

FOS Team @ ESAC

Reported by:

Date:

Topic:

FOS Report for week 39, year 2022

from 26 SEP 2022 to 03 OCT 2022

1.0

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 39th calendar week of 2022:

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26 SEP 2022 to 03 OCT 2022 (DOYs 269 to 276).
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The following routine activities were planned this week (see Gantt chart on next page and CRF 1076).

• One Warm NIR Calibration on 28 SEP 2022 (DOY 271) with ETO 15:24:08z (orbit 67824; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T. = 3.94° R.M.S. = 0.73Sun elevation = 9.14° Moon elevation = -6.73° R.A. = 104.69° DEC. = -41.69°

- One PMS Offset on 29 SEP 2022 (DOY 272), including three Short Calibrations at 06:09:30.0z, 06:10:04.8z, and 06:10:39.6z (orbit 67833).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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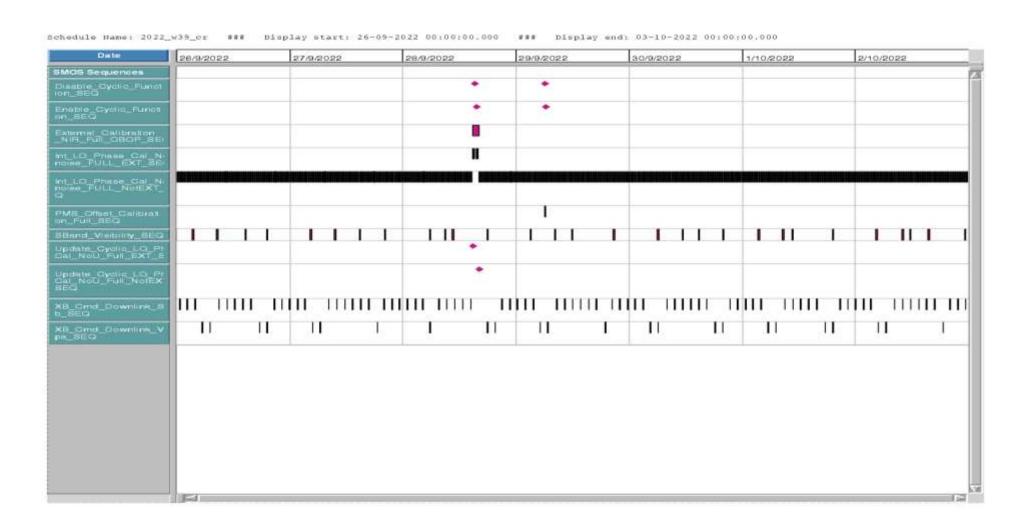
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3 TC Failures

None.

4 On Board Anomalies

• MIRAS instrument MM, partition P5, latched up 2022-09-26T08:28:18z (DOY 269). The following parameters went out of limits in the PLPC system:

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2022.269.08:28:18z DMASME07 LU Switch P5 2022.269.08:28:18z DMASME37 SDD LU Detected

This anomaly was geolocated off the coast of the Estado do Espírito Santo (Brazil):

Latitude = -19.46° Longitude = 326.26°

There were no science data losses associated with this anomaly because it affected partition P5 while the Read and Write pointers were in partition P2 and P2, respectively. Recovery took place on 27 SEP 2022 at 15:08:00z (CRF 1077). At the time of the anomaly the position of the MM pointers were as follows:

READ = 1019839 (partition P2) WRITE = 1238460 (partition P2)

5 On Board Events Telemetry

No relevant on board event telemetry packets were received during this reporting period.

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 exception:

• MIRAS PUS TM files were not delivered during SBand pass HBX-22 with AOS at 2022-09-26T14:26:55z. This generated a PUS TM gap from 2022-09-26T08:31:02z to 2022-09-26T13:41:34z. CNES resent missing PUS TM files during SBand pass HBX-23 with AOS at 2022-09-27T04:19:41 triggering many time correlation errors in SCOS 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

At the time of the MM latch-up anomaly on the 26th of September, the two following TM parameters went out of limits on the FOS PLPC system:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-09-26T09:06:03	2022-09-26T08:28:18	DMASME37	SDD LU Detected	FALSE	TRUE
2022-09-26T09:06:03	2022-09-26T08:28:18	DMASME07	LU Switch P5	OFF	ON