



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 29, year 2018

from 16 JUL 2018 to 23 JUL 2018

1.0

1 General Comments

Activities scheduled for this week are those planned for the 29th calendar week of 2018:

16 JUL 2018 to 23 JUL 2018 (DOYs 197 to 204).

The following routine activities were planned this week (see Gantt chart on next page and CRF 753).

- One PMS Offset on 19 JUL 2018 (DOY 200), including three Short Calibrations at 07:23:30.0z, 07:24:04.8z, and 07:24:39.6z (orbit 45775).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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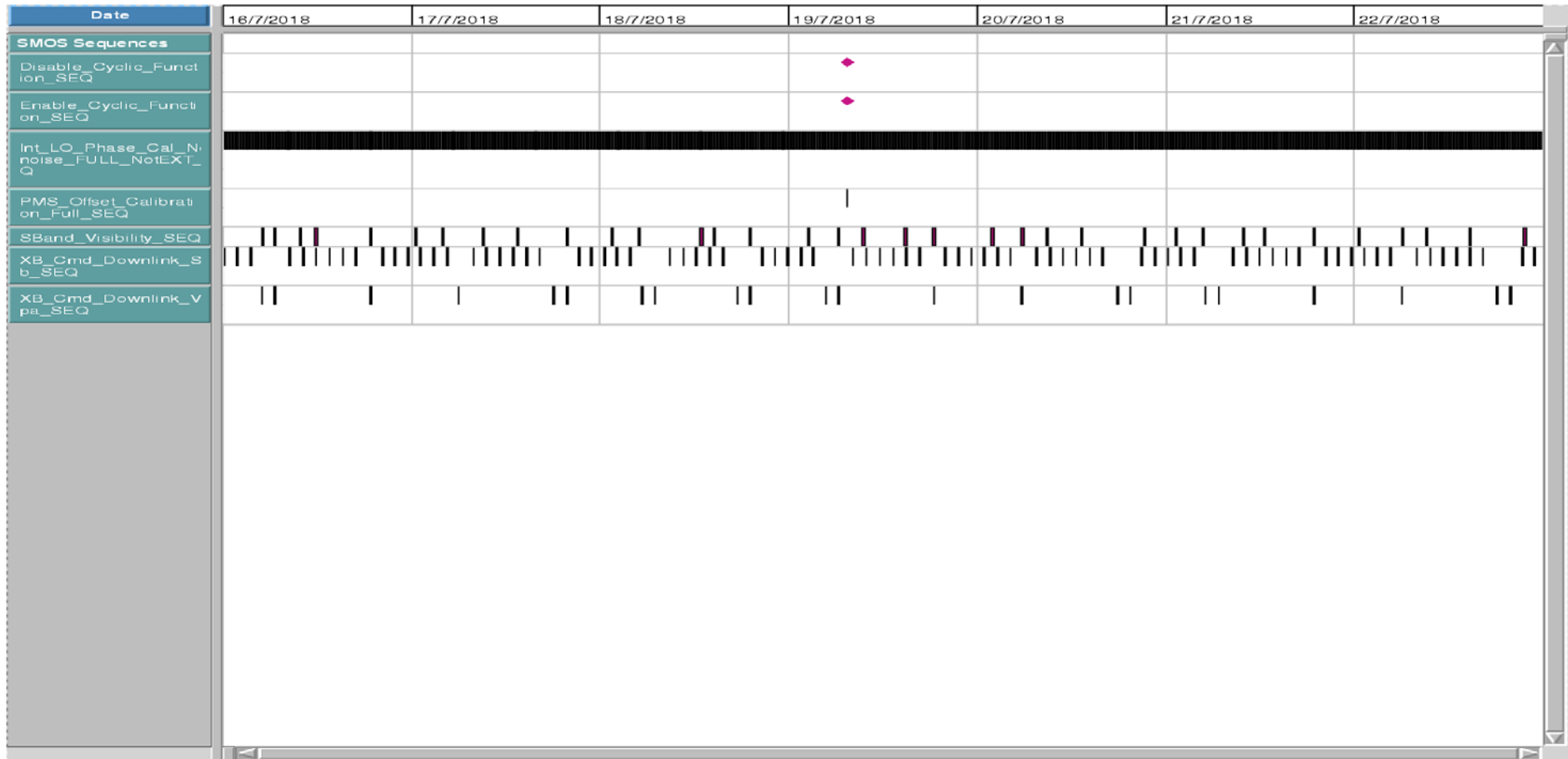
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Schedule Name: 2018_w29_cr ### Display start: 16-07-2018 00:00:00.000 ### Display end: 23-07-2018 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- The MIRAS instrument MM, partition P9, latched up on 2018-07-19T03:19:32,199z (DOY 200). The following parameters went out of limits in the PLPC system:

2018.200.03.19.32.199z DMASME03 LU Switch P9

2018.200.03.19.32.199z DMASME37 SDD LU Detected

This anomaly was geolocated over Victoria Island (North of Canada)

Latitude = 72.90°

Longitude = 249.12°

There were no science data losses associated with this anomaly because it affected one of the spares partitions P9. Recovery took place on 19 JUL 2018, at 15:30:00z (CRF 755). At the time of the anomaly the position of the MM pointers were as follows:

READ = 936278 (partition P2)

WRITE = 965709 (partition P2)

5 On Board Events Telemetry

The following RAM Single Bit errors befell this week:

Event Description	Packet ID	Severity	Event Time	Parameters
RAM single Bit Error	730	WARN	2018-07-18T21:22:46	21F983C

6 FOS Systems Status

- The FOS ISDN backup line remains down being in that state from the 5th of July. No clear progress have been performed from that date. On the 19th of July, a Telefonica technician came on site to try to find other phone connectivity pairs that could solve the problem but with an unsuccessful result.
- Network problems on the night 20 JUL 2018 impeded data transfer in both directions, from/to ESAC to/from CNES. The problem also affected ESAC DPGS Team since X band data transfers from Svalbard to ESAC failed during the whole night. Two emails were received during the night of the 20 of July, one from CNES (ops Callipso) explaining that they could not connect to the PLPC system, and another one from KSAT to DPGS copy to FOS, explaining that it was not possible to transfer X Band acquisition files from KSAT to



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DPGS. In case of FOS, the ISDN line was also down therefore it was not possible to transfer SBand TM data at all. FOS on-call engineer call around 05:30z to PDSN EONET team in Italy and opened an urgent anomaly ticket to fix and trace the problem. (PDNS ticket PDNSTT2018070332). EONET reported that the problem was related to a WAN router at ESAC that did not work properly from 00:30z to 03:30z. The exact reason for the anomaly is unknown and is currently under investigation.

7 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system, with the following exception:

- PUS TM file SMO_PLTM1_P_2018_07_19_09_26_35 belonging to SBand pass KUX-18 with AOS 2018-07-19T09:25:00z was wrongly received again on the following day, 20 of July, during the reception of SBand pass KUX-19 with AOS 2018-07-20T08:46:00z.

The FOS PLPC system entered in an endless loop and processed twice the file triggering a failure of the Time Correlation SCOS task. The loop finished when the TM file was manually deleted from PLPC system. At the end of the pass, the PUS TM data that was wrongly reprocessed was deleted from the PLPC system. (Affected time period 2018-07-19T06:17:26z to 2018-07-19T09:26:34z) All the data wrongly stored under DS 4 due to the TCO failure was removed according to procedure FCP-GRD-040. The TM file wrongly transferred was again processed to fill the TM gap on PLPC system. Time Correlation was restarted in cold mode waiting for the nominal reception of the following SBand pass. No real impact on the MUST or PLPC TM archive since all duplicated TM was deleted on PLPC system and not transferred to the MUST system.

8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

The MM Latch up of partition P9 on the 19th of July generated the two following Out of Limits on the FOS PLPC system:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018-07-20T09:22:13	2018-07-19T06:17:28	DMASME03	LU Switch P9	OFF	ON
2018-07-20T09:23:46	2018-07-20T09:23:46	TCO_FLAG	TCO Restart flag	NOT-OK	OK