



Operations Notes

FOS Team @ ESAC

Reported by:

J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 33, year 2017

from 14 AUG 2017 to 21 AUG 2017

1.0

1 General Comments

Activities scheduled for this week are those planned for the 33rd calendar week of 2017:

14 AUG 2017 to 21 AUG 2017 (DoYs 226 to 233).

The following routine activities were planned this week (see Gantt chart on next page and CRF 677):

- One Warm NIR Calibration on 16 AUG 2017 (DoY 228) with ETO 07:07:00z (orbit 40926) and with the following expected calibration values:

B.T.	=	3,9141°
R.M.S.	=	0,3087
Sun Elevation	=	4,0162°
Moon elevation	=	-32,8701°
R.A.	=	242,33°
DEC.	=	40,89°
- One PMS Offset on 17 AUG 2017 (DoY 229), including three Short Calibrations at 08:43:00,0z, 08:43:34,8z, and 08:44:09,6z (orbit 40941).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

Several parameters went OOL (see Appendix A for further details) as the MIRAS instrument:

- MM, partition P11, latched 17 AUG 2017 (DoY 229),
- MM, partition P10, latched 19 AUG 2017 (DoY 231).

5 On Board Anomalies

- The MIRAS instrument MM, partition P11, latched up on 2017-08-17T10:46:35,061z (OBT; DoY 229). This anomaly was geolocated over Región Madre de Dios, South Eastern Perú:

LAT. = -11,395092°

LONG. = 290,323725°

There were no science data losses associated with this anomaly because it affected one of the spare partitions (P11). Recovery took place on 18 AUG 2017 (DoY 230), at 11:00:00z (CRF 679).

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

READ = 1154103 (partition P2)

WRITE = 1344716 (partition P2)

- The MIRAS instrument MM, partition P10 latched up on 2017-08-19T09:26:09,076z (OBT; DoY 231). This anomaly was geolocated over the State of São Paulo, Brazil (South Atlantic Anomaly):

LAT. = -20,407976°

LONG. = 311,876518°

There were no science data losses associated with this anomaly because it affected one of the spare partitions (P10). Recovery took place on 21 AUG 2017 (DoY 233), at 16:00:00z (CRF 680).

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

READ = 277383 (partition P0)

WRITE = 466431 (partition P1)



6 On Board Events Telemetry

The following RAM Single Bit errors befell this week:

Event Description	Packet ID	Severity	Event Time	Parameters
RAM Single Bit Error	730	WARNING	2017.227.09.31.38,658	2022D2C
RAM Single Bit Error	730	WARNING	2017.228.12.48.13,193	2052BEC
RAM Single Bit Error	730	WARNING	2017.229.21.58.07,134	20A3EDC
RAM Single Bit Error	730	WARNING	2017.231.20.44.49,556	20FFED4
RAM Single Bit Error	730	WARNING	2017.232.16.14.23,824	21273B0

7 FOS Systems Status

All FOS systems nominal.

8 Data Reception from CNES

All S band passes were correctly received from CNES and successfully processed by the FOS PLPC system.

9 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

10 Exceptional Activities

None.

11 AOB

None.



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APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument MM, partition P11, latched up 2017-08-17T10:46:35,061z (OBT; DoY 229):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.229.15.01.48,955	2017.229.10.46.35,061	DMASME37	SDD LU Detected	FALSE	TRUE
2017.229.15.01.48,955	2017.229.10.46.35,061	DMASME01	LU Switch P11	OFF	ON

The following OOLs befell at the time the MIRAS instrument MM, partition P10, latched up 2017-08-19T09:26:09,076z (OBT; DoY 231):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2017.231.10.04.59,156	2017.231.09.26.09,076	DMASME37	SDD LU Detected	FALSE	TRUE
2017.231.10.04.59,156	2017.231.09.26.09,076	DMASME02	LU Switch P10	OFF	ON