



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 39, year 2023

from 25 SEP 2023 to 02 OCT 2023

1.0

1 General Comments

Activities scheduled for this week are those planned for the 39th calendar week of 2023:

25 SEP 2023 to 02 OCT 2023 (DoYs 268 to 275).

The following routine activities were planned this week (see Gantt chart on next page and CRF n° 1150).

- One PMS Offset on 28 SEP 2023 (DoY 271), including three Short Calibrations at 06:40:30.0z, 06:41:04.8z, and 06:41:39.6z (orbit 73071).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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Schedule Name: 2023_w39_cr ### Display start: 25-09-2023 00:00:00.000 ### Display end: 25-09-2023 16:48:12.000

Date	25/9/2023	26/9/2023	27/9/2023	28/9/2023	29/9/2023	30/9/2023	1/10/2023
SMOS Sequences							
Disable_Cyclic_Function_SEQ				◆			
Enable_Cyclic_Function_SEQ				◆			
Int_LO_Phase_Cal_Noise_FULL_NotEXT_Q	[Solid black bar]						
PMS_Offset_Calibration_Full_SEQ							
SBand_Visibility_SEQ	[Vertical tick marks]						
XB_Cmd_Downlink_Sb_SEQ	[Vertical tick marks]						
XB_Cmd_Downlink_Vpa_SEQ	[Vertical tick marks]						



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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P2, latched up 2023-09-27T11:02:21z (DoY 270). The following parameters went out of limits in the PLPC system:

2023.270.11.02.21z DMASME10 LU Switch P2

2023.270.11.02.21z DMASME37 SDD LU Detected

This anomaly was geolocated over Chuquibamba, Province of Condesuyos, Arequipa, Peru:

LAT. = -16.26°

LONG. = 287.22°

There were no science data losses associated with this anomaly because it affected partition P2, while the Read and Write pointers were in partitions P3 and P4, respectively. Recovery took place Friday 29 SEP 2023, at 06:00:00z (CRF No. 1152).

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

READ = 1703826 (partition P3)

WRITE = 1891054 (partition P4)

- The MIRAS CMN, unit H3, unlocked 2023-09-29T11:23:08,683z (DoY 272). This anomaly was geolocated over the South Pacific Ocean, off the northern coast of Peru:

LAT. = -20.17°

LONG. = 282.60°

Both parameters, output power SPM13162 and locking status SPM13167, went out of limits in the FOS PLPC system. The anomaly recovered by itself after a few seconds.

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	2023.271.09.38.23,500	215C414
RAM Single Bit Error	730	WARNING	2023.271.10.41.01,962	2382DB8

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, with the following exceptions:

- S band GS pass:

<i>STATION</i>	<i>PASS</i>	<i>AoS</i>	<i>LoS</i>
<i>KUX</i>	<i>29</i>	<i>2023.269.08.21.29</i>	<i>2023.269.08.33.43</i>
<i>KUX</i>	<i>30</i>	<i>2023.269.09.59.17</i>	<i>2023.269.10.13.05</i>

could not be acquired because of an issue with the receiving station.

Gap went:

E HKTM

2023-09-26T05:11:09z to 2023-09-26T10:01:17z

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 26 SEP 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 P2**, latched up 2023-09-27T11:02:21z (DOY 270):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023-09-27T15:02:34	2023-09-27T11:02:21	DMASME37	SDD LU Detected	FALSE	TRUE
2023-09-27T15:02:34	2023-09-27T11:02:21	DMASME10	LU Switch P2	OFF	ON

The following OOLs befell at the time the **MIRAS CMN, unit H3**, unlocked 2023-09-29T11:23:08.683z (DOY 272):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2023-09-29T12:06:15	2023-09-29T11:23:08	SPM13162	H3 LO_Out_Power	NOT-OK	OK
2023-09-29T12:06:15	2023-09-29T11:23:09	SPM13167	H3 LO_Locking	UNLOCK	LOCK