

## IDEAS+ Daily Report for IOP data:

## 16/10/2017



CRYDSAT	IDEAST Daily Reput	<u>10/10P uata.</u>	<u>10/2011</u>
		1. Overview	
eport Production Date:	18-Oct-2017	Check	Status
		Server check: science-pds.cryosat.esa.int Server check: calval-pds.cryosat.esa.int	Nominal Nominal
Processor Used:	CryoSat Ocean Processor	Product Software Check	Nominal
Data Used:	Intermediate Ocean Products (IOP)	Product Format Check	Nominal
Data Oseu.	L1B and L2 Science Data	Product Header Analysis	Nominal
		Auxiliary Data File Usage Check	Nominal
		Auxiliary Correction Error Check Measurement Confidence Data Check	See Section 5.4 See Section 4.5, 4.6, 5.5, 5.6, 5.7 and 5.8
sion / Instrument News			
5-Oct-2017 None 6-Oct-2017 None			
7-Oct-2017 Nothing planned			
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		2. Global Coverage	
	Global Coverage - North Pole	Global	Coverage - South Pole
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	3.	Instrument Configuration	
SIRAL instrument configuration	on for the day of acquisition is provided below.		

SIRAL instrument(s) in use:

SIRAL - A

## 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 binary product file (.DBL). 0

## Number of products with errors:

### 4.2 L1B Product Header Analysis

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

0

4.3 L1B Auxilary Data File Usage Check		
Each product is checked for missing Data Set Descriptors with respect to a pr	e-determined baseline and also to check the va	lidity 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 (field 60) for each measuren	nent record. The bit value of this flag indicates	any problems when set.
Number of products with errors: 0		
4.5 L1B Measurement Confidence Data Check		
CryoSat L1B data includes a measurement confidence flag (field 12) for each	measurement record. The bit value of this flag	indicates any problems when set.
Number of products with errors: 2		
4.6 L1B Waveform Group Data Check		
	ant second. The hit value of this flag indicates a	
CryoSat L1B data includes a waveform data flag (field 65) for each measurem .oss of Echo Flag: This flag is currently set for products over land, but this is	-	ny problems when set.
Number of products with errors: 7		
	Test Failed	
vroduct CS_OFFL_SIR_IOP_1B_20171016T045119_20171016T045640_B001	Loss of Echo	Description The tracking echo is missing for one or more records
S_OFFL_SIR_IOP_1B_20171016T052535_20171016T053458_B001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOP_1B_20171016T090510_20171016T090605_B001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOP_1B_20171016T132253_20171016T132656_B001	Loss of Echo	The tracking echo is missing for one or more records
S_OFFL_SIR_IOP_1B_20171016T144803_20171016T145007_B001	Loss of Echo	The tracking echo is missing for one or more records
	Loss of Echo	
S_OFFL_SIR_IOP_1B_20171016T194501_20171016T194638_B001 S_OFFL_SIR_IOP_1B_20171016T212406_20171016T212617_B001	Loss of Echo	The tracking echo is missing for one or more records The tracking echo is missing for one or more records
3_011 L_3IK_IOF_IB_201710101212400_201710101212017_B001		
5. 10	OP Level 2 Data Quality Ch	eck
5.1 L2 Product Format Check		
ach product, retrieved and unpacked from the science server, is checked to	ensure it consists of both an XML header file (.	HDR) and a binary product file (.DBL).
lumber of products with errors: 0		
5.2 L2 Product Header Analysis		
5.2 L2 Product Header Analysis		
•	d SPH in order to identify any inconsistencies a	and/or errors raised by the ground-segment processing chain.
5.2 L2 Product Header Analysis For all products, a series of pre-defined checks are performed on the MPH an Number of products with errors: 0	d SPH in order to identify any inconsistencies a	and/or errors raised by the ground-segment processing chain.
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For all products, a series of pre-defined checks are performed on the MPH an Aumber of products with errors: 0 5.3 L2 Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with respect to a pr Vind Model File Usage: This file is currently not included in all L2 products. Aumber of products with errors: 0 5.4 L2 Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical Group are ch Currently, there are two common auxiliary correction errors raised in the ollowed by a table highlighting any additional issues which may arise fr	e-determined baseline and also to check the va ecked for the default error value (32767). b Level 2 products which are expected due t om this test.	ilidity of Auxiliary Data Files is correct.
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For all products, a series of pre-defined checks are performed on the MPH an Aumber of products with errors: 0 5.3 L2 Auxiliary Data File Usage Check Each product is checked for missing Data Set Descriptors with respect to a pr Vind Model File Usage: This file is currently not included in all L2 products. Jumber of products with errors: 0 5.4 L2 Auxiliary Correction Error Check For all products, the auxiliary corrections within the Geophysical Group are ch Currently, there are two common auxiliary correction errors raised in the ollowed by a table highlighting any additional issues which may arise fr Sea State Bias Error: The error value is currently set for products over land a Autimetric Wind Speed Error: The error value is currently set for products over land a Autimetric Wind Speed Error: The error value is currently set for products over land a Sea OFFL_SIR_IOP_2_20171015T235835_20171016T000408_B001 CS_OFFL_SIR_IOP_2_20171016T005616_20171016T005816_B001 CS_OFFL_SIR_IOP_2_20171016T00500_20171016T00827_B001	e-determined baseline and also to check the va- ecked for the default error value (32767). b Level 2 products which are expected due t from this test. and sea ice, but this is to be expected. ere land and sea ice, but this is to be expected. Test Failed Dry Tropospheric Correction, Wet Tropospheric Correction, U-Wind and V- Wind Components Mean Sea Surface (1) Total Geocentric Ocean Tide (FES), Nor	Description There is an error with the MSS height (solution 1) for one or more records There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution FES) and the Non-equilibrium Long Period Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There is an error with the Total Geocentric Ocean Tide height (solution There
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CS\_OFFL\_SIR\_IOP\_2\_\_20171016T092330\_20171016T093504\_B001

Total Geocentric Ocean Tide (FES), Non-Equilibrium Long Period Ocean Tide more records

CS_OFFL_SIR_IOP_220171016T121718_20171016T122039_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	more records
CS_OFFL_SIR_IOP_220171016T135336_20171016T140107_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T141237_20171016T144803_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T150551_20171016T153129_B001	Geoid Height	There is an error with the Geoid height for one or more records
CS_OFFL_SIR_IOP_220171016T161035_20171016T162718_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T170103_20171016T171954_B001	Total Geocentric Ocean Tide (FES)	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) for one or more records
CS_OFFL_SIR_IOP_220171016T175055_20171016T175234_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T190202_20171016T190914_B001	Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T204024_20171016T204918_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T204919_20171016T205021_B001	Total Geocentric Ocean Tide (GOT), Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 1: GOT and solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T222820_20171016T222922_B001	Total Geocentric Ocean Tide (FES), Non- Equilibrium Long Period Ocean Tide	There is an error with the Total Geocentric Ocean Tide height (solution 2: FES) and the Non-equilibrium Long Period Ocean Tide height for one or more records
CS_OFFL_SIR_IOP_220171016T235646_20171017T000512_B001	Dry Tropospheric Correction, Wet Tropospheric Correction, Inverse Barometric Correction, U-Wind and V- Wind Components	There is an error with the Meteo corrections for one or more records

#### 5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag (field 14) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 2		
Product	Test Failed	Description
CS_OFFL_SIR_IOP_220171016T085555_20171016T090055_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records
CS_OFFL_SIR_IOP_220171016T121403_20171016T121446_B001	Power scaling error	There is an error in the scaling of the L2 waveform for one or more records

## 5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean (field 25) and Ice (field 30) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags 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.

Ocean Range Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected.

Number of products with errors:	30

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220171015T235835_20171016T000408_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T013756_20171016T014304_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T032007_20171016T032207_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T045916_20171016T050116_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T050224_20171016T050618_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T055310_20171016T055419_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T063722_20171016T064519_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T081555_20171016T081804_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T081830_20171016T082406_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T095517_20171016T095624_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T095804_20171016T100240_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T100335_20171016T100358_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T113713_20171016T114246_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T131617_20171016T132128_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T145244_20171016T145615_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T145629_20171016T145633_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T145633_20171016T150030_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T163514_20171016T163520_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T163520_20171016T163527_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T163527_20171016T163533_B001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.

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#### 5.7 L2 SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH Averaging Status flag (field 49) and an Ocean (field 55) and Ice (field 61) Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are three common status flags 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.

SWH Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ocean Backscatter Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 25

#### Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220171015T235835_20171016T000408_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T013756_20171016T014304_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T032007_20171016T032207_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T045916_20171016T050116_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T050224_20171016T050618_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T055310_20171016T055419_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T063722_20171016T064519_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T081555_20171016T081804_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T081830_20171016T082406_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T095517_20171016T095624_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T095804_20171016T100240_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T100335_20171016T100358_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T113713_20171016T114246_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T131617_20171016T132128_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T145244_20171016T145615_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T145633_20171016T150030_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T163520_20171016T163527_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T163533_20171016T163732_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T180922_20171016T181425_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T181449_20171016T181604_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T194929_20171016T195341_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T195403_20171016T195550_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T212731_20171016T213255_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T213301_20171016T213626_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220171016T230727_20171016T231533_B001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

#### 5.8 L2 Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag (field 19) 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.

# 6. 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	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR_IOP_1B	228	228	228	0	0
SIR_IOP_2	223	223	223	0	0
6.1 QCC Errors					
Number of QCC reports with en	rors:	0			
6.2 QCC Warnings					
Number of QCC reports with wa	arnings	0			
6.3 Missing QCC Repo	rts				
Number of products with missi	ng QCC reports:	0			