

FOS Team @ ESAC Reported by:

J. Fauste/J.M. Castro Cerón

Topic: Date:

Issue:

FOS Report for week 08, year 2017

from 20 FEB 2017 to 27 FEB 2017

1.0

1 General Comments

Activities scheduled for this week are those planned for the 8th calendar week of year 2017:

20 FEB 2017 to 27 FEB 2017 (DOYs 051 to 058).

The following routine activities were planned this week (see Gantt chart on next page and CRF 641):

- One PMS Offset on 23 FEB 2017 (DOY 054), including three Short Calibrations at 07:13:00.0z, 07:13:34.8z, and 07:14:09.6z (orbit 38422).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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	FEB.0017						
	Day 051, Mon, 20-FEB-2017	Day 052, Tue, 21, FEB-2017	Day 053, Wed, 22-FEB-2017	Day 054, Thu, 23-FEB-2017	Day 055, Fri, 24-FEB-2017	Day 056, Sat, 25FEB-2017	Day 057, Sun, 26-FEB-2017
E-√ SMOS							
ESAC_PASS							
- A KSAT PASS							
- LOCAL_OSCILATOR							
- PMC_OFFSET							
SRAND_PASS							



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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

The only relevant Out of Limits issued by the FOS PLPC system during this week, were the ones related with the Mass Memory Latch up that took place on the 20th of February (see further details in section five and Appendix-A of this document)

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5 On Board Anomalies

The MIRAS instrument MM, partition P3, latched up on 2017-02-20T18:51:38,775z (DOY 051). The following parameters went out of limits in the PLPC system:

2017.051.18.51.38,775z DMASME09 LU Switch P3 2017.051.18.51.38,775z DMASME37 SDD LU Detected

This anomaly was geolocated halfway between the Islands of Ascension and Saint Helena (South Atlantic Anomaly):

Latitude = -13.52° Longitude = 345.06°

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 P6. Recovery took place on 21 FEB 2017, at 09:00:00z (CRF 643). At the time of the anomaly the position of the MM pointers were as follows:

READ = 2821198 (partition P6) WRITE = 2864860 (partition P6)

6 On Board Events Telemetry

The following four RAM Single Bit errors befell this week:

Event Description	ID	Severity	Event Time	Param
RAM single Bit Error	730	WARN	2017-02-22 10:59:15	2041E18
RAM single Bit Error	730	WARN	2017-02-22 23:03:14	2041E18
RAM single Bit Error	730	WARN	2017-02-23 04:59:28	2041E18
RAM single Bit Error	730	WARN	2017-02-26 23:19:48	2041E18

7 FOS Systems Status

All FOS systems nominal.

SMOS

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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.

SMOS

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APPENDIX A: OOLs

The following Out of Limits were issued by FOS PLPC system at the time of the Mass Memory Latch-up in partition P3 on the 20^{th} of February 2017.

Topic:

Date:

GS Time	OBT Time	Parameter	Description	OOL Value	Check Value
2017-02-21T04:36:29	2017-02-20T18:51:38	DMASME37	SDD LU Detected	FALSE	TRUE
2017-02-21T04:36:29	2017-02-20T18:51:38	DMASME09	LU Switch P3	OFF	ON