1 General Comments

Activities scheduled for this week are those planned for the 03\textsuperscript{rd} calendar week of 2019:
14 JAN 2019 to 21 JAN 2019 (DoYs 014 to 021).

The following routine activities were planned this week (see Gantt chart on next page and CRF 786).

- One Warm NIR Calibration on 16 JAN 2019 (DoY 016) with ETO 16:58:37z (orbit 48385; ASCENDING: thermally STABLE) and with the following expected calibration values:
  B.T. = 4.31°
  R.M.S. = 1.07
  Sun elevation = 9.99°
  Moon elevation = -65.65°
  R.A. = 209.66°
  DEC. = -23.92°

- One PMS Offset on 17 JAN 2019 (DoY 017), including three Short Calibrations at 07:39:00.0z, 07:39:34.8z, and 07:40:09.6z (orbit 48394).

- 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.M. Castro Cerón

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**FOS Report for week 03, year 2019**

from 14 JAN 2019 to 21 JAN 2019

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**Issue:** 1.0

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<table>
<thead>
<tr>
<th>Schedule Name</th>
<th>16/1/2018</th>
<th>18/1/2018</th>
<th>17/1/2018</th>
<th>18/1/2018</th>
<th>19/1/2018</th>
<th>20/1/2018</th>
<th>21/1/2018</th>
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</tbody>
</table>

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**Operations Notes — FOS Team @ ESAC**
3 TC Failures

None.

4 On Board Anomalies

- The MIRAS instrument CMN, unit C3, unlocked on 2019-01-14T02:57:45,160z (DOY 014). This anomaly was geolocated over inner Antarctica:

  \[ \text{LAT.} = -81.59^\circ \]
  \[ \text{LONG.} = 133.48^\circ \]

  Only parameter SPM22167, locking status, went out of limits in the FOS PLPC system. The anomaly recovered in 2 epochs.

- A MM double bit error impacted partition P2 on 2019-01-17T11:37:31,410z (DOY 017). The following parameters went out of limits in the PLPC system:

  \[ 2019.017.11.37.31,410 \text{ DMASME41 DB Err In P2} \]

  This anomaly was geolocated over the State of Illinois (USA):

  \[ \text{LAT.} = 40.08^\circ \]
  \[ \text{LONG.} = 268.81^\circ \]

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

  \[ \text{READ} = 2658043 \text{ (partition P6)} \]
  \[ \text{WRITE} = 2913512 \text{ (partition P6)} \]

  There were no science data losses associated with this anomaly because it affected P2 while both, Read and Write, pointers were on P6 (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:

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Packet ID</th>
<th>Severity</th>
<th>Event Time</th>
<th>Parameters</th>
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</thead>
<tbody>
<tr>
<td>RAM Single Bit Error</td>
<td>730</td>
<td>WARNING</td>
<td>2019.015.03.14.47,778</td>
<td>23B7278</td>
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<tr>
<td>RAM Single Bit Error</td>
<td>730</td>
<td>WARNING</td>
<td>2019.018.23.00.42,827</td>
<td>20BE7D4</td>
</tr>
</tbody>
</table>

6 FOS Systems Status

- At FOS request, EOP-PES checks the Orbit Scenario File (OSF) biannually. A new entry in this file was required to compensate additional orbital drift observed from MAY 2018 (orbit 45,000). Consequently, a new version of the OSF adjusting this drift was issued by FOS 09 JAN 2019 (DOY 009) and distributed for testing and validation purposes to DPGS and CEC teams. Following a successful
validation, the new OSF was officially delivered by FOS on 16 JAN 2019 (DOY 016).

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.
APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument CMN, unit C3, unlocked 2019-01-14T02:57:45,160z (DOY 014):

<table>
<thead>
<tr>
<th>GS_TIME</th>
<th>OB_TIME</th>
<th>PARAMETER</th>
<th>DESCRIPTION</th>
<th>OOL Value</th>
<th>Check Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.014.04.19.21,370</td>
<td>2019.014.02.57.45,160</td>
<td>SPM22167</td>
<td>C3</td>
<td>LO_Locking</td>
<td>UNLOCK</td>
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</table>

The following OOLs befell at the time the MIRAS instrument MM, partition P2, was impacted by a double bit error 2019-01-17T11:37:31,410z (DOY 017):

<table>
<thead>
<tr>
<th>GS_TIME</th>
<th>OB_TIME</th>
<th>PARAMETER</th>
<th>DESCRIPTION</th>
<th>OOL Value</th>
<th>Check Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.017.13.02.08,311</td>
<td>2019.017.11.37.31,410</td>
<td>DMASME41</td>
<td>DB Err In P2</td>
<td>FALSE</td>
<td>TRUE</td>
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</tbody>
</table>