



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste*

Topic:

Date:

Issue:

**FOS Report for week 39, year 2021**

from 27 SEP 2021 to 04 OCT 2021

**1.0**

### 1 General Comments

Activities scheduled for this week are those planned for the 39<sup>th</sup> calendar week of 2021:

27 SEP 2021 to 04 OCT 2021 (DOYs 270 to 277).

The following routine activities were planned this week (see Gantt chart on next page and CRF 997).

- One Warm NIR Calibration on 29 SEP 2021 (DOY 272) with ETO 18:13:08z (orbit 62588; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.95°
R.M.S.	=	0.76
Sun elevation	=	9.74°
Moon elevation	=	19.60°
R.A.	=	106.57°
DEC.	=	-43.3°
- One PMS Offset on 30 SEP 2021 (DOY 273), including three Short Calibrations at 07:18:43.0z, 07:19:17.8z, and 07:19:52.6z (orbit 62596).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.



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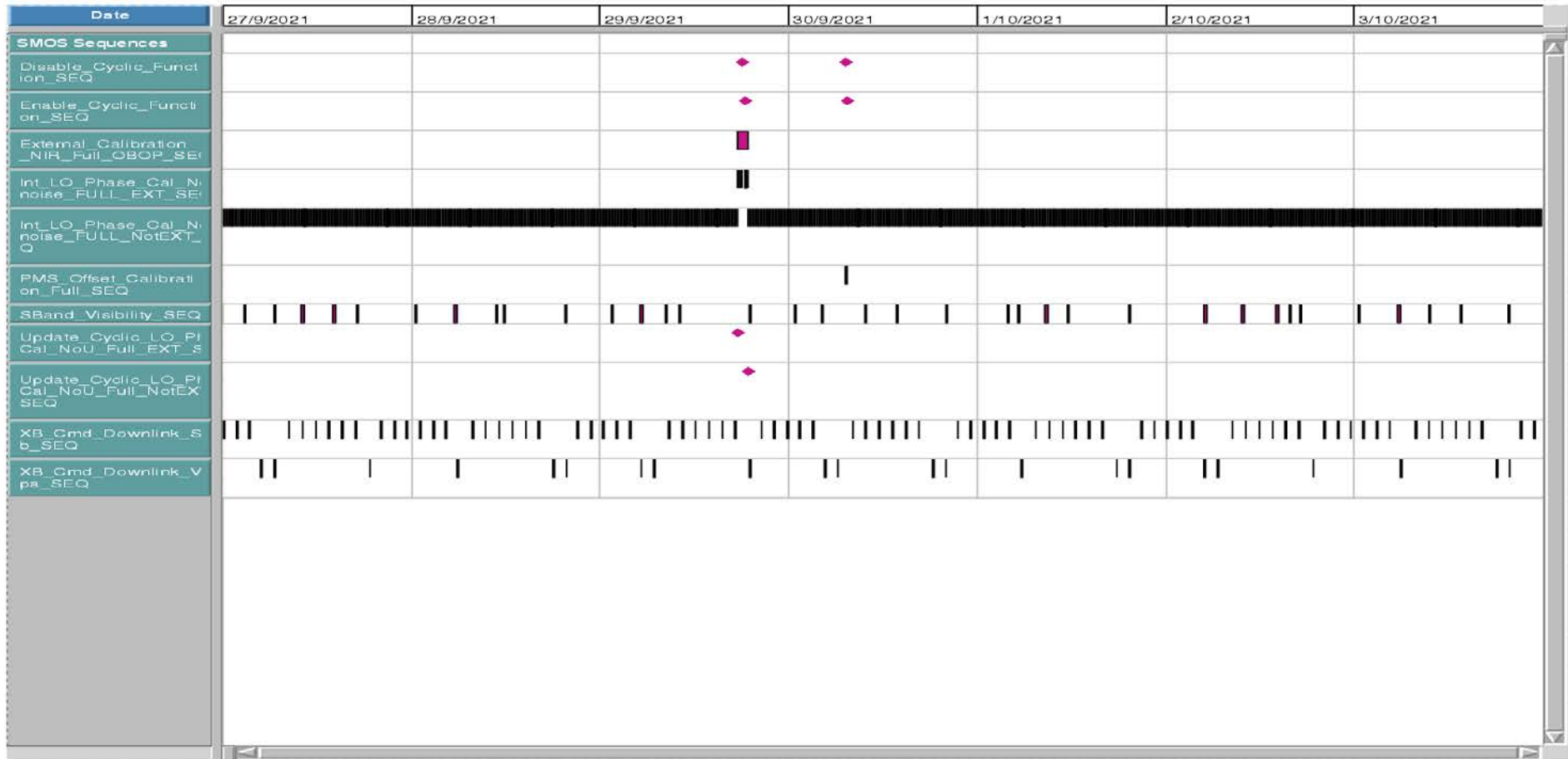
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Schedule Name: 2021\_w39\_cr ### Display start: 27-09-2021 00:00:00.000 ### Display end: 04-10-2021 00:00:00.000





## 3 TC Failures

None.

## 4 On Board Anomalies

- The MIRAS CMN, unit B2, unlocked 2021-10-03T21:43:13.331z (DOY 276). This anomaly was geolocated over the middle of South America:

*Latitude = -12.44°*

*Longitude = 302.65°*

Both parameters, output power SPM18162 and locking status SPM18167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in few seconds.

- The MIRAS instrument MM, partition P6, latched up 2021-09-29T09:59:35.915z (DOY 272). The following parameters went out of limits in the PLPC system:

*2021.272.09:59:35.915z DMASME06 LU Switch P6*

*2021.272.09:59:35.915z DMASME37 SDD LU Detected*

This anomaly was geolocated at the south of Brazil:

*Latitude = -19.33°*

*Longitude = 303.39°*

No science data losses associated with this anomaly are expected because it affected partition P6 while the Read and Write pointers were in partitions P5. Recovery took place on 01 OCT 2021 at 08:00:00z (CRF 999). No data losses happened during the anomaly recovery. At the time of the anomaly the position of the MM pointers were as follows:

*READ = 2210603 (partition P5)*

*WRITE = 2397512 (partition P5)*

- The MIRAS CMN, unit H3, unlocked 2021-09-27T10:46:18.099z (DOY 270). This anomaly was geolocated over the south east Indian Ocean:

*Latitude = -47.98°*

*Longitude = 99.31°*

Both parameters, output power SPM13162 and locking status SPM13167, went out of limits in the FOS PLPC system. The anomaly recovered in 3 Epochs.



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### 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	WARN	2021-09-27T20:44:22	225EB90
RAM single Bit Error	730	WARN	2021-09-28T00:14:37	2196874
RAM single Bit Error	730	WARN	2021-09-28T21:21:52	211876C

### 6 FOS Systems Status

- On the 29<sup>th</sup> of September *Solenix WebMUST* maintenance team remotely installed latest version of WebMUST tool on FOS SMTA server (version Q2-2021)
- On the 28<sup>th</sup> of September a dedicated test on the FOS-CNES backup line was performed adding a new redundant copper cable between the EOP switch B and the Corporate EXT-A switch.

### 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.

### 10 AOB

None.



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### APPENDIX A: OOLs

The two following temporary Out of Limits were received on the FOS PLPC system at the time of the B2 CMN unlock on the 3<sup>rd</sup> of October 2021.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-10-04T04:05:32z	2021-10-03T21:43:14z	SPM18167	B2 LO_Locking	UNLOCK	LOCK
2021-10-04T04:05:32z	2021-10-03T21:43:14z	SPM18162	B2 LO_Out_Power	NOT-OK	OK

The two following Out of Limits were received on the FOS PLPC system at the time of the P6 Mass Memory Latch-up on the 29<sup>th</sup> of September 2021. Parameter DMASME06 remained out of limit until the full recovery of the anomaly on the 1<sup>st</sup> of October.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-09-29T10:26:20	2021-09-29T09:59:35	DMASME37	SDD LU Detected	FALSE	TRUE
2021-09-29T10:26:20	2021-09-29T09:59:35	DMASME06	LU Switch P6	OFF	ON

The two following temporary Out of Limits were received on the FOS PLPC system at the time of the H3 CMN unlock on the 27<sup>th</sup> of September 2021.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-09-27T14:24:05	2021-09-27T10:46:18	SPM13162	H3 LO_Out_Power	NOT-OK	OK
2021-09-27T14:24:05	2021-09-27T10:46:19	SPM13167	H3 LO_Locking	UNLOCK	LOCK