

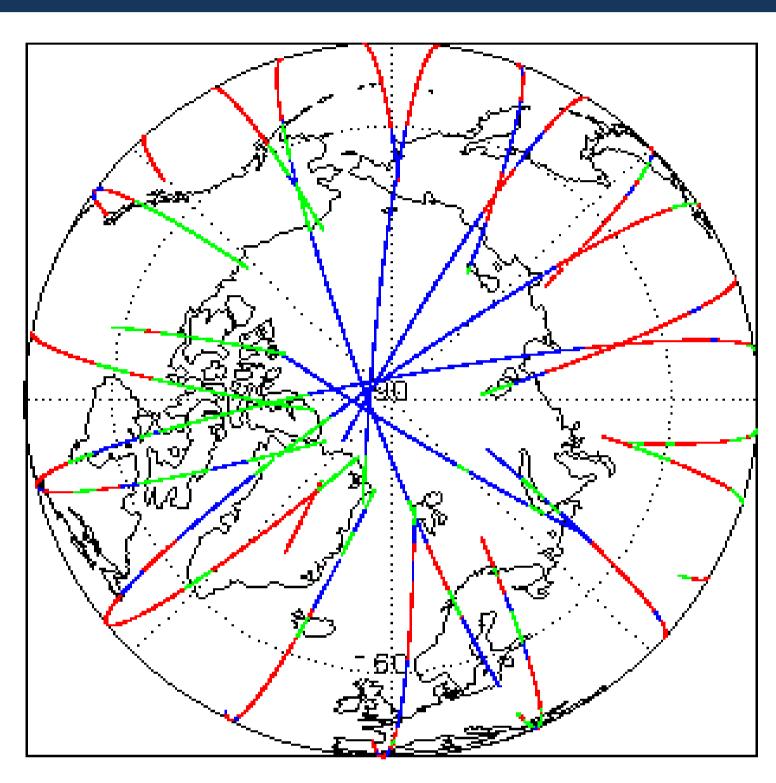
1. Overview

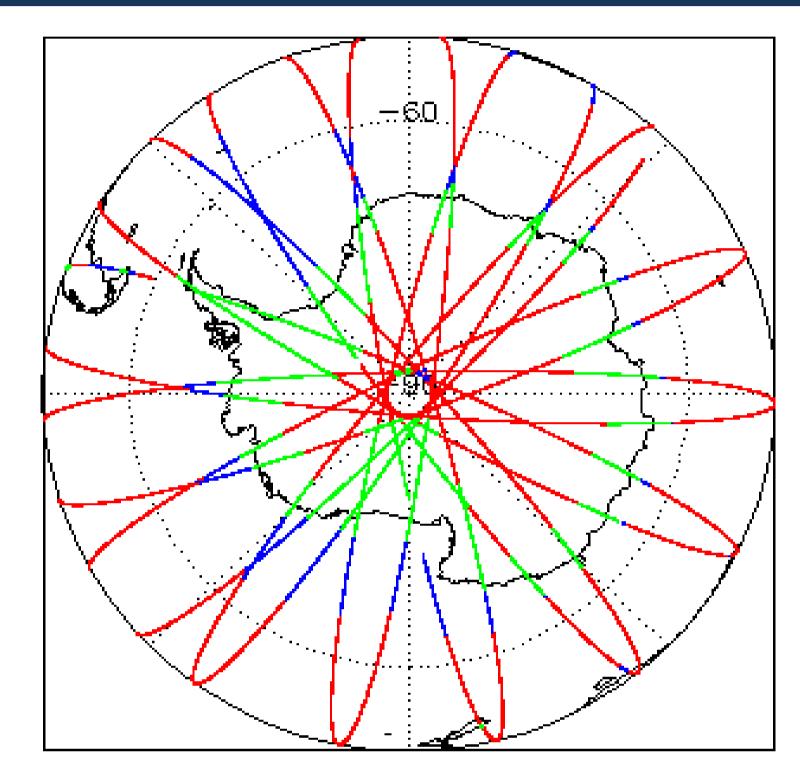
Report Production:	18-Jan-2021		
Processor Used:	CryoSat Ocean Processor		
Data Used:	Near Real Time Ocean Products (NOP) L1B & L2 Science Data		

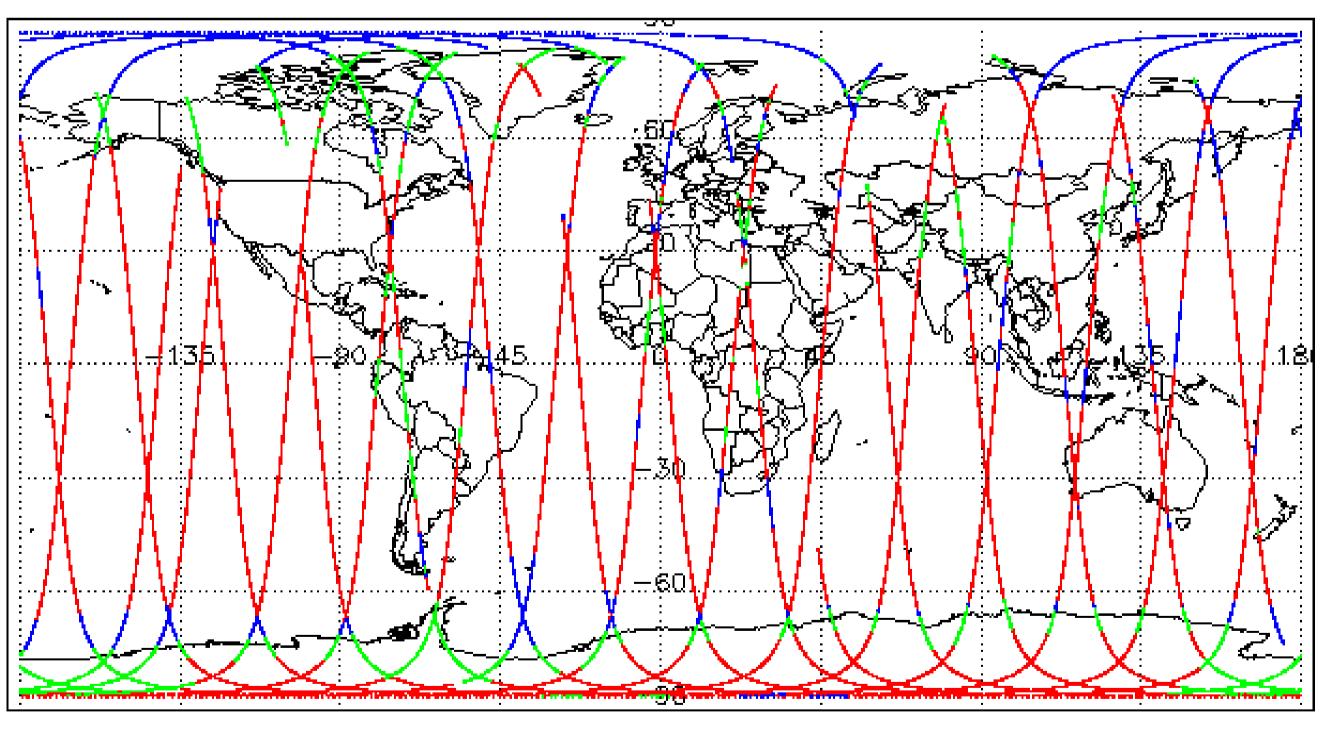
Check	L1 & L2
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 5.4
Measurement Confidence Data Check	See Section 4.5, 4.6
Measurement Quality Flag Check	See Section 5.6
Ocean Retracking Quality Check	See Section 5.7
QCC Error/ Warning Check	See Section 7.1 and 7.2

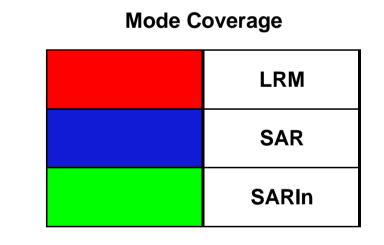
Mission / Instr	ument News
16-Jan-2021	None
17-Jan-2021	None
18-Jan-2021	Nothing planned

2. Global Coverage









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 binary product file (.DBL).

4.2 L1B Product Header Analysis

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

L1B Processing Quality HR: The I1b_proc_flag_hr flag is currently set all L1B IOPR and IOPN 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:

4.3 L1B Auxilary Data File Usage Check

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

Dynamic Atmospheric Correction: The DAC is missing in all products because the auxiliary files required are not available in time for processing. This known and expected behaviour.

Number of products with errors:

4.4 L1B Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

4.5 L1B Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag for each measurement record. The bit value of this flag indicates any problems when set.

> Attitude Correction Missing: This flag is currently set in error for NOPR products due to a configuration issue. This is being investigated and will be updated in the next SW update.

Number of products with errors:

4.6 L1B Waveform Group Data Check

CryoSat L1B data includes a waveform data flag for each measurement record. The bit value of this flag indicates any problems when set.

> Loss of Echo Flag: This flag is currently set for products over land, but this is to be expected.

Number of products with errors:

10

0

0

Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20210117T024807_20210117T025301_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20210117T064207_20210117T065138_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPM1B_20210117T231107_20210117T231325_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210117T062322_20210117T062504_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210117T075921_20210117T080347_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210117T180829_20210117T180942_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210117T184320_20210117T184905_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20210117T212141_20210117T212628_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210117T075621_20210117T075835_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20210117T133611_20210117T133828_C001	Loss of Echo	The tracking echo is missing for one or more records

5. NOP Level 2 Data Quality Check

5.1 L2 Product Format Check

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

Number of products with errors: 0

5.2 L2 Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any 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: 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 Correction, Wet Tropospheric Correction, Inverse Barometric Correction and the U-Wind and V-Wind components of the ECMWF model wind vector. This is a known anomaly (CRYO-COP-3) and will be resolved in a future IPF update.
- > 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_20210117T051407_20210117T052951_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_20210117T183141_20210117T184319_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records

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

5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

0

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20Hz)

CryoSat L2 data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record. The bit value of this flag indicates any problems when set.

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

- > Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags: These flags are currently set for some records over ocean.
- > OCOG Altimeter Range and Backscatter Quality Flags: These flags are currently set for some records over continental ice.

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Number of products with errors:

	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20210116T235931_20210117T003217_C001 ar		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
LS OFFE SIR NOPNEZ ZOZODA Z	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_20210117T004607_20210117T005208_C001 ar	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_20210117T012322_20210117T012458_C001 ar	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_20210117T013825_20210117T021219_C001 ar	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.
US OFFI SIR NOPM / /0/1011/10/1/53 /0/1011/10//305 U001	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_20210117T022505_20210117T024449_C001 ar	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_20210117T024807_20210117T025301_C001 ar	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_20210117T031621_20210117T033812_C001 ar	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_20210117T033921_20210117T035015_C001 ar	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.
US OFFE SIR NOPM / /0/1011/1035504 /0/1011/1035/53 C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
US OFFE SIR NOPM / 202101171035811 202101171040209 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_20210117T040558_20210117T043310_C001 ar	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.
US OFFE SIR NOPINEZ ZUZTUTTZTU44ZTZ ZUZTUTTZTU44438 UUUT	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_20210117T045716_20210117T050733_C001 ar	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_20210117T051214_20210117T051405_C001 ar	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_20210117T051407_20210117T052951_C001 ar		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
US OFFE SIR NOPIVEZ ZUZTUTTZTUSSTSS ZUZTUTTZTUSSSSS CUUT	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
U.S OFFI SIR NOPM / /0/1011/1053/1/ /0/1011/1053913 U.001	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_20210117T054746_20210117T060030_C001 ar	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_20210117T060244_20210117T061514_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_20210117T061709_20210117T061916_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_20210117T064207_20210117T065138_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_20210117T065414_20210117T070846_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_20210117T071101_20210117T071605_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_20210117T071612_20210117T071623_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_20210117T072436_20210117T072533_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_20210117T074350_20210117T074402_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_20210117T074404_20210117T074622_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_20210117T074746_20210117T075454_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_20210117T082738_20210117T082848_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_20210117T083059_20210117T084803_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_20210117T085103_20210117T085522_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_20210117T085544_20210117T085725_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_20210117T090138_20210117T092607_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_20210117T100202_20210117T102736_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_20210117T102916_20210117T103437_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_20210117T103444_20210117T103808_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_20210117T104106_20210117T110844_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_20210117T111010_20210117T111332_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_20210117T113113_20210117T113615_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_20210117T113708_20210117T113855_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20210117T114614_20210117T120716_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_20210117T120907_20210117T121716_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_20210117T122102_20210117T125448_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_20210117T130756_20210117T130900_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_20210117T133828_20210117T134646_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_20210117T134847_20210117T135405_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_20210117T135945_20210117T142216_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_20210117T142503_20210117T143436_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_20210117T144636_20210117T144711_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_20210117T150628_20210117T151112_C001		The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20210117T151259_20210117T152436_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_20210117T152950_20210117T153306_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_20210117T153931_20210117T154459_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_20210117T154509_20210117T160714_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_20210117T160803_20210117T161054_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_20210117T162929_20210117T163630_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_20210117T163652_20210117T170046_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_20210117T171454_20210117T171653_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_20210117T171844_20210117T172437_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_20210117T172531_20210117T173344_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_20210117T173535_20210117T173637_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_20210117T173922_20210117T174701_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_20210117T180942_20210117T182327_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_20210117T183141_20210117T184319_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_20210117T184905_20210117T185130_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_20210117T185159_20210117T185622_C001		The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records.
CS_OFFL_SIR_NOPM_2_20210117T185808_20210117T190513_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_20210117T190520_20210117T191305_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_20210117T191445_20210117T192900_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_20210117T193044_20210117T193050_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_20210117T195549_20210117T195849_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_20210117T200012_20210117T200459_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_20210117T200727_20210117T202409_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_20210117T202652_20210117T203535_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_20210117T203749_20210117T210017_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_20210117T213713_20210117T220303_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_20210117T220900_20210117T221329_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_20210117T221616_20210117T224135_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_20210117T231451_20210117T234143_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_20210117T234817_20210117T235408_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_20210117T235545_20210118T001447_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_20210117T095205_20210117T095330_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_20210117T185131_20210117T185159_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_20210117T235408_20210117T235533_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_20210117T004539_20210117T004607_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_20210117T040318_20210117T040401_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_20210117T044549_20210117T045303_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_20210117T054103_20210117T054746_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 (20Hz PLRM)

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

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

Number of products with errors: 67

Product	Test Failed	Description
CS_OFFL_SIR_NOPN_2_20210117T004424_20210117T004539_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_20210117T010142_20210117T010254_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_20210117T011620_20210117T011632_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_20210117T013400_20210117T013539_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_20210117T013640_20210117T013811_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.

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OCOS Sacksasser Glaety OCOS Advancer Range Custy PLEM. The OCOS Range and Sacksaster Quality Flag have been set for one or not record. CS_OFFL_SR_NOPN_2_202*01*T075082_202*01*T075080_0001 After Range Custy PLEM. OCOS Sacksasser Glaety OCOS Advancer Range Custy PLEM. The OCOS Range and Sacksaster Quality Flag have been set for one or not record. After Range Custy PLEM. OCOS Sacksasser Glaety PLEM. The OCOS Advancer Range SSEA. SWA has sacksaster Quality Flag have been set for one or not record. After Range Custy PLEM. OCOS Advancer Range	CS_OFFL_SIR_NOPN_2_20210117T062322_20210117T062504_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
OCCID SECONDARY PLAN. COORD Range and Backscaler Quality Flags have been set for one or more records. CE_OFE_SIR_NOPA_2_200117109206_2010177109206_20101 CE_OFE_SIR_NOPA_2_200117109207_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_20101017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_200117109208_201017109208_201017109208_20101 CE_OFE_SIR_NOPA_2_200117109208_2010117109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_200117109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_200117109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_200117109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_2010117109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101711109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101 CE_OFE_SIR_NOPA_2_2001171109208_20101171109208_20101	CS_OFFL_SIR_NOPN_2_20210117T073118_20210117T073444_C001	_	
and Buckscatter Quality FLIM, GOOD Memory Rong and Backscatter Quality FLIM, GOOD Special Rough 2 22210117707802 20210117708047. C011 Special Rough 2 22210117707802 20210117708047. C011 CS_OFFL_SIR_NOPN_2 222101177078042 20210117708055. C011 CS_OFFL_SIR_NOPN_2 22210117708062 20210117708062 C011 CS_OFFL_SIR_NOPN_2 222101177108062 20210117708062 C011 CS_OFFL_SIR_NOPN_2 222101177108062 202101177108062 C011 CS_OFFL_SIR_NOPN_2 222101177108062 202101177108062 C011 CS_OFFL_SIR_NOPN_2 222101177108062 202101177108062 C011 CS_OFFL_SIR_NOPN_2 222101177108062 202101177108062 C011 CS_OFFL_SIR_NOPN_2 2221011771108062 202101177108062 C011 CS_OFFL_SIR_NOPN_2 2221011771108062 202101177108062 C011 CCS_OFFL_SIR_NOPN_2 222101	CS_OFFL_SIR_NOPN_2_20210117T073616_20210117T074158_C001	_	
OS_OFFL_SIR_NOPN_2_20210177102010_20210177102030_C001 OS_OFFL_SIR_NOPN_2_20210177102010_20210177102030_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102030_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102030_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102030_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102000_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102000_C001 OS_OFFL_SIR_NOPN_2_20210177102001_20210177102000_C001 OS_OFFL_SIR_NOPN_2_20210177102000_20210177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_20210177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_20210177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_20210177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_20210177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_C0010177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_C0010177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_C0010177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_C0010177102000_C001 OS_OFFL_SIR_NOPN_2_202101777102000_C0010177	CS_OFFL_SIR_NOPN_2_20210117T075835_20210117T075903_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPN_2_20210117109302_20210117109374_C001 CS_OFFL_SIR_NOPN_2_20210117109302_20210117109374_C001 CS_OFFL_SIR_NOPN_2_20210117109302_20210117109302_0010 CS_OFFL_SIR_NOPN_2_20210117109302_20210117109302_0010 CS_OFFL_SIR_NOPN_2_20210117109302_20210117109302_0010 CS_OFFL_SIR_NOPN_2_20210117109302_20210117109303_0010 CS_OFFL_SIR_NOPN_2_20210117109303_20210117109201_0001 CS_OFFL_SIR_NOPN_2_20210117109303_202101171109303_0010 CS_OFFL_SIR_NOPN_2_20210117109303_202101171109303_0010 CS_OFFL_SIR_NOPN_2_20210117109303_202101171109303_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109303_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_202101171109303_202101171109035_0010 CS_OFFL_SIR_NOPN_2_20210117110974_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_001 CS_OFFL_SIR_NOPN_2_20210117110907_0	CS_OFFL_SIR_NOPN_2_20210117T075921_20210117T080347_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPN_2_20210117T093822_20210117T094210_CO01 CS_OFFL_SIR_NOPN_2_20210117T093822_20210117T094210_CO01 CS_OFFL_SIR_NOPN_2_20210117T095802_20210117T109530_CO01 CS_OFFL_SIR_NOPN_2_20210117T095802_20210117T1095802_2021	CS_OFFL_SIR_NOPN_2_20210117T082016_20210117T082318_C001	1	
OCOG Altmeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or nor records. CS_OFFL_SIR_NOPN_2_20210117108502_2021011710201_C001 CS_OFFL_SIR_NOPN_2_20210117102001_20210117110201_C001 CS_OFFL_SIR_NOPN_2_202101171102001_20210117110201_C001 CS_OFFL_SIR_NOPN_2_202101171102001_20210117110201_C001 CS_OFFL_SIR_NOPN_2_202101171102001_20210117110200_C001 Altmeter Range SHA, SWH and Backscatter Quality PLRM, OCOG Altmeter Range SHA, SWH and Backscatter Quality PLRM, OCOG Altmeter Range SHA, SWH and Backscatter Quality PLRM, OCOG Altmeter Range SHA, SWH and Backscatter Quality PLRM, OCOG Altmeter Range and Backscatter Quality PLRM, OCOG Backscatte	CS_OFFL_SIR_NOPN_2_20210117T093620_20210117T093742_C001		, ,
OCG Backscatter Quality CS_OFFL_SIR_NOPN_2_20210117T109202_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T109201_2001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T1190307_2001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T1190307_2001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T1190307_2001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T1190307_2001 CS_OFFL_SIR_NOPN_2_20210117T1134047_2001 CS_OFFL_SIR_NOPN_2_20210117T1134047_2001 CS_OFFL_SIR_NOPN_2_20210117T1134047_2001 CS_OFFL_SIR_NOPN_2_20210117T1134047_2001 CS_OFFL_SIR_NOPN_2_20210117T1150268_20210117T1150828_C001 CS_OFFL_SIR_NOPN_2_20210117T1150268_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T1162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T162828_C001 CS_OFFL_SIR_NOPN_2_20210117T1162844_20210117T162828_C001 CS_	CS_OFFL_SIR_NOPN_2_20210117T093822_20210117T094210_C001	_	
OCG Backscatter Quality CS OFFL SIR NOPN 2 20210117T102801 20210117T102915 CO01 CS OFFL SIR NOPN 2 20210117T102801 20210117T102915 CO01 CS OFFL SIR NOPN 2 20210117T103809 20210117T103926 CO01 CS OFFL SIR NOPN 2 20210117T103809 20210117T103926 CO01 CS OFFL SIR NOPN 2 20210117T11332 20210117T11332 CO01 CS OFFL SIR NOPN 2 20210117T1132747 20210117T1132805 CO01 CS OFFL SIR NOPN 2 20210117T132747 20210117T132805 CO01 CS OFFL SIR NOPN 2 20210117T132747 20210117T132805 CO01 CS OFFL SIR NOPN 2 20210117T132747 20210117T134847 CO01 CS OFFL SIR NOPN 2 20210117T134722 20210117T134847 CO01 CS OFFL SIR NOPN 2 20210117T134722 20210117T134847 CO01 CS OFFL SIR NOPN 2 20210117T134724 20210117T134847 CO01 CS OFFL SIR NOPN 2 20210117T134724 20210117T136268 CO01 CS OFFL SIR NOPN 2 20210117T162844 20210117T16299 CO01 CS OFFL SIR NOPN 2 20210117T16284 20210117T16299 CO01	CS_OFFL_SIR_NOPN_2_20210117T095205_20210117T095330_C001		
CS_OFFL_SIR_NOPN_2_20210117T102801_20210117T102915_C001 Almeter Range and Backscatter Quality PLRM, OCOG Almeter Range and Backscatter Quality Plags have been set for one or more records. CS_OFFL_SIR_NOPN_2_20210117T1103809_20210117T1190326_C001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T11903_C001 CS_OFFL_SIR_NOPN_2_20210117T1132747_20210117T11903_C001 CS_OFFL_SIR_NOPN_2_20210117T1132747_20210117T1132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T134847_C001 Almeter Range Quality PLRM, OCOG Almeter Range and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T134847_C001 Almeter Range Quality PLRM, OCOG Almeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150282_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162829_C001 CCOG Allmeter Range Quality PLRM, OCOG Allmeter Range Quality PLRM, OCOG Allmeter Range and Backscatter Quality Flags have been set for one or more records. CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162829_C001 CCOG Allmeter Range Quality PLRM, OCOG Allmeter Ran	CS_OFFL_SIR_NOPN_2_20210117T095802_20210117T100201_C001		
CS_OFFL_SIR_NOPN_2_20210117T103809_20210117T103926_C001 CS_OFFL_SIR_NOPN_2_20210117T11332_20210117T11903_C001 CS_OFFL_SIR_NOPN_2_20210117T1132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162626_C001 CCGG_Altimeter Range_Quality PLRM, COCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CCGG_Altimeter Range_Altimeter Range_Alti	CS_OFFL_SIR_NOPN_2_20210117T102801_20210117T102915_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPN_2_20210117T120744_20210117T120907_C001 CS_OFFL_SIR_NOPN_2_20210117T120744_20210117T120907_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162644_20210117T162626_C001 CCG_Altimeter Range_Quality PLRM. CCG_G Backscatter Quality PLRM. CCG_G Range and Backscatter Quality Flags have been set for one or more records. CCG_G Altimeter Range_Quality PLRM. CCG_G Range and Backscatter Quality Flags have been set for one or more records. CCG_G Range and Backscatter Quality Flags have been set for one or more records. CCG_G Range and Backscatter Quality Flags have been set for one or more records. CCG_G Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPN_2_20210117T103809_20210117T103926_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CCS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CCS_OFFL_SIR_NOPN_2_20210117T162844_20210117T16299_C001 CCCCG_Backscatter Quality PLRM, OCCCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CCCCG_Backscatter Quality PLRM, OCCCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CCCCG_Backscatter Quality PLRM, OCCCG_Altimeter Range and Backscatter Quality Flags have been set for one or more records. CCCCG_Backscatter Quality PLRM, OCCCG_Backscatter Quality PLRM, OCCCCG_Backscatter Quality PLRM, O	CS_OFFL_SIR_NOPN_2_20210117T111332_20210117T111903_C001		
CS_OFFL_SIR_NOPN_2_20210117T132805_C001 OCOG Backscatter Quality OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range 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_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162644_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 OCOG Altimeter Range Quality PLRM, OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range 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_20210117T162844_20210117T162929_C001 OCOG Altimeter Range Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records. The OCOG Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPN_2_20210117T120744_20210117T120907_C001		
CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001 and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T171214_20210117T171454_C001 CCS_OFFL_SIR_NOPN_2_20210117T171214_20210117T171454_C001	CS_OFFL_SIR_NOPN_2_20210117T132747_20210117T132805_C001	1	
OCOG Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM, OCOG Backscatter Quality OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Backscatter Quality PLRM, OCOG Range and Backscatter Quality Flags have been set for one or more records. OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality PLRM, The OCOG Range and Backscatter Quality Flags have been set for one or more records.	CS_OFFL_SIR_NOPN_2_20210117T134722_20210117T134847_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001 and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 CS_OFFL_SIR_NOPN_2_20210117T171214	CS_OFFL_SIR_NOPN_2_20210117T150256_20210117T150628_C001		
CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001 OCOG Backscatter Quality OCOG Backscatter Quality The OCOG Range and Backscatter Quality Flags have been set for one or	CS_OFFL_SIR_NOPN_2_20210117T162542_20210117T162626_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality	and the OCOG Altimeter Range and Backscatter Quality Flags have been
U.S. OFFI. SIR NOPN / /0/1011/11/11/14 /0/101111/11/14/4 U.001	CS_OFFL_SIR_NOPN_2_20210117T162844_20210117T162929_C001		
	CS_OFFL_SIR_NOPN_2_20210117T171214_20210117T171454_C001		

CS_OFFL_SIR_NOPN_2_20210117T180255_20210117T180416_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_20210117T184320_20210117T184905_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_20210117T193726_20210117T193820_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_20210117T194227_20210117T194438_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_20210117T195018_20210117T195139_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_20210117T212141_20210117T212628_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_20210117T220448_20210117T220613_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_20210117T220758_20210117T220900_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_20210117T221329_20210117T221550_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_20210117T234424_20210117T234817_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_20210117T003218_20210117T003513_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_20210117T011856_20210117T012220_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_20210117T012612_20210117T013359_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_20210117T013557_20210117T013638_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_20210117T030635_20210117T031358_C001	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_20210117T031436_20210117T031621_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_20210117T033812_20210117T033921_C001	TALICI DALKSI ALIPI UMTAIIIV ET BIVI UM UM A	The Ocean Altimeter Range, SSHA, SWH 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_20210117T044549_20210117T045303_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_20210117T054103_20210117T054746_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_20210117T060030_20210117T060243_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_20210117T062505_20210117T063157_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_20210117T072804_20210117T072838_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_20210117T080347_20210117T081109_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_20210117T081633_20210117T081650_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_20210117T103927_20210117T104042_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_20210117T112703_20210117T112816_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_20210117T130955_20210117T131034_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_20210117T135713_20210117T135944_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_20210117T145039_20210117T145415_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_20210117T161055_20210117T161427_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_20210117T161637_20210117T161758_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_20210117T162632_20210117T162822_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_20210117T194438_20210117T194547_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_20210117T194817_20210117T194903_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_20210117T210018_20210117T210059_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_20210117T225640_20210117T230210_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 & 1Hz PLRM)

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

188

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

Number of products with errors:

5.7 L2 Ocean Retracking Quality Check

L2 Retracking Flags (20Hz)

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

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

Number of products with errors: 66

L2 Retracking Flags (20Hz, PLRM)

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

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

Number of products with errors: 137

7. NOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	185	185	2	183	0
SIR_NOPR1B	119	119	0	119	0
SIR_NOPN1B	106	106	3	103	0
SIR_NOPM_2	185	185	124	61	0
SIR_NOPR_2	119	119	45	70	4
SIR NOPN 2	106	106	34	72	0

7.1 QCC Errors

Number of QCC reports with errors:

7

Total number of occurrences of each error

					rotal number	of occurrences	or each error				
Product Type R	RLOBOPNCDF	RL	RLOBOPNCDF	RL	-	-	-	-	-	-	-
SIR NOPR 2	4	4	4	4							

Test Description Key:						
Abbreviation	Test name	Details				
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF				
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7				
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF				
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7				

7.2 QCC Warnings

Number of QCC reports with warnings

1718

Total number of occurrences of each warning

Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCD
SIR_NOPM1B	183	0	0	0	0	0	0
SIR_NOPM_2	0	0	49	45	0	42	0
SIR_NOPN1B	102	0	0	0	0	0	0
SIR_NOPN_2	0	0	10	34	5	27	32
SIR_NOPR1B	115	0	0	0	0	0	0
SIR_NOPR_2	0	4	18	38	0	19	19

Product Type	RBSZOPOEPNCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC	RPEPOPFDPLRMSINNCD	RPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	34	40	0	0	0	0	31
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	18	0	0	23	0	35	0
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	4	0	39	0	43	0	0

Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	0	0	4	29	0	2	39
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	28	19	49	57	30	31
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	39	0	1	50	31	5	25

Product Type	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	
SIR_NOPM1B	0	0	0	0	0	
SIR_NOPM_2	0	2	0	0	0	
SIR_NOPN1B	0	0	0	51	0	
SIR_NOPN_2	32	13	1	0	0	
SIR_NOPR1B	0	0	0	119	8	
SIR NOPR 2	37	1	6	0	0	

Test Description Key:		
	Test name	Details
BCSHNCDF	BurstCounterStep20HzNetCDF	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	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
	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	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: