



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 08, year 2021

from 22 FEB 2021 to 01 MAR 2021

1.0

1 General Comments

Activities scheduled for this week are those planned for the 08th calendar week of 2021:

22 FEB 2021 to 01 MAR 2021 (DOYs 053 to 060).

The following routine activities were planned this week (see Gantt chart on next page and CRF 948).

- One PMS Offset on 25 FEB 2021 (DOY 056), including three Short Calibrations at 06:26:00.0z, 06:26:34.8z, and 06:27:09.6z (orbit 59473).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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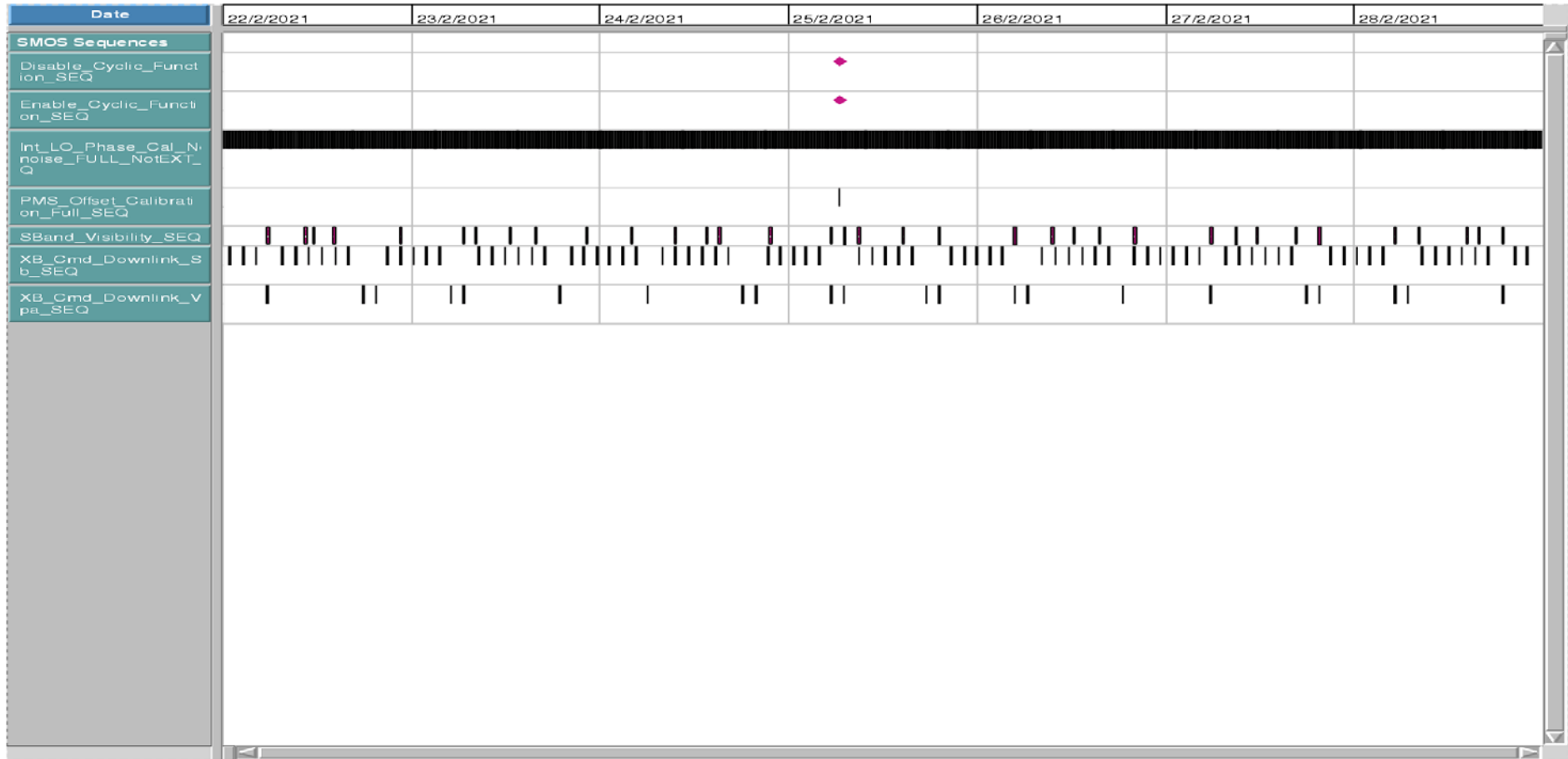
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Schedule Name: 2021_w08_cr ### Display start: 22-02-2021 00:00:00.000 ### Display end: 01-03-2021 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- The MIRAS CMN, unit H1, unlocked 2021-02-28T20:20:45.079z (DOY 059). This anomaly was geolocated over Arctic sea:

Latitude = 80.51°

Longitude = 83.18°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system, with a time difference of 7 seconds (SPM11167 went OOL at 20:20:52.269). The anomaly recovered in few epochs.

- MIRAS instrument MM, partition P4, latched up 2021-02-26T11:04:43.737z (DOY 057). The following parameters went out of limits in the PLPC system:

2021.057.11.04.43.737z *DMASME08* *LU Switch P4*

2021.057.11.04.43.737z *DMASME37* *SDD LU Detected*

This anomaly was geolocated over the central part of Chile:

Latitude = -35.2°

Longitude = 290.22°

There were some science data losses associated to this anomaly because the MM write pointer was located on P4, the affected partition by the latch-up. Recovery took place Wednesday 27 FEB 2021, at 05:00:00z (CRF 952). At the time of the anomaly the position of the MM pointers were as follows:

READ = 1680710 (*partition P3*)

WRITE = 1854132 (*partition P4*)

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	2021-02-28T19:06:53	20E6200

6 FOS Systems Status

- New PLPCNAS machine running SUSE 11 SP4 used as data repository for PLPC MCS systems was successfully installed on



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the 24th of February. After two days of successful operations over that new machine, the old one PLPCNAS was decommissioned on the 26th of February. Also new FOSVIRT02 and FOSVIRT04 machines hosting PLPC and PXMF prime-backup servers, were installed on the FOS rack and quickly tested on the 26th of February. These two new machines will be setup operationally on the 4th of March together with the new SMTA machine.

- A first major network intervention of the ESAC DMZ switches was performed on the 23rd of February. Although CNES-FOS backup line got impacted by this change, no S-Band passes were either lost or delayed. This is the first part of the major network intervention foreseen to change the ESAC-DMZ Firewall machines. Second part will be performed in around two weeks.

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.



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APPENDIX A: OOLs

At the time of the H1 CMN unlock, the following two temporary out of limits were received on the FOS PLPC system:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-03-01T04:30:49.071	2021-02-28T20:20:52.269	SPM11167	H1 LO_Locking	Unlock	Lock
2021-03-01T04:30:48.629	2021-02-28T20.20.45.079	SPM11162	H1 LO_Out_Power	NOTOK	OK

The MM latch up of partition P4 generated the two following OOL on FOS PLPC system:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-02-26T12:38:45	2021-02-26T11:04:43	DMASME37	SDD LU Detected	FALSE	TRUE
2021-02-26T12:38:45	2021-02-26T11:04:43	DMASME08	LU Switch P4	OFF	ON