FOS Team @ ESAC

Reported by:

Topic: Date: Issue:

FOS Report for week 46, year 2016 from 14 NOV 2016 to 21 NOV 2016

1.0

J. Fauste/J.M. Castro Cerón

#### **General Comments**

Activities scheduled for this week are those planned for the 46th calendar week of 2016:

```
14 NOV 2016 to 21 NOV 2016 (DOYs 319 to 326).
```

The following routine activities were planned this week (see Gantt chart on next page and CRF 622):

• One Warm NIR Calibration on 16 NOV 2016 (DOY 321) with ETO 15:10:45z (orbit 37002) and with the following expected calibration values:

> B.T. 3.77420 R.M.S. 0.6028 = Sun Elevation 9.99990 = 17.40590 Moon elevation R.A.  $= 147.96^{\circ}$ DEC.  $= -13.59^{\circ}$

- One PMS Offset on 17 NOV 2016 (DOY 322), including three Short Calibrations at 05:49:00.0z, 05:49:34.8z, and 05:50:09.6z (orbit 37011).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

#### 2 Mission Planning Deviations

An unexpected Collision Avoidance Manoeuvre (CAM) was performed on the 19th of November around 18:12:40z. As consequence of that the MIRAS ITL was made disabled during the whole manoeuvre duration from 17:57:15z to 18:29:00z on that day. Science data on that interval was marked with External APID and included on the FOS time availability records as degraded data.



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											NOV-2016										
	N	14-NOV	-2016	Tue, 15	NOV-20	16	Wed, 16	-NOV-2	016	Thu,	17-NOV-201	6	Fr	i, 18-NO	/-2016	Sat	, 19-NOV-201	6	Su	n, 20-NO	/-2016
⊡- <b>/</b> SMOS												П									
ESAC_PASS																					
🚪 KSAT_PASS																					
- 🛭 LOCAL_OSCILATOR																					
- ANIR_CALIBRATION																					
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## 3 TC Failures

None.

## 4 Unforeseen Out of Limits (OOLs)

The only relevant PLPC Out of Limit was the one received at the time of the Collision Avoidance Manoeuvre flagging the fact that the MIRAS on-board ITL was disabled on that period (see Appendix-A for further details)

#### 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	<b>Parameters</b>
RAM single Bit Error	WARN	2016.321.21.15.45.816	20EFF94
RAM single Bit Error	WARN	2016.321.21.17.07.418	20FBD94
RAM single Bit Error	WARN	2016.325.20.52.29.996	21E3DE0

## 7 FOS Systems Status

All FOS systems nominal.

• Mission Planning tasks during this week were performed using the new SPGF-4 virtual system.

#### 8 Data Reception from CNES

All Sband passes were correctly received from CNES and successfully processed by the FOS PLPC system, with the following exception:

• Sband GS pass KER-8 (AOS = 2016-11-17T12:13:30z; LOS = 2016-11-17T12:28:15z) was not acquired because a last minute support request of that station from the Galileo quadruple LEOP support. As consequence of that, E\_HKTM telemetry from 2016-11-17T06:22:46z to 2016-11-17T12:15:19z was lost and PUS telemetry on that interval recovered from the PXMF Xband system and ingested into the MUST-SMTA system on 17 NOV 2016.



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# 9 X Band Data Reception in PXMF

The PXMF system was used on the 17 of November to recover the PUS telemetry data lost on KER-8 SBand pass (see section 8)

## **10 Exceptional Activities**

Collision Avoidance Manoeuvre performed on the 19<sup>th</sup> of November (see section 2 for further details)

#### **11 AOB**

None.





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#### **APPENDIX A: OOLs**

At the time of the CAM on the 19th of November, the following OOL was issued by PLPC system indicating that MIRAS onboard ITL was made disabled.

GS_TIME	OBTIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2016.325.01.22.27.020	2016.324.17.57.17.752	NTLHK022	ITL Ena State	Disabled	Enable