

FOS Team @ ESAC Reported by:

Date: Issue:

Topic:

FOS Report for week 36, year 2020 from 31 AUG 2020 to 07 SEP 2020

1.0

J. Fauste/J.M. Castro Cerón

1 General Comments

Activities scheduled for this week are those planned for the 36^{th} calendar week of 2020:

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31 AUG 2020 to 07 SEP 2020 (DOYs 244 to 251).
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The following routine activities were planned this week (see Gantt chart on next page and CRF 910).

• One Warm NIR Calibration on 02 SEP 2020 (DOY 246) with ETO 15:55:12z (orbit 56946; ASCENDING: thermally STABLE) and with the following expected calibration values:

B.T. = 3.79°
R.M.S. = 0.33
Sun elevation = 0.84°
Moon elevation = 5.00°
R.A. = 77.35°
DEC. = -32.58°

- One PMS Offset on 03 SEP 2020 (DOY 247), including three Short Calibrations at 06:37:00.0z, 06:37:34.8z, and 06:38:09.6z (orbit 56955).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.

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Schedule Name: 2020_w36_cr Display start: 31-08-2020 00:00:00.000 Display end: 07-09-2020 00:00:00.000 Date 31/8/2020 1/9/2020 2/9/2020 3/9/2020 4/9/2020 5/9/2020 6/9/2020 SMOS Sequences Enable_Cyclic_Functi on_SEQ External_Calibration NIR_Full_OBOP_SE PMS_Offset_Calibrati ПП ПП Update_Cyclic_LO_PI Cal_NoU_Full_NotEX SEQ XB Cmd Downlink S b SEQ П П



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3 TC Failures

None.

4 On Board Anomalies

• The MIRAS CMN, unit H3, unlocked 2020-09-03T10:15:56.385z (DOY 247). This anomaly was geolocated over the Provincia de Entre Ríos (Argentina), nearing the border with Uruguay:

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 $Latitude = -32.88^{\circ}$ $Longitude = 301.82^{\circ}$

Both parameters, output power SPM13162 and locking status SPM13167, went out of limits in the FOS PLPC system. The anomaly recovered in 3 Epochs.

• The MIRAS CMN, unit H1, unlocked 2020-09-02T09:15:33.744z (DOY 246). This anomaly was geolocated just off the coast of Brazil, due east of the Estado do Rio Grande do Sul:

Latitude = -30.25° Longitude = 316.37°

Both parameters, output power SPM11162 and locking status SPM11167, went out of limits in the FOS PLPC system. The anomaly recovered in 11 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	2020-09-06T22:23:00	2263EA4
RAM single Bit Error	730	WARN	2020-09-03T00:24:03	20CB5B8

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

At the time of the H1 CMN unlock on the 2^{sd} of September the following two temporary out of limits were received on the FOS PLPC system:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-09-02T11:02:30	2020-09-02T09:15:33	SPM11162	H1 LO_Out_Power	NOT-OK	OK
2020-09-02T11:02:30	2020-09-02T09:15:40	SPM11167	H1 LO_Locking	UNLOCK	LOCK

The H3 CMN unlock anomaly generated the two following PLPC out of limits:

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-09-03T11:11:11	2020-09-03T10:15:56	SPM13162	H3 LO_Out_Power	NOT-OK	OK
2020-09-03T11:11:11	2020-09-03T10:15:57	SPM13167	H3 LO_Locking	UNLOCK	LOCK