



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

Date:

Issue:

FOS Report for week 51, year 2022

from 19 DEC 2022 to 26 DEC 2022

1.0

1 General Comments

Activities scheduled for this week are those planned for the 51st calendar week of 2022:

19 DEC 2022 to 26 DEC 2022 (DoYs 353 to 360).

The following routine activities were planned this week (see Gantt chart on next page and CRF 1091).

- One Warm NIR Calibration on 21 DEC 2022 (DoY 355) with ETO 16:01:25z (orbit 69033; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.88°
R.M.S.	=	0.30
Sun elevation	=	9.69°
Moon elevation	=	32.85°
R.A.	=	182.08°
DEC.	=	-16.31°
- One PMS Offset on 22 DEC 2022 (DoY 356), including three Short Calibrations at 06:40:00.0z, 06:40:34.8z, and 06:41:09.6z (orbit 69042).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

Date:

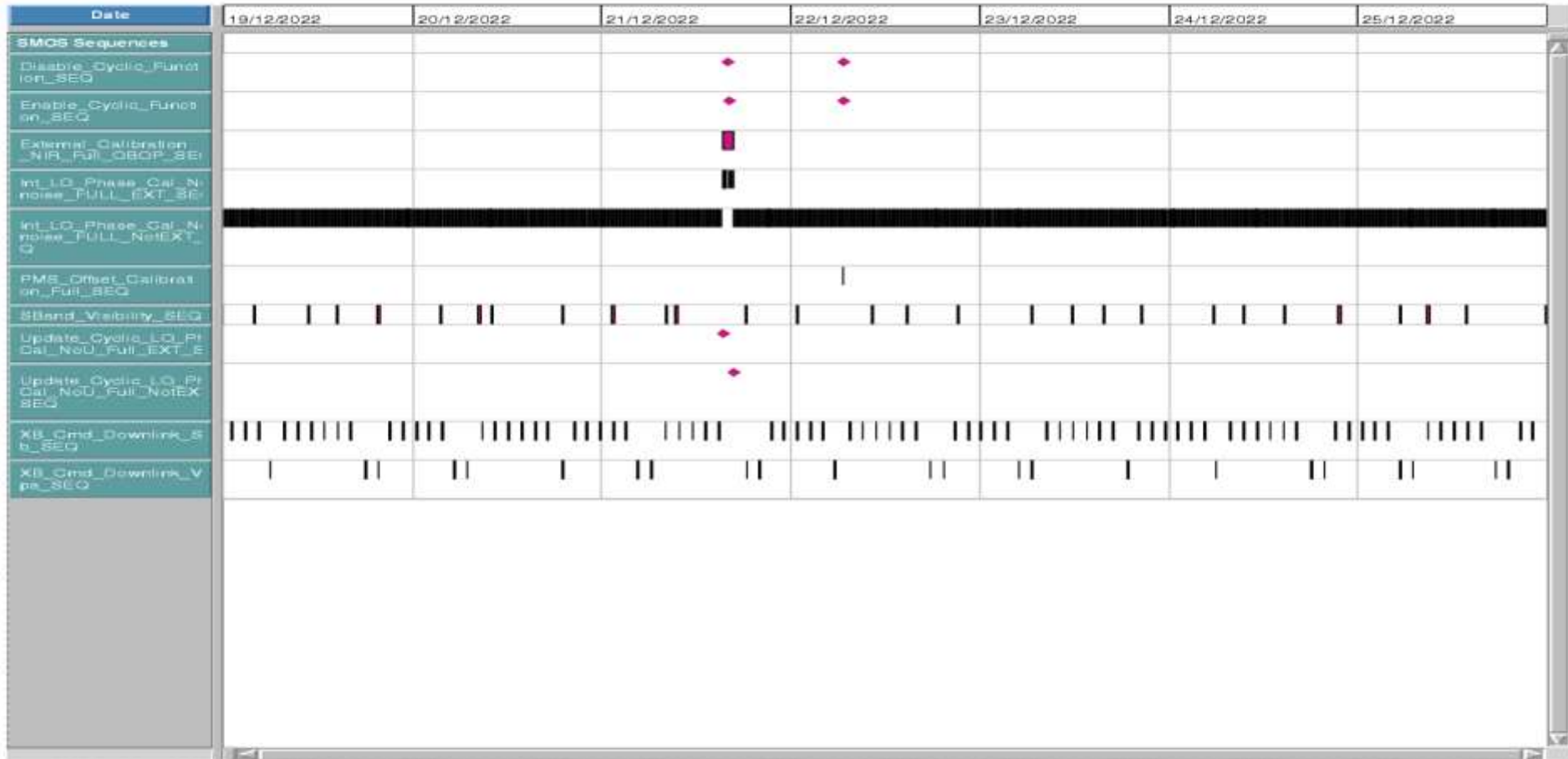
Issue:

FOS Report for week 51, year 2022

from 19 DEC 2022 to 26 DEC 2022

1.0

Schedule Name: 2022_w51_or ### Display start: 19-12-2022 00:00:00.000 ### Display end: 19-12-2022 16:48:06.000





Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

Date:

Issue:

FOS Report for week 51, year 2022

from 19 DEC 2022 to 26 DEC 2022

1.0

3 TC Failures

None.

4 On Board Anomalies

- MIRAS CCU reset 2022-12-19T16:11:18.548z (DOY 353), at the end of Svalbard X band pass 2022-12-19T16:07:47z.

The anomaly was detected by the FOS on-call engineer upon reception of SBand pass with AOS at 19:34:07z. The instrument reset at the end of the pass. FOS immediately called CNES hot line support for heads-up on the recovery and agreed on execution of CRF No. 1092 for upcoming S band GS pass with AOS at 2022-12-20T08:21:02z. This CRF included replanning of week 51.

Last MIRAS TM packet received was time stamped at 16:11:18.548z. Reset was triggered by the standard OBSW error Task Overrun (information included in the Boot Report packet). No anomaly packet preceded the reset

As per FOS replanning in CRF No. 1092, nominal MIRAS X band GS dumps were resumed over Svalbard 2022-12-20T12:08:53z. Because of this anomaly the following X band GS passes were not acquired:

Xband_ESAC	2022-12-19T19:38:35	2022-12-19T19:45:09	393
Xband_SVAL	2022-12-19T21:05:34	2022-12-19T21:15:56	621
Xband_SVAL	2022-12-19T22:44:20	2022-12-19T22:54:36	615
Xband_SVAL	2022-12-20T00:23:00	2022-12-20T00:33:20	620
Xband_SVAL	2022-12-20T02:01:51	2022-12-20T02:12:18	627
Xband_SVAL	2022-12-20T03:41:16	2022-12-20T03:51:32	615
Xband_ESAC	2022-12-20T06:52:44	2022-12-20T06:58:20	335
Xband_SVAL	2022-12-20T08:45:07	2022-12-20T08:50:35	327
Xband_SVAL	2022-12-20T10:27:34	2022-12-20T10:31:11	217

The values of the READ and WRITE pointers at the time of the reset were:

READ = 1093612 (*Partition P2*)

WRITE = 1355588 (*Partition P3*)

The anomaly was geolocated over the Artic region:

Latitude= 78.35



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

Date:

Issue:

FOS Report for week 51, year 2022

from 19 DEC 2022 to 26 DEC 2022

1.0

Longitude= 73.19

5 On Board Events Telemetry

The following RAM Single Bit errors befell this week:

Event Description	Packet ID	Severity	Event Time	Parameters
RAM Single Bit Error	730	WARN	2022-12-21T11:36:56.424	216FB40
RAM Single Bit Error	730	WARN	2022-12-22T11:29:20.299	229CF70

6 FOS Systems Status

All FOS systems nominal.

7 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system, with the following exceptions:

- The following S band GS pass:

```
STATION  PASS  AoS           LoS
-----
HBX      15    2022.353.03.49.21  2022.353.04.03.42 ,
```

was delivered late to FOS because of an anomaly with the network on HBX, with no impact on the PLPC systems. PXMF was not used.

8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

9 Exceptional Activities

None.

10 AOB

None.



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

FOS Report for week 51, year 2022

Date:

from 19 DEC 2022 to 26 DEC 2022

Issue:

1.0

APPENDIX A: OOLs

During the execution of the CCU recovery procedure, the following TM parameter went out of limits indicating that the MIRAS was temporary disabled after the CCU reset.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-12-20T10:20:45	2022-12-20T08:23:31	NTLHK022	ITL Ena State	Disabled	Enabled

The following TM parameters went out of limits on the FOS PLPC system at the time of the CCU reset on the 19th of December.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM22167	C3 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM21167	C2 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM20167	C1 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM19167	B3 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM18167	B2 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM17167	B1 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM16167	A3 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM15167	A2 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM14167	A1 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM13167	H3 LO_Locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM12172	H2 LO_locking	UNLOCK	LOCK
2022-12-19T20:01:27	2022-12-19T16:11:52	SPM11167	H1 LO_Locking	UNLOCK	LOCK



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/Á. Llorente

Topic:

FOS Report for week 51, year 2022

Date:

from 19 DEC 2022 to 26 DEC 2022

Issue:

1.0

					Dual Pol; Full Pol; Calibration; Test
2022-12-19T20:01:27	2022-12-19T16:11:52	SPC02106	Instrument_Mode	Inst Init	
2022-12-19T20:01:27	2022-12-19T16:11:52	XNIRABST	NIR AB VALID ST	NOT-OK	OK
2022-12-19T20:01:27	2022-12-19T16:11:52	XNIRBCST	NIR BC VALID ST	NOT-OK	OK
2022-12-19T20:01:27	2022-12-19T16:11:52	XNIRCAST	NIR CA VALID ST	NOT-OK	OK