



1 General Comments

The activities scheduled for this week are those planned for calendar week 28 of year 2015, from 2015-07-06 to 2015-07-13 (DOYs 187 to 194.)

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

- One NIR calibration on day 2015-07-08 with ETO time at 06:40:30z and with the following expected calibration values:
Sun Elevation=9.1947 degrees
RMS= 0.15810
BT= 3.5561
RA= 201.87 degrees
DEC= 35.96 degrees
- One PMS offset including three Short Calibrations on day 2015-07-09 (orbit 29765) at 13:16:00.000z, 13:16:34.800z and 13:17:09:600.
- Local oscillator calibration every 10 minutes.
- X-Band Passes over ESAC and Svalbard.

2 Mission Planning Deviation

No deviations from the nominal planning happened during this week.



Operations Notes

FOS Team @ ESAC

Reported by: J. Fauste

Topic:

Date:

Issue:

FOS Report for week 28
from the 06/07/15 to the 13/07/15

1.0

| | JUL-2015 | | | | | | |
|--------------------------------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Mon, 06-JUL-2015 | Tue, 07-JUL-2015 | Wed, 08-JUL-2015 | Thu, 09-JUL-2015 | Fri, 10-JUL-2015 | Sat, 11-JUL-2015 | Sun, 12-JUL-2015 |
| Int_LO_Phase_Cal_NoUnoise_FULL_Not | [Solid black bar] | | | | | | |
| XB_Cmd_Downlink_Svalb_SEQ | [Vertical tick marks] | | | | | | |
| SBand_Visibility_SEQ | [Vertical tick marks] | | | | | | |
| XB_Cmd_Downlink_Vilspa_SEQ | [Vertical tick marks] | | | | | | |
| Update_Cyclic_LO_Ph_Cal_NoU_Full_EX | | | ◆ | | | | |
| External_Calibration_NIR_Full_OBOP_S | | | █ | | | | |
| Int_LO_Phase_Cal_NoUnoise_FULL_EXT | | | █ | | | | |
| Disable_Cyclic_Function_SEQ | | | ◆ | ◆ | | | |
| Enable_Cyclic_Function_SEQ | | | ◆ | ◆ | | | |
| Update_Cyclic_LO_Ph_Cal_NoU_Full_No | | | ◆ | | | | |
| PMS_Offset_Calibration_Full_SEQ | | | | | | | |



3 TC Failures

None.

4 Unforeseen Out Of Limits (OOLs)

The only relevant Out of Limits for this reporting week were the ones related with the Mass Memory Latch up and its recovery on 2015-07-07.

5 On Board Anomalies

- A new Mass Memory Latch up for partition P8 happened on 2015-07-07 at 08:16:30.646z. The geolocation of this event was over the South Atlantic with the following geographical coordinates:

Long = 327.550361

Lat = -11.174732

No impact on science data happened for this anomaly. The anomaly recovery took place on 2015-07-08 at 12:30z via CRF 507.

- After the latch up recovery and at the time when the Mass Memory scrubbing task was running over partition P8, several single and double bit memory errors, soft out of limit values, were generated from 2015-07-08T13:37:19z to 2015-07-08T13:43:09z. The affected MIRAS parameters were: NMASME08, NMASME09 and NMASME18. The parameters went back to limits as soon as the scrubbing function left partition P8. The time that the scrubbing function takes to swap each partition is around 350 seconds.

6 Telemetry On Board Events in the period.

The following RAM Single bit errors were received during this week:

| Event Description | Severity | Event Time | Parameters |
|----------------------|----------|-----------------------|------------|
| RAM single Bit Error | WARN | 2015.190.08.42.08.821 | 21C2268 |

7 FOS System Status

All FOS systems behaved nominal during this reporting period.

8 Data Reception from CNES

All SBand passes have been received at ESAC and successfully processed by FOS PLPC system with the exception of:



- A Telemetry data gap from 2015-07-07T11:06:00z to 2015-07-07T11:22:17 was detected for GS pass KER-14 (start time of the pass 12:36z), as consequence of this gap 1809 telemetry got lost. The gap was also detected by CNES and after further agreement on the phone with FOS, the TM files for that GS pass were again sent using the CNES backup earth terminal server for that station. These new files were received without any problem and with no data gaps.
- All telemetry data from ground station pass AUS-10 (AoS = 19:51:53z; LoS = 20:03:51) on 2015-07-09 (DoY 190) were lost. As consequence of this, 8256 packets of PUS telemetry were lost. Since data for that pass was not possible to recover it, E_HKTM was completely lost but MIRAS PUS telemetry was recovered and archive on SMTA MUST archive via X-band.

9 X-Band Data Reception in PXMF

Due to the GS failure for GS pass AUS-10, here above reported, PXMF system was used to recover the PUS Telemetry gap from 2015-07-08T13:40:37 to 2015-07-08T19:55:07 (DoY 189)

10 Exceptional Activities

None.

11 AOB

None.



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APPENDIX A: OOL's

The following Out of Limits related with the Mass Memory latch up on 2015-07-07, were received during this reporting period:

| GS_TIME | OBTIME | PARAMETER | DESCRIPTION |
|-----------------------|-----------------------|-----------|-----------------|
| 2015.188.10.29.06.809 | 2015.188.08.16.29.446 | DMASME04 | LU Switch P8 |
| 2015.188.10.29.06.800 | 2015.188.08.16.29.446 | DMASME37 | SDD LU Detected |