



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 30, year 2021

from 26 JUL 2021 to 02 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 30th calendar week of 2021:

26 JUL 2021 to 02 AUG 2021 (DoYs 207 to 214).

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

- One PMS Offset on 29 JUL 2021 (DoY 210), including three Short Calibrations at 06:31:00.0z, 06:31:34.8z, and 06:32:09.6z (orbit 61689).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

Collision avoidance manoeuvre:

CNES notified the need to execute a new SMOS collision avoidance manoeuvre [CAM, estimated collision probability = 5.2e-02]. The time of closest approach was forecast for Wednesday 28 JUL 2021 at 16:14:05z. The manoeuvre was scheduled on Wednesday 28 JUL 2021, to start at 15:16:59z and to finish at 17:22:54z.

The MIRAS on-board timeline was disabled and the instrument science data flagged with external APID during this collision avoidance manoeuvre. The commands for this special manoeuvre were uploaded Wednesday 28 JUL 2021, during the following S band GS passes:

KUX-26 (AoS = 09:11:39z) <= nominal

KER-37 (AoS = 11:54:43z) <= backup

Consequence of this collision avoidance manoeuvre, the following Svalbard X band GS pass was suppressed:

Xband_SVAL AoS=2021-07-28T16:21:20.338z



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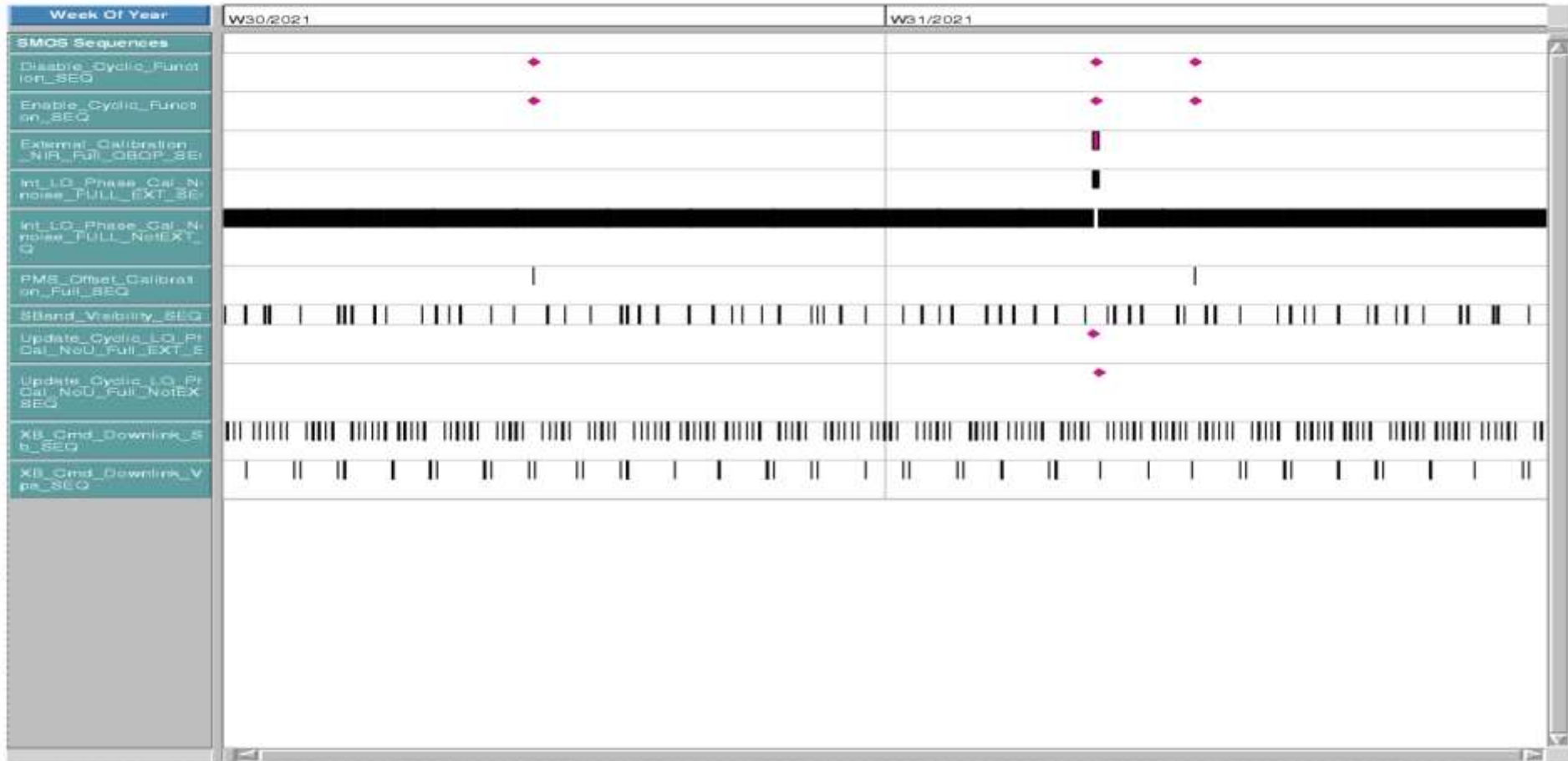
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Schedule Name: 2021_w30_w31_ex ### Display start: 26-07-2021 00:00:00.000 ### Display end: 27-07-2021 09:36:00.000





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3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P1, latched up 2021-07-31T08:55:47.918z (DOY 212). The following parameters went out of limits in the PLPC system:

2021.212.08:55:47.918z DMASME11 LU Switch P1

2021.212.08:55:47.918z DMASME37 SDD LU Detected

This anomaly was geolocated over the South Atlantic anomaly (Brazil):

Latitude = -16.91

Longitude = 318.95

There were no science data losses associated with this anomaly because it affected partition P1 while the Read and Write pointers were in partitions P3 and P4, respectively. Recovery took place on 03 AUG 2021 at 06:00:00z (CRF 986). At the time of the anomaly the position of the MM pointers were as follows:

READ = 1649891 (partition P3)

WRITE = 1843017 (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	2021-07-29T10:24:56	230750C

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.

8 X Band Data Reception in PXMF

None, all S band passes successfully received and processed.



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9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-07-28T20:19:51	2021-07-28T15:16:41	NTLHK022	ITL Ena State	Disabled	Enabled
2021-07-31T09:32:08	2021-07-31T08:55:47	DMASME37	SDD LU Detected	FALSE	TRUE
2021-07-31T09:32:08	2021-07-31T08:55:47	DMASME11	LU Switch P1	OFF	ON