



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 07, year 2017

from 13 FEB 2017 to 20 FEB 2017

1.0

1 General Comments

Activities scheduled for this week are those planned for the 07th calendar week of 2017:

13 FEB 2017 to 20 FEB 2017 (DOYs 044 to 051).

The following routine activities were planned this week (see Gantt chart on next page and CRF 640):

- One Warm NIR Calibration on 15 FEB 2017 (DOY 046) with ETO 02:07:01z (orbit 38304) and with the following expected calibration values:

B.T.	=	3.7081°
R.M.S.	=	0.1157
Sun Elevation	=	9.9916°
Moon elevation	=	-48.5380°
R.A.	=	52.19°
DEC.	=	-18.69°
- One PMS Offset on 16 FEB 2017 (DOY 047), including three Short Calibrations at 06:46:00.0z, 06:46:34.8z, and 06:47:09.6z (orbit 38321).
- One Cold NIR Calibration on 17 FEB 2017 (DOY 048) with ETO 14:53:31z (orbit 38340) [this special NIR was required to complete the *L* band sky map created by CESBIO; 2 of 2 – see FOS weekly report from previous week]. The expected calibration values were:

B.T.	=	4.4898°
R.M.S.	=	1.6035
Sun Elevation	=	-2.1051°
Moon elevation	=	74.3719°
R.A.	=	238.02°
DEC.	=	-3.26°
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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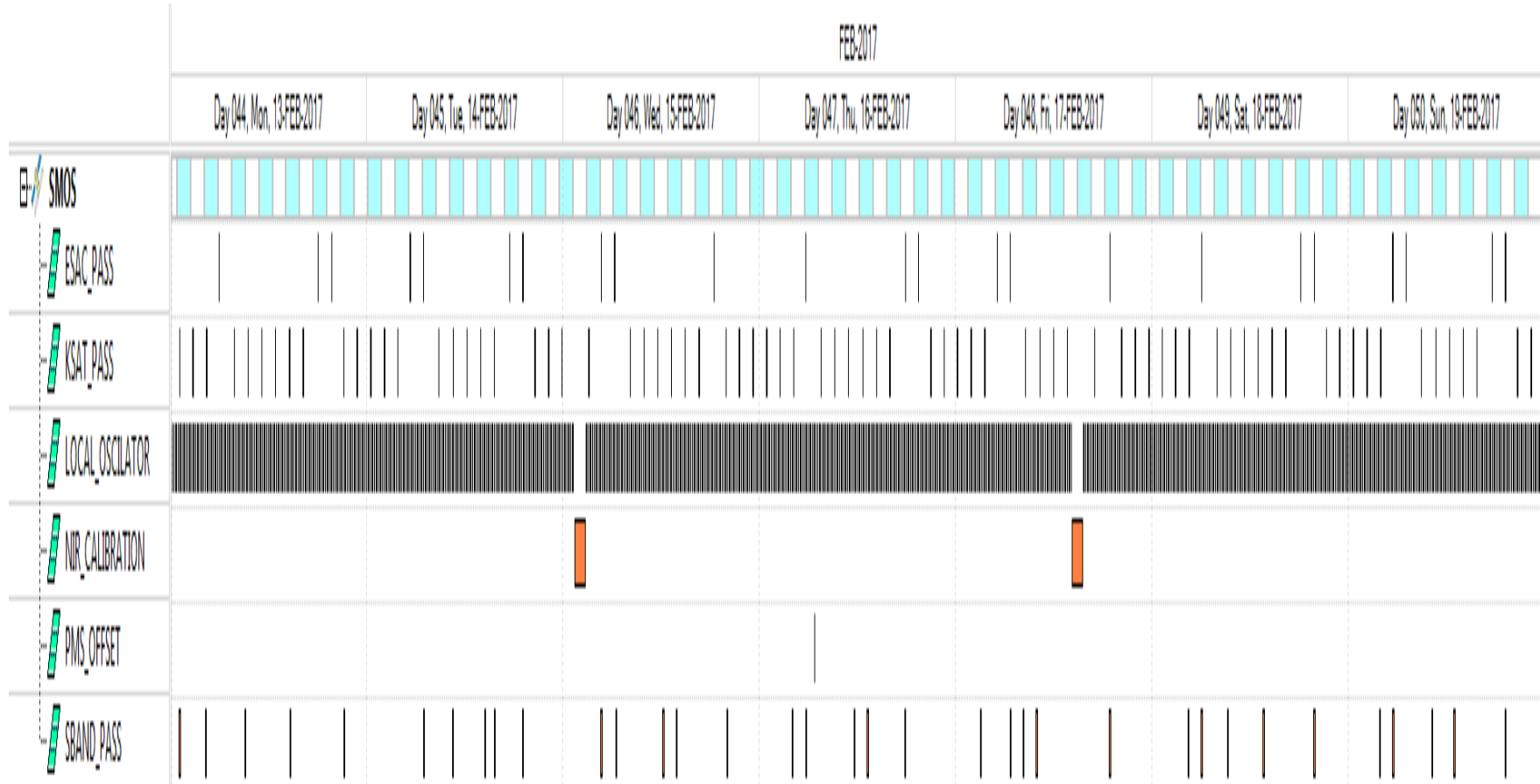
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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

The only relevant out of limits received during this week were the ones associated to the Mass Memory latch up of partition P10 on the 18th of February. (Further details on this anomaly can be found in section 5 and Appendix-A of this document)

5 On Board Anomalies

- The MIRAS instrument MM, partition P10, latched up on 2017-02-18T17:14:41.7516z (DOY 049). The following parameters went out of limits on PLPC system:

2017.049.17.14.41,751z	DMASME02	LU Switch P10
2017.049.17.14.41,751z	DMASME37	SDD LU Detected

This anomaly was geolocated over Antarctica at the following geographical coordinates:

Latitude = -73.483°

Longitude = 221.202°

There were no science data losses associated with this anomaly. Recovery took place on 20 FEB 2017, at 13:00:00z (CRF 642).

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

Write = 3305781 (partition P7)

Read = 3169869 (partition P7)

6 On Board Events Telemetry

No RAM Single Bit errors were received this week.

7 FOS Systems Status

All FOS systems nominal.

8 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system, with the following exception:

- SBand pass KRX-10 with AOS=01:05:22z, LOS=01:19:31z was not acquired due to bad weather conditions (strong winds). MIRAS PUS telemetry from 2017-02-12T20:14:08z to 2017-02-13T01:07:03z was lost at PLPC level and E_HKTM was definitely lost from 2017-02-12T20:13:55z to 2017-02-13T01:07:15z. MIRAS PUS telemetry



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was recovered from the XBand and the gap filled on MUST-SMTA system.

9 X Band Data Reception in PXMF

Due to the S-Band ground station failure reported in previous section, MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 13 FEB 2017. The gap filled went from 2017-02-12T20:14:08z to 2017-02-13T01:07:03z.

10 Exceptional Activities

None.

11 AOB

None.



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APPENDIX A: OOLS

The following Out of Limits were issued on PLPC system at the time of the P10 Mass Memory Latch-up on the 18th of February.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.049.20.25.32.922	2017.049.17.14.41.751	DMASME37	SDD LU Detected	TRUE	FALSE
2017.049.20.25.32.922	2017.049.17.14.41.751	DMASME02	LU Switch P10	OFF	ON