

05-May-2023

None 06-May-2023 Nothing planned

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

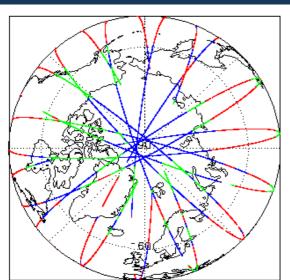
05/05/2023

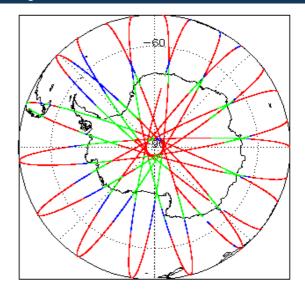
# IDEAS-QA4E®

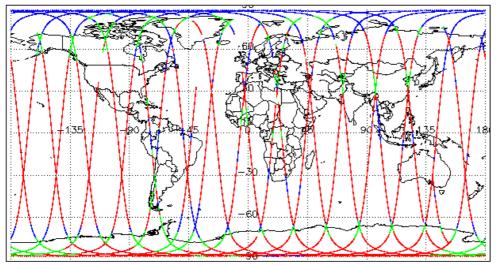
Panart Braduation	00 May 2022	Check	L1 & L2
Report Production:	09-May-2023	Server check: science-pds.cryosat.esa.int	Nominal
Processor Used:	Cruc Cat Occar Dresser	Server check: calval-pds.cryosat.esa.int	Nominal
	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
	L1B & L2 Science Data	Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
We would love to hear from you! Please let us know your feedback about these daily quality reports: What do you like/ dislike? What quality information do you need? Send your feedback to cs2_gc_team@telespazio.com		Auxiliary Correction Error Check	See Section 5.4
		Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.2

1. Overview

# 2. Global Coverage







Mode Coverage			
LRM			
	SAR		
	SARIn		

# 3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A
Star Tracker(s) in use:	Star Tracker 1

4. NOP Level 1B Data Quality Check

#### 4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis			
For all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any inconsi	istencies 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 NOPR and NOPN products because the I1b_processing_quality_hr field is not correctly configured in the OSAR and OSARIn chains. A modification is required in the next release.			
Number of products with errors: 0			
4.3 L1B Auxilary Data File Usage Check			
Each product is checked for missing Data Set Descriptors with respect to a pr	e-determined baseline and also to ch	eck the validity of Auxiliary Data Files is correct	
> Dynamic Atmospheric Correction: The DAC is missing in all products become a product of the			
Number of products with errors: 0			
4.4 L1B Auxiliary Correction Error Check			
CryoSat L1B data includes a correction error flag for each measurement recor	d. The bit value of this flag indicates	any problems when set.	
Number of products with errors: 0			
4.5 L1B Measurement Confidence Data Check			
CryoSat L1B data includes a measurement confidence flag for each measurer	nent record. The bit value of this flag	indicates any problems when set.	
> Attitude Correction Missing: This flag is currently set in error for NOPR pr	oducts due to a configuration issue.	The attitude correction is not actually missing, This is being investigated and will be	
updated in the next SW update.	-		
Number of products with errors: 1			
Product	Test Failed	Description	
CS OFFL SIR NOPM1B 20230505T180300 20230505T180640 C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more	
	J J	records	
Number of products with errors: 21 Product	Test Failed	Description	
CS_OFFL_SIR_NOPM1B_20230505T031250_20230505T034637_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPM1B_20230505T074317_20230505T074446_C001	Loss of Echo		
CS_OFFL_SIR_NOPM1B_20230505T131351_20230505T132417_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T012517_20230505T012626_C001		The tracking echo is missing for one or more records	
	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001	Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001 CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001	Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T0725807_20230505T030434_C001	Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T07556_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T030434_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061044_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06240_C001           CS_OFFL_SIR_NOPR1B_20230505T061916_20230505T062240_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001	Loss of Echo	The tracking echo is missing for one or more records         The tracking e	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061044_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06240_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062466_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T080540_C001	Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001           CS_OFFL_SIR_NOPR1B_20230505T061916_20230505T06240_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T080540_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T084444_C001	Loss of Echo	The tracking echo is missing for one or more records         The tracking e	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001 CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001 CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T30108_C001 CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001 CS_OFFL_SIR_NOPR1B_20230505T061916_20230505T062240_C001 CS_OFFL_SIR_NOPR1B_20230505T06218_20230505T062240_C001 CS_OFFL_SIR_NOPR1B_20230505T0650_20230505T062646_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T111730_20230505T112446_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001 CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001 CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T025807_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06240_C001 CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T080540_C001 CS_OFFL_SIR_NOPR1B_20230505T0793821_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T103321_20230505T112446_C001 CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T0444027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001           CS_OFFL_SIR_NOPR1B_20230505T061916_20230505T06240_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062466_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T06244_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001           CS_OFFL_SIR_NOPR1B_20230505T03321_20230505T094544_C001           CS_OFFL_SIR_NOPR1B_20230505T112446_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T175757_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001 CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001 CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T025807_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06240_C001 CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T080540_C001 CS_OFFL_SIR_NOPR1B_20230505T0793821_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T103321_20230505T112446_C001 CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061044_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06246_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001           CS_OFFL_SIR_NOPR1B_20230505T03821_20230505T1324544_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001           CS_OFFL_SIR_NOPR1B_20230505T175042_20230505T175757_C001           CS_OFFL_SIR_NOPR1B_20230505T1225837_20230505T1225906_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001           CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T075458_C001           CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T230108_C001           CS_OFFL_SIR_NOPN1B_20230505T025807_20230505T030434_C001           CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061044_C001           CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T06246_C001           CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062646_C001           CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001           CS_OFFL_SIR_NOPR1B_20230505T03821_20230505T1324544_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001           CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001           CS_OFFL_SIR_NOPR1B_20230505T175042_20230505T175757_C001           CS_OFFL_SIR_NOPR1B_20230505T1225837_20230505T1225906_C001	Loss of Echo         Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CS_OFFL_SIR_NOPN1B_20230505T030434_20230505T031028_C001 CS_OFFL_SIR_NOPN1B_20230505T074529_20230505T074704_C001 CS_OFFL_SIR_NOPN1B_20230505T075356_20230505T075458_C001 CS_OFFL_SIR_NOPN1B_20230505T194853_20230505T195046_C001 CS_OFFL_SIR_NOPN1B_20230505T230021_20230505T030434_C001 CS_OFFL_SIR_NOPR1B_20230505T025807_20230505T044447_C001 CS_OFFL_SIR_NOPR1B_20230505T044027_20230505T044447_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T061604_C001 CS_OFFL_SIR_NOPR1B_20230505T061350_20230505T062464_C001 CS_OFFL_SIR_NOPR1B_20230505T062318_20230505T062464_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T080540_C001 CS_OFFL_SIR_NOPR1B_20230505T075650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T073650_20230505T094544_C001 CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001 CS_OFFL_SIR_NOPR1B_20230505T132417_20230505T132556_C001 CS_OFFL_SIR_NOPR1B_20230505T175042_20230505T175757_C001 CS_OFFL_SIR_NOPR1B_20230505T225837_20230505T225906_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for	

## 5.2 L2 Product Header Analysis

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

#### Number of products with errors:

### 5.3 L2 Auxiliary Data File Usage Check

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

Wind Model File Usage: This file is currently not included in all L2 products.

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

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

0

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

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

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

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

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

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20230505T040008_20230505T042507_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPM_2_20230505T045715_20230505T052507_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPM_2_20230505T094610_20230505T094639_C001	Total Geocentric Ocean Tide (FES), Non Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPM_2_20230505T114516_20230505T114829_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide	There is an error with the MSS height (solution 1), the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records
CS_OFFL_SIR_NOPM_2_20230505T162241_20230505T162346_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T002836_20230505T003229_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T011816_20230505T011952_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T012517_20230505T012626_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T015950_20230505T020318_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T030434_20230505T031028_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T034723_20230505T034911_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T035721_20230505T035945_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T043847_20230505T044027_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T044447_20230505T044855_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_NOPN_2_20230505T052652_20230505T052833_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T062240_20230505T062318_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T062646_20230505T063100_C001	Mean Sea Surface (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T070700_20230505T071031_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T074529_20230505T074704_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T084615_20230505T084935_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T085448_20230505T085612_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T093608_20230505T093821_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T103350_20230505T103458_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T121052_20230505T121246_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T125428_20230505T125645_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T134926_20230505T135427_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T143607_20230505T143624_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T152002_20230505T152256_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

CS_OFFL_SIR_NOPN_2_20230505T152919_20230505T153217_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T161008_20230505T161349_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T161429_20230505T161451_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T174534_20230505T175042_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T180007_20230505T180130_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T194853_20230505T195046_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T201906_20230505T201924_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20230505T202548_20230505T202854_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T215851_20230505T220153_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T220449_20230505T220828_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20230505T233928_20230505T234203_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T011953_20230505T012138_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T012138_20230505T012516_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T025807_20230505T030434_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T044027_20230505T044447_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T061916_20230505T062240_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T062318_20230505T062646_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T075650_20230505T080540_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T093821_20230505T094544_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T094639_20230505T094713_C001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPR_2_20230505T111730_20230505T112446_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T123213_20230505T123426_C001	Mean Sea Surface (1), Mean Dynamic Topography (1), Total Geocentric Ocean Tide (GOT)	There is an error with the MSS height (solution 1), the Mean Dynamic Topography height (solution 1) and the Total Geocentric Ocean Tide height (solution 1: GOT) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T125645_20230505T130208_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T143525_20230505T143607_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T143624_20230505T144122_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T161349_20230505T161359_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T161359_20230505T161429_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T161451_20230505T162241_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T175042_20230505T175757_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20230505T210605_20230505T210757_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height 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.

Product

CS\_OFFL\_SIR\_NOPM\_2\_20230505T180300\_20230505T180640\_C001

Test Failed

Power scaling error

Description
There is an error in the scaling of the L2 waveform for one or more records

### 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20 Hz)

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.

1

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

87

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20230504T235130_20230505T000909_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T001038_20230505T002436_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T003229_20230505T003430_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T004122_20230505T005649_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T005850_20230505T010814_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T013604_20230505T014718_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T020318_20230505T020726_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T021034_20230505T021835_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T022053_20230505T023557_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T031250_20230505T034637_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T035148_20230505T035721_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T040008_20230505T042507_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T045715_20230505T052507_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T053121_20230505T053600_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T053851_20230505T055925_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T060809_20230505T061102_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T061604_20230505T061627_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T063100_20230505T070419_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T071031_20230505T071603_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T071744_20230505T072350_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T074704_20230505T074810_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPM_2_20230505T075458_20230505T075649_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T080958_20230505T084341_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T084936_20230505T085448_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T085656_20230505T091629_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T094819_20230505T100844_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T100937_20230505T102158_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T102533_20230505T102936_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T103631_20230505T110450_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T110507_20230505T111209_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T111338_20230505T111621_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T112538_20230505T112621_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T113056_20230505T113100_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T113146_20230505T114514_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T114843_20230505T120125_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T120318_20230505T120835_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T121915_20230505T123212_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T123427_20230505T124642_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T130350_20230505T130404_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T131351_20230505T132417_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T132556_20230505T134034_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T134244_20230505T134747_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T140448_20230505T140815_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T141530_20230505T141805_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T141929_20230505T142311_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T145819_20230505T150030_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T150043_20230505T151932_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
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CS_OFFL_SIR_NOPM_2_20230505T152256_20230505T152704_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T152726_20230505T152919_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T153324_20230505T155919_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T162509_20230505T162943_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T163357_20230505T165921_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T170054_20230505T170619_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T170626_20230505T170951_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T171253_20230505T174534_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T181014_20230505T183042_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T183244_20230505T183905_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T184054_20230505T184859_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T185211_20230505T192620_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T200940_20230505T201820_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T202031_20230505T202547_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T203138_20230505T210605_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T211803_20230505T212221_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T213752_20230505T214254_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T214442_20230505T215718_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T220153_20230505T220449_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T221111_20230505T223806_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T223945_20230505T224422_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T230108_20230505T230800_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T230814_20230505T233228_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T234203_20230505T234357_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T234623_20230505T234844_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230505T235048_20230505T235532_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPN_2_20230505T011816_20230505T011952_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T020726_20230505T020754_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T034723_20230505T034911_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_NOPN_2_20230505T120138_20230505T120317_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_NOPN_2_20230505T162946_20230505T163159_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_NOPN_2_20230505T170951_20230505T171110_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T201906_20230505T201924_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_NOPN_2_20230505T233759_20230505T233923_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T013425_20230505T013604_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T014936_20230505T015202_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T072350_20230505T072710_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T165922_20230505T165940_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T224551_20230505T224600_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T235022_20230505T235048_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

### L2 Quality Flags (20 Hz 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
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T020812_20230505T021034_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
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T043847_20230505T044027_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
	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

	OCOG Altimeter Range Quality PLRM,	The OCOG Range and Backscatter Quality Flags have been set for one or
CS_OFFL_SIR_NOPN_2_20230505T044941_20230505T045050_C001	OCOG Backscatter Quality	more records
CS_OFFL_SIR_NOPN_2_20230505T052652_20230505T052833_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T062646_20230505T063100_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T071603_20230505T071719_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T073442_20230505T073612_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T075356_20230505T075458_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T085448_20230505T085612_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T091630_20230505T091952_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T093608_20230505T093821_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T102326_20230505T102533_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T103350_20230505T103458_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T125428_20230505T125645_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T131026_20230505T131351_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T134056_20230505T134244_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T134926_20230505T135427_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T140147_20230505T140445_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T141806_20230505T141928_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T143013_20230505T143038_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T143607_20230505T143624_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T145133_20230505T145452_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T152919_20230505T153217_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T160802_20230505T160924_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T163245_20230505T163357_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T170951_20230505T171110_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T174534_20230505T175042_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T175758_20230505T175931_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPN_2_20230505T180007_20230505T180130_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T183929_20230505T184053_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T184900_20230505T185011_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T192621_20230505T192750_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T192840_20230505T193012_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T194038_20230505T194055_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T194216_20230505T194339_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T195929_20230505T200100_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T201906_20230505T201924_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T220921_20230505T220927_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T225600_20230505T225837_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T233759_20230505T233923_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T233928_20230505T234203_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20230505T234845_20230505T234944_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T000910_20230505T001037_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T002437_20230505T002836_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T005649_20230505T005850_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T011953_20230505T012138_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T012138_20230505T012516_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T012859_20230505T013327_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T014739_20230505T014921_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T014936_20230505T015202_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T020755_20230505T020812_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T023626_20230505T023811_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T023812_20230505T024412_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T025807_20230505T030434_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPR_2_20230505T031028_20230505T031250_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T034637_20230505T034723_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T043828_20230505T043847_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T044027_20230505T044447_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T052507_20230505T052652_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T061350_20230505T061604_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T061627_20230505T061759_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T061916_20230505T062240_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T062318_20230505T062646_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T070419_20230505T070700_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T075650_20230505T080540_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T080725_20230505T080847_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T085612_20230505T085656_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T093821_20230505T094544_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T102159_20230505T102326_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T102949_20230505T102953_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T111730_20230505T112446_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T112708_20230505T113056_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T124643_20230505T124909_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T125018_20230505T125324_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T125324_20230505T125428_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T125645_20230505T130208_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T132417_20230505T132556_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T135813_20230505T135919_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T140930_20230505T141335_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T141453_20230505T141530_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPR_2_20230505T143624_20230505T144122_C001	Ocean Attimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Attimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T144138_20230505T144236_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T161451_20230505T162241_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T162346_20230505T162509_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T171110_20230505T171253_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T175042_20230505T175757_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T175931_20230505T180006_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T185011_20230505T185211_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T192750_20230505T192840_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T194138_20230505T194216_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T194339_20230505T194419_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T202854_20230505T203138_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T212723_20230505T212736_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T220829_20230505T220921_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T224423_20230505T224525_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20230505T224601_20230505T224613_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

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

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

208

63

147

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

Number of products with errors:

### 5.7 L2 Ocean Retracking Quality Check

#### L2 Retracking Flags (20 Hz)

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

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

### Number of products with errors:

L2 Retracking Flags (20 Hz PLRM)

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

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

Number of products with errors:

## 7. NOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	166	166	1	165	0
SIR_NOPR1B	133	133	0	133	0
SIR_NOPN1B	109	109	1	108	0
SIR_NOPM_2	166	166	112	54	0
SIR_NOPR_2	133	133	60	73	0
SIR_NOPN_2	109	109	39	70	0

0

## 7.2 QCC Warnings

	BAAUNABE			umber of occurrences of e			
Product Type	BCSHNCDF	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC	RBSZOPOEPNCDF
SIR_NOPM1B	165	0	0	0	0	0	0
SIR_NOPM_2	0	40	43	2	41	0	35
SIR_NOPN1B	105	0	0	0	0	0	0
SIR_NOPN_2	0	13	33	2	25	27	19
SIR_NOPR1B	127	0	0	0	0	0	0
SIR_NOPR_2	0	31	40	2	36	31	13
Product Type	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARM	ICE RPEPOPFDPLRMSINI	NCDIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF	RPEPOPSARNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	33	0	0	0	0	22	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	26	0	34	0	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	46	0	48	0	0	44
			·		·		
Product Type	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCD
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	2	25	0	2	36	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	28	19	46	60	31	31	28
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	1	64	27	12	36	42
				•			
Product Type	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-	-
SIR_NOPM1B	0	1	0	0	0		
SIR_NOPM_2	2	1	0	0	0		
SIR_NOPN1B	0	0	0	53	1		
SIR_NOPN_2	14	0	1	0	0		
SIR NOPRIR	0	0	0	133	e		

SIR_NOPR1B	0	0	0	133	3	6			
SIR_NOPR_2	2	0	0	0		0			
Test Description Key: Abbreviation					Details				
BCSHNCDF					The burst counter should be one higher with regard to the previous burst counter				
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF				The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIOEPNCDF	MissingValueIntOcea	nExcludingPolarNetCl	DF	The	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees				
MVIONCDF	MissingValueIntOcea	nNetCDF		The	The value should not be a 'missing value' for surface type 0 only				
RBSZOPOEPFDNCDF	RangeBackscatterSig	maZeroOPOceanExc	udingPolarFD2NetCDF		e backscatter sigma zero ween -70 and 70 degrees	should be between 700 and	7500 (or missing) for surfac	e type = ocean for latitudes	
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZoreOPOceanEvolutingBolarED2PLBMNetCDE				The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF				The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF				The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDPLRMSAR NCDF					The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF				The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF				The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF				The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF				The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF				The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF				The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees				
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF				The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean				
RSSHAOFDNCDF					The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF				The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSSHAONCDF	RangeSeaSurfaceHe	ightAnomalyOceanNe	CDF		The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean				
RSWHOEPFDNCDF	RangeSignificantWay	reHeightOceanExclud	ngPolarFD2NetCDF	The	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for				

RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

7.3 Missing QCC Reports

Number of products with missing QCC reports: 0