



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 40, year 2023

from 02 OCT 2023 to 09 OCT 2023

1.0

1 General Comments

Activities scheduled for this week are those planned for the 40th calendar week of 2023:

02 OCT 2023 to 09 OCT 2023 (DoYs 275 to 282).

The following routine activities were planned this week (see Gantt chart on next page and CRF N° 1151).

- One Warm NIR Calibration on 04 OCT 2023 (DoY 277) with ETO 16:25:20z (orbit 73163; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.92°
R.M.S.	=	0.61
Sun elevation	=	9.44°
Moon elevation	=	23.06°
R.A.	=	107.84°
DEC.	=	-31.34°
- One PMS Offset on 05 OCT 2023 (DoY 278), including three Short Calibrations at 07:08:00.0z, 07:08:34.8z, and 07:09:09.6z (orbit 73172).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.
- A routine Orbit Correction Manoeuvre (OCM) was scheduled for 02 OCT 2023 at 23:50:37z. With an SMA change aimed for 250.052 m, achieved 262.048 m (efficiency 104.80%). The affected time period went from 2023-10-02T23:40:02,888z to 2023-10-03T00:00:12,110z. 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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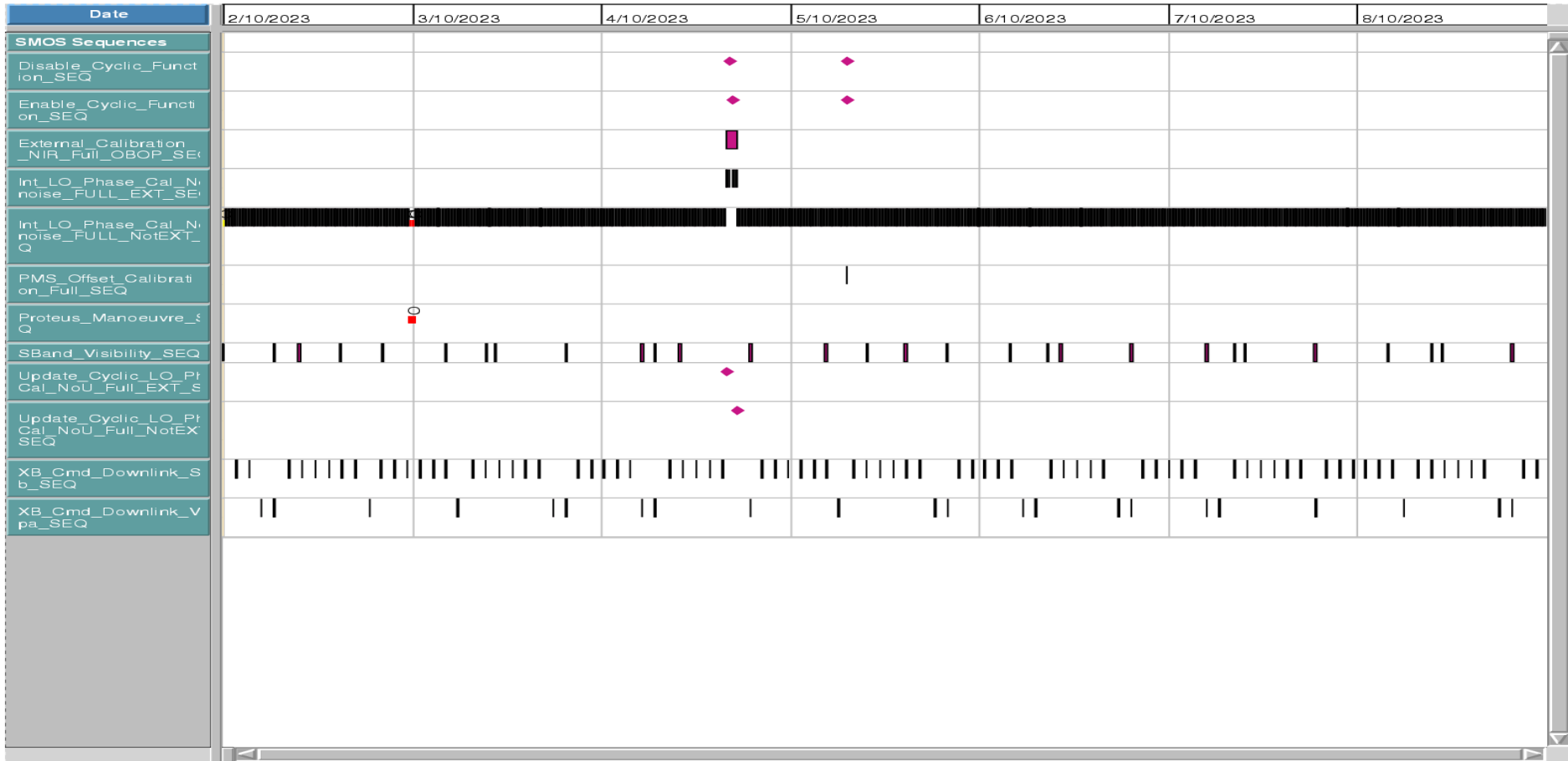
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Schedule Name: 2023_w40_cr ### Display start: 01-10-2023 23:47:06.125 ### Display end: 02-10-2023 16:36:24.125





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3 TC Failures

None.

4 On Board Anomalies

- The MIRAS CMN, unit B1, unlocked 2023-10-02T18:50:09z (DoY 275). This anomaly was geolocated over the South Atlantic Ocean:

LAT. = -28.19°

LONG. = 343.20°

Only locking status parameter SPM18167 went out of limits in the FOS PLPC system. The anomaly recovered in 3 epochs.

- MIRAS instrument MM, partition P7, latched up 2023-10-07T20:31:51z (DoY 280). The following parameters went out of limits in the PLPC system:

2023.280.20:31:51z DMASME05 LU Switch P7

2023.280.20:31:51z DMASME37 SDD LU Detected

This anomaly was geolocated over the Estado da Bahia (Brazil):

LAT. = -14.85°

LONG. = 320.07°

There were no science data losses associated with this anomaly because it affected partition P7, while the Read and Write pointers were both in partition P8. Recovery took place Monday 09 OCT 2023, at 16:00:00z (CRF n° 1154).

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

READ = 3795556 (partition P8)

WRITE = 3876830 (partition P8)

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	2023.236.21.57.10,151	20E2C98
RAM Single Bit Error	730	WARNING	2023.236.22.37.36,504	2246228
RAM Single Bit Error	730	WARNING	2023.239.23.29.51,027	20619E4

6 FOS Systems Status

All FOS systems nominal.



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7 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system.

8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument CMN, unit B2, unlocked 2023-10-02T18:50:09z (DoY 275):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.275.20.28.26	2023.275.18.50.09	SPM18167	B2 LO_Locking	UNLOCK	LOCK

The following OOLs befell at the time the MIRAS instrument MM, partition P7, latched up 2023-10-07T20:31:51z (DoY 280):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.281.04.33.34	2023.280.20.31.51	DMASME05	LU Switch P7	OFF	ON
2023.281.04.33.34	2023.280.20.31.51	DMASME37	SDD LU Detected	FALSE	TRUE