

Please send all reports and observations to jacook@jacook.plus.com

BAA Radio Astronomy Section.

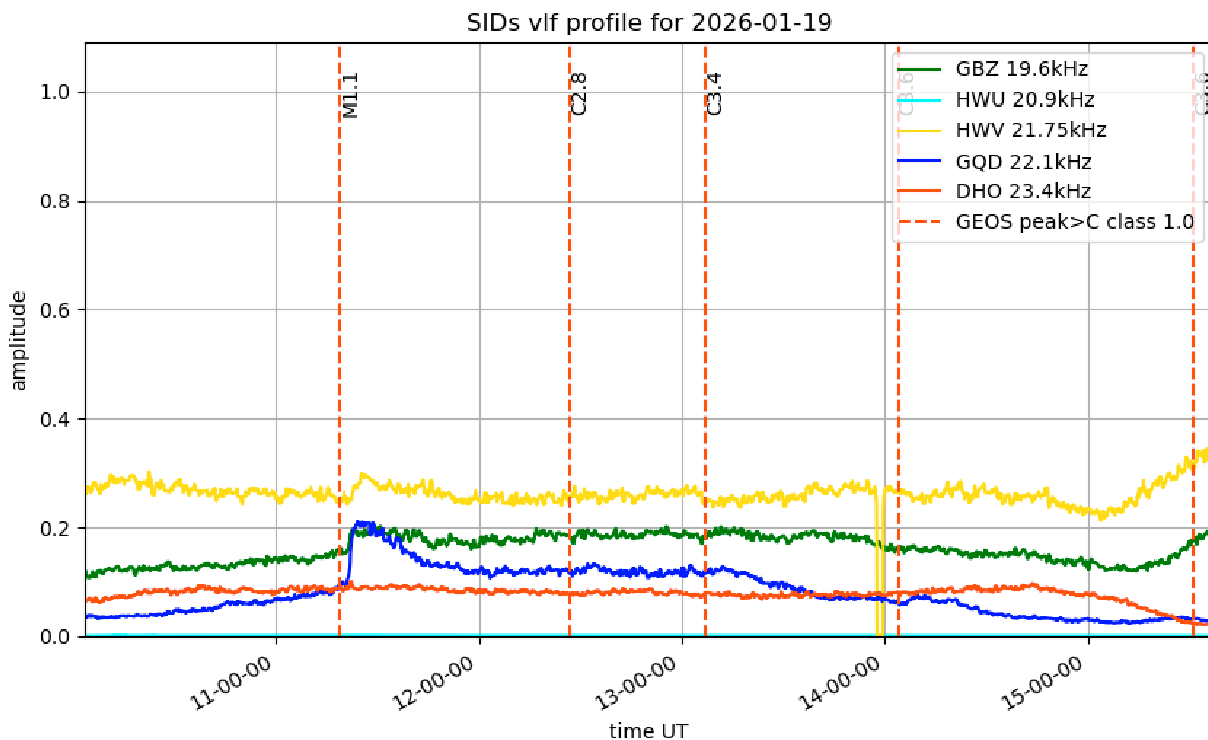
Director Paul Hearn.

RADIO SKY NEWS

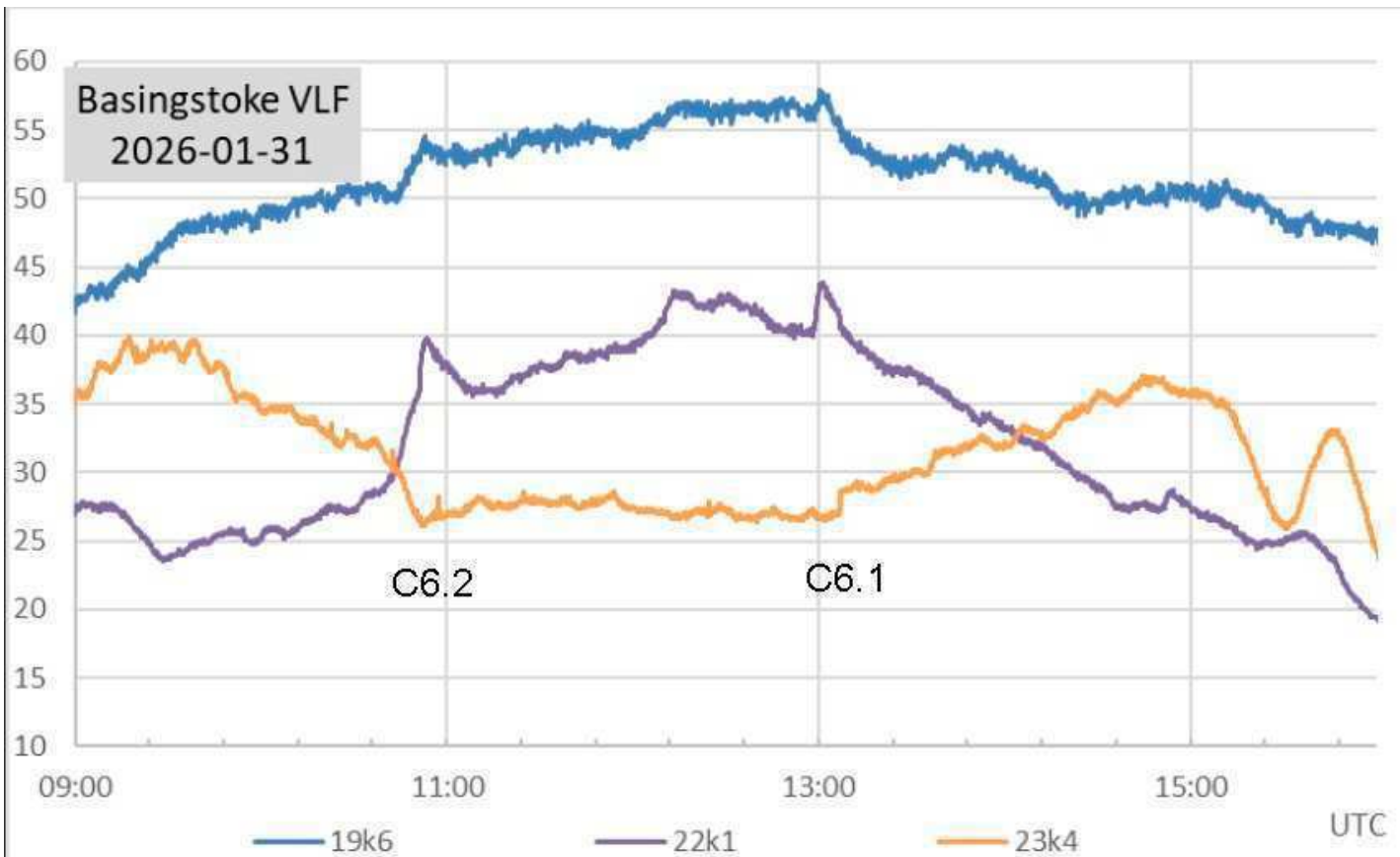
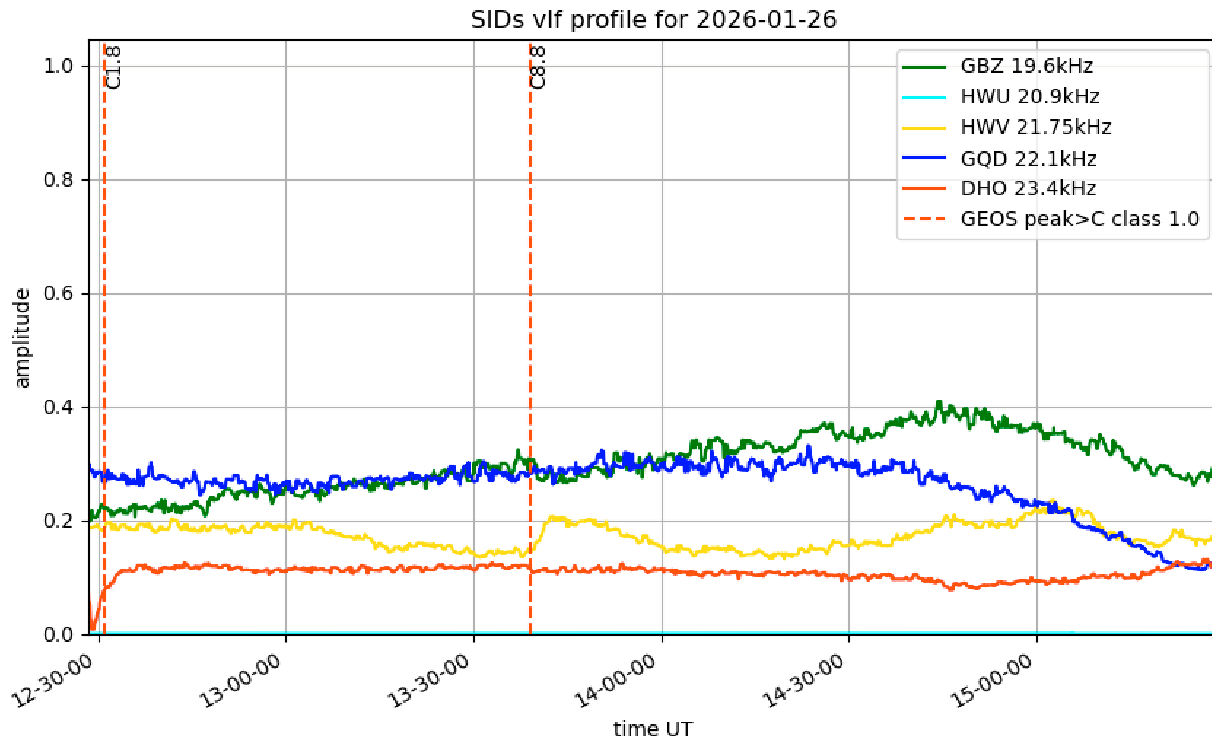
2026 JANUARY.

VLF SID OBSERVATIONS.

2026 started quietly, with just 14 SIDs recorded. This included a single X-class flare on January 18th, although it was rather late in the day at 18:34UT to be seen on the European signals. It was recorded at 24kHz. There were also two M-flares that were more widely recorded.

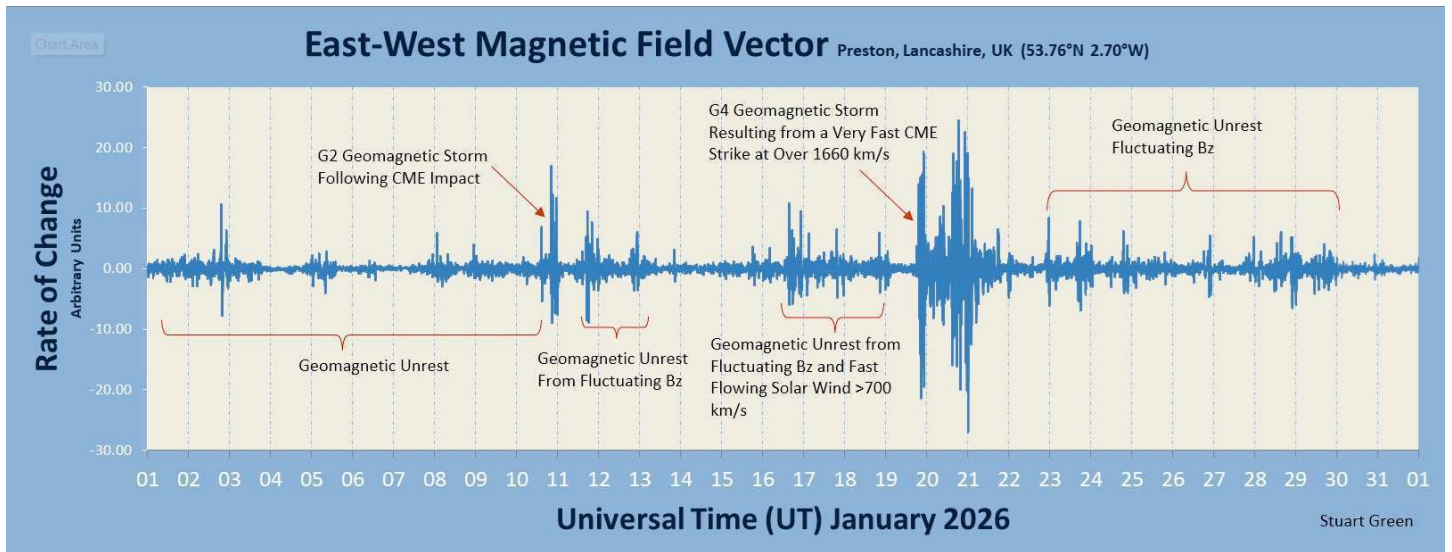


Mark Prescott's recording from the 19th shows the M1.1 flare at 11:25UT clearly at 22.1kHz, although it has had less effect on the other signals. The other weaker flares have not really produced any clear SIDs. His recording from the 26th, on the next page, shows a good response to the C8.8 flare at 21.75kHz, but again the other signals are unresponsive. The two UK signals, 19.6kHz and 22.1kHz also show some significant noise due to the low winter solar altitude.

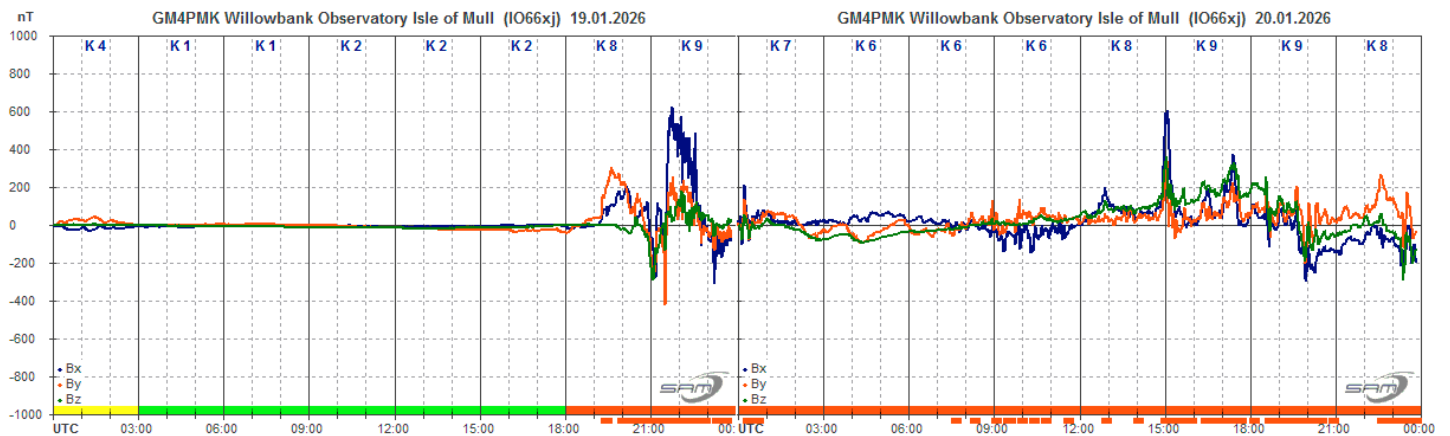


Paul Hyde's recording from the 31st shows two more stronger C-flares, well recorded at 22.1 kHz, with rather less clear SIDs at 19.6 kHz and 23.4 kHz. The early sunset is also seen after 15 UT on the German 23.4 kHz signal.

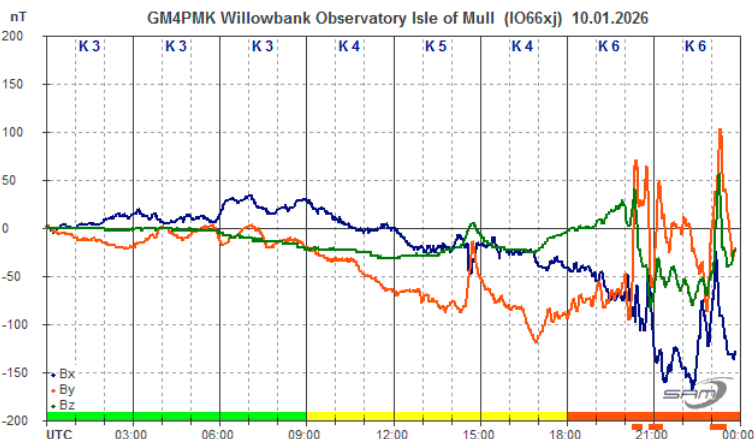
MAGNETIC OBSERVATIONS.



Stuart Green's summary of magnetic activity in January shows several periods of mild disturbance, with a more active period over the 19th to 22nd. This was a very strong magnetic storm, as shown in Roger Blackwell's recording:



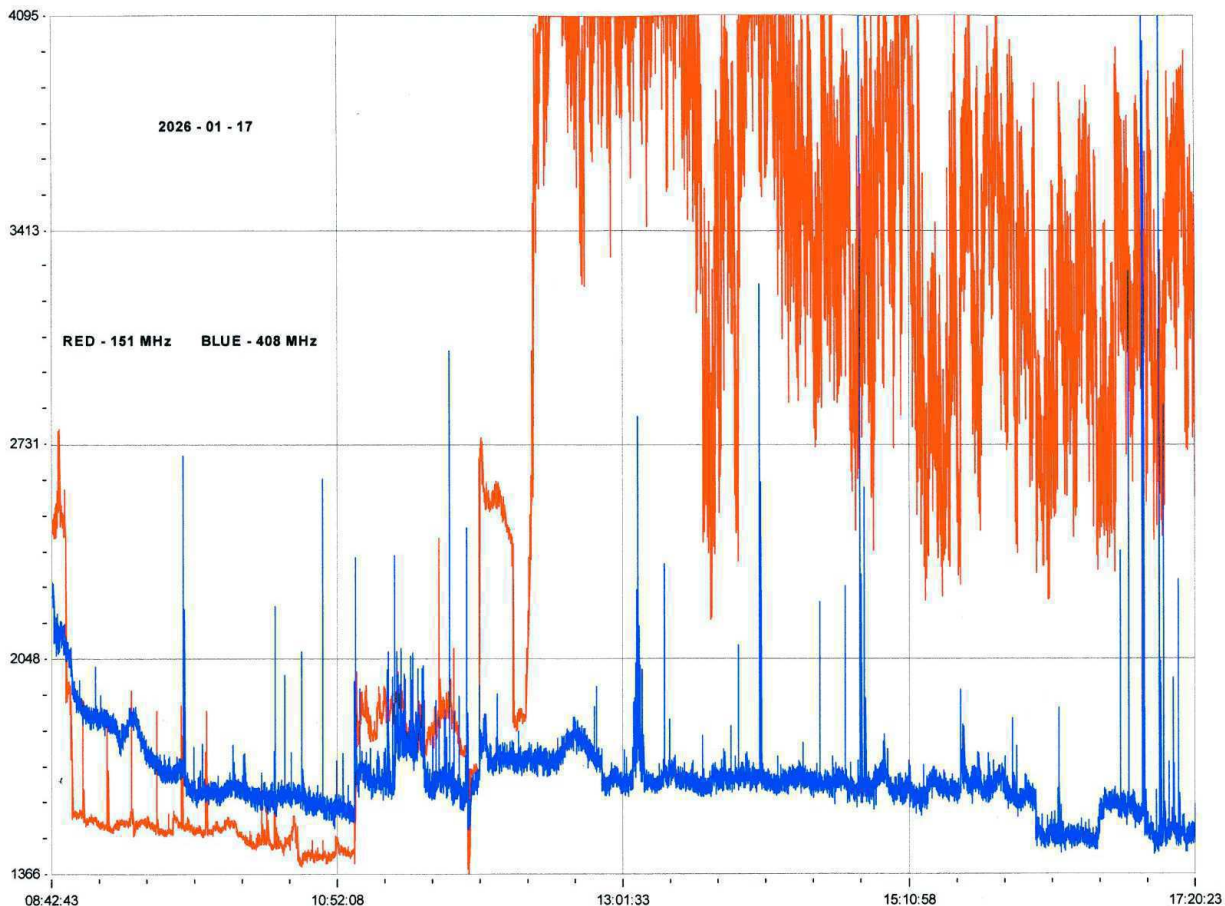
The start of the chart may look fairly quiet, but note that the vertical scale is ± 1000 nT on both days. The X1.9 flare peaking at 18:35 UT on the 18th produced a very fast CME, with its impact at around 19:20 UT on the 19th, just under 24 hours transit time. This makes it the fastest CME transit that we have recorded. The disturbance continued into the morning of the 21st at about ± 200 nT, fading out by 06 UT.



A much weaker active period on the 10th was produced by a combination of smaller CMEs, with transit times of more than two days. Roger Blackwell's chart on the previous page has the more usual scale of +/- 200nT, the disturbance recorded at about +100/-150nT. There were also some coronal hole solar winds producing some mild activity through most of January.

Magnetic observations received from Roger Blackwell, Stuart Green and John Cook.

SOLAR EMISSIONS

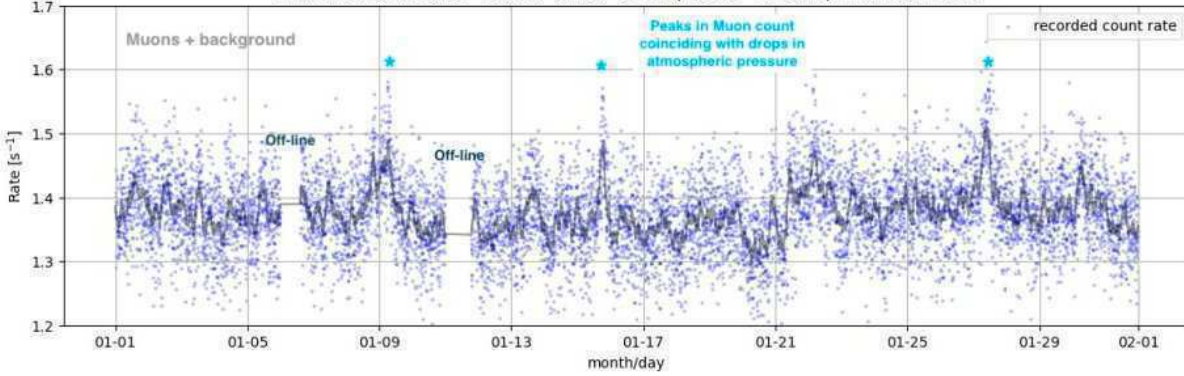


Colin Clements recorded this very strong 151MHz emission on the 17th. There is a small rise in both frequencies shortly after the M2.1 flare. 408MHz then fades out while 151MHz became significantly stronger, lasting beyond the end of the recording. There was also a very strong 408MHz emission on the 19th, starting well before the M1.1 flare. This also had a much weaker 408MHz signal.

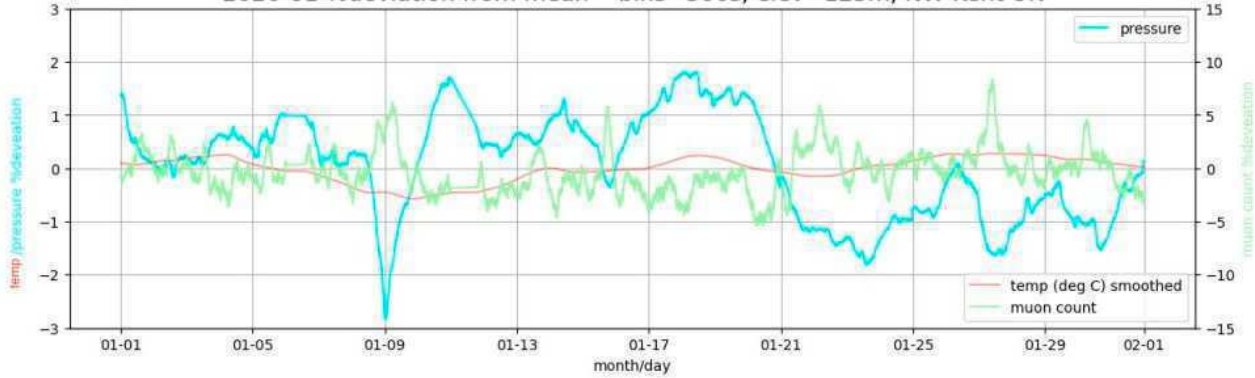
MUONS

Mark Prescott's muon charts show some strong variations in counts, as well as large variations in atmospheric pressure (blue trace on the chart). The raw muon flux on the top chart shows the strong spikes associated with rising atmospheric pressure, marked with blue dots. There are also two short periods where the system was off-line and not recording. The lower charts show the pressure/temperature corrected data, with a significant drop in flux following the CME effects on the 20th. There is also some increased flux during the periods of particularly low atmospheric pressure.

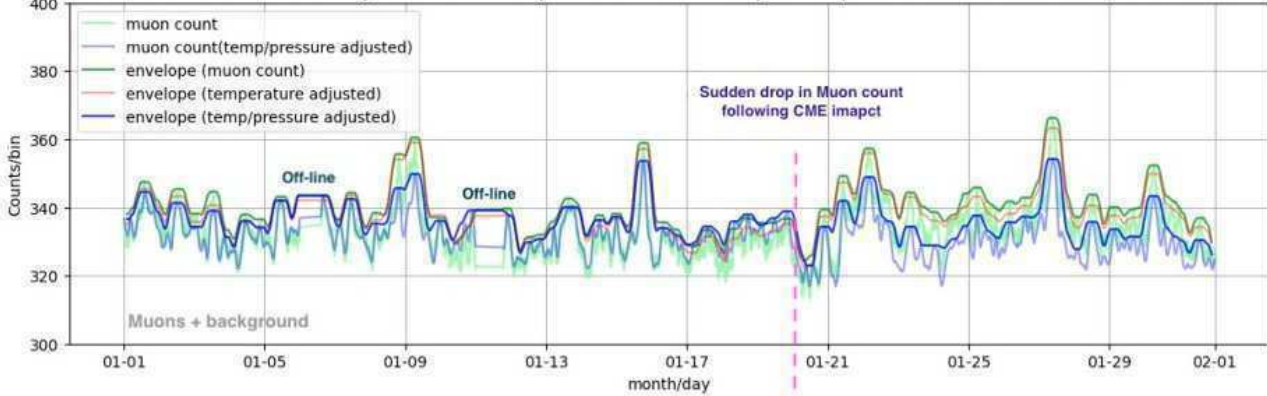
Muon count rate 2026 bins=300s, elev=125m, NW Kent UK



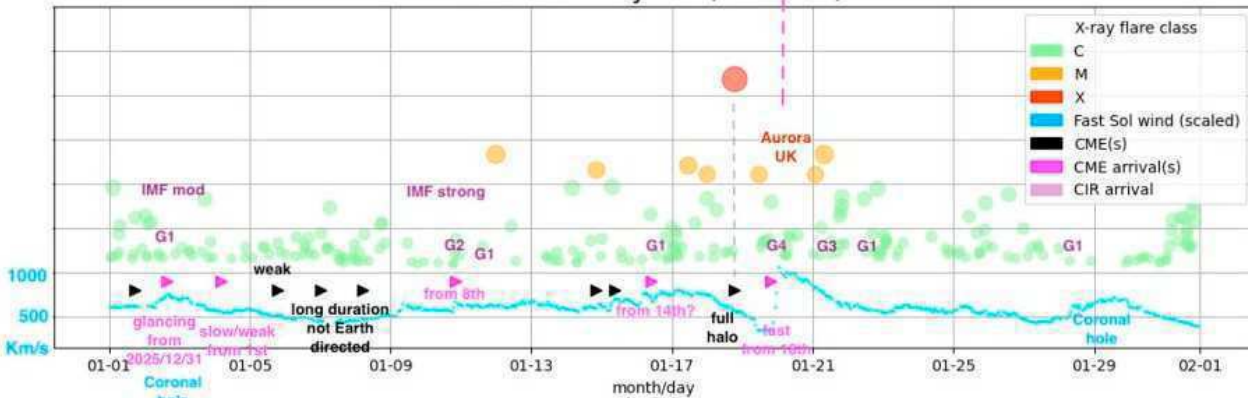
2026-01 %deviation from mean bins=300s, elev=125m, NW Kent UK



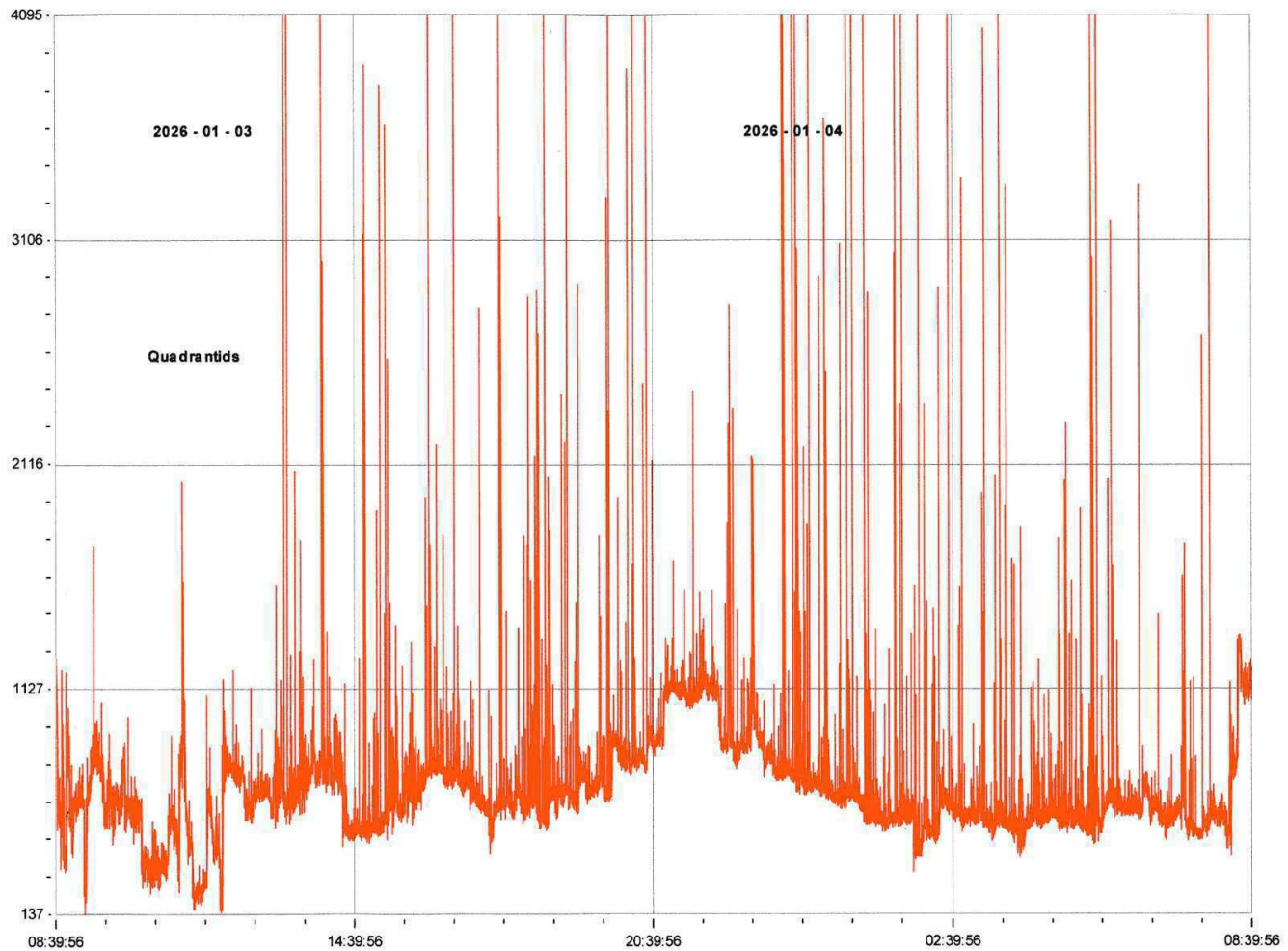
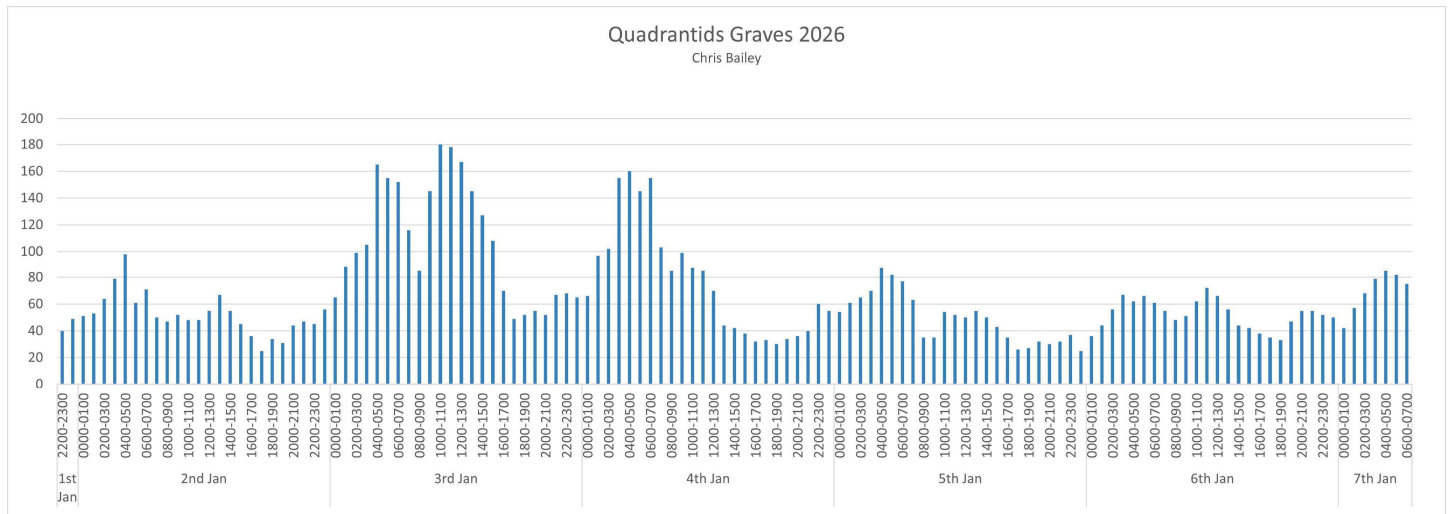
2026-01 Muon count adjusted for temperature & atmospheric pressure bins=300s, elev=125m



GEOS 16 X-ray flux (max time)



QUADRANTIDS



The top chart is Chris Bailey's recording of the Quadrantid meteors over the 1st to 7th. The clear peaks in activity are on the 3rd and 4th, mostly during the morning hours. There is also a smaller peak in the early morning of the 1st. The 5th to 7th shows small diurnal variations, but at much lower levels. Colin Clements chart just shows the afternoon of the 3rd and morning of the 4th. There is a small gap with reduced activity just before midnight. The difference in these charts may well be due to the different geometry from the radar signal source to the two receiver locations.

BAA Radio Astronomy Section.

2026 JANUARY.

DAY	Xray class	Observers	John Cook (23.4kHz/22.1kHz)	Roberto Battaiola 18.3kHz	Paul Hyde (22.1kHz/24kHz)	Mark Edwards (24.0kHz)	Colin Clements (23.4kHz/18.3kHz)
			Tuned radio frequency receiver, 0.58m frame aerial.	Modified AAVSO receiver.	Spectrum Lab / PC 1.5m frame aerial.	Spectrum Lab / PC 2m loop aerial.	Tuned Radio Frequency receivers, 0.76m screened loop aerial.
			START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)
9	C3.4	1	11:24 11:28 11:34 1-				
16	C6.6	1	09:02 09:07 09:16 1-				
17	M2.1	7	10:26 10:31 10:58 1+		10:25 10:31 11:21 2+	10:26 10:30 10:36 1-	10:26 10:31 10:54 1+
17	C5.6	1				15:06 15:07 15:19 1-	
18	X1.9	1				17:25 18:35 19:24 3	
19	M1.1	7	11:18 11:22 11:45 1+		11:16 11:22 11:56 2	11:17 11:24 11:40 1	11:19 11:23 12:59 3
20	C4.0	1	08:13 08:16 08:32 1				
22	C8.3	3	10:44 10:50 11:05 1		10:42 10:52 11:01 1		10:54 11:04 11:24 1+
26	C8.8	2	13:35 13:38 13:57 1				
27	C3.1	1	09:21 09:26 09:58 2				
31	C6.2	2	10:46 10:52 11:02 1-		10:45 10:54 11:10 1		
31	C6.1	3	12:59 13:01 13:11 1-		12:57 13:01 13:08 1-		
31	C4.5	1				14:51 14:53 14:57 1-	
31	C3.5	1				15:58 16:01 16:07 1-	
31	?	1				16:25 16:28 16:34 1-	

DAY	Xray class	Observers	Steve Parkinson (Various)	Andrew Thomas (18.3kHz)	Phil Rourke (23.4kHz)	Mark Prescott (21.75kHz)	John Elliott (19.6kHz)
			Tuned radio frequency receiver, frame aeriels.	Tuned radio frequency receiver, 0.6m frame aerial.	Spectrum Lab, 0.6m frame aerial.	SpetrumLab/Starbase, Active mini-whip aerial.	Tuned radio frequency receiver, 0.5m frame aerial.
			START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)
9	C3.4						
16	C6.6						
17	M2.1		10:26 10:30 10:50 1			10:32 10:34 10:51 1	10:28 10:30 10:50 1
17	C5.6						
18	X1.9						
19	M1.1		11:17 11:21 11:38 1			11:22 11:25 ? -	11:17 11:20 11:55 2
20	C4.0						
22	C8.3						
26	C8.8					13:39 13:42 14:01 1	
27	C3.1						
31	C6.2						
31	C6.1		12:59 13:01 13:15 1-				
31	C4.5						
31	C3.5						
31	?						

BARTELS DIAGRAM

ROTATION	KEY:	DISTURBED.	ACTIVE	SFE	B, C, M, X = FLARE MAGNITUDE.	Synodic rotation start (carrington's).
2582						2265
	F	26 27 28 29 30	1 2 3 4	5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20 21 22	2022 December
2583						2266
	F	23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	19 20 21 22 23 24 25 26 27 28 29 30 31	2023 January	
2584						2267
	F	19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14	2023 February		
2585						2268
	F	15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	2023 March			
2586						2269
	F	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	2023 April			
2587						2270
	F	10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	2023 May			
2588						2271
	F	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	2023 June			
2589						2272
	F	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29				
2590						2273
	F	30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	2023 July			
2591						2274
	F	27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	2023 August			
2592						2275
	F	23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	2023 September			
2593						2276
	F	19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2023 October			
2594						2277
	F	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12	2023 November			
2595						2278
	F	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9	2023 December			
2596						2279
	F	10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5	2024 January			
2597						2280
	F	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1				
2598						2281
	F	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	2024 February			
2599						2282
	F	29 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	2024 March			
2600						2283
	F	27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	2024 April			
2601						2284
	F	23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	2024 May			
2602						2285
	F	20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2024 June			
2603						2286
	F	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12	2024 July			
2604						2287
	F	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8	2024 August			
2605						2288
	F	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4	2024 September			
2606						2289
	F	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1				
2607						2290
	F	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	2024 October			
2608						2291
	F	29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	2024 November			
2609						2292
	F	25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	2024 December			
2610						2293
	F	22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	2025 January			
2611						2294
	F	18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13	2025 February			
2612						2295
	F	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12	2025 March			
2613						2296
	F	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8	2025 April			
2614						2297
	F	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5	2025 May			
2615						2298
	F	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1				
2616						2299
	F	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	2025 June			
2617						2300
	F	29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	2025 July			
2618						2301
	F	26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	2025 August			
2619						2302
	F	22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	2025 September			
2620						2303
	F	18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14	2025 October			
2621						2304
	F	15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10	2025 November			
2622						2305
	F	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7	2025 December			
2623						2306
	F	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3	2026 January			
2624						2307
	F	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
2625						2308
	F	31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	2026 February			