

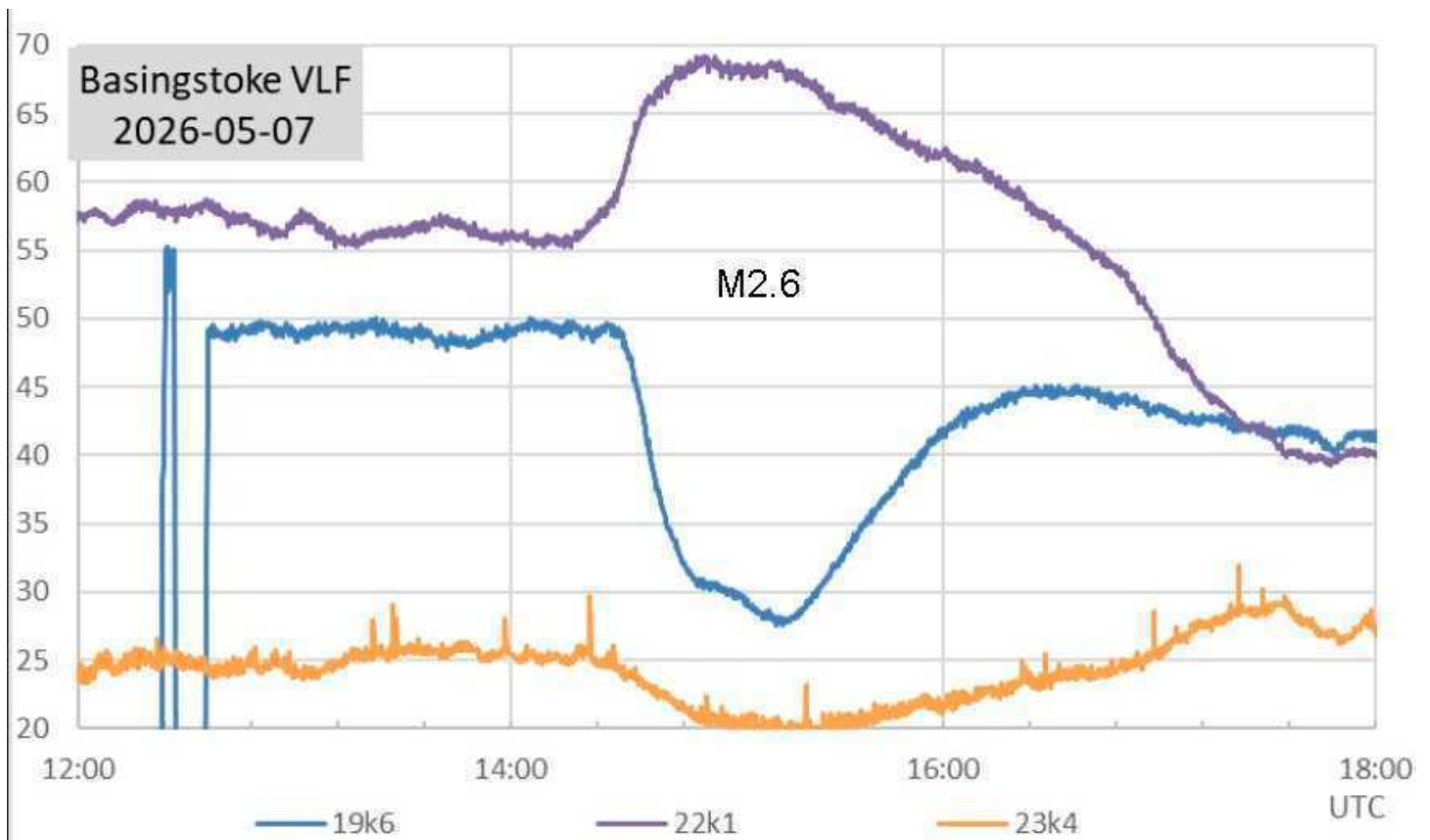
Please send all reports and observations to jacook@jacook.plus.com
Director Paul Hearn.

BAA Radio Astronomy Section.

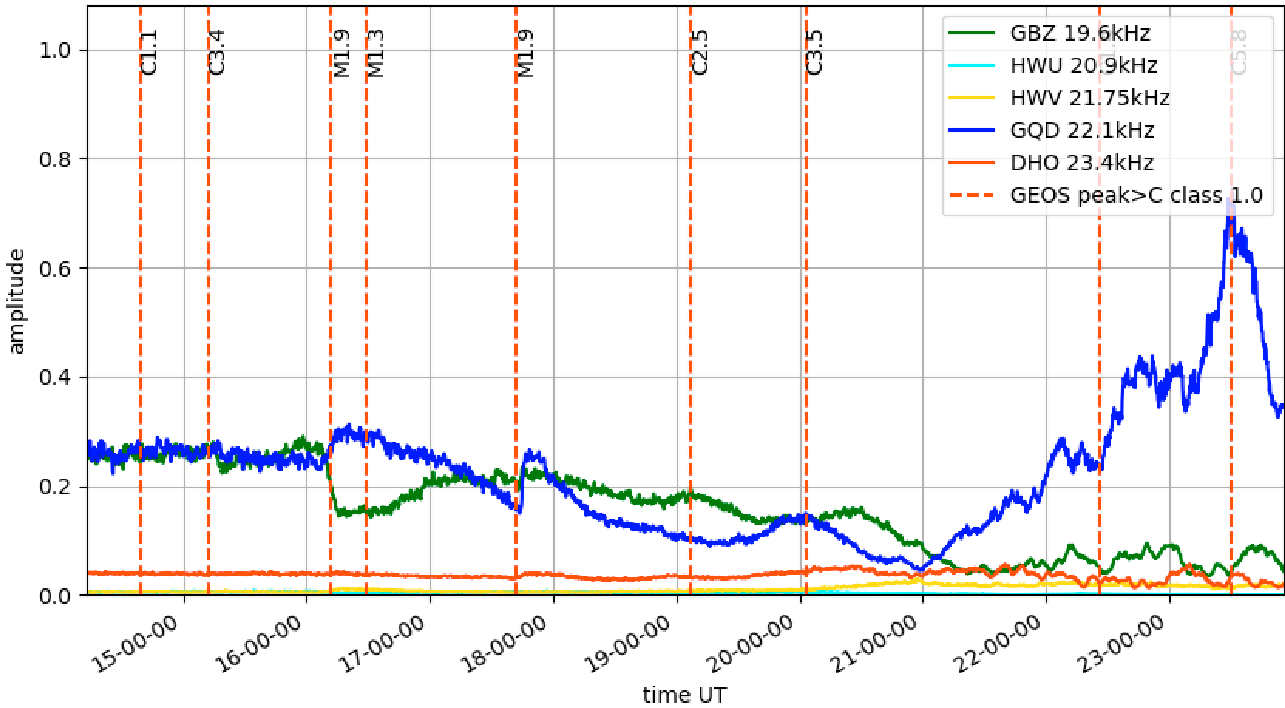
RADIO SKY NEWS 2026 MAY.

VLF SID OBSERVATIONS.

Solar flaring activity was much lower in May, with only 27 recorded as SIDs. There were six M-class flares recorded, with no X-class shown in the satellite data. Some of the M-flares produced unusual shaped SIDs. This M2.6 flare recorded by Paul Hyde on the 7th appears to show two peaks, lasting over two hours in total. The satellite X-ray data lists a single flare peaking at 15:14UT, matching the second peak in Paul's recording.

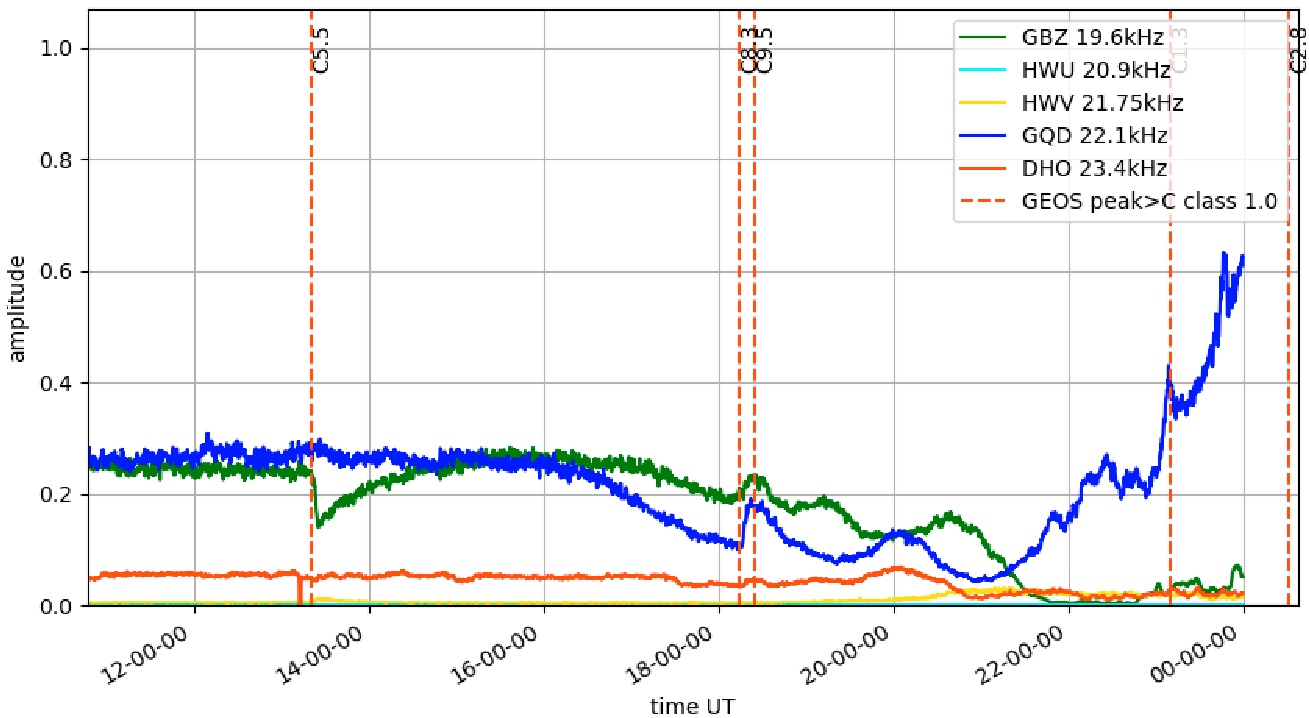


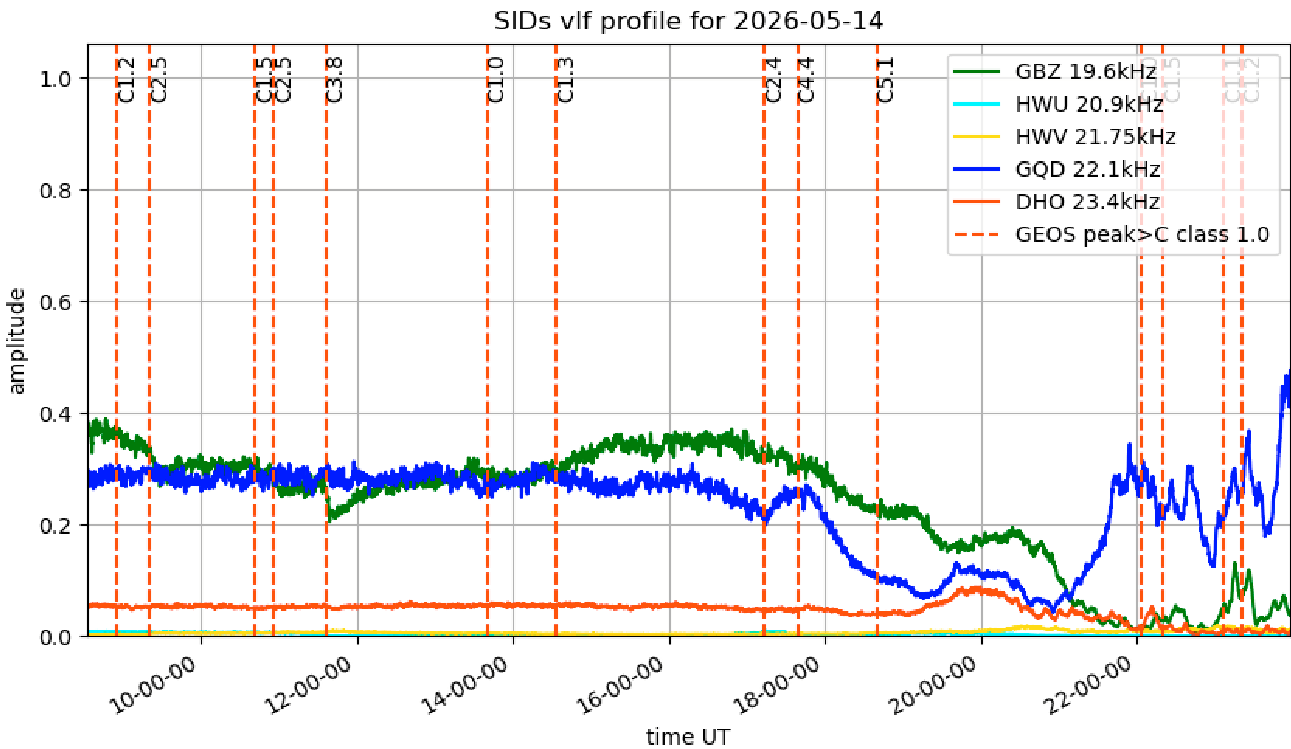
SIDs vlf profile for 2026-05-16



Mark Prescott's recording from the 16th shows the M1.9 and M1.3 flares merging to give another twin-peaked SID, the decay phase interrupted by another M1.9 flare at 17:49. The first pair were both produced by AR14436, while the later M1.9 was from AR14435. The chart below shows another tight pair of flares, this time with a single peak to the SID at 18:25. They were also from AR14436. In both cases 19.6kHz and 22.1kHz show the best response, while 23.4kHz and 21.75kHz show very little response.

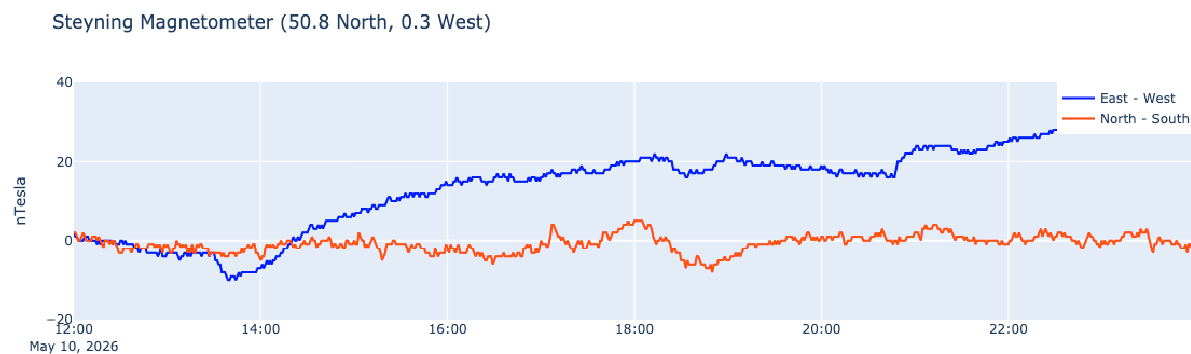
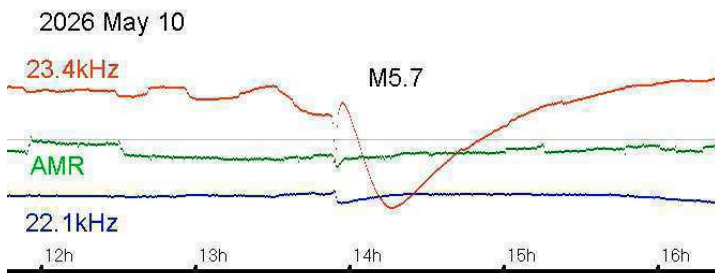
SIDs vlf profile for 2026-05-21





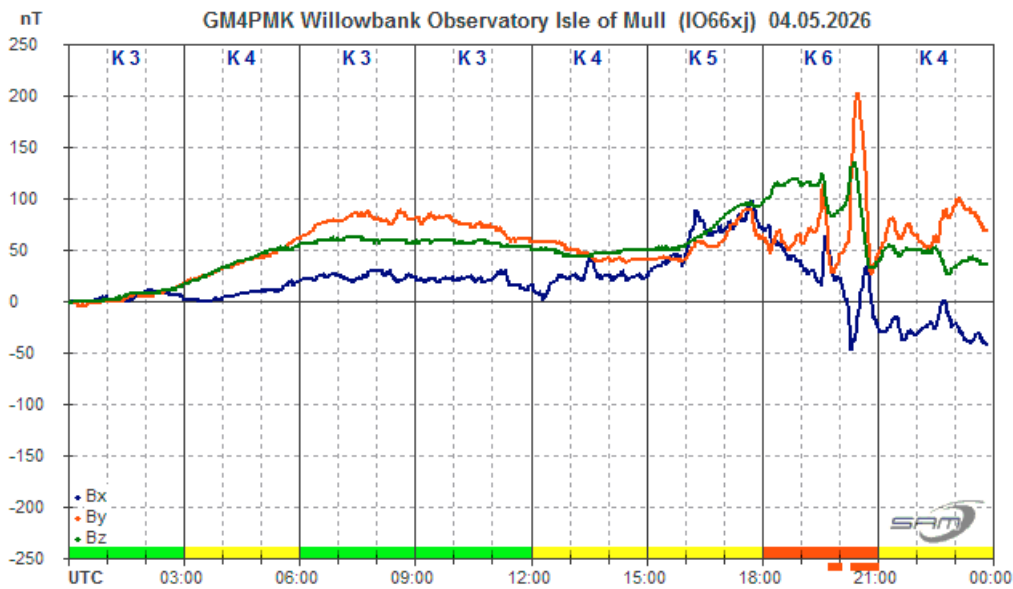
The most active day in May was the 14th, with plenty of C-flares shown in Mark's recording. Many of the smaller ones have not produced SIDs, but the C3.8 at 11:39UT has a clear SID at 19.6kHz. The smaller C1.0 flare just before 14:00 appears to have a very small effect at 22.1kHz, but is not easy to see in the noise. The later C2.4 and C4.4 flares appear to have merged at 19.6kHz as the sunset effect was taking over.

MAGNETIC OBSERVATIONS.



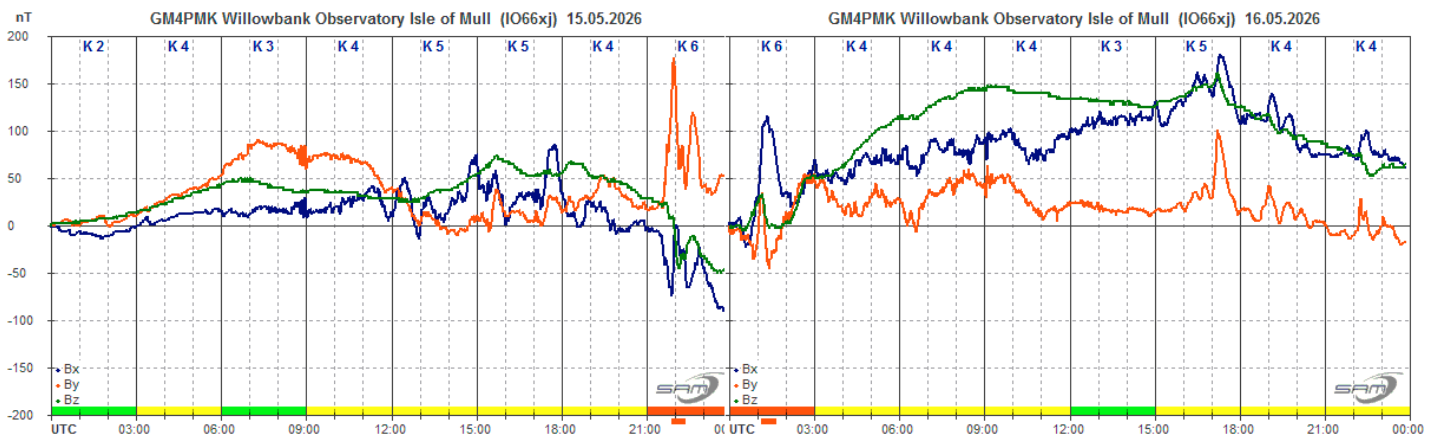
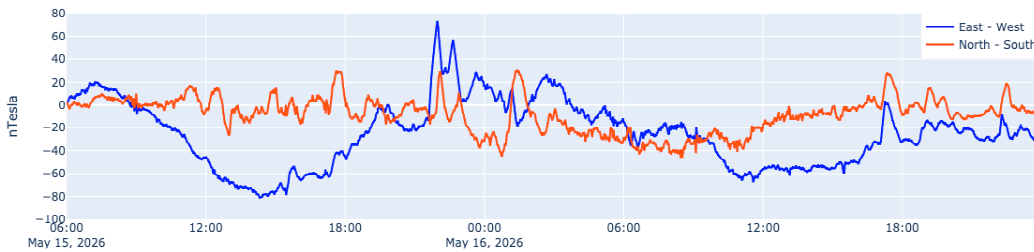
The strong M5.7 flare on the 10th has produced a small SFE (Solar Flare Effect) on the magnetic recordings. My own chart (top) shows a +6/-20nT pulse well aligned with the start of the SID. Nick Quinn's chart (lower) also shows a dip in the East/West component of the field, -7nT at 13:30.

My recording also shows some significant local interference of a similar magnitude between 12 and 12:30UT, so the possibility remains that it could be a local effect, but the shape of the pulse is similar to SFE's previously recorded.



Roger Blackwell's magnetic recording from the 4th shows a short active period in the evening, with a mild disturbance from Midday. Satellite data shows that a pair of mild CMEs from April 30th were Earth directed, aided by a mild coronal hole wind.

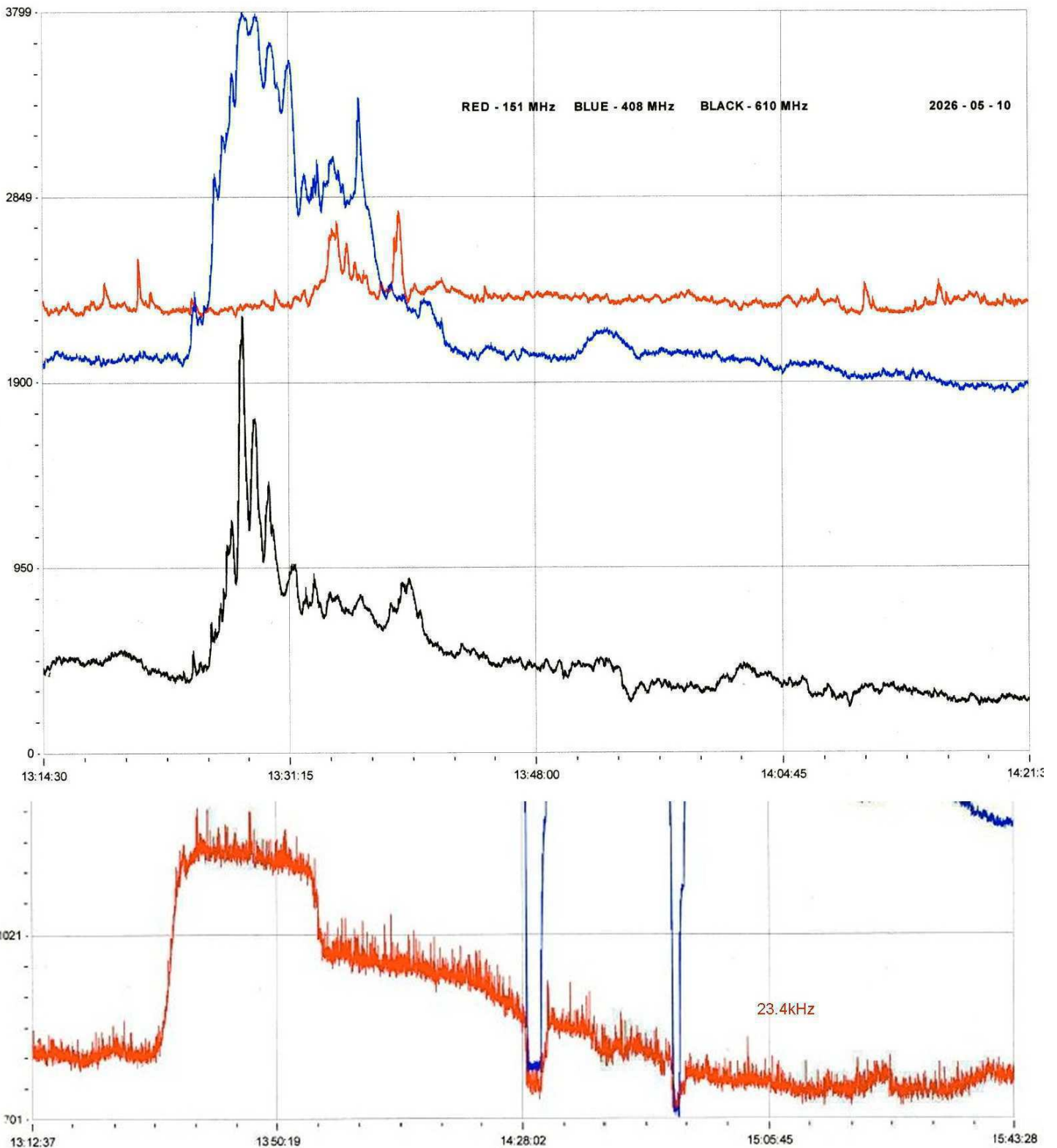
Steinying Magnetometer (50.8 North, 0.3 West)



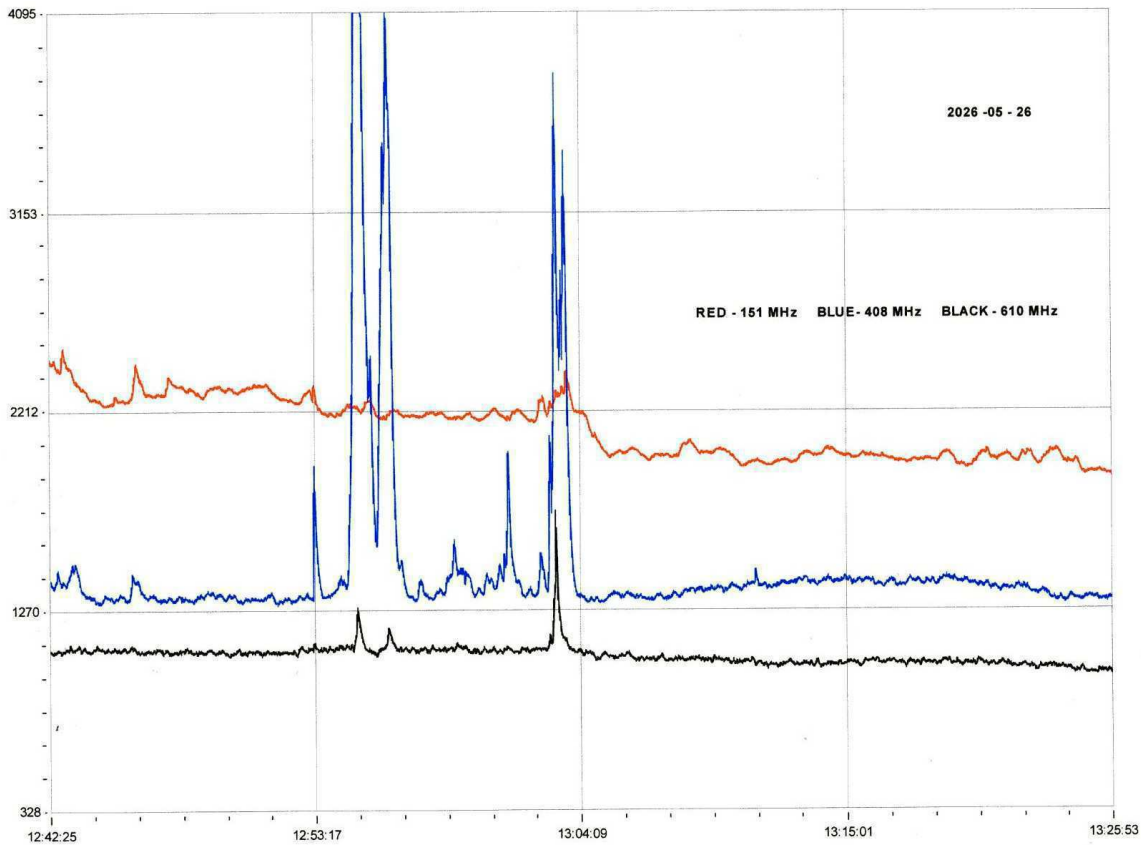
A much stronger coronal hole wind was responsible for activity on the 15th and 16th. The short oscillations just before 09UT appear to mark the start of the disturbance, which then became much stronger between 21UT and 03UT the following morning. Both recordings show very similar patterns, allowing for the different sensor configurations.

Magnetic observations received from Roger Blackwell, Nick Quinn and John Cook.

SOLAR EMISSIONS



Colin Clements recorded a strong VHF/UHF emission from the strong M5.7 flare on the 10th. He has provided a copy of the SID at 23.4kHz roughly aligned to the scale of the RF chart, which I have added underneath. Emissions at 408MHz and 610MHz match the slightly unusual shape of the SID with a lower signal strength following the main peak. 151MHz is much weaker, and also delayed compared to the higher frequencies. The blue VLF trace is from the 21.75kHz signal that I have removed to fit it onto the page.

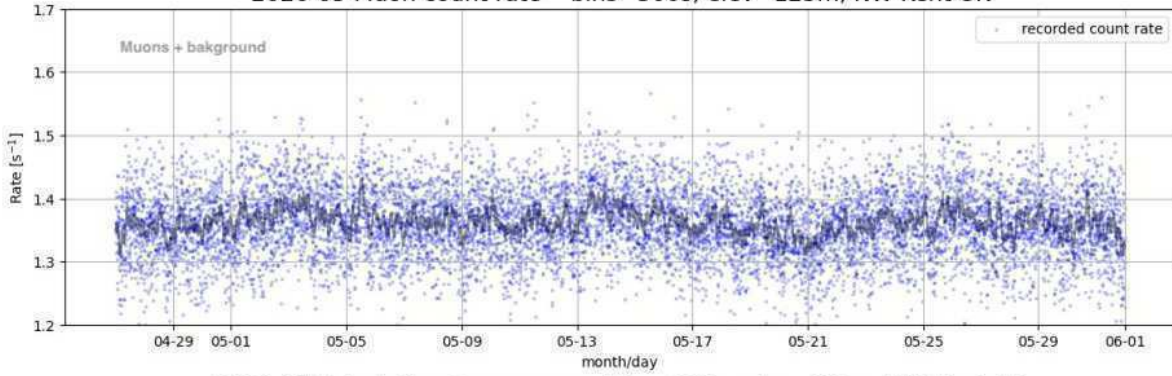


Colin's recording from the 26th shows a series of 408MHz bursts shortly after the X-ray peak of the C9.7 flare. Our SID recordings show quite a long decay phase for this flare, the RF emissions well within this time. 610MHz shows similar timings, but much weaker, while 151MHz is rather harder to interpret. Colin also recorded strong emissions on the 15th and 30th.

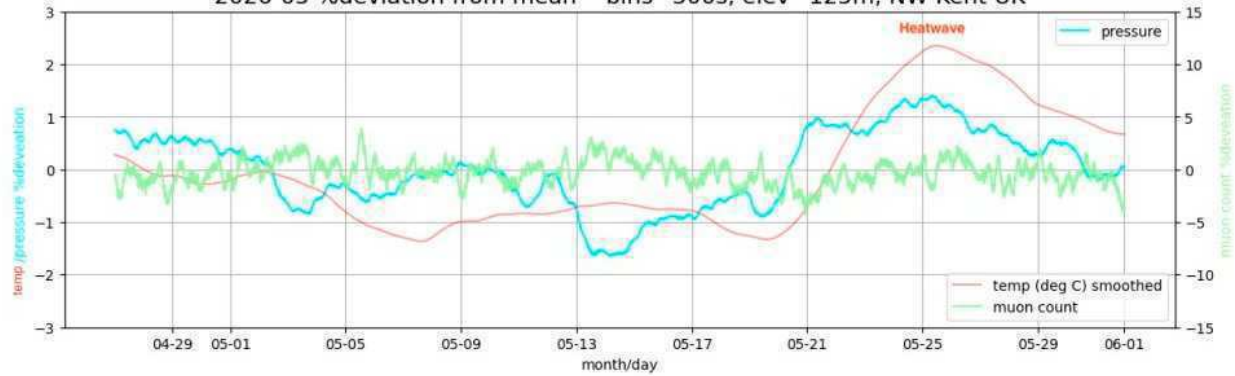
MUONS

Mark Prescott's Muon charts for May are fairly flat for most of the month. There is rise in flux on the 5th following the CME recorded in our magnetic data. There was also a stronger solar wind over the 14th and 15th, showing a mild increase in flux. We also had the long heatwave over the last couple of weeks in May, the corrected chart showing a gradual fall in flux. The diurnal variations also seem to be less clear over this period.

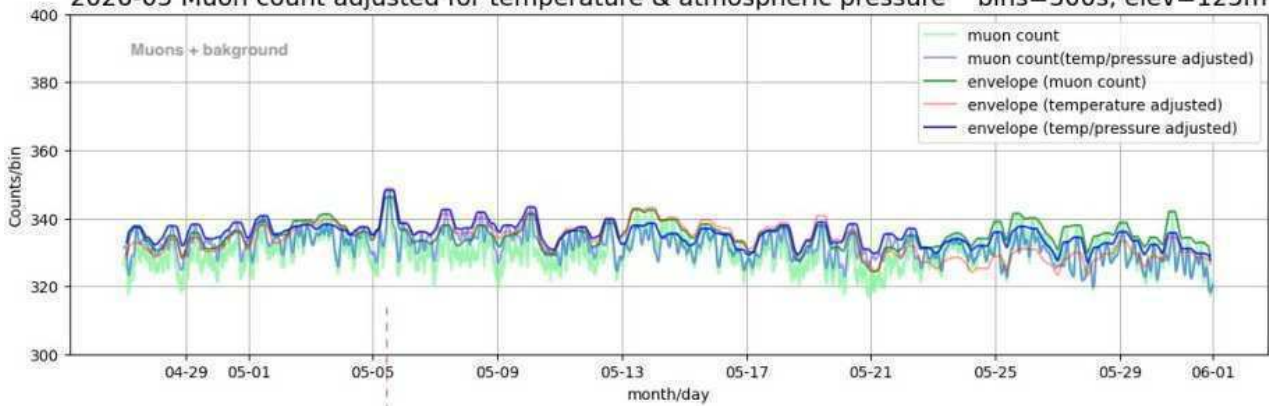
2026-05 Muon count rate bins=300s, elev=125m, NW Kent UK



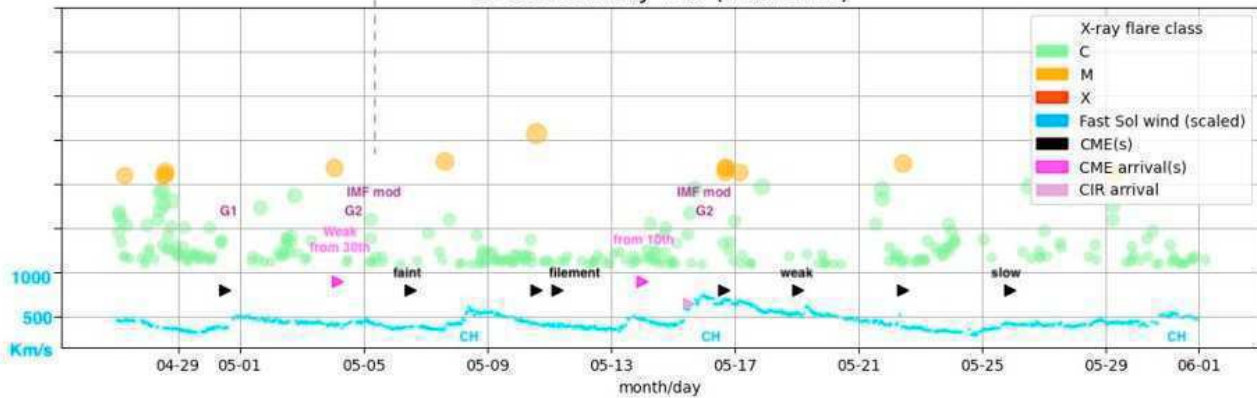
2026-05 %deviation from mean bins=300s, elev=125m, NW Kent UK



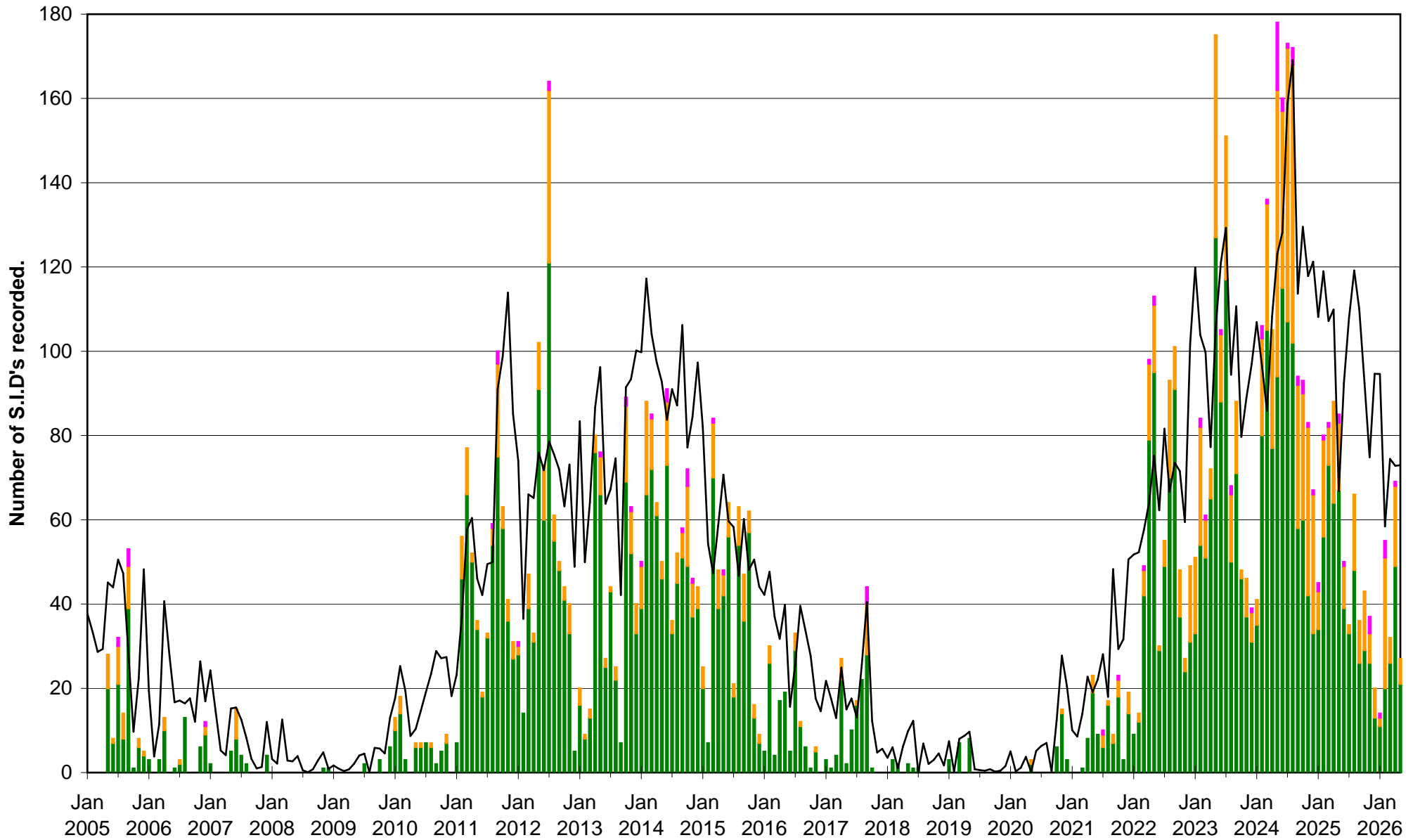
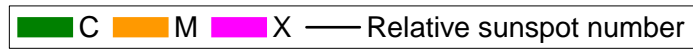
2026-05 Muon count adjusted for temperature & atmospheric pressure bins=300s, elev=125m



GEOS 16 X-ray flux (max time)



VLF flare activity 2005/26



BARTELS DIAGRAM

ROTATION	KEY:	DISTURBED.	ACTIVE	SFE	B, C, M, X = FLARE MAGNITUDE.	Synodic rotation start (carrington's).
2597	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				2280
2598	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				2281
2599	F	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				2282
2600	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				2283
2601	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				2284
2602	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				2285
2603	F	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12				2286
2604	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				2287
2605	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				2288
2606	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 31				2289
2607	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				2290
2608	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				2291
2609	F	25 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				2292
2610	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				2293
2611	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				2294
2612	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				2295
2613	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				2296
2614	F	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5				2297
2615	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				2298
2616	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				2299
2617	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				2300
2618	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				2301
2619	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				2302
2620	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				2303
2621	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				2304
2622	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				2305
2623	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				2306
2624	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				2307
2625	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				2308
2626	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 23 24 25				2309
2627	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				2310
2628	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 18				2311
2629	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				2312

DAY	Xray class	Observers	John Cook (23.4kHz/22.1kHz)				Roberto Battaiola 18.3kHz				Paul Hyde (22.1kHz/24kHz)				Mark Edwards (24.0/18.3/37.5kHz)				Colin Clements (21.75kHz)			
			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)	
1	C7.4	7	15:28	15:32	15:39	1-	15:26	15:32	15:44	1-	15:27	15:31	16:40	2+	15:29	15:36	16:30	2+				
5	C6.0	1	05:27	05:29	?	-																
7	M2.6	8	14:26	15:23	16:44	3+	14:26	14:51	15:16	2+	14:29	14:53	17:40	3+	14:29	15:17	17:28	3+				
8	C4.2	4	15:47	15:55	16:06	1					15:45	15:59	17:00	2+	15:48	16:00	17:06	2+				
10	C1.9	3									09:21	09:27	?	-					09:18	09:32	09:40	1
10	C3.7	5	09:36	09:41	09:59	1					09:35	09:40	10:16	2					09:40	09:43	10:08	1+
10	M5.7	9	13:25	13:40	15:57	3+	13:23	13:30	13:39	1-	13:26	13:36	15:14	3					13:27	13:43	16:47	3+
10	?	1									15:19	15:22	15:35	1-								
14	C5.5	2	06:39	06:45	06:56	1-					06:36	06:46	07:03	1+								
14	C2.5										09:14	09:22	09:38	1								
14	C2.5	1	10:55	10:57	11:06	1-																
14	C3.8	5	11:31	11:37	12:00	1+	11:28	11:36	11:50	1	11:32	11:37	12:00	1+								
14	C4.4	3									17:04	17:31	18:16	2+								
15	C4.3	6	11:47	11:52	12:24	2					11:46	11:53	12:27	2					11:44	11:56	12:39	2+
15	C6.7	7	13:12	13:16	14:13	2+	13:09	13:15	13:35	1+	13:11	13:19	13:56	2					13:15	13:21	14:00	2
15	C9.5	7	16:13	16:17	17:09	2+	16:09	06:14	16:42	2	16:11	16:16	17:14	2+					16:16	16:21	17:15	2+
16	C3.4	5	15:12	15:14	15:32	1	15:10	15:13	15:23	1-	15:10	15:13	15:46	2					15:13	15:17	15:29	1-
16	M1.9/M1.3	7	16:05	16:13	17:07	2+	15:56	16:12	16:26	1+	16:00	16:12	17:30	3					16:00	16:17	16:27	1+
16	M1.9	6	17:41	17:43	18:00	1					17:40	17:44	18:00	1					17:44	17:48	18:32	2+
21	C5.5	7	13:17	13:21	?	-					13:16	13:22	13:50	2					13:17	13:26	14:09	2+
21	C8.3/C9.5	4	18:13	18:16	18:58	2					18:09	18:18	18:51	2								
22	M2.3	9	10:13	10:27	11:36	2+	10:03	10:12	11:11	2+	10:05	10:24	11:57	3					10:05	10:30	12:19	3+
23	C2.9	3	11:42	11:44	11:53	1+																
26	C9.7	7	12:34	12:40	13:55	2+	12:33	12:40	13:10	2	12:35	12:39	13:10	2					12:36	12:46	13:56	2+
27	C3.4	1	12:14	12:16	12:29	1-																
29	M1.1	4	07:01	07:04	07:14	1-	06:40	07:04	07:39	2+	06:43	07:07	07:51	2+								
30	C3.9	2									07:34	07:46	08:35	2+								
30	C4.7	4	11:53	11:55	12:12	1					11:50	11:55	12:21	1+								

DAY	Xray class	Observers	Steve Parkinson (Various)				Andrew Thomas (18.3kHz)				Phil Rourke (23.4kHz)				Mark Prescott (19.6kHz/22.1kHz)				John Elliott (18.3kHz)			
			Tuned radio frequency receiver, frame aeriels.				Tuned radio frequency receiver, 0.6m frame aerial.				Spectrum Lab, 0.6m frame aerial.				SpetrumLab/Starbase, mini-whip aerial. Active				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)	
1	C7.4		15:28	15:32	16:14	2+									15:32	15:36	16:00	1+	15:28	15:32	16:05	2
5	C6.0																					
7	M2.6		14:24	15:15	17:00	3+					14:33	15:13	17:20	3+	14:32	15:19	16:57	3+	14:28	15:15	17:10	3+
8	C4.2		15:46	15:56	16:30	2																
10	C1.9														09:28	09:31	?	-				
10	C3.7		09:23	09:42	10:16	2+									09:40	09:45	10:16	2				
10	M5.7		13:26	13:43	15:15	3					13:25	13:41	15:00	3	13:32	13:46	15:21	3	13:25	13:42	15:15	3
10	?																					
14	C5.5																					
14	C2.5																					
14	C2.5																					
14	C3.8		11:32	11:37	12:00	1+									11:36	11:39	12:20	2				
14	C4.4		17:18	17:31	18:10	2+									17:13	17:46	18:20	2+				
15	C4.3		11:47	11:52	12:30	2									11:52	11:57	12:40	2+	11:45	11:53	13:10	2+
15	C6.7		13:12	13:16	13:47	2									13:16	13:21	14:15	2+	13:12	13:17	14:10	2+
15	C9.5		16:13	16:17	17:04	2+									16:17	16:23	17:00	2	16:13	16:18	17:30	2+
16	C3.4		15:11	15:15	15:45	2																
16	M1.9/M1.3		16:02	16:12	17:12	2+									16:08	16:16	17:04	2+	16:04	16:15	17:30	3
16	M1.9		17:40	17:44	18:15	2									17:45	17:49	18:26	2	17:40	17:43	18:00	1
21	C5.5		13:17	13:22	14:06	2+									13:32	13:26	14:40	2+	13:15	13:23	14:30	2+
21	C8.3/C9.5														18:12	18:25	18:52	2				
22	M2.3		10:07	10:26	12:00	3					10:10	10:28	12:39	3+	10:12	10:34	12:20	3+	10:07	10:33	?	-
23	C2.9														11:46	11:48	?	-				
26	C9.7		12:36	12:42	13:12	2									12:40	12:46	13:47	2+				
27	C3.4																					
29	M1.1		06:44	07:08	07:48	2+																
30	C3.9		07:36	07:49	08:04	1+																
30	C4.7		11:52	11:56	12:12	1																

DAY	Xray class	Observers	Chris Bailey				Colin Briden															
			Spectrum Lab.				Spectrum Lab. Frame aerial. 1.2m															
			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	
1	C7.4																					
5	C6.0																					
7	M2.6																					
8	C4.2																					
10	C1.9																					
10	C3.7																					
10	M5.7						13:25	13:40	14:14	2+												
10	?																					
14	C5.5																					
14	C2.5																					
14	C2.5																					