



## Operations Notes

FOS Team @ ESAC

Reported by: J. Fauste

Topic:

Date:

Issue:

**FOS Report for week 49**  
from the 01/12/14 to the 08/12/14

**1.0**

### 1 General Comments

The activities scheduled for this week are those planned for calendar week 49 of year 2014, from 01/12/2014 to 08/12/2014 (DOYs 335 to 342).

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

- X-band passes over ESAC and Svalbard.
- One PMS offset including three Short Calibrations on day 04/12/2014 (orbit 26744) at 17:24:03.000z, 17:24:37.800 and 17:25:12.600.
- Local oscillator calibration every 10 minutes.

### 2 Mission Planning Deviation

No deviations from the nominal planning happened during this week.





### 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 C3 unit on day 03/12/2014 at 19:22:51z. The geolocation of the event was over South Atlantic Anomaly with the following geographical coordinates:  
Lat=-17.021390  
Lon= 336.699255  
The instrument recovery from the anomaly in 11 epochs producing 10 minutes of degraded data.

### 6 Telemetry On Board Events in the period.

The following Ram single bit errors were received during this reporting week.

Event Description	Severity	Event Time	Parameters
RAM Single Bit Error	WARN	2014.337.10.11.42.944	200B6C8
RAM Single Bit Error	WARN	2014.340.21.38.26.624	23EF684

### 7 FOS System Status

All FOS systems behaved nominal during this period.

### 8 Data Reception from CNES

All SBand passes of the week were correctly received from CNES and successfully processed by the FOS PLPC system.

### 9 X-Band Data Reception in PXMF

Not used during the present period.

### 10 Exceptional Activities

The following exceptional event happened during this week:

On day 03/12/2014 and around 20:04 UTC, the FOS Oncall phone received a call from KSAT saying that data from XBand pass at 19:51z was not received in Svalbard. Since this was the first pass lost, FOS



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manager requested to call back in case the following pass at 21:30z were not received.

Since this was considered a potential indication of a CCU reset, CNES hotline was called indicating that a potential CCU reset could have already happen and if so they should be able to see it at the next SBand pass a 21:30 z (both passes SBand and XBand almost coincide in time)

Around 21:45z KSAT team sent the usual email saying that no data was again received in Svalbard for the pass at 21:30z. FOS Manager then decided to call them back at 21:54z to know more details. They confirmed that in fact they did not see any data from the instrument for that pass.

At 22:03z FOS Manager also called CNES hotline to check whether or not they have seen the CCU reset. They confirmed that anomaly event although I call them back again to further check if the instrument did fully recover from the anomaly. At that time CNES confirmed that no alarms were received on CNES side therefore the CCU did not really happened at least with its nominal flavour.

Around 22:30z FOS Manager checked from home the telemetry report from the last SBand pass. In that general report there were no indications of CCU reset or any other problem.

Around 22:45z FOS interchanged few SMS with CNES where they confirmed again that no alarms were received and no CCU happened. Around 22:45z FOS Manager decided to come to ESAC to discard any other possible problem or anomaly. All the investigations on side discard any possible instrument anomaly and everything seems nominal.

FOS Manager called again KSAT around 00:00z explaining that in principle no obvious instrument problem is happening therefore the anomaly should be in their side. At that time KSAT realised that they had an alarm in their system and FOS Manager I ask them to "reboot" their system and try to acquire the following XBand pass at 00:47z. In the meantime another SBand GS pass is received at ESAC where everything looks again fine.

FOS Manager called again KSAT around 01:05z to verify whether or not they pass have received, they confirmed at that time that the pass was successfully received by a back up antenna.

The final problem was identified at HRDFEP ground antenna amplifier and as consequence of that three XBand passes were lost.



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### **11 AOB**

None.



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### APPENDIX A: OOL's

The following Out of Limits related with the CMN unlock on the 3<sup>rd</sup> of December were received at FOS PLPC system.

OBT	Severity	TM Parameter	Alarm Value	Check Value	TM Description
2014.337.19.22.51.156	Hard-High	SPM22167	Unlock	LOCK	C3 LO_Locking