

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

Topic: Date: Issue:

J. Fauste/J.M. Castro Cerón

#### **General Comments** 1

Activities scheduled for this week are those planned for the 47th calendar week of 2015:

16 NOV 2015 to 23 NOV 2015 (DoYs 320 to 327).

The following routine activities were planned this week (see Gantt chart on next page and CRF 537):

- One PMS Offset on 19 NOV 2015 (DoY 323), including three Short Calibrations at 15:19:00.0z, 15:19:34.8z, and 15:20:09.6z (orbit 30268).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.

| -             | SMOS                 | FOS Te<br>Reporte | ations N<br>am @ ESA<br>d by:<br>e/J.M. Cas | С           | Topic:<br>Date:<br>Issue: |               |              | <b>eport for w</b> oom 16 NOV 20 |                  |                  |                           |
|---------------|----------------------|-------------------|---|-------------|---------------------------|---------------|--------------|----------------------------------|------------------|------------------|---------------------------|
|               | -2015 02:43:37       | 0V 2015 D         | 201 T., 17 NOV/                             | 015 D 22    | 1 W. J 10 WAY 0115        | NOV-          |              | D204 E: 20 MC                    | W 2015 D 225     | C_+ 01 NOV 001E  | D                         |
| CHOC .        | L JY 320, Mion, To-N | UV-2015 Day       | 321, Tue, 17-NOV-2                          | 015 Day 52. | 2, Wed, 10-NUV-2013       | Day 525, Inu, | 9-140 4-2015 | Day 324, Fn, 20-WC               | 78-2015 Day 525, | 3at, 21-WUV-2013 | Day 326, Sun, 22-NOV-2015 |
| SMOS          |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |
| ESAC_PASS     |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |
| - 🚪 KSAT_PASS |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |
|               |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |
|               |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |
| BAND_PASS     |                      |                   |   |             |                           |               |              |                                  |                  |                  |                           |



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# 3 TC Failures

None.

## 4 Unforeseen Out of Limits (OOLs)

None.

#### 5 On Board Anomalies

None.

#### 6 On Board Events Telemetry

The following RAM Single Bit Errors befell this week:

| <b>Event Description</b> | Severity | Event Time            | Parameters |
|--------------------------|----------|-----------------------|------------|
| RAM single Bit Error     | WARN     | 2015.325.10.18.46.656 | 2126D60    |
| RAM single Bit Error     | WARN     | 2015.320.11.26.40.116 | 204AF50    |

## 7 FOS Systems Status

All FOS Systems behaved nominal with the following exceptions:

PLPC Time correlation crashed due to a CORBA System Exception at 2015.324.04.15.57 (ERT). As consequence of that and from that time onwards, the TCO task was not able to correlate Telemetry packets and all the packets archives under Data Stream 4. The problem appeared during the reception and processing of GS pass AUS-47 (03:35 to 03:46). The PLPC processing of that pass started on 2015.324.04.00.58 (ERT). The TCO was manually restarted at 2015.324.07:52z and from that point, telemetry data was again correctly correlated and archived under Data Stream 1. Only telemetry data between 2015.324.00.39.34 (OBT) to 2015.324.00.56.05 was archived in Data Stream 4. Due to this problem some wrong data was and transferred to SMTA all the TM data from 2015.324.00:39:34z was deleted from SMTA-MUST machine.

During the PLPC HFA clean up procedure, it was observed that TM packets (3,25) SID 11 were not possible to delete since HFA files were already closed by the system. All TM data belonging to GS pass AUS-47 was deleted from the system except that previous packet.

After PLPC HFA deletion, PUS TM files for pass AUS-47 were again reingested (onboard time from 2015.323.19.38.56 to



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2015.324.03.41.09) but due to the fact that packets for SID 11 were not deleted from the system, this created that only TM data from 2015.323.19.38.56 to 2015.324.00:59:04 was possible to ingest in the system. This also created a TM gap on SMTA system between those two times. Due to that XBand telemetry data was ingested into PXMF system and then transferred to SMTA.

### 8 Data Reception from CNES

All *S* Band Passes were correctly received from CNES and successfully processed by the FOS PLPC System except the following minor anomaly:

• The nominal link between ESAC and CNES went down and the RNIS/ISDN backup line used instead around 18:51z on the 16th of November. The problem was located at CNES as it was reported by SOGS in an email sent to FOS on 2015-11-17 at 09:16.

The transmission delays created some PLPC processing problems since some PLVIR files were not processed correctly. These processing problems were reflected on the PLPC Event Logger with the following messages:

"Cannot process files for packet [PLVIR] Not enough files in directory / home/plpcops/TMG/E\_HKTM/inTray"

## 9 X Band Data Reception in PXMF

Due to the TCO problem on the 2015-11-20, XBand telemetry data was ingested into PXMF system and then transferred to SMTA. The gap filled went from: 2015-11-20T00:59:04z to 2015-11-20T03:41:09z

#### **10 Exceptional Activities**

None.

11 AOB None. APPENDIX A: OOLs None.