

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

<u>26/02/2022</u>

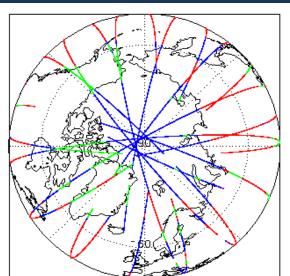
# IDEAS-QA4E0

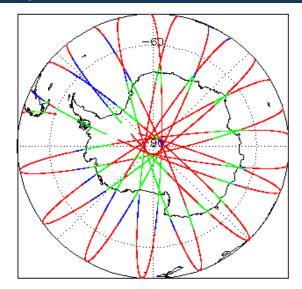
eport Production:	28-Feb-2022	Check	L1 & L2
	Server check: science-pds.cryosat.esa.int	Nominal	
Processor Used:	CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal
Processor Useu.	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Near Real Time Ocean Products (NOP)	Product Format Check	Nominal
Data Useu.	L1B & L2 Science Data	Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
		Auxiliary Correction Error Check	See Section 5.4
		Measurement Confidence Data Check	See Section 4.5, 4.6
		Measurement Quality Flag Check	See Section 5.6
		Ocean Retracking Quality Check	See Section 5.7
		QCC Error/ Warning Check	See Section 7.1 and 7.2

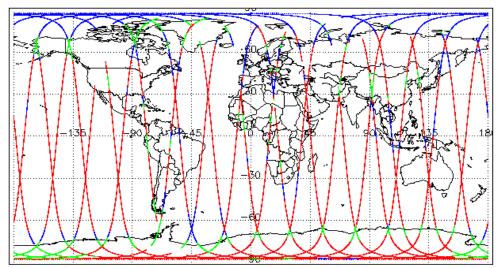
25-Feb-2022	
26-Feb-2022	None
27-Eeh-2022	Nothing planned

27-Feb-2022 Nothing planne

# 2. Global Coverage







Mode Coverage

LRM
SAR
SARIn

# 3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below		
SIRAL instrument(s) in use:	SIRAL - A	
Star Trackor(s) in use:	Star Tracker 1	

4. NOP Level 1B Data Quality Check

#### 4.1 L1B Product Format Check

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

4.2 L1B Product Header Analysis		
For all products, a series of pre-defined checks are performed on the MPH and	SPH in order to identify any i	nconsistencies and/or errors raised by the ground-segment processing chain.
		s because the I1b_processing_quality_hr field is not correctly configured in the OSAR and
Number of products with errors: 0		
4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pre-	determined baseline and also	to check the validity of Auxiliary Data Files is correct.
> Dynamic Atmospheric Correction: The DAC is missing in all products beca		
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	. The bit value of this flag indi	cates any problems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag for each measurem	ent record. The bit value of th	is flag indicates any problems when set.
	ducts due to a configuration is	ssue. The attitude correction is not actually missing, This is being investigated and will be
updated in the next SW update. Number of products with errors: 0		
4.6 L1B Waveform Group Data Check		
CryoSat L1B data includes a waveform data flag for each measurement record.	The bit value of this flag indi	cates any problems when set.
> Loss of Echo Flag: This flag is currently set for occasional products over lan	d, but this is to be expected.	
Number of products with errors: 15		
Product	Test Failed	Description
CS_OFFL_SIR_NOPM1B_20220226T040201_20220226T040343_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220226T005123_20220226T005628_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220226T104114_20220226T104330_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220226T114435_20220226T114719_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPN1B_20220226T145640_20220226T145804_C001 CS_OFFL_SIR_NOPN1B_20220226T153322_20220226T153728_C001	Loss of Echo Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T022503_20220226T022618_C001	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T053104_20220226T053346_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T072513_20220226T073258_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T091721_20220226T091842_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T122200_20220226T122722_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T122744_20220226T122835_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T154541_20220226T155007_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T173525_20220226T173837_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_NOPR1B_20220226T215310_20220226T215512_C001	Loss of Echo	The tracking echo is missing for one or more records
5. NO	P Level 2 Data Q	uality Check
5.1 L2 Product Format Check		
	entry it consists of both on M	// headerfile / UDD) and a NatoDE weaklast file (
Each product, retrieved and unpacked from the science server, is checked to en Number of products with errors: 0	nsure it consists of both an Xr	vil neader file (.HUR) and a NetCUF product file (.nc).
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 i	nconsistencies and/or errors raised by the ground-segment processing chain.
Number of products with errors: 0		
5.3 L2 Auxiliary Data File Usage Check		
	determine differenting and also	to check the contribution of Accelling and a Film in community
Each product is checked for missing Data Set Descriptors with respect to a pre-	determined baseline and also	to check the validity of Auxiliary Data Files is correct.
Wind Model File Usage: This file is currently not included in all L2 products. Number of products with errors: 0		
Number of products with errors: 0		
5.4 L2 Auxiliary Correction Error Check		
For all products, the auxiliary corrections within the Geophysical Group are che	cked for the default error valu	e (32767).
Currently, there are some common auxiliary correction errors raised in th followed by a table highlighting any additional issues which may arise fro		e expected due to surface type. All common flags are summarised in the list below,
> ECMWF Meteo Corrections: Currently the following corrections are not com Correction and the U-Wind and V-Wind components of the ECMWF model wind		CE: Dry Tropospheric Corection, Wet Tropospheric Correction, Inverse Barometric

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

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

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

Number of products with errors:

CprIPL_SIR_NOPM 2_2222221140355_0001     Mean Dynamic Topography (n)     There is an error with the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_2000020100007_00007020001     Mean Dynamic Topography (n)     There is an error with the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_20000201000172_0001     Mean Dynamic Topography (n)     There is an error with the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_20000201000172_0001     Mean Dynamic Topography (n)     There is an error with the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_2000020100172_000100001     Mean Dynamic Topography (n)     There is an error with the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_2000020100172_000100001     Mean Dynamic Topography (n)     There is an error with the MS1 bright (notion 1) the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_20000201011020022020101380_0001     Mean Dynamic Topography (n)     There is an error with the MS1 bright (notion 1) and the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_2000020100010_200220201050101     Mean Dynamic Topography (n)     There is an error with the MS1 bright (notion 1) and the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_2000020100001_2002202010505011_00010     Mean Dynamic Topography (n)     There is an error with the MSI bright (notion 1) and the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_200202010050501_00010     Mean Dynamic Topography (n)     There is an error with the MSI bright (notion 1) and the Mean Dynamic Topography (n)       Cg_OFFL_SIR_NOPM_2_20020201005050_0002202010505011_0001     M
View DFPL_SER_NOPN_2_20220226T0642_0020025T00562_0020025T005620_0001 View DFPL_SER_NOPN_2_20220226T005620_0001 View DFPL_SER_NOPN_2_20220226T005640_0001 View DFPL_SER_NOPN_2_20220226T005640_0000 View DFPL_SER_NOPN_2_20220226T005640_000 View DFPL_
CS_OFFL_SIR_NOPN_2_20220220103123_0220220103523_0000     Toggaphy (1)     Toggaphy (1)<
Cite         Description         Intern Crystal (2000)         Intern Crystal (2000)         Intern Crystal (2000)           CS_OFFL_SIR_NOPN_2_20220281701610_202202281701510_0001         There is an error with the MSS height (calution 1). The Mean Dynamic Tryography (1). Total Genomic Coom Take         There is an error with the MSS height (calution 1). The Mean Dynamic Tryography (2000)           CS_OFFL_SIR_NOPN_2_202202817045282_022022817045710_0001         Mean Ses Sufce (1), Mean Dynamic Tryography (2000)         There is an error with the MSS height (calution 1) and the Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_2022022817045242_022022817055011_0001         Mean Ses Sufce (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_202202281705248_2022022817055011_0001         Mean Ses Sufce (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_2022022817050248_202202281705511_0001         Mean Ses Sufface (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_202202281708028_202202281081127_0001         Mean Ses Sufface (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_202202281708029_202202201062137_0001         Mean Ses Sufface (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_202202281708029_202202817062142_0001         Mean Ses Sufface (1), Mean Dynamic Tryography height for one or more records           CS_OFFL_SIR_NOPN_2_2022022817082028_20202281706211         Mean Ses Sufface (1), Mean Dynamic Tryogr
CS_OFFL_SIR_NOPN_2_20220228T031610_2022028T031810_0001       Topography (1)       Tradial Geocomic Ocean       There is an error with the MSS height (location 1) and the Mean Dynamic Topography (solution 1) and the Sist corrections for one or more records Ocean Tole         CS_OFFL_SIR_NOPN_2_20220228T050453_20220228T050451_20201       Mean Dsa Surface (1), Mean Dynamic Topography (solution 1) and the Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T050245_02220228T050501_C001       Mean Dsa Surface (1), Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T050265_0220228T050501_C001       Mean Sea Surface (1), Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T052052_0220228T050514_C001       Mean Sea Surface (1), Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T052052_0220228T050514_C001       Mean Sea Surface (1), Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T052051_20220228T050514_C001       Mean Sea Surface (1), Mean Dynamic Topography (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220228T050573_20220228T050514_C001       Mean Sea Surface (1), Mean Dynami
CS_OFFL_SIR_NOPN_2_2022026T050243_2022026T050401_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022026T050248_2022026T050401_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022026T050268_2022026T0505611_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) on or or more records         CS_OFFL_SIR_NOPN_2_20220226T060566_2022026T065616_C001       Mean San Surface (1), Mean Dynamic Topography Height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T060566_20220226T085112_C001       Mean San Surface (1), Mean Dynamic Topography Height (solution 1) and the Mean Dynamic Topography Leight (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T080016_20220226T082137_C001       Mean San Surface (1), Mean Dynamic Topography Height (solution 1) and the Mean Dynamic Topography Leight (solution 1) and the Mean Dynamic Topography Height (solutio
CS_OFFL_SIR_NOPN_2_2022025T053248_20220225T059511_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022025T053256_20220225T063516_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T063256_20220226T08316_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T08026_20220226T081127_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T080312_20220226T080112_C0011       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T080312_20220226T090312_20220226T090312_20220226T090312_0020226T090312_0020226T10909112_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T104130_C0011       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T112746_20220226T1104330_C0011       Mean Dynamic Topography (1)       There
CS_OFFL_SIR_NOPN_2_2022026T083266_0220026T083616_C001       Mean Ses Surface (1). Mean Dynamic Topography (a)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (a)         CS_OFFL_SIR_NOPN_2_20220226T080928_20220226T081127_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (olution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T080928_20220226T080127_C001       Mean Ses Surface (1). Mean Dynamic Topography height (colution 1) and the Mean Dynamic Topography height (colution 1) and the Mean Dynamic Topography height (colution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T0809312_20220226T090414_C001       Mean Ses Surface (1). Mean Dynamic Topography height (colution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T090312_20220226T090342_20220226T0903936_C001       Mean Ses Surface (1). Mean Dynamic Topography height (colution 1) or one or more records         CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height (colution 1) and the Mean Dynamic Topography height (colution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T114435_202202
CS_OFFL_SIR_NOPN_2_20220261080266_2022026T081127_C001       Mean Dynamic Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T08006_2022026T081137_C001       Mean Dynamic Topography (1)       There is an error with the Masn Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T0800312_2022026T080137_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T080312_2022026T090414_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T095731_20220226T095939_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022026T112746_2022026T114293_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022026T114745_2022026T114719_C001       Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_2022026T114719_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records <tr< td=""></tr<>
CS_OFFL_SIR_NOPN_2_2022026T080206_2022026T082137_C001       Mean Sea Surface (1). Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T080312_2022026T080414_C001       Mean Sea Surface (1). Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T090312_2022026T095936_C001       Mean Sea Surface (1). Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T104114_2022026T104330_C001       Mean Sas Surface (1). Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_2022026T114414_2022026T114233_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_2022026T114746_2022026T114293_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1), Total Geocentric Ocean There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T114742_20220226T132720_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_2022022610820312_202202261090414_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202202261090312_202202261090414_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_202202261095731_202202261104330_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_202202261104114_202202261104330_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_NOPN_2_202202261112746_202202261112933_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_202202261114435_202202261114719_C001       Topography (1) for load Ceccentric Ocean Tide (CGT), Total Ceccentric Ocean Tide (CGT), Total Ceccentric Ocean Tide (CGT), Notal Ceccentric Ocean Tide (C
CS_OFFL_SIR_NOPN_2_20220226T095731_20220226T095936_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T114716_20220226T114933_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T114745_20220226T114719_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T114745_20220226T114719_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T114745_20220226T114719_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T131708_20220226T131708_20220226T131728_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163566_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001       Mean Sea Surface (1)       There is an error with th
CS_OFFL_SIR_NOPN_2_20220206T104114_20220226T104330_C001       Topography (1)       Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T112746_20220226T112736_20220226T114719_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T114435_20220226T114719_C001       Topography (1)       There is an error with the MSS height (solution 1), the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T121742_20220226T122200_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T131708_20220226T131913_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T153322_2022026T153728_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163656_C001       Mean Sea Surface (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181502_C001       Mean Sea Surface (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_S
CS_OFFL_SIR_NOPN_2_20220226T112746_2022026T112933_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20220226T112746_20220226T112933_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T114435_20220226T114719_C001       There is an error with the Mean Dynamic Topography (solution 1) and the tidal corrections for one or more records         CS_OFFL_SIR_NOPN_2_20220226T121742_20220226T122200_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T131708_20220226T131913_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T153322_2022026T153728_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163656_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T1816722_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T1815056_20220226T1816722_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220
CS_OFFL_SIR_NOPN_2_2022026T112746_2022028T112335_C001       Integr by the provide the
CS_OFFL_SIR_NOPN_2_20220226T114435_20220226T114719_C001       Topography (1), Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FEN) Non_Enullibrium Long Period         CS_OFFL_SIR_NOPN_2_20220226T121742_20220226T122200_C001       Mean Dynamic Topography (1)       There is an error with the Mass Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T131708_20220226T131913_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T153322_2022026T153728_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163656_C001       Mean Sea Surface (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181502_C001
CS_OFFL_SIR_NOPN_2_20220226T131708_20220226T131913_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20220226T153322_2022026T153728_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163543_20220226T163656_C001       Mean Sea Surface (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181534_20220226T180722_C001       Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220226T153322_2022026T153728_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20220226T153322_20220226T153728_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163656_C001       Mean Sea Surface (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T1815056_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records         There is an error with the Mean Dynamic Topography height for one or more records       There is an error with the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_2022026T163543_20220226T163543_20220226T163565_C001       Mean Dynamic Topography (1)       more records         CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163565_C001       Mean Sea Surface (1)       There is an error with the MSS height (solution 1) for one or more records         CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001       Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records         CS_OFFL_SIR_NOPN_2_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)         CS_OFFL_SIR_NOPN_2_20220226T181502_C001       Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) for one or more records         There is an error with the MSS height (solution 1) and the Mean Dynamic Topography (1)       There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_20220226T180556_20220226T180722_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or more records CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records There is an error with the Mean Dynamic Topography height for one or more records There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPN_2_2022026T181234_2022026T181502_C001 Mean Dynamic Topography (1) more records CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001 Mean Sea Surface (1), Mean Dynamic Topography height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records There is an error with the Mean Dynamic Topography height for one or
Topography (1) Topography height (solution 1) for one or more records
There is an error with the Mean Dynamic Topography height for one or
CS_OFFL_SIR_NOPN_2_20220226T194610_20220226T194912_C001 Mean Dynamic Topography (1) more records
CS_OFFL_SIR_NOPN_2_20220226T195137_20220226T195652_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220226T212616_20220226T212746_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220226T222127_20220226T222242_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPN_2_20220226T222438_20220226T222716_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
CS_OFFL_SIR_NOPN_2_20220226T230116_20220226T230625_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T022638_20220226T023144_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T035452_20220226T035533_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20220226T040033_20220226T040201_C001 Mean Dynamic Topography (1) There is an error with the Mean Dynamic Topography height for one or more records
CS_OFFL_SIR_NOPR_2_20220226T040343_20220226T041348_C001 Mean Sea Surface (1), Mean Dynamic Topography (1) There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS OFFL SIR NOPR 2 20220226T054420 20220226T055247 C001

CS_OFFL_SIR_NOPR_2_20220226T072513_20220226T073258_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T090415_20220226T090959_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T104330_20220226T104523_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T104523_20220226T105013_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T122200_20220226T122722_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T140024_20220226T140953_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T153729_20220226T154425_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records
CS_OFFL_SIR_NOPR_2_20220226T203509_20220226T203624_C001	Mean Dynamic Topography (1), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Mean Dynamic Topography (solution 1), the Total Geocentric Ocean Tide (solution 2: FES) and the Non-Equilibrium Long Period Ocean Tide for one or more records
CS_OFFL_SIR_NOPR_2_20220226T235446_20220227T000052_C001	Mean Sea Surface (1), Mean Dynamic Topography (1)	There is an error with the MSS height (solution 1) and the Mean Dynamic Topography height (solution 1) for one or more records

#### 5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag for each 20 Hz measurement record. The bit value of this flag indicates any problems when set. 0

Number of products with errors:

## 5.6 L2 Measurement Quality Flag Check

#### L2 Quality Flags (20 Hz)

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

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

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

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

87

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_NOPM_2_20220225T235705_20220226T000525_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T000728_20220226T002433_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T002653_20220226T002904_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T010626_20220226T011003_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T011005_20220226T013337_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T013603_20220226T013802_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T013846_20220226T014348_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T014625_20220226T021211_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T024415_20220226T031235_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T031810_20220226T032411_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T032541_20220226T034809_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T034811_20220226T034817_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T040201_20220226T040343_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T041710_20220226T045126_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPM_2_20220226T045719_20220226T050243_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T050417_20220226T051036_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T051326_20220226T051656_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T052638_20220226T052824_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T054050_20220226T054420_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T055654_20220226T060523_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T060808_20220226T063059_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T063616_20220226T063723_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T063729_20220226T064136_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T064300_20220226T065640_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T065827_20220226T070309_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T073521_20220226T080919_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T081127_20220226T081622_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T081643_20220226T082006_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T082226_20220226T082434_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T082722_20220226T085845_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T091843_20220226T092605_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T093046_20220226T093152_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T093209_20220226T094831_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T095009_20220226T095522_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T100521_20220226T101902_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T102206_20220226T103239_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T110047_20220226T111107_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T111246_20220226T112735_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T112933_20220226T113434_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T114308_20220226T114434_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPM_2_20220226T114719_20220226T115637_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T120001_20220226T120455_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T123654_20220226T123700_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T124346_20220226T130652_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T131008_20220226T131351_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T131413_20220226T131707_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T131957_20220226T134642_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T142046_20220226T144615_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T144751_20220226T145306_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T145313_20220226T145639_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T145928_20220226T153321_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T155731_20220226T160609_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T160611_20220226T161504_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T161943_20220226T162610_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T162752_20220226T163341_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T163852_20220226T170252_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T170303_20220226T171239_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T174839_20220226T175030_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T175210_20220226T180556_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T180723_20220226T181234_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T181754_20220226T184047_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T184331_20220226T185300_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T192330_20220226T194501_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T194912_20220226T195137_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T195752_20220226T202908_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T204726_20220226T210637_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPM_2_20220226T210651_20220226T211936_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T212850_20220226T213046_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T213231_20220226T213549_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T213717_20220226T215310_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T215512_20220226T220504_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T222243_20220226T222438_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T222729_20220226T222917_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T223202_20220226T224353_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T230018_20220226T230116_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T231021_20220226T231451_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPM_2_20220226T231647_20220226T233138_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T071950_20220226T071956_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T174303_20220226T174447_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T203624_20220226T203652_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T213549_20220226T213717_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T035627_20220226T035630_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T073449_20220226T073521_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T103239_20220226T103437_C001	OCOG Altimeter Range Quality, OCOG Backscatter Quality	The OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T140024_20220226T140953_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality, OCOG Altimeter Range and Backscatter Quality	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T233138_20220226T233317_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
1.2 Quality Flame (20 Ha BI DM)		

#### 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.

Number of products with errors:	74

Product	Test Failed	Description
	<b>3</b>	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T003630_20220226T003723_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

	Ocean Altimeter Range, SSHA, SWH	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_NOPN_2_20220226T005123_20220226T005628_C001	and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T013444_20220226T013603_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T021211_20220226T021248_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T031408_20220226T031529_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T031610_20220226T031810_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T032411_20220226T032541_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T045358_20220226T045719_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T051656_20220226T051818_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T055248_20220226T055611_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T064136_20220226T064300_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T070309_20220226T070634_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T080926_20220226T081127_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T095731_20220226T095936_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T104114_20220226T104330_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T105815_20220226T110046_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T114435_20220226T114719_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T115637_20220226T120001_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T121742_20220226T122200_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T123810_20220226T124116_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T145640_20220226T145804_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T153322_20220226T153728_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T163543_20220226T163656_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T171433_20220226T171640_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T172905_20220226T172953_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T174303_20220226T174447_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T181234_20220226T181502_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

CS_OFFL_SIR_NOPN_2_20220226T192241_20220226T192330_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T195137_20220226T195652_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T212616_20220226T212746_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T220504_20220226T220820_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T222438_20220226T222716_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T224534_20220226T224716_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPN_2_20220226T224811_20220226T224834_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T002905_20220226T003125_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T010506_20220226T010625_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T013338_20220226T013444_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T022230_20220226T022429_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T022638_20220226T023144_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T040033_20220226T040201_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T040343_20220226T041348_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T054420_20220226T055247_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T072513_20220226T073258_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T090415_20220226T090959_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T095936_20220226T100521_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T101902_20220226T102206_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T103239_20220226T103437_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T103521_20220226T103751_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T103916_20220226T104114_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T104330_20220226T104523_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T104523_20220226T105013_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T111107_20220226T111246_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T120617_20220226T120738_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records

	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags
CS_OFFL_SIR_NOPR_2_20220226T121431_20220226T121705_C001	Altimeter Range and Backscatter Quality PLRM	and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T122200_20220226T122722_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T122744_20220226T122835_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T140024_20220226T140953_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T153729_20220226T154425_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T154541_20220226T155007_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T172953_20220226T173207_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T175030_20220226T175210_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T185512_20220226T185606_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T190656_20220226T191422_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T195652_20220226T195752_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T204639_20220226T204725_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T211936_20220226T212615_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T222918_20220226T223202_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T224354_20220226T224534_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T225539_20220226T225928_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T230007_20220226T230018_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T231634_20220226T231647_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T233615_20220226T234027_C001	OCOG Altimeter Range Quality PLRM, OCOG Backscatter Quality	The OCOG Range and Backscatter Quality Flags have been set for one or more records
CS_OFFL_SIR_NOPR_2_20220226T235446_20220227T000052_C001	Ocean Altimeter Range, SSHA, SWH and Backscatter Quality PLRM, OCOG Altimeter Range and Backscatter Quality PLRM	The Ocean Altimeter Range, SSHA, SWH and Backscatter Quality Flags and the OCOG Altimeter Range and Backscatter Quality Flags have been set for one or more records

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

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

179

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

```
Number of products with errors:
```

5.7 L2 Ocean Retrackir	g Quality Check			
L2 Retracking Flags (20 I	łz)			

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

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

Number of products with errors:

## L2 Retracking Flags (20 Hz PLRM)

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

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

123

53

# 7. NOP QCC Report Analysis

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

Product type	No. Products	No. QCC Reports	No. Valid	No. Warnings	No. Errors
SIR_NOPM1B	194	194	6	188	0
SIR_NOPR1B	107	107	0	107	0
SIR_NOPN1B	102	102	5	94	3
SIR_NOPM_2	194	194	138	56	0
SIR_NOPR_2	107	107	41	65	1
SIR_NOPN_2	99	99	45	54	0

# 7.1 QCC Errors

#### Number of QCC reports with errors:

Number of QCC	reports with er	rors:	9								
					Total number	of occurrences	of each error				
Product Type	LOBOPNCDF	RL	RLOBOPNCDF	RL	ISSOPOBHRNO	-	-	-	-	-	-
SIR_NOPN1B	0	0	0	0	3						
SIR_NOPR_2	1	1	1	1	0						
								•	•		
Test Description	n Key:										

Abbreviation	Test name	Details
RLOBOPNCDF	RangeLatitudeOrBlankOP_7NetCDF	Latitude should be between -90E7 and 90E7 - NetCDF
RL	RangeLatitude_7	Latitude should be between -90E7 and 90E7
RLOBOPNCDF	RangeLongitudeOrBlankOP_7NetCDF	Longitude should be between -180E7 and 180E7 - NetCDF
RL	RangeLongitude_7	Longitude should be between -180E7 and 180E7
RRTAISSOPOBHRNCD	RangeRecordTAIStartStopOPOrBlankHRNetCl	The time value should be between the record TAI start/stop times of the SPH

# 7.2 QCC Warnings

Number of QCC repo	rts with warnings	1637	Total num	ber of occurrences of e	ach warning		
Product Type	BCSHNCDF	IOHHMOOR	MVIOEPFDNCDF	MVIOEPNCDF	MVIONCDF	RBSZOPOEPFDNCDF	RBSZOPOEPFDPLRMNCE
SIR_NOPM1B	188	0	0	0	0	0	0
SIR_NOPM_2	0	0	39	39	0	42	0
SIR_NOPN1B	97	0	0	0	0	0	0
SIR_NOPN_2	0	0	7	30	4	22	29
SIR_NOPR1B	104	0	0	0	0	0	0
SIR_NOPR_2	0	1	23	37	1	29	28
					-		
Product Type	RBSZOPOEPNCDF	RNELPOTONCDF	RPEPOPFDLRMNCDF	RPEPOPFDPLRMSARNC		RPEPOPFDSARNCDF	RPEPOPFDSINNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	36	0	29	0	0	0	0
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	16	0	0	0	20	0	31
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	14	1	0	41	0	47	0
	-	1			1	1	÷
Product Type	RPEPOPLRMNCDF	RPEPOPSARNCDF	RPEPOPSINNCDF	RSSBCONCDF	RSSHAOFDNCDF	RSSHAOFDPLRMNCDF	RSSHAONCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	23	0	0	6	27	0	2
SIR_NOPN1B	0	0	0	0	0	0	0
SIR_NOPN_2	0	0	25	12	41	47	28
SIR_NOPR1B	0	0	0	0	0	0	0
SIR_NOPR_2	0	36	0	3	55	26	5
Product Type	RSWHOEPFDNCDF	RSWHOEPFDPLRMNCDF	RSWHOEPNCDF	SPHRTASCNSNCDF	SOOHHIFHD	SCSTODHRNCDF	SCSTODNCDF
SIR_NOPM1B	0	0	0	0	0	0	0
SIR_NOPM_2	40	0	2	0	0	0	0
SIR_NOPN1B	0	0	0	1	0	44	0
SIR_NOPN_2	25	30	11	0	1	0	0
SIR_NOPR1B	0	0	0	0	0	107	5
SIR_NOPR_2	34	43	1	0	2	0	0

Test Description Key:		
Abbreviation	Test name	Details
BCSHNCDF	BurstCounterStep20HzNetCDF	The burst counter should be one higher with regard to the previous burst counter
IOHHMOOR	IndexOf1Hzin20HzMappingOutOfRange	The mapping of 20 Hz to 1 Hz measurements should be in the range 0 to (number of 1 Hz samples - 1)
MVIOEPFDNCDF	MissingValueIntOceanExcludingPolarFD2NetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIOEPNCDF	MissingValueIntOceanExcludingPolarNetCDF	The value should not be a 'missing value' for surface type 0 only for latitudes between -70 and 70 degrees
MVIONCDF	MissingValueIntOceanNetCDF	The value should not be a 'missing value' for surface type 0 only
RBSZOPOEPFDNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2NetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPFDPLRM NCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarFD2PLRMNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RBSZOPOEPNCDF	RangeBackscatterSigmaZeroOPOceanExcludingPolarNetCDF	The backscatter sigma zero should be between 700 and 7500 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RNELPOTONCDF	RangeNELPOceanTideOceanNetCDF	The Non-equilibrium long period ocean loading tide height should be between -40mm and 40mm (or missing) for surface type = ocean
RPEPOPFDLRMNCDF	RangePeakinessExcludingPolarOPFD2LRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSAR NCDF	RangePeakinessExcludingPolarOPFD2PLRMSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDPLRMSINN CDF	RangePeakinessExcludingPolarOPFD2PLRMSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSARNCDF	RangePeakinessExcludingPolarOPFD2SARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPFDSINNCDF	RangePeakinessExcludingPolarOPFD2SINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPLRMNCDF	RangePeakinessExcludingPolarOPLRMNetCDF	The Peakiness should be between 0 and 6400 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSARNCDF	RangePeakinessExcludingPolarOPSARNetCDF	The Peakiness should be between 0 and 15000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RPEPOPSINNCDF	RangePeakinessExcludingPolarOPSINNetCDF	The Peakiness should be between 0 and 90000 (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSSBCONCDF	RangeSeaStateBiasCorrectionOceanNetCDF	The sea state bias correction should be between -500mm and 0mm (or missing) for surface type = ocean

RSSHAOFDNCDF	RangeSeaSurfaceHeightAnomalyOceanFD3NetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAOFDPLRMNCD F	RangeSeaSurfaceHeightAnomalyOceanFD3PLRMNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
RSSHAONCDF	RangeSeaSurfaceHeightAnomalyOceanNetCDF	The sea surface height anomaly should be between -3000mm and 3000mm (or missing) for surface type = ocean
	RangeSignificantWaveHeightOceanExcludingPolarFD2NetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPFDPLRMNC DF	RangeSignificantWaveHeightOceanExcludingPolarFD2PLRMNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
RSWHOEPNCDF	RangeSignificantWaveHeightOceanExcludingPolarNetCDF	The significant wave height should be between 0mm and 15000mm (or missing) for surface type = ocean for latitudes between -70 and 70 degrees
SPHRTASCNSNCDF	SPH_Rel_Time_ASC_Node_Start_v2_NetCDF	Rel_Time_ASC_Node_Start mismatch (DBL ASC, rounded up to 0.1)
SOOHHIFHD	SameOrOneHigher1HzIndexFor20HzData	The 1 Hz index of a 20 Hz sample should be the same or 1 higher than its previous sample
SCSTODHRNCDF	SequenceCounterStepTODHRNetCDF	The sequence counter should be modulo 4 higher with regard to the previous sequence counter
SCSTODNCDF	SequenceCounterStepTODNetCDF	The sequence counter should be one higher (modulo 16384) with regard to the previous sequence counter

# 7.3 Missing QCC Reports

Number of products with missing QCC reports:

0