



Operations Notes

FOS Team @ ESAC

Reported by:

J. Fauste/J.M. Castro Cerón

Topic:

Date:

Issue:

FOS Report for week 18, year 2022

from 02 MAY 2022 to 09 MAY 2022

1.0

1 General Comments

Activities scheduled for this week are those planned for the 18th calendar week of 2022:

02 MAY 2022 to 09 MAY 2022 (DOYs 122 to 129).

The following routine activities were planned this week (see Gantt chart on next page and CRF 1044).

- One PMS Offset on 05 MAY 2022 (DOY 125), including three Short Calibrations at 06:32:00.0z, 06:32:34.8z, and 06:33:09.6z (orbit 65718).
- Local Oscillator Calibrations every 10 minutes.
- X band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

Because of the MIRAS CCU reset that happened on the 8th of May the following X-Band passes were not acquired on ground:

STATION	AOS	LOS	Duration
Xband_SVAL	2022-05-08T22:03:18	2022-05-08T22:13:36	617
Xband_SVAL	2022-05-09T01:20:43	2022-05-09T01:31:08	625
Xband_SVAL	2022-05-09T02:59:51	2022-05-09T03:10:15	624
Xband_ESAC	2022-05-09T04:33:31	2022-05-09T04:38:15	284
Xband_SVAL	2022-05-09T08:02:32	2022-05-09T08:08:59	387
Xband_SVAL	2022-05-09T09:45:03	2022-05-09T09:49:14	251
Xband_SVAL	2022-05-09T11:26:59	2022-05-09T11:30:35	216
Xband_SVAL	2022-05-09T13:07:36	2022-05-09T13:13:02	325
Xband_SVAL	2022-05-09T14:47:33	2022-05-09T14:55:17	464



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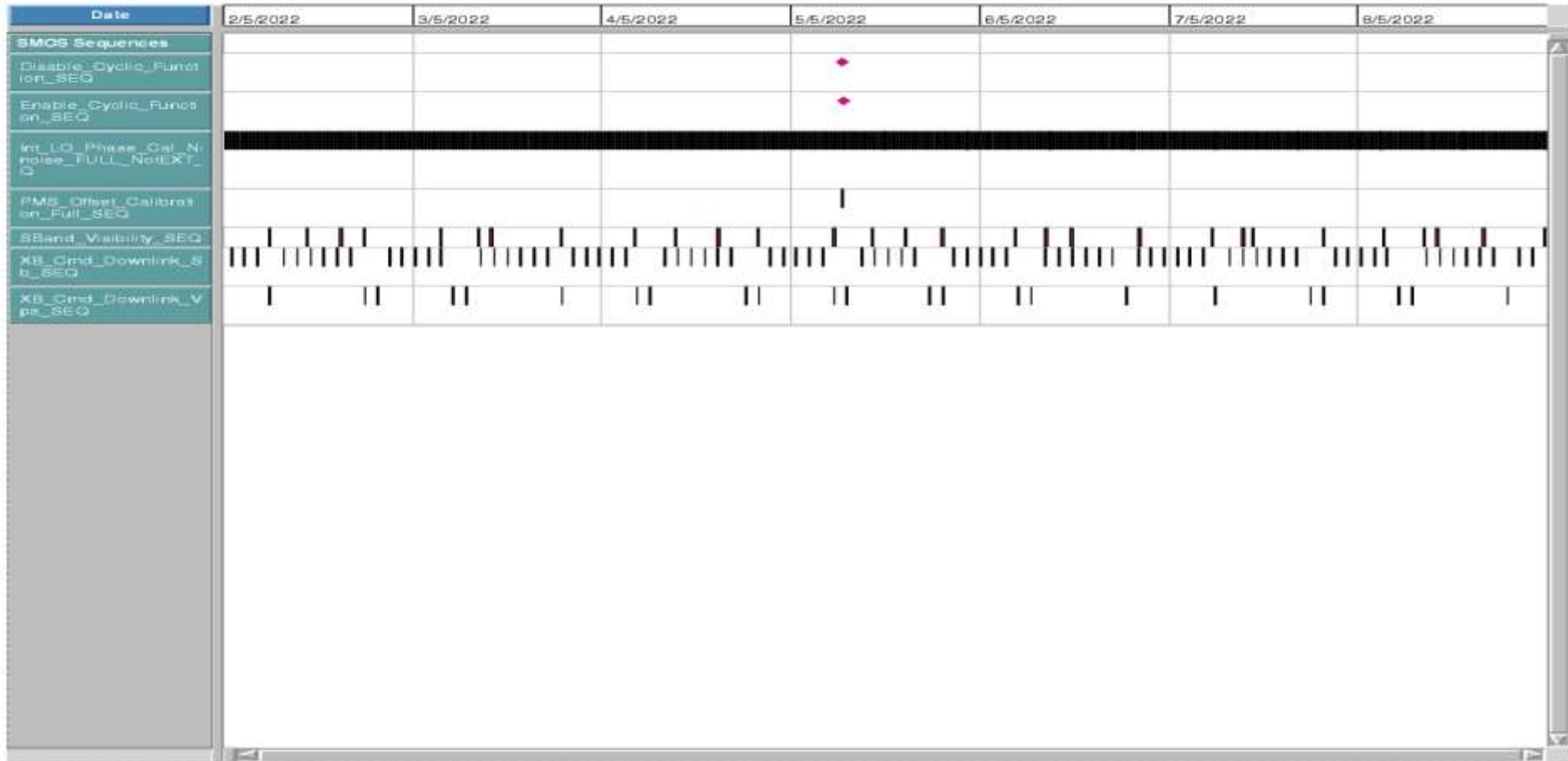
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Schedule Name: 2022_w18_es ### Display start: 02-05-2022 00:00:00.000 ### Display end: 09-05-2022 00:00:00.000





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3 TC Failures

None.

4 On Board Anomalies

- A new MIRAS CCU reset happened on 2022-05-08T20:27:52z (DOY 128) at the end of Svalbard X-Band GS pass with AOS at 20:24:26z. The anomaly was initially suspected by KSAT following a "no reception" of Svalbard X band GS pass with AOS at 22:03:19z. KSAT operator on-duty provided early warning to FOS after the "no reception" of a second Svalbard X band GS pass, they confirmed nominal antenna tracking and no spacecraft signal. The FOS on-duty engineer confirmed the reset upon reception of S band GS pass on 2022-05-09T04:08:22z. Following that, FOS phoned CNES Ops team to coordinate recovery.

Last MIRAS TM packet received before the reset was time stamped at 2022-05-08T20:27:52z. This reset was triggered by the standard OBSW error Task Overrun (information included on the Boot Report packet). As per FOS re-planning in CRF-1046, nominal MIRAS X band GS dumps will be resumed over Svalbard station today, 2022-05-09T16:27:12z.

The values of the READ and WRITE pointers at the time of the reset were:

Read = 1629645 MM Partition P3

Write = 1860284 MM Partition P4

The anomaly was geolocated over Svalbard, Norway:

Latitude = 81.57°

Longitude = 48.57°

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	2022-05-02T22:34:49	2074A4C
RAM single Bit Error	730	WARN	2022-05-02T22:46:52	20DEC10
RAM single Bit Error	730	WARN	2022-05-07T14:41:47	23679BC

6 FOS Systems Status

All FOS systems nominal.



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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 parameters went temporary out of limits at the time of the MIRAS CCU reset on the 8th of May 2022.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2022.129.00.14.26.516	2022.128.20.28.27.205	SPC02106	Instrument_Mode	Inst Init	Any-Mode
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM11167	H1 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM12172	H2 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM13167	H3 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM14167	A1 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM15167	A2 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM16167	A3 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM17167	B1 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM18167	B2 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM19167	B3 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM20167	C1 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM21167	C2 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	SPM22167	C3 LO_Locking	UNLOCK	LOCK
2022.129.00.14.26.516	2022.128.20.28.27.205	XNIRABST	NIR AB VALID ST	NOT-OK	OK
2022.129.00.14.26.516	2022.128.20.28.27.205	XNIRBCST	NIR BC VALID ST	NOT-OK	OK
2022.129.00.14.26.516	2022.128.20.28.27.205	XNIRCAST	NIR CA VALID ST	NOT-OK	OK