



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 03, year 2017

from 16 JAN 2017 to 23 JAN 2017

1.0

1 General Comments

Activities scheduled for this week are those planned for the 3rd calendar week of 2017:

16 JAN 2017 to 23 JAN 2017 (DOYs 016 to 023).

The following routine activities were planned this week (see Gantt chart on next page and CRF 632):

- One Warm NIR Calibration on 18 JAN 2017 (DOY 018) with ETO 03:36:10z (orbit 37902) and with the following expected calibration values:

B.T.	=	3.6509°
R.M.S.	=	0.0707
Sun Elevation	=	9.9724°
Moon elevation	=	-67.3825°
R.A.	=	25.13°
DEC.	=	-15.69°
- One PMS Offset on 19 JAN 2017 (DOY 019), including three Short Calibrations at 06:36:00.0z, 06:36:34.8z, and 06:37:09.6z (orbit 37918).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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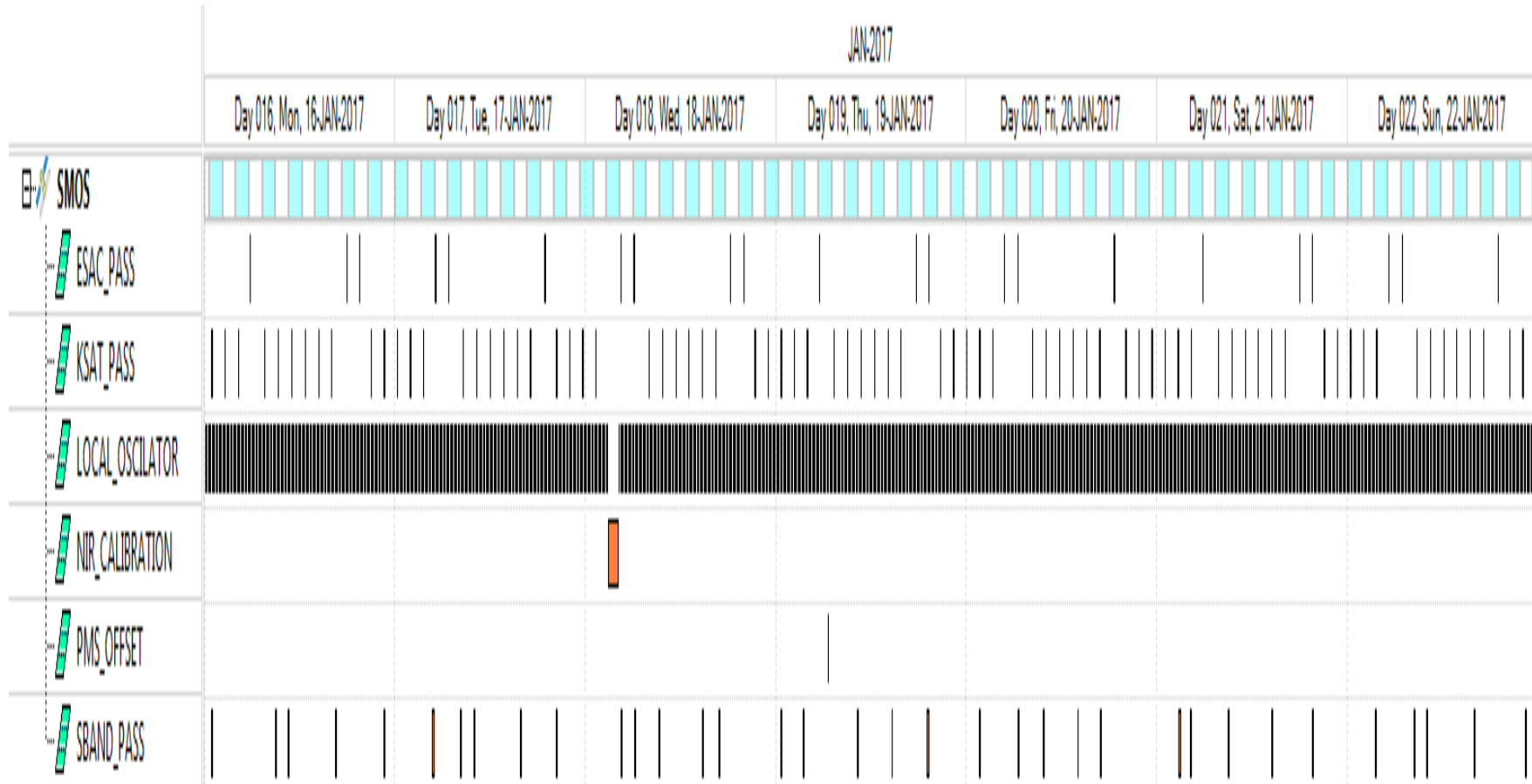
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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

The only unforeseen and relevant out of limits issued this week by the PLPC system, were the ones related to the Mass Memory Latch-up on the 16th of January and the Mass Memory double bit memory error on the 17th of January. Further details can be found on section 5 and Appendix-A of this document.

5 On Board Anomalies

- Double Bit memory error in Mass Memory partition P7 on day 2017-01-17T19:37:58.300z, at that time the following TM Parameter went OOL on PLPC system:

DMASME46 DB Err In P7 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 13

NMASME09 Last IP DB Errs with value 1

NMASME17 SB Err Cnt P7 with value 13

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

Write Pointer= 1013710 (P2)

Read pointer = 910626 (P2)

No data corruption took place for this case since the error it happened in a partition still to be written

- The MIRAS instrument MM, partition P11, latched up on 2017-01-16T04:22:19,707z (DOY 016). The following parameters went out of limits in the PLPC system at that time:

DMASME01 LU Switch P11

DMASME37 SDD LU Detected

This anomaly was geolocated over the north-eastern coast of Greenland:

Latitude = +78.131455

Longitude = 339.776080

There were no science data losses associated with this anomaly because it affected one of the spare partitions (P11), while the Read and Write pointers were both on partition P6. Recovery took place on 17 JAN 2017, at 11:00:00z (CRF 634). At the time of the anomaly the position of the MM pointers were as follows:

Write Pointer = 3033708 (P6)

Read Pointer = 3024051 (P6)



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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	2017.022.11.42.26.826	2199A34
RAM single Bit Error	WARN	2017.021.22.49.43.152	2312218

7 FOS Systems Status

- On the 21st of January, one of the fans of FOS Switch-6 (subnetwork-4) failed. Due to that DPGS operator onsite changed it using a spare unit already available on DPGS side.

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 Mass Memory double bit memory error on the 17 of January generated the following Hard OOL on PLPC system.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.017.21.04.22.030	2017.017.19.37.58.300	DMASME46	DB Err In P7	TRUE	FALSE

At the time of the Mass Memory Error on partition P11 the following two OOLs were generated on PLPC system.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.016.09.38.28.960	2017.016.04.22.19.707	DMASME37	SDD LU Detected	TRUE	FALSE
2017.016.09.38.28.960	2017.016.04.22.19.707	DMASME01	LU Switch P11	OFF	ON