



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 49, year 2021**

from 06 DEC 2021 to 20 DEC 2021

**1.0**

## 1 General Comments

Activities scheduled for this week are those planned for the 49<sup>th</sup> calendar week of 2021:

06 DEC 2021 to 13 DEC 2021 (DOYs 340 to 347).

Mission Planning for this week was calculated together with that of week 50, year 2021. The current report contains only the events that occurred during week 49, year 2021. The Gantt chart included in this report is the one containing the two weeks combined.

The following routine activities were planned this week (see Gantt chart on next page and CRF 1015).

- One Warm NIR Calibration on 08 DEC 2021 (DOY 342) with ETO 03:56:25z (orbit 63587; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

B.T.	=	3.80°
R.M.S.	=	0.09
Sun elevation	=	9.95°
Moon elevation	=	61.68°
R.A.	=	342.80°
DEC.	=	-23.78°
- One PMS Offset on 09 DEC 2021 (DOY 343), including three Short Calibrations at 06:54:00.0z, 06:54:34.8z, and 06:55:09.6z (orbit 63603).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

## 2 Mission Planning Deviations

As per ESA-CNES management agreement (email 2021-11-26T10:21:20z) —and because of the ESAC holidays in week 49— CRF 1015 spanned —exceptionally— a two-week period.



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Schedule Name: 2021\_w49\_w50\_cr ### Display start: 06-12-2021 00:00:00.000 ### Display end: 07-12-2021 09:36:00.000

Week Of Year	W49/2021	W50/2021
<b>SMOS Sequences</b>		
Disable_Cyclic_Funct ion_SEQ	◆ ◆	◆◆
Enable_Cyclic_Funct on_SEQ	◆ ◆	◆◆
External_Calibration _NIR_Full_OBOP_SEQ	█	
Int_LO_Phase_Cal_N oise_FULL_EXT_SEQ	█	
Int_LO_Phase_Cal_N oise_FULL_NotEXT_ Q	█	█
Long_Calibration_Ful L_OBOP_SEQ		█
PMS_Offset_Calibrati on_Full_SEQ		█
SBand_Visibility_SEQ		
Update_Cyclic_LO_Pf Cal_NoU_Full_EXT_S	◆	
Update_Cyclic_LO_Pf Cal_NoU_Full_NotEX SEQ	◆	
XB_Cmd_Downlink_S b_SEQ		
XB_Cmd_Downlink_V pa_SEQ		



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### 3 TC Failures

None.

### 4 On Board Anomalies

None.

### 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	2021-12-09T00:10:27	23926D4
RAM single Bit Error	730	WARN	2021-12-10T06:23:15	21CF174
RAM single Bit Error	730	WARN	2021-12-10T13:06:55	23AAE2C

### 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, with the following exception:

- Because of an issue with the receiving station, S band GS pass IVK-10 (AOS = 2021-12-11T11:17:52z; LOS = 2021-12-11T11:31:44z) could not be acquired. The gap went:

*from 2021-12-11T04:30:46z to 2021-12-11T11:19:35z; 11981 packets lost.*

To achieve completion MIRAS PUS HKTM was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 13 DEC 2021. The corresponding E HKTM was lost:

*from 2021-12-11T04:30:26z to 2021-12-11T11:20:02z.*

### 8 X Band Data Reception in PXMF

PXMF system was used on the 13<sup>th</sup> of December to fill the PUS TM gap created by the S-Band ground station pass failure on the 11<sup>th</sup> of December.



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### **9 Exceptional Activities**

None.

### **10 AOB**

None.

### **APPENDIX A: OOLs**

No relevant PLPC Out of Limits were received this operational week.