



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 31, year 2021

from 02 AUG 2021 to 09 AUG 2021

1.0

1 General Comments

The planning of the week w30 and w31 was prepared as a biweekly planning.

Activities scheduled for this week are those planned for the 31st calendar week of 2021:

02 AUG 2021 to 09 AUG 2021 (DoYs 214 to 221).

The following routine activities were planned this week (see Gantt chart on next page and CRF 984).

- One Warm NIR Calibration on 04 AUG 2021 (DoY 216) with ETO 05:25:30z (orbit 61775; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

B.T.	=	3.80°
R.M.S.	=	0.27
Sun elevation	=	5.67°
Moon elevation	=	-26.25°
R.A.	=	228.00°
DEC.	=	32.61°
- One PMS Offset on 05 AUG 2021 (DoY 217), including three Short Calibrations at 06:42:00.0z, 06:42:34.8z, and 06:43:09.6z (orbit 61790).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

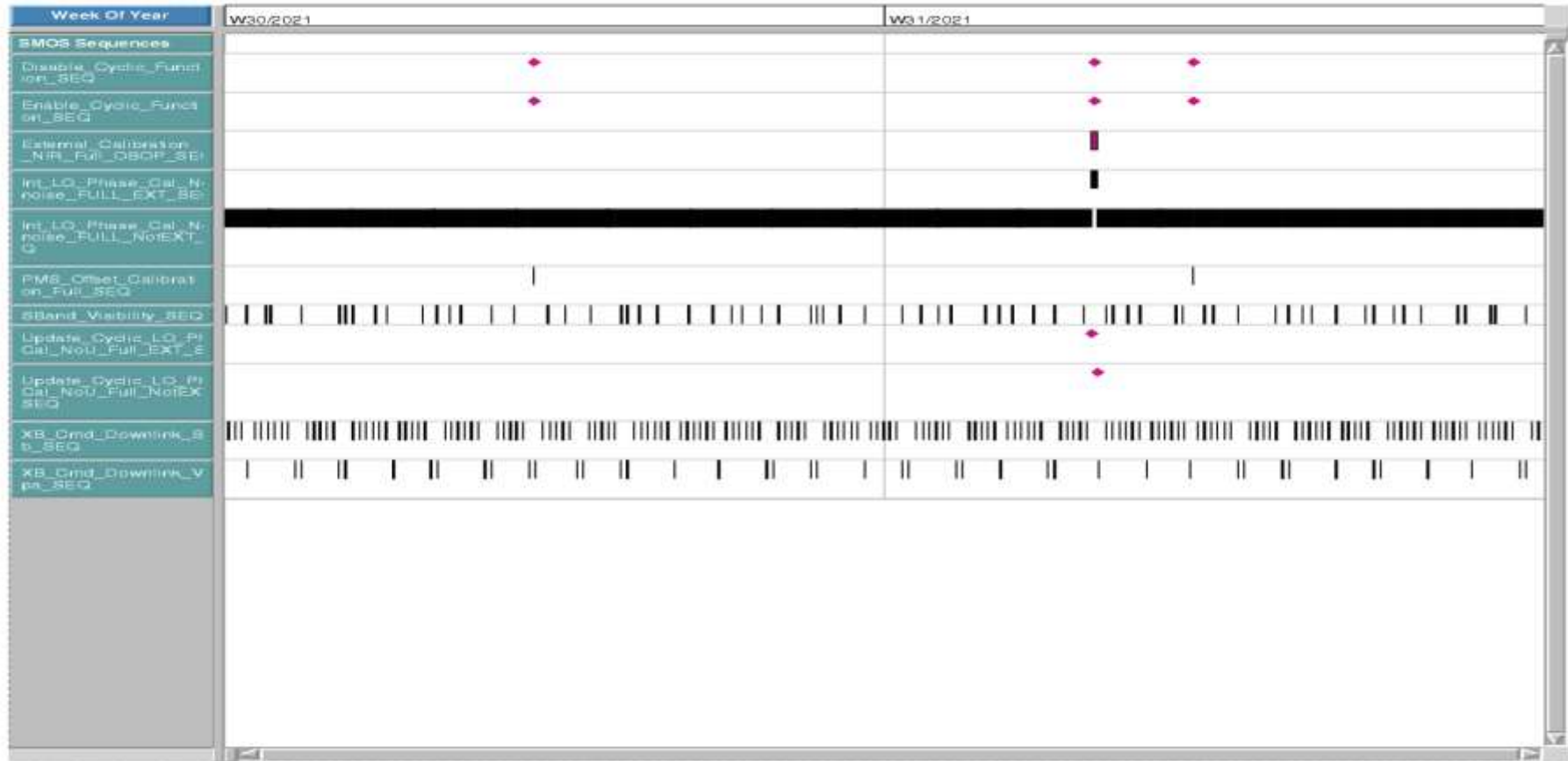
Issue:

FOS Report for week 31, year 2021

from 02 AUG 2021 to 09 AUG 2021

1.0

Schedule Name: 2021_w30_w31_let *** Display start: 26-07-2021 00:00:00.000 *** Display end: 27-07-2021 09:36:00.000





Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 31, year 2021

from 02 AUG 2021 to 09 AUG 2021

1.0

3 TC Failures

None.

4 On Board Anomalies

- The MIRAS CMN, unit H3, unlocked 2021-08-02T07:43:14.045z (DOY 214). This anomaly was geolocated over Atlantic Ocean:

Latitude = 2.21

Longitude = 334.19

Both parameters, output power SPM20162 and locking status SPM20167, went out of limits in the FOS PLPC system. The anomaly recovered in 3 epochs.

- Latched-up MM partition P1 recovered on 2021-08-03T06:00:00z (DOY 215) via CRF No. 986
- MIRAS instrument MM, partition P0, latched up 2021-08-05T02:46:48.325z (DOY 217). The following parameters went out of limits in the PLPC system:

2021.217.02:46:48.325z DMASME12 LU Switch P0

2021.217.02:46:48.325z DMASME37 SDD LU Detected

This anomaly was geolocated at the north of Norway above the artic polar circle:

Latitude = 74.10

Longitude = 17.38

There were no science data losses associated with this anomaly because it affected partition P0 while the Read and Write pointers were in partitions P7. Recovery took place on 06 AUG 2021 at 20:32:51z (CRF 988). It is expected loss of data during recovery as Latch up was in P0. At the time of the anomaly the position of the MM pointers were as follows:

READ = 3159037 (partition P7)

WRITE = 3168602 (partition P7)

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	2021-08-02T18:05:55	209B264



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 31, year 2021

from 02 AUG 2021 to 09 AUG 2021

1.0

RAM Single Bit Error	730	WARN	2021-08-03T23:34:28	2152ED8
RAM Single Bit Error	730	WARN	2021-08-06T11:21:47	207B99C
RAM Single Bit Error	730	WARN	2021-08-06T11:36:30	20FCFF4

6 FOS Systems Status

All FOS systems nominal.

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:

- Because an issue with the receiving station, S band GS pass KER-11 (AOS 2021-08-08T01:47:41z) contained 1 HKTm gaps. The gaps occurred:

from 2021-08-07T20:00:47.683z to 2021-08-08T00:18:25.106z.

A total of 11831 packets were lost. To achieve completion MIRAS PUS HKTm was recovered from the X band PXMF system and ingested into the MUST-SMTA system on 09 AUG 2021. The corresponding E_HKTm was lost.

8 X Band Data Reception in PXMF

Because of the S-Band problems reported in section 7 of this report, PXMF system was used once during the next week 32 to fill that missing PUS telemetry.

9 Exceptional Activities

None.

10 AOB

None.



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 31, year 2021

from 02 AUG 2021 to 09 AUG 2021

1.0

APPENDIX A: OOLs

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-08-02T09:49:40	2021-08-02T07:43:14	SPM13162	H3 LO_Out_Power	NOT-OK	OK
2021-08-02T09:49:40	2021-08-02T07:43:18	SPM13167	H3 LO_Locking	UNLOCK	LOCK
2021-08-05T04:16:38	2021-08-05T02:46:48	DMASME37	SDD LU Detected	FALSE	TRUE
2021-08-05T04:16:38	2021-08-05T02:46:48	DMASME12	LU Switch P0	OFF	ON