



## Operations Notes

FOS Team @ ESAC

Reported by:

*J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 25, year 2018**

from 18 JUN 2018 to 25 JUN 2018

**1.0**

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### 1 General Comments

Activities scheduled for this week are those planned for the 25<sup>th</sup> calendar week of 2018:

18 JUN 2018 to 25 JUN 2018 (DoYs 169 to 176).

The following routine activities were planned this week (see Gantt chart on next page and CRF 747).

- One PMS Offset on 21 JUN 2018 (DoY 172), including three Short Calibrations at 07:13:30.0z, 07:14:04.8z, and 07:14:39.6z (orbit 45372).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.



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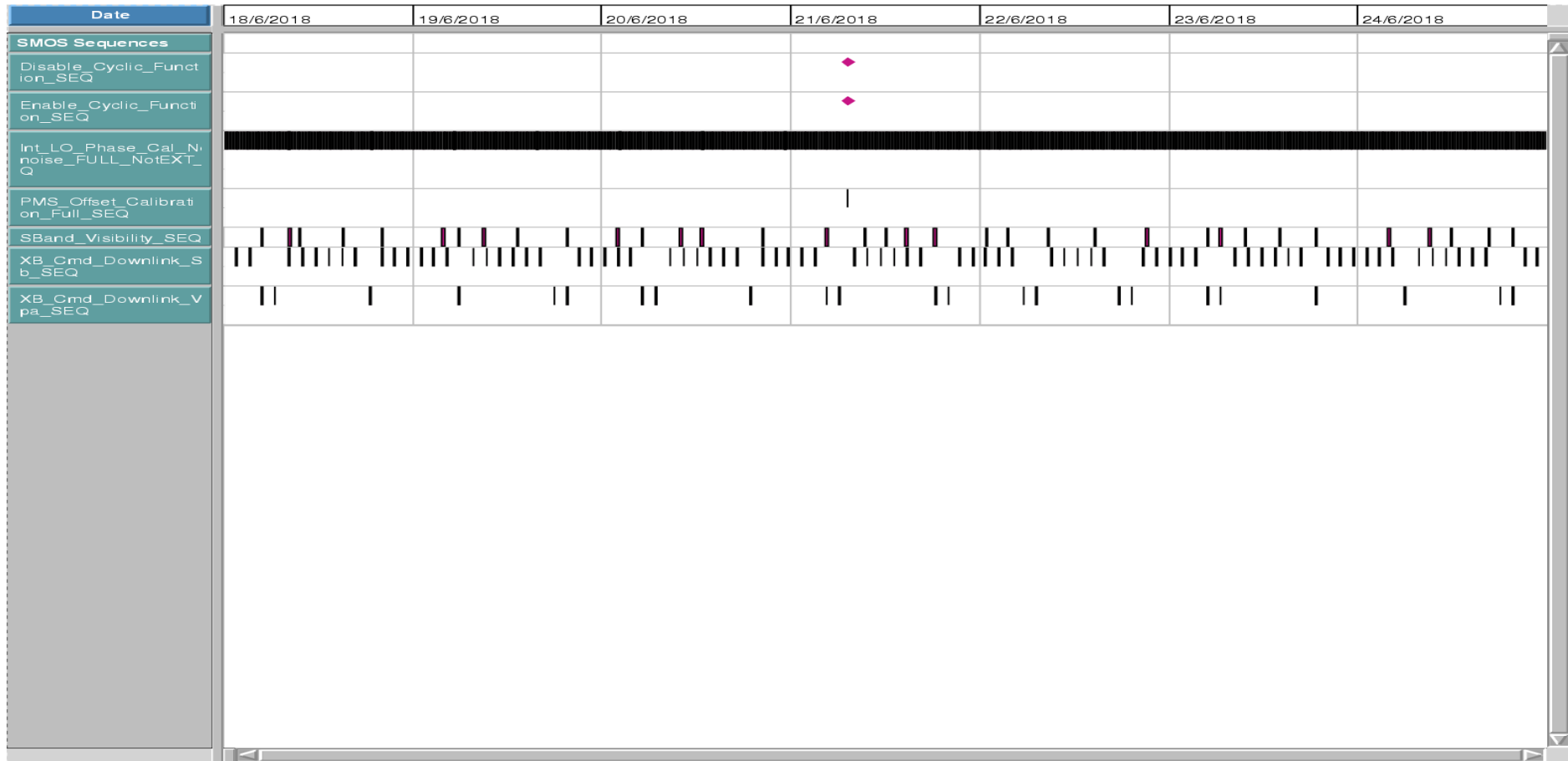
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Schedule Name: 2018\_w25\_cr ### Display start: 18-06-2018 00:00:00.000 ### Display end: 25-06-2018 00:00:00.000





### 3 TC Failures

None.

### 4 On Board Anomalies

- The MIRAS instrument CMN, unit H1, unlocked on 2018-06-21T07:36:00,184z (OBT; DoY 172). This anomaly was geolocated over the Atlantic Ocean, halfway between Salvador de Bahía and the island of Saint Helena (South Atlantic Anomaly):

*LAT.* =  $-16.15^\circ$

*LONG.* =  $338.75^\circ$

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in 11 epochs.

- The MIRAS instrument MM, partition P11, latched up on 2018-06-24T06:17:40,012z (OBT; DoY 175).

The following parameters went out of limits in the PLPC system:

*2018.175.06.17.40,012z DMASME01 LU Switch P11*

*2018.175.06.17.40,012z DMASME37 SDD LU Detected*

This anomaly was geolocated over the Bering Sea:

*LAT.* =  $56.64^\circ$

*LONG.* =  $188.85^\circ$

There were no science data losses associated with this anomaly because it affected spare partition P11.

Recovery took place on 25 JUN 2018, at 13:15:00z (CRF 749).

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

*READ* = 2057563 (*partition P4*)

*WRITE* = 2124463 (*partition P4*)

### 5 On Board Events Telemetry

None.

### 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:



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- Because of an issue with the receiving station, S band GS pass ASX-21 (AoS = 2018-03-22T08:19:25z; LoS = 2018-03-22T08:31:27z) could not be acquired. The PUS TM gap went:

*from 2018-06-20T03:53:51,946z to 2018-06-20T03:54:50,746z; 97 packets lost*  
*from 2018-06-20T03:59:32,746z to 2018-06-20T03:59:44,746z; 21 packets lost*

To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 21 JUN 2018.

### 8 X Band Data Reception in PXMF

- The PXMF server was used to fill the following MIRAS PUS TM gap:  
*from 2018-06-20T03:53:51,946z to 2018-06-20T03:54:50,746z.*  
*from 2018-06-20T03:59:32,746z to 2018-06-20T03:59:44,746z.*

The corresponding E\_HKTM was lost:

*from 2018-06-20T03:12:11z to 2018-06-20T03:13:47z.*

### 9 Exceptional Activities

None.

### 10 AOB

None.



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### APPENDIX A: OOLs

The following OOLs befall at the time the MIRAS instrument, unit H1, unlocked 2018-06-21T07:36:00,184z (OBT; DoY 172):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018.172.09.55.50,154	2018.172.07.36.06,184	SPM11162	H1	LO_Out_Power	NOT-OK
2018.172.09.55.51,324	2018.172.07.36.06,184	SPM11167	H1	LO_Locking	UNLOCK

The following OOLs befall at the time the MIRAS instrument MM, partition P11, latched up 2018-06-24T06:17:40,012z (OBT; DoY 175):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2018.175.09.34.57,365	2018.175.06.17.40,012	DMASME01	LU Switch P11	OFF	ON
2018.175.09.34.57,365	2018.175.06.17.40,012	DMASME37	SDD LU Detected	FALSE	TRUE