



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 13, year 2021

from 29 MAR 2021 to 05 APR 2021

1.0

1 General Comments

Activities scheduled for this week are those planned for the 13th calendar week of 2021:

29 MAR 2021 to 05 APR 2021 (DOYs 088 to 095).

The following routine activities were planned this week (see Gantt chart on next page and CRF 957).

- One Warm NIR Calibration on 31 MAR 2021 (DOY 090) with ETO 04:07:54z (orbit 59961; DESCENDING: thermally STABLE) and with the following expected calibration values:

B.T.	=	3.87°
R.M.S.	=	0.60
Sun elevation	=	2.80°
Moon elevation	=	-24.36°
R.A.	=	93.32°
DEC.	=	-30.80°
- One PMS Offset on 01 APR 2021 (DOY 091), including three Short Calibrations at 07:03:30.0z, 07:04:04.8z, and 07:04:39.6z (orbit 59977).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.



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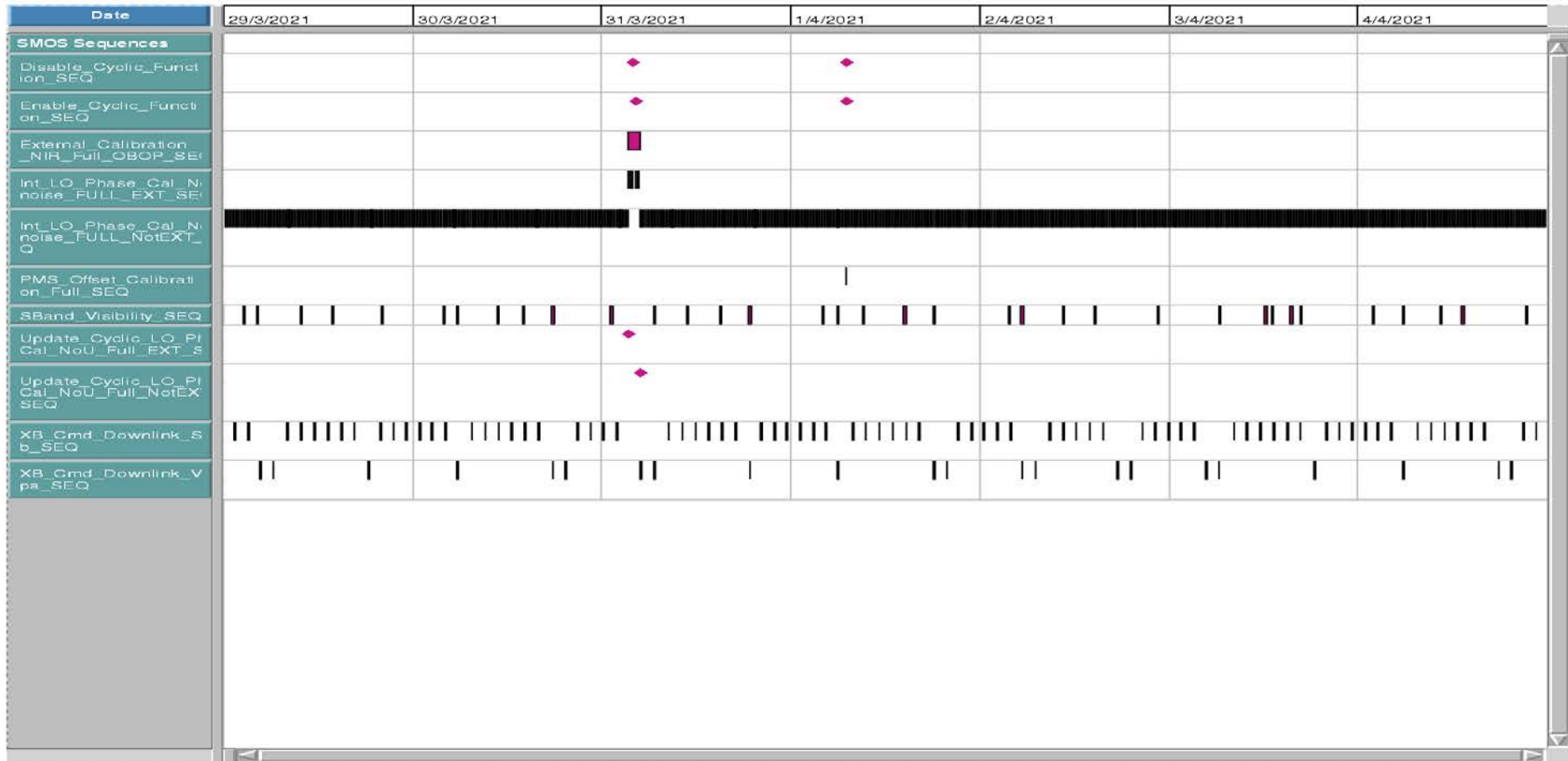
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Schedule Name: 2021_w13_cr ### Display start: 29-03-2021 00:00:00.000 ### Display end: 05-04-2021 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- The MIRAS CMN, unit H1, unlocked 2021-04-03T04:58:22,682z (DOY 093). This anomaly was geolocated over the northern coast of the Axel Heiberg Island (Canada):

Latitude = 81.06°

Longitude = 265.62°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in few Epochs.

- The MIRAS CMN, unit B2, unlocked 2021-03-30T12:01:27,113z (DOY 089). This anomaly was geolocated over the southern Pacific Ocean, midway between Chile and Easter Island:

Latitude = -25.49°

Longitude = 274.00°

Only locking status parameter SPM18167, went out of limits in the FOS PLPC system. The anomaly recovered by itself in few 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	2021-04-02T21:12:15	239595C
RAM single Bit Error	730	WARN	2021-04-04T05:38:53	226A69C

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 exception:

- For S band GS pass KER-3, with AOS at 2021-04-04T01:52:25z the following PUS TM gap were detected in the PLPC system:

from 2021-04-04T01:37:40z to 2021-04-04T01:37:45z; 13 packets lost.



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*from 2021-04-04T01:39:31z to 2021-04-04T01:39:35z; 5 packets lost
from 2021-04-04T01:39:31z to 2021-04-04T01:39:40z; 394 packets lost
from 2021-04-04T01:39:53z to 2021-04-04T01:43:47z; 602 packets lost
from 2021-04-04T01:43:58z to 2021-04-04T01:49:09z; 4 packets lost
from 2021-04-04T01:50:45z to 2021-04-04T01:50:53z; 5 packets lost*

To achieve completion MIRAS PUS TM was recovered from the X band PXMF system and ingested into the MUST-SMTA system. No E_HKTM was lost.

8 X Band Data Reception in PXMF

PXMF system was used to recover the PUS TM gaps reported in section 7 of this report.

9 Exceptional Activities

None.

10 AOB

None.



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APPENDIX A: OOLs

CMN unlock of B2 generated the following temporary our of limits on PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-03-30T14:25:59	2021-03-30T12:01:27	SPM18167	B2 LO_Locking	UNLOCK	LOCK

CMN unlock of H1 generated the two following temporary out of limits on PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2021-04-03T05:37:52	2021-04-03T04:58:22	SPM11162	H1 LO_Out_Power	NOT-OK	OK
2021-04-03T05:37:52	2021-04-03T04:58:23	SPM11167	H1 LO_Locking	UNLOCK	LOCK