

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

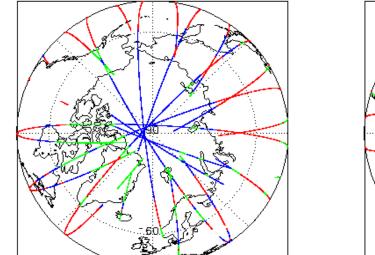
<u>26/12/2020</u>

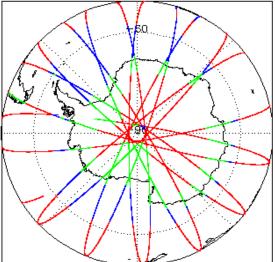
	05 Jan 2021	Check	L1 & L2
Report Production:	05-Jan-2021	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	Crive Set Ocean Dresses	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Usea:	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (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

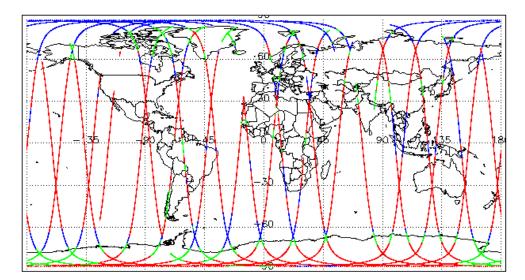
1. Overview

Mission / Instrument News		
25-Dec-2020	None	
26-Dec-2020	None	
27-Dec-2020	Nothing planned	











# 3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below.			
SIRAL instrument(s) in use: SIRAL - A			
Star Tracker(s) in use:	Star Tracker 1		

4. NOP Level 1B Data Quali	ty Check
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#### 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).

4.2 L1B Product Header Analysis			
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain.	
_1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B DSARIn chains. A modification is required in the next release.	IOPR and IOPN products beca	ause the I1b_processing_quality_hr field is not correctly configured in the OSAR an	
Vumber of products with errors: 0			
4.3 L1B Auxilary Data File Usage Check			
Each product is checked for missing Data Set Descriptors with respect to a pre-	-determined baseline and also	to check the validity of Auxiliary Data Files is correct.	
Dynamic Atmospheric Correction: The DAC is missing in all products becaus	se the auxiliary files required ar	e not available in time for processing. This known and expected behaviour.	
Number of products with errors: 0			
4.4 L1B Auxiliary Correction Error Check			
CryoSat L1B data includes a correction error flag for each measurement record	l. The bit value of this flag indic	ates any problems when set.	
Number of products with errors: 0			
4.5 L1B Measurement Confidence Data Check			
CryoSat L1B data includes a measurement confidence flag for each measurem	ent record. The bit value of this	s flag indicates any problems when set	
Attitude Correction Missing: This flag is currently set in error for NOPR pro- tion of the set o			
Number of products with errors: 0	- <u>3</u> //ioc		
4.6 L1B Waveform Group Data Check			
CryoSat L1B data includes a waveform data flag for each measurement record.	0	ates any problems when set.	
Loss of Echo Flag: This flag is currently set for products over land, but this is	s to be expected.		
Number of products with errors: 15			
Product	Test Failed	Description	
CS_OFFL_SIR_NOPM1B_20201226T191924_20201226T193444_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPM1B_20201226T201309_20201226T202514_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T015658_20201226T015813_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T032023_20201226T032132_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T050245_20201226T050517_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T082251_20201226T082503_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T173316_20201226T173849_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T203545_20201226T204111_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20201226T214229_20201226T214825_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T064548_20201226T065129_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T081501_20201226T081650_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T135821_20201226T140131_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T141834_20201226T142156_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T190237_20201226T190749_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPR1B_20201226T222404_20201226T222520_C001	Loss of Echo	The tracking echo is missing for one or more records	
5. NO	P Level 2 Data Qu	uality Check	
5.1 L2 Product Format Check			
Each product, retrieved and unpacked from the science server, is checked to er	nsure it consists of both an XM	I header file ( HDR) and a hinary product file ( DRI )	
Number of products with errors: 0			
5.2 L2 Product Header Analysis			
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any in	consistencies and/or errors raised by the ground-segment processing chain	
Number of products with errors: 0	e. This order to rechting any III	constantion of the relation of the second of the ground segment processing order.	
5.3 L2 Auxiliary Data File Usage Check			
Each product is checked for missing Data Set Descriptors with respect to a pre-	-determined baseline and also	to check the validity of Auxiliary Data Files is correct.	
Wind Model File Usage: This file is currently not included in all L2 products.			
Number of products with errors: 0			

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

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

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

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

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

Non-Data Biological 2001/ENCLOSE 000000000000000000000000000000000000	Product	Test Failed	Description
Corr Corr Corr Corr Corr Corr Corr Corr	CS_OFFL_SIR_NOPM_2_20201226T013109_20201226T013338_C001		
Construction         Marking (applicity)         main matures           Construction         Marking (applicity)         main matures           Construction         Marking (applicity)         Marking (applicity)         main matures           Construction         Marking (applicity)         Marking (applicity)         Marking (applicity)           Construction         Marking	CS_OFFL_SIR_NOPM_2_20201226T071428_20201226T072941_C001	Mean Dynamic Topography (1)	
CH-LORH, LORH, 2. 2007/2007/00000 2000/2007/01/01.       Image dep (1). That Genome have been been accurate the loss of th	CS_OFFL_SIR_NOPM_2_20201226T193645_20201226T194608_C001	Mean Dynamic Topography (1)	
Corp. Corp. Jan. Non-L. 2003 Control Fill And Corp. Ser. Non-Ser. 2003 Corp. Jan. Non-L. 2004 Corp. Jan. 2004 Corp. Jan. 2004 Corp. Jan. 2004 Corp. Jan. 2004 Co	CS_OFFL_SIR_NOPN_2_20201226T005559_20201226T005951_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	
Care, Lane, Name, Z., 2000, 200	CS_OFFL_SIR_NOPN_2_20201226T014625_20201226T014721_C001	Mean Dynamic Topography (1)	
Dot 00:00:00:00:00:00:00:00:00:00:00:00:00     Traggraph (f)     Traggraph (g)     Traggraph (g)       D3:00:00:00:00:00:00:00:00:00:00:00:00:00	CS_OFFL_SIR_NOPN_2_20201226T023546_20201226T023858_C001		<b>ö</b> ( <b>)</b>
Charge Structure         Tocography (1)         Tocography (1)         Tocography (1)         Tocography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/20210.2021 202102010.2001         Main Dyname: Togography (1)         There is an orrew shat Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/2010.2001         Main Dyname: Togography (1)         There is an orrew shat Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/01/20         Main Dyname: Togography (1)         There is an orrew shat Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/01/20         Main DSG Schred (1), Main Dyname: Togography (1)         There is an orrew shat Machine Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/01/20 2021/20110/10.2010         Main DSG Schred (1), Main Dyname: Togography (1)         There is an orrew shat Machine Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/01/20 2012/20110/2010         Main DSG Schred (1), Main Dyname: Togography (1)         There is an orrew shat Machine Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/22010/20110/20010         Main DSG Schred (1), Main Dyname: Togography (1)         There is an orrew shat Machine Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/220110/20010         Main Dyname: Togography (1)         There is an orrew shat Machine Machine Togography (1)           CB         OFTL_SER, NOPK 2. 2020/220110/20110/2001	CS_OFFL_SIR_NOPN_2_20201226T041318_20201226T041736_C001		
Control Set Name           Control Set Name <t< td=""><td>CS_OFFL_SIR_NOPN_2_20201226T042315_20201226T042438_C001</td><td></td><td></td></t<>	CS_OFFL_SIR_NOPN_2_20201226T042315_20201226T042438_C001		
CLUCTER_SPLICING_2_SUBJICES         Control         Mean instruction (Update) (U)         mean controls           CSOFESPL_NOPE_2_SUBJICES         Controls         Mean instruction (Update) (U)         Takes is an uncertaintie         Takes is an uncertaintie           CSOFESPL_NOPE_2_SUBJICES         Controls         Mean instruction (Update) (U)         Takes is an uncertaintie         Takes is an uncertaintie           CSOFESPL_NOPE_2_SUBJICES         Controls         Takes is an uncertaintie         Takes is an unceraintie         Takes is an uncertaintie         <	CS_OFFL_SIR_NOPN_2_20201226T050245_20201226T050517_C001	Mean Dynamic Topography (1)	
Displant Language Mark         Topography (1)         Topography (1)         Topography (1)           Case GeFL_SiR_NOPR 2_20012211073109_2001221101117_0001         Meen Sea Suffact (1). Meen Dynamic Topography (1)         There is an example the MSD height (cubics) 1) and the Meen Dynamic Topography (1)           Case GeFL_SiR_NOPR 2_2001221100000_20021220100117_0001         Meen Sea Suffact (1). Meen Dynamic Topography (1)         There is an example the MSD height (cubics) 1) and the Meen Dynamic Topography (1)           Case GeFL_SiR_NOPR 2_2001221100000_200212201001017_0001         Meen Sea Suffact (1). Meen Dynamic Topography (1)         There is an example the MSD height (cubics) 1) and the Meen Dynamic Topography (1)           Case GeFL_SIR_NOPR 2_2001221100000_200212201201101000_000         Meen Sea Suffact (1). Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)           Case GeFL_SIR_NOPR 2_2001221100010_20021220120110000_0000         Meen Sea Suffact (1). Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)           Case GeFL_SIR_NOPR 2_2001221100016_2001         Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)           Case GeFL_SIR_NOPR 2_2001221102110227_00012         Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)         There is an example the Meen Dynamic Topography (1)	CS_OFFL_SIR_NOPN_2_20201226T060056_20201226T060242_C001	Mean Dynamic Topography (1)	
CPFL_SR_UNDFL_2_001126100082_000120110017_0001         Ipaggaphy (1)         Topography (1)         Topography (1)           CS_CPFL_SR_UNDFL_2_000122100000_XX001221001117_0001         Mean Sac Suffact (1). Mean Dynamic Topography (1)         There is an orrow with the MSS heigt (cubiton 1) and the ord Resource of Comparison (1) for an or and the MSS heigt (cubiton 1) and the ord Resource of Comparison (1) for an or and the MSS heigt (cubiton 1) and the ord Resource of Comparison (1) for an ord the MSS heigt (cubiton 1) and the Mean Dynamic Topography (1)           CS_CPFL_SR_UNDFL_2_000120100000_X0001220100000_C001         Mean Dass Suffact (1). Mean Dynamic Topography (1)         There is an ord with the MSS heigt (cubiton 1) and the Mean Dynamic Topography (1)           CS_CPFL_SR_UNDFL_2_000120100000_X00012201100000_C001         Mean Ds. Suffact (1). Mean Dynamic Topography (1)         There is an ord with the MSD Subjet (cubiton 1) and the Mean Dynamic Topography (1)           CS_CPFL_SR_UNDFL_2_0001201100000_C001         Mean Dynamic Topography (1)         There is an ord with the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height for one or and the MSD Dynamic Topography height	CS_OFFL_SIR_NOPN_2_20201226T064455_20201226T064548_C001		
CS_OFTL_SIR_NON_2_200122T002251_020122T002500_0001       Tracguptly (1)       Tracguptly (1)       The is an arrea with the Man Dynamic Topography height (column 1) and is Total Geodenic Column Total (GO).         CS_OFTL_SIR_NON_2_2000122T00000_00012001001000_0001120010000_000011200100000000	CS_OFFL_SIR_NOPN_2_20201226T073859_20201226T074121_C001		
Cg. GFE_SIR_NOPN_2_20201226T09800_02201226T09192_C001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography (2)       Cg. GFE_SIR_NOPN_2_20201226T09800_020120T09192_C001     Meen Saa Suffice (1) Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography (1)       Cg. GFE_SIR_NOPN_2_20201226T09802_020120T09037_C001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography (1)       Cg. GFE_SIR_NOPN_2_20201226T100912_00102     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T123854_0001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T146042_0201226T146042_0001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T146042_0201226T146042_0001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T146042_0201226T146042_0001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T154746_02201226T15672_0001     Meen Dynamic Topography (1)     There is an encrowith the Mach Dynamic Topography height foot one or more records       Cg. GFE_SIR_NOPN_2_20201226T154746_02201226T15672_0001     Meen Dynamic Topography (1)     There is an encrowith the MSS height foot one or	CS_OFFL_SIR_NOPN_2_20201226T082251_20201226T082503_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
Dec.         End         End <td>CS_OFFL_SIR_NOPN_2_20201226T090909_20201226T091117_C001</td> <td></td> <td>There is an error with the Mean Dynamic Topography height for one or</td>	CS_OFFL_SIR_NOPN_2_20201226T090909_20201226T091117_C001		There is an error with the Mean Dynamic Topography height for one or
CS_DFFL_SR_NOPN_2_20001/20108099_0001/201100042_0001       Topography (1)       Topography (1)       Topography height (colution 1) for one or more records         CS_OFFL_SR_NOPN_2_20001/2261100842_00012261102851_00010       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20001/2261140828_00012261140842_0001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20001/2261140862_0001226114183_0001       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_20001/2261140862_0001226114183_0001       Mean Sas Surface (1) Mean Dynamic Topography (1)       There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20001226114616_00001226114183_0001       Mean Sas Surface (1) Mean Dynamic Topography (1)       There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_200012281146412_00012261148402_0001       Mean Sas Surface (1) Mean Dynamic Topography (1)       There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_200012281146412_00001226114902       Mean Sas Surface (1) Mean Dynamic Topography leght (colution 1) and the Mean Dynamic Topography (1)       There is an error with the MSS height (colution 1) and the Mean Dynamic Topography leght (colution 1) and the Mean Dynamic Topography leght (colution 1) and the	CS_OFFL_SIR_NOPN_2_20201226T091800_20201226T091932_C001		
CS_DFFL_SIR_NOPN_2_20201228T12817_20201228T128164_0001         Mean Dynamic Topography (1)         more records           CS_OFFL_SIR_NOPN_2_20201228T148286_02001228T14838_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography height for one or more records           CS_OFFL_SIR_NOPN_2_20201228T148286_02001228T14838_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography height for one or more records           CS_OFFL_SIR_NOPN_2_20201228T149626_02001228T150721_0001         Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height for one or more records           CS_OFFL_SIR_NOPN_2_20201228T159728_0001         Mean Sas Surface (1), Mean Dynamic Topography height for one or more records           CS_OFFL_SIR_NOPN_2_20201228T159723_0001         Mean Sas Surface (1), Mean Dynamic Topography height (solution 1) and the Macn Dynamic Topography height (solution 1) and the MAS height (solution 1) and the MAS Dramic Topography (solutin 1) and the MAS Dramic Topography height (solution 1)	CS_OFFL_SIR_NOPN_2_20201226T095934_20201226T100327_C001		
CS_OFF_SIR_NOPN_2_202012261140342_202012261140342_C001         Mean Dynamic Topography (1)         more records           CS_OFF_SIR_NOPN_2_202012261140342_202012261140342_C001         Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) for one runce records           CS_OFF_SIR_NOPN_2_202012261140342_202012261140342_C001         Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)           CS_OFF_SIR_NOPN_2_202012261150721_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_OFF_SIR_NOPN_2_202012261156723_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_OFF_SIR_NOPN_2_202012261156723_C001         Mean Sea Surface (1) Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) the Mean Dynamic Topography (1)           CS_OFF_SIR_NOPN_2_202012261172342_202012261173118_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_OFF_SIR_NOPN_2_202012261173346_202012261173148_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_OFF_SIR_NOPN_2_202012261173342_202012261182745_2001         Mean Sea Surface (1) Mean Dynamic Topography (1)	CS_OFFL_SIR_NOPN_2_20201226T100842_20201226T100915_C001	Mean Dynamic Topography (1)	
CS_OFF_SIR_NOPN_2_20201226114156_202012261141533_C001         Mean Sea Surface (1), Mean Dynamic Topography Inept (solution 1) and the Mean Dynamic Topography Inept (solution 1) for one or more records           CS_OFF_SIR_NOPN_2_20201226115662_02012261156721_C001         Mean Sea Surface (1), Mean Dynamic Topography Inept (solution 1) for one or more records           CS_OFF_SIR_NOPN_2_202012261156746_02012261156493_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_OFF_SIR_NOPN_2_202012261156742_0201226115673_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)           CS_OFF_SIR_NOPN_2_202012261156742_0201226115733_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)           CS_OFF_SIR_NOPN_2_20201226117346_02021226117318_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_OFF_SIR_NOPN_2_20201226118736_020212261187705_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_OFF_SIR_NOPN_2_202012261180750_020212261190750_202012261190750_20011         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_OFF	CS_OFFL_SIR_NOPN_2_20201226T123817_20201226T123954_C001	Mean Dynamic Topography (1)	
Concent Concent Concentration Production Prodoct Prodoct Production Production Production Production Producti	CS_OFFL_SIR_NOPN_2_20201226T140826_20201226T140942_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPN_2_20201226115402_0201226115403_C001         Mean Synamic topography (1)         more records           CS_OFFL_SIR_NOPN_2_20201226115412_202012261155723_C001         Mean Sea Surface (1), Mean Dynamic Topography (adulton 1) and the Mean Dynamic Topography (b) topol (adulton 1) and the Mean Dynamic Topography (b) topol (adulton 1) and the Mean Dynamic Topography (b) topol (adulton 1) and the Mean Dynamic Topography (c) Mean Dynamic Topogr	CS_OFFL_SIR_NOPN_2_20201226T141516_20201226T141833_C001		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_20201226T195412_20201226T195723_C001         Topography (1) Topography (1)         Topography (1) Topography (1)         Topography (1) Topography (1)         Topography (1) Topography (1)         Topography (1)         To	CS_OFFL_SIR_NOPN_2_20201226T150626_20201226T150721_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPN_2_20201226T155412_20201226T155723_C001       Topography (1) Total Geocentric Ocean Tide (CS), Non-Equilibrium Long Period Cocen Tide         CS_OFFL_SIR_NOPN_2_20201226T172842_20201226T173118_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) Tore or or more records         CS_OFFL_SIR_NOPN_2_20201226T173316_20201226T173349_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T182405_20201226T182705_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T190750_20201226T190750_20201226T190750_20201226T190750_20201226T190750_20201226T190750_20201226T200421_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T200312_20201226T200421_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) Toral Geocentric Ocean Tide Geocentric Ocean Tide (CS), OFFL_SIR_NOPN_2_20201226T203545_20201226T20411_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1), the Mean Dynamic Topography (1) Total Geocentric Ocean Tide Geocentr	CS_OFFL_SIR_NOPN_2_20201226T154746_20201226T154903_C001	Topography (1)	
CS_OFFL_SIR_NOPN_2_20201226117316_20201226173010       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202012261730750_2020122617191025_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202012261730312_202012261791025_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202012261203312_20201226120421_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226120345_20201226120421_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1), the Mean Dynamic         CS_OFFL_SIR_NOPN_2_20201226120345_202012261204111_C001       Mean Sea Surface (1), Mean Dynamic       Topography (solution 1), the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012261214229_202012261214825_C001       Mean Sea Surface (1), Mean Dynamic       Topography (solution 1), the Mean Dynamic       Topography (solution 1), and the Mean Dynamic         CS_OFFL_SIR_NOPN_2_202012261214229_202012261223742_C001       Mean Sea Surface (1), Mea	CS_OFFL_SIR_NOPN_2_20201226T155412_20201226T155723_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	
CS_OFFL_SIR_NOPN_2_20201226T182405_20201226T182705_C001         Topography (1)         Topography leight (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201226T182405_20201226T182705_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         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_20201226T200312_20201226T200421_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201226T200312_20201226T200421_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_NOPN_2_20201226T203545_20201226T204111_C001         Mean Sea Surface (1), Mean Dynamic Topography (1) Total Geocentric Ocean Tide (solution 1), the Total Geocentric Ocean Tide (solution 2: Tide (FSE), Non-Equilibrium Long Period Ceean Tide         There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (solution 1) and the Total Geocentric Ocean Tide (solution 1) and the Total Geocentric Ocean Tide (solution 1) and the Total Geocentric Ocean Tide height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography heig	CS_OFFL_SIR_NOPN_2_20201226T172842_20201226T173118_C001		
CS_OFFL_SIR_NOPN_2_20201226T182405_00201226T182/05_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T190750_20201226T191025_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_20201226T200312_20201226T200421_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), NOPN_2_20201226T203545_20201226T204111_C001       There is an error with the MSS height (solution 1), and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), NOPN_2_20201226T214229_20201226T214825_C001       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), NOPN_2_20201226T214229_20201226T214825_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)         CS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20201226T232517_20201226T223742_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_20201226T232243_20201226T232742_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)       There is an error with the MSS	CS_OFFL_SIR_NOPN_2_20201226T173316_20201226T173849_C001		
CS_OFFL_SIR_NOPN_2_202012261191025_20001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T200312_20201226T200421_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1), Mean Dynamic         CS_OFFL_SIR_NOPN_2_20201226T203545_20201226T204111_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Mean Dynamic       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2), Tide (FES), Non-Equilibrium Long Period PES) and the Non-Equilibrium Long Period Ocean Tide for one or more records         CS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide (GOT)         CS_OFFL_SIR_NOPN_2_20201226T232517_20201226T223742_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_NOPN_2_20201226T232243_20201226T232525_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_20201226T013630_20201226T001344_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the Mesh Dynamic Topography height for one or more records	CS_OFFL_SIR_NOPN_2_20201226T182405_20201226T182705_C001		
CS_OFFL_SIR_NOPN_2_202012261200312_202012261200421_C0001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T203545_20201226T204111_C001       Mean Sea Surface (1), Mean Dynamic Topography (1) Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (solution 2: Tide (FES), Non-Equilibrium Long Period Ocean Tide for one or more records         CS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide       There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide         CS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1: GOT) for one or more records         CS_OFFL_SIR_NOPN_2_20201226T223517_20201226T223742_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_20201226T232243_20201226T232252_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_20201226T000809_20201226T001344_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_NOPR_2_20201226T013630_20201226T013807_C001       Mean Dynamic Topography (1)       There is an error wi	CS_OFFL_SIR_NOPN_2_20201226T190750_20201226T191025_C001		
CS_OFFL_SIR_NOPN_2_20201226T203545_20201226T204111_C001Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Cean TideTopography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more recordsCS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1: GOT) for one or more recordsCS_OFFL_SIR_NOPN_2_20201226T232517_20201226T233742_C001Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more recordsCS_OFFL_SIR_NOPN_2_20201226T232243_20201226T232252_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more recordsCS_OFFL_SIR_NOPR_2_20201226T00809_20201226T001344_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1) for one or more recordsCS_OFFL_SIR_NOPR_2_20201226T013630_20201226T013807_C001Mean Sea Surface (1), Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height for one or more recordsCS_OFFL_SIR_NOPR_2_20201226T013630_20201226T013807_C001Mean Dynamic Topography (1)There is an error with the Mean Dynamic Topography height for one or more recordsCS_OFFL_SIR_NOPR_2_20201226T0144119_20201226T0144138_C001Mean Dynamic Topography (1)There is an error with the Mean D	CS_OFFL_SIR_NOPN_2_20201226T200312_20201226T200421_C001		
CS_OFFL_SIR_NOPN_2_20201226T214229_20201226T214825_C001       Topography (1), Total Geocentric Ocean       Topography height (solution 1) and the Total Geocentric Ocean       Tide (GOT)         CS_OFFL_SIR_NOPN_2_20201226T223517_20201226T223742_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean       Tide (GOT)         CS_OFFL_SIR_NOPN_2_20201226T223517_20201226T223742_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 Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20201226T232243_20201226T232252_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201226T00809_20201226T001344_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201226T013630_20201226T013807_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_20201226T013630_20201226T013807_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_20201226T014119_20201226T014138_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_20201226T203545_20201226T204111_C001	Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPN_2_20201226T232243_20201226T232252_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_20201226T000809_20201226T001344_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_20201226T013630_20201226T013807_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_20201226T013630_20201226T013807_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_20201226T014119_20201226T014138_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_20201226T214229_20201226T214825_C001	Topography (1), Total Geocentric Ocean	Topography height (solution 1) and the Total Geocentric Ocean Tide
CS_OFFL_SIR_NOPR_2_20201226T000809_20201226T001344_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201226T000809_20201226T001344_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPR_2_20201226T013630_20201226T013807_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_20201226T013630_20201226T013807_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_20201226T014119_20201226T014138_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_20201226T223517_20201226T223742_C001	Mean Dynamic Topography (1)	
CS_OFFL_SIR_NOPR_2_20201226T013630_20201226T01344_C001 Topography (1) Topography height (solution 1) for one or more records There is an error with the Mean Dynamic Topography height for one or more records CS_OFFL_SIR_NOPR_2_20201226T014119_20201226T014138_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or more records There is an error with the Mean Dynamic Topography height for one or more records There is an error with the Mean Dynamic Topography height for one or more records There is an error with the Mean Dynamic Topography height for one or more records There is an error with the Mean Dynamic Topography height for one or more records	CS_OFFL_SIR_NOPN_2_20201226T232243_20201226T232252_C001		
CS_OFFL_SIR_NOPR_2_202012261013630_202012261013607_C001 mean Dynamic Topography (1) more records CS_OFFL_SIR_NOPR_2_202012261014119_202012261014138_C001 mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or	CS_OFFL_SIR_NOPR_2_20201226T000809_20201226T001344_C001		
	CS_OFFL_SIR_NOPR_2_20201226T013630_20201226T013807_C001	Mean Dynamic Topography (1)	
	CS_OFFL_SIR_NOPR_2_20201226T014119_20201226T014138_C001	Mean Dynamic Topography (1)	

CS_OFFL_SIR_NOPR_2_20201226T014722_20201226T015512_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_20201226T032512_20201226T033744_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_20201226T050652_20201226T051406_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_20201226T064548_20201226T065129_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_20201226T082503_20201226T083154_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_20201226T084539_20201226T085407_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_20201226T100327_20201226T100842_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_20201226T133614_20201226T133812_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_20201226T195637_20201226T200014_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_20201226T231750_20201226T232243_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.

84

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20201226T002622_20201226T005218_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_20201226T005951_20201226T010541_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_20201226T010817_20201226T012248_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_20201226T013109_20201226T013338_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_20201226T014446_20201226T014540_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_20201226T015814_20201226T023211_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_20201226T023858_20201226T024413_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_20201226T025055_20201226T025402_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_20201226T032132_20201226T032411_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_20201226T033744_20201226T034703_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_20201226T034950_20201226T041124_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_20201226T041907_20201226T042315_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_20201226T042802_20201226T043821_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_20201226T044008_20201226T044725_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_20201226T044815_20201226T045242_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_20201226T050151_20201226T050211_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_20201226T051733_20201226T055041_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_20201226T055235_20201226T055800_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_20201226T060900_20201226T062129_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_20201226T062145_20201226T063914_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_20201226T064243_20201226T064455_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_20201226T065555_20201226T065606_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_20201226T070039_20201226T071224_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_20201226T071428_20201226T072941_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_20201226T073159_20201226T073658_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_20201226T073705_20201226T073712_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_20201226T073737_20201226T073859_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_20201226T074609_20201226T075426_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_20201226T080256_20201226T081500_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_20201226T085407_20201226T090847_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_20201226T091118_20201226T091610_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_20201226T092302_20201226T095643_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_20201226T115822_20201226T122706_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_20201226T122943_20201226T123442_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_20201226T124251_20201226T131609_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_20201226T140132_20201226T140512_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_20201226T140942_20201226T141514_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_20201226T142156_20201226T145501_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_20201226T152744_20201226T154414_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_20201226T154903_20201226T155411_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_20201226T160031_20201226T163420_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_20201226T165850_20201226T170318_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_20201226T170407_20201226T172146_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_20201226T173118_20201226T173316_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_20201226T174028_20201226T175453_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_20201226T175614_20201226T175735_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_20201226T180215_20201226T181052_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_20201226T181440_20201226T181500_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_20201226T182919_20201226T184702_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_20201226T184834_20201226T190237_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_20201226T191025_20201226T191227_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_20201226T191330_20201226T191728_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_20201226T191924_20201226T193444_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_20201226T193645_20201226T194608_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_20201226T200933_20201226T201014_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_20201226T201159_20201226T201244_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_20201226T201309_20201226T202514_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_20201226T203209_20201226T203414_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_20201226T204111_20201226T204445_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_20201226T204830_20201226T205631_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_20201226T205911_20201226T211352_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_20201226T212207_20201226T212339_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_20201226T213010_20201226T213012_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_20201226T213104_20201226T213114_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_20201226T215111_20201226T222403_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_20201226T222945_20201226T223517_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

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CS_OFFL_SIR_NOPM_2_20201226T223833_20201226T230302_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH 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_20201226T233501_20201227T000202_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20201226T060056_20201226T060242_C001 and Bac	ckscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
	• •	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20201226T150626_20201226T150721_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH 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_20201226T205632_20201226T205820_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH 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_20201226T014722_20201226T015512_C001 and Bac	ckscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20201226T024524_20201226T024838_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20201226T100327_20201226T100842_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH 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_20201226T123954_20201226T124251_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH 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_20201226T173849_20201226T174028_C001 and Bac	ckscatter Quality, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPR_2_20201226T193444_20201226T193645_C001 and Bac		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.

#### L2 Quality Flags (20Hz PLRM)

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

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

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

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Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20201226T005559_20201226T005951_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPN_2_20201226T010541_20201226T010706_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records.
	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_20201226T014420_20201226T014446_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_20201226T015658_20201226T015813_C001	<b>o i</b>	The OCOG Range and Backscatter Quality Flags have been set for one or more records.

CS_OFFL_SIR_NOPN_2_20201226T031628_20201226T031721_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_20201226T041318_20201226T041736_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_20201226T042315_20201226T042438_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_20201226T050105_20201226T050151_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_20201226T050245_20201226T050517_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_20201226T073859_20201226T074121_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_20201226T075638_20201226T075744_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_20201226T080104_20201226T080256_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_20201226T082251_20201226T082503_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_20201226T091800_20201226T091932_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_20201226T095934_20201226T100327_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_20201226T100842_20201226T100915_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_20201226T101822_20201226T101939_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_20201226T102034_20201226T102352_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_20201226T115155_20201226T115249_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_20201226T115716_20201226T115822_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_20201226T123817_20201226T123954_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_20201226T134837_20201226T134949_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_20201226T140826_20201226T140942_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_20201226T141516_20201226T141833_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_20201226T150626_20201226T150721_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_20201226T150928_20201226T151045_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_20201226T152557_20201226T152744_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_20201226T154746_20201226T154903_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_20201226T172842_20201226T173118_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_20201226T194608_20201226T194849_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_20201226T200312_20201226T200421_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_20201226T203545_20201226T204111_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_20201226T204525_20201226T204542_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_20201226T205632_20201226T205820_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_20201226T212340_20201226T212715_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_20201226T214229_20201226T214825_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_20201226T230302_20201226T230404_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_20201226T230524_20201226T230705_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_20201226T231720_20201226T231750_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_20201226T000359_20201226T000530_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_20201226T000809_20201226T001344_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_20201226T002457_20201226T002622_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_20201226T005218_20201226T005558_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_20201226T014119_20201226T014138_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_20201226T014722_20201226T015512_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_20201226T015612_20201226T015636_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_20201226T023211_20201226T023545_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_20201226T024524_20201226T024838_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_20201226T025402_20201226T025935_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_20201226T032512_20201226T033744_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_20201226T050652_20201226T051406_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_20201226T060242_20201226T060900_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_20201226T064548_20201226T065129_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_20201226T065627_20201226T065638_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_20201226T065643_20201226T065742_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_20201226T074121_20201226T074514_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_20201226T081501_20201226T081650_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_20201226T082503_20201226T083154_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_20201226T084539_20201226T085407_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_20201226T100327_20201226T100842_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_20201226T123954_20201226T124251_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_20201226T131741_20201226T131746_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_20201226T133049_20201226T133215_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_20201226T141834_20201226T142156_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_20201226T151059_20201226T151405_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_20201226T151612_20201226T151847_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_20201226T155724_20201226T160030_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_20201226T172146_20201226T172842_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_20201226T181133_20201226T181415_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_20201226T181649_20201226T181811_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_20201226T190237_20201226T190749_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_20201226T195637_20201226T200014_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_20201226T201014_20201226T201159_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_20201226T211353_20201226T212030_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_20201226T212030_20201226T212207_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_20201226T214825_20201226T215111_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_20201226T231338_20201226T231600_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_20201226T231750_20201226T232243_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.
12 Quality Flame (4.11- 8.411- DI DM)		

L2 Quality Flags (1 Hz & 1Hz PLRM)

Currently, there are several common flags raised in the Level 2 products, which are summarised below.

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> 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.

## 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.

133

22

1659

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.

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	185	185	5	180	0
SIR_NOPR1B	115	115	0	115	0
SIR_NOPN1B	96	96	2	94	0
SIR_NOPM_2	185	185	134	48	3
SIR_NOPR_2	115	115	35	72	8
SIR_NOPN_2	96	96	39	55	2

## 7.1 QCC Errors

Number of QCC reports with errors:

	Total number of occurrences of each error										
Product Type	EOVSNCDF	MPHSVSNCDF	RLOBOPNCDF	RL	RL	RLOBOPNCDF	RL	RL	-	-	-
SIR_NOPM_2	3	3	0	0	0	0	0	0			
SIR_NOPN_2	2	2	0	0	0	0	0	0			
SIR_NOPR_2	1	1	7	2	7	7	2	7			

Test Description Key:	est Description Key:				
Abbreviation	Test name	Details			
EOVSNCDF	EnumOrbitVectorSourceNetCDF	Orbit vector source should match one of the allowed enumeration values - NetCDF			
MPHSVSNCDF	MPH_State_Vector_Source_NetCDF	State_Vector_Source mismatch			
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF			
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6			
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7			
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF			
RL	RangeLongitude_6	Longitude should be between -180E6 and 180E6			
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7			

## 7.2 QCC Warnings

#### Number of QCC reports with warnings

Total number of occurrences of each warning							
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC
SIR NOPM1B	180	0	0	0	0	0	0
SIR NOPM 2	0	0	33	33	1	38	0
SIR NOPN1B	94	0	0	0	0	0	0
SIR NOPN 2	0	0	9	24	5	20	21
SIR NOPR1B	113	0	0	0	0	0	0
SIR_NOPR_2	0	7	34	48	0	27	18
						1	4
Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	DRPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	30	30	0	0	0	0	24
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	16	0	0	20	0	27	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	6	0	49	0	55	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	5	26	0	6	32
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	20	19	38	47	29	21
	-	-	-	-	-	-	-

SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	47	0	1	61	32	9	39
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_NOPM1B	0	0	1	0	0	0	
SIR_NOPM_2	0	5	1	0	0	0	
SIR_NOPN1B	0	0	0	0	42	0	
SIR_NOPN_2	21	11	0	0	0	0	
SIR_NOPR1B	0	0	0	0	115	8	
SIR_NOPR_2	46	1	0	14	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	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees			
RPEPOPFDPLRMSINN	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	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

# 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0