

#### 1 General Comments

The activities scheduled for this week are those planned for calendar week 43 of year 2013, from 21/10/2013 to 28/10/2013 (DOYs 294 to 301).

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

- X-band passes over ESAC and Svalbard.
- One NIR calibration on 23/10/2013 at 15:23:30z (orbit 20887). Pointing selected for this calibration is as follows:

RA= 114.534279

DEC= 41.102417

and the expected Brightness temperature and RMS are:

BT=3.781872

RMS=0.52585

- One PMS offset including three Short Calibrations on day 24/10/2013 (orbit 20800) at 15:47:00z, 15:47:34.800z and 15:48:08.800z.
- Local oscillator calibration every 10 minutes.

#### 2 Mission Planning Deviation

A collision risk between SMOS and debris COSMOS 2251 DEB (N35469) was raised by CAESAR (CNES) team on 24/10/2013. (see section 10 of this report for further details)

|  | <b>Operations</b> N<br>FOS Team @ ESA |                | Topic:<br>Date:<br>Issue: | from                            | <b>FOS Report for week 43</b> from the 21/10/13 to the 28/10/13 <b>1.0</b> |                  |                  |
|--|---------------------------------------|----------------|---------------------------|---------------------------------|--|------------------|------------------|
|  | Mon, 21-OCT-2013                      | Tue, 22-0CT-20 | 113 Wed, 23-OCT-2         | OCT-2013<br>2013 Thu, 24-OCT-20 | 13 Fri, 25-0CT-2013  | Sat, 26-0CT-2013 | Sun, 27-OCT-2013 |
| Int_LO_Phase_Cal_NoUnoise_FULL_NotEXT_SEQ  | 2                                     |                |                           |                                 |  |                  |                  |
| XB_Cmd_Downlink_Svalb_SEQ                  |                                       |                |                           |                                 |  |                  |                  |
| SBand_Visibility_SEQ                       |                                       |                |                           |                                 |  |                  |                  |
| XB_Cmd_Downlink_Vilspa_SEQ                 |                                       |                |                           |                                 |  |                  |                  |
| Update_Cyclic_LO_Ph_Cal_NoU_Full_EXT_SEQ   |                                       |                | Ŷ                         |                                 |  |                  |                  |
| External_Calibration_NIR_Full_OBOP_SEQ     |                                       |                | [                         |                                 |  |                  |                  |
| Int_LO_Phase_Cal_NoUnoise_FULL_EXT_SEQ     |                                       |                |                           |                                 |  |                  |                  |
| Disable_Cyclic_Function_SEQ                |                                       |                | ¢                         | <b>†</b>                        |  |                  |                  |
| Enable_Cyclic_Function_SEQ                 |                                       |                | Ŷ                         | Ŷ                               |  |                  |                  |
| Update_Cyclic_LO_Ph_Cal_NoU_Full_NotEXT_SE | Q                                     |                | Ŷ                         |                                 |  |                  |                  |
| PMS_Offset_Calibration_Full_SEQ            |                                       |                |                           |                                 |  |                  |                  |



#### 3 TC Failures

None.

# 4 Unforeseen Out Of Limits (OOLs)

The only unforeseen limit was the one related with the Collision Avoidance Manoeuvre since during that time, the MIRAS onboard timeline, ITL, needs to be stopped (see Appendix-A for further details on this parameter *NLHK022 ITL Ena State*)

#### 5 On Board Anomalies

None.

### 6 Telemetry On Board Events in the period.

No RAM single bit memory errors happened during this reporting period.

### 7 FOS System Status

The following new or replacement of old systems, were installed during this week at the FOS side:

- A new virtual machine as future replacement of MIRASIM simulator.
- A new machine to be used as cold backup system for MUST1.
- A new machine, PXMFDIS, to replace the old KVM system and to be used as new display system for the PXMF system.

Also a new delivery of the FOS Mission Planning System, SPGF version 3.8, was received at ESAC and it is now under internal validation prior its final delivery into the operational system.

# 8 Data Reception from CNES

No problems.

#### 9 X-Band Data Reception in PXMF

No onboard events in this period were causing loss of sensed data.

#### **10 Exceptional Activities**

A collision risk between SMOS and debris COSMOS 2251 DEB (N35469) was raised by CAESAR (CNES) team on 24/10/2013. The expected time for the closest approach was 10/28/2013 at 12:17:59 UT.



Topic: Date: Issue:

Due to that a special manoeuvre was performed on day 27/10/2013 from 22:25:42 UT to 22:46:10 UT and MIRAS science data flagged as external during the whole duration of that manoeuvre.

# 11 AOB

None.



#### **APPENDIX A: OOL's**

| OOL TIME              | PARAMETER | DESCRIPTION STATE |        | VALUE    |
|-----------------------|-----------|-------------------|--------|----------|
| 2013.300.22.25.38.897 | NTLHK022  | ITAL Ena State    | Status | Disabled |
| 2013.300.22.46.10.000 | NTLHK022  | ITAL Ena State    | Status | Enabled  |