

Operations Notes FOS Team @ ESAC Reported by:

Topic: Date:

Issue:

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 2^{nd} calendar week of 2016:

11 JAN 2016 to 18 JAN 2016 (DoYs 011 to 018).

The following routine activities were planned this week (see Gantt chart on next page and CRF 547):

- One PMS Offset on 14 JAN 2016 (DoY 014), including three Short Calibrations at 12:18:00.0z, 12:18:34.8z, and 12:19:09.6z (orbit 32583).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.





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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

No hard limits were received this week. Nevertheless parameter NCMN3T03, temperature of LICEF A10, is toggling once every orbit with soft high limits values higher than 26 degrees. This is linked to the anomaly that started on the 9th of January 2016 and included in report of week 01 year 2016. Latest updated in this anomaly are included in section 5 of this report.

5 On Board Anomalies

Temperature of LICEF A10, had a sudden increase of around 1.5 degrees on the 9th of January 2016 (see FOS report for week 01 year 2016). From that point onwards and along the whole present reporting week, the values of this parameter remain inside a new upper band between 24.7 and 26.7 degrees (see Figure-1). Since soft high limits on the FOS PLPC system are set at 26 degrees, the parameter is violating that upper limit once every orbit around 3150 seconds after ANX crossing. No operational action is identified for this limit violation. As it is possible to see in the Figure below, this new upper band is slight increasing with time, which is compatible with the past evolution of this parameter at this time of the year.





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FOS Report for week 02, year 2016 from 11 JAN 2016 to 18 JAN 2016

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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 | 2016.010.22.51.57.410 | 23A6D88 |
| RAM single Bit Error | WARN | 2016.012.22.16.32.654 | 214FD5C |
| RAM single Bit Error | WARN | 2016.014.20.21.57.038 | 20178E4 |
| RAM single Bit Error | WARN | 2016.016.10.03.13.948 | 21E351C |
| RAM single Bit Error | WARN | 2016.017.00.23.56.445 | 23701F8 |

7 FOS Systems Status

 The PLPC TCO task crashed on 2016-01-12T13:59:20,456z (DoY 012; ERT) due to a CORBA System exception. The problem commenced during the reception/processing of GS pass KER-25 (12 JAN 2.016, DoY 012; AoS=13:20:03z, LoS=13:34:28z; ERT). The PLPC system started receiving/processing TM on 2016-01-12T13:54:00,650z (DoY 012; ERT). The first PUS TM packet had an OBT stamp of 2016-

01-12T11:42:37,800z (DoY 012) and, as result of the above anomaly, all PUS TM packets with OBT stamps from 12.32.19,828z to 12:38:11,425z (12 JAN 2.016, DoY 012) were incorrectly archived under Data Stream 4.

The TCO task was manually restarted, followed by the execution of procedure FCP-GRD-040. PUS TM packets with OBT stamps from 11:42:37,800z to 13:21:22,257z (12 JAN 2.016, DoY 012) were deleted from the PLPC system, and the following files reingested/reprocessed:

SMOS_PLTM1_P_2016_01_12_13_21_22

The SMTA-MUST system was not impacted by the crash. Cronjobs were disabled to have TCO task restarted and procedure FCP-GRD-040 executed, then enabled to have the TM ingested into the SMTA-MUST system.

As a side note, the TM Desktop was inadvertently running a GRD in the background. Though the coincidence is significant, in no way it can be concluded that this caused the TCO crash.



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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, with the following exceptions:

9 X Band Data Reception in PXMF

None, all S Band Passes successfully received and processed.

10 Exceptional Activities

None.

11 AOB

None.

APPENDIX A: OOLs

None.