Operations Notes FOS Team @ ESAC Reported by:

Topic: FOS Report for week 32, year 2024

Date: from 05 AUG 2024 to 12 AUG 2024

Issue: **1.0**

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

1 General Comments

Activities scheduled for this week are those planned for the 32^{nd} calendar week of 2024:

```
05 AUG 2024 to 12 AUG 2024 (DoYs 218 to 225).
```

The following routine activities were planned this week (see Gantt chart on next page and CRF N° 1210).

• One Warm NIR Calibration on 07 AUG 2024 (DoY 220) with ETO 04:05:42z (orbit 77588; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

```
B.T. = 3.85°

R.M.S. = 0.29

Sun elevation = 5.01°

Moon elevation = 25.27°

R.A. = 230.59°

DEC. = 30.68°
```

- Two LONG Calibrations on 08 AUG 2024 (DoY 221), which encompassed two ascending semi-orbital periods starting at 15:26:00z (orbit 77609) and 17:04:00z (orbit 77610).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.

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Display start: 05-08-2024 00:00:00.000 ### Display end: 12-08-2024 00:00:00.000 Schedule Name: 2024_w32_cr Date 8/8/2024 11/8/2024 5/8/2024 6/8/2024 7/8/2024 9/8/2024 10/8/2024 SMOS Sequences Enable_Cyclic_Functi ++ External_Calibration _NIR_Full_OBOP_SE Update_Cyclic_LO_Ph Cal_NoU_Full_NotEX SEQ XB_Cmd_Downlink_S b_SEQ П П XB_Cmd_Downlink_V pa_SEQ

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3 TC Failures

None.

4 On Board Anomalies

• MIRAS instrument MM, partition P0, latched up 2024-08-08T20:20:48z (DoY 221). The following parameters went out of limits in the PLPC system:

2024.221.20:20:48z DMASME12 LU Switch P0 2024.221.20:20:48z DMASME37 SDD LU Detected

This anomaly was geolocated just off the coast of the Estado da Bahia (Brazil):

 $LAT. = -17.15^{\circ}$ $LONG. = 322.40^{\circ}$

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 Friday 09 AUG 2024, at 14:14:49z (CRF n° 1213). 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 = 2633240 (partition P5) WRITE = 2806651 (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	2024.222.19.28.53	22D2680
RAM Single Bit Error	730	WARNING	2024.222.22.21.01	20BB0B0

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.



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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 2024-08-08T20:20:48z (DoY 221):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2024.222.05.55.03	2024.221.20:20:48	DMASME12	LU Switch P0	OFF	ON
2024.222.05.55.03	2024.221.20:20:48	DMASME37	SDD LU Detected	FALSE	TRUE