

QA4EO Daily Report for NOP data:

<u>13/04/2023</u>

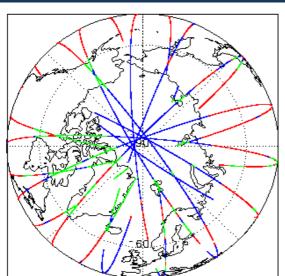
IDEAS-QA4E0

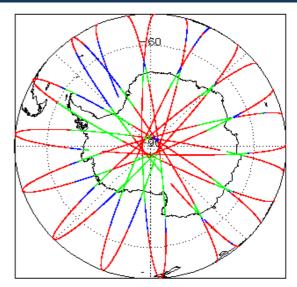
Demont Dreduction.	14 Apr 2000	Check	L1 & L2
Report Production:	14-Apr-2023	Server check: science-pds.cryosat.esa.int	Nominal
Description of the second seco		Server check: calval-pds.cryosat.esa.int	Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
Data Used:	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_qc_team@telespazio.com		Auxiliary Correction Error Check	See Section 5.4
		Measurement Confidence Data Check	See Section 4.5, 4.6
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2

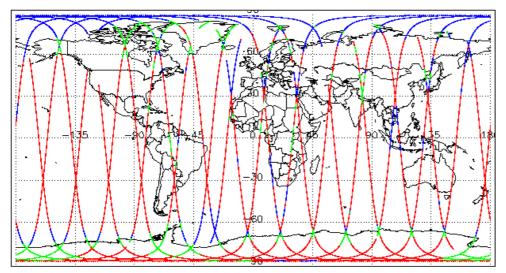
1. Overview

13-Apr-2023None14-Apr-2023Nothing planned

2. Global Coverage







Mode Coverage
LRM
SAR
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).
Number of products with errors:
0

4.2 L1B Product Header Analysis					
For all products, a series of pre-defined checks are performed on the MPH and SP	H in order to identify any inconsistencies a	nd/or errors raised by the ground-segment processing chain.			
> L1B Processing Quality HR: The l1b_proc_flag_hr flag is currently set all L1B N	IOPR and NOPN products because the I1	o_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 pre-det	ermined baseline and also to check the va	lidity of Auxiliary Data Files is correct.			
> Dynamic Atmospheric Correction: The DAC is missing in all products because	the auxiliary files required are not available	e in time for processing. This known and expected behaviour.			
Number of products with errors: 0					
4.4 L1B Auxiliary Correction Error Check					
CryoSat L1B data includes a correction error flag for each measurement record. Th	e bit value of this flag indicates any proble	ms when set.			
Number of products with errors: 0					
4.5 L1B Measurement Confidence Data Check					
	record. The bit welve of this flow indicates .				
CryoSat L1B data includes a measurement confidence flag for each measurement	-				
> Attitude Correction Missing: This flag is currently set in error for NOPR produc updated in the next SW update.	is due to a configuration issue. The attitud	e correction is not actually missing, I his is being investigated and will be			
Number of products with errors: 0					
4.6 L1B Waveform Group Data Check					
CryoSat L1B data includes a waveform data flag for each measurement record. The	e bit value of this flag indicates any proble	ns when set.			
> Loss of Echo Flag: This flag is currently set for occasional products over land, b	ut this is to be expected.				
Number of products with errors: 12					
Product	Test Failed	Description			
CS_OFFL_SIR_NOPM1B_20230413T094323_20230413T094607_C001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPN1B_20230413T032541_20230413T032748_C001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPN1B_20230413T113417_20230413T113628_C001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPN1B_20230413T145428_20230413T145639_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPN1B_20230413T195838_20230413T195900_C001 CS_OFFL_SIR_NOPN1B_20230413T213805_20230413T213849_C001	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPR1B_2023041312130305_2023041312130405_0001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPR1B_20230413T092624_20230413T093232_C001	Loss of Echo	The tracking echo is missing for one or more records			
CS OFFL SIR NOPR1B 20230413T144632 20230413T144731 C001	Loss of Echo	The tracking echo is missing for one or more records			
CS OFFL SIR NOPR1B 20230413T144943 20230413T145055 C001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPR1B_20230413T163503_20230413T164014_C001	Loss of Echo	The tracking echo is missing for one or more records			
CS_OFFL_SIR_NOPR1B_20230413T182051_20230413T182309_C001	Loss of Echo	The tracking echo is missing for one or more records			
5. NOP	Level 2 Data Quality Che	eck			
5.1 L2 Product Format Check					
Each product, retrieved and unpacked from the science server, is checked to ensu	re it consists of both an XML header file (.I	HDR) and a NetCDF product file (.nc).			
Number of products with errors: 0					
5.2 L2 Product Header Analysis					
For all products, a series of pre-defined checks are performed on the MPH and SP	H in order to identify any inconsistencies a	nd/or errors raised by the ground-segment processing chain.			
Number of products with errors: 0					
5.3 L2 Auxiliary Data File Usage Check					
Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.					
Wind Model File Usage: This file is currently not included in all L2 products.					
Number of products with errors: 0					
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).					
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 ve					
> Mean Sea Surface: The error value is currently set for products over land and sea ice, but this is to be expected.					
> Mean Dynamic Topography: The error value is currently set for products over land and sea ice, but this is to be expected.					
> Altimetric Wind Speed Error: The error value is currently set for products over land and sea ice, but this is to be expected.					
Number of products with errors: 43					
Product Test Failed Description					
		There is an error with the Mean Dynamic Topography height for one or			
CS_OFFL_SIR_NOPM_2_20230413T045611_20230413T045706_C001	Mean Dynamic Topography (1)	more records			

		There is an error with the Mean Dynamic Topography height for one or
CS_OFFL_SIR_NOPM_2_20230413T080654_20230413T080801_C001	Mean Dynamic Topography (1)	more records
CS_OFFL_SIR_NOPM_2_20230413T201235_20230413T201411_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_20230413T005057_20230413T005331_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_20230413T014605_20230413T014723_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_NOPN_2_20230413T022554_20230413T023211_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_20230413T032541_20230413T032748_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_20230413T040820_20230413T040855_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_20230413T041848_20230413T042048_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_20230413T050454_20230413T050939_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_20230413T055638_20230413T055907_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_20230413T072737_20230413T073129_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_NOPN_2_20230413T081801_20230413T081858_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_20230413T090722_20230413T091035_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_20230413T104444_20230413T104907_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_20230413T105453_20230413T105613_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_20230413T113417_20230413T113628_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_20230413T123226_20230413T123413_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_20230413T131633_20230413T131735_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_20230413T141035_20230413T141300_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_20230413T145428_20230413T145639_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_20230413T154041_20230413T154221_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_20230413T154939_20230413T155401_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_20230413T163111_20230413T163503_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_20230413T164015_20230413T164049_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_20230413T172059_20230413T172331_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_20230413T173054_20230413T173236_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_20230413T204002_20230413T204121_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_20230413T204652_20230413T205008_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_20230413T221926_20230413T222040_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_20230413T222549_20230413T222903_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_NOPR_2_20230413T063526_20230413T064527_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_20230413T080801_20230413T080940_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20230413T081858_20230413T082647_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_20230413T095830_20230413T100954_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_20230413T113829_20230413T114531_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_20230413T131735_20230413T132304_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_20230413T144632_20230413T144731_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20230413T145639_20230413T150334_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_20230413T163503_20230413T164014_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_20230413T181242_20230413T182032_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_20230413T195107_20230413T195838_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_20230413T200748_20230413T200936_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. 0

Number of products with errors:

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.

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

89

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20230413T001230_20230413T001921_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_20230413T001934_20230413T004356_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Attimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Attimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230413T005331_20230413T005525_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_20230413T010216_20230413T010637_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_20230413T010728_20230413T011837_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_20230413T011842_20230413T012918_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_20230413T015249_20230413T015508_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_20230413T015616_20230413T020832_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_20230413T021451_20230413T022554_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_20230413T023211_20230413T023443_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_20230413T023507_20230413T023932_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_0230413T024128_02320413T025617_C001 CDecan Attimeter Range, SSHA, SWH and Backscatter Coulty, VE Backscatter Coulty, VE Back
CS_OFFL_SIR_NOPM_2_20230413T03448_20230413T034158_C001 and Backscatter Quality_PEigs have be Altimeter Range and Skackscatter Quality COCG Altimeter Range and Backscatter Quality Figs have be Altimeter Range and Backscatter Quality Figs have be CS_OFFL_SIR_NOPM_2_20230413T040955_20230413T041946_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Altimeter Range and Backscatter Quality, Figs have be core or more records CS_OFFL_SIR_NOPM_2_20230413T040955_20230413T04194457_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Figs have be core or more records The OCCG Altimeter Range, SSHA, SWH and Backscatter Quality, Figs have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T042104_20230413T044457_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, Figs have be adscatter Quality, OCCG Altimeter Range Quality, OCCG Backscatter Quality, Figs have be adscatter Quality, OCCG Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Figs have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T052215_20230413T052217_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Backscatter Quality, OCCG Backscatter Quality, OCCG Backscatter Quality, OCCG Altimeter Range and Ba
CS_OFFL_SIR_NOPM_2_20230413T034322_20230413T040721_C001 and Backscatter Quality. COCG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have be ackscatter Quality CS_OFFL_SIR_NOPM_2_20230413T040955_20230413T041648_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be ackscatter Quality, OCOG Altimeter Range, SSHA, SWH CS_OFFL_SIR_NOPM_2_20230413T042104_20230413T0414457_C001 OCOG Altimeter Range, SSHA, SWH The Ocog Altimeter Range and Backscatter Quality Flags have be ackscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be ackscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T051158_20230413T051957_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T051940_20230413T052155_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T052157_20230413T052157_20230413T054617_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have be for one or more records CS_OFFL_SIR_NOPM_2_20230413T055214_20230413T055214_20230413T055638_C001 OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be for one or more records The OCOG Altimeter Range and
CS_OFFL_SIR_NOPM_2_202304131041949_202304131041948_2001 Backscatter Quality for one or more records CS_OFFL_SIR_NOPM_2_20230413T042104_20230413T044457_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Fiags have backscatter Quality, COCG The OCOG Altimeter Range and Backscatter Quality, Fiags have backscatter Quality, Fiags have backscatter Quality, Fiags have backscatter Quality, COCG CS_OFFL_SIR_NOPM_2_20230413T052219_20230413T055214_20230413T055238_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG The OCOG Altimeter Range and Backscatter Quality, Fiags have backscatter Quality, Fiags ha
CS_OFFL_SIR_NOPM_2_20230413T042104_20230413T042467_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have to set for one or more records CS_OFFL_SIR_NOPM_2_20230413T051158_20230413T051937_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T051940_20230413T052155_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T052157_20230413T052217_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T052219_20230413T052219_20230413T052217_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality The OCeG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T055214_20230413T055638_C001 OCOG Altimeter Range Quality, OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T065043_20230413T062733_C001 OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records The OCean Altimeter Range, SSHA, SWH and B
CS_OFFL_SIR_NOPM_2_20230413T051940_20230413T052155_C001 Backscatter Quality In e OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T052157_20230413T052157_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T052157_20230413T052217_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T052219_20230413T054617_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T055214_20230413T055638_C001 OCCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T065041_20230413T065273_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T075231_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or
CS_OFFL_SIR_NOPM_2_202304131051940_202304131052155_C001 Backscatter Quality for one or more records CS_OFFL_SIR_NOPM_2_202304131052157_202304131052217_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_202304131052219_202304131052219_202304131054617_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_202304131055214_202304131055638_C001 Ocean Altimeter Range Quality, OCOG Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have beer for one or more records The OCean Altimeter Range and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_202304131055214_202304131055638_C001 OCCOG Altimeter Range Quality, OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_2023041310650343_202304131072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_202304131072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have beer for one or more records CS_OFFL_SIR_NOPM_2_202304131072531_C001 Ocean Altimeter Range and Backscatter Quality Flags have beer for one or more records <
CS_OFFL_SIR_NOPM_2_202304131052157_202304131052217_C001 Backscatter Quality for one or more records CS_OFFL_SIR_NOPM_2_202304131052219_20230413T054617_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flag and the OCOG Altimeter Range and Backscatter Quality Flags have be and the OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T055214_20230413T055638_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG Backscatter Quality The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T065043_20230413T062733_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T0723120_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T0723120_20230413T072571_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T0723120_20230413T072571_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T0723120_20230413T072571_C001 OCOG Altimeter Range
CS_OFFL_SIR_NOPM_2_20230413T052219_20230413T054617_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T055214_20230413T055638_C001 OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T065004_20230413T062733_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records The OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T073120_20230413T072531_C001 OCCOG Altimeter Range Quality, OCOG The OCCOG Altimeter Range and Backscatter Quality Flags have been for one or more records CS_OFFL_SIR_NOPM_2_20230413T073120_20230413T073717_C001 OCCOG Altimeter Range Quality, OCOG The OCCOG Altimeter Range and Backscatter Quality Flags have been for one or more records
CS_OFFL_SIR_NOPM_2_202304131055214_202304131055638_C001 Backscatter Quality for one or more records CS_OFFL_SIR_NOPM_2_20230413T060004_20230413T062733_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fiz and Backscatter Quality, OCOG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fiz and Backscatter Quality Fiz and Backscatter Quality, OCOG CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Fiz and Backscatter Quality, OCOG The Ocean Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range and Backscatter Quality Fiz and the OCOG Altimeter Range Quality, OCOG
CS_OFFL_SIR_NOPM_2_20230413T060004_20230413T062733_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range, SSHA, SWH CS_OFFL_SIR_NOPM_2_20230413T072531_C001 Ocean Altimeter Range and Backscatter Quality, OCOG The Ocean Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range Quality, OCOG CS_OFFL_SIR_NOPM_2_20230413T073120 OCOG Altimeter Range Quality, OCOG The OCCOG Altimeter Range and Backscatter Quality Flags have been concerned by the ocean Altimeter Range Quality, OCOG
CS_OFFL_SIR_NOPM_2_20230413T065343_20230413T072531_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG OCOG Altimeter Range Quality, OCOG The OCOG Altimeter Range and Backscatter Quality Flags have been
Backscatter Quality for one or more records
CS_OFFL_SIR_NOPM_2_20230413T073851_20230413T080514_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and Backsca
CS_OFFL_SIR_NOPM_2_20230413T081517_20230413T081551_C001 OCCG Altimeter Range Quality, OCCG Altimeter Range Quality, OCCG Altimeter Range and Backscatter Quality Flags have been for one or more records
CS_OFFL_SIR_NOPM_2_20230413T081624_20230413T081715_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Qua
CS_OFFL_SIR_NOPM_2_20230413T082956_20230413T090430_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Qua
CS_OFFL_SIR_NOPM_2_20230413T091036_20230413T091549_C001 CCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records
CS_OFFL_SIR_NOPM_2_20230413T092234_20230413T092623_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Qua
CS_OFFL_SIR_NOPM_2_20230413T093232_20230413T093421_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have b and Backscatter Quality. OCOG Altimeter Range and Backscatter Quality Flags have b and Backscatter Quality
CS_OFFL_SIR_NOPM_2_20230413T095305_20230413T095603_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have b and Backscatter Quality. OCOG Altimeter Range and Backscatter Quality Flags have b and Backscatter Quality
CS_OFFL_SIR_NOPM_2_20230413T095619_20230413T095653_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and Backsca
CS_OFFL_SIR_NOPM_2_20230413T100954_20230413T101841_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and Backsca
CS_OFFL_SIR_NOPM_2_20230413T102127_20230413T104329_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have be and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have be and Backsca
CS_OFFL_SIR_NOPM_2_20230413T104908_20230413T105037_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been for one or more records
CS_OFFL_SIR_NOPM_2_20230413T105700_20230413T111000_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have b and Backscatter Quality. Set for one or more records

CS_OFFL_SIR_NOPM_2_20230413T111121_20230413T111904_C001	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
	and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20230413T112000_20230413T112406_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_20230413T115022_20230413T115409_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_20230413T115549_20230413T122221_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_20230413T122956_20230413T123226_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_20230413T124039_20230413T125308_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_20230413T125341_20230413T131047_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_20230413T133422_20230413T134403_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_20230413T134607_20230413T140141_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_20230413T140338_20230413T140834_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_20230413T140914_20230413T141035_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_20230413T141739_20230413T142822_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_20230413T143435_20230413T144632_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_20230413T152531_20230413T154033_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_20230413T154301_20230413T154749_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_20230413T155401_20230413T161744_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_20230413T161806_20230413T162118_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_20230413T165554_20230413T171628_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_20230413T171716_20230413T172006_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_20230413T172331_20230413T172704_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_20230413T172727_20230413T173054_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_20230413T173321_20230413T180114_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_20230413T183329_20230413T185943_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_20230413T190122_20230413T190619_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_20230413T190627_20230413T190955_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_20230413T191319_20230413T194758_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_20230413T203310_20230413T203432_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_20230413T203631_20230413T203926_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_20230413T204121_20230413T204651_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_20230413T205239_20230413T212617_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_20230413T215911_20230413T221836_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_20230413T222041_20230413T222549_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_20230413T223144_20230413T230534_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_20230413T231951_20230413T232011_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_20230413T233042_20230413T233512_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_20230413T233545_20230413T235324_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_20230413T050454_20230413T050939_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_20230413T122248_20230413T122409_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_20230413T141035_20230413T141300_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_20230413T141541_20230413T141658_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_20230413T195838_20230413T195900_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_20230413T214710_20230413T214759_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_20230413T012918_20230413T013103_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_20230413T040722_20230413T040820_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_20230413T054617_20230413T054757_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_20230413T095830_20230413T100954_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_20230413T105613_20230413T105659_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_20230413T114739_20230413T114809_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_20230413T141300_20230413T141541_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_20230413T164928_20230413T164928_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_20230413T213849_20230413T213950_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_20230413T230651_20230413T230712_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
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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.

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20230413T000106_20230413T000125_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_20230413T000725_20230413T001057_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T001145_20230413T001230_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T005057_20230413T005331_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_20230413T005526_20230413T005642_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one on more records
CS_OFFL_SIR_NOPN_2_20230413T021045_20230413T021102_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T021345_20230413T021451_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T022554_20230413T023211_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T032847_20230413T033116_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T033325_20230413T033448_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one on more records
CS_OFFL_SIR_NOPN_2_20230413T044525_20230413T044826_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T050454_20230413T050939_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T055106_20230413T055213_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T072737_20230413T073129_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_20230413T081801_20230413T081858_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T091550_20230413T091702_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_20230413T094757_20230413T094849_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T104444_20230413T104907_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_20230413T113246_20230413T113336_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T113417_20230413T113628_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one of more records
CS_OFFL_SIR_NOPN_2_20230413T123226_20230413T123413_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T132304_20230413T132354_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T140155_20230413T140337_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 beer set for one or more records
CS_OFFL_SIR_NOPN_2_20230413T141035_20230413T141300_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 beer set for one or more records

CS_OFFL_SIR_NOPN_2_20230413T141541_20230413T141658_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, 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
	PLRM OCOG Altimeter Range Quality PLRM,	set for one or more records The OCOG Range and Backscatter Quality Flags have been set for one or
CS_OFFL_SIR_NOPN_2_20230413T143104_20230413T143435_C001	OCOG Backscatter Quality	more records
CS_OFFL_SIR_NOPN_2_20230413T145428_20230413T145639_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_20230413T154939_20230413T155401_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_20230413T162848_20230413T163012_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_20230413T163111_20230413T163503_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_20230413T164956_20230413T165121_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_20230413T165219_20230413T165515_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_20230413T172059_20230413T172331_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_20230413T173054_20230413T173236_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_20230413T182032_20230413T182050_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_20230413T190955_20230413T191133_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_20230413T202014_20230413T202348_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_20230413T214650_20230413T214700_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_20230413T215702_20230413T215911_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_20230413T221926_20230413T222040_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_20230413T004356_20230413T005057_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_20230413T020832_20230413T021045_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_20230413T031304_20230413T031329_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_20230413T031934_20230413T032047_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_20230413T032748_20230413T032847_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_20230413T063526_20230413T064527_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_20230413T081441_20230413T081517_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_20230413T081858_20230413T082647_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_20230413T082809_20230413T082833_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_20230413T090430_20230413T090722_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_20230413T092624_20230413T093232_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_20230413T095653_20230413T095825_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_20230413T095830_20230413T100954_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_20230413T112406_20230413T113017_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_20230413T113829_20230413T114531_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_20230413T114610_20230413T114623_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_20230413T114827_20230413T114913_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_20230413T132915_20230413T132919_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_20230413T132941_20230413T132955_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_20230413T134403_20230413T134606_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_20230413T141300_20230413T141541_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_20230413T145356_20230413T145428_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_20230413T145639_20230413T150334_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_20230413T151715_20230413T152531_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_20230413T164049_20230413T164223_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_20230413T164903_20230413T164922_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_20230413T181242_20230413T182032_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_20230413T182051_20230413T182309_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_20230413T182309_20230413T182325_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_20230413T195107_20230413T195838_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_20230413T195900_20230413T200117_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_20230413T200127_20230413T200400_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_20230413T205008_20230413T205238_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_20230413T214302_20230413T214540_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_20230413T221836_20230413T221926_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_20230413T222903_20230413T223144_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_20230413T230534_20230413T230649_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_20230413T235648_20230414T000023_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records						
L2 Quality Flags (1 Hz & 1 Hz PLRM)								
Currently, there are several common flags raised in the Level 2 products, wh	Currently, there are several common flags raised in the Level 2 products, which are summarised below.							
> 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: 178								
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.

7

62

124

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	164	164	1	163	0
SIR_NOPR1B	139	139	0	139	0
SIR_NOPN1B	105	105	2	103	0
SIR_NOPM_2	164	164	113	51	0
SIR_NOPR_2	139	139	65	72	2
SIR_NOPN_2	105	105	45	60	0

7.1 QCC Errors

Number of QCC reports with errors:

Total number of occurrences of each error											
Product Type RLO	BOPNCDF	RL	RL	RLOBOPNCDF	RL	RL	-	-	-	-	-
SIR_NOPR_2	2	1	2	2	1	2					

Test Description Key:					
Abbreviation	Test name	Details			
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF			
RL	RangeLatitude_6	Latitude should be between -90E6 and 90E6			
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7			

7.2 QCC Warnings

Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	hber of occurrences of ea MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNC
SIR NOPM1B	163	0	0	0	0	0	0
SIR NOPM 2	0	0	38	35	0	41	0
SIR NOPN1B	101	0	0	0	0	0	0
SIR NOPN 2	0	0	5	26	4	21	25
SIR NOPR1B	136	0	0	0	0	0	0
SIR NOPR 2	0	2	26	38	0	24	21
				1	1		
Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR NOPM1B	0	0	0	0	0	0	0
SIR NOPM 2	39	0	33	0	0	0	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	11	0	0	0	12	0	26
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	9	2	0	39	0	44	0
		·		÷			
Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	25	0	0	6	25	0	5
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	22	22	39	52	25
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	40	0	3	54	34	12
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR_NOPM1B	0	0	0	0	0	0	
SIR_NOPM_2	35	0	3	0	0	0	
SIR_NOPN1B	0	0	0	0	42	0	
SIR_NOPN_2	20	25	13	0	0	0	
SIR_NOPR1B	0	0	0	0	139	16	
	32	41	2		0	0	

Test Description Key:					
Abbreviation	Test name	Details			
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter			
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)			

1		
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean
RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSWHOEPFDNCDF	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
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