

Topic: Date:

Issue:

J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 03^{rd} calendar week of 2019:

14 JAN 2019 to 21 JAN 2019 (Doys 014 to 021).

The following routine activities were planned this week (see Gantt chart on next page and CRF 786).

• One Warm NIR Calibration on 16 JAN 2019 (DoY 016) with ETO 16:58:37z (orbit 48385; ASCENDING: thermally STABLE) and with the following expected calibration values:

Β.Τ.	=	4.31°
R.M.S.	=	1.07
Sun elevation	=	9.99°
Moon elevation	=	-65.65°
R.A.	=	209.66°
DEC.	=	-23.92°

- One PMS Offset on 17 JAN 2019 (DoY 017), including three Short Calibrations at 07:39:00.0z, 07:39:34.8z, and 07:40:09.6z (orbit 48394).
- 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 03, year 2019
	FOS Team @ ESAC	Date:	from 14 JAN 2019 to 21 JAN 2019
	Reported by:	Issue:	1.0
	J.M. Castro Cerón		

Schedule Name: 2018_w03_cr ### Display start: 15-01-2018 00:00:00.000 ### Display end: 22-01-2018 00:00:00.000

Date	15/1/2018	16/1/2018	17/1/2018	18/1/2018	19/1/2018	20/1/2018	21/1/2018
SMOS Sequences							
Disable_Cyclic_Funct ion_SEQ				•			
Enable_Cyclic_Functi on_SEQ				•			
Int_LO_Phase_Cal_N [,] 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		I II			11 11		1 1



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

Topic: Date: Issue:

TC Failures 3

None.

On Board Anomalies 4

The MIRAS instrument CMN, unit C3, unlocked on 2019-01-14T02:57:45,160z (DOY 014). This anomaly was geolocated over inner Antarctica:

 $= -81.59^{\circ}$ LAT. = 133.48° LONG.

Only parameter SPM22167, locking status, went out of limits in the FOS PLPC system. The anomaly recovered in 2 epochs.

• A MM double bit error impacted partition P2 on 2019-01-17T11:37:31,410z (DOY 017). The following parameters went out of limits in the PLPC system:

2019.017.11.37.31,410 DMASME41 DB Err In P2

This anomaly was geolocated over the State of Illinois (USA):

= 40.08° $T_{i}AT$. = 268.81° LONG.

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

= 2658043 READ (partition P6) = 2913512 WRITE (partition P6)

There were no science data losses associated with this anomaly because it affected P2 while both, Read and Write, pointers were on P6 (i.e. the data in the affected partition had already been downloaded to ground during an earlier X band GS pass and not yet rewritten).

On Board Events Telemetry 5

The following RAM Single Bit errors befell this week:

Event Description	Packet ID	Severity	Event Time	Parameters
RAM Single Bit Error	730	WARNING	2019.015.03.14.47,778	23B7278
RAM Single Bit Error	730	WARNING	2019.018.23.00.42,827	20BE7D4

6 FOS Systems Status

At FOS request, EOP-PES checks the Orbit Scenario File (OSF) biannually. A new entry in this file was required to compensate additional orbital drift observed from MAY 2018 (orbit 45,000). Consequently, a new version of the OSF adjusting this drift was issued by FOS 09 JAN 2019 (DOY 009) and distributed for testing and validation purposes to DPGS and CEC teams. Following a successful



Topic: Date: Issue:

validation, the new OSF was officially delivered by FOS on 16 JAN 2019 (DOY 016).

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.

SMOS	Operations Notes	Topic:	FOS Report for week 03, year 2019
	FOS Team @ ESAC	Date:	from 14 JAN 2019 to 21 JAN 2019
	Reported by:	Issue:	1.0
	J.M. Castro Cerón		

APPENDIX A: OOLs

The following OOLs befell at the time the MIRAS instrument CMN, unit C3, unlocked 2019-01-14T02:57:45,160z (DOY 014):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2019.014.04.19.21,370	2019.014.02.57.45,160	SPM22167	C3	LO_Locking	UNLOCK

The following OOLs befell at the time the MIRAS instrument MM, partition P2, was impacted by a double bit error 2019-01-17T11:37:31,410z (DOY 017):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2019.017.13.02.08,311	2019.017.11.37.31,410	DMASME41	DB Err In P2	FALSE	TRUE