOPN_2_20200115T221756_20200115T221905_C001Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dyna more recordsCS_OFFL_SIR_IOPN_2_20200115T235458_20200115T235650_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dyna more recordsCS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height (solution 1)CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height for one of more recordsCS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean DynamicCS_OFFL_SIR_IOPR_2_20200115T01213125_202	PN Z ZUZUUT15T10345Z ZUZUUT15T10373Z CUUT	OFEL SIR IOPN 2 202001151103452 202001151103732 COUT	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20200115T1030021_20200115T203342_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T203021_20200115T203342_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_20200115T212102_20200115T212222_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_20200115T221756_20200115T221905_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T235458_20200115T235650_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_20200115T012117_20200115T012228_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_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPR_2_20200115T012115T01228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_202001151203021_202001151203342_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T212102_20200115T212222_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T221756_20200115T221905_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20200115T235458_20200115T235650_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_IOPN_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPR_2_20200115T013115T013215_20200115T013228_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_202001151212102_202001151212222_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_202001151221756_202001151221905_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPN_2_202001151235458_202001151235650_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 (1) CS_OFFL_SIR_IOPR_2_202001151012117_202001151012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPR_2_202001151012117_202001151012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPR_2_202001151012117_20200115101228_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_20200115T235458_20200115T235650_C001 Mean Dynamic Topography (1) more records CS_OFFL_SIR_IOPN_2_20200115T235458_20200115T235650_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPR_2_20200115T013125_20200115T013215_001 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) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPN_2_202001151235458_202001151235650_C001 Topography (1) Topography height (solution 1) Topography height (solution 1) Topography height (solution 1) There is an error with the Mean Dynamic Topography height for one of more records CS_OFFL_SIR_IOPR_2_20200115T012117_20200115T012815_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic	PN_2_20200115T221756_20200115T221905_C001	_OFFL_SIR_IOPN_2_20200115T221756_20200115T221905_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20200115T013125_20200115T013815_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic There is an	PN 2 202001151235458 202001151235650 C001	OFFL SIR JOPN 2 202001151235458 202001151235650 C001	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
	PR_2_20200115T012117_20200115T012228_C001	_OFFL_SIR_IOPR_2_20200115T012117_20200115T012228_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T030948_20200115T031505_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T044751_20200115T045801_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)	PR 2 202001151044751 202001151045801 C001	OFEL SIR IOPR 2 202001151044751 202001151045801 COUT	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T062543_20200115T063317_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T064233_20200115T064432_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records	PR_2_20200115T064233_20200115T064432_C001	_OFFL_SIR_IOPR_2_20200115T064233_20200115T064432_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20200115T080324_20200115T081121_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T081121_20200115T081244_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T094553_20200115T100504_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)	PR 7 202001151094553 202001151100504 C001	OFEL SIR IOPR 2 202001151094553 202001151100504 COUT	, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T112453_20200115T112535_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one of more records	PR_2_20200115T112453_20200115T112535_C001	_OFFL_SIR_IOPR_2_20200115T112453_20200115T112535_C001 Mean Dynamic Topogr	raphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOPR_2_20200115T112535_20200115T112830_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOPR_2_20200115T194050_20200115T194944_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)			, Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

CS_OFFL_SIR_IOPR_2_20200115T212222_20200115T213006_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_20200115T230132_20200115T230845_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

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.

0

59

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20200115T000634_20200115T001844_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_20200115T002048_20200115T003635_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_20200115T003820_20200115T004321_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_20200115T004341_20200115T004353_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_20200115T005238_20200115T010301_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_20200115T010920_20200115T012012_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_20200115T015624_20200115T015732_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_20200115T020046_20200115T021519_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_20200115T021735_20200115T022232_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_20200115T022902_20200115T030253_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_20200115T033044_20200115T035205_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_20200115T035222_20200115T035521_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_20200115T035818_20200115T040149_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_20200115T040211_20200115T040539_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_20200115T040803_20200115T043445_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_20200115T050440_20200115T050642_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_20200115T050645_20200115T053420_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_20200115T053601_20200115T054102_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_20200115T054830_20200115T062221_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_20200115T063508_20200115T063538_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_20200115T070748_20200115T071356_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_20200115T071559_20200115T072134_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_20200115T072735_20200115T080048_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_20200115T082136_20200115T082145_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_20200115T083403_20200115T085314_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20200115T085520_20200115T090029_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_20200115T090605_20200115T094027_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_20200115T100504_20200115T100925_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_20200115T101021_20200115T102800_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_20200115T104637_20200115T110208_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_20200115T110832_20200115T111539_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_20200115T181301_20200115T184806_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_20200115T185439_20200115T190012_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_20200115T190200_20200115T190758_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_20200115T193904_20200115T194050_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_20200115T195416_20200115T202804_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_20200115T203342_20200115T203854_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_20200115T204056_20200115T210036_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_20200115T213212_20200115T215305_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_20200115T215415_20200115T220602_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_20200115T221347_20200115T221355_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_20200115T221358_20200115T221756_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_20200115T221950_20200115T222012_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_20200115T222146_20200115T224856_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_20200115T224912_20200115T225616_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_20200115T225743_20200115T230022_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_20200115T231301_20200115T232316_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_20200115T232758_20200115T234538_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_20200115T234721_20200115T235240_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_20200115T235258_20200115T235458_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_20200115T010630_20200115T010708_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_20200115T031505_20200115T031538_C001	and Backscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH 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_20200115T040539_20200115T040723_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_20200115T050433_20200115T050440_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_20200115T044751_20200115T045801_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_20200115T054613_20200115T054830_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_20200115T192849_20200115T192928_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_20200115T194050_20200115T194944_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_20200115T204019_20200115T204056_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

L2 Quality Flags (20Hz PLRM)

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

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

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

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20200115T004523_20200115T004743_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_20200115T010630_20200115T010708_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_20200115T012913_20200115T013125_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_20200115T022421_20200115T022856_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_20200115T032442_20200115T032554_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_20200115T032645_20200115T033009_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_20200115T035546_20200115T035818_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_20200115T053430_20200115T053601_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_20200115T054437_20200115T054613_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_20200115T062221_20200115T062355_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_20200115T065453_20200115T065827_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_20200115T081244_20200115T081308_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_20200115T081539_20200115T081652_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_20200115T083233_20200115T083403_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_20200115T100925_20200115T101021_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_20200115T103452_20200115T103732_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_20200115T103932_20200115T104503_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_20200115T191821_20200115T192005_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_20200115T192928_20200115T193111_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_20200115T203854_20200115T204019_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_20200115T210036_20200115T210356_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_20200115T225704_20200115T225743_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_20200115T230022_20200115T230132_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_20200115T234541_20200115T234721_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_20200115T010708_20200115T010906_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_20200115T015732_20200115T020046_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_20200115T030948_20200115T031505_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_20200115T044751_20200115T045801_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_20200115T062543_20200115T063317_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_20200115T063343_20200115T063508_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_20200115T063538_20200115T063839_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_20200115T064233_20200115T064432_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_20200115T080324_20200115T081121_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_20200115T081701_20200115T082012_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_20200115T082222_20200115T082550_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_20200115T094322_20200115T094553_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_20200115T094553_20200115T100504_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_20200115T102800_20200115T103452_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_20200115T111539_20200115T112031_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_20200115T112535_20200115T112830_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_20200115T184806_20200115T185106_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_20200115T192849_20200115T192928_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_20200115T194050_20200115T194944_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_20200115T211411_20200115T212102_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_20200115T212222_20200115T213006_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_20200115T221905_20200115T221950_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_20200115T230132_20200115T230845_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_20200115T231054_20200115T231101_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_20200115T231124_20200115T231301_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_20200115T235650_20200116T000325_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	
L2 Quality Flags (1 Hz & 1Hz PLRM)			
Currently, there are several common flags raised in the Level 2 products,	which are summarised below.		
> 1Hz and 1Hz Ocean SSHA Quality Flags: These flags are currently set for	products over sea ice, which is to be expected.		
Number of products with errors: 140			
5.8 L2 Ocean Retracking Quality Check			
L2 Retracking Flags (20Hz)			
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz meas	urement record. The bit value of this flag indica	ates any problems when set.	
Ocean Retracking Quality Flag: This flag is currently set for products over lar	nd 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: 39			
L2 Retracking Flags (20Hz, PLRM)			
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz PLR	I measurement record. The bit value of this fla	g indicates any problems when set.	
Ocean Retracking Quality Flag (PLRM): This flag is currently set for products	OPR and IOPN products over sea ice, but the	is is to be expected.	
Number of products with errors: 106			
6. IOP L2	2 Pole-to-Pole Data Quality	Check	
6.1 P2P Product Format Check			
	normalita and to the state of t		
Each product, retrieved and unpacked from the science server, is checked to e Number of products with errors: 0	nsure it consists of doth an XIVIL header file (.r	and a netCDF product tile (.nc).	
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 a	nd/or errors raised by the ground-segment processing chain.	
Number of products with errors: 0	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 va	lidity 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, 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.

Number of products with errors:

Test Failed	Description
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
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
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
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1), the Mean Dynamic
Topography (1), Total Geocentric Ocean	Topography (solution 1), the Total Geocentric Ocean Tide (solution 1:
Tide (GOT)	GOT) for one or more records
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic
Topography (1)	Topography height (solution 1)
	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surface (1), Mean Dynamic

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:
0

6.6 P2P Measurement Quality Flag Check

P2P Quality Flags (20Hz)

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

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

P2P Quality Flags (20Hz PLRM)	
Since the P2P Quality Flags are copied di	rectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.
Number of products with errors:	18
P2P Quality Flags (1 Hz & 1Hz PL	.RM)
Since the P2P Quality Flags are copied di	rectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.
Number of products with errors:	22
6.8 P2P Ocean Retracking Qu	ality Check
P2P Retracking Flags (20Hz)	
Cryosat P2P data includes an ocean retrack	ng 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): T	nis flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.
Number of products with errors:	19
P2P Retracking Flags PLRM	
CryoSat L2 data includes an ocean retrackin	g 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): T	nis flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.
Number of products with errors:	22