



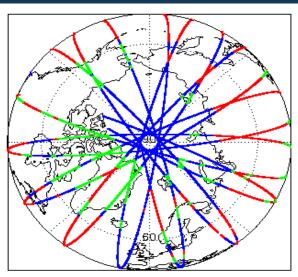
## 1. Overview

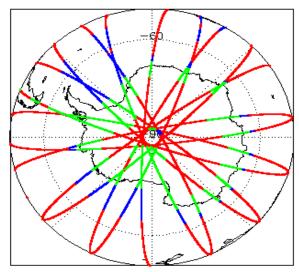
Report Production:	30-Apr-2018	
Processor Used:	CryoSat Ocean Processor	
Data Used:	Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	

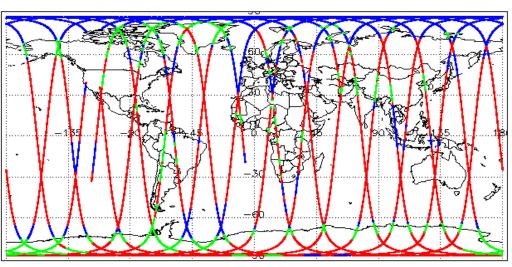
Check	L1 & L2	P2P
Server check: science-pds.cryosat.esa.int	Nominal	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
Product Software Check	Nominal	Nominal
Product Format Check	Nominal	Nominal
Product Header Analysis	Nominal	Nominal
Auxiliary Data File Usage Check	Nominal	Nominal
Auxiliary Correction Error Check	Nominal	Nominal
Measurement Confidence Data Check	See Section 4.6	Nominal
Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7
Ocean Retracking Quality Check	See Section 5.8	See Section 6.8

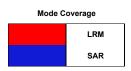
Mi	ission / Instru	ment News
2	25-Apr-2018	None
2	26-Apr-2018	SIRAL unavailability on 26-Apr-2018 from 03:35:19 to 04:44:35 due to a planned orbit manoeuvre.
2	27-Apr-2018	Nothing planned

# 2. Global Coverage









# 3. Instrument Configuration

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

SIRAL instrument(s) in use: SIRAL - A

# 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).

Number of products with errors:

0

### 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.

#### 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.

Number of products with errors:

#### 4.4 L1B Auxiliary Correction Error Check

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

Number of products with errors:

#### 4.5 L1B Measurement Confidence Data Check

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

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

Number of products with errors:

#### 4.6 L1B Waveform Group Data Check

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

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

Number of products with errors:

17

Product	Test Failed	Description
CS_OFFL_SIR_IOPM1B_20180426T015051_20180426T015200_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPM1B_20180426T160614_20180426T164033_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T065104_20180426T065200_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T082459_20180426T082800_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T124426_20180426T124558_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T173921_20180426T174445_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T201146_20180426T201404_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPN1B_20180426T205106_20180426T205446_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T015334_20180426T020131_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T033202_20180426T033519_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T050806_20180426T050943_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T065200_20180426T065742_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T132525_20180426T132806_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T142441_20180426T142705_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T190806_20180426T191355_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T231946_20180426T232207_C001	Loss of Echo	The tracking echo is missing for one or more records
CS_OFFL_SIR_IOPR1B_20180426T232223_20180426T232323_C001	Loss of Echo	The tracking echo is missing for one or more records

# 5. IOP Level 2 Data Quality Check

## 5.1 L2 Product Format Check

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

Number of products with errors: 0

## 5.2 L2 Product Header Analysis

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

Number of products with errors:

# 5.3 L2 Auxiliary Data File Usage Check

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

Number of products with errors:

#### 5.4 L2 Auxiliary Correction Error Check

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

Number of products with errors:

#### 5.5 L2 Measurement Confidence Data Check

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

Number of products with errors:

## 5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean and Ice 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:

78

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20180426T003310_20180426T004306_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOPM_2_20180426T004844_20180426T010005_C001 Oc		The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T010606_20180426T011200_C001	e Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T011334_20180426T014128_C001	cean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20180426T015051_20180426T015200_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T020435_20180426T023905_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T024513_20180426T025031_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T025219_20180426T025510_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T025709_20180426T025850_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T032804_20180426T033202_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T044621_20180426T045233_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T045412_20180426T045854_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T052336_20180426T055647_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T055902_20180426T060413_C001		The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T060433_20180426T060727_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T061513_20180426T064541_C001 O	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T070513_20180426T071927_C001 O	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T072034_20180426T073613_C001	rean Range Averaging Status	records.  The Ocean Range Averaging Status Flag has been set for one or more records.
	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more
	e Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
	e Range Averaging Status	records. The loe Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T092303_20180426T092407_C001	e Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records.
CS_OFFL_SIR_IOPM_2_20180426T095405_20180426T100230_C001	cean realige Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T103151_20180426T105437_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T105803_20180426T110138_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T110145_20180426T110154_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T110747_20180426T113641_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T120736_20180426T123407_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T123546_20180426T124052_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T124749_20180426T125857_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T130434_20180426T132148_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T140734_20180426T141350_C001		The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T141544_20180426T142124_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T142705_20180426T150042_C001	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T151419_20180426T151515_C001	rean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T153353_20180426T155310_C001 Oc	rean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T155508_20180426T160018_C001	e Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T160614_20180426T164033_C001 Oc	cean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more
	rean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	rcean Range Averaging Status	records.  The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
		records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ocean Range Averaging Status Flag has been set for one or more
	cean Range Averaging Status	records. The Ice Range Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T191631_20180426T191829_C001   Ica	e Range Averaging Status	records.

CS_OFFL_SIR_IOPM_2_20180426T19425t_20180426T195213_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPM_2_20180426T201642_20180426T201642_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPM_2_20180426T201632_20180426T2013134_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPM_2_20180426T204140_20180426T204856_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The	CS_OFFL_SIR_IOPM_2_20180426T191949_20180426T192331_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T20164_20180426T20164_C001  CS_OFFL_SIR_IOPM_2_20180426T201642_20180426T20163_C001  CS_OFFL_SIR_IOPM_2_20180426T201642_20180426T20163_C001  CS_OFFL_SIR_IOPM_2_20180426T201642_20180426T20163_C001  CS_OFFL_SIR_IOPM_2_20180426T201642_20180426T200310_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204055_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20646_20180426T204056_C001  CS_OFFL_SIR_IOPM_2_20180426T20565_C001  CS_OFFL_SIR_IOPM_2_20180426T00565_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OFFL_SIR_IOPM_2_20180426T005656_C001  CS_OF	CS_OFFL_SIR_IOPM_2_20180426T192523_20180426T194050_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_201804287120184_201804267201823_2010  CS_OFFL_SIR_IOPM_2_201804287201932_201804267201823_0001  CS_OFFL_SIR_IOPM_2_201804287201932_20180426720180426710233_0001  CS_OFFL_SIR_IOPM_2_201804287201932_201804267201803_0001  CS_OFFL_SIR_IOPM_2_20180428720180426710233_0001  CS_OFFL_SIR_IOPM_2_201804287201804267120233_0001  CS_OFFL_SIR_IOPM_2_201804287210441_201804267211954_0001  CS_OFFL_SIR_IOPM_2_201804287215751_201804267200555_0001  CS_OFFL_SIR_IOPM_2_201804287220557_201804267220555_0001  CS_OFFL_SIR_IOPM_2_201804287220557_201804267223041_0001  CS_OFFL_SIR_IOPM_2_201804287220557_201804267223041_0001  CS_OFFL_SIR_IOPM_2_201804287220557_201804267223041_0001  CS_OFFL_SIR_IOPM_2_20180428722413_201804267230940_0001  CS_OFFL_SIR_IOPM_2_20180428724223_201804267232415_0001  CS_OFFL_SIR_IOPM_2_20180428724223_201804267230940_0001  CS_OFFL_SIR_IOPM_2_20180428724232_201804267074729_0001  CS_OFFL_SIR_IOPM_2_201804287105531_201804267100388_0001  CS_OFFL_SIR_IOPM_2_201804287105531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_201804287105531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_201804287104553_201804267105803_0001  CS_OFFL_SIR_IOPM_2_201804287104553_201804267105803_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100388_0001  CS_OFFL_SIR_IOPM_2_201804287104553_201804267105803_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267105803_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267105803_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267105803_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042871045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042671045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042671045531_201804267100380_0001  CS_OFFL_SIR_IOPM_2_2018042671045531_2018042671004	CS_OFFL_SIR_IOPM_2_20180426T194251_20180426T195213_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_JOPM_2_201804267201932_201804267201834_C001  CS_OFFL_SIR_JOPM_2_201804267201932_201804267204858_C001  CS_OFFL_SIR_JOPM_2_201804267204740_20180426721033_C001  CS_OFFL_SIR_JOPM_2_201804267204412_201804267210323_C001  CS_OFFL_SIR_JOPM_2_2018042672046720467204552_C001  CS_OFFL_SIR_JOPM_2_20180426720467220455_C001  CS_OFFL_SIR_JOPM_2_20180426720557_20180426722055_C001  CS_OFFL_SIR_JOPM_2_201804267220557_20180426722055_C001  CS_OFFL_SIR_JOPM_2_201804267220557_20180426722055_C001  CS_OFFL_SIR_JOPM_2_201804267220557_20180426722055_C001  CS_OFFL_SIR_JOPM_2_201804267223532_201804267223041_C001  CS_OFFL_SIR_JOPM_2_201804267223532_201804267223040_C001  CS_OFFL_SIR_JOPM_2_20180426722413_C001  CS_OFFL_SIR_JOPM_2_201804267224413_20180426723041_C001  CS_OFFL_SIR_JOPM_2_201804267234242_20180426723040_C001  CS_OFFL_SIR_JOPM_2_20180426723532_20180426723040_C001  CS_OFFL_SIR_JOPM_2_20180426705531_20180426704729_C001  CS_OFFL_SIR_JOPM_2_201804267054515_20180426704729_C001  CS_OFFL_SIR_JOPM_2_20180426705531_20180426700438_C001  CS_OFFL_SIR_JOPM_2_20180426705531_201804267100938_C001  CS_OFFL_SIR_JOPM_2_201804267105451_201804267100938_C001  CS_OFFL_SIR_JOPM_2_201804267104532_01804267105803_C001  CS_OFFL_SIR_JOPM_2_201804267104532_01804267105803_C001  CS_OFFL_SIR_JOPM_2_201804267104532_01804267105803_C001  CS_OFFL_SIR_JOPM_2_20180426710462_01804267105803_C001  CS_OFFL_SIR_JOPM_2_201804267104625_018042670106455_01804267004655_001  CS_OFFL_SIR_JOPM_2_20180426701462_018042670106455_001  CS_OFFL_SIR_JOPM_2_20180426701465_018042670106455_001  CS_OFFL_SIR_JOPM_2_201804267015032_018042670105208_00180426700455_001  CS_OFFL_SIR_JOPM_2_201804267016455_001  CS_OFFL_SIR_JOPM_2_201804267016455_001  CS_OFFL_SIR_JOPM_2_2018042670165031_2018042670106455_001  CS_OFFL_SIR_JOPM_2_2018042670165031_20180426700455_001  CS_OFFL_SIR_JOPM_2_2018042670165031_20180426700455_001  CS_OFFL_SIR_JOPM_2_2018042670165031_20180426700455_001  CS_OFFL_SIR_JOPM_2_2018042670165032_0180426700455_001  CS_OFFL_SIR_JOPM_2_201804267016455_001  CS_OFFL_SIR_JOPM_2_2018	CS_OFFL_SIR_IOPM_2_20180426T201021_20180426T201146_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T204740_20180426T20455_CO01  CS_OFFL_SIR_IOPM_2_20180426T205446_20180426T210423_CO01  CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T210423_CO01  CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T211954_CO01  CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T211954_CO01  CS_OFFL_SIR_IOPM_2_20180426T220555_CO01  CS_OFFL_SIR_IOPM_2_20180426T220555_CO01  CS_OFFL_SIR_IOPM_2_20180426T220555_CO01  CS_OFFL_SIR_IOPM_2_20180426T220555_CO01  CS_OFFL_SIR_IOPM_2_20180426T220555_CO01  CS_OFFL_SIR_IOPM_2_20180426T220552_CO01  CS_OFFL_SIR_IOPM_2_20180426T220552_CO01  CS_OFFL_SIR_IOPM_2_20180426T220552_CO01  CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T223521_CO01  CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T223521_CO01  CS_OFFL_SIR_IOPM_2_20180426T2362352_CO01  CS_OFFL_SIR_IOPM_2_20180426T23623203_CO01  CS_OFFL_SIR_IOPM_2_20180426T20413_20180426T200910_CO01  CS_OFFL_SIR_IOPM_2_20180426T00542_20180426T005438_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T100538_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105503_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105503_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105503_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T100542_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105503_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105503_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T100542_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_C0010_CO01  CS_OFFL_SIR_IOPM_2_20180426T105531_C0010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CS_OFFL_SIR_IOPM_2_20180426T005402_CO010_CO01  CCCCAR Range Averaging Status  CCCCAR Range Averaging Status  CCCCAR Range Averaging Status  CCCCAR Range Averaging Status  CCCCAR Range Averaging Sta	CS_OFFL_SIR_IOPM_2_20180426T201542_20180426T201623_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T20546_20180426T20535_C001  CS_OFFL_SIR_IOPM_2_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T220555_C001  CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T223041_C001  CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T23040_C001  CS_OFFL_SIR_IOPM_2_20180426T23532_20180426T23040_C001  CS_OFFL_SIR_IOPM_2_20180426T04515_20180426T074729_C001  CS_OFFL_SIR_IOPM_2_20180426T100542_20180426T074729_C001  CS_OFFL_SIR_IOPM_2_20180426T100542_20180426T100538_C001  CS_OFFL_SIR_IOPM_2_20180426T100542_20180426T105531_20180426T105503_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105100540_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T100540_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T10010580_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T10010580_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T10010580_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T100101001001001001001001001001001001001	CS_OFFL_SIR_IOPM_2_20180426T201932_20180426T203134_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T21954_CO01  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has	CS_OFFL_SIR_IOPM_2_20180426T204740_20180426T204858_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T21954_20180426T220555_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has b	CS_OFFL_SIR_IOPM_2_20180426T205446_20180426T210233_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T223041_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPM_2_20180426T234223_20180426T23514_C001  Ocean Range Averaging Status  CS_OFFL_SIR_IOPN_2_20180426T074515_20180426T074729_C001  Ocean Range Averaging Status  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100593_C001  Ice Range Averaging Status  The Ice Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPN_2_20180426T1041429_20180426T105803_C001  Ice Range Averaging Status  The Ice Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPN_2_20180426T2014021021_C001  Ice Range Averaging Status  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ice Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  CS_OFFL_SIR_IOPR_2_20180426T084541_20180426T084554_C001  Ocean Ra	CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T211954_C001	Ocean Range Averaging Status	
cs_offl_sir_lopm_2_20180426T223532_20180426T224125_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T223532_20180426T235214_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T234213_20180426T235214_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T234223_20180426T235214_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T034515_20180426T074729_C001  cs_offl_sir_lopm_2_20180426T100542_20180426T100938_C001  cs_offl_sir_lopm_2_20180426T100542_20180426T100938_C001  cs_offl_sir_lopm_2_20180426T105531_20180426T105803_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T105531_20180426T105803_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T105531_20180426T100542_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T105531_20180426T100540_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T20910_20180426T201021_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T20146_20180426T201021_C001  cs_ange Averaging Status  cs_offl_sir_lopm_2_20180426T20146_20180426T201404_C001  cs_offl_sir_lopm_2_20180426T20146_20180426T201404_C001  cs_offl_sir_lopm_2_20180426T00910_20180426T0032636_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0032636_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0032636_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0032636_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0032636_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0091532_C001  cs_offl_sir_lopm_2_20180426T0091503_20180426T0091532_C001  cs_offl_sir_lopm_2_20180426T100292_20180426T00150248_C001  cs_offl_sir_lopm_2_20180426T100292_20180426T00150248_C001  coean Range Averaging Status  cs_offl_sir_lopm_2_20180426T001503_20180426T00150248_C001  coean Range Averaging Status  cs_offl_sir_lopm_2_2	CS_OFFL_SIR_IOPM_2_20180426T215751_20180426T220555_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T234243_20180426T230940_C001  CS_OFFL_SIR_IOPM_2_20180426T234223_20180426T230940_C001  CS_OFFL_SIR_IOPM_2_20180426T034252_20180426T032423_20180426T032424_C001  CS_OFFL_SIR_IOPM_2_20180426T04515_20180426T04729_C001  CS_OFFL_SIR_IOPM_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPM_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPM_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPM_2_20180426T141429_20180426T105803_C001  CS_OFFL_SIR_IOPM_2_20180426T141429_20180426T1010000000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T223041_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPM_2_20180426T234223_20180426T235214_C001  CS_OFFL_SIR_IOPM_2_20180426T074515_20180426T074729_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T00910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T200910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T00910_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T00910_20180426T00910_C00180426T0010000000000000000000000000000000000	CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T224125_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T074515_20180426T074729_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T141544_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T0032459_20180426T0032636_C001  CS_OFFL_SIR_IOPR_2_20180426T0032459_20180426T0032636_C001  CS_OFFL_SIR_IOPR_2_20180426T0032459_20180426T0032636_C001  CS_OFFL_SIR_IOPR_2_20180426T0032459_20180426T0032636_C001  CS_OFFL_SIR_IOPR_2_20180426T0031503_20180426T0091532_C001  CS_OFFL_SIR_IOPR_2_20180426T0031503_20180426T0091532_C001  CS_OFFL_SIR_IOPR_2_20180426T003503_20180426T0091532_C001  CS_OFFL_SIR_IOPR_2_20180426T003503_20180426T1032806_C001  CS_OFFL_SIR_IOPR_2_20180426T1050229_20180426T105048_C001  CS_OFFL_SIR_IOPR_2_20180426T1050229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T1050229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150048_C001  CCS_OFFL_SIR_IOPR_2	CS_OFFL_SIR_IOPM_2_20180426T224413_20180426T230940_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001  CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T141544_C001  CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T150248_C001  CCEAN Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging	CS_OFFL_SIR_IOPM_2_20180426T234223_20180426T235214_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T100342_20180426T105803_C001	CS_OFFL_SIR_IOPN_2_20180426T074515_20180426T074729_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T141544_C001  CS_OFFL_SIR_IOPN_2_20180426T200910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T200910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T032655_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T21	CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T201910_20180426T201021_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215	CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T032525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T21	CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T141544_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001  CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T064554_C001  CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCCC_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCC_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  CCC_OFFL_SIR_IOPR_2_20180426	CS_OFFL_SIR_IOPN_2_20180426T200910_20180426T201021_C001	Ice Range Averaging Status	
CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001	Ocean Range Averaging Status	
CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001  CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T150248_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more records.	CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more records.  The Ocean Range Averaging Status Flag has been set for one or more or more records.	CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001	Ocean Range Averaging Status	records.
CS_OFFL_SIR_IOPR_2_20180426T150249_20180426T150248_C001  CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001  Ocean Range Averaging Status  The Ocean Range Averaging Status Flag has been set for one or more	CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001	Ocean Range Averaging Status	records.
US OFFI SIR JOPR 2 201804261215253 201804261215301 CUUI — JOCEAN RANGE AVERAGING STATUS — 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001	Ocean Range Averaging Status	
	CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001	Ocean Range Averaging Status	

## 5.7 L2 SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH Averaging Status flag and an Ocean and Ice 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.

Number of products with errors: 75

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20180426T003310_20180426T004306_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T004844_20180426T010005_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T010606_20180426T011200_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T011334_20180426T014128_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T015051_20180426T015200_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T020435_20180426T023905_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T025219_20180426T025510_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T032804_20180426T033202_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T044621_20180426T045233_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T045412_20180426T045854_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T052336_20180426T055647_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T055902_20180426T060413_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T061513_20180426T064541_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T070513_20180426T071927_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T072034_20180426T073613_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T073806_20180426T074310_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T074330_20180426T074342_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOPM_2_20180426T075242_20180426T080248_C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS OFFL SIR IOPM 2 20180426T080907 20180426T082041 C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS OFFL SIR IOPM 2 20180426T084215 20180426T085542 C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS OFFL SIR IOPM 2 20180426T085612 20180426T085855 C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T090035_20180426T091503_C001	Backscatter Averaging Status	more records.  The Ice Backscatter Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T091721_20180426T092221_C001	Ice Backscatter Averaging Status SWH Averaging Status, Ocean	records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T092912_20180426T095243_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T095405_20180426T100230_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.
CS_OFFL_SIR_IOPM_2_20180426T103151_20180426T105437_C001	Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T105803_20180426T110138_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T110145_20180426T110154_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T110200_20180426T110517_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T110747_20180426T113641_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T120736_20180426T123407_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T123546_20180426T124052_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T124749_20180426T125857_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T130434_20180426T132148_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T134421_20180426T134948_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T140734_20180426T141350_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T141544_20180426T142124_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T142705_20180426T150042_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T153353_20180426T155310_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T155508_20180426T160018_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T160614_20180426T164033_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T165410_20180426T165436_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T170451_20180426T170922_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T171008_20180426T172745_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T174621_20180426T180229_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T180232_20180426T181542_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T183517_20180426T185337_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T185434_20180426T190806_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T191631_20180426T191829_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T191949_20180426T192331_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T192523_20180426T194050_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T194251_20180426T195213_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T201021_20180426T201146_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T201932_20180426T203134_C001	SWH Averaging Status, Ocean	The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T204740_20180426T204858_C001	Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status	more records.  The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T205446_20180426T210233_C001	Backscatter Averaging Status  Ice Backscatter Averaging Status	more records. The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180426T210441_20180426T211954_C001	SWH Averaging Status, Ocean	records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T215751_20180426T220555_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T220557_20180426T223041_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T223306_20180426T223520_C001	Backscatter Averaging Status  Ice Backscatter Averaging Status	more records. The Ice Backscatter Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T223532_20180426T224125_C001	Ice Backscatter Averaging Status	records. The Ice Backscatter Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPM_2_20180426T224413_20180426T230940_C001	SWH Averaging Status, Ocean	records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPM_2_20180426T234223_20180426T235214_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records. The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPN_2_20180426T074515_20180426T074729_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPN_2_20180426T100542_20180426T100938_C001	Backscatter Averaging Status SWH Averaging Status, Ocean	more records.  The SWH and Ocean Averaging Status Flags have been set for one or
CS_OFFL_SIR_IOPN_2_20180426T105531_20180426T105803_C001	Backscatter Averaging Status  Ice Backscatter Averaging Status	more records.  The Ice Backscatter Averaging Status Flag has been set for one or more
CS OFFL SIR IOPN 2 20180426T141429 20180426T141544 C001	Ice Backscatter Averaging Status	records.  The Ice Backscatter Averaging Status Flag has been set for one or more
CS_OFFL_SIR_IOPN_2_20180426T141429_20180426T201021_C001	Ice Backscatter Averaging Status	records.  The Ice Backscatter Averaging Status Flag has been set for one or more
	250 Eddinosation / Wordging Oracio	records.

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CS_OFFL_SIR_IOPN_2_20180426T201146_20180426T201404_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T032459_20180426T032636_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T064541_20180426T064554_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T091503_20180426T091532_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T132525_20180426T132806_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T150229_20180426T150248_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180426T215253_20180426T215301_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

#### 5.8 L2 Ocean Retracking Quality Check

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

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors: 56

#### 6. IOP L2 Pole-to-Pole Data Quality Check

#### 6.1 P2P Product Format Check

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

Number of products with errors:

#### 6.2 P2P Product Header Analysis

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

Number of products with errors:

#### 6.3 P2P Auxiliary Data File Usage Check

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

Number of products with errors:

#### 6.4 P2P Auxiliary Correction Error Check

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

Number of products with errors:

## 6.5 P2P Measurement Confidence Data Check

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

Number of products with errors:

#### 6.6 P2P Range Measurement Check

CryoSat P2P data includes an Ocean and Ice 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 P2P 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: 28

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180426T001656_20180426T010636_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T010636_20180426T015610_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T015610_20180426T024550_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T024550_20180426T033524_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T042503_20180426T051437_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T051437_20180426T060417_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T060417_20180426T065351_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T065351_20180426T074330_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T074330_20180426T083304_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T083304_20180426T092244_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T092244_20180426T101218_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T101218_20180426T110157_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T110157_20180426T115131_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T115131_20180426T124111_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T124111_20180426T133045_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T133045_20180426T142025_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T142025_20180426T150959_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T150959_20180426T155938_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOP_2_20180426T155938_20180426T164912_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T164912_20180426T173852_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T173852_20180426T182826_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T182826_20180426T191805_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T191805_20180426T200739_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T200739_20180426T205719_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T205719_20180426T214653_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T214653_20180426T223632_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T223632_20180426T232607_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T232607_20180427T001546_C003	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

#### 6.7 P2P SWH and Backscatter Measurement Check

CryoSat P2P data includes a SWH Averaging Status flag and an Ocean and Ice 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 P2P 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.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_2_20180426T001656_20180426T010636_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T010636_20180426T015610_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T015610_20180426T024550_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T024550_20180426T033524_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T042503_20180426T051437_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T051437_20180426T060417_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T060417_20180426T065351_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T065351_20180426T074330_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T074330_20180426T083304_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T083304_20180426T092244_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T092244_20180426T101218_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T101218_20180426T110157_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T110157_20180426T115131_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T115131_20180426T124111_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T124111_20180426T133045_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T133045_20180426T142025_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T142025_20180426T150959_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T150959_20180426T155938_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T155938_20180426T164912_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T164912_20180426T173852_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T173852_20180426T182826_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T182826_20180426T191805_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T191805_20180426T200739_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOP_220180426T200739_20180426T205719_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T205719_20180426T214653_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T214653_20180426T223632_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T223632_20180426T232607_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180426T232607_20180427T001546_C003	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

# 6.8 P2P Ocean Retracking Quality Check

Cryosat P2P 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.

Number of products with errors:

26

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180426T001656_20180426T010636_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T010636_20180426T015610_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T024550_20180426T033524_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T042503_20180426T051437_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T051437_20180426T060417_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T060417_20180426T065351_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T065351_20180426T074330_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T074330_20180426T083304_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T083304_20180426T092244_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T092244_20180426T101218_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T101218_20180426T110157_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20180426T110157_20180426T115131_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T115131_20180426T124111_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T124111_20180426T133045_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T133045_20180426T142025_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T142025_20180426T150959_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T150959_20180426T155938_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T155938_20180426T164912_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T164912_20180426T173852_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T173852_20180426T182826_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T182826_20180426T191805_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T191805_20180426T200739_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T200739_20180426T205719_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T214653_20180426T223632_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T223632_20180426T232607_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180426T232607_20180427T001546_C003	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
	ı	1