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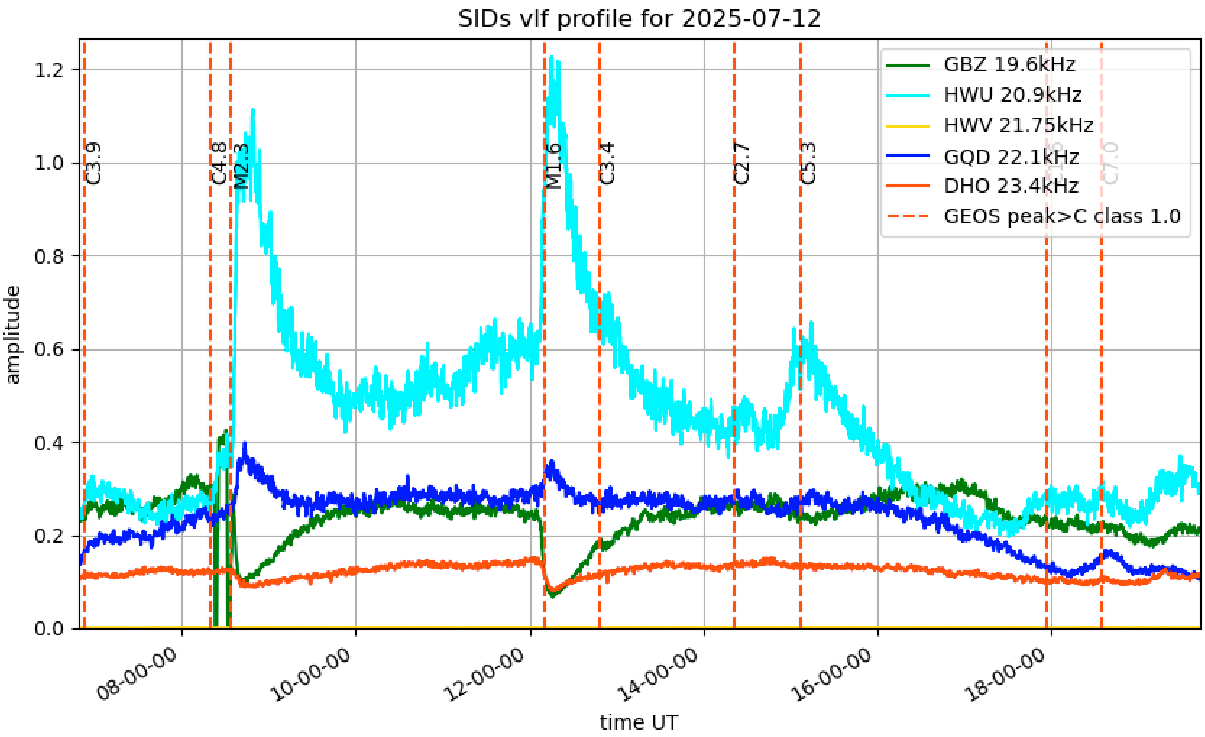
BAA Radio Astronomy Section. Director Paul Hearn.

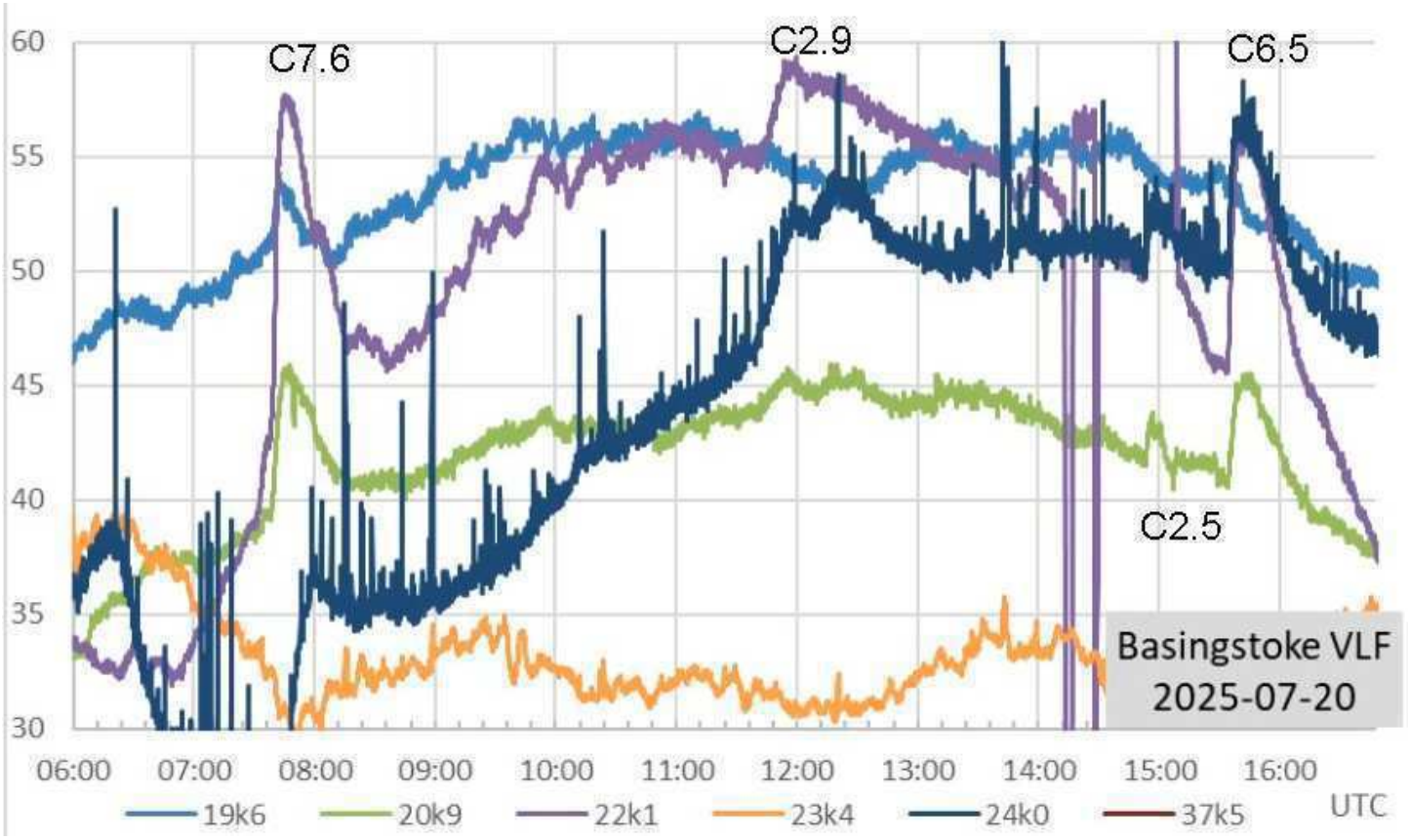
RADIO SKY NEWS 2025 JULY.

VLF SID OBSERVATIONS.

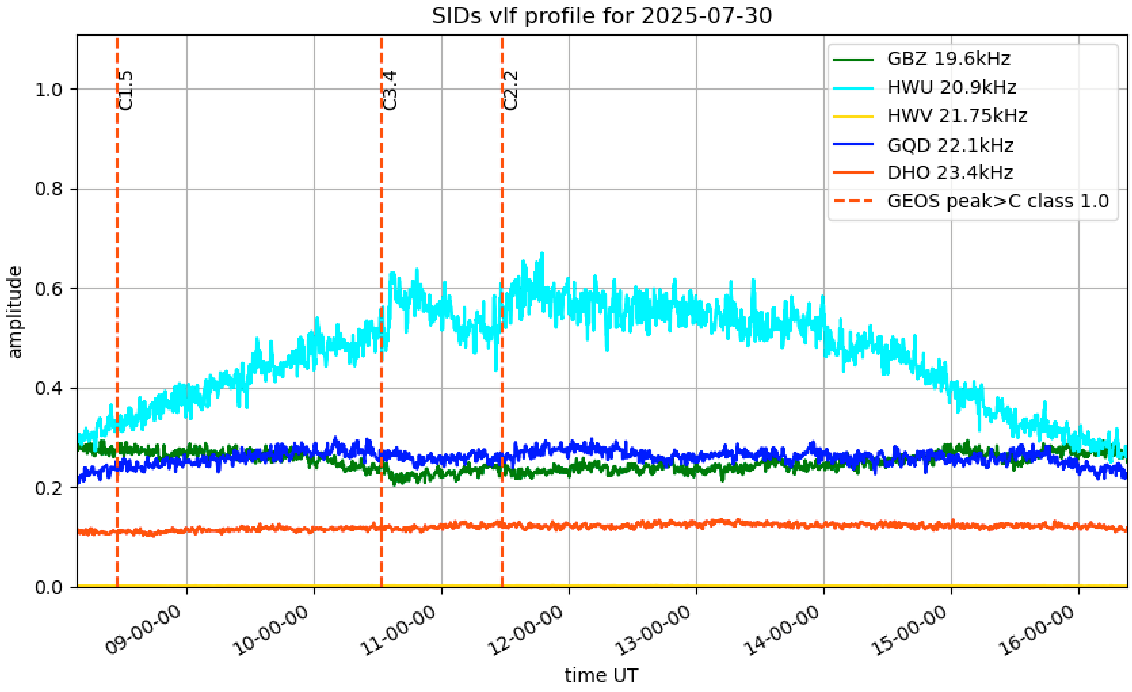
Solar activity in July has again fallen, with only 35 flares recorded as SIDs. There were just two M-class flares recorded. The SWPC satellite list shows that there were no X-class flares. The activity chart shows that this is the lowest number of SIDs recorded since 2022 June.



This recording by Mark Prescott shows the pair of M-flares on the 12th along with some of the smaller C-flares. 22.1kHz shows both of the M-flares, and also shows a small response from the C7.0 flare at 18:36. 19.6kHz has inverted SIDs for the M-flares. 23.4kHz has a much weaker response to all of the activity. 20.9kHz from France has a very strong response to the stronger flares, but also shows a small SID for the C2.7 flare at 14:24UT. Most of the activity that we recorded was from C-flares, the SWPC satellite lists including plenty of weaker events that we missed. We last recorded SIDs from B-class flares in 2022.

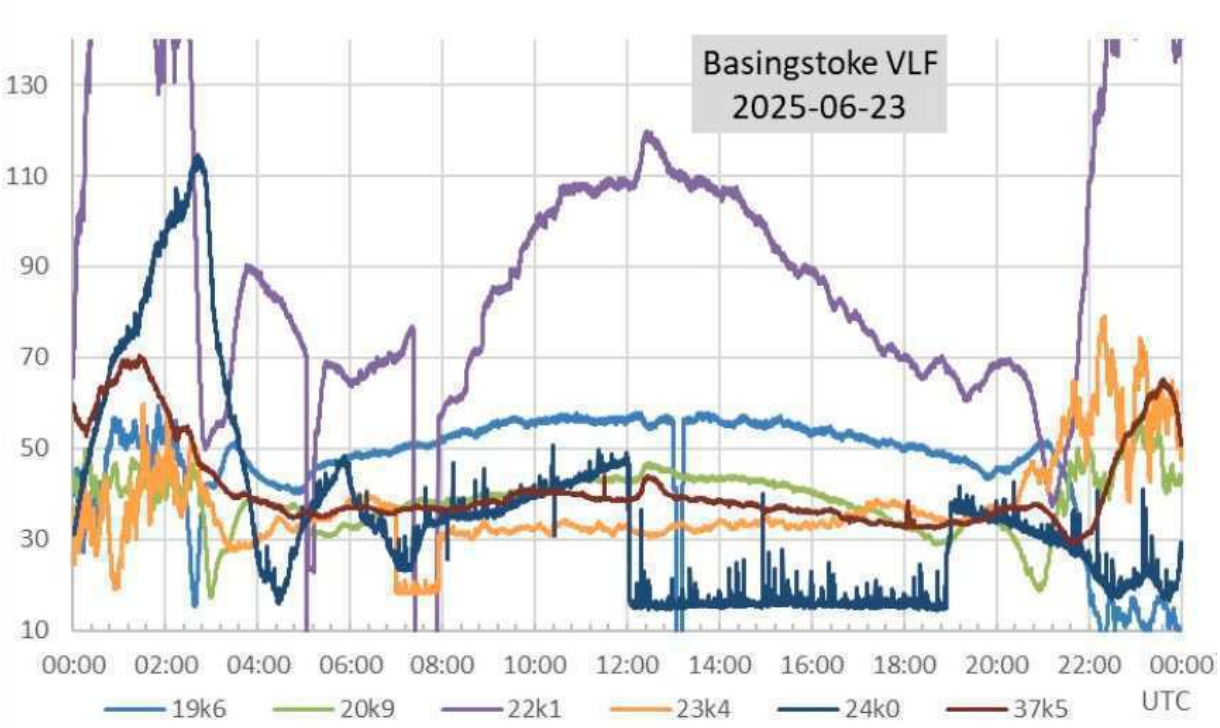


Paul Hyde's recording from the 20th shows more of the C-class activity. 19.6kHz and 22.1kHz again show the best SIDs from the weaker flares, 24kHz and 20.9kHz catching the later C6.5 flare. 23.4kHz remains very noisy and unresponsive to any of the activity.



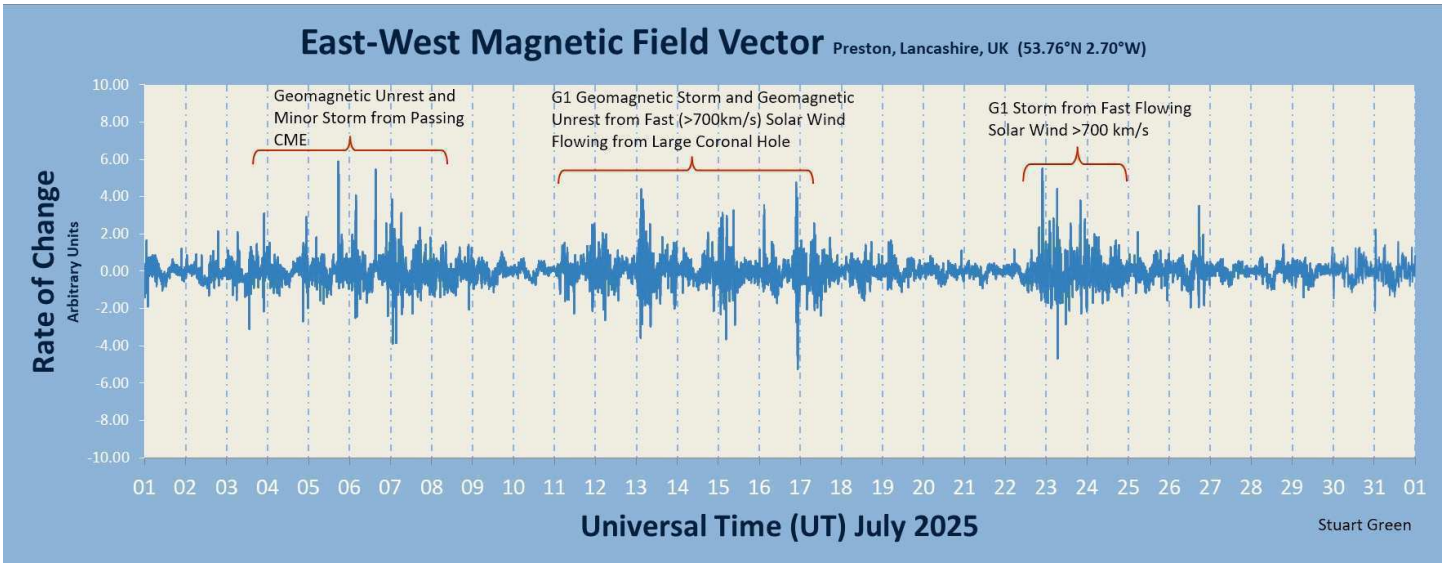
Activity was quite low in the last week of July, Mark Prescott's chart from the 30th showing SIDs from C3.4 and C2.2 flares at 20.9kHz

In the June report I included a recording from Mark Prescott showing an unusual diurnal curve at 22.1kHz. Paul Hyde has responded with his own recording, showing exactly the same effect:

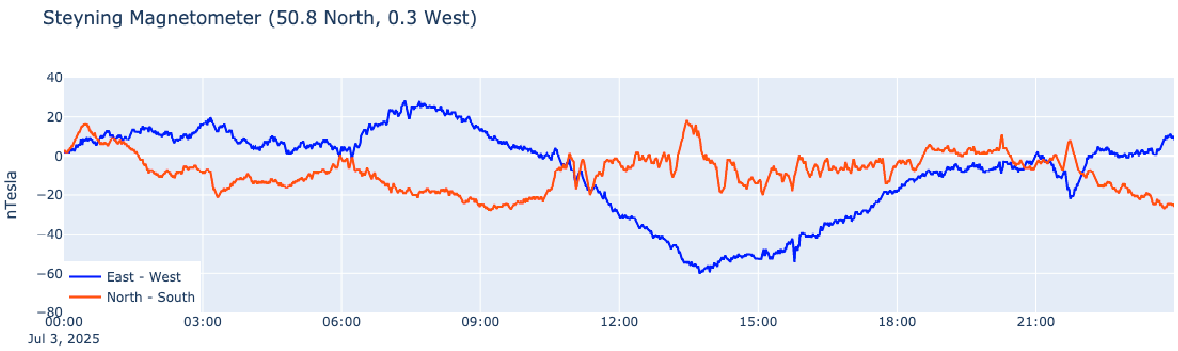


Checking back on my own recordings, it looks like the signal level increased overnight into the early hours of June 23rd. The signal level then remained high through the rest of the 23rd and into the 24th. There was a short break in the signal around 07:30 on the 24th, after which the signal level was back to normal.

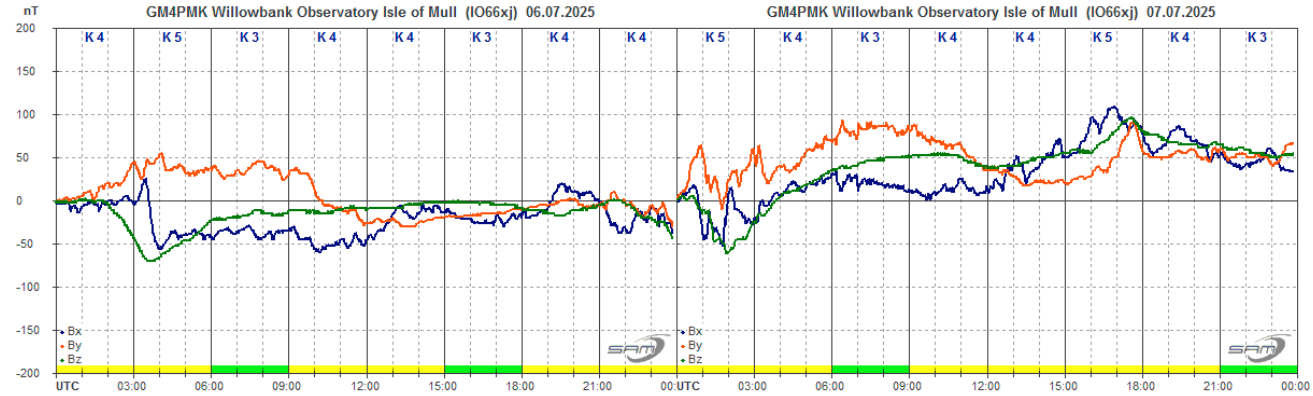
MAGNETIC OBSERVATIONS.

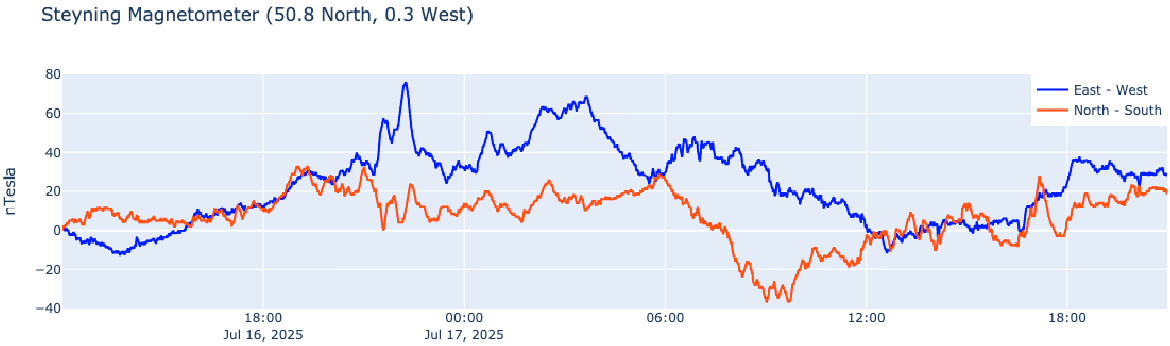


The monthly summary of magnetic activity from Stuart Green shows three periods of disturbance. These were mostly from coronal hole high speed winds, with a glancing CME adding to the effect at the start of the month. There were a number of CMEs detected in satellite images, but they were not Earth-directed.

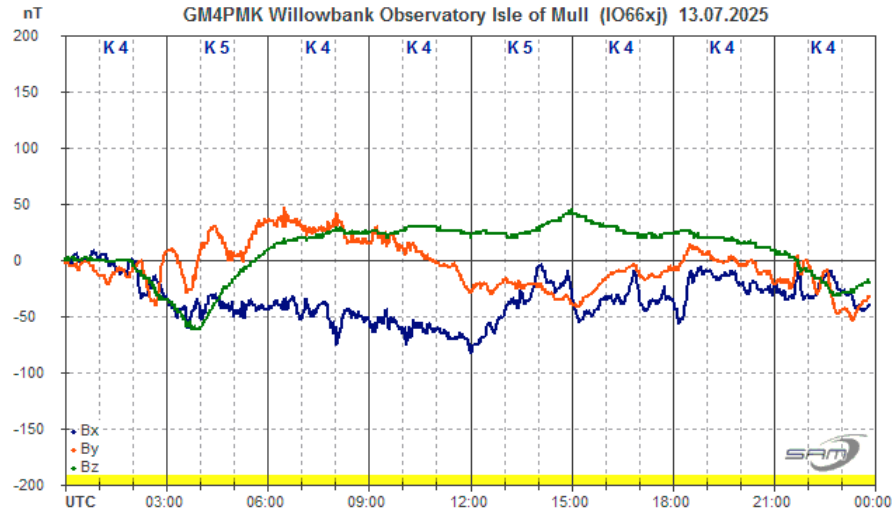


Nick Quinn's recording from the 3rd shows a possible impact from the CME at about 10:45UT, followed by some rapid turbulence. The solar wind speed increased over the next few days, with some stronger activity on the 6th and 7th shown in Roger Blackwell's recording:



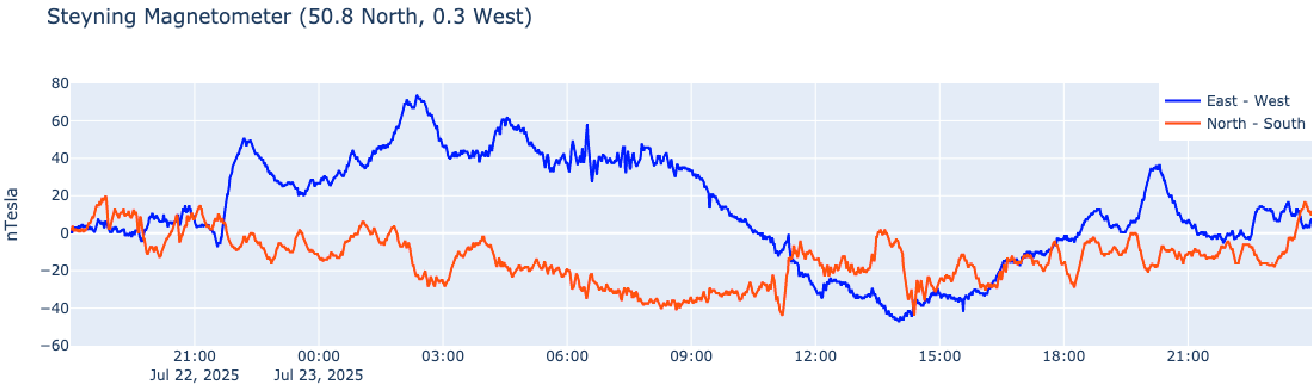


A much larger coronal hole started to cross the solar meridian by mid-month, with some stronger disturbance recorded on the 16th and 17th by Nick Quinn.



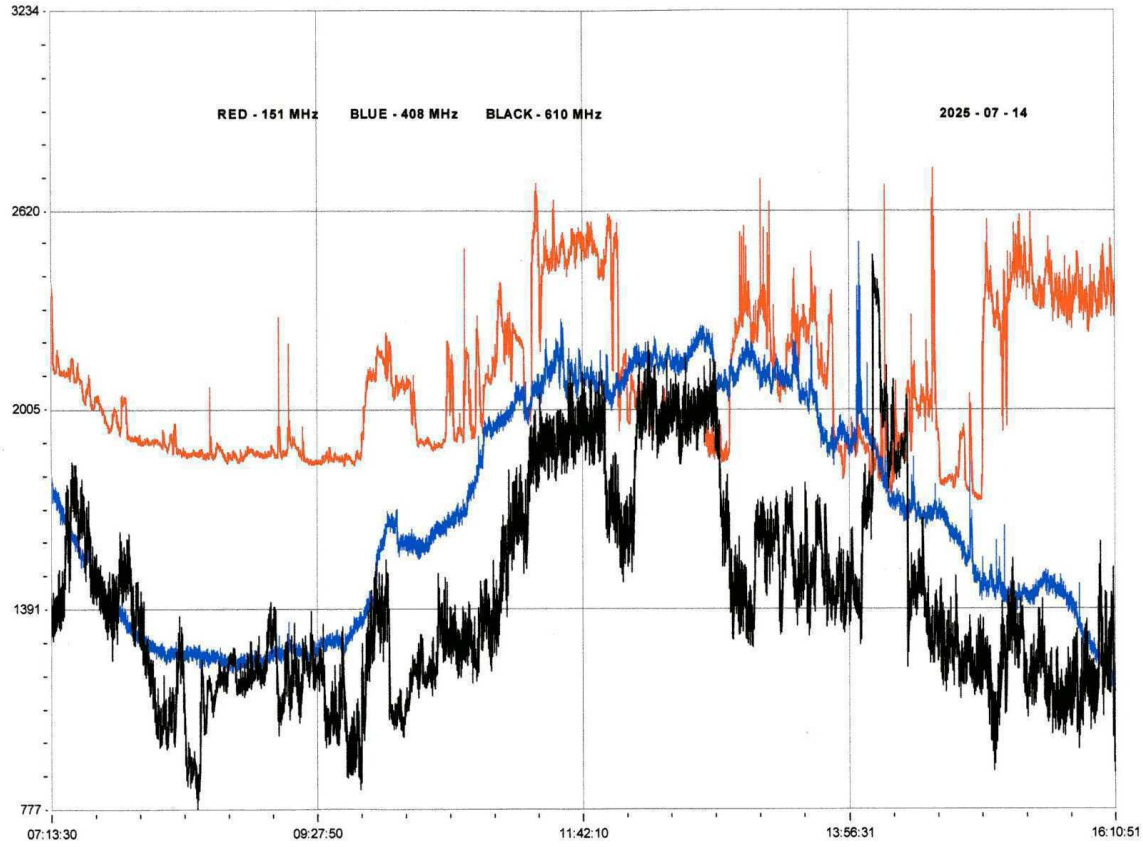
A much more rapid turbulence was recorded on the 13th by Roger Blackwell. It is interesting that the Bz component (green trace) does not show the turbulence.

More coronal holes were seen later in the month, with another strong disturbance recorded by Nick Quinn on the 22nd and 23rd.



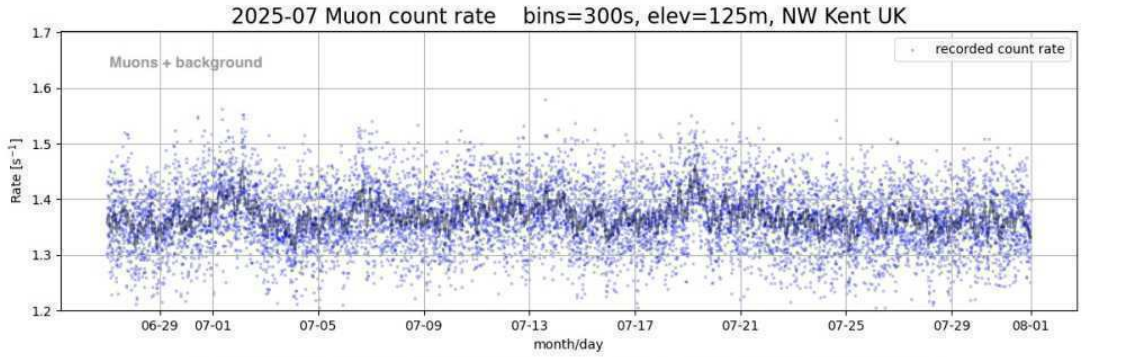
Magnetic observations received from Roger Blackwell, Stuart Green, Nick Quinn and John Cook.

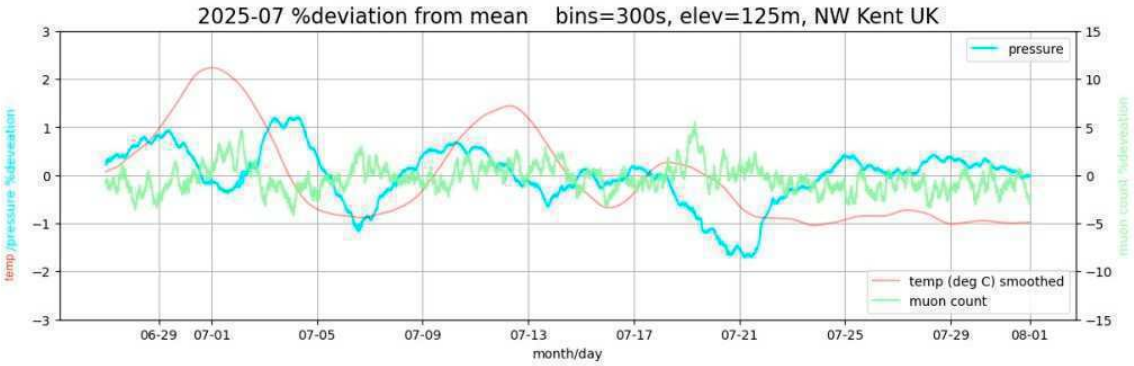
SOLAR EMISSIONS

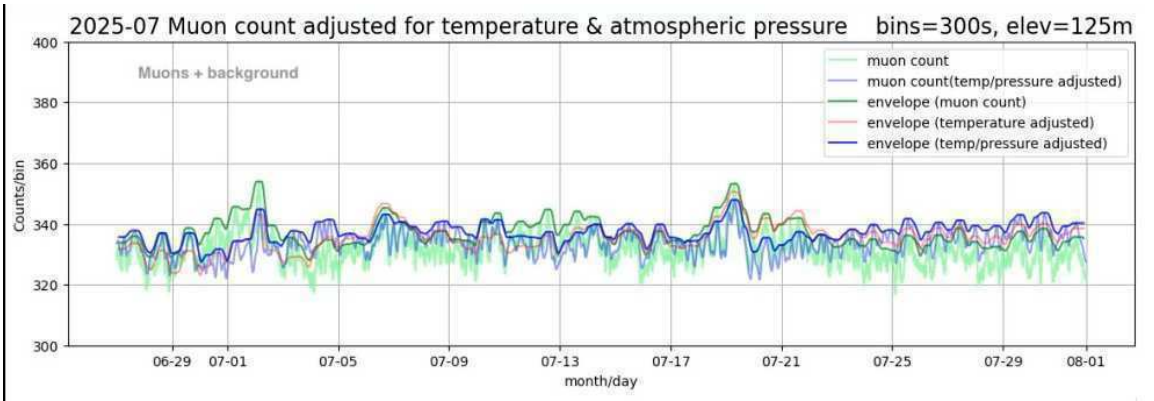


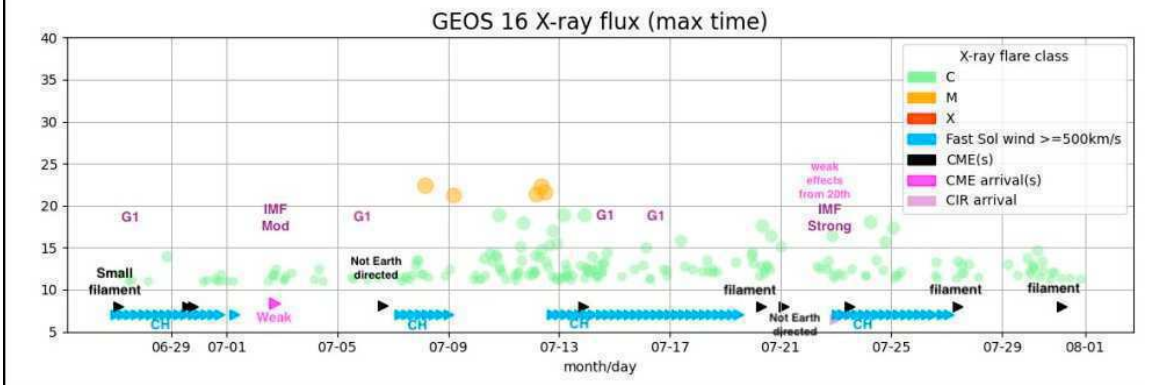
Colin Clements recorded some strong VHF/UHF solar emissions on the 14th. Our SID recordings show a C2.9 flare peaking around 09:40UT, with no further activity until 16:00. The SWPC does include a radio emission warning at 10:45, which matches with the timing of Colin's chart. All three frequencies are active, 408MHz showing a smooth rise and fall through the day, while 151MHz remains active to the end of the recording. Colin also recorded emissions on the 17th, possibly related to the C5.9 flare.

MUONS

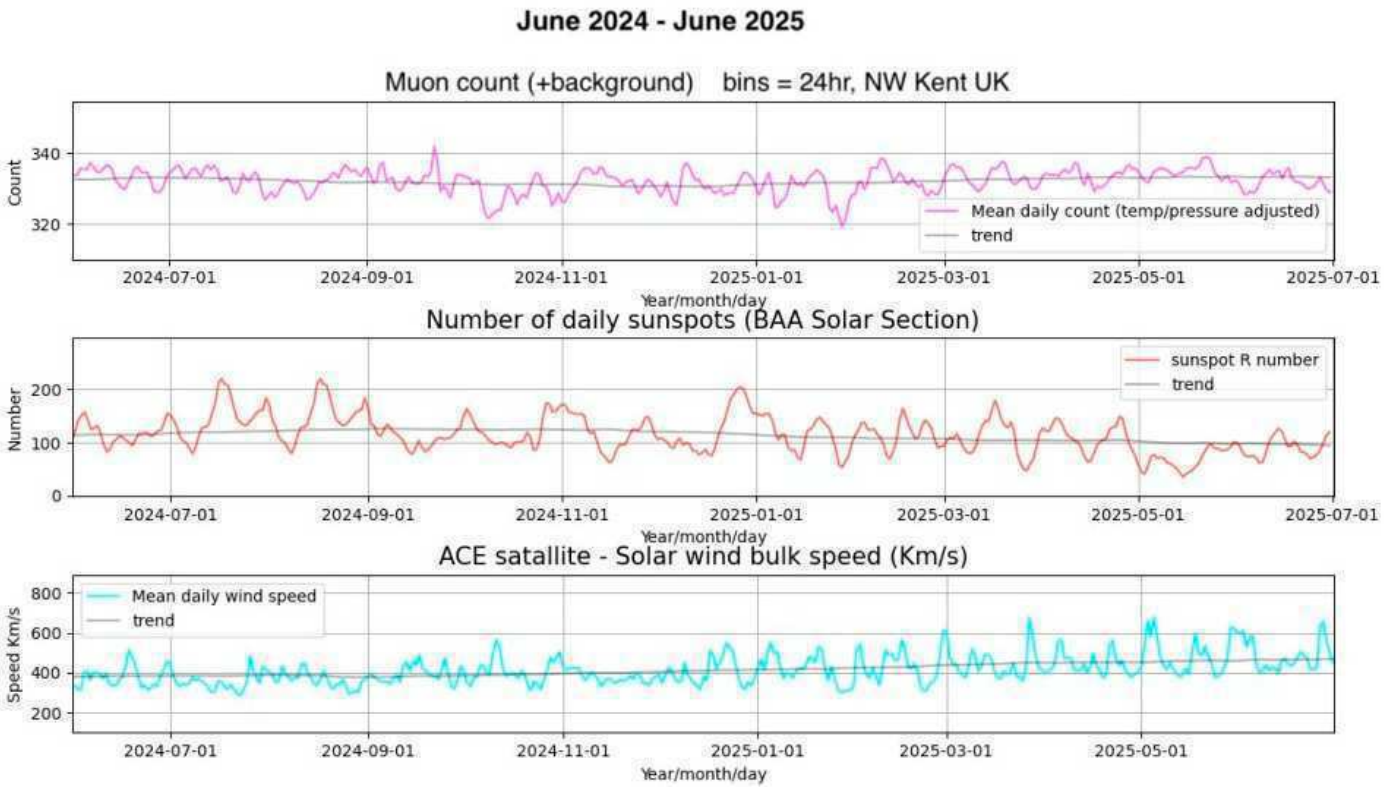








The Muon flux charts from Mark Prescott show two distinct peaks, the first matching the CME impact on the 3rd. The count drops after the impact, rising again after the solar wind speed returns to normal. The second peak is between the second and third periods of increased solar wind speed on the 19th–20th. The muon count falls again as the coronal hole becomes active. There is a general trend of increasing muon flux through the month, as the solar activity slows down.



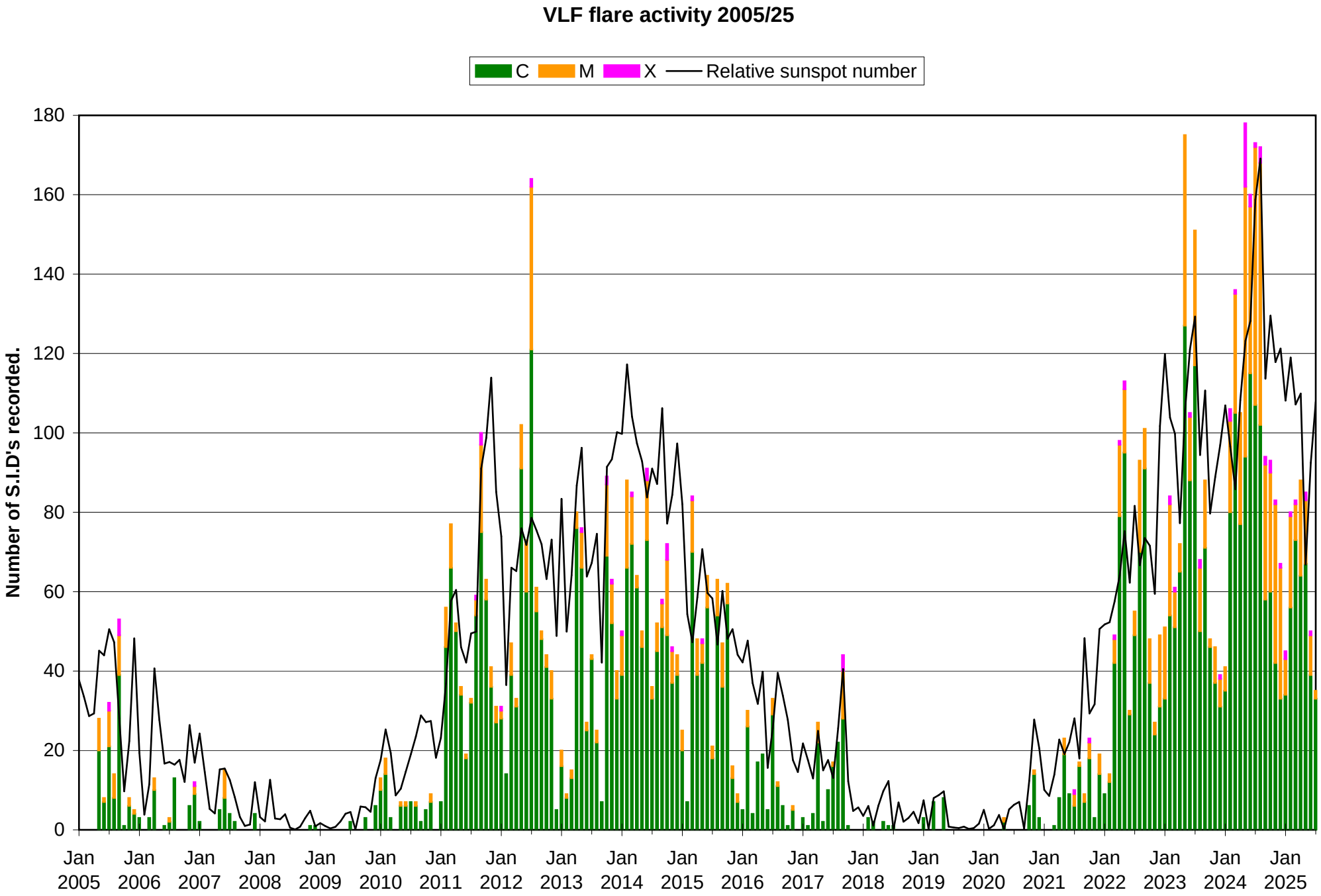
Mark has also provided a comparison of Muon counts and Solar activity over the last 12 months. The Muon counts were lower during the last few months of 2024, rising again this year. The last couple of months have remained fairly flat. The Muon counts are generally lower this year compared to those recorded in 2022 as the current solar cycle activity started to rise. Overall, there seems to be an anti-correlation between sunspot numbers and muon counts. The lower panel is the solar wind speed measured by the ACE satellite, and shows much greater variation this year as sunspot numbers fall and coronal holes become more active.

BAA Radio Astronomy Section. **2025 JULY.**

	Xray class	Observers	John Cook (23.4kHz/*22.1kHz*)				Roberto Battaiola 20.3kHz				Paul Hyde (22.1kHz/*24kHz*)				Mark Edwards			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.			
DAY			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	START	PEAK	END (UT)	
3	C2.0	1									08:13	08:20	08:41	1+							
10	C4.3	6	11:46	12:03	12:36	2+					11:39	12:04	12:52	2+				11:18	12:08	13:24	3+
10	C3.4	6	13:26	13:30	13:52	1+					13:26	13:29	14:13	2+				13:24	13:32	15:48	3+
10	?	2									15:22	15:24	15:35	1-							
10	C4.2	2	*17:10*	*17:13*	*17:34*	*1*					17:09	17:15	17:31	1							
10	C8.9	2	19:35	19:37	19:42	1-					19:34	19:39	20:24	2+							
11	C5.2	5	14:17	14:23	14:57	2					14:15	14:23	15:10	2+				14:19	14:33	15:03	2
11	C8.0	3	*17:07*	*17:10*	*17:28*	*1*					17:07	17:11	17:49	2							
12	C4.8	1	08:20	08:23	08:26	1-															
12	**M2.3**	8	08:32	08:44	10:08	3	08:26	08:37	09:06	2	08:32	08:39	09:42	2+				08:31	08:41	10:05	3
12	**M1.6**	8	12:03	12:13	?	-	11:59	12:11	12:48	2+	12:02	12:12	?	-				12:03	12:14	13:43	3
12	C3.4	3	12:47	12:51	13:11	1					12:48	12:51	13:19	1+							
12	C2.7	1									14:19	14:24	14:41	1							
12	C5.3	6					14:28	14:52	15:17	2+	14:46	15:01	?	-				14:53	15:07	15:34	2
12	?	1									15:54	16:01	16:15	1							
12	C7.0	1									18:19	18:36	19:23	2+							
14	C2.9	4	*09:34*	*09:38*	*09:54*	*1*					09:34	09:41	10:19	2							
14	C3.3	1	*15:49*	*16:00*	*?*	-															
14	C4.5	3	*16:55*	*17:03*	*17:33*	*2*					16:54	17:05	17:49	2+							
17	C5.9	7	09:24	09:30	10:05	2					09:23	09:32	10:05	2				08:59	09:34	10:21	2+
17	C2.8	3	13:13	13:16	13:22	1-					13:12	13:16	13:26	1-							
18	C3.5	3	08:10	08:14	08:30	1															
19	C3.3	2	09:05	09:09	09:25	1															
20	C7.6	8	*07:39*	*07:43*	*08:08*	*1+*	07:26	07:41	07:56	1+	07:30	07:47	08:39	2+				07:41	07:50	08:07	1+
20	C2.9	4	11:52	11:58	12:03	1-					11:41	11:56	13:18	3				11:42	12:14	13:11	3
20	C2.5	3	14:53	14:56	15:01	1-					14:53	14:58	15:27	2							
20	C6.5	6	15:35	15:41	16:01	1+					15:33	15:40	16:15	2				15:36	15:45	16:32	2+
21	?	1									18:34	18:37	18:53	1							
22	C2.8	2	08:05	08:09	08:15	1-					08:03	08:12	08:31	1+							
22	C2.4	1									16:25	16:33	16:52	1+							
23	C2.5	1	13:33	13:38	13:45	1-															
24	C3.5	1	10:44	10:59	11:14	1+															
24	C2.3	1	*16:37*	*16:41*	*16:54*	*1-*															
24	C5.7	1	*18:35*	*18:43*	*18:56*	*1*															
26	C3.3	1									14:20	14:26	14:39	1							
27	C3.4	1									09:02	09:15	09:41	2							
30	C4.7	1	06:14	06:17	06:24	1-															
30	C3.4	4	10:32	10:33	10:41	1-					10:31	10:34	10:47	1-							

BAA Radio Astronomy Section. **2025 JULY.**

	Xray class		Steve Parkinson (Various)				Andrew Thomas (20.9kHz)				Phil Rourke (23.4kHz)			Mark Prescott (20.9kHz)				John Elliott (18.3kHz)			
			Tuned radio frequency receiver, frame aerials.				Tuned radio frequency receiver, 0.6m frame aerial.				Spectrum Lab, 0.6m frame aerial.			SpectrumLab/Starbase, Active mini-whip aerial.				Tuned radio frequency receiver, 0.5m frame aerial.			
DAY			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	START	PEAK	END (UT)		START	PEAK	END (UT)	
3	C2.0																				
10	C4.3		11:45	12:03	13:10	2+	11:46	12:03	13:07	2+				11:53	12:03	12:55	2+				
10	C3.4		13:27	13:30	14:06	2	13:27	13:31	14:09	2				13:30	13:34	14:00	1+				
10	?		15:22	15:24	15:32	1-															
10	C4.2																				
10	C8.9																				
11	C5.2		14:17	14:23	15:10	2+	14:18	14:27	15:10	2+											
11	C8.0		17:07	17:10	17:30	1															
12	C4.8																				
12	**M2.3**		08:31	08:40	10:00	3	08:19	08:43	09:59	3				08:34	08:48	09:45	2+	08:26	08:37	09:06	2
12	**M1.6**		12:02	12:12	13:00	2+	12:02	12:15	13:12	2+				12:07	12:15	?	-	11:59	12:11	12:48	2+
12	C3.4													?	12:54	?	-				
12	C2.7																				
12	C5.3		14:49	15:06	15:30	2								14:54	15:14	15:42	2+	14:28	14:52	15:17	2+
12	?																				
12	C7.0																				
14	C2.9		09:34	09:40	10:17	2								09:37	09:43	?	-				
14	C3.3																				
14	C4.5		16:57	17:05	17:22	1															
17	C5.9		09:24	09:32	10:16	2+	09:24	09:34	10:29	2+				09:28	09:38	10:10	2	09:21	09:29	09:41	1
17	C2.8													13:15	13:19	?	-				
18	C3.5		08:09	08:15	08:47	2								08:14	08:17	?	-				
19	C3.3													09:09	09:19	09:30	1				
20	C7.6		07:35	07:47	08:29	2+	07:37	07:45	08:45	2+				07:42	07:50	08:30	2+	07:26	07:41	07:56	1+
20	C2.9													11:48	12:00	?	-				
20	C2.5													14:57	14:59	?	-				
20	C6.5		15:34	15:45	16:28	2+	15:34	15:43	16:21	2+				15:37	15:45	16:20	2				
21	?																				
22	C2.8																				
22	C2.4																				
23	C2.5																				
24	C3.5																				
24	C2.3																				
24	C5.7																				
26	C3.3																				
27	C3.4																				
30	C4.7																				
30	C3.4		10:31	10:34	11:05	2								10:34	10:36	?	-				


VLF flare activity 2005/25
C
M
X
Relative sunspot number
Number of S.I.D's recorded.
0
20
40
60
80
100
120
140
160
180
Jan 2005
Jan 2006
Jan 2007
Jan 2008
Jan 2009
Jan 2010
Jan 2011
Jan 2012
Jan 2013
Jan 2014
Jan 2015
Jan 2016
Jan 2017
Jan 2018
Jan 2019
Jan 2020
Jan 2021
Jan 2022
Jan 2023
Jan 2024
Jan 2025

BAA Radio Astronomy Section.

BARTELS DIAGRAM

ROTATION | KEY: | DISTURBED. | ACTIVE | SFE | B, C, M, X = FLARE MAGNITUDE. | Synodic rotation start (carrington's).

2575

	2258										2022 June														
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	16
F CCC	CC	CC	CC	CCM	CC	CC	CC												CC	CCMC	C		C	CCCC		C

2576

2259													2022 July												
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	13
F CCCC	CCC	C	CC	C	CC	CC	C	C								BC	C	CC			M	CCCC	CCCC	CM	CCCC	CCC

2577

							2260											2022 August								
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
F CMCM	CCC	MCM	CCCC		C	CCCC			CCCC	C		C	C						CC	C		CC				

2578

								2261															2022 September				
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
F	C	CC	CCCC	C	CMMM	MCC	CCMM	CMMM	MCCC		C	C			CCCM	CMMM	CMMM	CCMM	CMMM	CCCM	C	CC	CCCC	CCCC	CCCC	CCMC

2579

								2262																	2022 October	
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	2
F CC				C	CCCC	CCCC	CCCC	MCCC		MM	M	CC	C	MCCC	M	CCCC	CCCM	CCCC		CCC	CCCC		CC	CCMM	CC	CMMC

2580

2022 October								2263																		
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
F CMMM	M	C		CM	C	CCCC	CM	MMCC	CC	C	M	C	C		C		CC		CB		CC	C	C			

2581

	2022 November							2264																		
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
F							C	C			C	MCCM	CC	C	C	CCC	CC	CC	CCC	M			CCC			

2582

				2022 December				2265																		
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
F			C			C	M				C				C			MMMM	CMCM	MMMC		CC	CCC	M	C	C

2583

									2023 January																	
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
F CC	C		CCC	CM		CM	CCCM	C							CC	MCCM	MM	MCMM	MC	MCMC	MC	CCC	CM	C		MC

2584

										2267			2023 February													
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
F MMC	CC	CC	CMCM	C	CCC	MCM	CMCC		C		C	CC		C		C	C	C	CC	CM	MMMM	MCCM	MMXM	MMMM	CCCM	CCM

2585

										2268				2023 March												
15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	8	9	10	11	12	13
F CCCC	C	CX	C	CC	CMCC	MCCM	CCCM	CMCC	CCM	CCMM	CC	CC		CC	CCCC	MCCX	CMMC	CCMC	MCCC	C	MC	CCC	CCCC	C		

2586

											2269								2023 April							
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
F C		C	CCCM	C	CCC	C	C			C		CC	CCC	CC	MC	M	CC					CCC	MC		CC	CCCC

2587

											2270											2023 May					
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	6
F MCCC	MC	CCC	CCCC	CCMC	CCCC	C	CC	CCC	CCC	CCCC	M	CC		CC		C	M	CC	CCCC	CCM	CCMC	CCCC	MMMM	MCCC	CMM	CC

2588

												2271														2023 June	
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	2
F C	CCCM	MCMM	MCCC	MCCM	CCCC	CCCC	C	C	CCCM	CCCC	MMMM	MCCM	MMMM	CCCM	CCMC	CCMC	MCCM	CCMC	CCC	CCC	MC	C	MMMC	CMCM	CCCC	CC

2589

											2272															
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
F CC	CCCC	C	CCCC	CMCC	CC	CM	C		CCCC	CCCC	CC	CC	MCMM	CC	M	MC	CCMX	CMMC	CMCC	C	CCMC	CCCC	CCMC	CMCC	MCC	CCCM

2590

	2023 July										2273															
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
F CCCC	CCCC	CCCC	MCCC	MC	CCCM	CCM	MC	C	CCC	CCCC	MMMM	MMCC	CCCM	MCCC	MMMC	MCMM	CCC	MMMM	CMCM	C	C	CC	CC	C	CCCM	CMCM

2591

					2023 August						2274															
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
F CMCC	CMCC	CCCM	MC	CMCC	MMMM	MMMM	CMCC	CC	MMCX	CM	CMMX	MC	C		CCCC	CCCC	C		C	CC	CCC		C	CC	CC	

2592

								2023 September			2275															
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
F CCC	C	C	C				C			MC	MCC	CC	MCC	CCCC	CCM	CCC	C	C	CCCM	MCCC	C	CCM	C	CC	C	C

2593

													2023 October													
19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
F MCCC	CMCC	M	CCMM	CCCC	CCMC	C	CC		MCC	CCC	CCCM	CCCC	CCM	CCCC	C	C	CC	CC	CC	CCC	CMCC	CC			C	C

2594

												2277			2023 November											
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
F CCC			C	C					CC	CC			CCCC		MCM	CCM			MCM	C		C	C	C	CCC	

2595

												2278							2023 December							
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9
F C	CCCC	C			CM	CC	MCCC	CCCC		CCMC	MC		C			C		CC				CCC	C			MCM

2596

												2279											2024 January			
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
F CCC	CCCC	CC	C	MMX	MCCM	CC	C	C						MM						C	CCCC	M				

2597

												2280														
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
F C		CC		CM	CCM	C		CC						C	CCC	C	CMMM	CCC	CCCC			CCC	CCC	C	C	CC

2598

2024 February													2281													
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
F CCCC	CCCC	MMMM	CC	CC	CCM	MMMM	CXM	C	C	CMCM	CC	MCCC	CCCM	XCC	C	C	CC	CC	CCCC	XCCM	CMMM	MMMM	CM	C	C	CC

2599

	2024 March												2282													
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
F		CCC		C	CC	C	CCCC	C		CMCC	CC	CCCC		MCC		CCMC	CCCC	CCCC	CCCC	MCCC	CC	CCCM	MMMM	MMMM	MCCC	MMMM

2600

					2024 April								2283													
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
F MCCC	MMMX	CCCC	CCCC	CCCC					C					CCCC	CCCM	CCCC	MCCC	CCCC	CMCC	CCCC	CCCC	CMCC	MCCC	CCCC	MMM	MMMM

2601

									2024 May					2284												
23	24	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
F MCCM	CCMC	CMCM	CC	MC	CC	CCC	CCMM	MC	CCCM	CMCC	MMCM	XMXM	MXMC	MMMM	XMXC	MXMX	XMMM	MXMM	MMMX	MMMM	XCXM	CMMX	M	CCC			MM

2602

												2024 June		2285												
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
F	CCCM	CM	CMMM	MCCC	C	CCCC	XCC	CCCC	MMXM	CM	CMCX	XCXM	CMCC	MMMM	MMCC	MMCC	CCMC	CMCM	MMMC	MMCM	MMXM	CC	CC	CCMC	CCCC	MCCC

2603

														2286	2024 July											
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
F CCCC	MCMM	CMMC	MCCC	CMCC	CCCC	MMCC	MMMC	MMCM	MC	C	CC	CC	CC		MC		MCC	CCMM	CCCC	CCCC	CCMM	CMCC	CCCC	MMMM	CMCC	CCC

2604

													2287								2024 August					
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
F MMMM	MCCM	MMCC	MCXM	MMMM	MMCC	CMCM	MCCM	MCCM	MCMC	CM	MCMC	CCM	MCC	MMMM	MMMM	MMMM	MMMM	MMMM	MMMM	MMMM	MMMM	MMMM	MMMM	MMXX	CCCC	CCMM	MMMX

2605

														2288										2024 September			
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
F MMMM	CCMM	MCCM	MC	CCCM	XMMC	CCCC	CMC	MM	MCM	MCCC	CCM	MCCC	CCMC	CCMM	CCMM	CCCC	CMC	CMCC	C	CCC	CMCC	MCMC	MCCM	CMCC	MCCM	CCMC

2606

															2289											
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
F MMMC	CCCC	MCCC	M	MMMM	CMC	MMMM	MXMM	MMMM	MCX	CC	C	C	C	C	C		C	M	C	C	C	CC	C	MMM	C	CCC

2607

2024 October															2290											
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
F CCMC	MXM	MC	MMCC	CMM	C	MCC	CCX	CMMC	CCMM	C		MC	MCCM	MCM	C	CCC	MCM	C		CCC	CCCC	MC	MCC	XMMM	CCCC	CCMM

2608

			2024 November											2291												
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
F CM	CC	CMMM	MCMM	MM	MCMM	MMMM	MMMM	MMMX	CCCC	CCCC	M	C	C		CC	CCC	M		CC	MMMM			CC	M	M	

2609

						2024 December								2292												
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
F MC	CC	CCCM			CC	CC	C		MC	MMC	MCC	CCM	XCCM	C	MCM	MCCM	CCM	MCM		CCCC				MCCM	CCM	

2610

										2025 January						2293										
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
F CM	M	MCMC	C		M	MM	MMMM	MMMM		C	C	X	CCX	MM									CC			MMMC

2611

															2025 February		2294									
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
F CCCC	CC	CC	M	MC	CC	CCC		CC	M	CC		CC	CCMC	CCCM	MMMM	MCCM	CMMC	CCCC	MCCC	MC	MCCC	C	CC	CC	C	CMCC

2612

																2025 March		2295								
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	8	9	10	11	12
F MC	C	C	CCMC		CC	C	CMMC	C	MMMX	MCC	M	CCC	C	CCC	CCCC	C	CC	CCC	M			CC			MC	CCCC

2613

																	2296		2025 April							
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
F CC	CCCC	CC	C	CCCC	C	CC	C	M	C	CCC	CC	CC	MCCC	CCC	CXMM	CCCC	CCMM	CMCC	MCCC	CCCC	CCC	CCC	C	C	CCCC	

2614

																		2297					2025 May			
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
F CCC	CCC	CCCM	MMMM	MMMM	MMCC	CMCM	C	CCC		C	CMC	M	M	C	CC			C		MMMC	CMC			CCCC	CCCC	C

2615

																		2298								
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
F CCCC	CCCC	CCCC	C	CC	CCCC	CC	CX	MXMM	CM				M	CCCC	C			CCCM	MCMM	CMM	C	CCCC	C	MCCM	MMCM	CC

2616

2025 June																		2299								
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
F MC	M		CC	CC	CCC	C		C	CCCC	C	C	CCM	MMCM	CCMM	CX	CCCC	CCCC	CM			C					

2617

		2025 July																	2300							
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
F				C							CCCC	CC	MMCC		CCC			CC	C	C	CCCC		CC	C	CCC	

2618

						2025 August																				
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
F C	C			CC																						