



## Operations Notes

FOS Team @ ESAC

Reported by:

*J. Fauste/J.M. Castro Cerón*

Topic:

Date:

Issue:

**FOS Report for week 45, year 2023**

from 06 NOV 2023 to 13 NOV 2023

**1.0**

### 1 General Comments

Activities scheduled for this week are those planned for the 45<sup>th</sup> calendar week of 2023:

06 NOV 2023 to 13 NOV 2023 (DoYs 310 to 317).

The following routine activities were planned this week (see Gantt chart on next page and CRF N° 1159).

- One PMS Offset on 09 NOV 2023 (DoY 313), including three Short Calibrations at 07:47:30.0z, 07:48:04.8z, and 07:48:39.6z (orbit 73676).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

### 2 Mission Planning Deviations

None.



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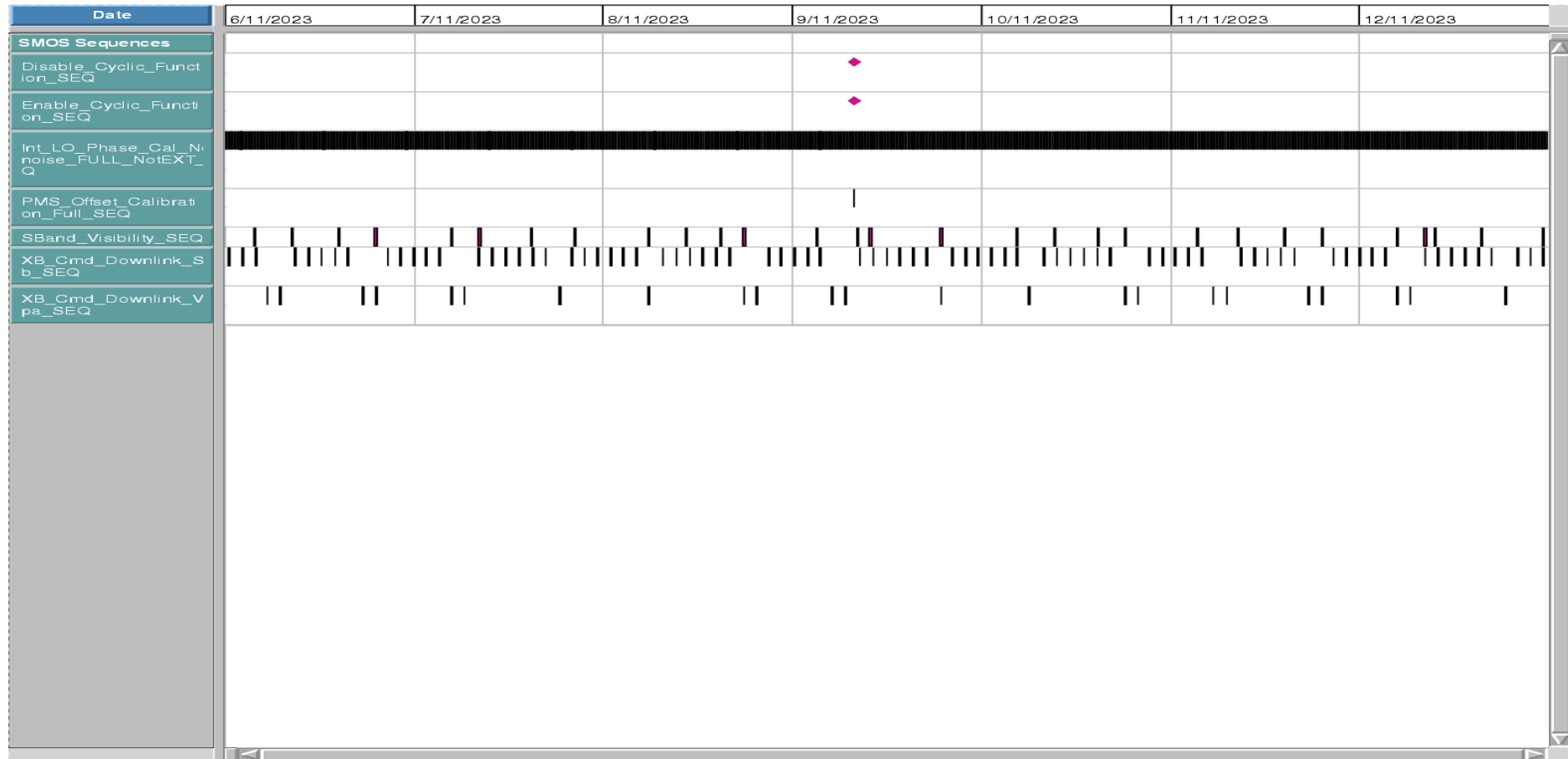
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Schedule Name: 2023\_w45\_cr ### Display start: 06-11-2023 00:00:00.000 ### Display end: 13-11-2023 00:00:00.000





### 3 TC Failures

None.

### 4 On Board Anomalies

- A MM double bit error impacted partition P1 2023-11-06T16:32:03z (DoY 310). The following parameters went out of limits in the PLPC system:

2023.310.16.32.03z      DMASME40      DB Err In P1

This anomaly was geolocated over the South Pacific Ocean, mid-way between New Zealand and Tierra del Fuego:

LAT. =  $-62.45^{\circ}$

LONG. =  $218.68^{\circ}$

At the time of the anomaly, the position of the MM pointers were as follows:

READ = 770000 (partition P1)

WRITE = 917368 (partition P2)

There might have been science data losses associated with this anomaly because it affected partition P1 while the Read and Write pointers were on partitions P1 and P2 respectively.

- MIRAS instrument MM, partition P1, latched up 2023-11-10T09:07:52z (DoY 314). The following parameters went out of limits in the PLPC system:

2023.314.09:07:52z      DMASME11      LU Switch P1

2023.314.09:07:52z      DMASME37      SDD LU Detected

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

LAT. =  $-20.80^{\circ}$

LONG. =  $316.50^{\circ}$

There were no science data losses associated with this anomaly because it affected partition P1, while the Read and Write pointers were both in partition P5. Recovery took place Friday 10 NOV 2023, at 21:45:00z (CRF N°. 1161).

At the time of the anomaly the position of the MM pointers was as follows:

READ = 2243189 (partition P5)

WRITE = 2432632 (partition P5)

### 5 On Board Events Telemetry

None.



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### 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.

### 9 Exceptional Activities

None.

### 10 AOB

None.



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## APPENDIX A: OOLs

The following OOLs befell at the time a double bit error impacted the MIRAS instrument MM, partition P1, 2023-11-06T16:32:03z (DoY 310):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2023.310.19.25.21	2023.310.16.32.03	DMASME40	DB Err In P1	FALSE	TRUE

The following OOLs befell at the time the MIRAS instrument MM, partition P1, latched up 2023-11-10T09:07:52z (DoY 314):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	Check Value
2023.314.09.44.09	2023.314.09.07.52	DMASME11	LU Switch P1	OFF	ON
2023.314.09.44.09	2023.314.09.07.52	DMASME37	SDD LU Detected	FALSE	TRUE

The following **hard OOLs** befell after MIRAS CMN A1 duty cycle ceased activation 2023-10-24T11:32:44z (DoY 2976):

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOl Value	LOWER Limit	UPPER Limit
2023-11-10T18:27:13	2023-11-10T15:00:48	NCMN2T03	CMN2 Ch1 Temp	30.01751	15	30
2023-11-10T18:27:23	2023-11-10T15:06:34	NCMN2T03	CMN2 Ch1 Temp	29.99840	15	30
2023-11-10T18:30:01	2023-11-10T16:36:48	NCMN2T03	CMN2 Ch1 Temp	30.02780	15	30
2023-11-10T18:30:22	2023-11-10T16:48:58	NCMN2T03	CMN2 Ch1 Temp	29.99399	15	30
2023-11-11T03:43:41	2023-11-10T18:20:29	NCMN2T03	CMN2 Ch1 Temp	30.02780	15	30
2023-11-11T03:43:56	2023-11-10T18:29:27	NCMN2T03	CMN2 Ch1 Temp	29.98811	15	30



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2023-11-11T03:46:39	2023-11-10T20:02:53	NCMN2T03	CMN2 Ch1 Temp	30.01163	15	30
2023-11-11T03:46:46	2023-11-10T20:06:44	NCMN2T03	CMN2 Ch1 Temp	29.99546	15	30
2023-11-11T03:49:35	2023-11-10T21:43:22	NCMN2T03	CMN2 Ch1 Temp	30.01751	15	30
2023-11-11T03:49:41	2023-11-10T21:46:34	NCMN2T03	CMN2 Ch1 Temp	29.99987	15	30
2023-11-11T03:55:17	2023-11-11T00:59:13	NCMN2T03	CMN2 Ch1 Temp	30.01457	15	30
2023-11-11T03:55:31	2023-11-11T01:07:32	NCMN2T03	CMN2 Ch1 Temp	29.99987	15	30
2023-11-11T03:58:09	2023-11-11T02:37:46	NCMN2T03	CMN2 Ch1 Temp	30.02927	15	30
2023-11-11T03:58:34	2023-11-11T02:51:51	NCMN2T03	CMN2 Ch1 Temp	29.99546	15	30
2023-11-11T08:52:35	2023-11-11T04:17:37	NCMN2T03	CMN2 Ch1 Temp	30.02339	15	30
2023-11-11T08:53:00	2023-11-11T04:31:03	NCMN2T03	CMN2 Ch1 Temp	29.97929	15	30
2023-11-11T08:55:29	2023-11-11T05:56:49	NCMN2T03	CMN2 Ch1 Temp	30.01310	15	30
2023-11-11T08:55:51	2023-11-11T06:09:37	NCMN2T03	CMN2 Ch1 Temp	29.97488	15	30
2023-11-11T08:58:28	2023-11-11T07:39:51	NCMN2T03	CMN2 Ch1 Temp	30.03662	15	30
2023-11-11T08:58:44	2023-11-11T07:48:49	NCMN2T03	CMN2 Ch1 Temp	29.98664	15	30
2023-11-11T14:48:17	2023-11-11T09:17:47	NCMN2T03	CMN2 Ch1 Temp	30.03074	15	30
2023-11-11T14:48:41	2023-11-11T09:31:51	NCMN2T03	CMN2 Ch1 Temp	29.98223	15	30
2023-11-11T14:51:13	2023-11-11T10:58:54	NCMN2T03	CMN2 Ch1 Temp	30.02045	15	30
2023-11-11T14:51:31	2023-11-11T11:09:08	NCMN2T03	CMN2 Ch1 Temp	29.99105	15	30
2023-11-11T14:54:15	2023-11-11T12:43:13	NCMN2T03	CMN2 Ch1 Temp	30.01751	15	30
2023-11-11T14:54:22	2023-11-11T12:47:04	NCMN2T03	CMN2 Ch1 Temp	29.99840	15	30
2023-11-11T14:56:55	2023-11-11T14:14:44	NCMN2T03	CMN2 Ch1 Temp	30.02633	15	30



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2023-11-11T19:26:39	2023-11-11T14:32:40	NCMN2T03	CMN2 Ch1 Temp	29.98664	15	30
2023-11-11T19:29:00	2023-11-11T15:53:57	NCMN2T03	CMN2 Ch1 Temp	30.03074	15	30
2023-11-11T19:29:33	2023-11-11T16:12:30	NCMN2T03	CMN2 Ch1 Temp	29.97635	15	30
2023-11-11T19:32:00	2023-11-11T17:36:59	NCMN2T03	CMN2 Ch1 Temp	30.02927	15	30
2023-11-11T19:32:28	2023-11-11T17:52:59	NCMN2T03	CMN2 Ch1 Temp	29.99987	15	30
2023-11-12T05:03:57	2023-11-11T19:18:45	NCMN2T03	CMN2 Ch1 Temp	30.03515	15	30
2023-11-12T05:04:22	2023-11-11T19:32:49	NCMN2T03	CMN2 Ch1 Temp	29.99399	15	30
2023-11-12T05:06:57	2023-11-11T21:01:47	NCMN2T03	CMN2 Ch1 Temp	30.03074	15	30
2023-11-12T05:07:13	2023-11-11T21:10:45	NCMN2T03	CMN2 Ch1 Temp	29.99546	15	30
2023-11-12T05:09:53	2023-11-11T22:42:54	NCMN2T03	CMN2 Ch1 Temp	30.01604	15	30
2023-11-12T05:10:00	2023-11-11T22:46:45	NCMN2T03	CMN2 Ch1 Temp	29.99546	15	30

The following plot showcases a graphical representation of the above table:



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### Temperature Arm-A segment One

