



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 38, year 2020**

from 14 SEP 2020 to 21 SEP 2020

**1.0**

## 1 General Comments

Activities scheduled for this week are those planned for the 38<sup>th</sup> calendar week of 2020:

14 SEP 2020 to 21 SEP 2020 (DOYs 258 to 265).

The following routine activities were planned this week (see Gantt chart on next page and CRF 913).

- One Warm NIR Calibration on 16 SEP 2020 (DOY 260) with ETO 16:44:06z (orbit 57148; ASCENDING: thermally UNSTABLE) and with the following expected calibration values:

B.T.	=	3.95°
R.M.S.	=	0.80
Sun elevation	=	6.01°
Moon elevation	=	2.07°
R.A.	=	97.93°
DEC.	=	-54.14°
- One PMS Offset on 17 SEP 2020 (DOY 261), including three Short Calibrations at 05:53:00.0z, 05:53:34.8z, and 05:54:09.6z (orbit 57156).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

## 2 Mission Planning Deviations

None.



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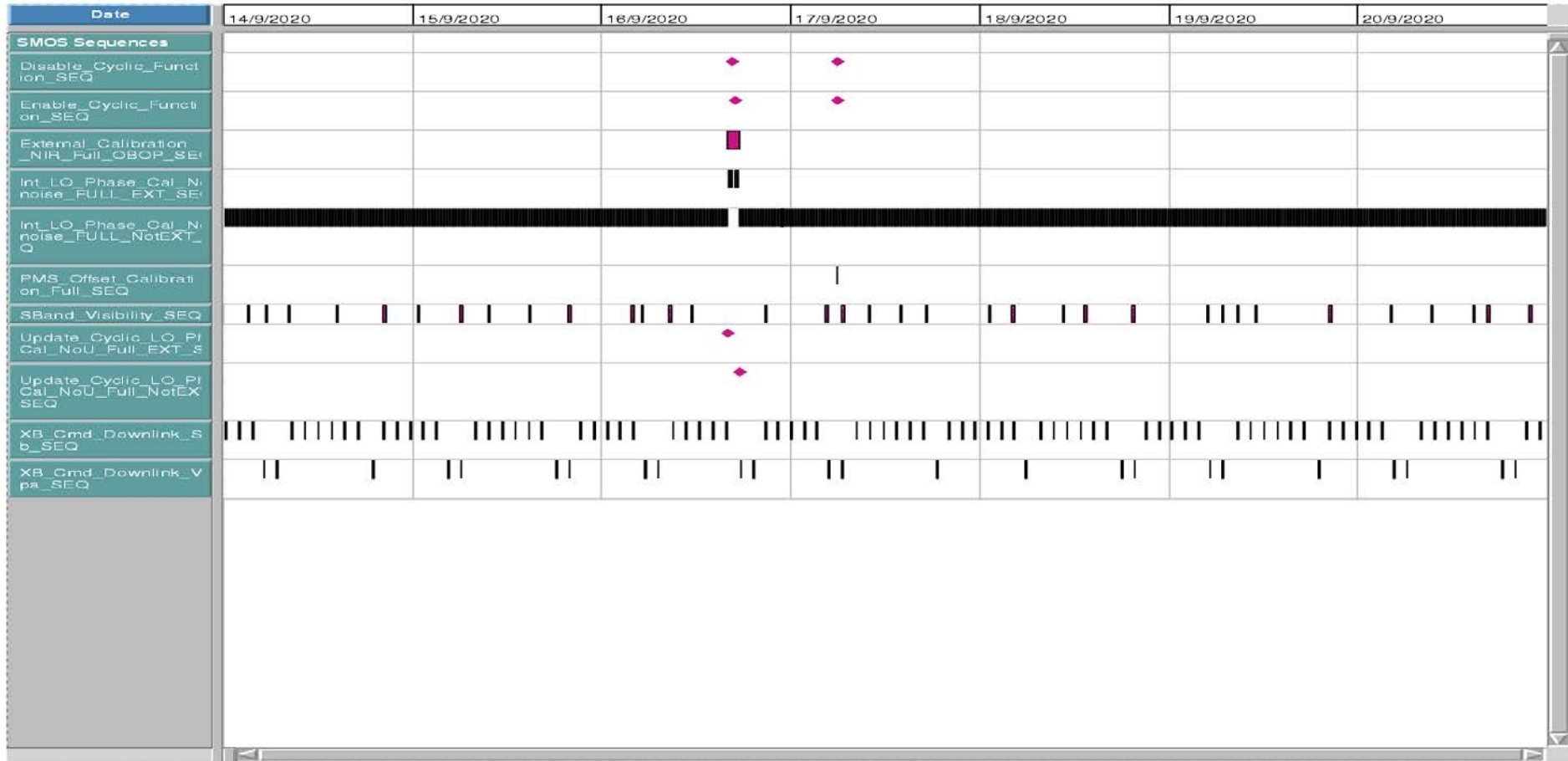
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Schedule Name: 2020\_w38\_cr ### Display start: 14-09-2020 00:00:00.000 ### Display end: 21-09-2020 00:00:00.000





### 3 TC Failures

None.

### 4 On Board Anomalies

- MIRAS instrument MM, partition P0, latched up 2020-09-18T21:38:38.445z (DOY 262). The following parameters went out of limits in the PLPC system:

2020.262.21.38.38.445z DMASME12 LU Switch P0  
2020.262.21.38.38.445z DMASME37 SDD LU Detected

This anomaly was geolocated over the Departamento de Presidente Hayes (Paraguay) near the border with Argentina:

Latitude = -24.86°

Longitude = 301.74°

There were data losses because the anomaly affected P0 and, at the time of the anomaly, the Read and Write pointers were both on partition P0. Data lost went from 2020-09-18T21:03:10z to 2020-09-18T21:38:39z.

Further there was a marginal loss of science data at recovery because it affected P0. Such unavoidable loss was minimised by applying FOS new X Band Data Dump modelling capabilities. Recovery took place Monday 21 SEP 2020, at 15:52:04z (CRF 915).

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

READ = 360711 (partition P0)

WRITE = 450864 (partition P0)

### 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	2020-09-14T10:19:19	210C500
RAM Single Bit Error	730	WARN	2020-09-17T23:16:30	200B2FC
RAM Single Bit Error	730	WARN	2020-09-18T11:06:51	206E840
RAM Single Bit Error	730	WARN	2020-09-20T23:08:14	2012D84



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### **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.

### **10 AOB**

None.



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## APPENDIX A: OOLs

At the time of the Mass Memory Latch-up anomaly the following two parameters went out limits on the PLPC system:

<b>GS_TIME</b>	<b>OB_TIME</b>	<b>PARAMETER</b>	<b>DESCRIPTION</b>	<b>OOL Value</b>	<b>Check Value</b>
2020.262.21.38.38.445	2020.263.05.22.36.213	DMASME37	SDD LU Detected	True	False
2020.262.21.38.38.445	2020.263.05.22.36.213	DMASME12	LU Switch P0	OFF	ON