

Topic: Date:

Issue:

J. Fauste/J.M. Castro Cerón

### **1 General Comments**

Activities scheduled for this week are those planned for the  $28^{th}$  calendar week of 2019:

08 JUL 2019 to 15 JUL 2019 (DOYs 189 to 196).

The following routine activities were planned this week (see Gantt chart on next page and CRF 820).

- One PMS Offset on 11 JUL 2019 (DOY 192), including three Short Calibrations at 07:27:00.0z, 07:27:34.8z, and 07:28:09.6z (orbit 50912).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

#### 2 Mission Planning Deviations

None.

| SMOS | Operations Notes            | Topic: | FOS Report for week 28, year 2019 |
|------|-----------------------------|--------|-----------------------------------|
|      | FOS Team @ ESAC             | Date:  | from 08 JUL 2019 to 15 JUL 2019   |
|      | Reported by:                | Issue: | 1.0                               |
|      | J. Fauste/J.M. Castro Cerón |        |                                   |

Schedule Name: 2019\_w28\_cr ### Display start: 08-07-2019 00:00:00.000 ### Display end: 15-07-2019 00:00:00.000

| Date   | 8/7/2019 | 9/7/2019 | 10/7/2019 | 11/7/2019 | 12/7/2019 | 13/7/2019 | 14/7/2019 |
|--|----------|----------|-----------|-----------|-----------|-----------|-----------|
| SMOS Sequences                                     |          |          |           |           |           |           | P         |
| Disable_Cyclic_Funct<br>ion_SEQ                    |          |          |           | •         |           |           |           |
| Enable_Cyclic_Functi<br>on_SEQ                     |          |          |           | •         |           |           |           |
| Int_LO_Phase_Cal_N<br>noise_FULL_NotEXT_<br>Q      |          |          |           |           |           |           |           |
| PMS_Offset_Calibrati<br>on_Full_SEQ                |          |          |           |           |           |           |           |
| SBand_Visibility_SEQ<br>XB_Cmd_Downlink_S<br>b_SEQ |          |          |           |           |           |           |           |
| XB_Cmd_Downlink_V<br>pa_SEQ                        |          | 1 11     | 11 1      | 11 1      | 1 11      | 11 1      | 11 11     |
|  |          |          |           |           |           |           |           |
|  |          |          |           |           |           |           |           |
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|  |          |          |           |           |           |           |           |



**Operations Notes** FOS Team @ ESAC Reported by:

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#### TC Failures 3

None.

#### On Board Anomalies 4

The MIRAS CMN, unit H3, unlocked 2019-07-11T20:30:28.437z • (DOY 192). This anomaly was geolocated off the coast of Espiritu Santo state (Brazil)

| ,<br>Latitude | = -20.88° |
|---------------|-----------|
| Longitude     | = 319.50° |

Both TM parameters, locking status SPM13167 parameter and Output power SPM13162 went temporarily out of limits in the FOS PLPC system.

The MIRAS CMN, unit H3, unlocked 2019-07-09T13:45:28.695z (DOY 190). This anomaly was geolocated over Antarctica:

| Latitude  | = -79.54° |
|-----------|-----------|
| Longitude | = 10.84°  |

Only locking status SPM13167 parameter went temporarily out of limits in the FOS PLPC system. The anomaly recovered in 5 Epochs.

#### **5** On Board Events Telemetry

The following RAM Single Bit errors befell this week:

| <b>Event Description</b> | Packet ID | Severity | Event Time          | Parameters |
|--------------------------|-----------|----------|---------------------|------------|
| RAM single Bit Error     | 730       | WARN     | 2019-07-14T10:03:33 | 22C0360    |
| RAM single Bit Error     | 730       | WARN     | 2019-07-13T23:25:45 | 20DA928    |
| RAM single Bit Error     | 730       | WARN     | 2019-07-13T21:46:40 | 2173C1C    |
| RAM single Bit Error     | 730       | WARN     | 2019-07-10T11:56:58 | 20E4AE8    |
| RAM single Bit Error     | 730       | WARN     | 2019-07-08T11:05:24 | 203F2EC    |
| RAM single Bit Error     | 730       | WARN     | 2019-07-08T10:37:35 | 234A988    |

# 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.

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# 8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

# 9 Exceptional Activities

None.

# 10 AOB

None.

| SMOS | <b>Operations Notes</b><br>FOS Team @ ESAC | Topic:<br>Date: | FOS Report for week 28, year 2019<br>from 08 JUL 2019 to 15 JUL 2019 |
|------|--|-----------------|--|
|      | Reported by:                               | Issue:          | 1.0  |
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#### **APPENDIX A: OOLs**

The following TM parameters went temporary out of limits on the FOS PLPC system at the time of the CMN Unlock on the 12<sup>th</sup> of July.

| GS_TIME             | OB_TIME             | PARAMETER | DESCRIPTION     | OOL Value | Check Value |
|---------------------|---------------------|-----------|-----------------|-----------|-------------|
| 2019-07-12T04:11:37 | 2019-07-11T20:30:28 | SPM13162  | H3 LO_Out_Power | NOT-OK    | ОК          |
| 2019-07-12T04:11:37 | 2019-07-11T20:30:33 | SPM13167  | H3 LO_Locking   | UNLOCK    | LOCK        |

The first CMN Unlock of the week on the 9<sup>th</sup> of July, generated the following temporary out of limits on the FOS PLPC system.

| GS_TIME             | OB_TIME             | PARAMETER | DESCRIPTION   | OOL Value | Check Value |
|---------------------|---------------------|-----------|---------------|-----------|-------------|
| 2019-07-09T23:18:16 | 2019-07-09T13:45:28 | SPM13167  | H3 LO_Locking | UNLOCK    | LOCK        |