



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 06, year 2016

from 08 FEB 2016 to 15 FEB 2016

1.0

1 General Comments

Activities scheduled for this week are those planned for the 06th calendar week of 2016:

08 FEB 2016 to 15 FEB 2016 (DoYs 039 to 046).

The following routine activities were planned this week (see Gantt chart on next page and CRF 551):

- One PMS Offset on 11 FEB 2016 (DoY 042), including three Short Calibrations at 17:30:00.0z, 17:30:34.8z, and 17:31:09.6z (orbit 32989).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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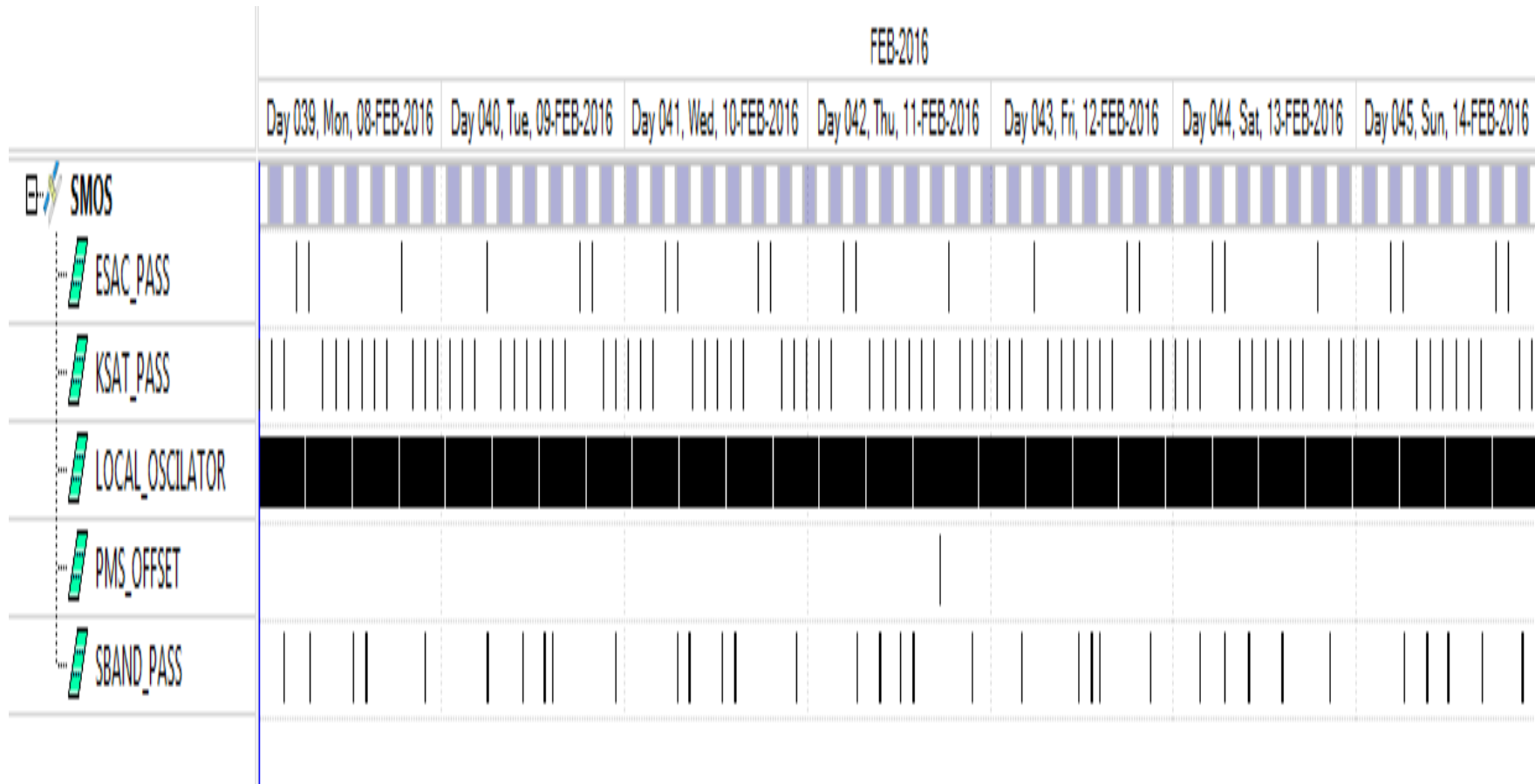
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3 TC Failures

None.

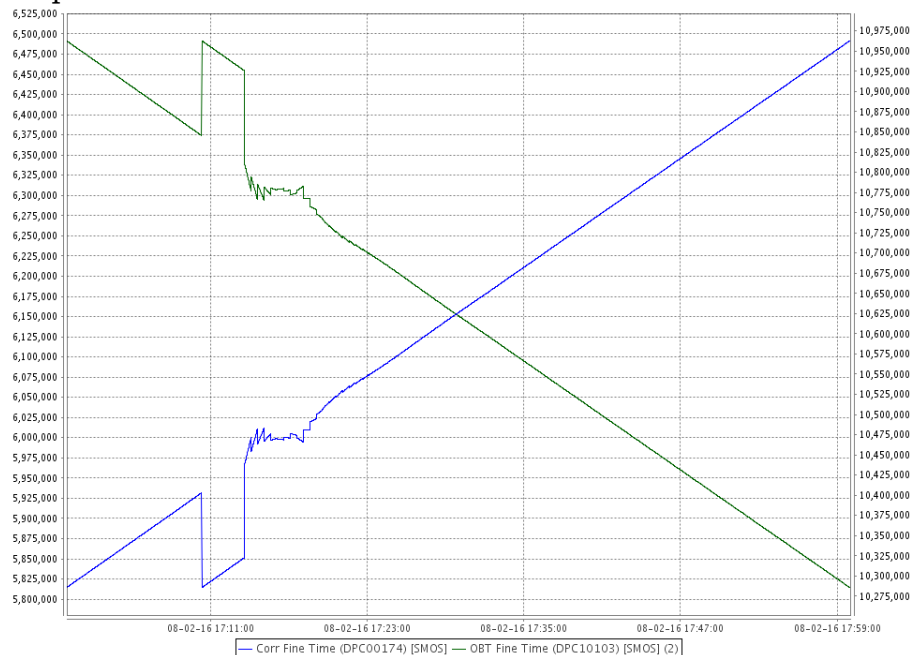
4 Unforeseen Out of Limits (OOLs)

The only relevant Out of Limits received this week were the ones linked to the CMN unlock that happened on the 2016-02-12.

5 On Board Anomalies

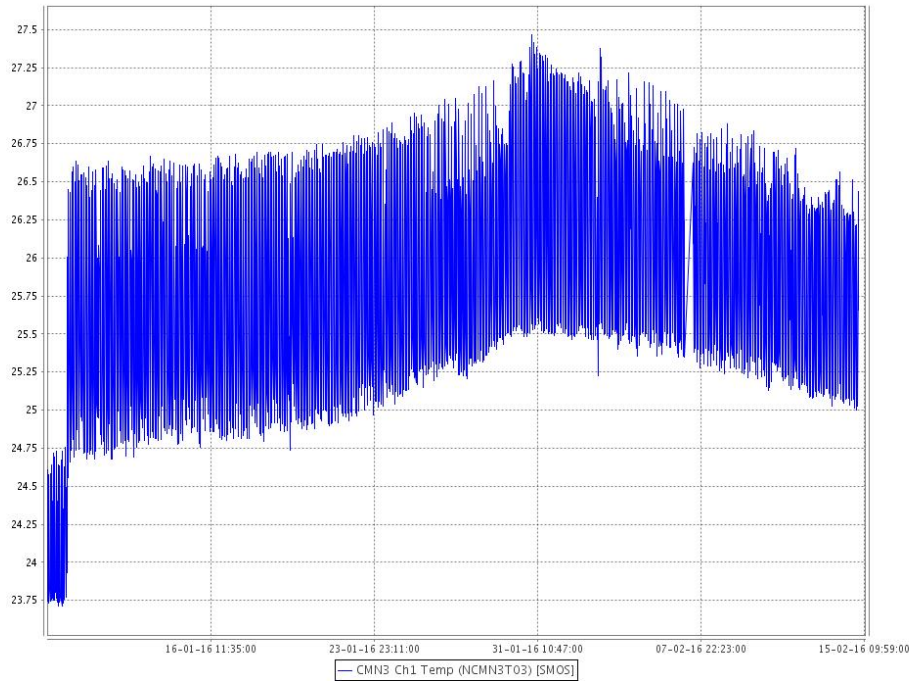
- A small drift on the MIRAS OBT fine time, parameter DPC10103 was observed from 2016-02-08T17:10:19z to 2016-02-08T17:20:06z. Also few minutes later a divergence of the GPS PVT bulletin was observed from 2016-02-10T18:09:39z to 2016-02-10T18:10:03z.. Both cases seem to be related with the GPS anomaly that PROTEUS platform is suffering from beginning of 2016 (roll-over of GPS week)

At the time of this PROTEUS problem, and when the PPS signal arrives to MIRAS, the instrument computes the so called Correlation variable which is the difference between the platform UTC and the internal MIRAS OBT time. As it is possible to see in the figure below blue line, the value of this variable gets temporary corrupted due to the platform problem. This "corruption" is then translated to the MIRAS OBT (green line) since at PPS reception the OBT is updated with the new computed value of this Correlation variable.





- The temperature of LICEF A10 is progressively decreasing according with the seasonal evolution of this temperature at this time of the year. Nevertheless the values are still around 1.5 degrees higher than the normal values at this time of the year. High-Soft limits, values higher than 26 degrees, are still received on PLPC system but it should disappear soon since the average value per orbit is currently decreasing below 26 degrees (see Figure below)



- MIRAS suffered a new CMN unlock on 2016-02-12T08:52:36,114z (OBT) affecting unit B2.

The anomaly was geolocated over eastern Brazil with the following coordinates:

LAT. = -11.770954
LONG. = 318,616606

Both parameters, output power SPM18162 and locking status SPM18167, went out of limits in the FOS PLPC system.

The anomaly recovered in 5 Epochs.

6 On Board Events Telemetry

The following RAM Single Bit Errors befell this week:

Event Description	Severity	Event Time	Parameters
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RAM single Bit Error	WARN	2016.042.21.00.39.778	205C9A8
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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.

9 X Band Data Reception in PXMF

None, all S Band Passes successfully received and processed.

10 Exceptional Activities

None.

11 AOB

None.



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APPENDIX A: OOLs

The following Out of Limits were received at the time of the CMN Unlock on 2016-02-12.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2016.043.12.28.48.682	2016.043.08.52.37.314	SPM18167	B2 LO_Locking	UNLOCK	LOCK
2016.043.12.28.48.572	2016.043.08.52.36.114	SPM18162	B2 LO_Out_Power	NOT-OK	OK