



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 47, year 2023

from 20 NOV 2023 to 27 NOV 2023

1.0

1 General Comments

Activities scheduled for this week are those planned for the 47th calendar week of 2023:

20 NOV 2023 to 27 NOV 2023 (DoYs 324 to 331).

The following routine activities were planned this week (see Gantt chart on next page and CRF N° 1162).

- One PMS Offset on 23 NOV 2023 (DoY 327), including three Short Calibrations at 05:20:30.0z, 05:21:04.8z, and 05:21:39.6z (orbit 73876).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.
- A routine Orbit Correction Manoeuvre (OCM) was scheduled for 26 NOV 2023 at 22:57:01z (DoY 330). SMA change aimed for 270 m. The affected time period went from 2023-11-26T22:47:32,395z to 2023-11-26T23:08:02,643z. Science data for that period was flagged with an external APID. No X band GS passes conflicted with this OCM.

2 Mission Planning Deviations

None.



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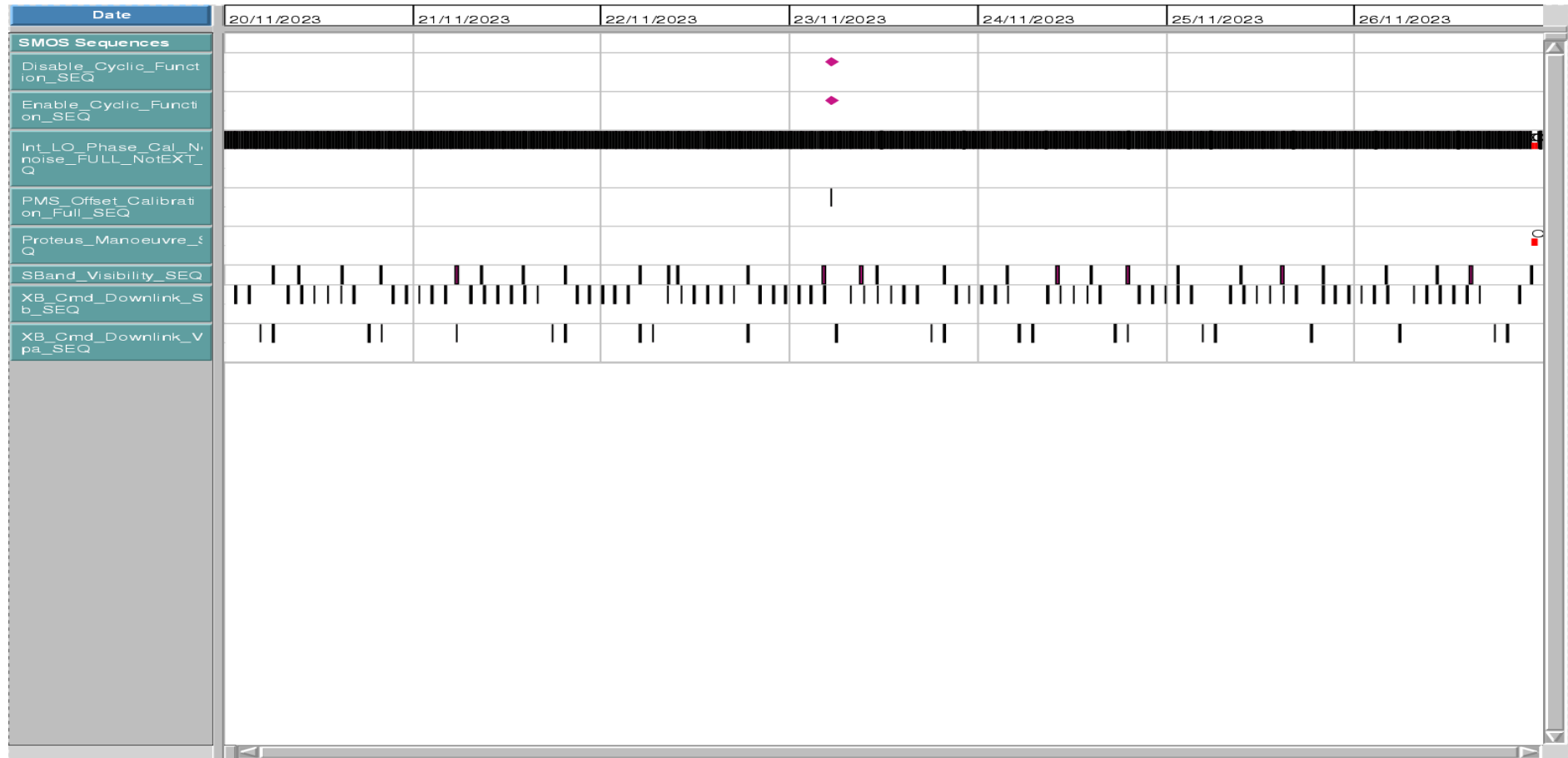
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Schedule Name: 2023_w47_cr ### Display start: 20-11-2023 00:00:00.000 ### Display end: 27-11-2023 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P8, latched up 2023-11-20T00:48:05,609z (DoY 324). The following parameters went out of limits in the PLPC system:

2023.324.00:48:05,609z DMASME04 LU Switch P8
2023.324.00:48:05,609z DMASME37 SDD LU Detected

This anomaly was geolocated over the coast of Antarctica, due south of the Indian Ocean:

LAT. = -57.84°
LONG. = 91.90°

There were no science data losses associated with this anomaly because it affected partition P8, while the Read and Write pointers were in partitions P2 and P3, respectively. Recovery was executed together with that of P9 (latched up 2023-11-17T06:13:49,225z; DoY 321), 20 NOV 2023, at 18:30:00z (CRF N° 1163).

At the time of the anomaly the position of the MM pointers was as follows:

READ = 1314687 (partition P2)
WRITE = 1729992 (partition P3)

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	WARNING	2023.324.22.04.46,717	233014C

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:

- S band GS pass:

STATION	PASS	AoS	LoS
STC	24	2023.11.23.04.13.49z	2023.11.23.04.27.13z



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This S band GS pass STC-24 contained 1 HKTM gap because of an issue with the receiving station.

The gap went:

from 2023-11-22T19:44:31,593z to 2023-11-22T19:44:36,383z; 7 packets lost.

8 X Band Data Reception in PXMF

None, a total of 7 packets were lost. Given the small size of this gap no TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system.

9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument MM, partition P8, latched up 2023-11-20T00:48:05,609z (DoY 324):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.324.06.32.04,227	2023.324.00.48.05,609	DMASME04	LU Switch P8	OFF	ON
2023.324.06.32.04,227	2023.324.00.48.05,609	DMASME37	SDD LU Detected	FALSE	TRUE