

Topic: Date:

Issue:

J. Fauste/J.M. Castro Cerón

# **1 General Comments**

Activities scheduled for this week are those planned for the  $41^{st}$  calendar week of 2020:

05 OCT 2020 to 12 OCT 2020 (DOYs 279 to 286).

The following routine activities were planned this week (see Gantt chart on next page and CRF 918).

- One PMS Offset on 08 OCT 2020 (DOY 282), including three Short Calibrations at 07:15:30.0z, 07:16:04.8z, and 07:16:39.6z (orbit 57459).
- 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 41, year 2020
	FOS Team @ ESAC	Date:	from 05 OCT 2020 to 12 OCT 2020
	Reported by:	Issue:	1.0
	J. Fauste/J.M. Castro Cerón		

#### Schedule Name: 2020\_w41\_cr ### Display start: 05-10-2020 00:00:00.000 ### Display end: 12-10-2020 00:00:00.000

Date	5/10/2020	6/10/2020	7/10/2020	8/10/2020	9/10/2020	10/10/2020	11/10/2020
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ				•			
Enable_Cyclic_Functi on_SEQ				•			
Int_LO_Phase_Cal_N <sup>,</sup> noise_FULL_NotEXT_ Q							
PMS_Offset_Calibrati on_Full_SEQ				I			
SBand_Visibility_SEQ XB_Cmd_Downlink_S b_SEQ							
XB_Cmd_Downlink_V pa_SEQ		1 11	11 1	1 1	1 1	11 1	1 11
			,		,	,	

**Operations Notes** FOS Team @ ESAC Reported by: J. Fauste/J.M. Castro Cerón

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# 3 TC Failures

None.

## **4** On Board Anomalies

• MIRAS instrument MM, partition P1, latched up 2020-10-08T10:35:25.068z (DOY 282). The following parameters went out of limits in the PLPC system: 2020.282.10.35.25.068z DMASME11 LU Switch P1 2020.282.10.35.25.068z DMASME37 SDD LU Detected

This anomaly was geolocated over Antarctica:

Latitude =  $-77.44^{\circ}$ Longitude =  $70.01^{\circ}$ 

There were no data losses because the anomaly affected P1 and, at the time of the anomaly, the Read and Write pointers were both on partition P7. Recovery took place Friday 9 OCT 2020, at 19:00:00z (CRF 921).

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

> READ = 3254214 (partition P7) WRITE = 3382744 (partition P7)

## **5** On Board Events Telemetry

The following RAM Single Bit errors befell this week:

<b>Event Description</b>	Packet ID	Severity	Event Time	Parameters
RAM single Bit Error	730	WARN	2020-10-11T10:08:55	221EC24
RAM single Bit Error	730	WARN	2020-10-09T15:57:52	2339790
RAM single Bit Error	730	WARN	2020-10-08T11:17:13	2026CD8
RAM single Bit Error	730	WARN	2020-10-06T15:30:28	21F85E0
RAM single Bit Error	730	WARN	2020-10-06T10:58:00	209DD10
RAM single Bit Error	730	WARN	2020-10-06T10:16:37	23321D4

# 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, with the following exceptions:

• Because an issue with the receiving station, S band GS pass STC-8 (AOS = 2020-10-11T04:12:22z; LOS = 2020-10-11T04:25:42z) contained 11 HKTM gaps. The gaps went:

from 2020-10-11T00:38:20.539z to 2020-10-11T01:04:57.760z.

A total of 68 packets were lost. Given the small size of these gaps no TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system. This issue was investigated with CNES resulting in a CNES anomaly report.

# 8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.

## 9 Exceptional Activities

None.

#### 10 AOB

None.

SMOS	Operations Notes FOS Team @ ESAC Reported by:	Topic: Date: Issue:	FOS Report for week 41, year 2020 from 05 OCT 2020 to 12 OCT 2020 1.0
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#### **APPENDIX A: OOLs**

The two following parameters went out of limits on the FOS PLPC system at the time of the Mass Memory Latch-up on the 8<sup>th</sup> of October.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-10-08T12:32:11	2020-10-08T10:35:25	DMASME37	SDD LU Detected	FALSE	TRUE
2020-10-08T12:32:11	2020-10-08T10:35:25	DMASME11	LU Switch P1	OFF	ON