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

Topic:	**FOS Report for week 42, year 2022**
Date:	from 17 OCT 2022 to 24 OCT 2022
Issue:	**1.0**

1 General Comments

Activities scheduled for this week are those planned for the 42nd calendar week of 2022:

`17 OCT 2022 to 24 OCT 2022 (DOYs 290 to 297).`

The following routine activities were planned this week (see Gantt chart on next page and CRF 1080).

- Two LONG Calibrations on 20 OCT 2022 (DOY 293), which encompassed two ascending semi-orbital periods starting at 13:58:30z (orbit 68140) and 15:40:30z (orbit 68141).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.

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Reported by:
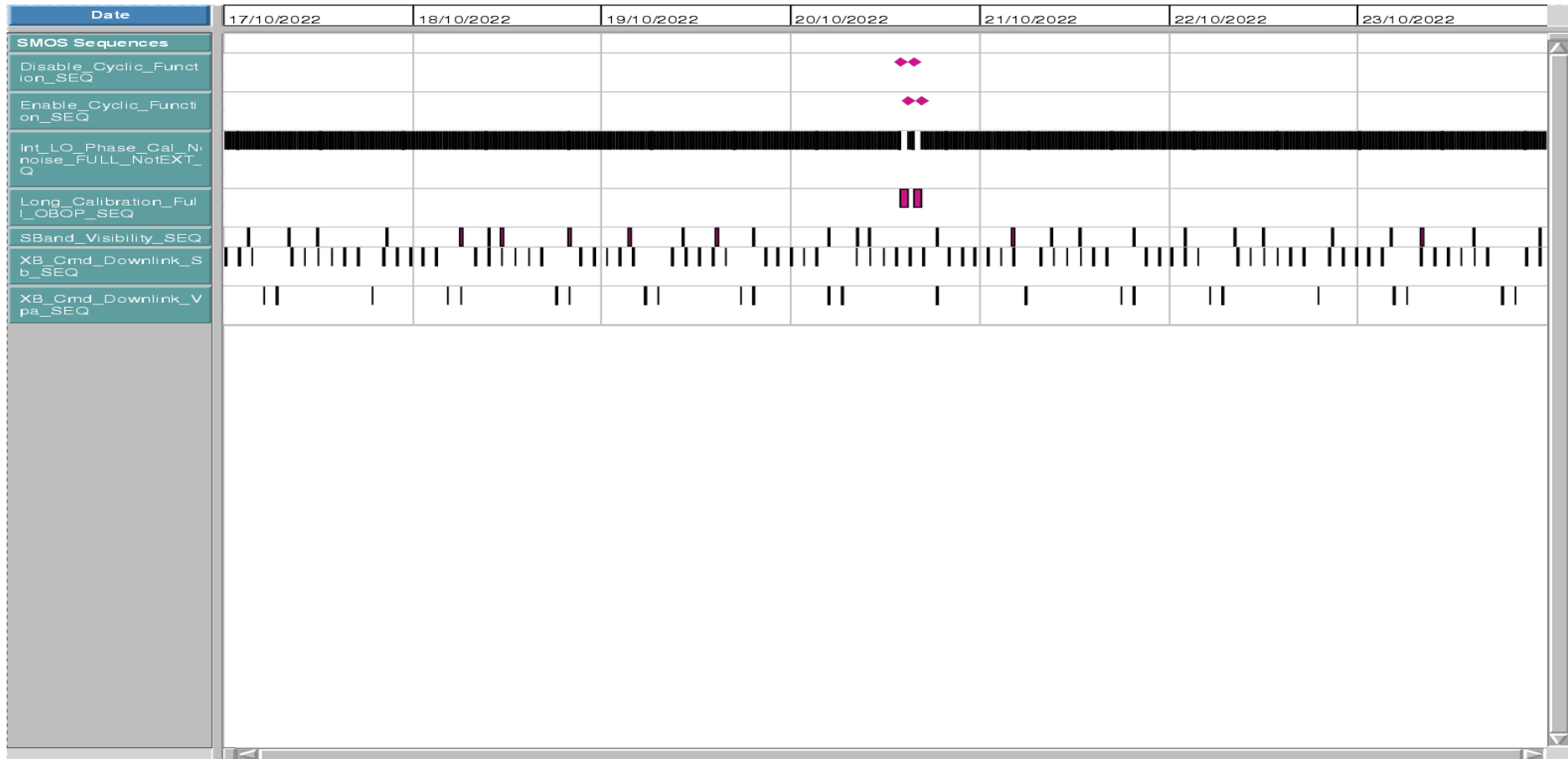
J. Fauste/J.M. Castro Cerón

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Schedule Name: 2022_w42_cr   ###   Display start: 17-10-2022 00:00:00.000   ###   Display end: 24-10-2022 00:00:00.000

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SMOS
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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P10, latched up 2022-10-19T10:15:14,566z (DOY 292). The following parameters went out of limits in the PLPC system:

    2022.292.10:15:14,566z   DMASME02   LU Switch P10
    2022.292.10:15:14,566z   DMASME37   SDD LU Detected

    This anomaly was geolocated over the Estado de Rondonia (Brazil):

    Latitude = -11.01°
    Longitude= 298.13°

    There were no science data losses associated with this anomaly because it affected partition P10 (i.e. a spare partition), while the Read and Write pointers were both in partition P3. Recovery took place Thursday 20 OCT 2022, at 10:30:00z (CRF No. 1082). At the time of the anomaly the position of the MM pointers were as follows:

    READ   = 1459898 (partition P3)
    WRITE = 1652185 (partition P3)

- The MIRAS CMN, unit B2, unlocked 2022-09-18T19:38:27.075z (DOY 291). This anomaly was geolocated over Siberia (Russia):

    Latitude   = 72.87°
    Longitude = 127.06°

    Both parameters, output power SPM18162 and locking status SPM18167, went out of limits in the FOS PLPC system. The anomaly recovered in 3 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	WARN	2022-10-19T22:37:13	221CBC4
RAM single Bit Error	730	WARN	2022-10-21T20:58:28	2199150

6 FOS Systems Status

All FOS systems nominal.

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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 exceptions:

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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FOS Report for week 42, year 2022

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APPENDIX A: OOLs

At the time of the CMN unlock of B2 unit, the two following out of limits were received on PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-10-18T20:33:40	2022-10-18T19:38:27	SPM18167	B2 LO_Locking	UNLOCK	LOCK
2022-10-18T20:33:40	2022-10-18T19:38:27	SPM18162	B2 LO_Out_Power	NOT-OK	OK

At the time of the MM latch-up of P10 unit, the two following out of limits were received on PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022-10-19T14:52:50	2022-10-19T10:15:14	DMASME37	SDD LU Detected	FALSE	TRUE
2022-10-19T14:52:50	2022-10-19T10:15:14	DMASME02	LU Switch P10	OFF	ON