

# **QA4EO Daily Report for NOP data:**

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

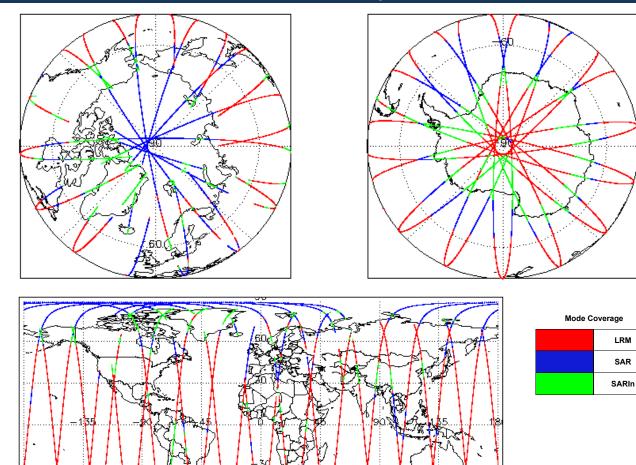
Papart Braduation	04-Jan-2021	Check	L1 & L2
Report Production:	04-Jan-2021	Server check: science-pds.cryosat.esa.int	Nominal
	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Used:		Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data	Product Format Check	Nominal
		Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
		Auxiliary Correction Error Check	See Section 5.4
		Measurement Confidence Data Check	See Section 4.5, 4.6
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2

1. Overview

Mission / Instrument News	
19-Dec-2020	None
20-Dec-2020	None
21 Dec 2020	Nething planned

21-Dec-2020 Nothing planned

2. Global Coverage



# 3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below.			
SIRAL instrument(s) in use:	SIRAL - A		

Star Tracker(s) in use:	Star Tracker 1

# 4. NOP 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).

0

For all products, a series of pre-defined checks are performed on the MPH a L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L DSARIn chains. A modification is required in the next release. Number of products with errors:  4.3 L1B Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with respect to a p Dynamic Atmospheric Correction: The DAC is missing in all products becc 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	1B IOPR and IOPN products beca pre-determined baseline and also t	use the I1b_processing_quality_hr field is not correctly configured in the OSAR and
DSARIn 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         Dynamic Atmospheric Correction: The DAC is missing in all products become         Number of products with errors:       0         4.4 L1B Auxiliary Correction Error Check	pre-determined baseline and also t	
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 popular Atmospheric Correction: The DAC is missing in all products because of products with errors:         0         4.4 L1B Auxiliary Correction Error Check		o check the validity of Auxiliary Data Files is correct.
Each product is checked for missing Data Set Descriptors with respect to a p Dynamic Atmospheric Correction: The DAC is missing in all products becau Number of products with errors: 0 4.4 L1B Auxiliary Correction Error Check		c check the validity of Auxiliarv Data Files is correct.
Each product is checked for missing Data Set Descriptors with respect to a product is checked for missing Data Set Descriptors with respect to a product Atmospheric Correction: The DAC is missing in all products because of products with errors:           0           4.4 L1B Auxiliary Correction Error Check		o check the validity of Auxiliary Data Files is correct.
Dynamic Atmospheric Correction: The DAC is missing in all products becauter         Number of products with errors:       0         4.4 L1B Auxiliary Correction Error Check		
4.4 L1B Auxiliary Correction Error Check		e not available in time for processing. This known and expected behaviour.
	ord. The bit value of this flag indica	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	ement record. The bit value of this	flag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for NOPR p		• • • •
Number of products with errors: 0		
6   18 Wayeform Group Data Check		
4.6 L1B Waveform Group Data Check	nd. The bit value of this flow in "	tee on u problems when set
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag: This flag is currently set for products over land, but this loss of Echo Flag.	-	tes any problems when set.
lumber of products with errors: 11		
roduct	Test Failed	Description
S_OFFL_SIR_NOPM1B_20201220T014922_20201220T015007_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T032606_20201220T032733_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T064522_20201220T064658_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T065037_20201220T065134_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T082835_20201220T083049_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T200853_20201220T201004_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPN1B_20201220T232151_20201220T232207_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPR1B_20201220T014203_20201220T014407_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_NOPR1B_20201220T060840_20201220T061444_C001 S_OFFL_SIR_NOPR1B_20201220T082216_20201220T082435_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_NOPR1B_20201220T124535_20201220T124824_C001	Loss of Echo	The tracking echo is missing for one or more records
5. N	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	o ensure it consists of both an XML	header file (.HDR) and a binary product file (.DBL).
lumber of products with errors: 0		
5.2 L2 Product Header Analysis		
or all products, a series of pre-defined checks are performed on the MPH a	nd SPH in order to identify any inc	consistencies and/or errors raised by the ground-segment processing chain.
lumber 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 p	pre-determined baseline and also t	o check the validity of Auxiliary Data Files is correct.
Vind Model File Usage: This file is currently not included in all L2 products.		
lumber of products with errors: 0		
5.4 L2 Auxiliary Correction Error Check		
or all products, the auxiliary corrections within the Geophysical Group are c	hecked for the default error value	(32767).
currently, there are some common auxiliary correction errors raised in ollowed by a table highlighting any additional issues which may arise t		expected due to surface type. All common flags are summarised in the list belo
		: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric aly (CRYO-COP-3) and will be resolved in a future IPF update.
correction and the U-Wind and V-Wind components of the ECMWF model w		· · ·
Correction and the U-Wind and V-Wind components of the ECMWF model w • Mean Sea Surface: The error value is currently set for products over land	and sea ice, but this is to be expe	sted.
Mean Sea Surface: The error value is currently set for products over land	over land and sea ice, but this is t	o be expected.

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20201220T070450_20201220T071845_C001	Mean Dynamic Lopodraphy (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPM_2_20201220T080840_20201220T082058_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

NUMBERRestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122011033 000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122011034 000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122010104000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122010104000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122010104000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 202122010104000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 2021220101040000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 2021220101040000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB11 2021220101040000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB12 202101040000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB12 2021010400000RestanceRestanceRestanceCPUT BELOWS 2.0002CHTMB12 2021010400000000000000000000000000000	CS_OFFL_SIR_NOPM_2_20201220T152133_20201220T152205_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
Bit Appendix Description         Trappendix Description         Description <thdescripin <="" th="">         Description         <thd< td=""><td>CS_OFFL_SIR_NOPN_2_20201220T001335_20201220T001358_C001</td><td>Mean Dynamic Topography (1)</td><td></td></thd<></thdescripin>	CS_OFFL_SIR_NOPN_2_20201220T001335_20201220T001358_C001	Mean Dynamic Topography (1)	
Construction         Encounty of the construction of t	CS_OFFL_SIR_NOPN_2_20201220T010311_20201220T010535_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	
Columna         Columna <t< td=""><td>CS_OFFL_SIR_NOPN_2_20201220T024131_20201220T024443_C001</td><td></td><td></td></t<>	CS_OFFL_SIR_NOPN_2_20201220T024131_20201220T024443_C001		
Construction         Transport (1)         Transport (1)         Transport (1)           Construction         Mach Dynamic (1) (Mach Dynamic (1)) (Mach Dyna	CS_OFFL_SIR_NOPN_2_20201220T041949_20201220T042330_C001		
CPL_DRL_NOPL_2.2021/221703014_2001221705100_0100       CPL_SRL_NOPL_2.2021/221705100_1000117_10001201         CRL_DPL_SRL_NOPL_2.2021/22170500157_202012217050016_01001       Mark SrL_SRL_NOPL_2.2021/22170500157_202012217050016_01001         CRL_DPL_SRL_NOPL_2.202012217050016_020012770501_000010       Mark SrL_SRL_NOPL_2.202012217050016_01001010         CRL_DPL_SRL_NOPL_2.202012217050016_0200127070501_000010       Mark SrL_SRL_NOPL_2.20201220705016_0200127070501_000010         CRL_DPL_SRL_NOPL_2.20201220705016_0200127070501_000010       Mark SrL_SRL_NOPL_2.20201220705016_0200127070501_000010         CRL_DPL_SRL_NOPL_2.20201220705016_0200127070501_000010       Mark SrL_SRL_NOPL_2.20201220705016_0200127070501_000010         CRL_DPL_SRL_NOPL_2.20201220705016_0200127070501_000010       Mark SrL_SRL_NOPL_2.20201220705016_0200127070501_000010         CRL_DPL_SRL_NOPL_2.20201220705160_0200127070501_0200127070501_000010       Mark SrL_SRL_NOPL_2.202012207010001_000010         CRL_DPL_SRL_NOPL_2.20201220705160_0200127070501_020012700000_0000       Mark SrL_SRL_NOPL_2.202012207100001_0100000_0000         CRL_DPL_SRL_NOPL_2.202012207105001_02001220705000_0000       Mark SrL_SRL_NOPL_2.202012207100000_0000         CRL_DPL_SRL_NOPL_2.202012207105001_020012207100000_0001       Mark SrL_SRL_NOPL_2.202012207100000_0000         CRL_DPL_SRL_NOPL_2.202012207100000_0001       Mark SrL_SRL_NOPL_2.202012207100000_0001         CRL_DPL_SRL_NOPL_2.202012207100000_0001       Mark SrL_SRL_NOPL_2.202012207100000_0001         CRL_DPL_SRL_NOPL_2.202012207100000_0	CS_OFFL_SIR_NOPN_2_20201220T042900_20201220T043024_C001		
CE:         CE: <td>CS_OFFL_SIR_NOPN_2_20201220T050914_20201220T051034_C001</td> <td>Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-</td> <td>Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and</td>	CS_OFFL_SIR_NOPN_2_20201220T050914_20201220T051034_C001	Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-	Total Geocentric Ocean Tide (solution 1: GOT and solution 2: FES) and
Call, Der, Der, Der, Der, Der, Der, Der, Der	CS_OFFL_SIR_NOPN_2_20201220T060657_20201220T060839_C001		
Corp. Engl. NorM, 2, 2001/2007/04/08, 2001/2007/04/08, COR1         Mark Instance (RESING) (Mark Dynamic Traggargety (I)         memory within the MSD headpit (calutor) (I) and the MsD memory Traggargety (I)           C3, OFFL, SIR, NOPM, 2, 2001/2007/04/08, COR1         Mark Instance (RESING) (Mark Dynamic Traggargety (I)         There is an any within the MSD headpit (calutor) (I) and the MsD memory Traggargety (I)           C3, OFFL, SIR, NOPM, 2, 2001/2007/02/016, COR1         Mark Instance (RESING) (Mark Dynamic Traggargety (I)         There is an any within the MSD headpit (calutor) I) and the MsD memory Instance (RESING) (Mark Dynamic Traggargety (I)           C3, OFFL, SIR, NOPM, 2, 2001/2007/02/012, 2001/2007/02/014, COR1         Mark Instance (RESING) (Mark Dynamic Traggargety (I)         There is an any within the MSD headpit (calutor) I) and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit (calutor) I and the MsD headpit (Calutor) I and the MsD headpit	CS_OFFL_SIR_NOPN_2_20201220T065037_20201220T065134_C001		
CPL_SER_NOP_2_00010201000000_0000100000_0001         Topography (1)         Topography (1)         Topography (1)           CB_OFFL_SER_NOPN_2_0001201000000_0001201000000_0001         Mem Ds offset (1). Mem Dynamic Topography (1) Total decomption (2)         Total decomption (2)           CB_OFFL_SER_NOPN_2_000120100000_0001201000000_00011201000160_0001         Mem Ds offset (1). Mem Dynamic Topography (1)         There is an error with the MAan Dynamic Topography (1)           CB_OFFL_SER_NOPN_2_0001201100010_0001         Mem Ds offset (1). Mem Dynamic Topography (1)         There is an error with the MAan Dynamic Topography high (1) for the or none incode to the maximum offset (1). Mem Dynamic Topography (1)           CB_OFFL_SER_NOPN_2_0001201110001_0001         Total decomption (1). Mem Dynamic Topography (1)         <	CS_OFFL_SIR_NOPN_2_20201220T073558_20201220T073740_C001	Mean Dynamic Topography (1)	
CB, OFT, SR, NOPK 2, 2001220768358, 2001220708349, C001       Topography (1) Table State Construction Constr	CS_OFFL_SIR_NOPN_2_20201220T074448_20201220T074703_C001		
CB_OFFL_SR_NOPN_2_202012207091586_20201207091686_0001         New Dynamic Topography (1)         There is an error with the New Dynamic Topography Neght Control or or nor records.           CB_OFFL_SR_NOPN_2_202012207109242_00012207109248_0001         Mean San Surface (1), Mean Dynamic Topography Neght Control is Control in Contro in Contro in Control in Control in Control in Control in Control	CS_OFFL_SIR_NOPN_2_20201220T082835_20201220T083049_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Corport         Topography (n)         Topography (n)         Topography (n)         Topography (n)           Cis_OFFL_SIR_NOPN_2_20201220110041_C001         Man Sas Sufface (1), Man Dynamic         Topography might (solution 1) for one or more records           Cis_OFFL_SIR_NOPN_2_20201220110455_20201220110646_C001         Man Sas Sufface (1), Man Dynamic         There is an error with the MSS height (solution 1) is one or more records           Cis_OFFL_SIR_NOPN_2_20201220115457_20201220115640_C001         Total Genomic Decam Tatle (GOT)         There is an error with the MSS height (solution 1) is one or more records           Cis_OFFL_SIR_NOPN_2_20201220115642_20201220115644_C001         Man Sas Sufface (1), Man Dynamic         There is an error with the MSS height (solution 1) is one or more records           Cis_OFFL_SIR_NOPN_2_20201220115642_20201220115644_C001         Man Sas Sufface (1), Man Dynamic         There is an error with the MSS height (solution 1) is one or more records           Cis_OFFL_SIR_NOPN_2_20201220115646_202012201176464_C001         Man Sas Sufface (1), Man Dynamic         There is an error with the MSS height (solution 1) is one or more records           Cis_OFFL_SIR_NOPN_2_202012201176464_202012201176464_C001         Man Sas Sufface (1), Man Dynamic         Theories in an error with the MSS height (solution 1) and the Man Dynamic           Cis_OFFL_SIR_NOPN_2_202012201176464_202012201176464_202012201776464_202012201776464_202012201776464_202012201776464_202012201776464_202012201776464_202012201776464_20201220176464         There is an error with the MSS height (solution 1) and the Man D	CS_OFFL_SIR_NOPN_2_20201220T091506_20201220T091656_C001		There is an error with the Mean Dynamic Topography height for one or
Confert         Service         Topography (s)         Topography (s)         Topography (s)           C6         OFFL_SIR_NOPN_2_202012201110456_02012201110466_001         Main Sea Sufface (1), Main Dynamic Topography (s)         There is an entry with the MSB Deplication (1) and the Main Dynamic Topography (s)           C8_OFFL_SIR_NOPN_2_202012201151801_001         Total Geocentric Ocean Tide (C01)         There is an entry with the MSB Deplication (1) and the Main Dynamic Topography Maght (solution 1) for one or more records           C8_OFFL_SIR_NOPN_2_20201220T104582_20201220T101422001         Main Sea Surface (1) Main Dynamic Topography Maght (solution 1) for one or more records           C8	CS_OFFL_SIR_NOPN_2_20201220T092342_20201220T092828_C001		
Column Stress         Column Stress         Topography (1)         Topography (1)         Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T15457_20201220T15601_0001         Total Geocentric Ocean Tide (GOT)         Total Geocentric Ocean Tide height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T155522_20201220T155448_0001         Mean Ses Sufface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T155522_20201220T173654_0001         Mean Ses Sufface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T173644_0001220T173654_0001         Mean Ses Sufface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T173691_20201220T173654_0001         Mean Ses Sufface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T173692_0001         Mean Ses Sufface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_20201220T2015305_0201220T10104_C001         Mean Ses Sufface (1) Mean Dynamic Topography height (colution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201220T204548_02001220T204720_0001         Mean Ses Sufface (1) Mean Dynamic Topogra	CS_OFFL_SIR_NOPN_2_20201220T100517_20201220T100914_C001		
CS_PFE_SIR_NOPM_2_000120115165_000120115160_00000       Total Ideocombo Code Intel (SUT)       GOT) for one or more records         CS_OFFE_SIR_NOPM_2_00012201155352_0001220115546_0001       Mean Sea Suface (1), Mean Dynamic Topography high (calution 1) and the	CS_OFFL_SIR_NOPN_2_20201220T110455_20201220T110646_C001		
CS_OFFL_SIR_NOPN_2_20201220118352_20201200118352_20201200118352_20201200118352_202012201165957_202012201175954_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_202012201173901_202012201174265_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_202012201182265_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_202012201182265_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_202012201191327_202012201191612_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_202012201200120053_202012201201204_C001         Mean Sea Surface (1), Mean Dynamic         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_20201220122012005205_2020120072042720_C001         Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic           CS_OFFL_SI	CS_OFFL_SIR_NOPN_2_20201220T151457_20201220T151601_C001	Total Geocentric Ocean Tide (GOT)	
CS_OFFL_SIR_NOPN_2_202012201105967_20201220110034_C001         Topography (1), Total Geocentric Ocean Tate (CFL), Non-Equilibrium Long Perio Ocean Tate Copography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_NOPN_2_202012201173801_202012201174286_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_NOPN_2_202012201182855_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_NOPN_2_202012201191337_2020122011916325_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_NOPN_2_202012201200120012001201201104_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_NOPN_2_2020122012201200120012001200120012004C201         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) for one or more records           CS_OFFL_SIR_NOPN_2_202012201220120120464_202012201204547_C001         Mean Dynamic Topography (1)         There is an error with the Me	CS_OFFL_SIR_NOPN_2_20201220T155322_20201220T155448_C001		
CS_OFFL_SIR_NOPN_2_202012201174404_202012201174364_0001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202012201173901_20201220117428_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202012201182055_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_20201220119337_202012201191612_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220120120120120120120120120104_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012201201201201201201201201201200_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012201200542_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012201201204546_202012207204542_C0001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_2020122012201205427_C001       Mean Dynamic Topography (1)       There is an error with the Mas Sheight (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_2020122012120120542_C001       Mean Dynamic Topography (1)       There is an error with the Mas Dyn	CS_OFFL_SIR_NOPN_2_20201220T155957_20201220T160304_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	
CS_OFFL_SIR_NOPN_2_20201220T142853_20201220T143255_C001         Topography (1)         Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201220T142853_20201220T143255_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) for one or more records           CS_OFFL_SIR_NOPN_2_20201220T191337_20201220T191612_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201220T200505_20201220T20104_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201220T201204546_20201220T204720_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_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_NOPN_2_20201220T205050_20201220T205427_C001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic           CS_OFFL_SIR_NOPN_2_20201220T214524_C001         Mean Sea Surface (1). Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography height for one or more records           CS_OFFL_SIR_NOPN_2_20201220T215246_C001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topogra	CS_OFFL_SIR_NOPN_2_20201220T173404_20201220T173654_C001		
CS_OFFL_SIR_NOPN_2_20201220T191393_2020120T19163233_0001       Topography (1)       Topography leight (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220T191337_20201220T191612_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_NOPN_2_20201220T20653_20201220T201004_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography leight (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220T20566_20201220T204720_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T20560_20201220T205427_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T21408_20201220T215038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220T215056_20201220T215254_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T22160_20201220T223250_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T224168_20201220T224328_C0001       Mean Dynamic Topography (1)	CS_OFFL_SIR_NOPN_2_20201220T173901_20201220T174426_C001		
CS_OFFL_SIR_NOPN_2_202012201201004_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220120053_202012207201004_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012201201204546_202012207204720_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201220T214813_20201220T215038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T232810_20201220T224328_C001       Mean Dynamic Topography (1)       There is an error with the	CS_OFFL_SIR_NOPN_2_20201220T182953_20201220T183255_C001		
CS_OFFL_SIR_NOPN_2_202012201204546_202012207204720_C001       Mean Dynamic Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_2_20201220T204546_20201220T205427_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T214813_20201220T215038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) or one or more records         CS_OFFL_SIR_NOPN_2_20201220T215046_20201220T215234_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_2_20201220T20120T20120T224328_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T01358_20201220T024328_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_N	CS_OFFL_SIR_NOPN_2_20201220T191337_20201220T191612_C001		
CS_OFFL_SIR_NOPN_2_20201220T205050_20201220T205427_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_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_NOPN_2_20201220T214813_20201220T215038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_2_20201220T223100_20201220T223280_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T2232810_20201220T223282_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20201220T0120T232810_20201220T01918_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_NOPR_2_20201220T014203_20201220T014407_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the Mean Dynamic Topography height for one or more records <td>CS_OFFL_SIR_NOPN_2_20201220T200853_20201220T201004_C001</td> <td></td> <td></td>	CS_OFFL_SIR_NOPN_2_20201220T200853_20201220T201004_C001		
CS_OFFL_SIR_NOPN_2_202012201200000_200122012003427_C001       Mean bynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20201220T214813_20201220T215038_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T232810_20201220T23282_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_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_NOPR_2_20201220T01358_20201220T01918_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topograph	CS_OFFL_SIR_NOPN_2_20201220T204546_20201220T204720_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPN_2_20201220T214013_00201220T215036_0001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T2232810_20201220T224328_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_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_NOPR_2_20201220T001358_20201220T001918_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T02102_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_S	CS_OFFL_SIR_NOPN_2_20201220T205050_20201220T205427_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPN_2_202012201213046_202012201223260_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20201220T223100_20201220T223260_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPN_2_20201220T01358_20201220T01918_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T024002_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean	CS_OFFL_SIR_NOPN_2_20201220T214813_20201220T215038_C001		
CS_OFFL_SIR_NOPN_2_20201220T224108_20201220T224328_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_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_NOPN_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_NOPR_2_20201220T01358_20201220T001918_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and t	CS_OFFL_SIR_NOPN_2_20201220T215046_20201220T215254_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPN_2_20201220T232810_20201220T232922_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_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_NOPR_2_20201220T001358_20201220T001918_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_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_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_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography	CS_OFFL_SIR_NOPN_2_20201220T223100_20201220T223250_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPR_2_20201220T001358_20201220T001918_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPR_2_20201220T001358_20201220T001918_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T014407_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_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (sol	CS_OFFL_SIR_NOPN_2_20201220T224108_20201220T224328_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) an	CS_OFFL_SIR_NOPN_2_20201220T232810_20201220T232922_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPR_2_202012201014203_202012201014407_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_NOPR_2_20201220T0133123_20201220T034037_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) for one or more records	CS_OFFL_SIR_NOPR_2_20201220T001358_20201220T001918_C001		
CS_OFFL_SIR_NOPR_2_202012201015305_202012201020102_C001 Topography (1) Topography height (solution 1) for one or more records CS_OFFL_SIR_NOPR_2_202012201033123_202012201020102_C001 Mean Sea Surface (1), Mean Dynamic There is an error with the MSS height (solution 1) and the Mean Dynamic	CS_OFFL_SIR_NOPR_2_20201220T014203_20201220T014407_C001	Mean Dynamic Topography (1)	
CS DEEL SIR NOPR 2 202012201033123 202012201034037 C001	CS_OFFL_SIR_NOPR_2_20201220T015305_20201220T020102_C001		
	CS_OFFL_SIR_NOPR_2_20201220T033123_20201220T034037_C001		

CS_OFFL_SIR_NOPR_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) for one or more records
CS_OFFL_SIR_NOPR_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) for one or more records
CS_OFFL_SIR_NOPR_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_NOPR_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_NOPR_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) for one or more records
CS_OFFL_SIR_NOPR_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) for one or more records
CS_OFFL_SIR_NOPR_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_NOPR_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) for one or more records
CS_OFFL_SIR_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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) for one or more records

## 5.5 L2 Measurement Confidence Data Check

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

## 5.6 L2 Measurement Quality Flag Check

## L2 Quality Flags (20Hz)

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

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

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

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

82

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20201220T000632_20201220T000633_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_NOPM_2_20201220T003024_20201220T003044_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_NOPM_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 Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20201220T010535_20201220T011129_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_NOPM_2_20201220T011358_20201220T013735_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_NOPM_2_20201220T020404_20201220T023751_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_NOPM_2_20201220T024443_20201220T025001_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_NOPM_2_20201220T025639_20201220T025826_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_NOPM_2_20201220T032734_20201220T033009_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_NOPM_2_20201220T034339_20201220T035246_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_NOPM_2_20201220T035532_20201220T041716_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_NOPM_2_20201220T042453_20201220T042859_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_NOPM_2_20201220T043351_20201220T044404_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_NOPM_2_20201220T044552_20201220T045205_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_NOPM_2_20201220T045343_20201220T045825_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_NOPM_2_20201220T052022_20201220T052036_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_NOPM_2_20201220T052300_20201220T055617_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_NOPM_2_20201220T055834_20201220T060345_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_NOPM_2_20201220T061445_20201220T064513_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_NOPM_2_20201220T070040_20201220T070115_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_NOPM_2_20201220T070450_20201220T071845_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_NOPM_2_20201220T072009_20201220T073529_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_NOPM_2_20201220T073740_20201220T074244_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_NOPM_2_20201220T074323_20201220T074447_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_NOPM_2_20201220T075213_20201220T080221_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_NOPM_2_20201220T080840_20201220T082058_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_2_20201220T151356_20201220T151456_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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_NOPM_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.
CS_OFFL_SIR_NOPM_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.
CS_OFFL_SIR_NOPM_2_20201220T183457_20201220T185316_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_NOPM_2_20201220T185537_20201220T190751_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_NOPM_2_20201220T192512_20201220T194031_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_NOPM_2_20201220T194232_20201220T195154_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_NOPM_2_20201220T195620_20201220T195630_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_NOPM_2_20201220T201004_20201220T201127_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_NOPM_2_20201220T201405_20201220T201636_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_NOPM_2_20201220T201745_20201220T202915_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_NOPM_2_20201220T204352_20201220T204545_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
	1	1

CS_OFFL_SIR_NOPM_2_20201220T205427_20201220T210215_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_NOPM_2_20201220T210456_20201220T211936_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_NOPM_2_20201220T213414_20201220T213419_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_NOPM_2_20201220T215736_20201220T222946_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_NOPM_2_20201220T223517_20201220T224108_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_NOPM_2_20201220T224436_20201220T230919_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_NOPM_2_20201220T234320_20201221T000757_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_NOPN_2_20201220T015239_20201220T015304_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_NOPN_2_20201220T151250_20201220T151304_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_NOPN_2_20201220T214813_20201220T215038_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_NOPN_2_20201220T224108_20201220T224328_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_NOPR_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_NOPR_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_NOPR_2_20201220T065134_20201220T065716_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_NOPR_2_20201220T082058_20201220T082208_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_NOPR_2_20201220T132320_20201220T132324_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_NOPR_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_NOPR_2_20201220T205029_20201220T205050_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_NOPR_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.

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Number of products with errors:

Product	Test Failed	Description
CS OFFE SIR NOPN 2 202012201010139 202012201010259 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_NOPN_2_20201220T020102_20201220T020212_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	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_NOPN_2_20201220T030438_20201220T030447_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T050914_20201220T051034_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_NOPN_2_20201220T055652_20201220T055834_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_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T082835_20201220T083049_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T105507_20201220T105739_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_NOPN_2_20201220T113627_20201220T113813_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_NOPN_2_20201220T115844_20201220T115900_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T182953_20201220T183255_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_NOPN_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_NOPN_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_NOPN_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_NOPN_2_20201220T203752_20201220T204231_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPN_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_2_20201220T100201_20201220T100452_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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_NOPR_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.
	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags

CS_OFFL_SIR_NOPR_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_NOPR_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_NOPR_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_NOPR_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.

187

51

146

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

Number of products with errors:

#### 5.7 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20Hz)

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

Ocean Retracking Quality Flag: This flag is currently set for products falling at ocean/ land boundaries, but this is expected.

8

Number of products with errors:

#### L2 Retracking Flags (20Hz, PLRM)

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

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

Number of products with errors:

## 7. NOP 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.

No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
195	195	2	193	0
119	119	0	119	0
112	112	0	112	0
195	195	151	44	0
119	119	44	72	3
112	112	43	69	0
	195 119 112 195 119	195         195           119         119           112         112           195         195           119         119	195         195         2           119         119         0           112         112         0           195         195         151           119         119         44	195         195         2         193           119         119         0         119           112         112         0         112           195         195         151         44           119         119         44         72

## 7.1 QCC Errors

Number	of O	CC rol	norte v	with a	arrore .

•	Total number of occurrences of each error										
Product Type RLO	BOPNCDF	RL	RL	RLOBOPNCDF	RL	RL	-	-	-	-	-
SIR_NOPR_2	3	1	3	3	1	3					
									·		·
Test Description Ke	Test Description Key:										
Abbreviation	Test na	me		Details							
RLOBOPNCDF	RangeLa	titudeOrBlankOP_7	NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF							
RL	RangeLa	titude_6		Latitude should be between -90E6 and 90E6							
RL	RangeLa	titude_7		Latitude should be between -90E7 and 90E7							
RLOBOPNCDF	RangeLo	ngitudeOrBlankOP	7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF							
RL	RangeLo	ngitude_6		Longitude should be between -180E6 and 180E6							
RL	RangeLo	ngitude_7		Longitude should b	e between -180E7	7 and 180E7					

## 7.2 QCC Warnings

lumber of QCC repo	rts with warnings	1725	Total num	ber of occurrences of e	ach warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC
SIR_NOPM1B	193	0	0	0	0	0	0
SIR NOPM 2	0	0	35	31	0	37	0
SIR NOPN1B	107	0	0	0	0	0	0
SIR_NOPN_2	0	0	7	29	5	22	26
SIR_NOPR1B	117	0	0	0	0	0	0
SIR_NOPR_2	0	3	34	55	2	23	24
					*		
Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO	CORPEPOPFDPLRMSINNC	DIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	30	25	0	0	0	0	22
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	17	0	0	21	0	31	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	7	0	50	0	56	0	0
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	0	7	23	0	4	31
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	24	21	43	52	35	24
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	52	0	3	52	28	9	38
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_NOPM1B	0	0	0	1	0	0	0
SIR_NOPM_2	0	2	0	1	0	0	0
SIR_NOPN1B	0	0	0	1	0	44	0

SIR_NOPN_2	25	14	1	0	1	0	0
SIR_NOPR1B	0	0	0	0	0	118	2
SIR_NOPR_2	50	3	0	0	7	0	0

Test Description Key:						
Abbreviation	Test name	Details				
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter				
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only				
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
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				
RPEPOPFDSARNCDF	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 F	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 DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)				
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