

Topic: Date:

Issue:

FOS Report for week 06, year 2022 from 07 FEB 2022 to 14 FEB 2022 1.0

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 06^{th} calendar week of 2022:

07 FEB 2022 to 14 FEB 2022 (DOYs 038 to 045).

The following routine activities were planned this week (see Gantt chart on next page and CRF 1028).

- One PMS Offset on 10 FEB 2022 (DOY 041), including three Short Calibrations at 06:01:30.0z, 06:02:04.8z, and 06:02:39.6z (orbit 64509).
- 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 06, year 2022
	FOS Team @ ESAC	Date:	from 07 FEB 2022 to 14 FEB 2022
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Schedule Name: 2022_w06_cr ### Display start: 07-02-2022 00:00:00.000 ### Display end: 14-02-2022 00:00:00.000

Date	7/2/2022	8/2/2022	9/2/2022	10/2/2022	11/2/2022	12/2/2022	13/2/2022
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ				•			
Enable_Cyclic_Functi on_SEQ				•			
Int_LO_Phase_Cal_N [,] noise_FULL_NotEXT_ Q		ağınından məntifadə ənər dalarğı	nên kirdinên birdiyî pîrdînên birdinên birdînên birdinê				
PMS_Offset_Calibrati on_Full_SEQ							
SBand_Visibility_SEQ							
b_SEQ							
XB_Cmd_Downlink_V pa_SEQ				11 1	1 1		

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TC Failures 3

None.

4 On Board Anomalies

MIRAS instrument MM, partition P9, latched up 2022-02-• 09T08:45:56,493z (DOY 040). The following parameters went out of limits in the PLPC system:

2022.040.08.45.56,493z	DMASME03	LU Switch P9
2022.040.08.45.56,493z	DMASME37	SDD LU Detected

This anomaly was geolocated over the Estado de Ceara (Brazil): Latitude= -6.53° Longitude= 319.81°

There were no science data losses associated with this anomaly because it affected partition P9 (i.e. a spare partition), while the Read and Write pointers were in partition P4 and P5 respectively. Recovery took place Thursday 10 FEB 2020, at 12:30:00z (CRF 1030).

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

READ = 2046674 (partition P4) WRITE = 2248290(partition P5)

The MIRAS CMN, unit C1, unlocked 2022-02-07T14:36:08.905z (DOY 038). This anomaly was geolocated over Antarctica:

Latitude = -71.26° Longitude = 25.49°

Only locking status parameter SPM20167, went out of limits in the FOS PLPC system. The anomaly recovered in 1 epoch.

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	2022-02-07T23:53:59	2206A24
RAM single Bit Error	730	WARN	2022-02-08T22:15:50	20182EC

6 FOS Systems Status

All FOS systems nominal.



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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.

10 AOB

None.

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APPENDIX A: OOLs

The CMN unlock of C1 unit generated the following temporary out of limits on FOS PLPC system

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-02-07T19:32:47	2022-02-07T14:36:08	SPM20167	C1 LO_Locking	UNLOCK	LOCK

The following out of limits were received on FOS PLPC system at the time of the Mass Memory latch-up anomaly on the 9th of February.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-02-09T11:05:10	2022-02-09T08:45:56	DMASME37	SDD LU Detected	FALSE	TRUE
2022-02-09T11:05:10	2022-02-09T08:45:56	DMASME03	LU Switch P9	OFF	ON