



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 28, year 2021

from 12 JUL 2021 to 19 JUL 2021

1.0

1 General Comments

Activities scheduled for this week are those planned for the 28th calendar week of 2021:

12 JUL 2021 to 19 JUL 2021 (DoYs 193 to 200).

The following routine activities were planned this week (see Gantt chart on next page and CRF 981).

- One PMS Offset on 15 JUL 2021 (DoY 196), including three Short Calibrations at 05:36:00.0z, 05:36:34.8z, and 05:37:09.6z (orbit 61487).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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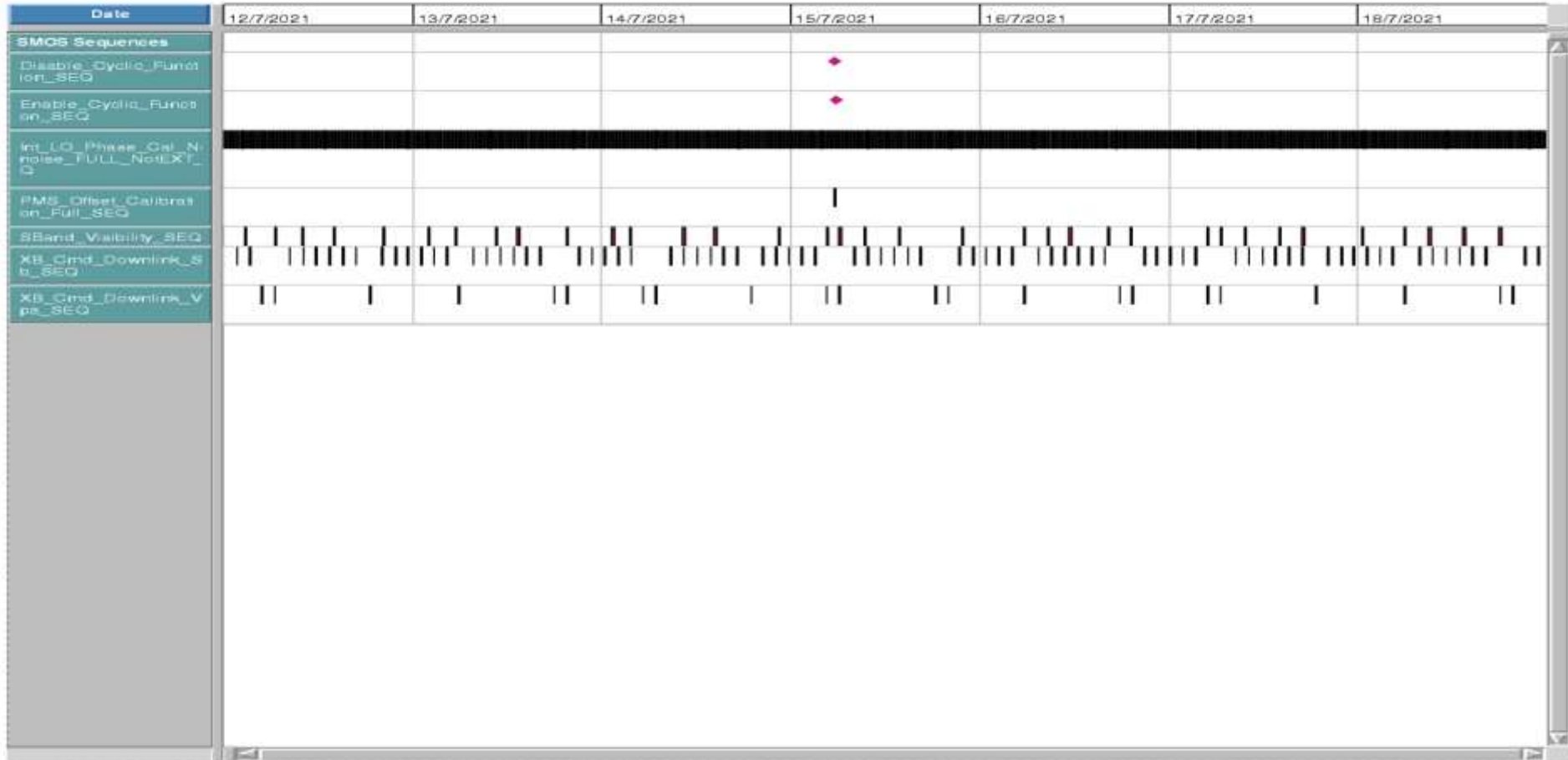
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Schedule Name: 2021_w28_es *** Display start: 12-07-2021 00:00:00.000 *** Display end: 19-07-2021 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P6, latched up 2021-07-13T19:56:21.634z (DOY 194). The following parameters went out of limits in the PLPC system:

2021.194.19.56.21.634z DMASME06 LU Switch P6
2021.194.19.56.21.634z DMASME37 SDD LU Detected

This anomaly was geolocated over the South Atlantic anomaly area:

Latitude = -15.28
Longitude = 329.04

There were no science data losses associated with this anomaly because it affected partition P6 while the Read and Write pointers were in partitions P3. At the time of the anomaly the position of the MM pointers were as follows:

READ = 1633038 (partition P3)
WRITE = 1684081 (partition P3)

- MIRAS instrument MM, partition P2, latched up 2021-07-14T20:58:03.561z (DOY 195). The following parameters went out of limits in the PLPC system:

2021.195.20.58.03.561z DMASME10 LU Switch P3
2021.195.20.58.03.561z DMASME37 SDD LU Detected

This anomaly was geolocated over the South Atlantic anomaly:

Latitude = -17.35
Longitude = 313.23

Some science data losses associated with this anomaly may have happened because it affected partition P2 while the Read and Write pointers were in partitions P3. Nevertheless no problems were seen on the following XBand pass at 22:03z. At the time of the anomaly the position of the MM pointers were as follows:

READ = 1412702 (partition P3)
WRITE = 1497366 (partition P3)

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	2021-07-14T21:19:00	23EA860
RAM single Bit Error	730	WARN	2021-07-15T10:39:07	2362ABC
RAM single Bit Error	730	WARN	2021-07-16T22:40:57	219AD00
RAM single Bit Error	730	WARN	2021-07-18T10:49:46	20108C0
RAM single Bit Error	730	WARN	2021-07-18T12:09:06	22C9C8C

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 exceptions:

- Because an issue with the receiving station, S band GS pass STC-13 (AOS 2021-07-14T03:30:52z) contained one gap of 4 PUS TM packets:

from 2021-07-14T01:28:08.687z to 2021-07-14T01:28:12.287z.

A total of 4 packets were lost. No data was filled with PXMf system due to small size of the TM gap.

8 X Band Data Reception in PXMf

In spite of the problems reported in section 7 of this report, no data was filled with PXMf system due to small size of the TM gap (a total of 4 packets were 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 P3, was impacted by a double bit error 2021-07-15T05:53:03.966z (DOY 196):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2021.196.06.34.29.739	2021.196.05.53.03.966	DMASME42	DB Err In P3	FALSE	TRUE

The following OOLs befell at the time the MIRAS instrument MM, partition P6, latched up 2021-07-13T19:56:21.634z (DOY 194):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2021.195.01.45.50.370	2021.194.19.56.21.634	DMASME37	SDD LU Detected	FALSE	TRUE
2021.195.01.45.50.370	2021.194.19.56.21.634	DMASME06	LU Switch P6	OFF	ON

The following OOLs befell at the time the MIRAS instrument MM, partition P2, latched up 2021-07-14T20:58:03.561z (DOY 195):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2021.195.23.06.17.097	2021.195.20.58.03.561	DMASME37	SDD LU Detected	FALSE	TRUE
2021.195.23.06.17.097	2021.195.20.58.03.561	DMASME10	LU Switch P3	OFF	ON