



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón/A. Vázquez

Topic: **FOS Report for week 30, year 2024**

Date: from 22 JUL 2024 to 29 JUL 2024

Issue: **1.0**

1 General Comments

Activities scheduled for this week are those planned for the 30th calendar week of 2024:

22 JUL 2024 to 29 JUL 2024 (DoYs 204 to 211).

The following routine activities were planned this week (see Gantt chart on next page and CRF N° 1206).

- One Warm NIR Calibration on 24 JUL 2024 (DoY 206) with ETO 04:50:30z (orbit 77387; DESCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.69°
R.M.S.	=	0.22
Sun elevation	=	7.02°
Moon elevation	=	-35.38°
R.A.	=	216.93°
DEC.	=	31.49°

- Two LONG Calibrations on 25 JUL 2024 (DoY 207), which encompassed two ascending semi-orbital periods starting at 14:29:41z (orbit 77407) and 16:11:00z (orbit 77408).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.
- A routine Orbit Correction Manoeuvre (OCM) was scheduled for 25 JUL 2024 at 22:57:51z (DoY 207). SMA change aimed for 241 m. Affected time period went from 2024-07-25T22:47:21,769z to 2024-07-25T23:06:48,901z. 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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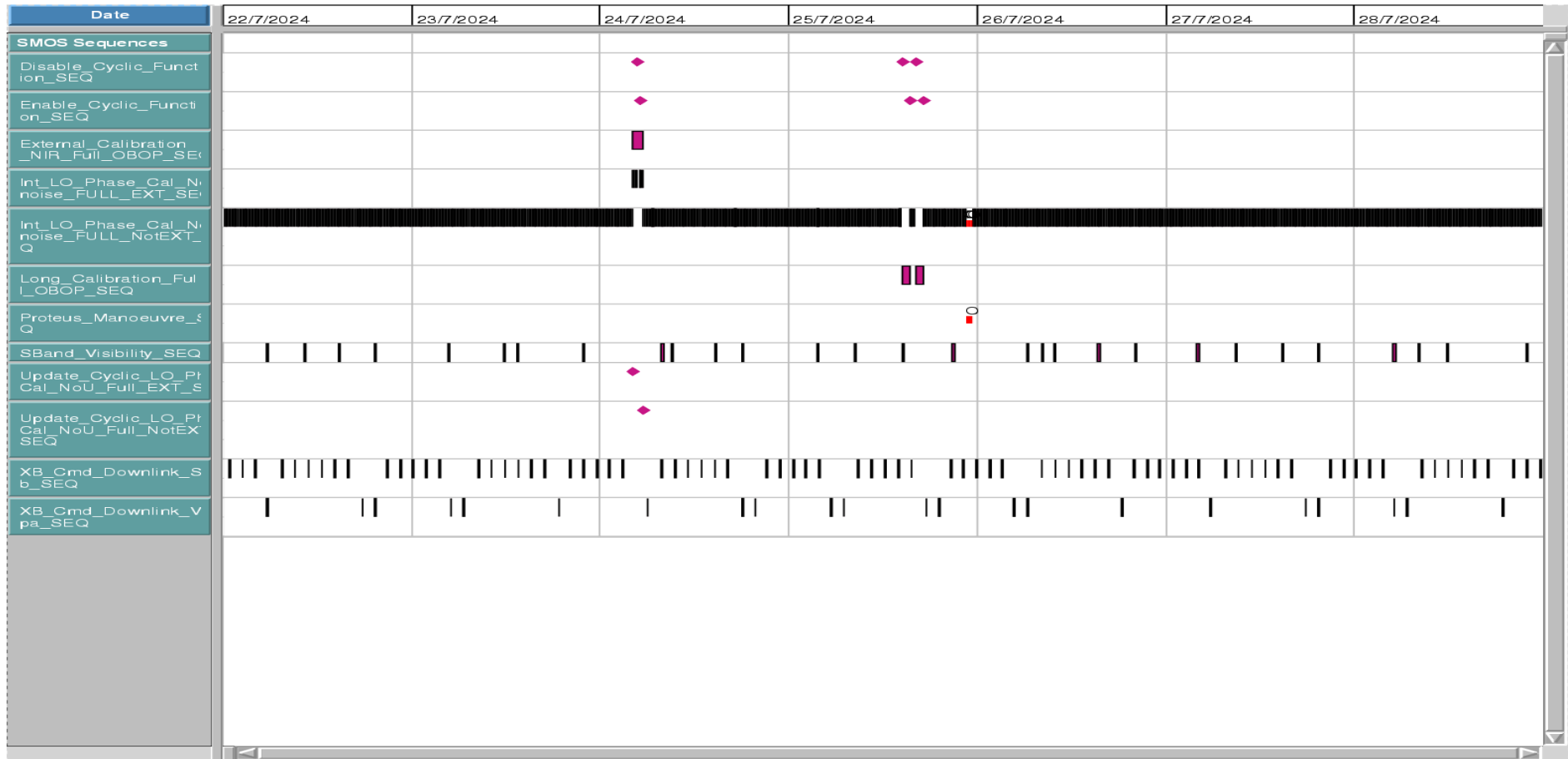
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Schedule Name: 2024_w30_cr ### Display start: 22-07-2024 00:00:00.000 ### Display end: 29-07-2024 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P0, latched up 2024-07-22T00:00:59,568z (DoY 204). The following parameters went out of limits in the PLPC system:

2024.204.00:00:59,568z DMASME12 LU Switch P0

2024.204.00:00:59,588z DMASME37 SDD LU Detected

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

LAT. = -81.01°

LONG. = 200.94°

There were no science data losses associated with this anomaly because it affected partition P0 while the Read and Write pointers were both in partition P6. Recovery took place Monday 22 JUL 2024, at 15:55:03z (CRF n° 1207). Data losses in the amount of 216 s occurred at recovery as it was P0 the latched-up partition.

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

READ = 2720554 (partition P6)

WRITE = 2857977 (partition P6)

- MIRAS instrument MM, partition P3, latched up 2024-07-27T10:28:03,670z (DoY 209). The following parameters went out of limits in the PLPC system:

2024.209.10.28.03,670z DMASME09 LU Switch P3

2024.209.10:28:03,670z DMASME37 SDD LU Detected

This anomaly was geolocated over the Departamento de Santa Cruz (Bolivia):

LAT. = -16.83°

LONG. = 295.75°

There were no science data losses associated with this anomaly because it affected partition P3, while the Read and Write pointers were both in partition P5. Recovery took place Tuesday 30 JUL 2024, at 04:30:00z (CRF n° 1209).

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

READ = 2390460 (partition P5)

WRITE = 2578509 (partition P5)

5 On Board Events Telemetry

The following RAM Single Bit errors befell this week:



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Event Description	Packet ID	Severity	Event Time	Parameters
RAM Single Bit Error	730	WARNING	2024.204.21.17.41,911	2266E54
RAM Single Bit Error	730	WARNING	2024.207.11.33.30,630	22A8B58
RAM Single Bit Error	730	WARNING	2024.208.23.49.32,440	215DD0C

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.

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 MM, partition P0, latched up 2024-07-22T00:00:59,568z (DoY 204):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2024.204.05.58.13,828	2024.204.00.00.59,568	DMASME12	LU Switch P0	OFF	ON
2024.204.05.58.13,828	2024.204.00.00.59,568	DMASME37	SDD LU Detected	FALSE	TRUE

The following OOLs befell at the time the MIRAS instrument MM, partition P3, latched up 2024-07-27T10:28:03,670z (DoY 209):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2024.209.15.07.43,182	2024.209.10.28.03,670	DMASME09	LU Switch P3	OFF	ON
2024.209.15.07.43,182	2024.209.10.28.03,670	DMASME37	SDD LU Detected	FALSE	TRUE