

Topic: Date:

Issue:

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 43^{rd} calendar week of 2020:

19 OCT 2020 to 26 OCT 2020 (DOYs 293 to 300).

The following routine activities were planned this week (see Gantt chart on next page and CRF 922).

- One PMS Offset on 22 OCT 2020 (DOY 296), including three Short Calibrations at 06:30:30.0z, 06:31:04.8z, and 06:31:39.6z (orbit 57660).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.
- A PROTEUS Gyro Calibration was scheduled by CNES on 21 OCT 2020, from 02:01:18.321z to 03:41:22.442z. MIRAS ITL was disabled between these two times and science data marked with external APID. Because of that, the following Svalbard GS X band pass was not scheduled by FOS (AOS=02:53:15z, LOS=03:03:41z)

2 Mission Planning Deviations

None.

SMOS	Operations Notes	Topic:	FOS Report for week 43, year 2020
	FOS Team @ ESAC	Date:	from 19 OCT 2020 to 26 OCT 2020
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Schedule Name: 2020_w43_cr ### Display start: 19-10-2020 00:00:00.000 ### Display end: 26-10-2020 00:00:00.000

Date	19/10/2020	20/10/2020	21/10/2020	22/10/2020	23/10/2020	24/10/2020	25/10/2020
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ				•			
Enable_Cyclic_Functi on_SEQ				•			
Int_LO_Phase_Cal_N [,] noise_FULL_NotEXT_ Q							
PMS_Offset_Calibrati on_Full_SEQ				1			
SBand_Visibility_SEQ XB_Cmd_Downlink_S b_SEQ							
XB_Cmd_Downlink_V pa_SEQ	ТП	пт	1 1	11 11	11 1	1 11	

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3 TC Failures

None.

4 On Board Anomalies

• MIRAS instrument MM, partition P9, latched up 2020-10-20T22:31:24.837z (DOY 294). The following parameters went out of limits in the PLPC system:

2020.294.22.31.24.837z	DMASME03	LU Switch P9
2020.294.22.31.24.837z	DMASME37	SDD LU Detected

This anomaly was geolocated over north coast of Chile

 $= -17.79^{\circ}$ Latitude = 289.84° Longitude

There were no data losses because the anomaly affected spare partition P9. Recovery took place on Wednesday 21 OCT 2020, at 13:30:00z (CRF 925). At the time of the anomaly the position of the MM pointers were as follows:

> = 812617 (partition P1) READ WRITE = 899331 (partition P1)

5 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	WARN	2020-10-21T23:41:32	2065C20

6 FOS Systems Status

All FOS systems nominal.

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.

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10 AOB

None.

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APPENDIX A: OOLs

The Mass Memory Latch-up on the 20th of October generated the two following out of limits on the FOS PLPC system

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-10-21T04:41:20	2020-10-20T22:31:24	DMASME37	SDD LU Detected	FALSE	TRUE
2020-10-21T04:41:20	2020-10-20T22:31:24	DMASME03	LU Switch P9	OFF	ON

During the PROTEUS Gyro calibration on the 21st of October the following MIRAs ITL went nominally out of limits indicating that the MIRS ITL was made disabled during the platform calibration.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-10-21T04:51:31	2020-10-21T02:01:10	NTLHK022	ITL Ena State	Disabled	Enabled