FOS Team @ ESAC

Reported by:

Topic: Date: Issue:

FOS Report for week 17, year 2017

from 24 APR 2017 to 01 MAY 2017

1.0

J. Fauste/J.M. Castro Cerón

General Comments

Activities scheduled for this week are those planned for the 17th calendar week of 2017:

```
24 APR 2017 to 01 MAY 2017 (DOYs 114 to 121).
```

The following routine activities were planned this week (see Gantt chart on next page and CRF 655):

• One Warm NIR Calibration on 26 APR 2017 (DOY 116) with ETO 06:25:28z (orbit 39314) and with the following expected calibration values:

> B.T. 3.6530° R.M.S. 0.2519 = Sun Elevation 2.9631° = Moon elevation -2.9631° R.A. $= 131.70^{\circ}$ DEC. 41.60°

- One PMS Offset on 27 APR 2017 (DOY 117), including three Short Calibrations at 08:01:30.0z, 08:02:04.8z, and 08:02:39.6z (orbit 39329).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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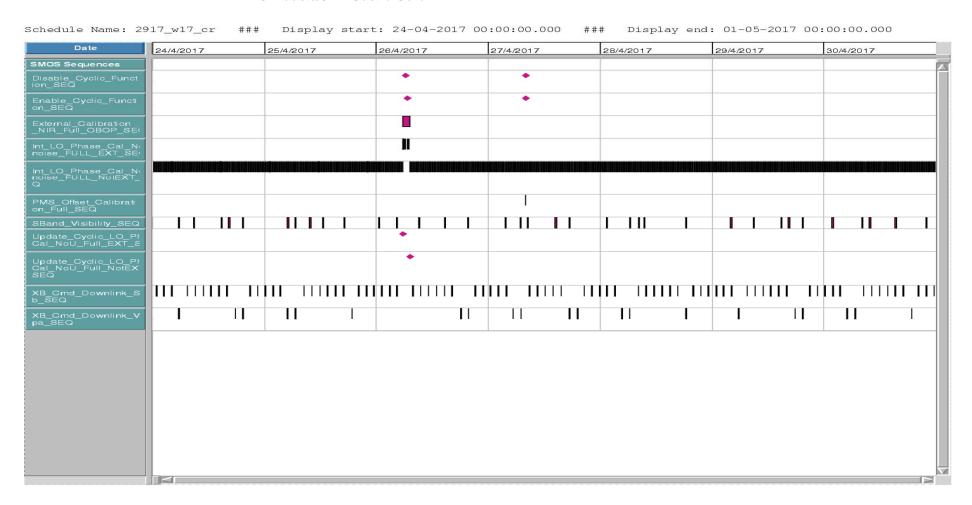
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3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

None.

5 On Board Anomalies

None.

6 On Board Events Telemetry

No RAM Single Bit errors befell this week.

7 FOS Systems Status

On the 24th of April and following the agreement of the QWG celebrated in December 2016, a new OSF file containing the computed MLST crossing time and MLST drift tags at the time of the new Leap Second introduced on the 1 of January 2017, was delivered to DPGS and CEC groups.

The value of the two tags is:

```
<MLST>06:00:55.306800</MLST>
<MLST_Drift unit="s/day">0.029648</MLST_Drift>
```

Also the whole file has been reviewed and all previous cycle numbers for each modification correctly updated.

The new values for MLST and MLST_Drfit were initially detected at the time all the preliminary work was done for the OSF coinciding with the new leap second in January 2017. Since this modification was very significant it was presented during the QWG in December 2016 and then it was decided first to check the possible implications on the DPGS, CEC side before its official delivery. Therefore in January 2017 the OSF delivered by FOS contained the leap second but not these two MLST values than incorrectly remained unchanged i.e:

```
<MLST>06:00:00</MLST>
<MLST_Drift unit="s/day">0.0</MLST_Drift>
```

During February-March 2017 CEC and DPGS checked the possible effect of the new MLST and the conclusion it was that there was no impact of this change. As result of this FOS requested GMV to manually ingest in the SPGF database the new OSF and then deliver as for 24th of April the new file to the rest of the Ground

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Segment. The new file was also installed on the ESOV tool located on PLPCDBS PC, SMTA machine and on PLCEXT machine PLCEXT account directory PFCT.

8 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system.

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

No relevant Out of Limits were received during this week.