



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 25, year 2022

from 20 JUN 2022 to 27 JUN 2022

1.0

1 General Comments

Activities scheduled for this week are those planned for the 25th calendar week of 2022:

20 JUN 2022 to 27 JUN 2022 (DoYs 171 to 178).

The following routine activities were planned this week (see Gantt chart on next page and CRF 1055).

- One Warm NIR Calibration on 22 JUN 2022 (DoY 173) with ETO 04:51:20z (orbit 66408; DESCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.50°
R.M.S.	=	0.13
Sun elevation	=	8.07°
Moon elevation	=	-55.55°
R.A.	=	185.04°
DEC.	=	32.21°

- Two LONG Calibrations on 23 JUN 2022 (DoY 174), which encompassed two ascending semi-orbital periods starting at 14:32:00z (orbit 66428) and 16:14:30z (orbit 66429).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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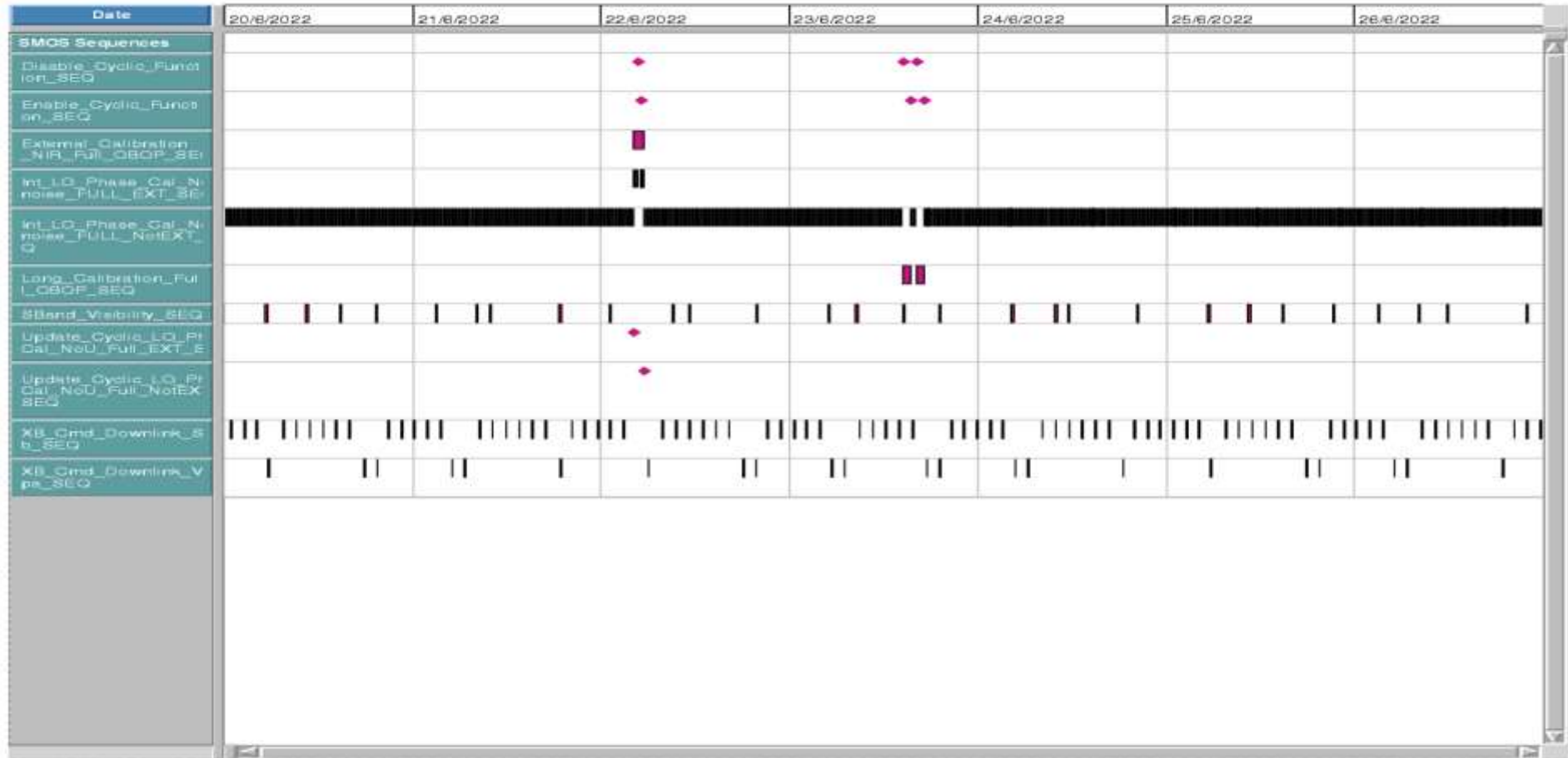
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Schedule Name: 2022_w25_es ### Display start: 20-06-2022 00:00:00.000 ### Display end: 27-06-2022 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- The MIRAS instrument CMN, unit H1, unlocked 2022-06-22T12:44:36,842z (DoY 173). This anomaly was geolocated over the Province of Alberta (Canada):

LAT. = 49.64°

LONG. = 249.14°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in 15 epochs.

- MIRAS instrument MM, partition P0, latched up 2022-06-24T22:12:31,173z (DoY 175). The following parameters went out of limits in the PLPC system:

2022.175.22.12.31,173z DMASME12 LU Switch P0

2022.175.22.12.31,173z DMASME37 SDD LU Detected

This anomaly was geolocated over the Provincia de Mendoza (Argentina):

LAT. = -33.36°

LONG. = 291.59°

There were no science data losses associated with this anomaly because it affected partition P0, while the Read and Write pointers were in partitions P5 and P6 respectively. Recovery took place Monday 27 JUN 2022, at 16:23:59z (CRF No. 1058). Because it was partition P0 that latched up, 3.48 min of science data were lost during recovery.

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

READ = 2596909 (*partition P5*)

WRITE = 2692434 (*partition P6*)

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	2022.176.10.58.58.676	23053D0

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 OOL befell at the time the MIRAS instrument CMN, unit H1, unlocked 2022-06-22T12:44:36,842z (DoY 173):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022.173.20.07.42.501	2022.173.12.44.36.842	SPM11162	H1 LO_Out_Power	NOT-OK	OK
2022.173.20.07.42.838	2022.173.12.44.44.043	SPM11167	H1 LO_Locking	UNLOCK	LOCK

The following OOLs befell at the time the MIRAS instrument MM, partition P0, latched up 2022-06-24T22:12:31,173z (DoY 175):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022.176.05.47.15.623	2022.175.22.12.31.173	DMASME12	LU Switch P0	OFF	ON
2022.176.05.47.15.623	2022.175.22.12.31.173	DMASME37	SDD LU Detected	FALSE	TRUE