



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 35, year 2018

from 27 AUG 2018 to 03 SEP 2018

1.0

1 General Comments

Activities scheduled for this week are those planned for the 35th calendar week of 2018:

27 AUG 2018 to 03 SEP 2018 (DoYs 239 to 246).

The following routine activities were planned this week (see Gantt chart on next page and CRF 761).

- One PMS Offset on 30 AUG 2018 (DoY 242), including three Short Calibrations at 06:48:30.0z, 06:49:04.8z, and 06:49:39.6z (orbit 46379).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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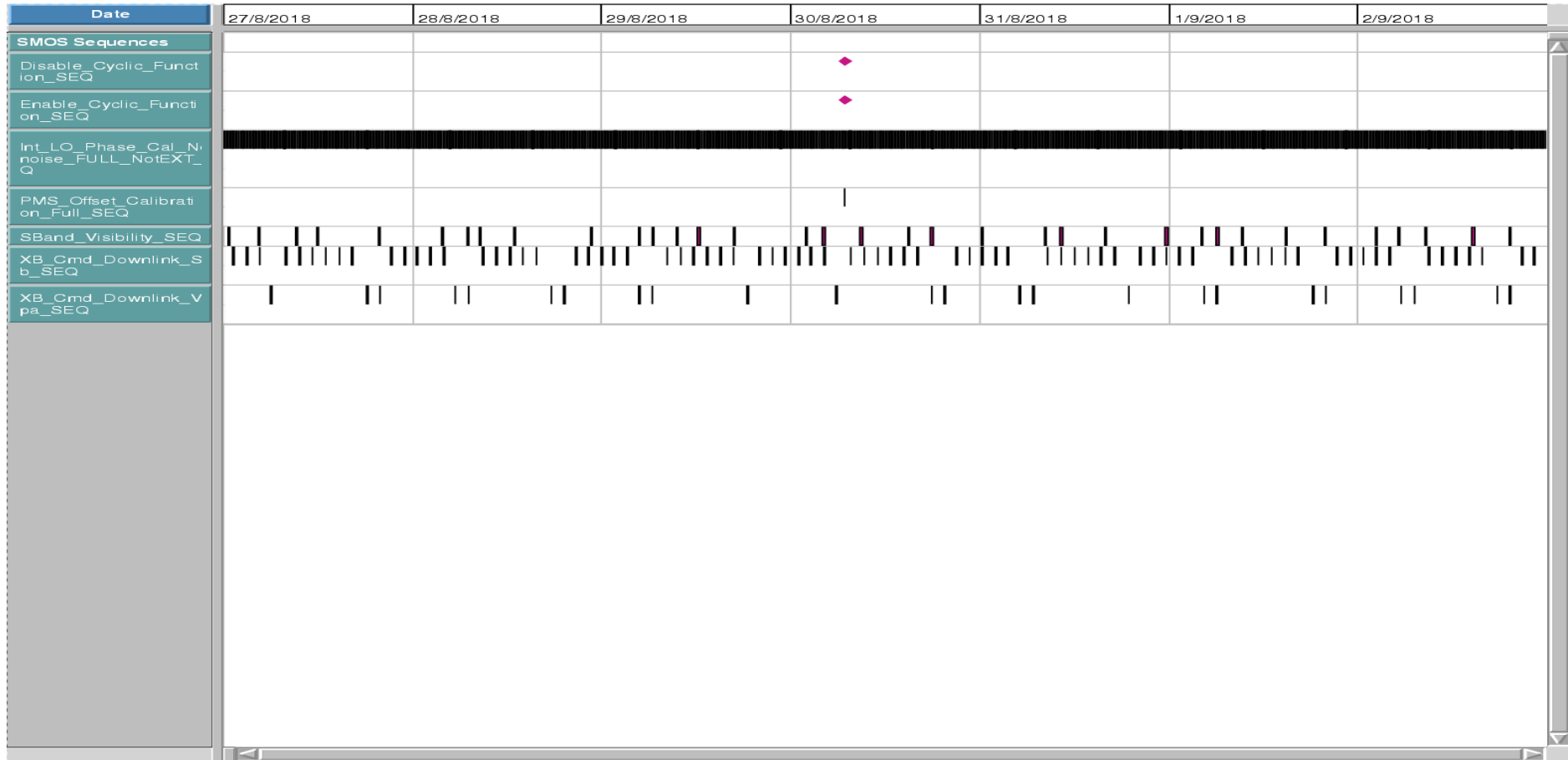
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Schedule Name: 2018_w35_cr ### Display start: 27-08-2018 00:00:00.000 ### Display end: 03-09-2018 00:00:00.000





3 TC Failures

None.

4 On Board Anomalies

- The MIRAS instrument MM, partition P3, latched up on 2018-09-01T21:50:37,240z (OBT; DoY 244).

The following parameters went out of limits in the PLPC system:

2018.244.21.50.37,240z DMASME09 LU Switch P3

2018.244.21.50.37,240z DMASME37 SDD LU Detected

This anomaly was geolocated over the states of Amazonas and Mato Grosso (Central Brasil):

LAT. = -7.85°

LONG. = 301.49°

There were no science data losses associated with this anomaly because it affected partition P3, while the Read and Write pointers were both on partition P1.

Recovery took place on 04 SEP 2018, at 03:30:00z (CRF 763).

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

READ = 465880 (partition P1)

WRITE = 543074 (partition P1)

- The MIRAS instrument CMN, unit H1, unlocked on 2018-09-02T20:43:58,465z (OBT; DoY 245).

This anomaly was geolocated over the archipelago of Franz Josef Land (Russian Arctic Ocean):

LAT. = 81.40°

LONG. = 61.79°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in 6 epochs.

- The MIRAS instrument CMN, unit H1, unlocked on 2018-09-02T21:10:51,282z (OBT; DoY 245).

This anomaly was geolocated over the states of Pará and Maranhão (Northern Brazil; South Atlantic Anomaly):

LAT. = -4.95°

LONG. = 311.87°



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Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in 13 epochs.

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	WARNING	2018.244.09.05.26,454	215E858
RAM Single Bit Error	730	WARNING	2018.242.21.15.13,137	238C4B4
RAM Single Bit Error	730	WARNING	2018.240.16.50.59,197	2399998

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:

- The following S band GS pass:

STATION	PASS	AoS	LoS
-----	-----	-----	-----
IVK	14	2018.245.12.12.34	2018.245.12.26.59

could not be acquired because of a re-scheduling error (no ONTX command had been sent). The PUS TM gap went:
from 2018-09-02T08:36:32,837z to 2018-09-02T12:14:41,427z.

To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 03 SEP 2018.

8 X Band Data Reception in PXMF

- The PXMF server was used to fill the following MIRAS PUS TM gap:
from 2018-09-02T08:36:32,837z to 2018-09-02T12:14:41,427z.
The corresponding E_HKTM was lost:
from 2018-09-02T08:36:30z to 2018-09-02T12:15:10z.

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, latched up 2018-09-01T21:50:37,240z (OBT; DoY 244):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018.245.02.49.42,341	2018.244.21.50.37,240	DMASME09	LU Switch P3	OFF	ON
2018.245.02.49.42,242	2018.244.21.50.37,240	DMASME37	SDD LU Detected	FALSE	TRUE

The following OOLs befell at the time the MIRAS instrument, unit H1, unlocked 2018-09-02T20:43:58,465z (OBT; DoY 245):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018.246.02.06.55,904	2018.245.20.43.58,465	SPM11162	H1	LO_Out_Power	NOT-OK
2018.246.02.06.55,920	2018.245.20.43.59,665	SPM11167	H1	LO_Locking	UNLOCK

The following OOLs befell at the time the MIRAS instrument, unit H1, unlocked 2018-09-02T21:10:51,282z (OBT; DoY 245):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018.246.02.08.14,020	2018.245.21:10:51,282	SPM11162	H1	LO_Out_Power	NOT-OK
2018.246.02.08.14,358	2018.245.21:10:58,482	SPM11167	H1	LO_Locking	UNLOCK