IDEAS Daily Report for NRT data: 13-Aug-2013

1. Overview

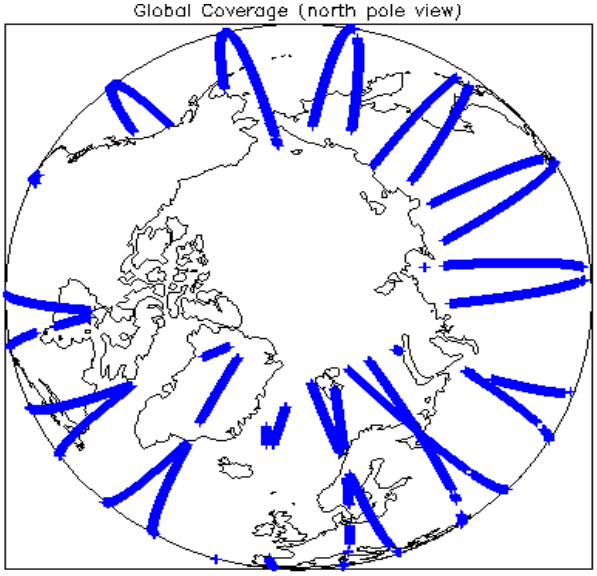
Report Production Date:	14-Aug-2013
Data Used:	L1 and L2 Fast Delivery Marine Mode (FDM), and CAL Data

Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	Nominal
Auxiliary Data File Usage	Nominal
Correction Error Flags	Nominal
Measurement Confidence Flags	See Sections 5.5, 6.5, 6.6 and 6.8

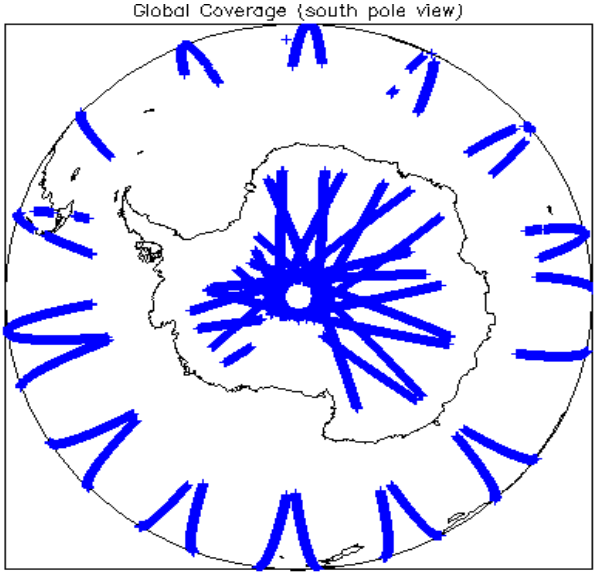
Mission / Instrument News	
12-Aug-2013	None
13-Aug-2013	None
14-Aug-2013	Nothing planned

2. Global Coverage

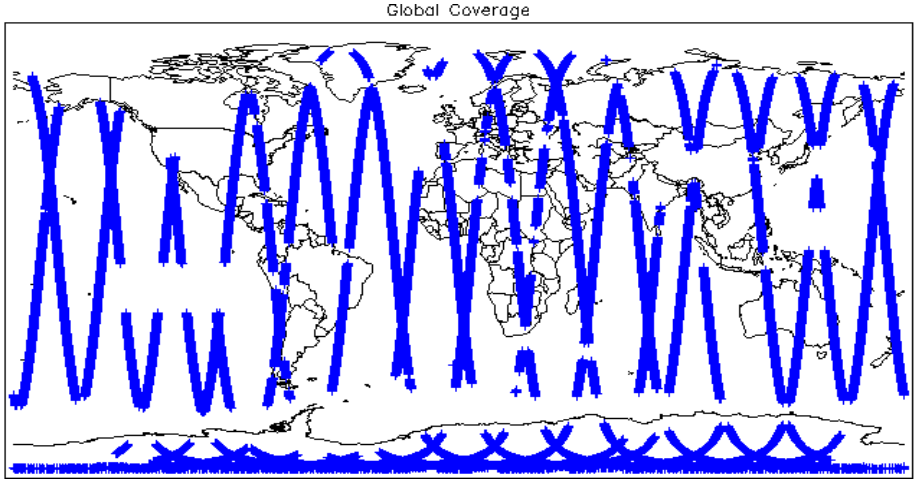
Global Coverage (north pole view)



Global Coverage (south pole view)



Global Coverage



3. Instrument Configuration

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

SIRAL instrument(s) in use:	SIRAL - A
Star Tracker(s) in use:	Star Tracker 1 & 2

4. Level 1B Calibration Data Quality Check

4.1 L1 CAL Product Format Check

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

Number of products with errors: 0

4.2 L1 CAL Product Header Analysis

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

Number of products with errors: 0

4.3 L1 CAL Auxiliary Data File Usage Check

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

Number of products with errors: 0

4.4 L1 CAL Measurement Confidence Flags

CryoSat Cal1 and Cal2 data includes a measurement confidence flag word (field 11) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 0

5. Level 1B FDM Data Quality Check

5.1 L1B FDM Product Format Check

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

Number of products with errors: 0

5.2 L1B FDM Product Header Analysis

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

Number of products with errors: 0

5.3 L1B FDM Auxilary Data File Usage Check

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

Number of products with errors: 0

5.4 L1B Correction Error Flags

Each product is checked to detect auxiliary corrections flagged by the ground-station processing chain as missing or containing errors.

Number of products with errors: 0

5.5 L1B FDM Measurement Confidence Flags

CryoSat L1B data includes a measurement confidence flag word (field 14) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 5

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20130813T012508_20130813T013038_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.
CS_OFFL_SIR_FDM_1B_20130813T044419_20130813T044547_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.
CS_OFFL_SIR_FDM_1B_20130813T160020_20130813T160052_B001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20130813T160052_20130813T160454_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.
CS_OFFL_SIR_FDM_1B_20130813T221423_20130813T221940_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.

6. Level 2 FDM Data Quality Check

6.1 L2 FDM Product Format Check

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

Number of products with errors: 0

6.2 L2 FDM Product Header Analysis

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

Currently there is a high number of processing error flags set within the Level 2 FDM products (Product_Err and L2_Proc_Flag). These flags are set within L2 Header files (MPH field #19 and SPH field #29) and also within the L2 Product files (MPH field #35 and SPH field #33). They are set by the FDM processor when an error is detected during the L2 processing and also when the percentage of Data Set Records free of processing errors is below the minimum acceptable threshold set within the processor (currently set to 5%).

This issue is under investigation.

Number of products with errors: 0

6.3 L2 FDM Auxiliary Data File Usage Check

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

Number of products with errors: 0

6.4 L2 FDM Correction Error Flags

Each product is checked to detect auxiliary corrections flagged by the ground-station processing chain as missing or containing errors.

Number of products with errors: 0

6.5 L2 FDM Measurement Confidence Flags

CryoSat L2 data includes a quality flag word (field 8) for each 20-Hz measurement record. The bit value of this flag is an assessment of the measurement quality by the processing chain.

Number of products with errors: 4

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20130813T012508_20130813T013038_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.
CS_OFFL_SIR_FDM_2__20130813T044419_20130813T044547_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.
CS_OFFL_SIR_FDM_2__20130813T160020_20130813T160052_B001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_2__20130813T160052_20130813T160454_B001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo.

6.6 L2 FDM Range Measurement Flags

Each product is checked to detect range measurements flagged by the processing chain as missing or containing errors.

Number of products with errors: 5

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20130813T001902_20130813T002006_B001	OCOG Retracked Range Flag	The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records.
CS_OFFL_SIR_FDM_2__20130813T063223_20130813T065504_B001	OCOG Retracked Range Flag	The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records.
CS_OFFL_SIR_FDM_2__20130813T112137_20130813T114015_B001	OCOG Retracked Range Flag	The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records.
CS_OFFL_SIR_FDM_2__20130813T204536_20130813T210251_B001	OCOG Retracked Range Flag	The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records.
CS_OFFL_SIR_FDM_2__20130813T223037_20130813T223745_B001	OCOG Retracked Range Flag	The master fail flag is set by the OCOG call, for one or more records, indicating the values stored in fields #18, #19, #20 and #21 should be ignored for these records.

6.7 L2 FDM SWH and Backscatter Measurement Flags

Each product is checked to detect parameters related to SWH and sigma0 that are flagged by the processing chain as missing or containing errors.

Number of products with errors: 0

6.8 L2 FDM Geophysical Measurement Flags

Each product is checked to detect geophysical measurements flagged by the processing chain as missing or containing errors.

Number of products with errors: 10

Product	Test Failed	Description
CS_OFFL_SIR_FDM_2__20130813T001902_20130813T002006_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T053434_20130813T060128_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T063223_20130813T065504_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T074234_20130813T075004_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T094139_20130813T095849_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T100430_20130813T101231_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T112137_20130813T114015_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T193535_20130813T194321_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T204536_20130813T210251_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.
CS_OFFL_SIR_FDM_2__20130813T223908_20130813T224114_B001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag is set indicating the CFI Ocean Retracker was not successfully executed for one or more records.

7. QCC Check

The QCC is a CryoSat facility that 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_FDM_1B	147	148	100	48	0
SIR_FDM_2	145	112	0	112	0

7.1 QCC Errors

Number of QCC reports with errors: 0

7.2 Missing QCC Reports

Number of products with missing QCC reports: 33

Product name
CS_OFFL_SIR_FDM_2__20130813T192439_20130813T192729_B001
CS_OFFL_SIR_FDM_2__20130813T193535_20130813T194321_B001
CS_OFFL_SIR_FDM_2__20130813T194708_20130813T195020_B001
CS_OFFL_SIR_FDM_2__20130813T195501_20130813T195620_B001
CS_OFFL_SIR_FDM_2__20130813T195623_20130813T201157_B001
CS_OFFL_SIR_FDM_2__20130813T201424_20130813T201942_B001
CS_OFFL_SIR_FDM_2__20130813T201948_20130813T201954_B001
CS_OFFL_SIR_FDM_2__20130813T202001_20130813T202214_B001
CS_OFFL_SIR_FDM_2__20130813T204536_20130813T210251_B001
CS_OFFL_SIR_FDM_2__20130813T211502_20130813T212251_B001
CS_OFFL_SIR_FDM_2__20130813T215350_20130813T215852_B001
CS_OFFL_SIR_FDM_2__20130813T215859_20130813T215910_B001
CS_OFFL_SIR_FDM_2__20130813T215917_20130813T215927_B001
CS_OFFL_SIR_FDM_2__20130813T215930_20130813T220058_B001
CS_OFFL_SIR_FDM_2__20130813T220733_20130813T220823_B001
CS_OFFL_SIR_FDM_2__20130813T220951_20130813T221142_B001
CS_OFFL_SIR_FDM_2__20130813T221423_20130813T221940_B001
CS_OFFL_SIR_FDM_2__20130813T222138_20130813T222516_B001
CS_OFFL_SIR_FDM_2__20130813T222520_20130813T222914_B001
CS_OFFL_SIR_FDM_2__20130813T223037_20130813T223745_B001
CS_OFFL_SIR_FDM_2__20130813T223908_20130813T224114_B001
CS_OFFL_SIR_FDM_2__20130813T225253_20130813T225256_B001
CS_OFFL_SIR_FDM_2__20130813T225337_20130813T225551_B001
CS_OFFL_SIR_FDM_2__20130813T225555_20130813T230048_B001
CS_OFFL_SIR_FDM_2__20130813T230051_20130813T230055_B001
CS_OFFL_SIR_FDM_2__20130813T230100_20130813T230214_B001
CS_OFFL_SIR_FDM_2__20130813T230608_20130813T230750_B001
CS_OFFL_SIR_FDM_2__20130813T230753_20130813T230801_B001
CS_OFFL_SIR_FDM_2__20130813T230832_20130813T232912_B001
CS_OFFL_SIR_FDM_2__20130813T233411_20130813T233809_B001
CS_OFFL_SIR_FDM_2__20130813T233816_20130813T233824_B001
CS_OFFL_SIR_FDM_2__20130813T233830_20130813T234107_B001
CS_OFFL_SIR_FDM_2__20130813T234544_20130813T235621_B001