

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 40^{th} calendar week of 2015:

28 SEP 2015 to 05 OCT 2015 (DoYs 271 to 278).

The following routine activities were planned this week (see Gantt chart on next page and CRF 527):

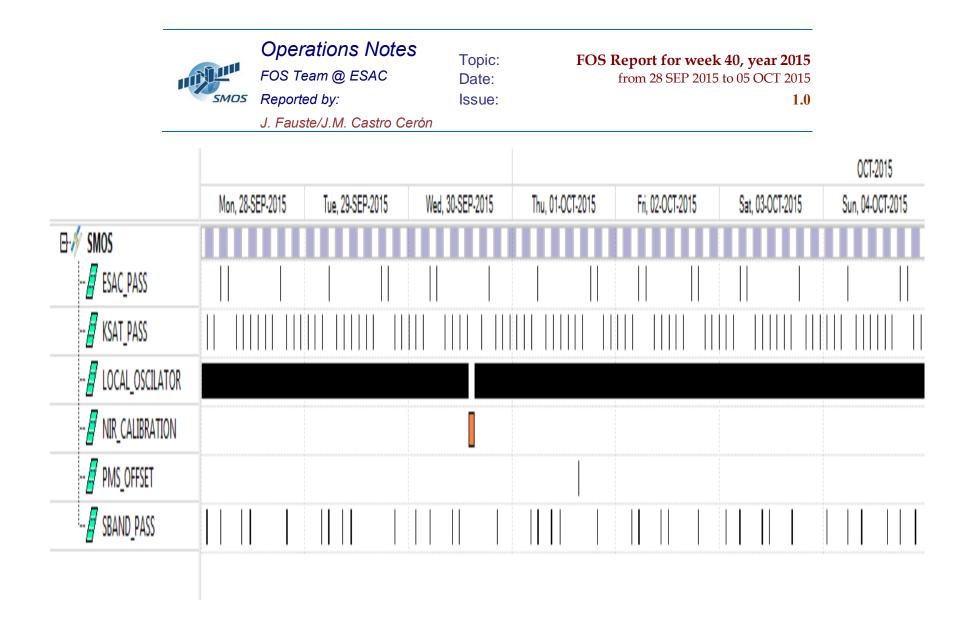
• One Warm NIR Calibration on 30 SEP 2015 (DoY 273) with ETO 14:37:56z (orbit 31059) and with the following expected calibration values:

B.T.	= 3.9778
R.M.S.	= 0.8035
Sun Elevation	= 9.998067 degrees
R.A.	= 107.9366 degrees
DEC.	= -46.6210 degrees

- One PMS Offset on 01 OCT 2015 (DoY 274), including three Short Calibrations at 15:25:00.0z, 15:25:34.8z, and 15:26:09.6z (orbit 31074).
- 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)

None.

5 On Board Anomalies

None.

6 On Board Events Telemetry

No RAM single bit errors were received during this week.

7 FOS Systems Status

All FOS Systems behaved nominal with the following exception:

• PLPC Time Correlation task crashed on 2015-09-22T04:34:34.536z (Earth Reception Time) in the middle of reception and processing of GS pass AUS-41 (GS pass from 03:57:33z to 04:10:13) At the time of the anomaly the following Error Messages were issued by SCOS-PLPC system:

"TCOserver FATAL ERROR SOFTWAREEpthread_create error" "SYSTEMCORBA: SystemException caught" "SYSTEMUnable to get Time Correlation coefficients"

Also TCO_FLAG parameter went Out of Limits in an intermittent way. From that point onwards lots of time correlation errors appeared on PLPC system. As consequence of this problem, all the onboard telemetry from 2015-09-29T00:32:12.402Z was archived under Data Stream 4. Since the problem did not recover itself also the following pass AUS-42 (05:34z to 05:49z) was not processed correctly and the data also archived under wrong DS number 4. The problem was detected by the FOS team around 2015-09-29T06:25z and procedure FCP-GRD-040 then executed. As part of this execution, the TCO task was restarted twice at 06:30z and 06:47z. Since similar errors were still appearing after the last TCO restart, the SCOS system was stopped and then restarted. After the system restart around 06:50z, all the PLPC system errors disappear. The problem did not have any impact at SMTA-MUST level since any wrong telemetry data was transferred into the system. Nevertheless, cronjobs for the MUST data transfer were made disable until the ends of the PLPC clean-up procedure. All SBand telemetry data belonging to GS passes AUS-41 and AUS-



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42 were deleted from PLPC system, i.e. telemetry archived in DS 1 and 4 from 2015-09-28T19:54:13z to 2015-09-29T06:50:17z. After the end of the clean-up procedure, FCP-GRD-040, SBand telemetry files for passes AUS-41 and AUS-42 were again ingested and processed into PLPC system. Following that MUST-SMTA transfer jobs were again made enable.

• On 2015-10-01T07:44:00 PLPCPRM machine was rebooted due to nominal system maintenance.

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.

APPENDIX A: OOLs

None.