

Topic: Date: Issue:

FOS Report for week 42 from the 13/10/14 to the 20/10/14

1.0

1 General Comments

The activities scheduled for this week are those planned for calendar week 42 of year 2014, from 13/10/2014 to 20/10/2014 (DOYs 286 to 293).

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

- X-band passes over ESAC and Svalbard.
- One NIR External Calibration on 15/10/2014 with ETO at 18:29:00 with the following calibration values.

Brightness Temperature=3.987190 RMS= 0.812546 Sun Elevation above MIRAS=9.99 RA=108.099693 DEC-49.192546

- 2 LONG Calibrations on 16/10/2014. Start time at 15:51:22 and 17:56:26
- Local oscillator calibration every 10 minutes.

2 Mission Planning Deviation

No deviations from the nominal planning happened during this week.

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	OCT-2014															
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Disable_Cyclic_Function_SEQ						8	†	† †								
Enable_Cyclic_Function_SEQ							1	11)							
Update_Cyclic_LO_Ph_Cal_NoU_Full_NotEXT_SEQ							†									
Long_Calibration_Full_OBOP_SEQ								[]								

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3 TC Failures

None.

4 Unforeseen Out Of Limits (OOLs)

The list of out limits received during this week can be seen in Appendix-A.

5 On Board Anomalies

The following payload anomalies happened during this reporting period:

 A new CMN unlock on H3 unit on day 17/10/2014 at 21:31:00z. In this case unlock and power output parameters triggered OOL alarm in PLPC system. The geolocation of the event was over South America with the following geographical coordinates:

> Lat= -11.735279 Long= 305.495678

The anomaly produced 10 minutes of degraded data.

• A new Mass Memory Latch up happened in partition P1 on day 19/10/2014 at 09:15:51z. At the time of the anomaly. MM Write pointer was located in partition P8 and Read pointer in partition P7 due to that no data losses are expected. The geolocation of the event was over South America with the following geographical coordinates:

Lat= 12.698201 Long= 312.948034

The anomaly was recovered by execution of procedure PRO-CRP-800 and CRF-453 on day 20/10/2014 at 16:00z.

6 Telemetry On Board Events in the period.

The following RAM single bit errors happened during this week:

Event Description	Severity	Event Time	Parameters		
RAM Single Bit Error	WARN	2014.284.11.06.06.985	21B2FF0		
RAM Single Bit Error	WARN	2014.290.10.41.37.367	217C6D4		

7 FOS System Status

All FOS systems behaved nominal during this period.

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8 Data Reception from CNES

- On day 13/10/2014 and from 10:17:23z to 10:29:34z Earth processing time, Telemetry data for Ground Station pass Kourou-5 appears to be duplicated since the Source Sequence counter of the different MIRAS packets was repeated during that time interval. All the onboard data between 02:44:06z and 07:02:39z on that day was therefore duplicated and partially archived with the wrong time stamp. As consequence of that PLPC time correlation coefficients were not possible to update from 10:24:48z to 10:29:34z and the following message repeatedly issued by the PLPC Event Logger: "Time Couple OBET lower than expected".
- On day 19/10/2014 and for ground station pass SKRN01-21 at 19:42z, MIRAS telemetry data was not complete since there was a big telemetry gap from onboard time 2014-10-19T13:39:14z to 2014-10-19T18:07:13z. For that pass only one Telemetry file SMO_PLTM1_P_2014_10_19_19_47_59, was transferred from CNES.

9 X-Band Data Reception in PXMF

Not used during the present period.

10 Exceptional Activities

None

11 AOB

None.



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APPENDIX A: OOL's

The following Out of Limits related with the two anomalies that took place during the present reporting week, CMN Unlock and MM Latch up, were received on the FOS PLPC system.

ОВТ	Severity	TM Parameter	Alarm Value	Check Value	TM Description
2014.290.21.31.00.067	Hard-High	SPM13167	Unlock	LOCK	H3 LO_Locking
2014.290.21.31.00.067	Hard-High	SPM13162	NOT-OK	O.K	H# LO_Out_Power
2014.292.09.15.51.772	Hard-High	DMASME37	False	TRUE	SDD LU Detected
2014.292.09.15.51.772	Hard-High	DMASME11	OFF	ON	LU Switch P1