

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

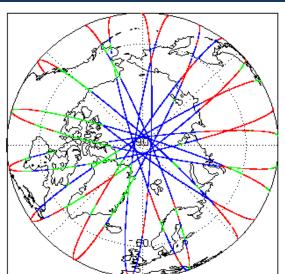
<u>25/01/2021</u>

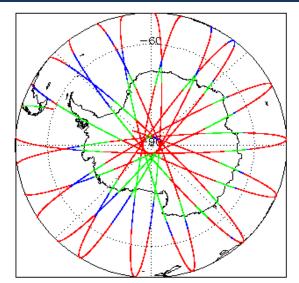
Papart Braduation	25-Feb-2021	Check	L1 & L2	P2P
Report Production:	25-Feb-2021	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CrueSet Occer Breeseer	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Useu.	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Geophysical Ocean Products (GOP)	Product Format Check	Nominal	Nominal
Data Useu.	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
		Measurement Confidence Data Check	See Section 4.5, 4.6	Nominal
		Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
		Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2	See Section 7.2

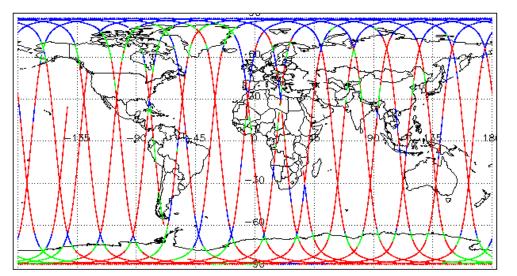
1. Overview

Mission / Instrument News		
24-Jan-2021	None	
25-Jan-2021	None	
26-Jan-2021	Siral Unavailability due to Orbit Control Manoeuvre, on 26/01/2021 from 22:00:40 to 23:49:17 UTC.	













# 3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

0

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

4. GOP Level 1B Data Quality Check

## 4.1 L1B Product Format Check

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

Number of products with errors:

4.2 L1B Product Header Analysis				
For all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any	inconsistencies and/or errors raised by the ground-segment processing chain.		
L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1 OSARIn chains. A modification is required in the next release.	B GOPR and GOPN products	because the I1b_processing_quality_hr field is not correctly configured in the OSAR and		
Number of products with errors: 0				
4.3 L1B Auxilary Data File Usage Check				
Each product is checked for missing Data Set Descriptors with respect to a pro		to to check the validity of Auxiliary Data Files is correct		
Number of products with errors: 0				
4.4 L1B Auxiliary Correction Error Check				
CryoSat L1B data includes a correction error flag for each measurement recor	d. The bit value of this flag ind	licates 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 measurer	nent record. The bit value of th	his flag indicates any problems when set.		
Attitude Correction Missing: This flag is currently set in error for GOPR proc	lucts due to a configuration iss	sue. This is being investigated and will be updated in the next SW update.		
Number of products with errors: 0				
4.6 L1B Waveform Group Data Check				
CryoSat L1B data includes a waveform data flag for each measurement recorr	d. The hit value of this flag ind	icates any problems when set		
Loss of Echo Flag: This flag is currently set for some products over land, but	-			
Number of products with errors: 17	·			
Product	Test Failed	Description		
CS_OFFL_SIR_GOPM1B_20210125T024602_20210125T024741_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPM1B_20210125T171545_20210125T174003_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T025638_20210125T025905_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T110648_20210125T111116_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T130938_20210125T131100_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T152527_20210125T153035_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T161634_20210125T162019_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T170940_20210125T171102_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T175919_20210125T180139_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T193450_20210125T193703_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPN1B_20210125T211411_20210125T211855_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T024741_20210125T025104_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T060709_20210125T061224_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T182927_20210125T183407_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T193030_20210125T193450_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T194022_20210125T194058_C001	Loss of Echo	The tracking echo is missing for one or more records		
CS_OFFL_SIR_GOPR1B_20210125T224435_20210125T225448_C001	Loss of Echo	The tracking echo is missing for one or more records		
5. G0	OP Level 2 Data Q	Quality Check		
5.1 L2 Product Format Check				
Each product, retrieved and unpacked from the science server, is checked to	ensure it consists of both an X	MI header file ( HDR) and a binary product file ( DBI )		
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	d SPH in order to identify any	inconsistencies and/or errors raised by the ground-segment processing chain.		
Number of products with errors: 0				
5.3 L2 Auxiliary Data File Usage Check				
Each product is checked for missing Data Set Descriptors with respect to a pro	-determined baseline and als	to check the validity of Auviliany Data Files is correct		
Number of products with errors: 0	s-determined baseline and als	to to theck the validity of Auxiliary Data Files is confect.		
5.4 L2 Auxiliary Correction Error Check				
For all products, the auxiliary corrections within the Geophysical Group are ch	ecked for the default error valu	ue (32767).		
Currently, there are some common auxiliary correction errors raised in the followed by a table highlighting any additional issues which may arise fr		re expected due to surface type. All common flags are summarised in the list below		
> ECMWF Meteo Corrections: Currently the following corrections are not correction and the U-Wind and V-Wind components of the ECMWF model wir	mputed over CONTINENTAL I	CE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric maly (CRYO-COP-3) and will be resolved in a future IPF update. The affected products ar		
not reported in the table below.				
> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected. > Attimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.				
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Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20210125T030649_20210125T030753_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T030918_20210125T034249_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T034537_20210125T035013_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062414_20210125T062731_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062734_20210125T062809_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062815_20210125T062924_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062928_20210125T062937_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062939_20210125T062950_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062953_20210125T062954_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T062957_20210125T063001_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T063003_20210125T063136_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T063433_20210125T064455_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T064635_20210125T070100_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T070322_20210125T070824_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T171545_20210125T174003_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20210125T210525_20210125T210613_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPM_2_20210125T220123_20210125T220545_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T220847_20210125T223427_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T223429_20210125T223517_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T223519_20210125T223633_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T223635_20210125T223653_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T223656_20210125T223905_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T223917_20210125T224214_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPM_2_20210125T224214_20210125T224435_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPN_2_20210125T002743_20210125T003109_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_GOPN_2_20210125T011417_20210125T011504_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125T020649_20210125T021010_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_GOPN_2_20210125T021526_20210125T021650_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125T025638_20210125T025905_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_GOPN_2_20210125T034353_20210125T034537_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPN_2_20210125T035418_20210125T035534_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_GOPN_2_20210125T043703_20210125T043809_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

Construction         Tapproprint (1)         Tapproprint (1)         Tapproprint (1)         Tapproprint (1)           Construction	CS_OFFL_SIR_GOPN_2_20210125T053125_20210125T053325_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
Control         Control <t< td=""><td>CS_OFFL_SIR_GOPN_2_20210125T061508_20210125T061724_C001</td><td></td><td>There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records</td></t<>	CS_OFFL_SIR_GOPN_2_20210125T061508_20210125T061724_C001		There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
Corp. C., Ser, Ser, Corp. 2, 202101521008002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 20210152108002, 202101521018002, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 202101521108012, 20210152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 20201152110802, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 202011521118682, 20201152111862, 202011521	CS_OFFL_SIR_GOPN_2_20210125T063136_20210125T063433_C001	GPD Wet Tropospheric Correction	
CPUL_SIG_UDUP_2_0210125100204_2_02101251002051_0001       Mailed Uptamic (Equipped) (1)       There is a more with the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. The MSD Comparison of the MCD UNIT Toroportexit connection. Toroportexit (MSD UNIT Toroportexit Comparison) (MSD UNIT Toroportexit Com	CS_OFFL_SIR_GOPN_2_20210125T070134_20210125T070322_C001	GPD Wet Tropospheric Correction	
Caperty Service Conference         Present Optimie Segregative         Present Optimie Segregative           Caperty Service Conference         Present Segregative         Present Segregative           Caperty Segregative         Present Segregative         Present Segregative	CS_OFFL_SIR_GOPN_2_20210125T085038_20210125T085259_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
Open Procession         Comparation (1)         Topography (1)         Topography (1)         Topography (2)           CS_OPPL_SIR_GOPN_2_302101251008210_0201025108214_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (2)           CS_OPPL_SIR_GOPN_2_202101251120012_002101251120107_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (2)         There is an error with the Mean Dynamic Topography (2)           CS_OPPL_SIR_GOPN_2_202101251120107_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (2)           CS_OPPL_SIR_GOPN_2_202101251132410_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (2)           CS_OPPL_SIR_GOPN_2_20210125113410_0001         Mean Sardner (1), Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (2)           CS_OPPL_SIR_GOPN_2_202101251134140_0001         Mean Sardner (1), Mean Dynamic Topography (2)         Topography (2)           CS_OPPL_SIR_GOPN_2_202101251151402_0001         Mean Sardner (1), Mean Dyn	CS_OFFL_SIR_GOPN_2_20210125T092842_20210125T093351_C001	Mean Dynamic Topography (1)	
Control         Control <t< td=""><td>CS_OFFL_SIR_GOPN_2_20210125T093351_20210125T093422_C001</td><td></td><td>There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records</td></t<>	CS_OFFL_SIR_GOPN_2_20210125T093351_20210125T093422_C001		There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
Control         Control         Control         Control         Control           CS_OFFL_SIR_GOPN_2_20210125T120042_0210125T120137_0001         Mean Dynamic Topography (1)         There is a more with the Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T120042_0210125T120147_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T120042_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T120042_0001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T150462_0210125T14028_0001         Mean Secure Surface (1). Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T150462_0210125T150462_0001         Mean Secure Surface (1). Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T15046_02210125T15046_02001         Mean Secure Surface (1). Mean Dynamic Topography (colution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T175048_02210125T170048_0001         Mean Secure Surface (1). Mean Dynamic Topography (in) the is an error with the MSS height (coluton 1) and the Mean Dynamic Topog	CS_OFFL_SIR_GOPN_2_20210125T095210_20210125T095214_C001	GPD Wet Tropospheric Correction	
CS_OFF_SIR_SOPE_2.20210125T120012_00210125T120137_C001       Mean Dynamic Topography (adultion 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T120052_00210125T120147_C001       Mean Dynamic Topography (1)       There is an enore with the Mean Dynamic Topography (adultion 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T120052_00210125T120043_C001       Mean Dynamic Topography (1)       There is an enore with the Mean Dynamic Topography (solution 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T130455_02210125T130452_0001       Mean Dynamic Topography (1)       There is an enore with the Mean Dynamic Topography (solution 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T130452_0210125T134402_0001       Mean Sea Surface (1), Mean Dynamic Topography (in)       There is an enore with the MSS height (solution 1) and the Mean Dynamic Topography (in)         CS_OFF_SIR_GOPN_2.20210125T151442_0210125T152242_0001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (in)       There is an enor with the MSS height (solution 1) and the Mean Dynamic Topography (in)         CS_OFF_SIR_GOPN_2.20210125T1514240_0001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (in)       There is an enor with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T15043_02010125T15043_0001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFF_SIR_GOPN_2.20210125T15056_001       Mea	CS_OFFL_SIR_GOPN_2_20210125T102011_20210125T102135_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_DFR_SIR_GOPN_2_202101251120035_202101251120047_C001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_202101251120035_202101251126043_C001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_202101251126043_202101251136465_202101251134100_C001         Mean Dynamic Topography (1)         There is an error with the Man Dynamic Topography (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_202101251134465_202101251134420_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_GOPN_2_202101251134420_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_GOPN_2_20210125115043_202101251152240_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_GOPN_2_202101251176030_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_GOPN_2_202101251176530_202101251176030_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)         There is an error wit	CS_OFFL_SIR_GOPN_2_20210125T110648_20210125T111116_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
Call Of PE_SIR_GOPN_2_20210125112485_202101251121001_001         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (solution 1) for one more records           CS_OFFL_SIR_GOPN_2_202101251124855_202101251134945_0201         Mean Dynamic Topography (1)         There is an error with the Mean Dynamic Topography (solution 1) for one more records           CS_OFFL_SIR_GOPN_2_202101251134945_020101251134928_0001         Mean Sea Surface (1), Mean Dynamic Topography (solution 1) and the Mean Dynamic Topography (1)         There is an error with the MSS height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_GOPN_2_202101251134925_020101251135292_020101251135292_0001         Mean Sea Surface (1), Mean Dynamic Topography height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_GOPN_2_20210125115292_020101251135035_0001         Mean Sea Surface (1), Mean Dynamic Topography Height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_GOPN_2_202101251170518_02101251170540_0001         Mean Sea Surface (1), Mean Dynamic Topography Height (colution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_GOPN_2_202101251175618_022101251180139_001         Mean Sea Surface (1), Mean Dynamic Topography Height (colution 1) and the Mean Dynamic Topography Hei	CS_OFFL_SIR_GOPN_2_20210125T120012_20210125T120137_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125T13465_20210125T13403_0001         Mean Dynamic Topography (1)         or more records           CS_OFFL_SIR_GOPN_2_20210125T134625_20210125T134028_C001         Mean Sea Surface (1), Mean Dynamic Topography (1)         There is an error with the MSS height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T134028_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_GOPN_2_20210125T15240_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T152032_C0210125T150305_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T175018_20210125T175038_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)           CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T187038_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)           CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T180139_C001         Topography (1)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography he	CS_OFFL_SIR_GOPN_2_20210125T120935_20210125T121047_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125113349022010251134928_C001       Mean Sea Surface (1). Mean Dynamic Topography (epidt (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125113625_02101251136249_C001       Mean Sea Surface (1). Mean Dynamic Topography (epidt (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_202101251135227_202101251135035_C001       Mean Sea Surface (1). Mean Dynamic Topography (epidt (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_202101251135035_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_202101251170005_202101251170240_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_202101251175518_202101251170508_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) of or ne or more records         CS_OFFL_SIR_GOPN_2_202101251175518_202101251180139_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) of or one or more records         CS_OFFL_SIR_GOPN_2_202101251183504_202101251180139_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) of or one or more records         CS_OFFL_SIR_GOPN_2_202101251201272_202101251201907_C001       Mean Sea Surface (1). Mean Dynami	CS_OFFL_SIR_GOPN_2_20210125T124855_20210125T125043_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
DS_OFFL_SIR_GOPN_2_202101251134625_002101251134625_0021         Topography (1)         Topography leight (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T151443_20210125T152249_C001         Mean Sea Surface (1), Mean Dynamic Topography leight (solution 1) and the Mean Dynamic Topography leight (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T152527_20210125T153035_C001         Mean Sea Surface (1), Mean Dynamic Topography leight (solution 1) and the Mean Dynamic Topography leight (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T176365_C001         Mean Sea Surface (1), Mean Dynamic Topography leight (solution 1) and the Mean Dynamic Topography leight (solution 1) and the Mean Dynamic Topography (1) Total Geocentric Ocean Tide (GOT)           CS_OFFL_SIR_GOPN_2_20210125T175519_20210125T180139_C001         Mean Sea Surface (1), Mean Dynamic Topography leight (solution 1) and the Mean Dynamic Topography leight (solution 1) and t	CS_OFFL_SIR_GOPN_2_20210125T133945_20210125T134110_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125T152527_20210125T153035_C001         Topography (1)         Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T152527_20210125T1750305_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T175018_20210125T170240_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T175636_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide Height (solution 1) and the Mean Dynamic Topography height (solution 1) and the	CS_OFFL_SIR_GOPN_2_20210125T134625_20210125T134928_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_GOPN_2_20210125T172040_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T175018_20210125T170005_20210125T176636_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T175636_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T175619_20210125T180139_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1). Total Geocentric Ocean Tide height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPN_2_20210125T183504_20210125T184115_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPN_2_20210125T193703_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T201272_20210125T201907_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPN_2_20210125T22045_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1). Total Geocentric Ocean Tide height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dyna	CS_OFFL_SIR_GOPN_2_20210125T151943_20210125T152249_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_GOPN_2_202101251170008_402101251170240_C001       Topography (1)       Topography (1)       Topography hight (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T175518_20210125T175518_20210125T175518_20210125T180139_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T175519_20210125T180139_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T183504_20210125T184115_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T193450_20210125T193703_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T21464_20210125T220842_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS heigh	CS_OFFL_SIR_GOPN_2_20210125T152527_20210125T153035_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_GOPN_2_20210125T175919_20210125T180139_C001         Topography (1)         Topography (1)           CS_OFFL_SIR_GOPN_2_20210125T175919_20210125T180139_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)         There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Topography height (solution 1) and the Total Geocentric Ocean Topography height (solution 1) and the Total Geocentric Ocean Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T193450_20210125T193703_C001         Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001         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_GOPN_2_20210125T201727_20210125T201907_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 Topography (solution 1) for one or more records           CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201855_C001         Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Nuch And Paramic Topography (1), Total	CS_OFFL_SIR_GOPN_2_20210125T170005_20210125T170240_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_GOPN_2_20210125T175919_20210125T180139_C001       Topography (1), Total Geocentric Ocean       Topography height (solution 1) and the Total Geocentric Ocean       Tide (GOT)         CS_OFFL_SIR_GOPN_2_20210125T183504_20210125T184115_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T193450_20210125T193703_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T23648_20210125T234038_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T011742_20210125T234038_C001       Mean Sea Surface (1), Mean Dynamic       Topography height (solution 1) and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_2	CS_OFFL_SIR_GOPN_2_20210125T175518_20210125T175636_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_GOPN_2_20210125T193450_20210125T193703_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T193450_20210125T193703_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic Topography (solution 1) and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)         CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1). Total Geocentric Ocean Tide (GOT), Coean Tide (GOT), Total Geocentric Ocean Tide (GOT), Coean Tide (GOT), Cotal Geocentric Ocean Tide (FES) and the Non-Equilibrium Long Period Ocea Tide for one or more records         CS_OFFL_SIR_GOPN_2_20210125T011742_20210125T012628_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography	CS_OFFL_SIR_GOPN_2_20210125T175919_20210125T180139_C001	Topography (1), Total Geocentric Ocean	
CS_OFFL_SIR_GOPN_2_202101251193450_202101251193703_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography (solution 1) and the Mean Dynamic Topography (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic Topography (n)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (n)         CS_OFFL_SIR_GOPN_2_20210125T233648_20210125T234038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), and the Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (Solution 1) for one or more records         CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_C001       Mean Sea Surface (1), Mean Dynamic Topography (n)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (n) for one or more records	CS_OFFL_SIR_GOPN_2_20210125T183504_20210125T184115_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_GOPN_2_20210125T211411_20210125T211855_C001       Mean bynamic ropography (1)       or more records         CS_OFFL_SIR_GOPN_2_20210125T211411_20210125T211855_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide (GOT)         CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_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_GOPN_2_20210125T223648_20210125T2234038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES) and the Non-Equilibrium Long Period Ocean Tide (FES) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1), and the Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records	CS_OFFL_SIR_GOPN_2_20210125T193450_20210125T193703_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_GOPN_2_20210125T211411_20210125T211855_C001       Topography (1), Total Geocentric Ocean       Topography height (solution 1) and the Total Geocentric Ocean       Topography height (solution 1) and the Total Geocentric Ocean       Tide (GOT)         CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the GPD Wet Tropospheric correction, the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPN_2_20210125T233648_20210125T234038_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide (FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records         CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)	CS_OFFL_SIR_GOPN_2_20210125T201727_20210125T201907_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_GOPN_2_20210125T233648_20210125T234038_C001       Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_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_GOPN_2_20210125T211411_20210125T211855_C001	Topography (1), Total Geocentric Ocean	
CS_OFFL_SIR_GOPN_2_20210125T233648_20210125T234038_C001       Topography (1), Total Geocentric Ocean       Topography (1), Total Geocentric Ocean       Topography height (solution 1), and the Mean Dynamic         CS_OFFL_SIR_GOPN_2_20210125T011742_20210125T012628_C001       Topography (1), Total Geocentric Ocean       Topography height (solution 1), Total Geocentric Ocean       Topography height (solution 1), Total Geocentric Ocean         CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the MSS height (solution 1) and the Mean Dynamic	CS_OFFL_SIR_GOPN_2_20210125T220545_20210125T220822_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_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_GOPN_2_20210125T233648_20210125T234038_C001	Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
	CS_OFFL_SIR_GOPR_2_20210125T011742_20210125T012628_C001	Mean Sea Surface (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20210125T025905_20210125T030649_C001 GPD Wet Tropospheric Correction, Mean Sea Surface (1), Mean Dynamic Topography (1) for one or more records	CS_OFFL_SIR_GOPR_2_20210125T025905_20210125T030649_C001	Mean Sea Surface (1), Mean Dynamic	height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_GOPR_2_20210125T030754_20210125T030918_C001 GPD Wet Tropospheric Correction There is an error with the GPD Wet Tropospheric correction for one or more records	CS_OFFL_SIR_GOPR_2_20210125T030754_20210125T030918_C001	GPD Wet Tropospheric Correction	
CS_OFFL_SIR_GOPR_2_20210125T034249_20210125T034353_C001 GPD Wet Tropospheric Correction There is an error with the GPD Wet Tropospheric correction for one or more records	CS_OFFL_SIR_GOPR_2_20210125T034249_20210125T034353_C001	GPD Wet Tropospheric Correction	
CS_OFFL_SIR_GOPR_2_20210125T043809_20210125T044522_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records	CS_OFFL_SIR_GOPR_2_20210125T043809_20210125T044522_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_GOPR_2_20210125T061724_20210125T062414_C001 GPD Wet Tropospheric Correction, Mean Sea Surface (1), Mean Dynamic Topography (1) for one or more records for one or more records	CS_OFFL_SIR_GOPR_2_20210125T061724_20210125T062414_C001	Mean Sea Surface (1), Mean Dynamic	height (solution 1) and the Mean Dynamic Topography height (solution 1)
CS_OFFL_SIR_GOPR_2_20210125T064456_20210125T064635_C001 GPD Wet Tropospheric Correction There is an error with the GPD Wet Tropospheric correction for one or more records	CS_OFFL_SIR_GOPR_2_20210125T064456_20210125T064635_C001	GPD Wet Tropospheric Correction	

CS_OFFL_SIR_GOPR_2_20210125T070100_20210125T070134_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPR_2_20210125T070824_20210125T070831_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPR_2_20210125T075559_20210125T080123_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_GOPR_2_20210125T080127_20210125T080221_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20210125T093422_20210125T094333_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_GOPR_2_20210125T111116_20210125T111859_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_GOPR_2_20210125T125043_20210125T125720_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_GOPR_2_20210125T125720_20210125T130021_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_GOPR_2_20210125T142904_20210125T143620_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_GOPR_2_20210125T143620_20210125T143824_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_GOPR_2_20210125T161041_20210125T161517_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_GOPR_2_20210125T161517_20210125T161634_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_GOPR_2_20210125T174848_20210125T175354_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_GOPR_2_20210125T175354_20210125T175518_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_GOPR_2_20210125T193030_20210125T193450_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_GOPR_2_20210125T210613_20210125T210620_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography (solution 1) for one or more records
CS_OFFL_SIR_GOPR_2_20210125T210620_20210125T211411_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_GOPR_2_20210125T220822_20210125T220847_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPR_2_20210125T223905_20210125T223917_C001	GPD Wet Tropospheric Correction	There is an error with the GPD Wet Tropospheric correction for one or more records
CS_OFFL_SIR_GOPR_2_20210125T224435_20210125T225448_C001	GPD Wet Tropospheric Correction, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the GPD Wet Tropospheric correction, 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.

Number of products with errors:	93

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20210124T235119_20210125T002447_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_GOPM_2_20210125T003109_20210125T003636_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_GOPM_2_20210125T003837_20210125T004428_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_GOPM_2_20210125T005723_20210125T010215_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_GOPM_2_20210125T010358_20210125T010450_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_GOPM_2_20210125T011522_20210125T011742_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_GOPM_2_20210125T013054_20210125T013914_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_GOPM_2_20210125T014159_20210125T020420_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_GOPM_2_20210125T021010_20210125T021114_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_GOPM_2_20210125T021117_20210125T021526_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_GOPM_2_20210125T021730_20210125T023705_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_GOPM_2_20210125T030918_20210125T034249_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_GOPM_2_20210125T034537_20210125T035013_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_GOPM_2_20210125T035032_20210125T035418_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_GOPM_2_20210125T035817_20210125T035914_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_GOPM_2_20210125T040114_20210125T043246_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_GOPM_2_20210125T043417_20210125T043703_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_GOPM_2_20210125T045247_20210125T045954_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_GOPM_2_20210125T050435_20210125T050646_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_GOPM_2_20210125T050744_20210125T052209_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_GOPM_2_20210125T052355_20210125T052912_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_GOPM_2_20210125T053930_20210125T055253_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_GOPM_2_20210125T055507_20210125T055637_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_GOPM_2_20210125T055701_20210125T060709_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_GOPM_2_20210125T063433_20210125T064455_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_GOPM_2_20210125T064635_20210125T070100_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_GOPM_2_20210125T070322_20210125T070824_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_GOPM_2_20210125T071657_20210125T071803_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_GOPM_2_20210125T072302_20210125T072926_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_GOPM_2_20210125T073407_20210125T073847_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_GOPM_2_20210125T074130_20210125T074719_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_GOPM_2_20210125T081022_20210125T081153_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_GOPM_2_20210125T081822_20210125T084030_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_GOPM_2_20210125T084350_20210125T084742_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_GOPM_2_20210125T084803_20210125T085037_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_GOPM_2_20210125T085357_20210125T092151_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_GOPM_2_20210125T094549_20210125T095031_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_GOPM_2_20210125T095440_20210125T101959_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_GOPM_2_20210125T102135_20210125T102656_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_GOPM_2_20210125T102703_20210125T103028_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_GOPM_2_20210125T103358_20210125T110648_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_GOPM_2_20210125T113126_20210125T115005_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_GOPM_2_20210125T115327_20210125T115927_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_GOPM_2_20210125T120137_20210125T120935_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_GOPM_2_20210125T121322_20210125T124642_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_GOPM_2_20210125T130021_20210125T130112_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_GOPM_2_20210125T131950_20210125T132122_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_GOPM_2_20210125T132809_20210125T133904_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_GOPM_2_20210125T134110_20210125T134625_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_GOPM_2_20210125T135208_20210125T141439_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_GOPM_2_20210125T141725_20210125T142703_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_GOPM_2_20210125T144021_20210125T144218_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_GOPM_2_20210125T145026_20210125T145527_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_GOPM_2_20210125T145728_20210125T150332_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_GOPM_2_20210125T150520_20210125T151644_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_GOPM_2_20210125T152249_20210125T152527_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_GOPM_2_20210125T153203_20210125T160208_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.
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CS_OFFL_SIR_GOPM_2_20210125T160313_20210125T160447_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_GOPM_2_20210125T162123_20210125T165303_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_GOPM_2_20210125T170240_20210125T170435_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_GOPM_2_20210125T171102_20210125T171512_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_GOPM_2_20210125T171545_20210125T174003_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_GOPM_2_20210125T180509_20210125T181743_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_GOPM_2_20210125T183407_20210125T183504_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_GOPM_2_20210125T184413_20210125T184841_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_GOPM_2_20210125T185045_20210125T190529_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_GOPM_2_20210125T190708_20210125T190952_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_GOPM_2_20210125T192146_20210125T192150_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_GOPM_2_20210125T194400_20210125T194950_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_GOPM_2_20210125T195233_20210125T195511_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_GOPM_2_20210125T195514_20210125T201635_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_GOPM_2_20210125T201907_20210125T202752_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_GOPM_2_20210125T203011_20210125T205502_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_GOPM_2_20210125T212711_20210125T215504_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_GOPM_2_20210125T220123_20210125T220545_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_GOPM_2_20210125T220847_20210125T223427_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_GOPM_2_20210125T230238_20210125T233408_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_GOPM_2_20210125T234038_20210125T234625_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_GOPM_2_20210125T234806_20210125T235410_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_GOPM_2_20210125T235716_20210126T000453_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_GOPN_2_20210125T052944_20210125T052947_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_GOPN_2_20210125T070858_20210125T070901_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_GOPN_2_20210125T081153_20210125T081552_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_GOPN_2_20210125T132122_20210125T132205_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_GOPN_2_20210125T152527_20210125T153035_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_GOPN_2_20210125T193005_20210125T193030_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_GOPN_2_20210125T193450_20210125T193703_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_GOPN_2_20210125T220011_20210125T220123_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_GOPR_2_20210125T002447_20210125T002743_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_GOPR_2_20210125T003754_20210125T003837_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_GOPR_2_20210125T052925_20210125T052931_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_GOPR_2_20210125T075559_20210125T080123_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_GOPR_2_20210125T194022_20210125T194058_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	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_GOPN_2_20210125T003636_20210125T003754_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_GOPN_2_20210125T010941_20210125T010952_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_GOPN_2_20210125T011417_20210125T011504_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_GOPN_2_20210125T012628_20210125T012720_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_GOPN_2_20210125T021526_20210125T021650_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_GOPN_2_20210125T025638_20210125T025905_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_GOPN_2_20210125T034353_20210125T034537_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_GOPN_2_20210125T035418_20210125T035534_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_GOPN_2_20210125T061237_20210125T061249_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_GOPN_2_20210125T063136_20210125T063433_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_GOPN_2_20210125T072926_20210125T073356_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_GOPN_2_20210125T073847_20210125T074010_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_GOPN_2_20210125T081153_20210125T081552_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_GOPN_2_20210125T084041_20210125T084350_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_GOPN_2_20210125T092241_20210125T092446_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_GOPN_2_20210125T093351_20210125T093422_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_GOPN_2_20210125T094426_20210125T094549_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_GOPN_2_20210125T110648_20210125T111116_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_GOPN_2_20210125T111859_20210125T111935_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_GOPN_2_20210125T120935_20210125T121047_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_GOPN_2_20210125T124649_20210125T124801_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_GOPN_2_20210125T124855_20210125T125043_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_GOPN_2_20210125T130256_20210125T130419_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_GOPN_2_20210125T131653_20210125T131837_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_GOPN_2_20210125T132122_20210125T132205_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_GOPN_2_20210125T145527_20210125T145728_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_GOPN_2_20210125T151943_20210125T152249_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_GOPN_2_20210125T161634_20210125T162019_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_GOPN_2_20210125T162113_20210125T162123_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_GOPN_2_20210125T170940_20210125T171102_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_GOPN_2_20210125T175919_20210125T180139_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_GOPN_2_20210125T181955_20210125T182029_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_GOPN_2_20210125T183504_20210125T184115_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_GOPN_2_20210125T184355_20210125T184413_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_GOPN_2_20210125T184841_20210125T185022_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_GOPN_2_20210125T193450_20210125T193703_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_GOPN_2_20210125T194238_20210125T194400_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_GOPN_2_20210125T205502_20210125T205737_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_GOPN_2_20210125T205829_20210125T205953_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_GOPN_2_20210125T211411_20210125T211855_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_GOPN_2_20210125T220011_20210125T220123_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_GOPN_2_20210125T233648_20210125T234038_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_GOPR_2_20210125T011119_20210125T011404_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_GOPR_2_20210125T011742_20210125T012628_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_GOPR_2_20210125T013013_20210125T013054_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_GOPR_2_20210125T024741_20210125T025104_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_GOPR_2_20210125T025905_20210125T030649_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_GOPR_2_20210125T043809_20210125T044522_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_GOPR_2_20210125T044745_20210125T045247_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_GOPR_2_20210125T053325_20210125T053930_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_GOPR_2_20210125T055253_20210125T055507_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_GOPR_2_20210125T061249_20210125T061508_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_GOPR_2_20210125T061724_20210125T062414_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_GOPR_2_20210125T070824_20210125T070831_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_GOPR_2_20210125T074841_20210125T075046_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_GOPR_2_20210125T075559_20210125T080123_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_GOPR_2_20210125T080127_20210125T080221_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_GOPR_2_20210125T093422_20210125T094333_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_GOPR_2_20210125T111116_20210125T111859_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_GOPR_2_20210125T112159_20210125T112349_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_GOPR_2_20210125T121047_20210125T121322_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_GOPR_2_20210125T124801_20210125T124855_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_GOPR_2_20210125T125043_20210125T125720_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_GOPR_2_20210125T125720_20210125T130021_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_GOPR_2_20210125T134928_20210125T135208_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_GOPR_2_20210125T142703_20210125T142746_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_GOPR_2_20210125T142904_20210125T143620_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_GOPR_2_20210125T143620_20210125T143824_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_GOPR_2_20210125T144218_20210125T144815_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_GOPR_2_20210125T160901_20210125T161025_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_GOPR_2_20210125T161041_20210125T161517_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_GOPR_2_20210125T165303_20210125T170005_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_GOPR_2_20210125T174848_20210125T175354_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_GOPR_2_20210125T182927_20210125T183407_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_GOPR_2_20210125T192844_20210125T193005_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_GOPR_2_20210125T193030_20210125T193450_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_GOPR_2_20210125T210620_20210125T211411_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_GOPR_2_20210125T215504_20210125T215705_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_GOPR_2_20210125T224435_20210125T225448_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_GOPR_2_20210125T233408_20210125T233648_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.
1.2 Quality Flags (1 Hz & 1Hz PI RM)		

#### L2 Quality Flags (1 Hz & 1Hz PLRM)

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

188

55

139

> 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:

#### 5.8 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 over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors:

#### 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 GOPR and GOPN products over sea ice, but this is to be expected.

Number of products with errors:

## 6. GOP L2 Pole-to-Pole Data Quality Check

#### 6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc). Number of products with errors: 0

### 6.2 P2P Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 0

### 6.3 P2P Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct. Number of products with errors:

### 6.4 P2P Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

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

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

> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over 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.

27

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOP_2_20210124T234157_20210125T003132_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_GOP_2_20210125T003132_20210125T012112_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_GOP_2_20210125T012112_20210125T021047_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_GOP_2_20210125T021047_20210125T030026_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_GOP_220210125T035001_20210125T043941_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_GOP_2_20210125T043941_20210125T052916_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_GOP_2_20210125T052916_20210125T061856_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_GOP_2_20210125T070831_20210125T075810_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_GOP_2_20210125T075810_20210125T084745_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_GOP_2_20210125T084745_20210125T093725_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_GOP_2_20210125T093725_20210125T102700_C001	GPD Wet Tropospheric Correction, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the GPD Wet Troposheric Correction, the MSS height (solution 1) and the Mean Dynamic Topography (solution 1) for on or more records
CS_OFFL_SIR_GOP_2_20210125T102700_20210125T111640_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_GOP_2_20210125T111640_20210125T120615_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_GOP_2_20210125T120615_20210125T125554_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_GOP_2_20210125T125554_20210125T134530_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_GOP_2_20210125T134530_20210125T143509_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_GOP_2_20210125T143509_20210125T152444_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_GOP_220210125T152444_20210125T161424_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_GOP_220210125T161424_20210125T170359_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_GOP_220210125T170359_20210125T175338_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_GOP_220210125T175338_20210125T184313_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOP_220210125T184313_20210125T193253_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_GOP_220210125T193253_20210125T202228_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_GOP_2_20210125T202228_20210125T211208_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_GOP_2_20210125T211208_20210125T220143_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOP_2_20210125T220143_20210125T225122_C001	GPD Wet Tropospheric Correction, Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the GPD Wet Troposheric Correction, the MSS height (solution 1) and the Mean Dynamic Topography (solution 1) for on or more records
CS_OFFL_SIR_GOP_2_20210125T225122_20210125T234058_C002	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1), the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide heigh for one or more records

## 6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:	0				
6.6 P2P Measurement Quality	Flag Check				
P2P Quality Flags (20Hz)					
CryoSat P2P data includes Quality Flags fo	r each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.				
Since the P2P Quality Flags are copied of	irectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.				
Number of products with errors:	28				
P2P Quality Flags (20Hz PLRM)					
Since the P2P Quality Flags are copied of	irectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.				
Number of products with errors:	26				
P2P Quality Flags (1 Hz & 1Hz P	LRM)				
Since the P2P Quality Flags are copied of	irectly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected.				
Number of products with errors:	28				
6.8 P2P Ocean Retracking Qu	ality Check				
P2P Retracking Flags (20Hz)					
Cryosat P2P data includes an ocean retract	king quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.				
Ocean Retracking Quality Flag (PLRM): This flag is currently set for products GOPR and GOPN products over sea ice, but this is to be expected.					
Number of products with errors:	26				
P2P Retracking Flags PLRM					

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

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

28

Number of products with errors:

# 7. GOP 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_GOPM1B	186	186	3	183	0
SIR_GOPR1B	113	113	0	113	0
SIR_GOPN1B	101	101	4	97	0
SIR_GOPM_2	186	186	132	54	0
SIR_GOPR_2	113	113	37	74	2
SIR_GOPN_2	101	101	40	61	0
SIR_GOP_P2P	27	27	0	27	0

## 7.1 QCC Errors

Number of QCC	reports with e	errors:	2								
					Total number	of occurrences	of each error				
Product Type	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR_GOPR_2	2	2	2	2							
<b>Test Description</b>	Test Description Key:										
Abbreviation Test name Detai			Details								
RLOBOPNCDF				Latitude should be	ude should be between -90E7 and 90E7						

RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7

## 7.2 QCC Warnings

Number of QCC repo	rts with warnings	1988					
				per of occurrences of ea			
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_GOPM1B	183	0	0	0	0	0	0
SIR_GOPM_2	0	0	35	31	4	42	0
SIR_GOPN1B	94	0	0	0	0	0	0
SIR_GOPN_2	0	0	8	35	7	22	26
SIR_GOPR1B	111	0	0	0	0	0	0
SIR_GOPR_2	0	2	20	39	8	27	19
Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNCI	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	38	28	0	0	0	0	19
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	14	0	0	24	0	34	0
SIR_GOPR1B	0	0	0	0	0	0	0
SIR_GOPR_2	8	0	34	0	49	0	0
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_GOPM1B	0	0	0	0	0	0	0
SIR_GOPM_2	0	0	1	23	0	4	32
SIR_GOPN1B	0	0	0	0	0	0	0
SIR_GOPN_2	0	30	18	41	47	32	27
SIR GOPR1B	0	0	0	0	0	0	0
SIR GOPR 2	34	0	0	62	25	3	23
	1				I.		
Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_GOPM1B	0	0	0	0	0	0	
SIR GOPM 2	0	2	0	0	0	0	
SIR_GOPN1B	0	0	0	0	45	2	
SIR_GOPN_2	30	18	1	1	0	0	

SIR_GOPR1B	0	0	0	0	113	8	
SIR_GOPR_2	42	1	0	5	0	0	
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD	RBSZOPOEPNCDF
SIR_GOP_2_	13	26	27	4	27	12	26
Product Type	RPEPOPFDPLRMSINNCD	RPEPOPFDSINNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_GOP_2_	13	25	23	16	27	13	22
Due deset Trues	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDE	SPHLPQWNCDF	-	-	-
Product Type	NOWHOLFT DIGDI	ROMHOLI I DI LIGHTODI					

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