

QA4EO Daily Report for IOP data:

<u>08/10/2022</u>

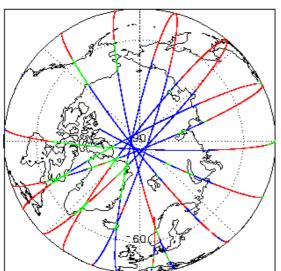
IDEAS-QA4E0

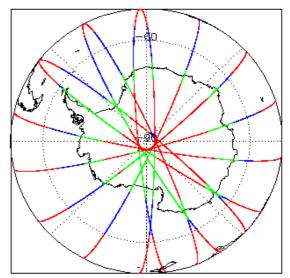
		Check	L1 & L2	P2P
oort Production:	11-Oct-2022	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
rocessor Used:		Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
ocessor Usea:	CryoSat Ocean Processor	Product Software Check	Nominal	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal	Nominal
Data Used:	L1B, L2 & P2P Science Data	Product Header Analysis	Nominal	Nominal
		Auxiliary Data File Usage Check	Nominal	Nominal
		Auxiliary Correction Error Check	See Section 5.4	See Section 6.4
		Measurement Confidence Data Check	See Section 4.5, 4.6 and 5.5	See Section 6.5
		Range, SWH & Backscatter Measurement Check	See Section 5.6	See Section 6.6
		Ocean Retracking Quality Check	See Section 5.7	See Section 6.7
		QCC Error/ Warning Check	See Section 7.2	See Section 7.2

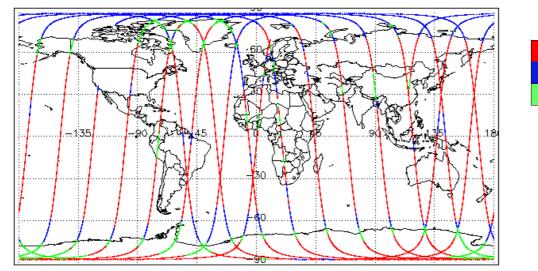
1. Overview

Mis	Mission / Instrument News		
0	7-Oct-2022	Unplanned SIRAL unavailability from 07/10/2022 15:32:31 to 08/10/2022 07:16:55. gap at the end	
08	8-Oct-2022	Unplanned SIRAL unavailability from 07/10/2022 15:32:31 to 08/10/2022 07:16:55. gap at the end	
09	9-Oct-2022	Nothing planned	











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3. Instrument Configuration

SIRAL instrument(s) in use:

SIRAL - A

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

4. IOP 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).

4.2 L1B Product Header Analysis		
or all products, a series of pre-defined checks are performed on the MPH and	d SPH in order to identify any inconsis	stencies and/or errors raised by the ground-segment processing chain.
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	e-determined baseline and also to ch	eck the validity of Auxiliary Data Files is correct.
Number of products with errors: 0		
4.4 L1B Auxiliary Correction Error Check		
CryoSat L1B data includes a correction error flag for each measurement record	d. The bit value of this flag indicates a	any problems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
The measurement connuence Data Check		
	nent record. The bit value of this flag	indicates any problems when set.
CryoSat L1B data includes a measurement confidence flag for each measuren > Attitude Correction Missing: This flag is currently set in error for IOPR pro-		indicates any problems when set. ne attitude correction is actually not missing. This will be resolved in the next SW
CryoSat L1B data includes a measurement confidence flag for each measuren • Attitude Correction Missing: This flag is currently set in error for IOPR pro- update.		
CryoSat L1B data includes a measurement confidence flag for each measurem Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2		ne attitude correction is actually not missing. This will be resolved in the next SW
CryoSat L1B data includes a measurement confidence flag for each measurem Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Aumber of products with errors: 2 Product	ducts due to a configuration issue. Th	ne attitude correction is actually not missing. This will be resolved in the next SW
CryoSat L1B data includes a measurement confidence flag for each measurem Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001	ducts due to a configuration issue. Th	ne attitude correction is actually not missing. This will be resolved in the next SW Description There is an error in the scaling of the L1B waveform for one or more
CryoSat L1B data includes a measurement confidence flag for each measurem > Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001	ducts due to a configuration issue. Th Test Failed Power scaling error	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more
CryoSat L1B data includes a measurement confidence flag for each measurem > Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001 4.6 L1B Waveform Group Data Check	ducts due to a configuration issue. Th Test Failed Power scaling error Power scaling error	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records
CryoSat L1B data includes a measurement confidence flag for each measurem > Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001 4.6 L1B Waveform Group Data Check CryoSat L1B data includes a waveform data flag for each measurement record	ducts due to a configuration issue. Th Test Failed Power scaling error Power scaling error d. The bit value of this flag indicates a	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records
CryoSat L1B data includes a measurement confidence flag for each measurem > Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001 4.6 L1B Waveform Group Data Check CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is	ducts due to a configuration issue. Th Test Failed Power scaling error Power scaling error d. The bit value of this flag indicates a	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records
CryoSat L1B data includes a measurement confidence flag for each measurement confidence flag for each measurement confidence flag for each measurement products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001 4.6 L1B Waveform Group Data Check CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 15	ducts due to a configuration issue. Th Test Failed Power scaling error Power scaling error d. The bit value of this flag indicates a to be expected. The table provides t	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records
CryoSat L1B data includes a measurement confidence flag for each measurem Attitude Correction Missing: This flag is currently set in error for IOPR pro- update. Number of products with errors: 2 Product CS_OFFL_SIR_IOPM1B_20221008T170025_20221008T170315_C001 CS_OFFL_SIR_IOPM1B_20221008T230332_20221008T231555_C001 4.6 L1B Waveform Group Data Check CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 15 Product	ducts due to a configuration issue. The power scaling error Power scaling error Power scaling error d. The bit value of this flag indicates a to be expected. The table provides the provid	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records
CryoSat L1B data includes a measurement confidence flag for each measurement confidence flag for each measurement confidence flag for each measurement protected and the second s	ducts due to a configuration issue. Th Test Failed Power scaling error Power scaling error d. The bit value of this flag indicates a to be expected. The table provides t	Description There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records There is an error in the scaling of the L1B waveform for one or more records

Test Failed	Description
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
Loss of Echo	The tracking echo is missing for one or more records
	Loss of Echo Loss of Echo

5. IOP 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 NetCDF product file (.nc). Number of products with errors:

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.

Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

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

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

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

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

> 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.

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Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20221008T121656_20221008T123041_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T075512_20221008T075626_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T080123_20221008T080445_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)
CS_OFFL_SIR_IOPN_2_20221008T093600_20221008T093836_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)
CS_OFFL_SIR_IOPN_2_20221008T094029_20221008T094655_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T103114_20221008T103234_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T111118_20221008T111729_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)
CS_OFFL_SIR_IOPN_2_20221008T121033_20221008T121137_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)
CS_OFFL_SIR_IOPN_2_20221008T134947_20221008T135444_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T152242_20221008T152321_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T161424_20221008T161631_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 tidal corrections for one or more records
CS_OFFL_SIR_IOPN_2_20221008T175223_20221008T175540_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)
CS_OFFL_SIR_IOPN_2_20221008T180102_20221008T180220_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T193114_20221008T193434_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)
CS_OFFL_SIR_IOPN_2_20221008T193957_20221008T194121_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T202039_20221008T202335_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPN_2_20221008T211816_20221008T211951_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)
CS_OFFL_SIR_IOPN_2_20221008T220136_20221008T220236_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)
CS_OFFL_SIR_IOPN_2_20221008T225550_20221008T225757_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)
CS_OFFL_SIR_IOPN_2_20221008T233936_20221008T234151_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)
CS_OFFL_SIR_IOPR_2_20221008T085114_20221008T085457_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)
CS_OFFL_SIR_IOPR_2_20221008T102401_20221008T103001_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)
CS_OFFL_SIR_IOPR_2_20221008T105335_20221008T105549_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOPR_2_20221008T120404_20221008T120536_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221008T120609_20221008T120753_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)
CS_OFFL_SIR_IOPR_2_20221008T120753_20221008T121033_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)
CS_OFFL_SIR_IOPR_2_20221008T134238_20221008T134338_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)
CS_OFFL_SIR_IOPR_2_20221008T134338_20221008T134947_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)
CS_OFFL_SIR_IOPR_2_20221008T152501_20221008T153009_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)
CS_OFFL_SIR_IOPR_2_20221008T165259_20221008T165410_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221008T165413_20221008T165456_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221008T165834_20221008T170024_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_IOPR_2_20221008T170401_20221008T171208_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)

CS_OFFL_SIR_IOPR_2_20221008T184245_20221008T185117_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)
CS OFFE SIR TOPR 2 202210081202336 202210081203037 CO01	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)
CS_OFFL_SIR_IOPR_2_20221008T220236_20221008T220820_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)
CS_OFFL_SIR_IOPR_2_20221008T234151_20221008T234836_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)

5.5 L2 Measurement Confidence Data Check

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

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20221008T170025_20221008T170315_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOPM_2_20221008T230332_20221008T231555_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

5.6 L2 Measurement Quality Flag Check

L2 Quality Flags (20 Hz)

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

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

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

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

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20221008T071655_20221008T072001_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_IOPM_2_20221008T073431_20221008T075044_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_IOPM_2_20221008T075627_20221008T080123_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_IOPM_2_20221008T080823_20221008T084105_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_IOPM_2_20221008T084133_20221008T084354_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_IOPM_2_20221008T090430_20221008T092902_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_IOPM_2_20221008T093836_20221008T094028_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_IOPM_2_20221008T094810_20221008T095441_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_IOPM_2_20221008T100023_20221008T100450_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_IOPM_2_20221008T100932_20221008T101732_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_IOPM_2_20221008T101736_20221008T102057_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_IOPM_2_20221008T103235_20221008T103532_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_IOPM_2_20221008T103726_20221008T105335_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_IOPM_2_20221008T105549_20221008T111036_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_IOPM_2_20221008T111730_20221008T111942_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_IOPM_2_20221008T112713_20221008T114120_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_IOPM_2_20221008T114259_20221008T115940_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_IOPM_2_20221008T121656_20221008T123041_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_IOPM_2_20221008T123742_20221008T125059_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_IOPM_2_20221008T125523_20221008T130346_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_IOPM_2_20221008T130715_20221008T132849_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_IOPM_2_20221008T133411_20221008T133446_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_IOPM_2_20221008T133550_20221008T133716_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CI. DPL. BR. OPH 2 3221001142182 322100114244 Sport Amount Regs. SBN, SPH, SPH, SPH, SPH, SPH, SPH, SPH, SPH	CS_OFFL_SIR_IOPM_2_20221008T140451_20221008T140811_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
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	CS_OFFL_SIR_IOPM_2_20221008T140813_20221008T143044_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
63. OFL_GRI_UPPL_2021001114/03.L0221001113019.0001 prod Descarter Caship, SOGO, Minter Fragma and Bookscort Caship, Fragma and Bookscort Caship, Fragma and Bookscort Caship, Fragma Caship, Soco, Carrier, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/20210001114/2020000 Coship, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/2021001114/2020000 Coship, Simi, ICPM 2, 2021001114/20210001114/2020000 Coship, Simi, ICPM 2, 2021001114/20210001114/20200000 Coship, Simi, ICPM 2, 2021001114/20210001114/20200000 Coship, Simi, ICPM 2, 2021001114/202100001114/20200000 Coship, Simi, ICPM 2, 20210001114/202100001114/20200000 Coship, Simi, ICPM 2, 20210001114/202100001114/20200000 Coship, Simi, ICPM 2, 20210001114/202100001114/20200000 Coship, Simi, ICPM 2, 20210001114/2021000000000000000000000000	CS_OFFL_SIR_IOPM_2_20221008T143710_20221008T144203_C001		
CB_CPTL_SBL_OPNL_232210001152321_20221031115235_C001 Inclusion Brage SBL, SPTL Inclusion Brage SBL, SPTL The Ocean Allower Brage SBL, SPTL SBL SBL SBL SBL SBL SBL SBL SBL SBL SB	CS_OFFL_SIR_IOPM_2_20221008T144758_20221008T151049_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
B3, DFH_SR_DML_2_T221001114582_0221087118842_021 and Basissenter Quinty Charge And Sakassanter Quinty Finge Face basis CB_DFH_SR_DPL_2_T221001116582_0221087118149_0201 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on non-occide. CB_DFH_SR_DPL_2_T22210001161822_0221087118149_0201 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on non-occide. CB_DFH_SR_DPL_2_T2221000116400_0221087118149_0201 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on non-occide. CB_DFH_SR_DPL_2_T2221000116400_02210871064718229_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T2221000116400_022210871064718229_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T22210001176400_022210871064718259_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T22210001176400_0222108710711640_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T22210001177640_020210871176474_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T22210001177640_020210871176474_02011 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis for an on-occide. CB_DFH_SR_DPL_2_T22210001178640_02021087118644_0201 00000 Allineter Rays Quinty Sakassanter Quinty Finge Face basis an on-occide.	CS_OFFL_SIR_IOPM_2_20221008T152321_20221008T152355_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Correll SHI, DML 2 AD21004110332 AD21004110332 AD210041104300 Besecreter Cushy In or we more result CS_OFFL_SHI_OPAL_2_D2021004110303_02210041104300_0001 Correll SHI_OPAL_2_D20210041104301_02210041104400_0001 Correll SHI_OPAL_2_D20210041104301_02210041104100_0001 Correll SHI_OPAL_2_D20210041104301_02210041104100_0001 Correll SHI_OPAL_2_D20210041104301_0201_02010041104100_0001 Correll SHI_OPAL_2_D20210041104301_0201_02010041104100_0001 Correll SHI_OPAL_2_D20210041104301_0201_0001 Correll SHI_OPAL_2_D20210041104301_0001_0001 Correll SHI_OPAL_2_D20210041104301_0001_0001 Correll SHI_OPAL_2_D20210041104301_0001_0001_0001 Correll SHI_OPAL_2_D20210041104301_0001_0001_0001_0000_000_000_000_000_	CS_OFFL_SIR_IOPM_2_20221008T154338_20221008T160842_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
Corp. Shi, Uong 2, 2022 10011 10322, 2021 10011 4032, 2021 10011 4032, 2021 10011 4039, 2022 10011 403	CS_OFFL_SIR_IOPM_2_20221008T161352_20221008T161423_C001		
CS: 0FFL SIN IOPM 2 20221008T162551 20221008T166254 20210 and beschellter Cuality Flags and Backstellter Cuality Flags Flags Flags Flags Flags and Backstellter Cuality Flags	CS_OFFL_SIR_IOPM_2_20221008T161632_20221008T162229_C001		
CS. OFFL_SR_DPM_2_0021008T16400_001221008T169254_0001 and Backscater Quality Code and the DOGR Attempts Rhaps and Backscater Quality Flags Twee been Attempts Rhaps and Backscater Quality Flags Twee been Attempts Rhaps RSH, SYH CS. OFFL_SIR_DPM_2_0021008T175258_0021008T179255_0021008T179255_0021008T179255_0021008T179255_0021008T179256_002108T179256_0021008T179256_002108T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_0021008T179256_002008T179256_002008T179256_002008T179256_002008T1792566_0021008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002021008T179256_002021008T179256_002021008T192556_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002008T179256_002021008T192550_002008T179256_002008T179256_002021008T192550_002021008T192550_002021008T192550_00201	CS_OFFL_SIR_IOPM_2_20221008T162551_20221008T164458_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CB_OFFL_SIR_LIOPM_2_80221008117025_202210081170316_0001 and Backsteller Cuality COCG and the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range and Backsteller Cuality Flags have been at the COCG Alimeter Range	CS_OFFL_SIR_IOPM_2_20221008T164500_20221008T165234_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_JOPM_2_20221008T171528_20221008T174746_0001 and the SCAGE and the SCAGE and the SCAGE CS_OFFL_SIR_JOPM_2_20221008T175540_22221008T181010_0001 DCCG Allmeter Range Cuality.CCGG The CCCG Allmeter Range and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T18146_20221008T181516_0001 DCCG Allmeter Range Cuality.CCGG The CCCG Allmeter Range and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T1816868_20221008T181424 DCCG Allmeter Range Cuality.CCGG The CCCG Allmeter Range SHA.SWH and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T18428_20221008T18424 DCCG Allmeter Range CSHA.SWH and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T18428_20221008T190344_CO01 DCCG Allmeter Range, SHA.SWH and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T198408_20221008T192750_C001 DCCG Allmeter Range, SHA.SWH and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T195501_C001 DCCG Allmeter Range Cuality.CCGG The CCGG Allmeter Range and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T195501_C001 DCCG Allmeter Range Cuality.CCGG The CCGG Allmeter Range and Backscatter Cuality Flags have been set tor one or more records CS_OFFL_SIR_JOPM_2_20221008T194500_20221008T	CS_OFFL_SIR_IOPM_2_20221008T170025_20221008T170315_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_JOPM_2_20221008T181146_20221008T181518_C001 Biolecatter Quality for one or more records CS_OFFL_SIR_JOPM_2_20221008T181146_20221008T181518_C001 DCOG Altimeter Range Quality. OCCG The OCCIG Altimeter Range and Backscatter Quality Flags have been set tor new records CS_OFFL_SIR_JOPM_2_20221008T183656_20221008T184244_C001 Dcean Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags have been at Altimeter Range. SSHA, SWH and Backscatter Quality Flags	CS_OFFL_SIR_IOPM_2_20221008T171523_20221008T174746_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T1813B6_20221008T1813B Backscatter Quality for one or more records CS_OFFL_SIR_IOPM_2_20221008T183856_20221008T181244_C001 Decan Atimater Range, SSHA, SWH and Backscatter Quality Flags have been and backscatter Quality Flags have	CS_OFFL_SIR_IOPM_2_20221008T175540_20221008T180101_C001		
CS_OFFL_SIR_JOPM_2_20221008T18386_20221008T184244_C001 and Backscatter Quality. CCCOA Altereter Range and Backscatter Quality Cean Altimeter Range, SSHA, SWH nam Backscatter Quality CCean Altimeter Range, SSHA, SWH nam Backscatter Quality The Ocean Altimeter Range, SSHA, SWH CS_OFFL_SIR_JOPM_2_20221008T190530_20221008T192750_C001 Cean Altimeter Range and Backscatter Quality CS_OFFL_SIR_JOPM_2_20221008T190530_20221008T192750_C001 Coean Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T193550_20221008T193550_C001 COCGA Altimeter Range Quality, COCG Baltimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T194520_20221008T195501_C001 COCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T195501_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T195649_20221008T195501_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T195649_20221008T200250_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_JOPM_2_20221008T2012012_20321008T200250_C001 Cocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or	CS_OFFL_SIR_IOPM_2_20221008T181146_20221008T181518_C001	0 1	, , , , , , , , , , , , , , , , , , ,
CS_OFFL_SIR_IOPM_2_20221008T195428_20221008T190344_C001 and Backscatter Quality, COCG and the OCCG Altimeter Range and Backscatter Quality, Flags have been Attimeter Range, SSHA, SWH and the OCCG Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T19050_20221008T192750_C001 Cocan Altimeter Range, SSHA, SWH The Ocean Altimeter Range and Backscatter Quality, Flags have been attimeter Range and Backscatter Quality, Flags have been attimeter Range and Backscatter Quality, Flags have been attimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T193550_20221008T193550_C001 COCG Altimeter Range, SSHA, SWH The OCCG Altimeter Range and Backscatter Quality, Flags have been attimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T194520_20221008T195501_C001 Cocan Altimeter Range, SSHA, SWH The OCCG Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001 Cocan Altimeter Range, SSHA, SWH The OCCG Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T20050_C001 Cocan Altimeter Range, SSHA, SWH The OCCGA Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T20050_C001 Cocan Altimeter Range, SSHA, SWH The OCCGA Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T210630_C001 Cocan Altimeter Range, SSHA, SWH The OCCGA Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T210630_C001 Cocan Altimeter Range, SSHA, SWH The OCCGA Altimeter Range, SSHA, SWH CS_OFFL_SIR_IOPM_2_20221008T210543_2	CS_OFFL_SIR_IOPM_2_20221008T183856_20221008T184244_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T190530_20221008T192750_C001 and Backscatter Quality and the OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T1933550_20221008T193956_C001 OCCG Altimeter Range Quality, OCCG Bit one or more records The OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T194520_20221008T195501_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T195501_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records The OCean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T210503_C001 Ocean Altimeter Range, Quality, OCCG The OCean Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T215043_20221008T211443_C001 OCCGA Altimeter Range Quality, OCCG The OCCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T212543_20221008T2215712_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at timeter Range and Backscat	CS_OFFL_SIR_IOPM_2_20221008T185428_20221008T190344_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T193505_0001 Backscatter Quality for one or more records CS_OFFL_SIR_IOPM_2_20221008T195501_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality, COCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T210943_20221008T215712_C001 OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been altimeter Range, SSHA, SWH and Backscatter Quality, OCCG The OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been altimeter Range and Backscatter Quality, CCCG Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been altimeter Range and Backscatter Quality, CCCG Altimeter Range and Backscatter Quality Fl	CS_OFFL_SIR_IOPM_2_20221008T190630_20221008T192750_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T194520_20221008T195501_C001 and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality and the OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and the OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T203121_20221008T210630_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality CS_OFFL_SIR_IOPM_2_20221008T210943_20221008T211443_C001 OCCG Altimeter Range Quality, OCCG Backscatter Quality The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T212543_20221008T215712_C001 OCCGA Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T221050_20221008T2215712_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T221050_20221008T222427_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCCG Altimeter Range and Backscatter Quality, Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T221	CS_OFFL_SIR_IOPM_2_20221008T193550_20221008T193956_C001		
CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001 and Backscatter Quality, COCG and the OCCG Altimeter Range and Backscatter Quality CS_OFFL_SIR_IOPM_2_20221008T203121_20221008T210630_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at Backscatter Quality CS_OFFL_SIR_IOPM_2_20221008T203121_20221008T2110630_C001 Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T210943_20221008T211443_C001 OCOG Altimeter Range Quality, OCOG Backscatter Quality, OCOG The OCCGA Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T212543_20221008T215712_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been at Himeter Range and Backscatter Quality, COCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags have been at the OCCG Altimeter Range and Backscatter Quality Flags and the OCCG Altimeter Range and Backscatter Quality Flags have been at the or nor more records CS_OFFL_SIR_IOPM_2_20221008T221050_20221008T222427_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCCG Altimeter Range and Backscatter Quality Flags have been at the reare and Backscatter Quality Flags and Backscatter Quality Flags and B	CS_OFFL_SIR_IOPM_2_20221008T194520_20221008T195501_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T203121_20221008T210630_C001 and Backscatter Quality, OCOG Attimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T210943_20221008T211443_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_IOPM_2_20221008T212543_20221008T215712_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been and backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Al	CS_OFFL_SIR_IOPM_2_20221008T195649_20221008T200250_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_202210081210543_202210081217443_C001 Backscatter Quality for one or more records CS_OFFL_SIR_IOPM_2_202210081212543_202210081215712_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_202210081221050_202210081222427_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality CS_OFFL_SIR_IOPM_2_202210081222405_001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality, Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_202210081222841_202210081222954_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_202210081222001_202210081222954_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_202210081223001_202210081224605_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been set for one or more records	CS_OFFL_SIR_IOPM_2_20221008T203121_20221008T210630_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T212543_20221008T215712_C001and Backscatter Quality, OCOG Attimeter Range and Backscatter Qualityand the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more recordsCS_OFFL_SIR_IOPM_2_20221008T221050_20221008T222427_C001Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Attimeter Range and Backscatter QualityThe Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags to rone or more recordsCS_OFFL_SIR_IOPM_2_20221008T22241_20221008T222954_C001Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter QualityThe Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags to rone or more recordsCS_OFFL_SIR_IOPM_2_20221008T222841_20221008T222954_C001Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality Flags timeter Range and Backscatter QualityThe Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags to rone or more recordsCS_OFFL_SIR_IOPM_2_20221008T223001_20221008T224605_C001Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOGThe Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags hand the OCOG Altimeter Range and Backsc	CS_OFFL_SIR_IOPM_2_20221008T210943_20221008T211443_C001		
CS_OFFL_SIR_IOPM_2_20221008T221050_20221008T222427_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been SS_OFFL_SIR_IOPM_2_20221008T222841_20221008T222954_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20221008T222841_20221008T222954_C001 Ocean Altimeter Range and Backscatter Quality The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20221008T222001_20221008T224605_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been CS_OFFL_SIR_IOPM_2_20221008T223001_20221008T224605_C001 Ocean Altimeter Range, SSHA, SWH The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags have been	CS_OFFL_SIR_IOPM_2_20221008T212543_20221008T215712_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T222841_20221008T222954_C001 and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records CS_OFFL_SIR_IOPM_2_20221008T223001_20221008T224605_C001 Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG and the OCOG Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags and the OCOG Altimeter Range, SSHA, SWH	CS_OFFL_SIR_IOPM_2_20221008T221050_20221008T222427_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
CS_OFFL_SIR_IOPM_2_20221008T223001_20221008T224605_C001 and Backscatter Quality, OCOG and the OCOG Altimeter Range and Backscatter Quality Flags have been	CS_OFFL_SIR_IOPM_2_20221008T222841_20221008T222954_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been
	CS_OFFL_SIR_IOPM_2_20221008T223001_20221008T224605_C001	and Backscatter Quality, OCOG	and the OCOG Altimeter Range and Backscatter Quality Flags have been

CS_OFFL_SIR_IOPM_2_20221008T224833_20221008T225342_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_IOPM_2_20221008T225419_20221008T225549_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_IOPM_2_20221008T230332_20221008T231555_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_IOPM_2_20221008T231938_20221008T233544_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_IOPN_2_20221008T182316_20221008T182500_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

L2 Quality Flags (20 Hz PLRM)

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

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

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

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Product	Test Failed	Description
CS_OFFL_SIR_IOPN_2_20221008T073120_20221008T073431_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_IOPN_2_20221008T094029_20221008T094655_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_IOPN_2_20221008T103114_20221008T103234_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_IOPN_2_20221008T103532_20221008T103725_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_IOPN_2_20221008T111118_20221008T111729_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_IOPN_2_20221008T112443_20221008T112618_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_IOPN_2_20221008T123250_20221008T123742_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_IOPN_2_20221008T125331_20221008T125522_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_IOPN_2_20221008T133023_20221008T133411_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_IOPN_2_20221008T134947_20221008T135444_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_IOPN_2_20221008T143305_20221008T143424_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_IOPN_2_20221008T143621_20221008T143710_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_IOPN_2_20221008T161232_20221008T161352_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_IOPN_2_20221008T162230_20221008T162359_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_IOPN_2_20221008T175223_20221008T175540_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_IOPN_2_20221008T182316_20221008T182500_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_IOPN_2_20221008T183456_20221008T183458_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_IOPN_2_20221008T183458_20221008T183539_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_IOPN_2_20221008T183759_20221008T183855_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_IOPN_2_20221008T185117_20221008T185427_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_IOPN_2_20221008T193957_20221008T194121_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_IOPN_2_20221008T200250_20221008T200453_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_IOPN_2_20221008T202039_20221008T202335_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_IOPN_2_20221008T211816_20221008T211951_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_IOPN_2_20221008T224653_20221008T224832_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_IOPN_2_20221008T225550_20221008T225757_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_IOPN_2_20221008T235709_20221008T235911_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_IOPR_2_20221008T072403_20221008T072550_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_IOPR_2_20221008T075045_20221008T075512_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_IOPR_2_20221008T080446_20221008T080823_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_IOPR_2_20221008T084437_20221008T085114_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_IOPR_2_20221008T092902_20221008T093600_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_IOPR_2_20221008T120404_20221008T120536_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_IOPR_2_20221008T130535_20221008T130715_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_IOPR_2_20221008T132849_20221008T132955_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_IOPR_2_20221008T140230_20221008T140451_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_IOPR_2_20221008T152205_20221008T152242_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_IOPR_2_20221008T154234_20221008T154338_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_IOPR_2_20221008T160842_20221008T161231_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_IOPR_2_20221008T165259_20221008T165410_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_IOPR_2_20221008T165834_20221008T170024_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_IOPR_2_20221008T170401_20221008T171208_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_IOPR_2_20221008T174746_20221008T175222_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_IOPR_2_20221008T180221_20221008T180624_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_IOPR_2_20221008T182939_20221008T183340_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_IOPR_2_20221008T183545_20221008T183739_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_IOPR_2_20221008T184245_20221008T185117_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_IOPR_2_20221008T192751_20221008T193114_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_IOPR_2_20221008T194121_20221008T194520_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_IOPR_2_20221008T201559_20221008T201801_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_IOPR_2_20221008T202336_20221008T203037_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_IOPR_2_20221008T203046_20221008T203120_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one o more records			
CS_OFFL_SIR_IOPR_2_20221008T211951_20221008T212310_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_IOPR_2_20221008T220236_20221008T220820_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_IOPR_2_20221008T220834_20221008T220945_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one o more records			
CS_OFFL_SIR_IOPR_2_20221008T225758_20221008T230331_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_IOPR_2_20221008T231725_20221008T231938_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one o more records			
L2 Quality Flags (1 Hz & 1 Hz PLRM) Currently, there are several common flags raised in the Level 2 products, which are summarised below. > 1 Hz and 1 Hz Ocean SSHA Quality Flags: These flags are currently set for products over sea ice, which is to be expected. The number of products with this error flag set is given below. Number of products with errors: 133					
5.8 L2 Ocean Retracking Quality Check					
L2 Retracking Flags (20 Hz) CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz meas	irement record. The bit value of this flag indice	ates any problems when set			
CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz measurement record. The bit value of this flag indicates any problems when set. > Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.					
Number of products with errors: 49					
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 IOPR and IOPN products over sea ice, but this is to be expected. The number of products with this error flag set is given below.					
Number of products with errors: 101					
6. IOP L2	Pole-to-Pole Data Quality	Check			
6.1 P2P Product Format Check					
Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc).					

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:

6.2 P2P Product Header Analysis

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

Number of products with errors:

6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

6.4 P2P Auxiliary Correction Error Check

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

0

0

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 check.

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

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

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

21

> 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_IOP_220221008T071104_20221008T080041_C001	Mean Dynamic Topography (1)	There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_IOP_2_20221008T080041_20221008T085019_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)
CS_OFFL_SIR_IOP_220221008T085019_20221008T093955_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)
CS_OFFL_SIR_IOP_2_20221008T093955_20221008T102934_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)
CS_OFFL_SIR_IOP_220221008T102934_20221008T111910_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20221008T111910_20221008T120848_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)
CS_OFFL_SIR_IOP_2_20221008T120848_20221008T125825_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)
CS_OFFL_SIR_IOP_2_20221008T125825_20221008T134803_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)
CS_OFFL_SIR_IOP_220221008T134803_20221008T143739_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20221008T143739_20221008T152718_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)
CS_OFFL_SIR_IOP_2_20221008T152718_20221008T161654_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 tidal corrections for one or more records
CS_OFFL_SIR_IOP_2_20221008T161654_20221008T170633_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)
CS_OFFL_SIR_IOP_2_20221008T170633_20221008T175609_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)
CS_OFFL_SIR_IOP_2_20221008T175609_20221008T184547_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)
CS_OFFL_SIR_IOP_2_20221008T184547_20221008T193523_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)
CS_OFFL_SIR_IOP_2_20221008T193523_20221008T202502_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 (solution 1), the Total Geocentric Ocean Tide (solution 1: GOT) for one or more records
CS_OFFL_SIR_IOP_2_20221008T202502_20221008T211438_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)
CS_OFFL_SIR_IOP_2_20221008T211438_20221008T220417_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)
CS_OFFL_SIR_IOP_2_20221008T220417_20221008T225353_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)
CS_OFFL_SIR_IOP_2_20221008T225353_20221008T234331_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)
CS_OFFL_SIR_IOP_2_20221008T234331_20221009T003307_C002	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)

6.5 P2P Measurement Confidence Data Check

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

2

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Number of products with errors:
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Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20221008T161654_20221008T170633_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records
CS_OFFL_SIR_IOP_2_20221008T225353_20221008T234331_C001	Power scaling error	There is an error in the scaling of the L1B waveform for one or more records

6.6 P2P Measurement Quality Flag Check

P2P Quality Flags (20 Hz)

CryoSat P2P data includes Quality Flags for each 20 Hz, 20 Hz PLRM and 1 Hz measurement record, copied from the corresponding L2 products.

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

Number of products with errors:	20
	20

Since the P2P Quality Flags are copied directly from the L2 Quality Flags, please see Section 5.6 for the full list of products affected. The number of P2P products affected is given below.				
Number of products with errors:	21			
P2P Quality Flags (1 Hz & 1 Hz PLRM)				
Since the P2P Quality Flags are copied directly from below.	om the L2 Quality Flags, please see Section 5.6 for the number of L2 products affected. The number of P2P products affected is given			
Number of products with errors:	21			
6.8 P2P Ocean Retracking Quality C	heck			
P2P Retracking Flags (20 Hz)				
Cryosat P2P data includes an ocean retracking quality	y flag (field 19) for each 20 Hz measurement record. The bit value of this flag indicates any problems when set.			
> Ocean Retracking Quality Flag (PLRM): This flag	is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.			
Number of products with errors:	20			
P2P Retracking Flags PLRM				
CryoSat L2 data includes an ocean retracking quality flag for each 20 Hz PLRM measurement record. The bit value of this flag indicates any problems when set.				
> Ocean Retracking Quality Flag (PLRM): This flag is currently set for products IOPR and IOPN products over sea ice, but this is to be expected.				
Number of products with errors:	21			

7. IOP 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_IOPM1B	113	113	1	112	0
SIR_IOPR1B	78	66	1	65	0
SIR_IOPN1B	66	78	0	78	0
SIR_IOPM_2	114	114	74	40	0
SIR_IOPR_2	78	66	26	40	0
SIR_IOPN_2	66	78	20	58	0
SIR_IOP_P2P	21	21	0	21	0

7.1 QCC Errors

Number of QCC reports with errors:

0

7.2 QCC Warnings

Product Type	BCSHNCDF	MVIOEPFDNCDF	MVIOEPNCDF	ber of occurrences o MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRM	NCERBSZOPOEPNCDF
SIR IOPM1B	112	0	0	0	0	0	0
SIR IOPM 2	0	32	30	0	36	0	32
SIR IOPN1B	65	0	0	0	0	0	0
SIR IOPN 2	0	8	20	4	18	20	14
SIR IOPR1B	76	0	0	0	0	0	0
SIR IOPR 2	0	29	33	1	25	22	12
Product Type	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNO	CRPEPOPFDPLRMSINN	ICDIRPEPOPFDSARNCDF	RPEPOPFDSINNCDF	RPEPOPLRMNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	26	0	0	0	0	23
SIR IOPN1B	0	0	0	0	0	0	0
SIR IOPN 2	1	0	0	13	0	20	0
SIR IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	4	0	27	0	33	0	0
				1			
Product Type	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF	RSWHOEPFDNCDF
SIR_IOPM1B	0	0	0	0	0	0	0
SIR_IOPM_2	0	0	5	26	0	4	30
SIR_IOPN1B	0	0	0	0	0	0	0
SIR_IOPN_2	0	14	12	29	33	17	20
SIR_IOPR1B	0	0	0	0	0	0	0
SIR_IOPR_2	33	0	2	53	34	11	28
Product Type	RSWHOEPFDPLRMNC		SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF	-
SIR IOPM1B	0	0	0	0	0	0	
SIR IOPM 2	0	2	0	0	0	0	
SIR IOPN1B	0	0	1	0	31	0	
-	19	14	0	1	0	0	
SIR_IOPN_2	0	0	0	0	78	5	
SIR_IOPR1B	33	2	1	0	0	0	
SIR_IOPR_2	33	2	1	U	U	0	
Product Type	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRM	ICERBSZOPOEPNCDF
SIR IOP 2	10	21	21	4	21	13	21
Product Type	RNELPOTONCDF	RPEPOPFDPLRMSINNCD		RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCD
SIR_IOP_2_	5	13	21	17	14	21	14
Product Type	RSSHAONCDF	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCD		SPHLPQWNCDF	-	-
SIR IOP 2	17	21	14	15	21		
011_101_2_		- '	••		- '		
Product Type	-	-	-	-	-	-	-
SIR_IOP_2_							
SIR_IOP_2_ st Description Key breviation	r: Test name			Details			

The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees

MVIOEPFDNCDF

MissingValueIntOceanExcludingPolarFD2NetCDF

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	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
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Stop_v2_NetCDF	Rel_Time_ASC_Node_Stop mismatch
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

7.3 Missing QCC Reports

Number of products with missing QCC reports:

0