



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 42, year 2023

from 16 OCT 2023 to 23 OCT 2023

1.0

1 General Comments

Activities scheduled for this week are those planned for the 42nd calendar week of 2023:

16 OCT 2023 to 23 OCT 2023 (DoYs 289 to 296).

The following routine activities were planned this week (see Gantt chart on next page and CRF n° 1155).

- One Warm NIR Calibration on 18 OCT 2023 (DoY 291) with ETO 15:43:38z (orbit 73364; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.88°
R.M.S.	=	0.64
Sun elevation	=	9.89°
Moon elevation	=	-23.11°
R.A.	=	119.33°
DEC.	=	-19.54°
- Two LONG Calibrations on 19 OCT 2023 (DoY 292), which encompassed two ascending semi-orbital periods starting at 14:30:00z (orbit 73378) and 16:11:00z (orbit 73379).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P11, latched up 2023-10-16T08:41:11z (DoY 289). The following parameters went out of limits in the PLPC system:

```

2023.289.08:41:11z      DMASME01      LU Switch P11
2023.289.08:41:11z      DMASME37      SDD LU Detected

```

This anomaly was geolocated mid-way between the coast of the Estado do Espírito Santo and the Ilha da Trindade (Brazil):

```

LAT.   = -21.48°
LONG.  = 323.38°

```

There were no science data losses associated with this anomaly because it affected partition P11 (i.e. a spare partition), while the Read and Write pointers were both in partition P6. Recovery took place Monday 16 OCT 2023, at 10:54:00z (CRF n° 1156), together with latch-ups in P0 and P4 (see FWR from last week).

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

```

READ      = 2814733 (partition P6)
WRITE     = 3006576 (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	2023.236.21.57.10	20E2C98

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    2023.289.05.31.27  2023.289.05.46.07

```



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contained 6 TM gaps because of an issue with the receiving station.

Gaps spanned over the range:

PUS HKTM

STC-24

from 2023-10-16T00:30:26z to 2023-10-16T00:37:51

8 X Band Data Reception in PXMF

- To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system 16 OCT 2023. The corresponding E HKTM was lost.

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 P11, latched up 2023-10-16T08:41:11z (DoY 289):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.289.10.48.06	2023.289.08.41.11	DMASME01	LU Switch P11	OFF	ON
2023.289.10.48.06	2023.289.08.41.11	DMASME37	SDD LU Detected	FALSE	TRUE