



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 29, year 2019**

from 15 JUL 2019 to 22 JUL 2019

**1.0**

### 1 General Comments

Activities scheduled for this week are those planned for the 29<sup>th</sup> calendar week of 2019:

15 JUL 2019 to 22 JUL 2019 (DoYs 196 to 203).

The following routine activities were planned this week (see Gantt chart on next page and CRF 821).

- One Warm NIR Calibration on 17 JUL 2019 (DoY 198) with ETO 06:23:54z (orbit 50998; DESCENDING: thermally STABLE) and with the following expected calibration values:

|                |   |         |
|----------------|---|---------|
| B.T.           | = | 3.65°   |
| R.M.S.         | = | 0.20    |
| Sun elevation  | = | 6.06°   |
| Moon elevation | = | -11.05° |
| R.A.           | = | 207.93° |
| DEC.           | = | 23.37°  |
- One PMS Offset on 18 JUL 2019 (DoY 199), including three Short Calibrations at 07:54:30.0z, 07:55:04.8z, and 07:55:39.6z (orbit 51013).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.



# Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

**FOS Report for week 29, year 2019**

from 15 JUL 2019 to 22 JUL 2019

**1.0**

Schedule Name: 2019\_w29\_cr ### Display start: 15-07-2019 00:00:00.000 ### Display end: 22-07-2019 00:00:00.000

| Date   | 15/7/2019 | 16/7/2019 | 17/7/2019 | 18/7/2019 | 19/7/2019 | 20/7/2019 | 21/7/2019 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>SMOS Sequences</b>                            |           |           |           |           |           |           |           |
| Disable_Cyclic_Funct<br>ion_SEQ                  |           |           | ◆         | ◆         |           |           |           |
| Enable_Cyclic_Funct<br>on_SEQ                    |           |           | ◆         | ◆         |           |           |           |
| External_Calibration<br>_NIR_Full_OBOP_SEQ       |           |           | █         |           |           |           |           |
| Int_LO_Phase_Cal_N<br>oise_FULL_EXT_SEQ          |           |           | █         |           |           |           |           |
| Int_LO_Phase_Cal_N<br>oise_FULL_NotEXT_<br>Q     |           |           |           |           |           |           |           |
| PMS_Offset_Calibrati<br>on_Full_SEQ              |           |           |           |           |           |           |           |
| SBand_Visibility_SEQ                             |           |           |           |           |           |           |           |
| Update_Cyclic_LO_Pt<br>Cal_NoU_Full_EXT_S        |           |           | ◆         |           |           |           |           |
| Update_Cyclic_LO_Pt<br>Cal_NoU_Full_NotEX<br>SEQ |           |           | ◆         |           |           |           |           |
| XB_Cmd_Downlink_S<br>b_SEQ                       |           |           |           |           |           |           |           |
| XB_Cmd_Downlink_V<br>pa_SEQ                      |           |           |           |           |           |           |           |



# Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

FOS Report for week 29, year 2019

Date:

from 15 JUL 2019 to 22 JUL 2019

Issue:

1.0

## 3 TC Failures

None.

## 4 On Board Anomalies

- The MIRAS instrument CMN, unit B2, unlocked 2019-07-18T22:37:02,749z (DoY 199). This anomaly was geolocated over south-eastern Perú:

LAT. = -17.14°  
 LONG. = 288.48°

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

- The MIRAS instrument MM, partition P11, latched up 2019-07-19T23:15:08,531 (DoY 200).

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

2019.200.23.15.08,531z DMASME01 LU Switch P11  
 2019.200.23.15.08,531z DMASME37 SDD LU Detected

This anomaly was geolocated over the Labrador Sea:

LAT. = 64.10°  
 LONG. = 299.25°

There were no science data losses associated with this anomaly because it affected partition P11 (i.e. a spare partition), while the Read and Write pointers were both on partition P1. Recovery took place 22 JUL 2019, at 15:00:00z (CRF 823).

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

READ = 788072 (partition P1)  
 WRITE = 817510 (partition P1)

## 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  | 2019.196.00.39.45,159 | 20D5028    |
| RAM Single Bit Error | 730       | WARNING  | 2019.199.21.59.30,833 | 2115318    |
| RAM Single Bit Error | 730       | WARNING  | 2019.200.09.26.32,478 | 20AB7E4    |

## 6 FOS Systems Status

All FOS systems nominal.



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 29, year 2019**

from 15 JUL 2019 to 22 JUL 2019

**1.0**

---

### **7 Data Reception from CNES**

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

### **8 X Band Data Reception in PXMF**

None, all S band passes successfully received and processed.

### **9 Exceptional Activities**

None.

### **10 AOB**

None.



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

**FOS Report for week 29, year 2019**

Date:

from 15 JUL 2019 to 22 JUL 2019

Issue:

**1.0**

## APPENDIX A: OOLs

The following OOL befell at the time the MIRAS instrument CMN, unit B2, unlocked 2019-07-18T22:37:02,749z (DoY 199):

| <b>GS_TIME</b>        | <b>OB_TIME</b>        | <b>PARAMETER</b> | <b>DESCRIPTION</b> | <b>OOl Value</b> | <b>Check Value</b> |
|-----------------------|-----------------------|------------------|--------------------|------------------|--------------------|
| 2019.200.03.13.15,474 | 2019.199.22:37:02,749 | SPM18162         | B2 LO_Out_Power    | NOT-OK           | OK                 |
| 2019.200.03.13.15,609 | 2019.199.22:37:03,949 | SPM18167         | B2 LO_Locking      | UNLOCK           | LOCK               |

The following OOLs befell at the time the MIRAS instrument MM, partition P11, latched up 2019-07-19T23:15:08,531 (DoY 200):

| <b>GS_TIME</b>        | <b>OB_TIME</b>        | <b>PARAMETER</b> | <b>DESCRIPTION</b> | <b>OOl Value</b> | <b>Check Value</b> |
|-----------------------|-----------------------|------------------|--------------------|------------------|--------------------|
| 2019.201.04.14.57,371 | 2019.200.23.15.08,531 | DMASME01         | LU Switch P11      | OFF              | ON                 |
| 2019.201.04.14.57,371 | 2019.200.23.15.08,531 | DMASME37         | SDD LU Detected    | FALSE            | TRUE               |