



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 32, year 2023

from 07 AUG 2023 to 14 AUG 2023

1.0

1 General Comments

Activities scheduled for this week are those planned for the 32nd calendar week of 2023:

07 AUG 2023 to 14 AUG 2023 (DoYs 219 to 226).

The following routine activities were planned this week (see Gantt chart on next page and CRF n° 1136).

- One Warm NIR Calibration on 09 AUG 2023 (DoY 221) with ETO 05:14:23z (orbit 72351; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

B.T.	=	3.86°
R.M.S.	=	0.30
Sun elevation	=	5.01°
Moon elevation	=	-36.49°
R.A.	=	232.46°
DEC.	=	33.17°
- One PMS Offset on 10 AUG 2023 (DoY 222), including three Short Calibrations at 05:07:30.0z, 05:08:04.8z, and 05:08:39.6z (orbit 72365).
- 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 P5, latched up 2023-08-08T22:50:25z (DoY 220). The following parameters went out of limits in the PLPC system:

```
2023.220.22.50.25z    DMASME07    LU Switch P5
2023.220.22.50.25z    DMASME37    SDD LU Detected
```

This anomaly was geolocated over the South Pacific Ocean, off the coast of northern Chile:

```
LAT.  = -25.39°
LONG. = 283.64°
```

There were no science data losses associated with this anomaly despite having affected partition P5, while the Read and Write pointers were in partitions P4 and P5 respectively. This was because only a very small fraction of P5 had been written. Recovery took place Wednesday 09 AUG 2023, at 15:30:00z (CRF No. 1138).

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

```
READ    = 2121425 (partition P4)
WRITE   = 2214305 (partition P5)
```

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	2023.220.08.36.19	214F1E0
RAM Single Bit Error	730	WARNING	2023.225.21.32.47	2327CC8

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      12    2023.220.05.17.18  2023.220.04.32.01
```



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contained a TM gap because of network maintenance.

Gaps went:

PUS HKTM

2023-08-08T01:32:38z to 2023-08-08T01:33:54z; 127 packets lost

E HKTM

2023-08-08T01:33:31z to 2023-08-08T01:35:07z

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 08 AUG 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 P5, latched up 2023-08-08T22:50:25z (DoY 220):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.221.02.09.40	2023.220.22.50.25	DMASME07	LU Switch P5	OFF	ON
2023.221.02.09.40	2023.220.22.50.25	DMASME37	SDD LU Detected	FALSE	TRUE