



IMPERIAL MAG Data Release Report 2410

5 February 2025 (report covers data release for 1 October– 31 October 2024)

Report Version	1	L2 ground processing software version:	V2.27.1
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Data Summary

MAG was powered on for October. Burst Mode (BM) was available at 64 vectors/s for 24 hours per day for the entire month, and Normal Mode at 8 vectors/s was generated from this.

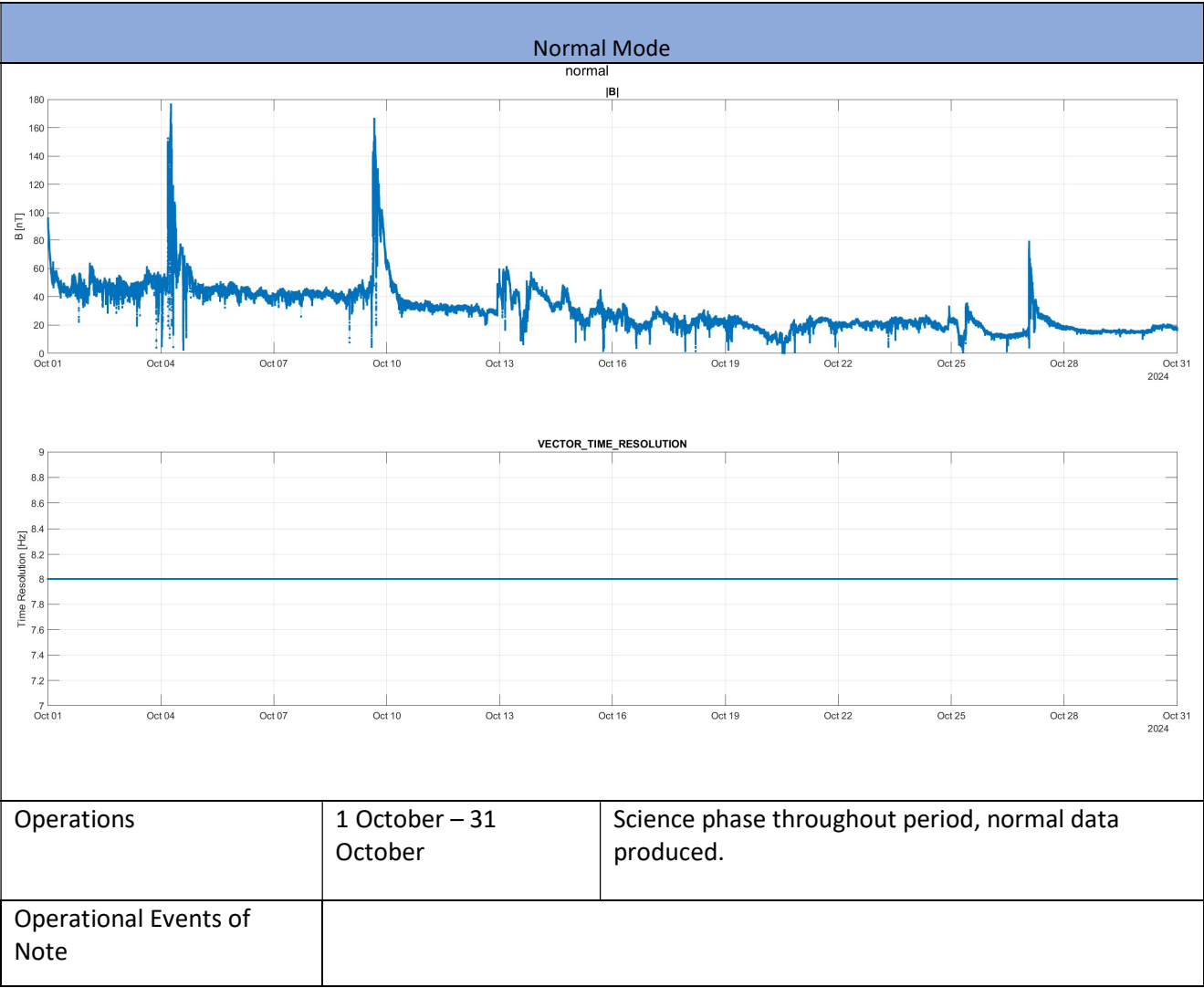
There was a gap in the magnetic field data between 2024-10-27 07:33-07:57 due to missing data in the spacecraft heater telemetry. Without this housekeeping data we are unable to clean the MAG heater signal for this period and therefore cannot produce L2 files for this time. There were also six smaller gaps also due to missing spacecraft heater telemetry data between the 15/10-22/10:

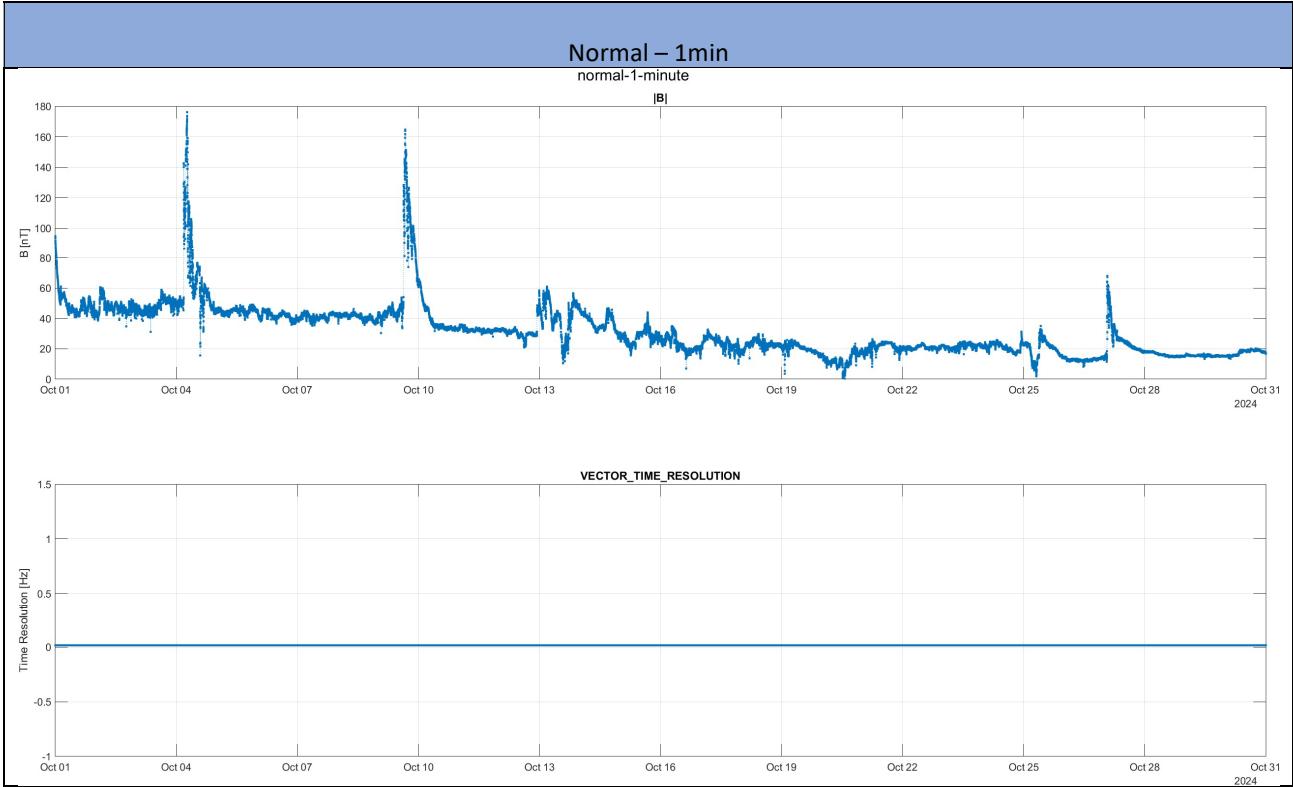
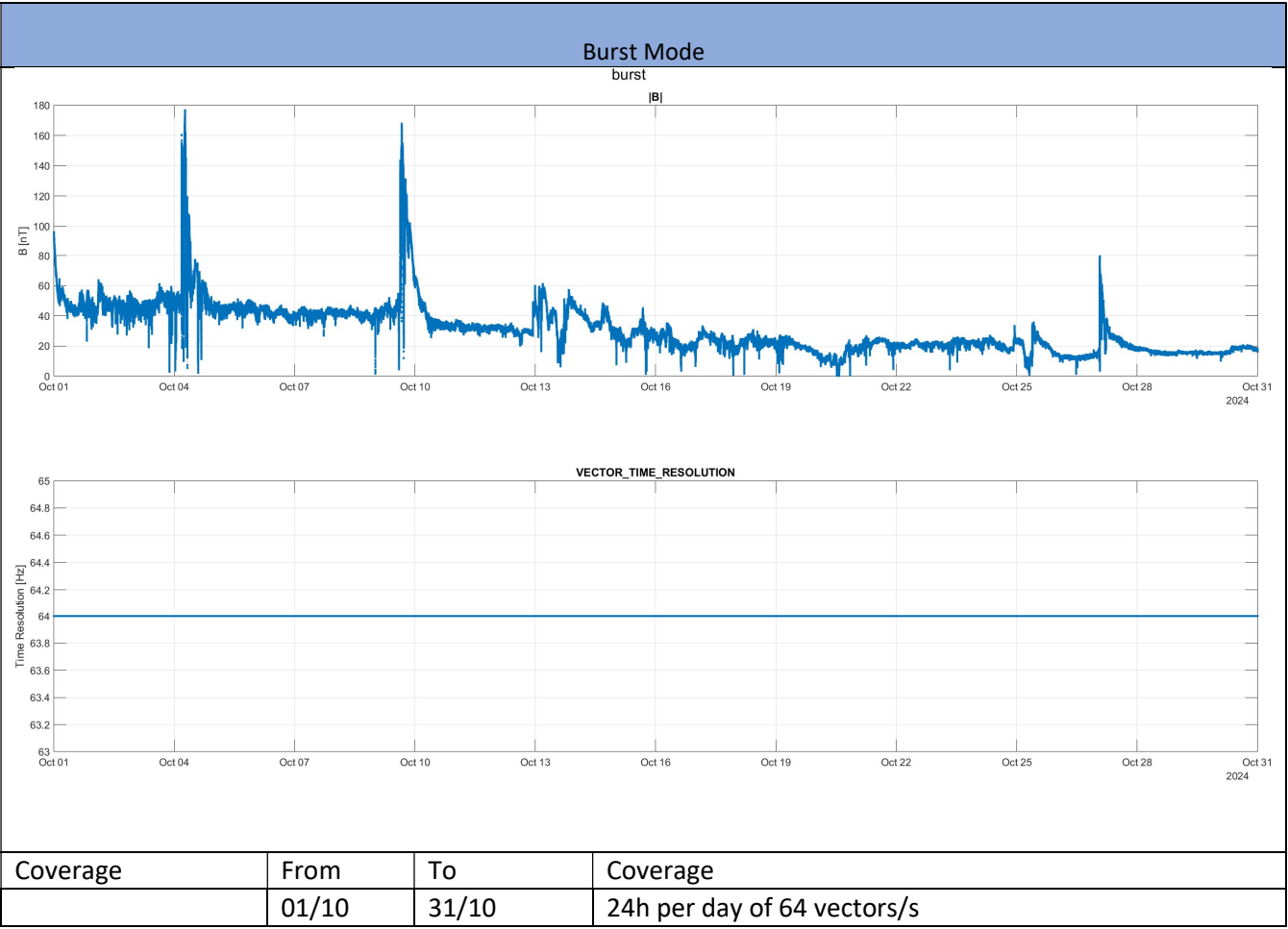
Data Gaps	Gap Size
15/10/2024 23:59-16/10/2024 00:10	00:11
16/10/2024 23:59-17/10/2024 00:02	00:03
17/10/2024 23:59-18/10/2024 00:10	00:11
18/10/2024 23:59-19/10/2024 00:09	00:10
19/10/2024 23:59-20/10/2024 00:03	00:04
20/10/2024 23:59-21/10/2024 00:07	00:08

L1 data for these periods is still available.

Perihelion was on the 1st October.

The spacecraft started the month at 0.29AU on the 1st of October and at the end of the month it was at 0.63AU.





normal



SC
events
which
disturb
the field

1. Solar array movements (solar array angle is changed, and then remains at the new angle due to sun-SC distance thermal constraints)
2. High gain antenna movements
3. Battery Top Up

Offsets								
1 October – 31 October The OBS offsets were relatively stable over the course of the month, with the axes changing less than 0.4nT, and following a continuation of the previous month's trend. The IBS offsets also remained stable, as there were only small (less than 10 degrees) solar array movements in the month.								
OffsetNumber	Date	OBSX	OBSY	OBSZ	IBSX	IBSY	IBSZ	Comment
221025	01/10/2024 00:00	-43.45	-105.34	-5.7	-50.6	85	15	Offsets taken from 2024-09
221028	10/10/2024 00:00					85.5 1	15.5	
221029	16/10/2024 00:00	-43.45						
221030	21/10/2024 00:00		-105.31	-5.4				
221031	24/10/2024 00:00	-43.1						SA movement
221032	01/11/2024 00:00	-43.1	-105.31	-5.4	-50.5	85.5 1	15	

Appendix

Appendix A: Files within this release

Filename
solo_L2_mag-rtn-burst_20241001_V01.cdf
solo_L2_mag-rtn-burst_20241002_V01.cdf
solo_L2_mag-rtn-burst_20241003_V01.cdf
solo_L2_mag-rtn-burst_20241004_V01.cdf
solo_L2_mag-rtn-burst_20241005_V01.cdf
solo_L2_mag-rtn-burst_20241006_V01.cdf
solo_L2_mag-rtn-burst_20241007_V01.cdf
solo_L2_mag-rtn-burst_20241008_V01.cdf
solo_L2_mag-rtn-burst_20241009_V01.cdf
solo_L2_mag-rtn-burst_20241010_V01.cdf
solo_L2_mag-rtn-burst_20241011_V01.cdf
solo_L2_mag-rtn-burst_20241012_V01.cdf
solo_L2_mag-rtn-burst_20241013_V01.cdf
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solo_L2_mag-rtn-burst_20241019_V01.cdf
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solo_L2_mag-rtn-burst_20241021_V01.cdf
solo_L2_mag-rtn-burst_20241022_V01.cdf
solo_L2_mag-rtn-burst_20241023_V01.cdf
solo_L2_mag-rtn-burst_20241024_V01.cdf
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solo_L2_mag-rtn-burst_20241027_V01.cdf
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