



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 16, year 2019

from 15 APR 2019 to 22 APR 2019

1.0

1 General Comments

Activities scheduled for this week are those planned for the 16th calendar week of 2019:

15 APR 2019 to 22 APR 2019 (DoYs 105 to 112).

The following routine activities were planned this week (see Gantt chart on next page and CRF 805).

- One PMS Offset on 18 APR 2019 (DoY 108), including three Short Calibrations at 06:56:30.0z, 06:57:04.8z, and 06:57:39.6z (orbit 49703).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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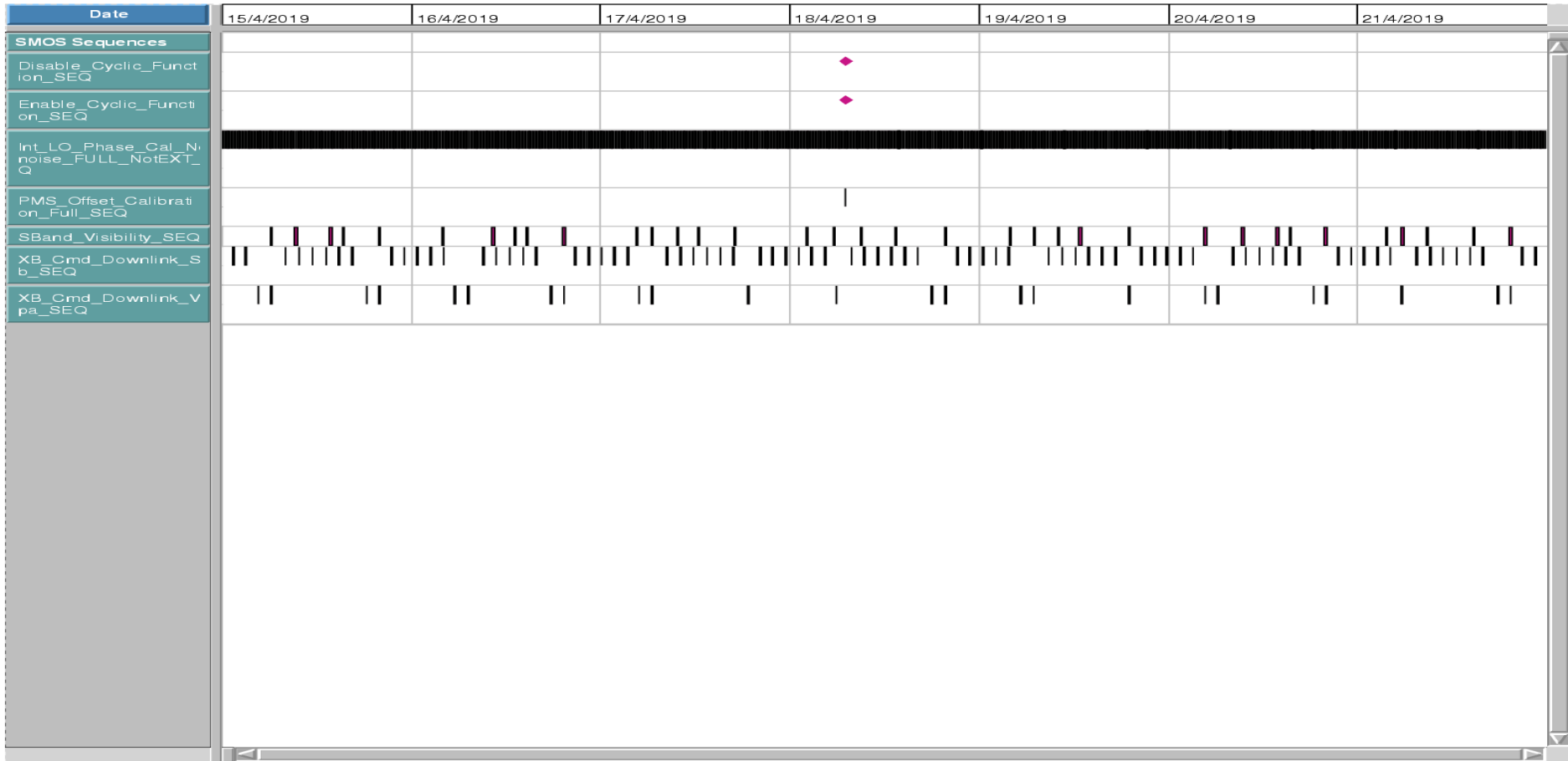
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Schedule Name: 2019_w16_cr ### Display start: 15-04-2019 00:00:00.000 ### Display end: 22-04-2019 00:00:00.000





3 TC Failures

None.

4 On Board Anomalies

- The MIRAS instrument CMN, unit B2, unlocked on 2019-04-16T16:42:23,287z (DoY 106). This anomaly was geolocated off the coast of Antarctica, due south-west of New Zealand:

LAT. = -69.15°
LONG. = 222.54°

Both parameters, output power SPM18162 and locking status SPM18167, went out of limits in the FOS PLPC system. The anomaly recovered in 12 Epochs.

- A MM double bit error impacted partition P3 on 2019-04-19T22:40:51,482z (DoY 109). The following parameters went out of limits in the PLPC system:

2019.109.22.40.51,482 DMASME42 DB Err In P3

This anomaly was geolocated over the Pacific Ocean, off the coast of northern Chile:

LAT. = -19.25°
LONG. = 287.15°

At the time of the anomaly, the position of the MM pointers were as follows:

READ = 622272 (*partition P1*)
WRITE = 710327 (*partition P1*)

There were no science data losses associated with this anomaly because it affected P3 while both, Read and Write, pointers were on P1 (i.e. the data in the affected partition had already been downloaded to ground during an earlier X band GS pass and not yet rewritten).

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	WARNING	2019.109.09.20.28,670	20B7174
RAM Single Bit Error	730	WARNING	2019.110.05.41.10,251	229FAE0
RAM Single Bit Error	730	WARNING	2019.111.23.31.53,859	20D262C

6 FOS Systems Status

All FOS systems nominal.



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 exceptions:

- The following S band GS pass:

<i>STATION</i>	<i>PASS</i>	<i>AoS</i>	<i>LoS</i>
<i>STC</i>	<i>7</i>	<i>2019.106.03.49.04</i>	<i>2019.106.04.01.13</i>

could not be acquired because of an issue with the receiving station.

The PUS TM gap went:

from 2019-04-15T19:52:48,897z to 2019-04-16T03:50:58,908z.

To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 16 APR 2019.

8 X Band Data Reception in PXMF

- The PXMF server was used to fill the following MIRAS PUS TM gap:

from 2019-04-15T19:52:48,897z to 2019-04-16T03:50:58,908z.

The corresponding E_HKTM was lost:

from 2019-04-15T19:52:23z to 2019-04-16T03:51:19z.

9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

The following OOL befell at the time the MIRAS instrument CMN, unit B3, unlocked 2019-04-16T16:42:23,287z (DoY 106):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2019.106.19.46.50,454	2019.106.16.42.23,287	SPM22162	B2 LO_Out_Power	NOT-OK	OK
2019.106.19.46.50,754	2019.106.16.42.29,287	SPM22167	B2 LO_Locking	UNLOCK	LOCK

The following OOLs befell at the time the MIRAS instrument MM, partition P3, was impacted by a double bit error 2019-04-19T22:40:51,482z (DoY 109):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2019.110.05.12.51,046	2019.109.22.40.51,482	DMASME42	DB Err In P3	FALSE	TRUE