Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 02, year 2017

from 09 JAN 2017 to 16 JAN 2017

1.0

1   General Comments

Activities scheduled for this week are those planned for the 2th calendar week of 2017:

```
09 JAN 2017 to 16 JAN 2017 (DOYs 009 to 016).
```

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

- One PMS Offset on 12 JAN 2017 (DOY 012), including three Short Calibrations at 14:27:40.0z, 14:28:14.8z, and 14:28:09.6z (orbit 35197).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2   Mission Planning Deviations

None.

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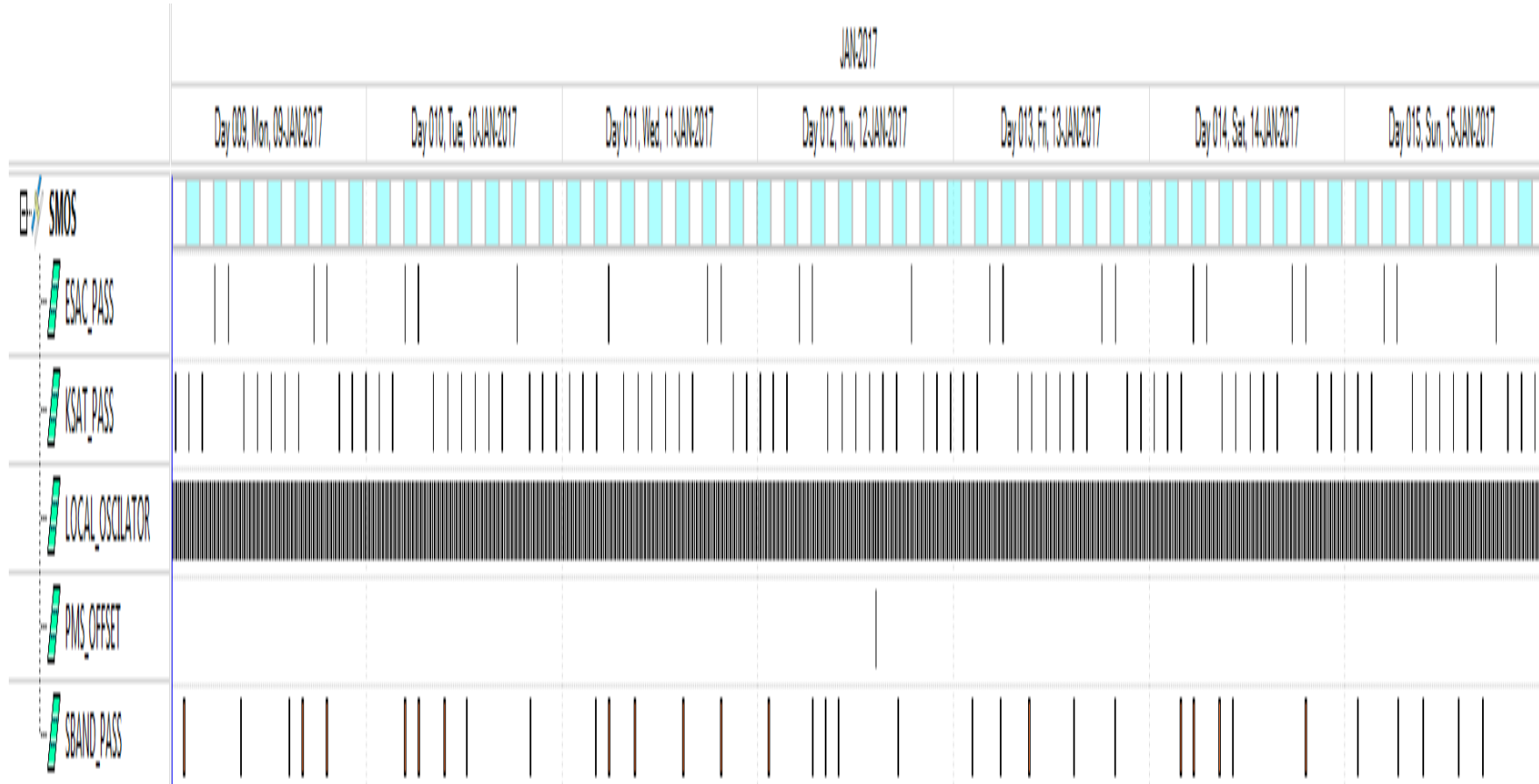*FOS Team @ ESAC*

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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

Two sets of unexpected OOLs were issued by PLPC system at the time of the Mass Memory Latch-up on the 13th of January and the Mass Memory Double Bit Memory error on partition P1. Further details of these OOLs can be found in section 5 and Appendix-A of this report.

5 On Board Anomalies

- A Double Bit memory error in Mass Memory partition P1 happened on day 2017-01-15T17:25:03.711z, at that time the following TM Parameter went OOL on PLPC system:

  DMASME40 DB Err In P1 with value False.

  Also at the same time the following parameters went out of Soft limits on PLPC system:

  NMASME08 Last IP SB Errs with value 9
  NMASME09 Last IP DB Errs with value 1
  NMASME11 SB Err Cnt P1 with value 9

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

  Write Pointer= 1363127 (P3)
  Read pointer = 1259475 (P2)

  The anomaly recovery itself therefore no operational action was required.

- The MIRAS instrument MM, partition P11, latched up on 2017-01-13T00:14:20.598z (DOY 013). The following parameters went out of limits in the PLPC system:

  2017.013.00.14.20.598Z DMASME01   LU Switch P11
  2017.013.00.14.20.598z DMASME37   SDD LU Detected

  This anomaly was geolocated over South-East Pacific Ocean at the following geographical coordinates:

  Latitude   = -28.955
  Longitude   = 261.733

  No science data losses did occur for this anomaly. Recovery took place on 13 JAN 2017, at 16:00:00z (CRF 633). At the time of the anomaly the position of the MM pointers were as follows:

  READ   = 3434391 (partition P7)

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WRITE   = 3339762   (partition P7)

6 On Board Events Telemetry

The following RAM Single Bit errors befell this week:

Event Description	Severity	Event Time	Parameters
RAM single Bit Error	WARN	2017.009.22.45.29.271	21AB84C
RAM single Bit Error	WARN	2017.009.08.45.52.782	20D812C

7 FOS Systems Status

All FOS systems nominal.

- On 10th of January 2017, old PLPCPRM/BKP and PXMFPRM/BKP systems were shutdown, permanently disconnected from the FOS network, and decommissioned.

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 Hard OOL was issued by PLPC system at the time of the Mass Memory Double bit memory error on partition P1.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.016.01.26.53.113	2017.015.17.25.03.711	DMASME40	DB Err In P1	FALSE	TRUE

The Mass Memory Latch-up on partition P11 on 2017-01-13T03:15:27Z generated the following two OOLs on PLPC system.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.013.03.15.27.454	2017.013.00.14.20.598	DMASME37	SDD LU Detected	FALSE	TRUE
2017.013.03.15.27.454	2017.013.00.14.20.598	DMASME01	LU Switch P11	OFF	ON