

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the $07^{\rm th}$ calendar week of 2022:

14 FEB 2022 to 21 FEB 2022 (DOYs 045 to 052).

The following routine activities were planned this week (see Gantt chart on next page and CRF 1029).

• One Warm NIR Calibration on 16 FEB 2022 (DOY 047) with ETO 05:10:30z (orbit 64595; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

Β.Τ.	=	3.71°
R.M.S.	=	0.11
Sun elevation	=	9.79°
Moon elevation	=	-9.27°
R.A.	=	52.7°
DEC.	=	-19.59°

- One PMS Offset on 17 FEB 2022 (DOY 048), including three Short Calibrations at 06:29:00.0z, 06:29:34.8z, and 06:30:09.6z (orbit 64610).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.

SMOS	Operations Notes	Topic:	FOS Report for week 07, year 2022
	FOS Team @ ESAC	Date:	from 14 FEB 2022 to 21 FEB 2022
	Reported by:	Issue:	1.0
	J. Fauste/J.M. Castro Cerón		

Schedule Name: 2022_w07_cr ### Display start: 14-02-2022 00:00:00.000 ### Display end: 21-02-2022 00:00:00.000

Date	14/2/2022	15/2/2022	16/2/2022	17/2/2022	18/2/2022	19/2/2022	20/2/2022
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ			•	•			
Enable_Cyclic_Functi on_SEQ			•	•			
External_Calibration _NIR_Full_OBOP_SE							
Int_LO_Phase_Cal_N [,] noise_FULL_EXT_SE [,]							
Int_LO_Phase_Cal_N noise_FULL_NotEXT_ Q							
PMS_Offset_Calibrati on_Full_SEQ							
SBand_Visibility_SEQ							
Update_Cyclic_LO_Pr Cal_NoU_Full_EXT_S			•				
Update_Cyclic_LO_Pt Cal_NoU_Full_NotEX SEQ			*				
XB_Cmd_Downlink_S b_SEQ							
XB_Cmd_Downlink_V pa_SEQ	1 11	11 1	1 1	11 11		1 11	

Operations Notes FOS Team @ ESAC Reported by:

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None.

4 On Board Anomalies

The MIRAS CMN, unit H1, unlocked 2022-02-16T20:15:14,511z • (DOY 047). This anomaly was geolocated over the South Atlantic Ocean, eastward of Uruguay:

Latitude = -33.99° Longitude = 320.80°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered in 13 epochs.

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	2022-02-15T10:22:59	21AF900
RAM single Bit Error	730	WARN	2022-02-16T21:27:01	21EBD04

6 FOS Systems Status

All FOS systems nominal.

Data Reception from CNES 7

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.

Exceptional Activities 9

None.

10 AOB

None.

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APPENDIX A: OOLs

The two following temporary out of limits were generated at the time of the CMN unlock of H1 on the 16th of February.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-02-17T04:11:55	2022-02-16T20:15:14	SPM11162	H1 LO_Out_Power	NOT-OK	OK
2022-02-17T04:11:55	2022-02-16T20:15:21	SPM11167	H1 LO_Locking	UNLOCK	LOCK