

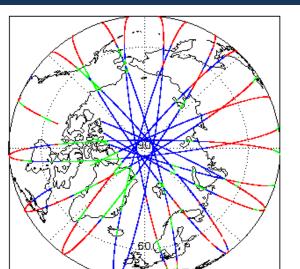
QA4EO Daily Report for IOP data:

<u>20/12/2020</u>

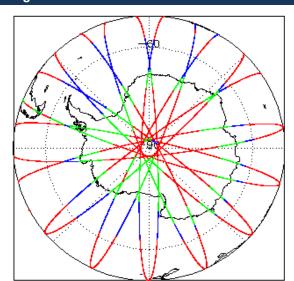
Panart Braduction	08-Jan-2021	Check	L1 & L2	P2P
Report Production:	08-Jan-2021	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	Cruce Cat Occore Drassass	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Useu.	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
		QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.1 and 7.2

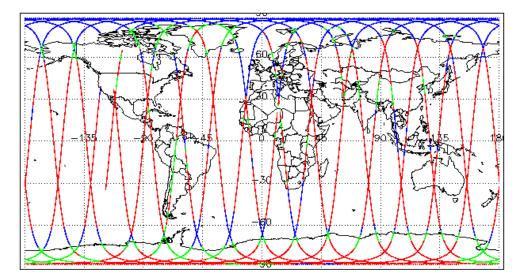
1. Overview

Mission / Instrument News	
19-Dec-2020	None
20-Dec-2020	None
21-Dec-2020	Nothing planned













3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

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

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

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

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 ar	nd SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain.		
	1B IOPR and IOPN products bec	ause the I1b_processing_quality_hr field is not correctly configured in the OSAR and		
OSARIn chains. A modification is required in the next release.				
Number of products with errors: 0				
4.3 L1B Auxilary Data File Usage Check				
Each product is checked for missing Data Set Descriptors with respect to a p	re-determined baseline and also	to check the validity of Auxiliary Data Files is correct.		
Number of products with errors: 0				
4.4 L1B Auxiliary Correction Error Check				
CryoSat L1B data includes a correction error flag for each measurement reco	ord. The bit value of this flag indic	ates any problems when set		
Number of products with errors: 0				
4.5 L1B Measurement Confidence Data Check				
CryoSat L1B data includes a measurement confidence flag for each measure				
Attitude Correction Missing: This flag is currently set in error for IOPR prod	lucts due to a configuration issue	This is being investigated and will be updated in the next SW update.		
Number of products with errors: 0				
4.6 L1B Waveform Group Data Check				
CryoSat L1B data includes a waveform data flag for each measurement reco	rd. The bit value of this flag indica	ates any problems when set.		
Loss of Echo Flag: This flag is currently set for products over land, but this i	s to be expected.			
Number of products with errors: 13				
Product	Test Failed	Description		
CS_OFFL_SIR_IOPM1B_20201220T014922_20201220T015007_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T032606_20201220T032733_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T050914_20201220T051236_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T064522_20201220T064658_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T065037_20201220T065134_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T082835_20201220T083049_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T200853_20201220T201004_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPN1B_20201220T232151_20201220T232207_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201220T014203_20201220T014407_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201220T060840_20201220T061444_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201220T082216_20201220T082435_C001 CS_OFFL_SIR_IOPR1B_20201220T114732_20201220T115726_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_IOPR1B_20201220114132_20201220110120_0001	Loss of Echo	The tracking echo is missing for one or more records		
		····		
5. 10	OP Level 2 Data Qu	ality 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 XM	L 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 ar	nd SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain.		
Number of products with errors: 0				
5.3 L2 Auxiliary Data File Usage Check				
Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.				
5.4 L2 Auxiliary Correction Error Check				
For all products, the auxiliary corrections within the Geophysical Group are cl	necked for the default error value	(32767).		
Currently, there are some common auxiliary correction errors raised in followed by a table highlighting any additional issues which may arise f		expected due to surface type. All common flags are summarised in the list below,		
> ECMWF Meteo Corrections: Currently the following corrections are not computed over CONTINENTAL ICE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products are not reported in the table below.				
> Sea State Bias & Sea State Bias PLRM: The error value is currently set for	or products over sea ice, but this	is to be expected.		
> Mean Sea Surface: The error value is currently set for products over land a	and sea ice, but this is to be expe	acted.		
> 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: 59				

Product

SPRI BR (SPR 2 20012200302 0020000000000000000000000	CS_OFFL_SIR_IOPM_2_20201220T070450_20201220T071845_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
Bit	CS_OFFL_SIR_IOPM_2_20201220T080840_20201220T082058_C001	Mean Dynamic Topography (1)	
CCUT CALL COUNT CALL New Count Call </td <td>CS_OFFL_SIR_IOPM_2_20201220T152133_20201220T152205_C001</td> <td>Mean Dynamic Topography (1)</td> <td>, , , , , ,</td>	CS_OFFL_SIR_IOPM_2_20201220T152133_20201220T152205_C001	Mean Dynamic Topography (1)	, , , , , ,
Sci. OPPL Sci. OPPL 2. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CS_OFFL_SIR_IOPN_2_20201220T001335_20201220T001358_C001	Mean Dynamic Topography (1)	
CPL_DPL_QRU_CAUCUUMDURING_UNDURING UNDURING UNDURING_	CS_OFFL_SIR_IOPN_2_20201220T010311_20201220T010535_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	Topography (solution 1) and tidal corrections for one or more records
Description Transparation Transparation Transparation CB, OPTL, SIR, OPTL, 2, 20012001104004, 2001104104000, 2001104104000 March Seg System (1 Mean Data) Transparation (1 Mean Data) CB, OPTL, SIR, OPTL, 2, 20012001104004, 2001201104000, 20011 March Seg System (1 Mean Data) Transparation (1 Mean Data) CB, OPTL, SIR, OPTL, 2, 20012001106004, 2001201104000, 20011 Mean Seg System (1 Mean Data) Transparation (1 Mean Data) CB, OPTL, SIR, OPTL, 2, 20012001106004, 2001201104000, 20011 Mean Seg System (1 Mean Data) Transparation (1 Mean Data) CB, OPTL, SIR, OPTL, 2, 20012001106004, 2001201104000, 20011 Mean Seg System (1 Mean Data) Transparation (2 Mean Data) Transparation (2 Mean Data) CB, OPTL, SIR, OPTL, 2, 20012001106004, 2001201104040, 20011 Mean Seg System (1 Mean Data) Transparation (2 Mean Data) Transparatin (2 Mean Data)	CS_OFFL_SIR_IOPN_2_20201220T024131_20201220T024443_C001		
City Control Traggraphy (1) Traggraphy (1)	CS_OFFL_SIR_IOPN_2_20201220T041949_20201220T042330_C001		
CE_USH_LEW_UP_100012201020014_000122010201020112000001_10000 The prograph (u) food lacecome base the prograph (u) food lacecome base to prograph (u) food lacecome base toprograph (u) food lacecome base to prograph (u) fo	CS_OFFL_SIR_IOPN_2_20201220T042900_20201220T043024_C001	Topography (1)	
Construction Construction Torography (1) Torography (1) Torography (1) City, GPL, Sint, JOPA, 2, 2001 2201703607, 2003 12201703740, 2001 Mean Dynamic Torography (1) There is an error with the MSa hight (1) kinton 1) and the Mean Dynamic Torography Height (exclusion 1) City, GPL, Sint, JOPA, 2, 2001 122017073664, 2001 22017037400, 2001 Mean Dynamic Torography (1) There is an error with the MSa hight (exclusion 1) and the Mean Dynamic Torography Height (exclusion 1) City, GPL, Sint, JOPA, 2, 2001 122017073664, 2001 22017037400, 2001 Mean Dynamic Torography (1) There is an error with the MSa hight (exclusion 1) and the Mean Dynamic Torography (1) City, GPL, Sint, JOPA, 2, 2001 12201708788, 2001 12201708789, 2001 12201708789, 2001 12201708799, 2001 12201718994, 2001 12201718994, 2001 12001 10001 10001 10001 10001 100000 100000 10000 10000 10000 10000 100000 10000 10000 10000 100	CS_OFFL_SIR_IOPN_2_20201220T050914_20201220T051236_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean	
Control Service Service Service Topography (section 1) Topography (section 1) CB OFTL_SIR_IOPN_2.20201201707358_0201220173746_0001 Mean Dynamic Topography (section 1) and the Mean Dynamic Topography height for one or use the MEAN Dynamic Topography height for one or use the MEAN Dynamic Topography height for one or use the MEAN Dynamic Topography height for one or topography (section 1) and the Mean Dynamic Topography height for one or topography (section 1) and the Mean Dynamic Topography height for one or topography (section 1) and the Mean Dynamic Topography height for one or topography (section 1) and the Mean Dynamic Topography (section 1) and the Mean Dyna	CS_OFFL_SIR_IOPN_2_20201220T060657_20201220T060839_C001		
Co. OFFL_SIR_UORI_2_0001201075468_0202120107448_02001 Mean Bas Sufface (1). Mean Dynamic Treesade Mean Mean Dy	CS_OFFL_SIR_IOPN_2_20201220T065037_20201220T065134_C001		
Corr L, Sh., DML 2, 2001/201708/385, 2001/20171646, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 20001/20170466, 2001/20170466, 2001/20170466, 2001/20170466, 2001/2	CS_OFFL_SIR_IOPN_2_20201220T073558_20201220T073740_C001	Mean Dynamic Topography (1)	
CB_OFFL_SIR_JOPN_2_20201220708353_20201220708354_0001 Topography (u) Tail Geneemic Ocean Topography (u)	CS_OFFL_SIR_IOPN_2_20201220T074448_20201220T074703_C001		
Column Structure Instruments Exclusion Instruments	CS_OFFL_SIR_IOPN_2_20201220T082835_20201220T083049_C001	Topography (1), Total Geocentric Ocean	Topography (solution 1), the Total Geocentric Ocean Tide (solution 1:
Concerne_Set_OPPL_Set_OPPL_2_202012201100456_20201220110046_2001 Topography (1) The resist an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202012201110455_202012201110646_2001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202012201110455_202012201110646_2001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_20201220115457_20201220115646_2001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202012201173404_202012201173664_2001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202012201173604_202012201173664_2001 Mean Sea Surface (1), Mean Dynamic Topography Height (colution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_20201220110104_2001 Mean Sea Surface (1), Mean Dynamic Topography Height (colution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_JOPN_2_202012201201201201201201004_2001 Mean Sea Surface (1), Mean Dynamic Topography Height	CS_OFFL_SIR_IOPN_2_20201220T091506_20201220T091656_C001	Mean Dynamic Topography (1)	
CB_DFF_SIR_UOPK_2_20001220T10456_20201220T10646_C001 Topography (1) Topography (1) Topography (1) CS_DFFL_SIR_UOPK_2_20201220T10456_20201220T10646_C001 Mean See Sufface (1), Mean Dynamic There is an error with the MSS height (solution 1) CS_OFFL_SIR_UOPK_2_20201220T151457_20201220T151601_C001 Total Geocentric Ocean Tide (GOT) There is an error with the MSS height (solution 1) CS_OFFL_SIR_UOPK_2_20201220T151457_20201220T156448_C001 Total Geocentric Ocean Tide (GOT) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) CS_OFFL_SIR_UOPK_2_20201220T173604_20201220T1736548_C001 Mean Sea Sufface (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_UOPK_2_20201220T173001_20201220T174428_C001 Mean Sea Sufface (1), Mean Dynamic Topography height (solution 1) and the 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_UOPK_2_20201220T173001_20201220T174428_C001 Mean Sea Sufface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_UOPK_2_20201220T201204_20T200503_20201220T220T201004_C001 Mean Sea Sufface (1), Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_UOPK_2_20201220T2105042_20201220T2205203_2020	CS_OFFL_SIR_IOPN_2_20201220T092342_20201220T092828_C001		
CS_OFF_SIR_UPH_2_200012201110682_000112001110686_0001 Topography (1) Topography height (edution 1) CS_OFFE_SIR_UPH_2_202012201151457_202012201151448_0001 Total Geocentric Ocean Tide (GOT) There is an error with the MSS height (edution 1) and the Mean Dynamic CS_OFFE_SIR_UPH_2_202012201155422_00212201155448_0001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (edution 1) and the Mean Dynamic CS_OFFE_SIR_UPH_2_202012201173604_000112001173654_0001 Mean Sea Surface (1), Mean Dynamic Topography height (edution 1) CS_OFFE_SIR_UPH_2_202012201173604_202012201173654_0001 Mean Sea Surface (1), Mean Dynamic Topography height (edution 1) and the Mean Dynamic CS_OFFE_SIR_UPH_2_202012201173604_202012201174426_0001 Mean Sea Surface (1), Mean Dynamic Topography height (edution 1) and the Mean Dynamic CS_OFFE_SIR_UPH_2_20201220119137_202012201191612_0001 Mean Sea Surface (1), Mean Dynamic Topography height (edution 1) CS_OFFE_SIR_UPH_2_2020122012001200120012001200104_0001 Mean Sea Surface (1), Mean Dynamic Topography height (edution 1) CS_OFFE_SIR_UPH_2_2020122012012012012012001200120012001	CS_OFFL_SIR_IOPN_2_20201220T100517_20201220T100914_C001		
CS_OFFE_SIR_IOPE_2_2021201101101_2_000112011011001_0001 Inder decidatine Cedural Proc (SUT) GOT) for one or more records CS_OFFE_SIR_IOPE_2_202012201153322_20201220115364_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_202012201173404_202012201173664_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_202012201173901_202012201174426_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_202012201173901_202012201191612_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_20201220120120012201201191612_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_202012201200120012201201201004_C001 Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFE_SIR_IOPE_2_2020122012201220120120120120120120120120	CS_OFFL_SIR_IOPN_2_20201220T110455_20201220T110646_C001		
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CS_OFFL_SIR_IOPN_2_20201220T173804_2020120T174826_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20201220T173801_20201220T174426_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T191337_20201220T191612_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T200653_20201220T201004_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T204720_C001 Mean Sas Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T204720_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T205427_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T214813_20201220T215038_C001 Mean Sa Surface (1), Mean Dynamic Topography (a) CS_OFFL_SIR_IOPN_2_20201220T214813_20201220T2152454_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_20201220T224108_20201220T223250_C001 Mean Dynamic Topography (1) <td>CS_OFFL_SIR_IOPN_2_20201220T155322_20201220T155448_C001</td> <td></td> <td></td>	CS_OFFL_SIR_IOPN_2_20201220T155322_20201220T155448_C001		
CS_OFFL_SIR_IOPN_2_20201220T191337_20201220T191612_C001 Topography (1) Topography leight (solution 1) CS_OFFL_SIR_IOPN_2_20201220T200665_20201220T201004_C001 Mean Sea Surface (1), Mean Dynamic Topography leight (solution 1) CS_OFFL_SIR_IOPN_2_20201220T200653_20201220T201004_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_20201220T204546_20201220T204720_C001 Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T204720_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20201220T216566_20201220T205427_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic CS_OFFL_SIR_IOPN_2_20201220T21638_2001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20201220T21638_200120T215254_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the Mean Dynamic Topography height for one or more records CS_OFFL_SIR_IOPN_2_20201220T215046_20201220T215254_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_20201220T223100_20201220T223280_C001 Mean Dynamic Topography (1) There is a	CS_OFFL_SIR_IOPN_2_20201220T173404_20201220T173654_C001		
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CS_OFFL_SIR_IOPN_2_202012201200053_00201220120104_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T204720_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_20201220T205050_20201220T205427_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_20201220T214813_20201220T215038_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_20201220T215046_20201220T215254_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_20201220T2215046_20201220T215254_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_20201220T223100_20201220T223250_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_20201220T224108_20201220T224328_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_20201220T224108_20201220T224328_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_20201220T191337_20201220T191612_C001		
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CS_OFFL_SIR_IOPN_2_2020122012000005_202012201220342/_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_20201220T214813_20201220T215046_20201220T215254_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_20201220T223100_20201220T223250_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_20201220T224108_20201220T224328_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_20201220T224108_20201220T224328_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_20201220T232810_20201220T232922_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_20201220T01358_20201220T001918_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_IOPR_2_20201220T01358_20201220T014407_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_20201220T013407_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the Mea	CS_OFFL_SIR_IOPN_2_20201220T204546_20201220T204720_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_IOPN_2_20201220T215046_20201220T215254_C001 Topography (1) There is an error with the Mean Dynamic Topography height for one or more records CS_OFFL_SIR_IOPN_2_20201220T223100_20201220T223250_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_20201220T224108_20201220T224328_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_20201220T224108_20201220T224328_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_20201220T224108_20201220T224328_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_20201220T232810_20201220T232922_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_20201220T01358_20201220T001918_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) CS_OFFL_SIR_IOPR_2_20201220T01358_20201220T01918_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_20201220T01358_20201220T014407_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or more records <td>CS_OFFL_SIR_IOPN_2_20201220T205050_20201220T205427_C001</td> <td>Mean Dynamic Topography (1)</td> <td></td>	CS_OFFL_SIR_IOPN_2_20201220T205050_20201220T205427_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_IOPN_2_2020122012201220122012201220122012201	CS_OFFL_SIR_IOPN_2_20201220T214813_20201220T215038_C001		
CS_OFFL_SIR_IOPN_2_2020122012201220122012201220320001 Inveal Dynamic Topography (1) more records CS_OFFL_SIR_IOPN_2_202012201220122012201220122032810_20201220122032820_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_2020122012201220122012201220201220122	CS_OFFL_SIR_IOPN_2_20201220T215046_20201220T215254_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_IOPN_2_20201220T232810_20201220T232922_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_20201220T232810_20201220T232922_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_20201220T001358_20201220T001918_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height for one or CS_OFFL_SIR_IOPR_2_20201220T0014203_20201220T014407_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or	CS_OFFL_SIR_IOPN_2_20201220T223100_20201220T223250_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_IOPN_2_2020122012201220122012201232922_C001 Integrating	CS_OFFL_SIR_IOPN_2_20201220T224108_20201220T224328_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_IOPR_2_202012201001358_202012201001918_C001 Topography (1) Topography height (solution 1) CS_OFFL_SIR_IOPR_2_202012201014203_202012201014407_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or	CS_OFFL_SIR_IOPN_2_20201220T232810_20201220T232922_C001	Mean Dynamic Topography (1)	
	CS_OFFL_SIR_IOPR_2_20201220T001358_20201220T001918_C001		
	CS_OFFL_SIR_IOPR_2_20201220T014203_20201220T014407_C001	Mean Dynamic Topography (1)	

CS_OFFL_SIR_IOPR_2_20201220T015305_20201220T020102_C001	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)
CS_OFFL_SIR_IOPR_2_20201220T033123_20201220T034037_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_20201220T051236_20201220T052001_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_20201220T065134_20201220T065716_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_20201220T065730_20201220T065855_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_20201220T071846_20201220T072008_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_20201220T083049_20201220T083104_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_20201220T083104_20201220T083738_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_20201220T100201_20201220T100452_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_IOPR_2_20201220T100914_20201220T101434_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_20201220T114732_20201220T115726_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_20201220T132503_20201220T133243_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_20201220T134254_20201220T134400_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_20201220T150342_20201220T151048_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_20201220T151048_20201220T151213_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_20201220T164252_20201220T164947_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_20201220T164947_20201220T165406_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_20201220T165417_20201220T170432_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_20201220T182422_20201220T182841_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_20201220T182841_20201220T182953_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_20201220T200219_20201220T200653_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_20201220T200653_20201220T200853_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_20201220T201636_20201220T201744_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_IOPR_2_20201220T211936_20201220T212245_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_20201220T214201_20201220T214813_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_20201220T232339_20201220T232810_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

82

Number of products with errors:

Product	Test Failed	Description
CS OFFE SIR TOPM 2 202012201000632 202012201000633 CO01		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20201220T003240_20201220T005757_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag CS_OFFL_SIR_IOPM_2_20201220T010535_20201220T011129_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flag CS_OFFL_SIR_IOPM_2_20201220T011535_20201220T011129_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flag CS_OFFL_SIR_IOPM_2_20201220T011358_20201220T013735_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flag	gs have been have been set Quality Flags gs have been
CS_OFFL_SIR_IOPM_2_202012201010535_202012201011129_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPM_2_20201220T011358_20201220T013735_C001 CCS_OFFL_SIR_IOPM_2_20201220T011358_20201220T013735_C001 CCS_OFFL_SIR_IOPM_2_20201220T011358_202001 CCS_OFFL_SIR_IOPM_2_20201220T01355 CCS_OFFL_SIR_IOPM_2_20201220 CCS_OFFL_SIR_IOPM_2_20201220 CCS_OFFL_SIR_IOPM_2_20201220 CCS_OFFL_SIR_IOPM_2_20201220 CCS_OFFL_SIR_IOPM_2_20201220 CCS_OFFL_SIR_IOPM_2_2020 CCS_OFFL_SIR_IOPM_2_2020 CCS_OFFL_SIR_IOPM_2_2020 CCS_OFFL_SIR_IOPM_2_2020 CCS_OFFL_SIR_IOPM_2_2020 CCS_OFFL_SIR_IOPM_2_2020 CCS_	Quality Flags gs have been
CS_OFFL_SIR_IOPM_2_20201220T011358_20201220T013735_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flag	gs have been
	Quality Flags
CS_OFFL_SIR_IOPM_2_20201220T020404_20201220T023751_C001 Ccean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat Set for one or more records. Ccean Altimeter Range and Backscatter Quality Flat Ccean Altimeter Range and Backscatter Ccean Altimeter Range and Backscatter Quality Flat Ccean Altimeter Range and Backscatter Ccean Altimeter Ran	
CS_OFFL_SIR_IOPM_2_20201220T024443_20201220T025001_C001 OCOG Altimeter Range Quality, OCOG for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T025639_20201220T025826_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat the Ocean Altimeter Range and Backscatter Quality flat	
CS_OFFL_SIR_IOPM_2_20201220T032734_20201220T033009_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T034339_20201220T035246_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flat the ocean Al	
CS_OFFL_SIR_IOPM_2_20201220T035532_20201220T041716_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T042453_20201220T042859_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T043351_20201220T044404_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T044552_20201220T045205_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T045343_20201220T045825_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T052022_20201220T052036_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T052300_20201220T055617_C001 Ocean Attimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Attimeter Range and Backscatter Quality Flat Attimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T055834_20201220T060345_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags for one or more records.	ave been set
CS_OFFL_SIR_IOPM_2_20201220T061445_20201220T064513_C001 Ocean Attimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Attimeter Range and Backscatter Quality Flat Attimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T064658_20201220T064937_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality Flags for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T070040_20201220T070115_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality flags for one or more records.	ave been set
CS_OFFL_SIR_IOPM_2_20201220T070450_20201220T071845_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flat Altimeter Range and Backscatter Quality Flat Set for one or more records.	
CS_OFFL_SIR_IOPM_2_20201220T072009_20201220T073529_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flag	
CS_OFFL_SIR_IOPM_2_20201220T073740_20201220T074244_C001 OCOG Altimeter Range Quality, OCOG for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T074323_20201220T074447_C001 OCOG Altimeter Range Quality, OCOG for one or more records.	nave been set
CS_OFFL_SIR_IOPM_2_20201220T075213_20201220T080221_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flag	
CS_OFFL_SIR_IOPM_2_20201220T080840_20201220T082058_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flag	

CS_OFFL_SIR_IOPM_2_20201220T084219_20201220T084227_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_20201220T084311_20201220T085434_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_20201220T085548_20201220T085831_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_20201220T090010_20201220T091425_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_20201220T091656_20201220T092156_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_20201220T092237_20201220T092341_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_20201220T092846_20201220T095217_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_20201220T095335_20201220T100201_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_20201220T103131_20201220T105341_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_20201220T110135_20201220T110455_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_20201220T110758_20201220T113545_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_20201220T115900_20201220T120608_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_20201220T120711_20201220T123252_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_20201220T123523_20201220T124028_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_20201220T124035_20201220T124402_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_20201220T124824_20201220T132128_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_20201220T134751_20201220T135257_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_20201220T140713_20201220T141122_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_20201220T141523_20201220T142101_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_20201220T142741_20201220T150028_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_20201220T153333_20201220T154959_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_20201220T155448_20201220T155957_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_20201220T160618_20201220T164018_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_20201220T170433_20201220T170901_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_20201220T170950_20201220T172726_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_20201220T174611_20201220T181659_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.

0.100000000000000000000000000000000000	CS_0FFL_SIR_IOPM_2_20201220T181721_20201220T181834_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.
CB, FHE, SHE (2001)201110371, 2001 and Backatter Cally, OCED per the COED Allinester Flages and Backatter Cally Flage have bein Allinear Flages and Backatter Cally Flage have been and Cally Flage have been allinear Flages and Backatter	CS_OFFL_SIR_IOPM_2_20201220T183457_20201220T185316_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CSI, DFL, DRL DPL, Z. 2021/2011922, 2021/2011912, 2021 and backets to July, DSL	CS_OFFL_SIR_IOPM_2_20201220T185537_20201220T190751_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
 CS, OHL, SR, IOPAL 2, 2021/2021/191342, 2001/2021/191342, C001 CS, OHL, SR, IOPAL 2, 2021/2021/201343, 2001/2021/191342, C001 COGO Allmeter Range Additional Annual College, C000 CG, OHL, SR, IOPAL 2, 2021/2021/201342, 2001/2021/2023143, C001 COGO Allmeter Range College, C000 CG, OHL, SR, IOPAL 2, 2021/2021/201342, 2001/2021/202345, C001 COGO Allmeter Range College, C000 CG, OHL, SR, IOPAL 2, 2021/2021/2021/202345, C001 CG, OHL, SR, IOPAL 2, 2021/2021/2021/202345, C001 CG, OHL, SR, IOPAL 2, 2021/2021/2021/202345, C001 CGO, Allmeter Range College, C000 CGO, CHIL, SR, IOPAL 2, 20201202712143149, C001 CGO	CS_OFFL_SIR_IOPM_2_20201220T192512_20201220T194031_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Cold Diff: Site (DML 2, 2021/2021/2014), 2021/2021/2014), 2021/2021/20140, 2021/2017/20140, 2021/2021/2021/20140, 2021/2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/2021/20140, 2021/2021/20140, 2021/2021/20140, 2021/2021/20	CS_OFFL_SIR_IOPM_2_20201220T194232_20201220T195154_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CC_DFTL_SR_DOW_2_REDUCT2012010_0000 Bokeceler Quilty Store or more records. CS_OFFL_SR_DOW_2_REDUCT20120100_0000 Doern Attrivet Range, SSHA, SWH The Ocean Attrivet Range, SSHA, SWH CS_OFFL_SR_DOW_2_REDUCT20120100_0000 Doern Attrivet Range, SSHA, SWH The Ocean Attrivet Range, SSHA, SWH CS_OFFL_SR_DOW_2_REDUCT20120104_00000 DOERN Attrivet Range, SSHA, SWH The Ocean Attrivet Range, SSHA, SWH and Deckocater Quilty Flags CS_OFFL_SR_DOW_2_REDUCT20120104_0000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20201220T195620_20201220T195630_C001		
C2_0FFL_SR_UOFM_2_R0201220710145_02001221720146_02001 Image Backasette Quality, COGE Amore Renge and Backasette Quality, COGE C3_0FFL_SR_UOFM_2_R02012207120146_02001220712059_02001 Cocen Attracter Renge SSH, SWH, The COCE Attracter Renge SSH, SWH,	CS_OFFL_SIR_IOPM_2_20201220T201004_20201220T201127_C001		5 5 5
CB: OFFL SIR, JOPM 2. 2020120T201545, 2001120T201545, 2001 DOCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter Quality Flags have been after and the COCG Altimeter Range and Backscatter	CS_OFFL_SIR_IOPM_2_20201220T201405_20201220T201636_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
US_UPH_SH_UPH_SH_UPH_Z_020112011204201201201210215_0001 Backscatter Quality for one or more records. CS_OFFL_SIR_UPH_Z_020112012120427_202012201210215_0001 DOG Attreeter Range on Statuscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_020112017210446_02020122017211939_0001 DOG Attreeter Range on Statuscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_020112017210414_0202122017219419_0001 COG Attreeter Range on Statuscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_0200122017219414_0202122017219419_0001 COG Attreeter Range on Statuscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_0200122017219414_0202122017219419_0001 COG Attreeter Range on Statuscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_0200122017219419_0001 COG Attreeter Range Onally COG Attreeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_020012201720408_0001 COG Attreeter Range Onally COG Rattreeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_020012201720408_02012201720409_0001 COG Attreeter Range Onally COG Rattreeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UPH_Z_0200122017204528_02012201720409_0001 COG Attreeter Range SISH, SVH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR	CS_OFFL_SIR_IOPM_2_20201220T201745_20201220T202915_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Construction Backscatter Quality for one or more records. CS_OFFL_SIR_UOPM_2_20201220721066(_20201201721938_0001 Ocean Altimeter Range, SSHA_SWH The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_20201220721046(_20201220721949_0001 Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range and Backscatter Quality CS_OFFL_SIR_UOPM_2_20201220721217378_20201220722346_0001 Ocean Altimeter Range, SSHA_SWH The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_20201220722357_20201220722346_0001 Ocean Altimeter Range, SSHA_SWH The Ocean Altimeter Range, SSHA_SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_202012207223612_0021220722346_0001 Backscatter Quality The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_202012207223612_00212207230919_0001 Backscatter Quality, OCOG The Ocean Altimeter Range, SSHA_SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_2020122071230912_0001220701530_0001 Ocean Altimeter Range, SSHA_SWH and Backscatter Quality Flags have been at finester Range, SSHA_SWH and Backscatter Quality Flags have been at finester Range, SSHA_SWH and Backscatter Quality Flags have been at finester Range, SSHA_SWH and Backscatter Quality Flags have been Altimeter Range, SSHA_SWH CS	CS_OFFL_SIR_IOPM_2_20201220T204352_20201220T204545_C001		
CS, OFFL_SIR_JOPM_2_2020122017210469_20201220721098_C001 and the COGG Attracter Range and Backscatter Quality Flags have been at for one or more records. CS, OFFL_SIR_JOPM_2_202012207219414_202012207219419_C001 OCCG Attracter Range Quality, OCCG Attracter Range and Backscatter Quality Flags have been at for one or more records. CS_OFFL_SIR_JOPM_2_202012207219738_202012207222946_C001 Ocean Attracter Range Quality, OCCG Attracter Range and Backscatter Quality Flags have been at for one or more records. CS_OFFL_SIR_JOPM_2_202012207224438_20201220722946_C001 Ocean Attracter Range Quality, OCCG Attracter Range and Backscatter Quality Flags have been at for one or more records. CS_OFFL_SIR_JOPM_2_202012207224438_202012207224408_C001 Ocean Attracter Range, SHA, SWH and Backscatter Quality Flags have been at for one or more records. CS_OFFL_SIR_JOPM_2_202012207224438_202012207224408_C001 Ocean Attracter Range, SHA, SWH and Backscatter Quality Flags have been at for one or more records. CS_OFFL_SIR_JOPM_2_202012207224438_202012207230919_C001 Ocean Attracter Range, SHA, SWH and Backscatter Quality Flags have been at factor on or more records. CS_OFFL_SIR_JOPM_2_202012207254382_Q02012207151034_C001 Ocean Attracter Range, SHA, SWH and Backscatter Quality Flags have been at Backscatter Quality. COG Attracter Range, SHA, SWH and Backscatter Quality Flags have been at factor on or more records. CS_OFFL_SIR_JOPN_2_202012207151304_C001 Ocean Attracter Range, SHA, SWH and Backscatter Quality Flags have been at Backscatter Quality. COG Attracter Range, SHA, SWH and Backscatter Quality. Flags have bee	CS_OFFL_SIR_IOPM_2_20201220T205427_20201220T210215_C001		
CB_OFFL_SIR_UOPM_2_202012201215738_2020122012222946_C001 Backscatter Quality For one or more records. CS_OFFL_SIR_UOPM_2_2020122012201220122012201222946_C001 Ocean Attimuter Range and Backscatter Quality COCG The OCGO Attimuter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_UOPM_2_2020122012201220122012201200122012201	CS_OFFL_SIR_IOPM_2_20201220T210456_20201220T211936_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201220T215738_20201220T2224106_0001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Second Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Backscatter Quality, OCOG Altimeter Range, SSHA, SVH and Backscatter Quality, Flags have been Altimeter Range, SSHA, SVH and backscatter Quality, Flags have been Altimeter Range, SSHA, SVH and backscatter Quality, COG Altimeter Range and Backscatter Quality, COG Altimeter Range and Backscatter Quality, Flags have been at for one or more records. CS_OFFL_SIR_IOPR_2_20201220T214513_20201220T254328_CO01 Coean Altimeter Range, SSHA, SVH and Backs	CS_OFFL_SIR_IOPM_2_20201220T213414_20201220T213419_C001	0,000	
CS_OFFE_SIR_IOPM_2_20201220T224436_20201220T230019_C001 Backscatter Quality for one or more records. CS_OFFE_SIR_IOPM_2_20201220T224436_20201220T230019_C001 Altimeter Range SSHA_SWH Altimeter Range and Backscatter Quality The OCean Altimeter Range, SSHA_SWH and Backscatter Quality CS_OFFE_SIR_IOPM_2_20201220T234320_20201221T000757_C001 Ocean Altimeter Range, SSHA_SWH Altimeter Range and Backscatter Quality The OCean Altimeter Range, SSHA_SWH and Backscatter Quality The OCean Altimeter Range and Backscatter Quality <td< td=""><td>CS_OFFL_SIR_IOPM_2_20201220T215736_20201220T222946_C001</td><td>and Backscatter Quality, OCOG</td><td>and the OCOG Altimeter Range and Backscatter Quality Flags have been</td></td<>	CS_OFFL_SIR_IOPM_2_20201220T215736_20201220T222946_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20201220T224436_20201220T230919_C001 and Backscatter Quality, COCG and the OCGG Altimeter Range and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Altimeter Range, and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Backscatter Quality, COCG Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Backscatter Quality,	CS_OFFL_SIR_IOPM_2_20201220T223517_20201220T224108_C001		
CS_OFFL_SIR_IOPM_2_202012207234320_20201221T000757_C001 and Backscatter Quality, COG Allimeter Range and Backscatter Quality Flags have been Allimeter Range and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been Allimeter Range, SSHA, SWH and Backscatter Quality Flags have been St for one or more records. CS_OFFL_SIR_IOPN_2_202012207120120122070212207023229_C001 Ocean Alimeter Range Quality, OCOG Alimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_202012207060345_202012207060351_C001 OCOG Alimeter Range Quality, OCOG Alimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_	CS_OFFL_SIR_IOPM_2_20201220T224436_20201220T230919_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPN_2_20201220T015239_20201220T015304_C001 and Backscatter Quality. OCCG Altimeter Range and Backscatter Quality and Backscatter Quality CS_OFFL_SIR_IOPN_2_20201220T151250_20201220T151304_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality. OCCG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality. OCCG Altimeter Range, SSHA, SWH and Backscatter Quality. OCCG The OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been CS_OFFL_SIR_IOPN_2_20201220T224108_20201220T224328_C001 Ocean Altimeter Range, SSHA, SWH The OCCG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPR_2_20201220T031902_20201220T032229_C001 OCCG Altimeter Range Quality. OCCG The OCCG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPR_2_20201220T06345_20201220T060351_C001 OCCG Altimeter Range Quality. OCCG The OCCG Altimeter Range and Backscatter Quality F	CS_OFFL_SIR_IOPM_2_20201220T234320_20201221T000757_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPN_2_20201220T151250_20201220T151304_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been Altimeter Range and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, Flags have been and the OCOG Altimeter Range, and Backscatter Quality, Flags have been set for one or more records. CS_OFFL_SIR_IOPN_2_20201220T031902_20201220T032229_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_20201220T060345_20201220T060351_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T065134_20201220T065716_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_2020122	CS_OFFL_SIR_IOPN_2_20201220T015239_20201220T015304_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPN_2_20201220T214813_20201220T215038_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality CS_OFFL_SIR_IOPN_2_20201220T224108_20201220T224328_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_IOPR_2_20201220T031902_20201220T032229_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCean Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T031902_20201220T032229_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_20201220T060345_20201220T060351_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_20201220T065134_20201220T065716_C001 OCCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001 OCCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001 OCCOG A	CS_OFFL_SIR_IOPN_2_20201220T151250_20201220T151304_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPN_2_20201220T224108_20201220T224328_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T031902_20201220T032229_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_20201220T060345_20201220T060351_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_20201220T065134_20201220T060351_C001 OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T065134_20201220T065716_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPN_2_20201220T214813_20201220T215038_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPR_2_20201220T060345_20201220T060351_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPR_2_20201220T060345_20201220T060351_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range, and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T065134_20201220T065716_C001 Ocean Altimeter Range, SSHA, SWH 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_20201220T082058_20201220T082208_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Backsc	CS_OFFL_SIR_IOPN_2_20201220T224108_20201220T224328_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPR_2_202012201060345_202012201060331_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPR_2_202012201065134_202012201065716_C001 Ocean Altimeter Range, SSHA, SWH 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_202012201082058_202012201082208_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_202012201082058_202012201082208_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_IOPR_2_20201220T031902_20201220T032229_C001		
CS_OFFL_SIR_IOPR_2_20201220T065134_20201220T065716_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set CS_OFFL_SIR_IOPR_2_20201220T132320_20201220T132324_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set	CS_OFFL_SIR_IOPR_2_20201220T060345_20201220T060351_C001		
CS_OFFL_SIR_IOPR_2_202012201082058_202012201082208_C001 Backscatter Quality for one or more records. CS_OFFL_SIR_IOPR_2_20201220T132320_20201220T132324_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been set	CS_OFFL_SIR_IOPR_2_20201220T065134_20201220T065716_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_IOPR_2_20201220T082058_20201220T082208_C001		
	CS_OFFL_SIR_IOPR_2_20201220T132320_20201220T132324_C001		

CS_OFFL_SIR_IOPR_2_20201220T134254_20201220T134400_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_20201220T205029_20201220T205050_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_IOPR_2_20201220T210402_20201220T210456_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

L2 Quality Flags (20Hz PLRM)

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

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

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

Number of products with errors: 97

Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20201220T010139_20201220T010259_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_20201220T020102_20201220T020212_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_20201220T025001_20201220T025115_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_20201220T032606_20201220T032733_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_20201220T034037_20201220T034100_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_20201220T041949_20201220T042330_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_20201220T042900_20201220T043024_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_20201220T045255_20201220T045343_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_20201220T050651_20201220T050737_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_20201220T050914_20201220T051236_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_20201220T064522_20201220T064658_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_20201220T080221_20201220T080327_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_20201220T080604_20201220T080627_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_20201220T082835_20201220T083049_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_20201220T091506_20201220T091656_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_20201220T095218_20201220T095335_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_20201220T100517_20201220T100914_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_20201220T102411_20201220T102512_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_20201220T105507_20201220T105739_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_20201220T123350_20201220T123523_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_20201220T124403_20201220T124535_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_20201220T142303_20201220T142418_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_20201220T151213_20201220T151233_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_20201220T151457_20201220T151601_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_20201220T153250_20201220T153333_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_20201220T155957_20201220T160304_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_20201220T170901_20201220T170949_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_20201220T173901_20201220T174426_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_20201220T182953_20201220T183419_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_20201220T195155_20201220T195503_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_20201220T200853_20201220T201004_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_20201220T203118_20201220T203720_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_20201220T203752_20201220T204235_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_20201220T204546_20201220T204720_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_20201220T205050_20201220T205427_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_20201220T210215_20201220T210401_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_20201220T212850_20201220T213226_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_20201220T214813_20201220T215038_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_20201220T215046_20201220T215254_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_20201220T215332_20201220T215357_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_20201220T224108_20201220T224328_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_20201220T230920_20201220T231255_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_20201220T233318_20201220T233441_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_20201220T000949_20201220T001059_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_20201220T001158_20201220T001335_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_20201220T001358_20201220T001918_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_20201220T005757_20201220T010139_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_20201220T014203_20201220T014407_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_20201220T015305_20201220T020102_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_20201220T023751_20201220T024131_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_20201220T032423_20201220T032606_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_20201220T033123_20201220T034037_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_20201220T041716_20201220T041949_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_20201220T051236_20201220T052001_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_20201220T060840_20201220T061444_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_20201220T065134_20201220T065716_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_20201220T065730_20201220T065855_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_20201220T070127_20201220T070340_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_20201220T070343_20201220T070421_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_20201220T074703_20201220T075213_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_20201220T080628_20201220T080800_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_20201220T083104_20201220T083738_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_20201220T092829_20201220T092846_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_20201220T100201_20201220T100452_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_20201220T100914_20201220T101434_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_20201220T114732_20201220T115726_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_20201220T132503_20201220T133243_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_20201220T133609_20201220T133742_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_20201220T134254_20201220T134400_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_20201220T141122_20201220T141408_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_20201220T150342_20201220T151048_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_20201220T151603_20201220T151950_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_20201220T152205_20201220T152530_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_20201220T160304_20201220T160618_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_20201220T164018_20201220T164146_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_20201220T164252_20201220T164947_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_20201220T164947_20201220T165406_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_20201220T165417_20201220T170432_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_20201220T172726_20201220T173404_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_20201220T181834_20201220T181949_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_20201220T182231_20201220T182327_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_20201220T182422_20201220T182841_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_20201220T185316_20201220T185416_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_20201220T190751_20201220T191336_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_20201220T200219_20201220T200653_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_20201220T200653_20201220T200853_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_20201220T201636_20201220T201744_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_20201220T210402_20201220T210456_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_20201220T211936_20201220T212245_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_20201220T212248_20201220T212432_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_20201220T212432_20201220T212751_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_20201220T214201_20201220T214813_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_20201220T215039_20201220T215046_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_20201220T215254_20201220T215331_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_20201220T215357_20201220T215612_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_20201220T224329_20201220T224436_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_20201220T232339_20201220T232810_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: 199		
5.8 L2 Ocean Retracking Quality Check		
L2 Retracking Flags (20Hz)		
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz measured	urement record. The bit value of this flag indic	ates any problems when set.
Ocean Retracking Quality Flag: This flag is currently set for products over lan	d 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: 53		
L2 Retracking Flags (20Hz, PLRM)		
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz PLRM		
Ocean Retracking Quality Flag (PLRM): This flag is currently set for products	IOPR and IOPN products over sea ice, but the	is is to be expected.
Number of products with errors: 160		
6. IOP L2	Pole-to-Pole Data Quality	Check
6.1 P2P Product Format Check		
Each product, retrieved and unpacked from the science server, is checked to er	nsure it consists of both an XML header file (.I	HDR) and a NetCDF product file (.nc).
Number of products with errors: 0		
6.2 P2P Product Header Analysis		
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any inconsistencies a	and/or errors raised by the around-seament 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	alidity 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 che	cked for the default error value (32767)	
Currently, there are some common auxiliary correction errors raised in the		to surface type. All common flags are summarised in the list below.
followed by a table highlighting any additional issues which may arise fro		
> ECMWF Meteo Corrections: Currently the following corrections are not com Correction and the U-Wind and V-Wind components of the ECMWF model wind 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	ed.
> Mean Sea Surface: The error value is currently set for products over land and	d sea ice, but this is to be expected.	
> Mean Dynamic Topography: The error value is currently set for products over	er land and sea ice, but this is to be expected	
> Altimetric Wind Speed Error: The error value is currently set for products ov	ver land and sea ice, but this is to be expected	1.
Number of products with errors: 30		
Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20201219T232644_20201220T001620_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T001620_20201220T010558_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201220T010558_20201220T015535_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T015535_20201220T024513_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T024513_20201220T033449_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T033449_20201220T042428_C001	Mean Sea Surface (1), Mean Dynamic Topography (1) 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_IOP_220201220T042428_20201220T051404_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201220T051404_20201220T060342_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T060342_20201220T065318_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T065318_20201220T074257_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T074257_20201220T083233_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20201220T083233_20201220T092211_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)

CS_OFFL_SIR_IOP_220201220T092211_20201220T101148_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201220T101148_20201220T110126_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20201220T110126_20201220T115103_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T115103_20201220T124041_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T124041_20201220T133017_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T133017_20201220T141956_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20201220T141956_20201220T150932_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20201220T150932_20201220T155910_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_220201220T155910_20201220T164847_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Perioc Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), and tidal corrections for one or more records
CS_OFFL_SIR_IOP_220201220T164847_20201220T173825_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T173825_20201220T182801_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T182801_20201220T191739_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20201220T191739_20201220T200716_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T200716_20201220T205654_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_220201220T205654_20201220T214631_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_2_20201220T214631_20201220T223609_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T223609_20201220T232545_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_IOP_220201220T232545_20201221T001524_C002	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1)
6.5 P2P Measurement Confidence Data Check		
CryoSat P2P data includes a measurement confidence flag for each 20-Hz mea	surement record. The bit value of this flag inc	dicates any problems when set.
Number of products with errors: 0	5	

6.6 P2P Measurement Quality F	lg Check	
P2P Quality Flags (20Hz)		
CryoSat P2P data includes Quality Flags for e	h 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.	
Since the P2P Quality Flags are copied dire	ly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.	
Number of products with errors:	29	
P2P Quality Flags (20Hz PLRM)		
Since the P2P Quality Flags are copied dire	ly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.	
Number of products with errors:	29	
P2P Quality Flags (1 Hz & 1Hz PLI	0	
Since the P2P Quality Flags are copied dire	ly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.	
Number of products with errors:	30	
6.8 P2P Ocean Retracking Qua	y Check	
P2P Retracking Flags (20Hz)		
Cryosat P2P data includes an ocean retrackin	uality 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.

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Number of products with errors:

P2P Retracking Flags PLRM

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

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

30

2235

7. IOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_IOPM1B	205	205	3	202	0
SIR_IOPR1B	135	113	0	113	0
SIR_IOPN1B	113	135	0	135	0
SIR_IOPM_2	205	205	160	45	0
SIR_IOPR_2	135	113	44	69	0
SIR_IOPN_2	113	135	48	83	4
SIR_IOP_P2P	29	29	0	26	3

7.1 QCC Errors

Number of QCC	reports with er	rors:	15								
					Total number	of occurrences	of each error				
Product Type	RLOBOPNCDF	RL	RL	RLOBOPNCDF	RL	RL	-	-	-	-	-
SIR_IOPR_2	4	1	4	4	1	4					
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_IOP_2_	3	3	3	3							

Test Description Key:		
Abbreviation	Test name	Details
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7
RL	RangeLongitude_6	Longitude should be between -180E6 and 180E6
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7

7.2 QCC Warnings

Number of QCC reports with warnings

			Total nun	nber of occurrences of e	ach warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC
SIR_IOPM1B	202	0	0	0	0	0	0
SIR_IOPM_2	0	0	35	31	0	38	0
SIR_IOPN1B	108	0	0	0	0	0	0
SIR_IOPN_2	0	0	8	30	5	23	27
SIR_IOPR1B	132	0	0	0	0	0	0
SIR_IOPR_2	0	4	34	59	2	24	25
Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARN	CORPEPOPFDPLRMSINNCI	DIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	31	25	0	0	0	0	22
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	17	0	0	22	0	32	0
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	7	0	53	0	60	0	0
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF

SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	0	7	23	0	4	31
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	25	23	43	53	34	25
SIR_IOPR1B	0	0	0	0	0	0	0
SIR IOPR 2	55	0	3	62	35	12	39

Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_IOPM1B	0	0	1	0	0	0	
SIR_IOPM_2	0	2	1	0	0	0	
SIR_IOPN1B	0	0	1	0	45	2	
SIR_IOPN_2	26	14	0	1	0	0	
SIR_IOPR1B	0	0	0	0	134	5	
SIR_IOPR_2	53	3	0	8	0	0	
-			·	·			
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_IOP_2_	16	29	29	7	29	17	29

Product Type	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_IOP_2_	16	28	25	20	29	18	25
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHLPQWNCDF	-	-	-

Test Description Key:		
Abbreviation	Test name	Details
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees

RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0