



## Operations Notes

FOS Team @ ESAC

Reported by:

*J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 05, year 2019**

from 28 JAN 2019 to 04 FEB 2019

**1.0**

## 1 General Comments

Activities scheduled for this week are those planned for the 05<sup>th</sup> calendar week of 2019:

28 JAN 2019 to 04 FEB 2019 (DoYs 028 to 035).

The following routine activities were planned this week (see Gantt chart on next page and CRF 789).

- One Warm NIR Calibration on 30 JAN 2019 (DoY 030) with ETO 16:12:12z (orbit 48586; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	4.65°
R.M.S.	=	2.09
Sun elevation	=	9.97°
Moon elevation	=	62.17°
R.A.	=	224.29°
DEC.	=	-28.74°
- One PMS Offset on 31 JAN 2019 (DoY 031), including three Short Calibrations at 06:54:00.0z, 06:54:34.8z, and 06:55:09.6z (orbit 48595).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

## 2 Mission Planning Deviations

None.



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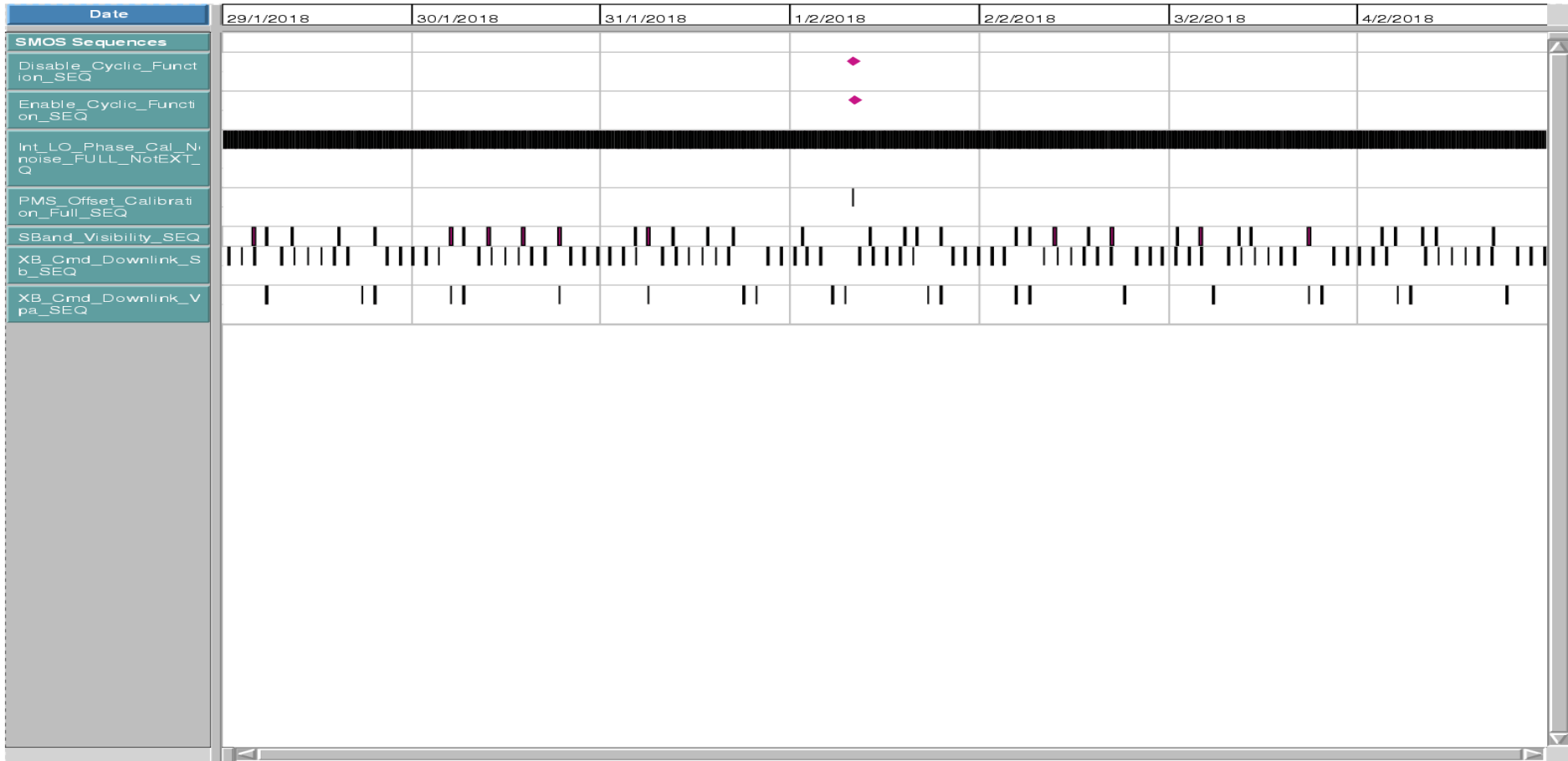
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Schedule Name: 2018\_w05\_cr ### Display start: 29-01-2018 00:00:00.000 ### Display end: 05-02-2018 00:00:00.000





## 3 TC Failures

None.

## 4 On Board Anomalies

- A MM double bit error impacted partition P5 on 2019-01-29T19:29:12,661z (DoY 029). The following parameters went out of limits in the PLPC system:

*2019.029.19.29.12,661 DMASME44 DB Err In P5*

This anomaly was geolocated over the mid Atlantic Ocean:

*LAT. = 0.69°*

*LONG. = 338.11°*

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

*READ = 3998396 (partition P8)*

*WRITE = 32131 (partition P0)*

There were no science data losses associated with this anomaly because it affected P5 while the Read pointer was on P8 and the Write pointer was on P0 (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	2019.028.09.23.17,824	230F504
RAM Single Bit Error	730	WARNING	2019.029.21.27.27,616	215C1AC
RAM Single Bit Error	730	WARNING	2019.030.00.16.02,522	2325D98
RAM Single Bit Error	730	WARNING	2019.030.11.31.37,576	22575C4
RAM Single Bit Error	730	WARNING	2019.033.20.30.16,974	21261B8

## 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:

- For S band GS pass STC-2 (AoS = 2019-02-01T18:52:59z; LoS = 2019-02-01T19:07:18z) the following seven PUS TM gaps were detected in the PLPC system:

*from 2019-02-01T12:56:23,620z to 2019-02-01T12:56:28,420z; 06 packets lost*



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*from 2019-02-01T12:58:05,620z to 2019-02-01T12:58:09,220z; 05 packets lost*  
*from 2019-02-01T12:58:16,420z to 2019-02-01T12:58:18,820z; 05 packets lost*  
*from 2019-02-01T12:58:46,420z to 2019-02-01T12:58:48,830z; 04 packets lost*  
*from 2019-02-01T13:03:59,630z to 2019-02-01T13:04:03,230z; 05 packets lost*  
*from 2019-02-01T13:04:04,430z to 2019-02-01T13:04:08,030z; 07 packets lost*  
*from 2019-02-01T13:06:29,630z to 2019-02-01T13:06:32,150z; 18 packets lost*

To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 05 FEB 2019. The corresponding E\_HKTM was lost.

## 8 X Band Data Reception in PXMF

- The PXMF server was used on 05 FEB 2019 to fill the following MIRAS PUS TM gap:

*from 2019-02-01T12:56:23,620z to 2019-02-01T12:56:28,420z*  
*from 2019-02-01T12:58:05,620z to 2019-02-01T12:58:09,220z*  
*from 2019-02-01T12:58:16,420z to 2019-02-01T12:58:18,820z*  
*from 2019-02-01T12:58:46,420z to 2019-02-01T12:58:48,830z*  
*from 2019-02-01T13:03:59,630z to 2019-02-01T13:04:03,230z*  
*from 2019-02-01T13:04:04,430z to 2019-02-01T13:04:08,030z*  
*from 2019-02-01T13:06:29,630z to 2019-02-01T13:06:32,150z*

The corresponding E\_HKTM was lost.

## 9 Exceptional Activities

None.

## 10 AOB

None.



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## APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument MM, partition P5, was impacted by a double bit error 2019-01-29T19:29:12,661z (DoY 029):

<b>GS_TIME</b>	<b>OB_TIME</b>	<b>PARAMETER</b>	<b>DESCRIPTION</b>	<b>OOL Value</b>	<b>Check Value</b>
2019.030.01.36.51,397	2019.029.19.29.12,661	DMASME44	DB Err In P5	FALSE	TRUE