

Operations Notes

FOS Team @ ESAC Reported by:

Date:

Topic:

FOS Report for week 50, year 2023 from 11 DEC 2023 to 18 DEC 2023

1.0

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 50th calendar week of 2023:

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11 DEC 2023 to 18 DEC 2023 (DoYs 345 to 352).
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The following routine activities were planned this week (see Gantt chart next page and CRF N° 1066):

• One Warm NIR Calibration on 13 DEC 2023 (DoY 347) with ETO 16:04:55z (orbit 74170; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T. = 3.82° R.M.S. = 0.29 Sun elevation = 9.94° Moon elevation = 1.62° R.A. = 173.75° DEC. = -15.24°

- Two LONG Calibrations on 14 DEC 2023 (DoY 348), which encompassed two ascending semi-orbital periods starting at 14:50:00z (orbit 74184) and 16:31:00z (orbit 74185).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.

SMOS

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Display start: 11-12-2023 00:00:00.000 ### Display end: 18-12-2023 00:00:00.000 Schedule Name: 2023_w50_cr ### Date 11/12/2023 12/12/2023 13/12/2023 14/12/2023 15/12/2023 16/12/2023 17/12/2023 SMOS Sequences ** Disable_Cyclic_Function_SEQ Enable_Cyclic_Function_SEQ Update_Cyclic_LO_Ph Cal_NoU_Full_EXT_S Update_Cyclic_LO_Pr Cal_NoU_Full_NotEX SEQ XB_Cmd_Downlink_S b_SEQ П XB_Cmd_Downlink_V

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3 TC Failures

None.

4 On Board Anomalies

MIRAS instrument MM, partition P5, latched up 2023-12-16T09:06:36,484z (DoY 350). The following parameters went out of limits in the PLPC system:

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Date:

2023.350.09:06:36,484z DMASME 07 LU Switch P5 2023.350.09:06:36,484z DMASME37 SDD LU Detected

This anomaly was geolocated over the Estado de Minas Gerais (Brazil):

 $= -20.45^{\circ}$ LAT. = 316.76° LONG.

There were no science data losses associated with this anomaly because it affected partition P5, while the Read and Write pointers were in partitions P3 and P4, respectively. Recovery took place Tuesday 19 DEC 2023 at 06:00:00z (CRF N° 1169).

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

> = 1734049 (partition P3) READWRITE= 1924278 (partition P4)

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	2023.348.19.54.30,451	21393B4

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.



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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 2023-12-16T09:06:36,484z (DoY 350):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023.350.09.37.39,009	2023.350.09.06.36,484	DMASME07	LU Switch P5	OFF	ON
2023.350.09.37.39,009	2023.350.09.06.36,484	DMASME37	SDD LU Detected	FALSE	TRUE