



14 May 2024 (report covers data release for 1 February – 29 February 2024)

Report Version	1	L2 ground processing software version:	V2.26.1
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Data Summary

MAG was powered on for February. Burst Mode (BM) was available at 64 vectors/s for 24 hours per day for the whole month.

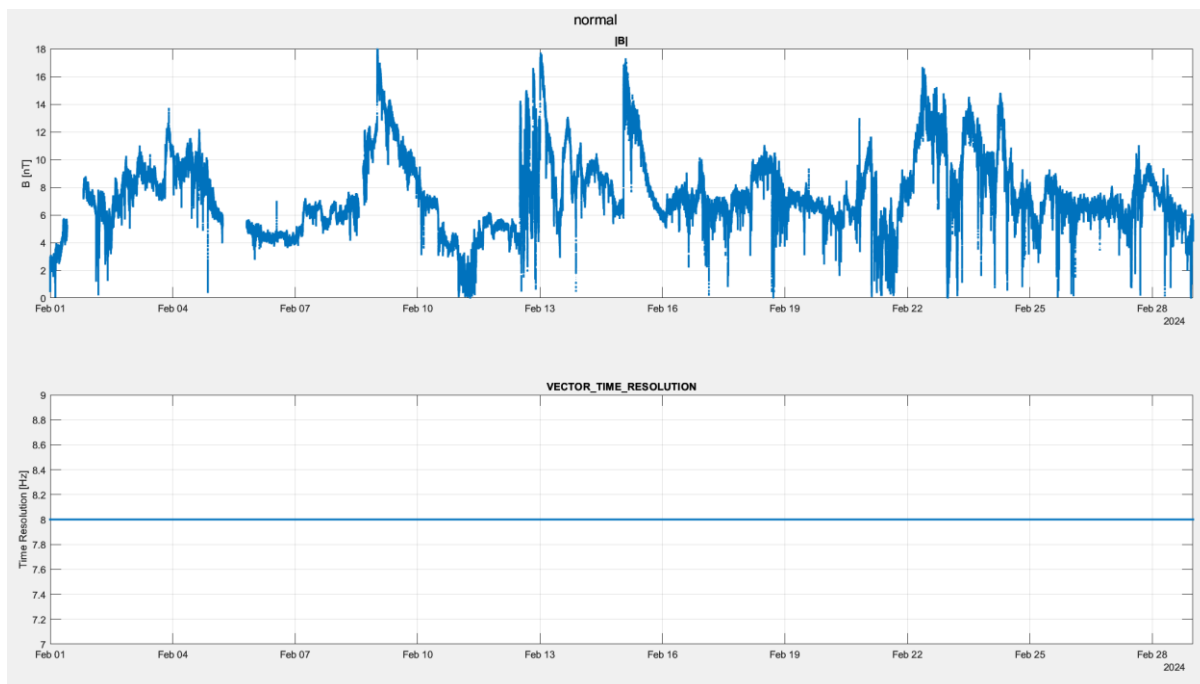
There was a DST and TWTA power test between 17/01/2024-5/02/2024. These are part of the communications system on-board Solar Orbiter. After the tests the communications system was reverted to the nominal configuration i.e DST-A and TWTA-A. These tests caused an offset of over 1nT in the magnetic field data, and therefore we have decided not to release the following periods covering the tests:

StartTime	EndTime	Comment
01/02/2024 10:00	01/02/2024 19:30	DST-A-TWTA-B test
05/02/2024 05:30	05/02/2024 19:30	DST-A-TWTA-A test
08/02/2024 13:30	08/02/2024 16:00	DST-B-TWTA-A test

Solar Orbiter was approaching the Earth-Sun line during February.

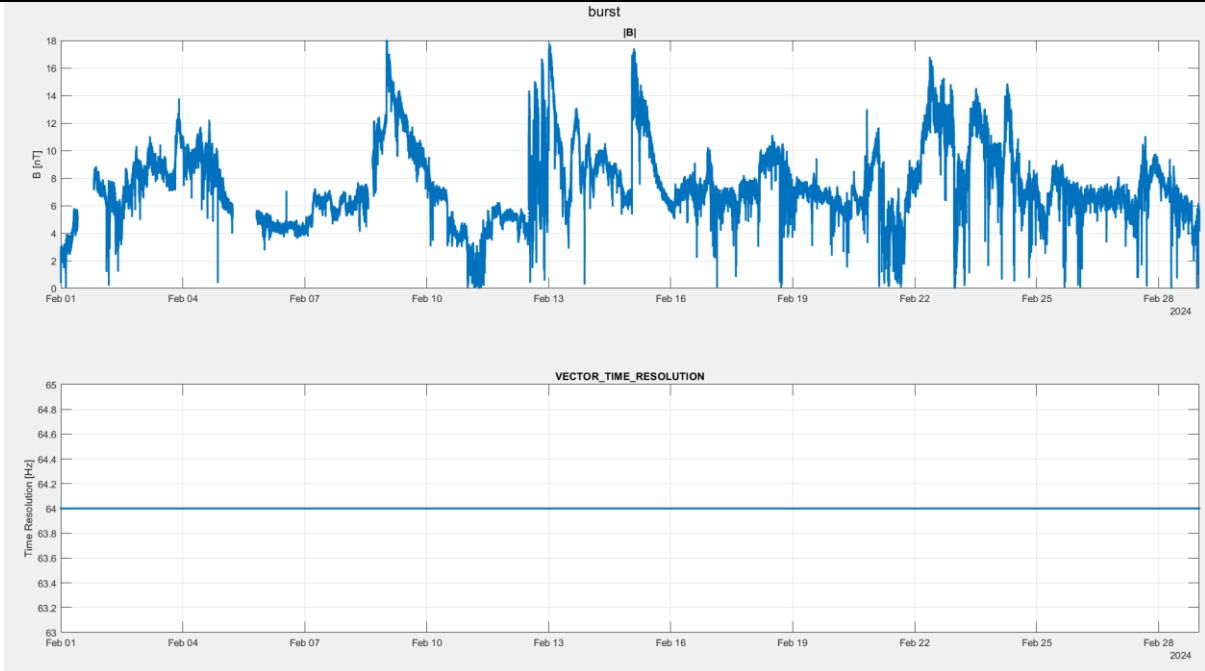
The spacecraft started the month at 0.89AU on the 1<sup>st</sup> of February and at the end of the month it was at 0.68AU.

## Normal Mode



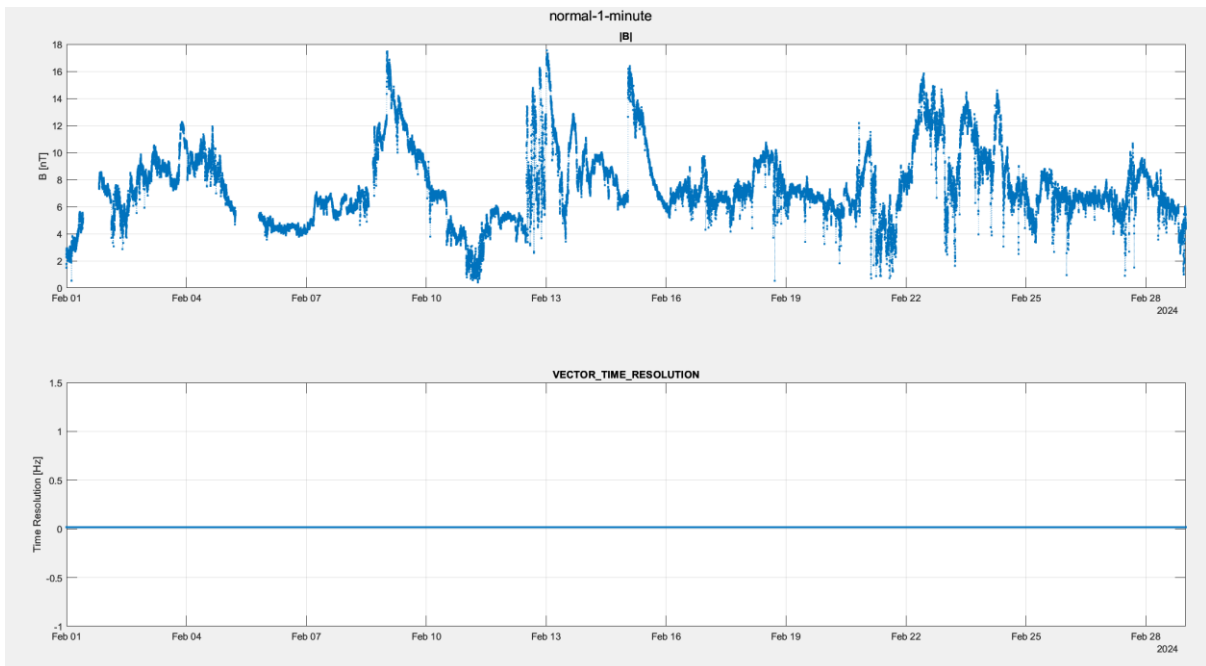
Operations	1 February – 29 February	Science phase throughout period, normal data produced.
Operational Events of Note	DST and TWTA power test between 17/01/2024-5/02/2024.	

### Burst Mode

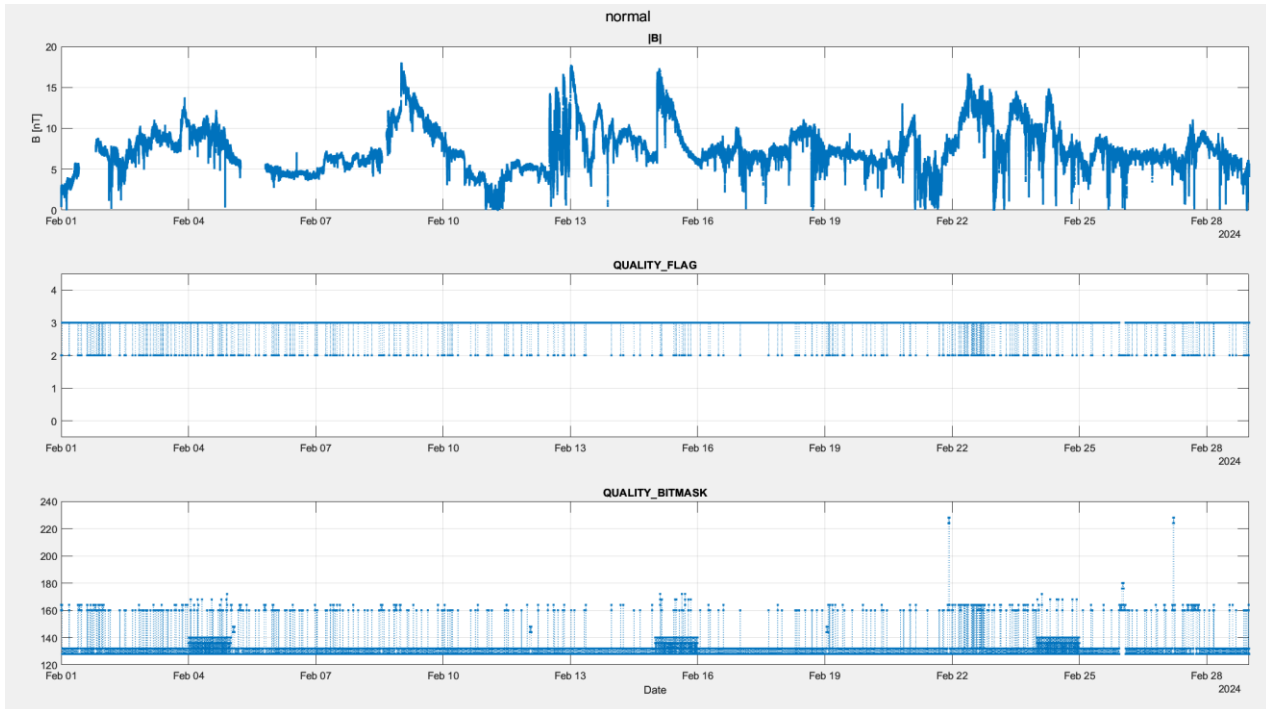


Coverage	From	To	Coverage
	01/02	29/02	24h per day of 64 vectors/s

### Normal – 1min



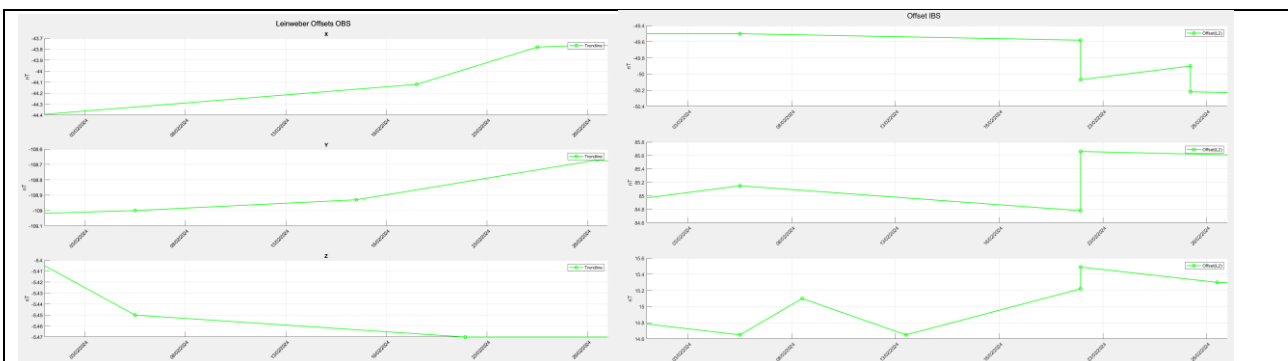
## Quality bitmask



### Quality bit mask events

SC events which disturb the field	<ol style="list-style-type: none"> <li>1. Solar array movements (solar array angle is changed, and then remains at new angle due to sun-SC distance thermal constraints)</li> <li>2. High gain antenna movements</li> <li>3. Battery Top Up</li> </ol>	
SC related issues	25/02/2024 23:10 - 26/02/2024 02:10	05/01/2024 11:03 - present interference affecting IBS.

### Offsets



**1 Feb – 29 Feb**

IBS offset was primarily disturbed by the SA events on the 21<sup>st</sup> and 27<sup>th</sup> of February. The Z OBS offsets remained stable throughout the month, changing by only +/- 0.1nT. The OBS Y offset displayed the expected recovery behaviour, and the .

OffsetNumber	Date	OBSX	OBSY	OBSZ	IBSX	IBSY	IBSZ	Comment
221033	31/01/2024 12:00	-44.4	-109.02	-5.4	-49.5	84.95	14.8	End of month
221034	05/02/2024 12:00		-109	-5.45	-49.5	85.15	14.65	
221035	08/02/2024 12:00						15.1	
221036	13/02/2024 12:00						14.65	
221037	16/02/2024 12:00		-108.93					
221038	19/02/2024 12:00	-44.12						
221039	21/02/2024 21:58			-5.47	-49.58	84.78	15.22	SA angle change
221040	21/02/2024 22:02				-50.07	85.66	15.49	SA angle change
221041	25/02/2024 12:00	-43.78						
221042	27/02/2024 05:03				-49.9			SA angle change
221043	27/02/2024 05:04				-50.22			SA angle change
221044	28/02/2024 12:00	-43.76	-108.67				15.3	
221045	05/03/2024 12:00				-50.25			

**Appendix**

Appendix A: Files within this release

Filename
solo_L2_mag-rtn-burst_20240201_V01.cdf
solo_L2_mag-rtn-burst_20240202_V01.cdf
solo_L2_mag-rtn-burst_20240203_V01.cdf
solo_L2_mag-rtn-burst_20240204_V01.cdf
solo_L2_mag-rtn-burst_20240205_V01.cdf
solo_L2_mag-rtn-burst_20240206_V01.cdf
solo_L2_mag-rtn-burst_20240207_V01.cdf
solo_L2_mag-rtn-burst_20240208_V01.cdf
solo_L2_mag-rtn-burst_20240209_V01.cdf
solo_L2_mag-rtn-burst_20240210_V01.cdf
solo_L2_mag-rtn-burst_20240211_V01.cdf

solo_L2_mag-rtn-burst_20240212_V01.cdf
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