

# QA4EO Daily Report for GOP data:

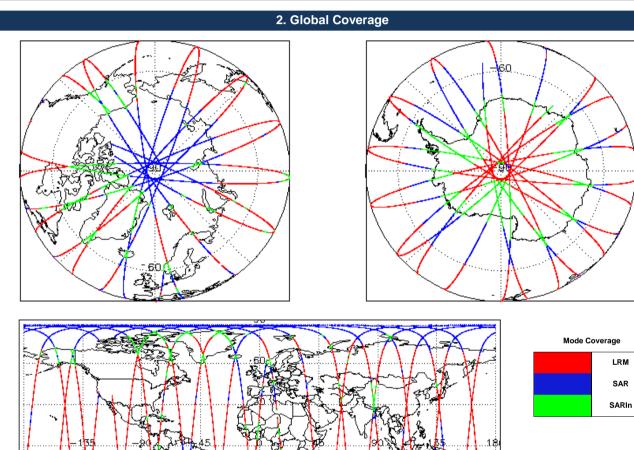
16/09/2021

eport Production:	15-Oct-2021	Check	L1 & L2	P2P
report Froduction.	15-001-2021	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:		Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Geophysical Ocean Products (GOP)	Product Format Check	Nominal	Nominal
Dala 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 7.2	See Section 7.2

1. Overview

#### Mission / Instrument News 15-Sep-2021 None 16-Sep-2021 SIRAL unavailability due to OCM from 00:55:57 to 02:42:49

17-Sep-2021 Nothing planned



## 3. Instrument Configuration

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

SIRAL instrument(s) in use:

SIRAL - A

## 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: 0

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4.2 L1B Product Header Analysis		
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any inc	onsistencies and/or errors raised by the ground-segment processing chain.
L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B DSARIn chains. A modification is required in the next release.	GOPR and GOPN products be	cause 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		
· · ·		- share the could be of Accellance Data Films in some st
Each product is checked for missing Data Set Descriptors with respect to a pre- <b>Number of products with errors:</b> 0	determined baseline and also t	o check the validity of Auxiliary Data Files is correct.
I.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement record	. The bit value of this flag indica	ates any problems when set.
lumber of products with errors: 0		
I.5 L1B Measurement Confidence Data Check		
ryoSat L1B data includes a measurement confidence flag for each measurem	ent record. The bit value of this	flag indicates any problems when set.
Attitude Correction Missing: This flag is currently set in error for GOPR produ	cts due to a configuration issue	. This is being investigated and will be updated in the next SW update.
lumber of products with errors: 0		
I.6 L1B Waveform Group Data Check		
CryoSat L1B data includes a waveform data flag for each measurement record.	The bit value of this flag indica	tes any problems when set
oss of Echo Flag: This flag is currently set for some products over land, but the	-	tes any problems when set.
lumber of products with errors: 10		
	Test Falled	Description
roduct S_OFFL_SIR_GOPM1B_20210916T155545_20210916T163020_C001	Test Failed Loss of Echo	Description The tracking echo is missing for one or more records
S_OFFL_SIR_GOPM1B_20210916T175514_20210916T181000_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T055520_20210916T055641_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T072944_20210916T073043_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T091401_20210916T091850_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T154421_20210916T154744_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T185946_20210916T190246_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPN1B_20210916T190345_20210916T190558_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPR1B_20210916T122814_20210916T123609_C001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_GOPR1B_20210916T155119_20210916T155544_C001	Loss of Echo	The tracking echo is missing for one or more records
5. G	OP Level 2 Data Q	uality Check
.1 L2 Product Format Check		
ach product, retrieved and unpacked from the science server, is checked to e	nsure it consists of both an XMI	header file (.HDR) and a binary product file (.DBL).
lumber of products with errors: 0		
.2 L2 Product Header Analysis		
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or all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any inc	onsistencies and/or errors raised by the ground-segment processing chain.
lumber of products with errors: 0		
.3 L2 Auxiliary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre-	determined baseline and also t	o check the validity of Auxiliary Data Files is correct.
lumber of products with errors: 0		
.4 L2 Auxiliary Correction Error Check		

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

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

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

> Sea State Bias & Sea State Bias PLRM: The error value is currently set for products over sea ice, but this is to be expected.

> Altimetric 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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Number of products with errors:

Product		Description
CS_OFFL_SIR_GOPM_2_20210916T091850_20210916T093202_C001	Topography (1), Total Geocentric Ocean	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_GOPM_2_20210916T184349_20210916T185945_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the Mean Dynamic Topography (solution 1) and the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOPM_2_20210916T223013_20210916T223234_C001		There is an error with the Mean Dynamic Topography (solution 1) for one or more records

CS_OFFL_SIR_GOPN_2_20210916T000941_20210916T001057_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_20210916T024251_20210916T024344_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_20210916T031927_20210916T032125_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_20210916T032532_20210916T032902_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_20210916T050010_20210916T050245_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_20210916T055520_20210916T055641_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_GOPN_2_20210916T063538_20210916T064133_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_20210916T064849_20210916T065028_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_20210916T072944_20210916T073043_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_20210916T073447_20210916T073659_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_20210916T073823_20210916T074048_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_20210916T082759_20210916T082957_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_20210916T091401_20210916T091850_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_20210916T113815_20210916T114041_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES). Non-Equilibrium Long Period	Inere 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_GOPN_2_20210916T131636_20210916T131949_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_20210916T145427_20210916T145835_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_20210916T150406_20210916T150531_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_20210916T154421_20210916T154744_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_GOPN_2_20210916T164202_20210916T164345_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_20210916T172547_20210916T172643_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_20210916T181103_20210916T181245_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_20210916T181953_20210916T182209_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_20210916T185946_20210916T190246_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_20210916T190345_20210916T190558_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_GOPN_2_20210916T195011_20210916T195201_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_20210916T195848_20210916T200334_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_20210916T204027_20210916T204422_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_20210916T214002_20210916T214153_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_20210916T005105_20210916T005558_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
CS_OFFL_SIR_GOPR_2_20210916T040851_20210916T041523_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_20210916T041523_20210916T041649_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_20210916T054749_20210916T055410_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_20210916T055410_20210916T055519_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_20210916T073043_20210916T073447_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_20210916T090751_20210916T091401_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 tidal corrections for one or more records
CS_OFFL_SIR_GOPR_2_20210916T104907_20210916T105427_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_20210916T121714_20210916T121915_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_20210916T122814_20210916T123609_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_20210916T140648_20210916T141510_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_20210916T154745_20210916T155119_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_20210916T155119_20210916T155545_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_20210916T172643_20210916T173224_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_20210916T173238_20210916T173413_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_20210916T175339_20210916T175514_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_20210916T190558_20210916T190902_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_20210916T190903_20210916T191253_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_20210916T204423_20210916T204942_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_20210916T222241_20210916T222939_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

#### 5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

## 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.

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#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_GOPM_2_20210916T000126_20210916T000604_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_20210916T000608_20210916T000940_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_20210916T001447_20210916T004726_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_20210916T024609_20210916T024636_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_20210916T025846_20210916T030333_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_20210916T033245_20210916T033740_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_20210916T033750_20210916T034321_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_20210916T034546_20210916T040851_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_20210916T042258_20210916T042844_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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Calculation         Descent only         Descent only         Descent only           Calculation         Calculation         Selection	CS_OFFL_SIR_GOPM_2_20210916T043015_20210916T045310_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
BL 6FFL JRL COPNL 2. NOT CARTER DAYS 2011 INTERCENTS COPI       and Rescame Cartery Control Contrel Contrecontrol Control Control Control Control Cont	CS_OFFL_SIR_GOPM_2_20210916T050245_20210916T050438_C001		
65     OPT. BR. DDM 2. 201204/TR6109.201204/TR6109.201204/TR6109.201204     Performance and the COCO Amore Fragment Fragm	CS_OFFL_SIR_GOPM_2_20210916T051234_20210916T051815_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
65       OPTL SR COPM 2 2021014TES212 2021014TES212 2021014TES212 2021         120_OPTL SR COPM 2 2021014TES212 202101	CS_OFFL_SIR_GOPM_2_20210916T051829_20210916T052739_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
65.0FTL_SR_00PL_280(101105311_202101010704100011_0001     Debuscuter Caulty Code Amerer and the CODE Amerer Range and the	CS_OFFL_SIR_GOPM_2_20210916T052742_20210916T052902_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CSUDPLICECOMM         Descent County         Endecement County         Endecement County           CSI DPFL SR: COPML 2.202109161060100         Doesn Almater Range, SSM, SWM, Descent County County Program C	CS_OFFL_SIR_GOPM_2_20210916T053343_20210916T054047_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CE_DFL_SR_GOPL_2.0210916T08812_0210916T08812_0210916T08812_021011         and Substantin Zuling, CODA Animeter Range, SSHA, SWH and the CODA Animeter Range and Buscketter Quling Yiegge Technology.           CE_OFL_SR_GOPL_2.0210916T08812_2.0210916T08143_COD1         CoDan Animeter Range, SSHA, SWH and Buckketter Quling Yiegge Technology.         The Ocean Animeter Range, SSHA, SWH and Buckketter Quling Yiegge Technology.           CE_OFTL_SR_GOPL_2.0210916T082402_20210916T082402_CO11         CoDan Animeter Range, SSHA, SWH and Buckketter Quling Yiegge Technology.         The Ocean Animeter Range, SSHA, SWH and Buckketter Quling Yiegge Technology.           CE_OFTL_SR_GOPL_2.0210916T082402_C0210916T082402_C011         CoOGA Animeter Range, SSHA, SWH and Buckketter Quling Yiegge Technology.         The OCEA Animeter Range and Buckketter Quling Yiegge Technology.           CE_OFTL_SR_GOPL_2.0210916T082402_C0210916T084402_C021         COOGA Animeter Range And Buckketter Quling Yiegge Technology.         The OCEA Animeter Range and Buckketter Quling Yiegge Technology.           CE_OFTL_SR_GOPL_2.0210916T084102_D0210916T084102_C021         COOGA Animeter Range And Buckketter Quling Yiegge Technology.         The OCEA Animeter Range and Buckketter Quling Yiegge Technology.           CE_OFTL_SR_GOPL_2.0210916T084102_D0210916T084102_D0210916T084102_D0210916T084102_D0210916T08412_	CS_OFFL_SIR_GOPM_2_20210916T055641_20210916T060011_C001		
GS: 0EFL SR: 00PH 2 20110161080282 20110161080248 20110161081743 C001       and Bassatter Duality Clog Allement Page and Bassatter Duality Flags have been been been been been been been be	CS_OFFL_SIR_GOPM_2_20210916T060210_20210916T060801_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CB. OFTL_SIR_GOPM_2_20210916T062402_20210916T06340_001       and Backsatter Quality       main the COCO Altimeter and the COCO Altimeter and the COCO Altimeter and the COCO Altimeter and the COCO Altimeter Altings and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T064133_30210916T06433_C001       OCCO Altimeter Range Quality, OCCO Biology and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T064133_D210916T06435_C001       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T06535_0_2001       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T06535_0201916T06535_0_2011       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T076531_C001       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or more records.         CB_OFTL_SIR_GOPM_2_20210916T07651_C001       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or none records.         CB_OFTL_SIR_GOPM_2_20210916T077011_30210916T077514_C001       OCCO Altimeter Range, DSHA, SWH and Backsatter Quality Flags have been set to one or none records.         CB_OFTL_SIR_GOPM_2_20210916T077414_C001       OCCOA Altimeter Range, SSHA, SWH and Backsatter Quality Flags have been set to one or none records.         CB_OFTL_SIR_GOPM_2_20210916T077444_20210916T077514_C001       OCCOA Altimeter Range, SSHA, SWH an	CS_OFFL_SIR_GOPM_2_20210916T060928_20210916T061743_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Displant         Displant         Increase         Increase           CS_OFFL_SIR_GOPM_2_20210916T064497_20210916T064449_0001         CCOG Altimeter Range SIMA_SUM and Backscatter Quality Flags have been set for one or more records.         The COGO Altimeter Range SIMA_SUM and Backscatter Quality Flags have been set for one or more records.           CS_OFFL_SIR_GOPM_2_20210916T065140_20210916T005756_0001         Cocoe Altimeter Range SIMA_SUM and Backscatter Quality Flags have been red backscatter Quality.         The Ocea Altimeter Range SIMA_SUM and Backscatter Quality Flags have been red backscatter Quality.           CS_OFFL_SIR_GOPM_2_20210916T005751_00210916T070251_0001         Ocean Altimeter Range SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.         The Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.           CS_OFFL_SIR_GOPM_2_20210916T07011_00210916T072247_0001         Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.         The Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.           CS_OFFL_SIR_GOPM_2_20210916T077410_0020016T07247_0001         Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.         The Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.           CS_OFFL_SIR_GOPM_2_20210916T0774408_02010916T074714_0001         Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.         The Ocean Altimeter Range, SIMA_SUM and Backscatter Quality Flags and Backscatter Quality.           CS_OFFL_SIR_GOPM_2_20210916T076444_002	CS_OFFL_SIR_GOPM_2_20210916T062402_20210916T063440_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Control         Security         for one or more records.           C3. OFFL_SIR_GOPM_2_20210916T065140_20210916T065736_C001         Cesa Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality COOG Attimeter Range, SSHA, SWH and Backscatter Quality Plags and Backscatter Quality Plags and Backscatter Quality Plags	CS_OFFL_SIR_GOPM_2_20210916T064133_20210916T064353_C001		
CS. OFFL_SIR_GOPM_2_20210916T065140_20210916T076535_C001       and Backscater Quality COGA Mimeter Range and Backscater Quality Flags have been set for neo rome seconds.         CS_OFFL_SIR_GOPM_2_20210916T076551_20210916T070531_C001       Cotan Alimeter Range, SSHA, SWH and Backscater Quality Flags have been and backscater Quality	CS_OFFL_SIR_GOPM_2_20210916T064427_20210916T064849_C001		
CS_OFFL_SR_GOPM_2.20210916T076585_20210916T070531_0001       and Backscatter Quality, CCG Altimeter Range and Backscatter Quality Flags have been set for ore or more records.         CS_OFFL_SR_GOPM_2.20210916T070711_20210916T072247_C001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for ore or more records.         CS_OFFL_SR_GOPM_2.20210916T074048_20210916T074241_0001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for ore or more records.         CS_OFFL_SR_GOPM_2.20210916T074403_20210916T074241_0001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T074403_20210916T074714_0001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T074404_20210916T074714_0001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T074844_20210916T07512_C001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T076545_C001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T076196.0001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SR_GOPM_2.20210916T080640_20210916T081506_C001       Coan Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_GOPM_2_20210916T065140_20210916T065736_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2.20210916T07211_20210916T072247_C001       and Backscater Quality_COCG Altimeter and the OCOG Altimeter Range and Backscater Quality Flags have been and Backscater Quality CoCG Altimeter Range and Backscater Quality Flags have been and Backscater Quality CoCG Altimeter Range and Backscater Quality Flags have been and Backscater Quality Flags have been and Backscater Quality CoCG Altimeter Range and Backscater Quality Flags have been and Backscater Quality Flags h	CS_OFFL_SIR_GOPM_2_20210916T065851_20210916T070531_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T074048_20210916T074241_C001       and Backscatter Quality. CCCG Altimeter Range and Backscatter Quality Flags have been and the CCOG Altimeter Range, SSHA, SWH and Backscatter Quality. CCCG Altimeter Range and Backscatter Quality. Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T080132_20210916T08030_C001       CCCGA Altimeter Range Quality. CCCG       The CCCGA Altimeter Range and Backscatter Quality. Flags have been set for one or mor	CS_OFFL_SIR_GOPM_2_20210916T070711_20210916T072247_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T074403_20210916T074714_C001       and Backscatter Quality       and Backscatter Quality       set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T074844_20210916T075112_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T080040_20210916T081506_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T081922_20210916T082758_C001       OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T085301_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T09033_20210916T090751_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090751_C001       Ocean Altimeter Range, SHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_GOPM_2_20210916T074048_20210916T074241_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T075484_20210916T075112_C001       and Backscatter Quality       and the CCCO Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T080040_20210916T081506_C001       Ocean Altimeter Range Quality, OCCG Altimeter Range And Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T081922_20210916T082758_C001       OCCGA Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T08301_C001       OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T080301_C001       OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T09023_20210916T09030_C001       OCCGA Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T09023_20210916T090751_C001       OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001	CS_OFFL_SIR_GOPM_2_20210916T074403_20210916T074714_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001       and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Flags have been Range and Backscatter Quality       and the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T080040_20210916T081506_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality COCG Altimeter Range and Backscatter Quality COCG Altimeter Range and Backscatter Quality COCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T081922_20210916T082758_C001       OCCG Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T085301_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090033_20210916T090030_C001       Ocean Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T0900716_20210916T090751_C001       OCCG Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T09	CS_OFFL_SIR_GOPM_2_20210916T074844_20210916T075112_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T080040_20210916T080506_C001       and Backscatter Quality       and Backscatter Quality       and the CCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T081922_20210916T082758_C001       OCOG Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T08301_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.       The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T080023_20210916T090030_C001       Ocean Altimeter Range Quality, OCOG       The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality Flags and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality Flags and Backscatter Quality Flags and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Fla	CS_OFFL_SIR_GOPM_2_20210916T075234_20210916T075545_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_202109161061922_202109161062758_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T085301_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090023_20210916T090030_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T0900716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_202	CS_OFFL_SIR_GOPM_2_20210916T080040_20210916T081506_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T085301_C001       and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090023_20210916T090030_C001       OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.       The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.       The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.       The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.       The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for o	CS_OFFL_SIR_GOPM_2_20210916T081922_20210916T082758_C001		
CS_OFFL_SIR_GOPM_2_202109161090023_202109161090030_C001       Backscatter Quality       for one or more records.         CS_OFFL_SIR_GOPM_2_202109161090716_202109161090751_C001       Cean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_GOPM_2_202109161090716_202109161090751_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_GOPM_2_202109161093217_202109161095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_GOPM_2_202109161093217_202109161095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and Backscatter Quality         CS_OFFL_SIR_GOPM_2_202109161093217_202109161095450_C001       Ocean Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set         CS_OFFL_SIR_GOPM_2_202109161093217_202109161095450_C001       OCCGA Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set	CS_OFFL_SIR_GOPM_2_20210916T083132_20210916T085301_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001       and Backscatter Quality, OCOG Altimeter       and the OCOG Altimeter Range and Backscatter Quality         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality       The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records.       The Ocean Altimeter Range and Backscatter Quality Flags have been set for one or more records.         CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001       OCCG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_GOPM_2_20210916T090023_20210916T090030_C001		
CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_GOPM_2_20210916T090716_20210916T090751_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_GOPM_2_20210916T093217_20210916T095450_C001	and Backscatter Quality, OCOG Altimeter	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_GOPM_2_20210916T100122_20210916T100559_C001		

CS_OFFL_SIR_GOPM_2_20210916T101112_20210916T101316_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_20210916T101425_20210916T103835_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_20210916T110747_20210916T113302_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_20210916T114041_20210916T114635_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_20210916T115003_20210916T121018_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_20210916T121020_20210916T121554_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_20210916T123911_20210916T131213_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_20210916T131949_20210916T132507_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_20210916T133147_20210916T133339_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_20210916T140242_20210916T140648_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_20210916T141510_20210916T141546_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_20210916T141703_20210916T142752_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_20210916T143038_20210916T145159_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_20210916T145959_20210916T150406_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_20210916T150936_20210916T151913_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_20210916T152101_20210916T152715_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_20210916T152852_20210916T153335_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_20210916T155545_20210916T163020_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_20210916T163338_20210916T163851_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_20210916T163857_20210916T163903_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_20210916T163911_20210916T164202_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_20210916T164952_20210916T172027_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_20210916T173414_20210916T175331_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_20210916T175514_20210916T181000_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_20210916T181246_20210916T181750_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_20210916T182720_20210916T183730_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_20210916T184349_20210916T185945_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_20210916T191253_20210916T192907_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_20210916T193515_20210916T194837_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_20210916T195201_20210916T195701_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_20210916T200504_20210916T202727_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_20210916T202811_20210916T204027_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_20210916T210640_20210916T212702_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_20210916T213245_20210916T213619_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_20210916T213641_20210916T214002_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_20210916T214346_20210916T221138_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_20210916T222939_20210916T223004_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_20210916T223013_20210916T223234_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_20210916T224209_20210916T230655_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_20210916T231029_20210916T231534_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_20210916T232315_20210916T235639_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_20210916T004931_20210916T005105_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_20210916T073447_20210916T073659_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_20210916T133718_20210916T133722_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_20210916T185946_20210916T190246_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_20210916T210101_20210916T210437_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_20210916T042154_20210916T042258_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_20210916T061743_20210916T061957_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_20210916T154037_20210916T154200_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_20210916T205017_20210916T205138_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_20210916T004931_20210916T005105_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_20210916T025523_20210916T025845_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_20210916T032532_20210916T032902_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_20210916T050010_20210916T050245_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_20210916T050439_20210916T050742_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_20210916T054047_20210916T054206_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_20210916T060011_20210916T060210_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_20210916T063538_20210916T064133_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_20210916T072944_20210916T073043_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_20210916T073823_20210916T074048_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_20210916T074241_20210916T074403_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_20210916T075723_20210916T080039_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_20210916T082759_20210916T082957_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_20210916T085441_20210916T085801_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_20210916T085849_20210916T090008_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_20210916T091401_20210916T091850_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_20210916T095713_20210916T095835_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_20210916T113815_20210916T114041_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_20210916T114635_20210916T114802_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_20210916T131636_20210916T131949_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_20210916T134728_20210916T134912_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_20210916T135738_20210916T135822_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_20210916T140115_20210916T140242_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_20210916T145427_20210916T145835_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_20210916T152803_20210916T152852_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_20210916T154200_20210916T154245_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_20210916T154421_20210916T154744_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_20210916T172028_20210916T172204_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_20210916T183730_20210916T183836_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_20210916T185946_20210916T190246_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_20210916T195011_20210916T195201_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_20210916T204027_20210916T204422_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_20210916T210101_20210916T210437_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_20210916T213619_20210916T213626_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_20210916T214002_20210916T214153_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_20210916T224116_20210916T224209_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_20210916T001057_20210916T001446_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_20210916T005105_20210916T005558_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_20210916T031516_20210916T031926_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_20210916T032903_20210916T033244_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_20210916T040851_20210916T041523_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_20210916T041704_20210916T041938_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_20210916T045310_20210916T050009_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_20210916T054749_20210916T055410_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_20210916T055410_20210916T055519_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_20210916T061743_20210916T061957_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_20210916T072827_20210916T072944_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_20210916T073043_20210916T073447_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_20210916T081506_20210916T081737_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_20210916T082958_20210916T083131_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_20210916T090037_20210916T090104_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_20210916T090751_20210916T091401_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_20210916T100818_20210916T101111_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_20210916T104907_20210916T105427_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_20210916T113303_20210916T113645_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_20210916T121554_20210916T121611_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_20210916T121714_20210916T121915_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_20210916T122233_20210916T122413_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_20210916T122814_20210916T123609_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_20210916T131213_20210916T131636_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_20210916T132621_20210916T133146_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_20210916T135414_20210916T135738_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_20210916T135933_20210916T140114_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_20210916T140648_20210916T141510_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_20210916T145159_20210916T145426_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_20210916T150531_20210916T150935_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_20210916T154745_20210916T155119_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_20210916T155119_20210916T155545_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_20210916T164345_20210916T164952_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_20210916T172643_20210916T173224_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_20210916T175339_20210916T175514_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_20210916T182210_20210916T182720_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_20210916T184137_20210916T184349_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_20210916T190558_20210916T190902_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_20210916T190903_20210916T191253_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_20210916T204423_20210916T204942_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_20210916T205017_20210916T205138_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one more records.
CS_OFFL_SIR_GOPR_2_20210916T222241_20210916T222939_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 bee set for one or more records.
CS_OFFL_SIR_GOPR_2_20210916T230655_20210916T230856_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 bee set for one or more records.
L2 Quality Flags (1 Hz & 1Hz PLRM)		
Currently, there are several common flags raised in the Level 2 products,	which are summarised below.	
> 1Hz and 1Hz Ocean SSHA Quality Flags: These flags are currently set for p Number of products with currently	products over sea ice, which is to be expected.	
Number of products with errors: 175		
5.8 L2 Ocean Retracking Quality Check		
L2 Retracking Flags (20Hz)		
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz meas <b>Ocean Retracking Quality Flag:</b> This flag is currently set for products over lan	-	
lumber of products with errors: 57		
L2 Retracking Flags (20Hz, PLRM)		
CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz PLRM	I 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 the	nis is to be expected.
Number of products with errors: 125		
6. GOP L	2 Pole-to-Pole Data Quality	/ Check
6.1 P2P Product Format Check		
ach product, retrieved and unpacked from the science server, is checked to e	nsure it consists of both an XML header file (.HI	DR) and a NetCDF product file (.nc).
lumber of products with errors: 0		
5.2 P2P Product Header Analysis		
•		
or all products, a series of pre-defined checks are performed on the MPH and lumber of products with errors: 0	SPH in order to identify any inconsistencies and	d/or errors raised by the ground-segment processing chain.
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 valio	dity of Auxiliary Data Files is correct.
Number of products with errors: 0		
6.4 P2P Auxiliary Correction Error Check		
For all products, the auxiliary corrections within the Geophysical Group are che	cked for the default error value (32767).	
Currently, there are some common auxiliary correction errors raised in th followed by a table highlighting any additional issues which may arise fro		to surface type. All common flags are summarised in the list below,
> ECMWF Meteo Corrections: Currently the following corrections are not com and the U-Wind and V-Wind components of the ECMWF model wind vector. The the table below.	puted over CONTINENTAL ICE: Dry Troposphe	
> Sea State Bias & Sea State Bias PLRM: The error value is currently set for	products over sea ice, but this is to be expected	J.
- Altimetric Wind Speed Error: The error value is currently set for products ov	ver land and sea ice, but this is to be expected.	
Number of products with errors: 26		
Product	Test Failed	Description
CS_OFFL_SIR_GOP_220210916T000627_20210916T005604_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOP_2_20210916T023519_20210916T032456_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
S_OFFL_SIR_GOP_2_20210916T032456_20210916T041434_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
S_OFFL_SIR_GOP_2_20210916T041434_20210916T050411_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOP_220210916T050411_20210916T055348_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOP_2_20210916T055348_20210916T064325_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 Dynam Topography height (solution 1) and the Total Geocentric Ocean Tide he (solution 1: GOT) for one or more records
CS_OFFL_SIR_GOP_220210916T064325_20210916T073303_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOP_220210916T073303_20210916T082240_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records
CS_OFFL_SIR_GOP_2_20210916T082240_20210916T091218_C001	Mean Sea Surface (1), Mean Dynamic Topography (1) Mean Sea Surtace (1), Mean Dynamic	There is an error with the MSS height (solution 1) and the Mean Dynam Topography height (solution 1) for one or more records I here is an error with the MSS height (solution 1) and the Mean Dynam

CS\_OFFL\_SIR\_GOP\_2\_20210916T091218\_20210916T100155\_C001

Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide Inere 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 height for one or more records

CS_OFFL_SIR_GOP_2_20210916T100155_20210916T105133_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_20210916T105133_20210916T114110_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES). Non-Equilibrium Lond Period	Inere 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 height for one or more records
CS_OFFL_SIR_GOP_2_20210916T114110_20210916T123047_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_20210916T123047_20210916T132024_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_20210916T132024_20210916T141002_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_20210916T141002_20210916T145939_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_220210916T145939_20210916T154916_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_20210916T154916_20210916T163853_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_220210916T163853_20210916T172831_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_20210916T172831_20210916T181808_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_220210916T181808_20210916T190746_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_20210916T190746_20210916T195723_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_220210916T195723_20210916T204700_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_20210916T204700_20210916T213638_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_220210916T213638_20210916T222615_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_220210916T222615_20210916T231552_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
6.5 P2P Measurement Confidence Data Check		
CrueSat D2D data includes a magaurement confidence flag for each 20 Hz magau	amont record. The hit value of this flag india	ates any problems when est

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:

# 6.6 P2P Measurement Quality Flag Check P2P Quality Flags (20Hz) CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products. Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. Number of products with errors: 28 P2P Quality Flags (20Hz PLRM) Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. Number of products with errors: 27

 P2P Quality Flags (1 Hz & 1Hz PLRM)

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

 Number of products with errors:
 28

# 6.8 P2P Ocean Retracking Quality Check

### P2P Retracking Flags (20Hz)

Cryosat P2P data includes an ocean retracking 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.

24

28

Number of products with errors:

#### P2P Retracking Flags PLRM

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

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

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	149	149	3	146	0
SIR_GOPR1B	99	99	0	99	0
SIR_GOPN1B	99	99	0	99	0
SIR_GOPM_2	149	149	95	54	0
SIR_GOPR_2	99	99	33	66	0

SIR_GOPN_2 SIR_GOP_P2P		9 27	99 27	40 0		59 27	0 0	
7.1 QCC Errors								
Number of QCC reports	s with errors:	0						
7.2 QCC Warning	<u>js</u>							
Number of QCC reports	s with warnings	1898	Total num	ber of occurrences of e	each warning			
Product Type SIR_GOPM1B	BCSHNCDF 146	MVIOEPFDNCDF	MVIOEPNCDF 0	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDP		
SIR_GOPM_2	0	36	32	2	34	0	32	
SIR_GOPN1B	99	0	0	0	0	0	0	
SIR_GOPN_2	0	7	27 0	5	22	28	20	
SIR_GOPR1B SIR_GOPR_2	96 0	0 29	32	0	0	0 29	0 14	
Product Type SIR_GOPM1B	RNELPOTONCDF 0		DF RPEPOPFDPLRMSARNC			RPEPOPFDSINNC 0	DF RPEPOPLRMNCDF	
SIR_GOPM_2	1	29	0	0	0	0	22	
SIR_GOPN1B	0	0	0	0	0	0	0	
SIR_GOPN_2	0	0	0	20	0	28	0	
SIR_GOPR1B SIR_GOPR_2	0 0	0	0 35	0	0 42	0	0	
		<u> </u>		-				
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF	
SIR_GOPM1B SIR_GOPM_2	0	0	0	0 27	0	0	0 30	
SIR_GOPN1B	0	0	0	0	0	0	0	
SIR_GOPN_2	0	24	13	37	44	26	25	
SIR_GOPR1B SIR_GOPR_2	0 33	0	0	0 56	0 41	0 6	0 32	
SIK_GOFK_2	33	0	0	56	41	0	32	
Product Type		RSWHOEPNCDF	SCSTODHRNCDF	SCSTODNCDF	-	-	-	
SIR_GOPM1B	0	0	0	0				
SIR_GOPM_2 SIR_GOPN1B	0	3	0 43	0				
SIR_GOPN_2	27	12	0	0				
SIR_GOPR1B	0	0	99	1				
SIR_GOPR_2	40	2	0	0				
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDP	LRMNCD RBSZOPOEPNCDF	
SIR_GOP_2_	14	27	27	5	27	15	26	
Product Type	RNELPOTONCDF	RPEPOPFDPLRMS		RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	
SIR_GOP_2_	1	16	27	20	16	27	17	
Product Type	RSSHAONCDF	RSWHOEPFDNCD	F RSWHOEPFDPLRMNCDF		SPHLPQWNCDF	-	_	
SIR_GOP_2_	20	27	17	12	27			
Test Description Key:								
Abbreviation	Test name			Details				
BCSHNCDF	BurstCounterStep20HzNetC	DF		The burst counter should b	e one higher with regard to the	e previous burst cour	iter	
MVIOEPFDNCDF	MissingValueIntOceanExclu	dingPolarFD2NetCDF	F	The value should not be a	'missing value' for surface ty	be 0 only for latitudes	between -70 and 70 degrees	
MVIOEPNCDF	MissingValueIntOceanExclu	dingPolarNetCDF		The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIONCDF	- MissingValueIntOceanNetCI	)F		The value should not be a 'missing value' for surface type 0 only				
	_		DULUEDONUODE					
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF			The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF			The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF			The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes				
RNELPOTONCDF	RangeNELPOceanTideOcea	anNetCDF				ht should be between	-40mm and 40mm (or missing) for	
RPEPOPFDLRMNCDF	RangePeakinessExcludingP	RangePeakinessExcludingPolarOPFD2LRMNetCDF		surface type = ocean The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and				
			70 degrees					
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF		The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 an 70 degrees					
RPEPOPFDPLRMSINN	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF		The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees					
CDF RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF		The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and					
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF		70 degrees The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and					
RPEPOPLRMNCDF			To degrees The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and					
			70 degrees					
RPEPOPSARNCDF				The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF T			The Peakiness should be b	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 an			
				70 degrees The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean				
RSSBCONCDF	RangeSeaStateBiasCorrecti	onOceanNetCDF		The sea state bias correction	on should be between -500m		ig) for surface type = ocean	
RSSBCONCDF	RangeSeaStateBiasCorrecti RangeSeaSurfaceHeightAnd		CDF				or missing) for surface type = ocean	
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnd	omalyOceanFD3NetC		The sea surface height and	omaly should be between -30	00mm and 3000mm (4	or missing) for surface type = ocean	
RSSHAOFDNCDF RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnd	omalyOceanFD3NetC omalyOceanFD3PLR		The sea surface height and The sea surface height and	omaly should be between -30 omaly should be between -30	00mm and 3000mm (i	or missing) for surface type = ocean or missing) for surface type = ocean	
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnd RangeSeaSurfaceHeightAnd RangeSeaSurfaceHeightAnd	omalyOceanFD3NetC omalyOceanFD3PLRI omalyOceanNetCDF	MNetCDF	The sea surface height and The sea surface height and The sea surface height and	omaly should be between -30 omaly should be between -30 omaly should be between -30	00mm and 3000mm ( 00mm and 3000mm ( 00mm and 3000mm (	or missing) for surface type = ocear or missing) for surface type = ocear or missing) for surface type = ocear	
RSSHAOFDNCDF RSSHAOFDPLRMNCD	RangeSeaSurfaceHeightAnd	omalyOceanFD3NetC omalyOceanFD3PLRI omalyOceanNetCDF	MNetCDF	The sea surface height and The sea surface height and The sea surface height and	omaly should be between -30 omaly should be between -30 omaly should be between -30 it should be between 0mm an	00mm and 3000mm ( 00mm and 3000mm ( 00mm and 3000mm (	or missing) for surface type = ocear or missing) for surface type = ocear	

Iatitudes between -70 and 70 degrees The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees The sequence counter should be modulo 4 higher with regard to the previous sequence counter RSWHOEPFDPLRMNC RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF DF RSWHOEPNCDF RangeSignificantWaveHeightOceanExcludingPolarNetCDF

The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

# 7.3 Missing QCC Reports

SCSTODHRNCDF

SCSTODNCDF

Number of products with missing QCC reports:

SequenceCounterStepTODHRNetCDF

0

SequenceCounterStepTODNetCDF