

FOS Report for week 15, year 2019 from 08 APR 2019 to 15 APR 2019 1.0

1 General Comments

Activities scheduled for this week are those planned for the 15^{th} calendar week of 2019:

08 APR 2019 to 15 APR 2019 (Doys 098 to 105).

The following routine activities were planned this week (see Gantt chart on next page and CRF 804).

• One Warm NIR Calibration on 10 APR 2019 (DoY 100) with ETO 05:08:36z (orbit 49587; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

Β.Τ.	=	3.86°
R.M.S.	=	0.54
Sun elevation	=	0.18°
Moon elevation	=	45.32°
R.A.	=	105.75°
DEC.	=	-12.55°

- One PMS Offset on 11 APR 2019 (DoY 101), including three Short Calibrations at 06:29:00.0z, 06:29:34.8z, and 06:30:09.6z (orbit 49602).
- 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 15, year 2019
	FOS Team @ ESAC	Date:	from 08 APR 2019 to 15 APR 2019
	Reported by:	Issue:	1.0
	J. Fauste/J.M. Castro Cerón		

Date	8/4/2019	9/4/2019	10/4/2019	11/4/2019	12/4/2019	13/4/2019	14/4/2019
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ			•	•			
Enable_Cyclic_Functi on_SEQ			•	•			
External_Calibration _NIR_Full_OBOP_SE(
Int_LO_Phase_Cal_Ni noise_FULL_EXT_SEi			II				
Int_LO_Phase_Cal_N [,] noise_FULL_NotEXT_ Q							
PMS_Offset_Calibrati on_Full_SEQ							
SBand_Visibility_SEQ							
Update_Cyclic_LO_Pł Cal_NoU_Full_EXT_S							
Update_Cyclic_LO_Pł Cal_NoU_Full_NotEX SEQ			•				
XB_Cmd_Downlink_S b_SEQ							
XB_Cmd_Downlink_V pa_SEQ	1 11	11 1	1 11	11 11		1 11	

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3 TC Failures

None.

4 On Board Anomalies

The MIRAS instrument CMN, unit C3, unlocked on 2019-04-11T03:25:09,770z (DoY 101). This anomaly was geolocated over the south-western Indian Ocean:

 $= -39.33^{\circ}$ LAT. = 46.00° LONG.

Only parameter SPM22167, locking status, went out of limits in the FOS PLPC system. The anomaly recovered in 6 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	WARNING	2019.099.21.50.22,326	2014B18
RAM Single Bit Error	730	WARNING	2019.101.21.52.57,770	230BA98
RAM Single Bit Error	730	WARNING	2019.103.22.16.06,835	2282B50
RAM Single Bit Error	730	WARNING	2019.104.20.57.22,105	21736BC

6 FOS Systems Status

FOS PLPC systems (SCOS-2000) detected on 2019-04-10T08:29:03,745z, a large PUS HKTM file [size = 23593984 bytes; 23 Mb > 10 Mb].

Said file came from S band GS pass IVK-1 (AoS = 07:54:57z; LoS = 08:07:53z) and its large size was by design (i.e. previous pass had been KER-10; AoS = 00:34:37z; LoS = 00:48:00z; over seven hours of HKTM).

It was processed nominally (no error messages whatsoever), this being the first time a HKTM file larger than 10 Mb was used operationally.

From this date onward the standard practice will become not to artificially limit the PUS HKTM file sizes.

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.



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

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9 Exceptional Activities

None.

10 AOB

None.



APPENDIX A: OOLs

The following OOL befell at the time the MIRAS instrument CMN, unit C3, unlocked 2019-04-11T03:25:09,770z (DoY 101):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2019.101.05.40.11,257	2019.101.03.25.09,770	SPM22167	C3	LO_Locking	UNLOCK