



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 14, year 2021**

from 05 APR 2021 to 12 APR 2021

**1.0**

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### 1 General Comments

Activities scheduled for this week are those planned for the 14<sup>th</sup> calendar week of 2021:

05 APR 2021 to 12 APR 2021 (DOYs 095 to 102).

The following routine activities were planned this week (see Gantt chart on next page and CRF 959).

- One PMS Offset on 08 APR 2021 (DOY 098), including three Short Calibrations at 05:51:00.0z, 05:51:34.8z, and 05:52:09.6z (orbit 60077).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.



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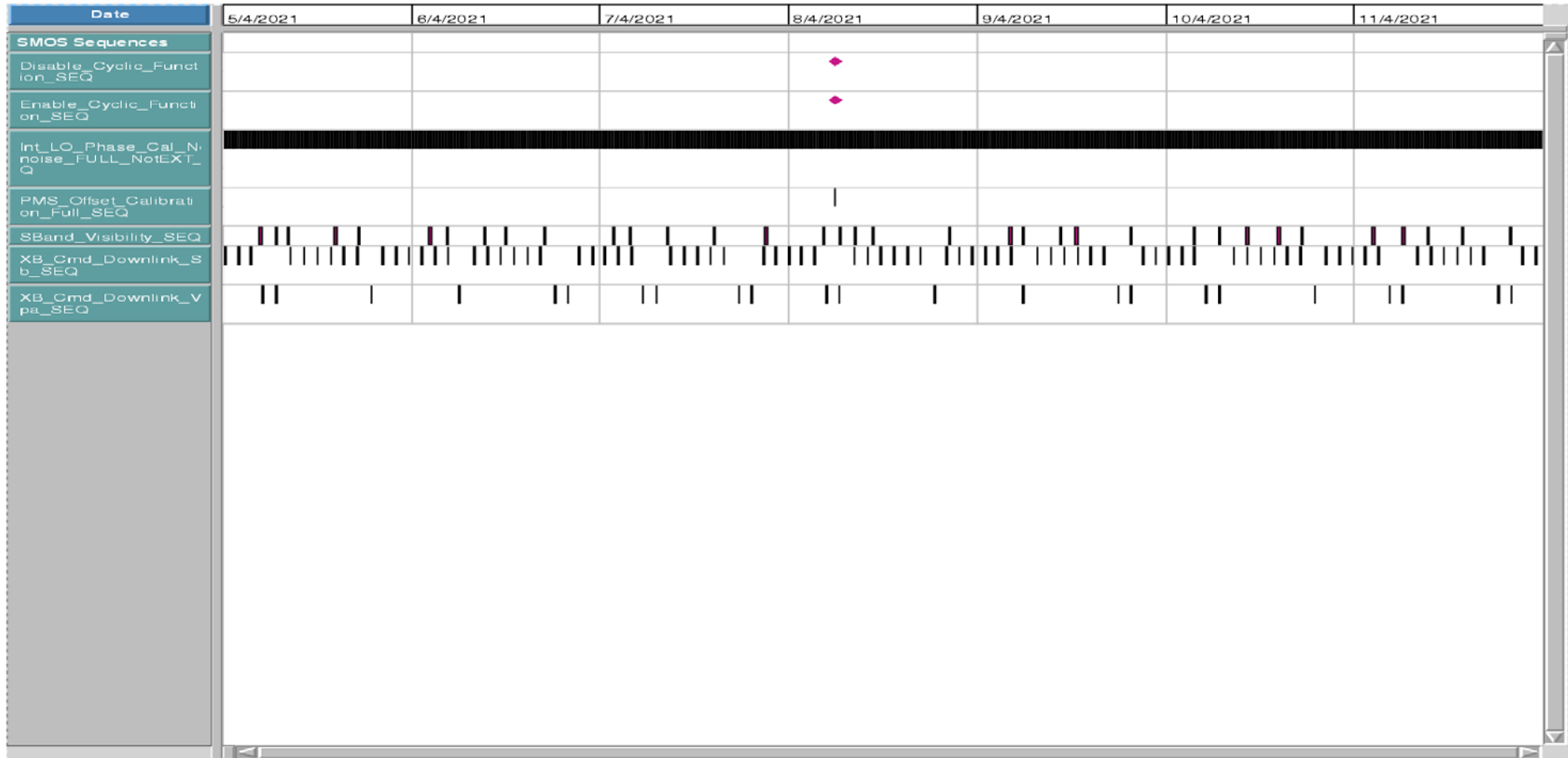
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Schedule Name: 2021\_w14\_cr ### Display start: 05-04-2021 00:00:00.000 ### Display end: 12-04-2021 00:00:00.000





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### 3 TC Failures

None.

### 4 On Board Anomalies

- The MIRAS CMN, unit H3, unlocked 2021-04-06T21:54:03.801z (DOY 096). This anomaly was geolocated over north part of Argentina at:

$$LAT = -25.61^\circ$$

$$LONG = 297.86^\circ$$

Both parameters unlock status and output power, SPM13167 and SPM13162, went out of limits in the FOS PLPC system. The anomaly recovered by itself in 2 Epochs.

- MIRAS instrument MM, partition P1, latched up 2021-04-05T20:51:33.895z (DOY 095). The following parameters went out of limits in the PLPC system:

2021.095.20.51.33.895z *DMASME11 LU Switch P1*

2021.095.20.51.33.895z *DMASME37 SDD LU Detected*

This anomaly was geolocated over the Estado do Rio de Janeiro (Brazil):

$$LAT = -20.70^\circ$$

$$LONG = 314.34^\circ$$

There were no science data losses associated with this anomaly because it affected partition P1, while the Read and Write pointers were both in partition P0. Recovery took place 06 APR 2021, at 23:30:00z (CRF 961). At the time of the anomaly the position of the MM pointers were as follows:

*READ = 201444 (partition P0)*

*WRITE = 287175 (partition P0)*

- The MIRAS CMN, unit C1, unlocked 2021-04-05T06:53:03.276z (DOY 095). This anomaly was geolocated over the North Atlantic Ocean, midway between Greenland and Iceland:

$$LAT = 64.60^\circ$$

$$LONG = 328.94^\circ$$

Only locking status parameter SPM20167, went out of limits in the FOS PLPC system. The anomaly recovered in 2 Epochs.

### 5 On Board Events Telemetry

The following RAM Single Bit errors befell this week:



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Event Description	Packet ID	Severity	Event Time	Parameters
RAM single Bit Error	730	WARN	2021-04-06T10:25:39	2322F3C

### 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

The following set of relevant out of limits were received for the reporting week all linked with the three payload anomalies detailed in section 4.

C1 Unlock generated the following temporary out of limits on the FOS PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-04-05T08:31:39	2021-04-05T06:53:03	SPM20167	C1 LO_Locking	UNLOCK	LOCK

Latch-up of MM partition P1 generated:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-04-06T02:49:26	2021-04-05T20:51:33	DMASME37	SDD LU Detected	FALSE	TRUE
2021-04-06T02:49:26	2021-04-05T20:51:33	DMASME11	LU Switch P1	OFF	ON

and H3 unlock the two following ones.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-04-07T02:18:02	2021-04-06T21:54:03	SPM13167	H3 LO_Locking	UNLOCK	LOCK
2021-04-07T02:18:02	2021-04-06T21:54:03	SPM13162	H3 LO_Out_Power	NOT-OK	OK