

Topic: Date:

Issue:

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the $17^{\rm th}$ calendar week of 2020:

20 APR 2020 to 27 APR 2020 (DOYs 111 to 118).

Mission Planning for this week was calculated together with that of week 18, year 2020. The current report contains only the events that occurred during week 17, year 2020. 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 879).

- One PMS Offset on 23 APR 2020 (DOY 114), including three Short Calibrations at 06:15:00.0z, 06:15:34.8z, and 06:16:09.6z (orbit 55041).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

As per ESA-CNES management agreement reached 16 MAR 2020 in view of limited operations because of the ongoing COVID-19 pandemic— CRF 878 spanned —exceptionally— a two-week period.

SMOS	Operations Notes FOS Team @ ESAC	Topic: Date:	FOS Report for week 17, year 2020 from 20 APR 2020 to 04 MAY 2020
	Reported by:	Issue:	1.0
	J. Fauste/J.M. Castro Cerón		

Schedule Name: 2020_w17_w18_cr ### Display start: 20-04-2020 00:00:00.000 ### Display end: 21-04-2020 09:36:00.000

Week Of Year	W17/2020	W18/2020
SMOS Sequences		
Disable_Cyclic_Funct ion_SEQ	•	*
Enable_Cyclic_Functi on_SEQ	•	•
Int_LO_Phase_Cal_N [,] noise_FULL_NotEXT_ Q		
Long_Calibration_Ful I_OBOP_SEQ		8
PMS_Offset_Calibrati on_Full_SEQ		
SBand_Visibility_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

MIRAS instrument MM, partition P11, latched up 2020-04-• 21T22:17:29.581z (DOY 112). The following parameters went out of limits in the PLPC system:

2020.112.22.17.29.581z	DMASME11	LU Switch P1
2020.112.22.17.29.581z	DMASME37	SDD LU Detected

This anomaly was geolocated over San Pedro de Atacama area (Chile):

Latitude = -23.57° Longitude = 292.32°

There were no science data losses associated with this anomaly because it affected partition P1, while the Read and Write pointers were both in partitions P5. Recovery took place on Thursday 23 APR 2020, at 13:00:00z (CRF 880).

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

READ = 2285046 (partition P5) WRITE = 2374017 (partition P5)

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	2020-04-26T22:08:19	21B3634
RAM single Bit Error	730	WARN	2020-04-26T21:28:44	205776C
RAM single Bit Error	730	WARN	2020-04-26T19:10:03	2394918
RAM single Bit Error	730	WARN	2020-04-21T09:45:49	21051B4

6 FOS Systems Status

On the 23rd of April, Zabbix ground segment monitoring system, complained saying that PLPCRPM disk space was too low, less than 7%.

The reason for this was that the SCOS FTPtransfer.log file located under directory *plpcops/log* directory was generating lots of warning messages.



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A dedicated email was sent to GMV to investigate the problem. The file was deleted but after its deletion it started again to increase its size due to a loop error saying that certain replanning TC files have already been transferred. GMV is investigating the issue.

On the 23rd of April and after several Zabbix alerts for PLCNAS SSH access, it was checked that the response of the PLPCPRM machine was really slow.

GMV was contacted for the problem but they could not reach the machine remotely but they confirm that they were executing a process to investigate the previous issue on the FTPlog file and PLCPRM disk space. At that time it was checked from FOS side, that the PLPCPRM was having a process that was eating most of the input/output machine resources. As consequence of that it was decided to shut down the SCOS system and to reboot PLPCPRM machine. After the reboot the machine was behaving nominally again.

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.



APPENDIX A: OOLs

The following out of limits were received at the time of the Mass Memory Latch-up on the 22th of April.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-04-22T01:19:07	2020-04-21T22:17:29	DMASME37	SDD LU Detected	FALSE	TRUE
2020-04-22T01:19:07	2020-04-21T22:17:29	DMASME11	LU Switch P1	OFF	ON