2010 FEBRUARY

	Xray class	Observers	John Cook (23.4kHz)				Roberto Battaiola (18.3kHz)				Nigel Curtis (23.4kHz)				Bob Middlefell (22.1kHz)				Mark Edwards (18.3/*20.27* kHz)			
			Tuned radio frequency receiver, 0.58m frame aerial.				Modified AAVSO receiver.				Gyrator receiver, shielded loop aerial.				Tuned radio frequency receiver, 0.5m frame aerial.				Spectrum Lab / PC 2m loop aerial.			
DAY			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	
6	C1.0	2					10:43	10:50	11:08	1									10:44	10:47	10:50	1-
6	C3.4	5	15:30	15:38	15:53	1	15:34	15:39	15:44	1-									15:25	15:38	15:55	1+
8	**M4.0**	2					07:36	07:45	07:52	1-									*07:39*	*07:44*	*08:05*	1+
8	C2.8	7	09:56	09:59	10:18	1	09:56	10:01	10:12	1-									09:56	10:00	10:18	1
8	C1.8	2					11:00	11:15	11:23	1									11:02	11:15	11:27	1
8	**M1.1**	9	12:01	12:05	12:35	2	11:59	12:04	13:25	3									12:00	12:04	13:23	2+
8	**M2.0**	9	13:44	13:49	14:35	2+	13:42	13:47	14:22	2									13:43	13:49	14:37	2+
8	C1.2	3																	15:00	15:03	15:12	1-
8	C3.8	5					15:47	15:54	15:59	1-									15:50	15:53	16:00	1-
8	C1.3	1					16:54	16:58	17:02	1-												
9	C1.8	4	11:28	11:31	11:36	1-	11:28	11:34	11:42	1-									11:29	11:33	11:42	1-
10	C1.2	5	15:05	15:07	?	-													15:05	15:07	15:11	1-
10	C3.7	7	15:11	15:15	15:30	1	15:13	15:17	15:23	1-									15:11	15:16	15:32	1
12	C7.9	1					07:23	07:28	07:38	1-												
12	B9.6	3	09:41	09:42	09:46	1-	09:40	09:44	09:49	1-									09:41	09:43	09:48	1-
12	**M8.3**	8	11:22	11:28	12:40	2+	11:23	11:29	12:16	2+									11:22	11:29	12:36	2+
13	C4.3	1					07:49	07:52	08:03	1-												
13	C9.6	7	12:32	12:43	13:20	2+	12:29	12:38	13:22	2+									12:32	12:43	13:31	2+
14	C4.3	7	11:52	12:05	12:22	1+	11:49	12:04	12:25	2									11:52	12:05	12:45	2+
15	B2.3	1																				
15	B5.0	1																				
26	B1.1	1																				

			Colin Clements (23.4kHz)				Karen Holland (19.5kHz)				Mike King (20.9kHz)				John Wardle (23.4kHz)				Peter King (18.1kHz)			
			AAVSO receiver, 0.76m screened loop aerial.				Tuned radio frequency receiver, 0.58m frame aerial.				AAVSO receiver. Tuned loop aerial.				Gyrator MKII receiver, 1m loop aerial.				Own designed receiver, 1.4m loop aerial.			
DAY			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	
6	C1.0																					
6	C3.4																					
8	**M4.0**																					
8	C2.8																		09:55	10:00	10:05	1-
8	C1.8																					
8	**M1.1**		12:00	12:03	12:44	2													11:55	12:05	12:10	1-
8	**M2.0**		13:43	13:48	14:24	2													13:30	13:50	13:50	1
8	C1.2																		14:55	15:05	15:15	1
8	C3.8																		15:30	15:35	15:45	1-
8	C1.3																					
9	C1.8																					
10	C1.2																		14:55	15:05	15:10	1-
10	C3.7																		15:10	15:15	15:20	1-
12	C7.9																					
12	B9.6																					
12	**M8.3**		11:24	11:27	12:22	2+													11:20	11:25	11:30	1-
13	C4.3																					
13	C9.6		12:34	12:42	13:20	2+													12:30	12:40	12:50	1
14	C4.3		11:55	12:05	12:37	2													11:50	12:05	12:20	1+
15	B2.3																					
15	B5.0																					
26	B1.1																					

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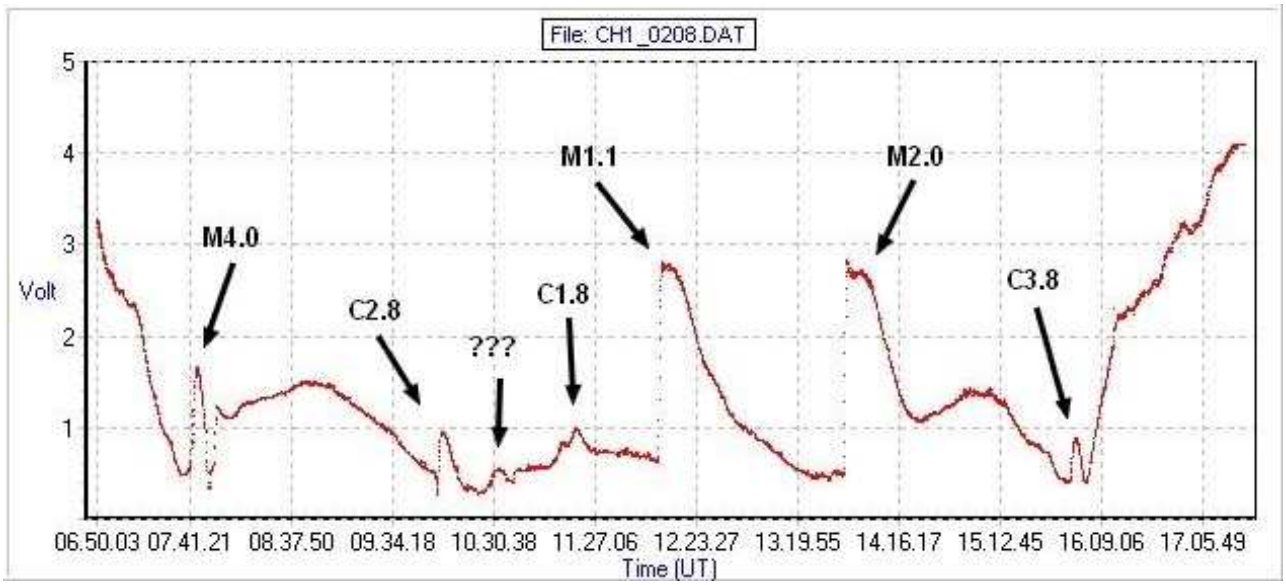
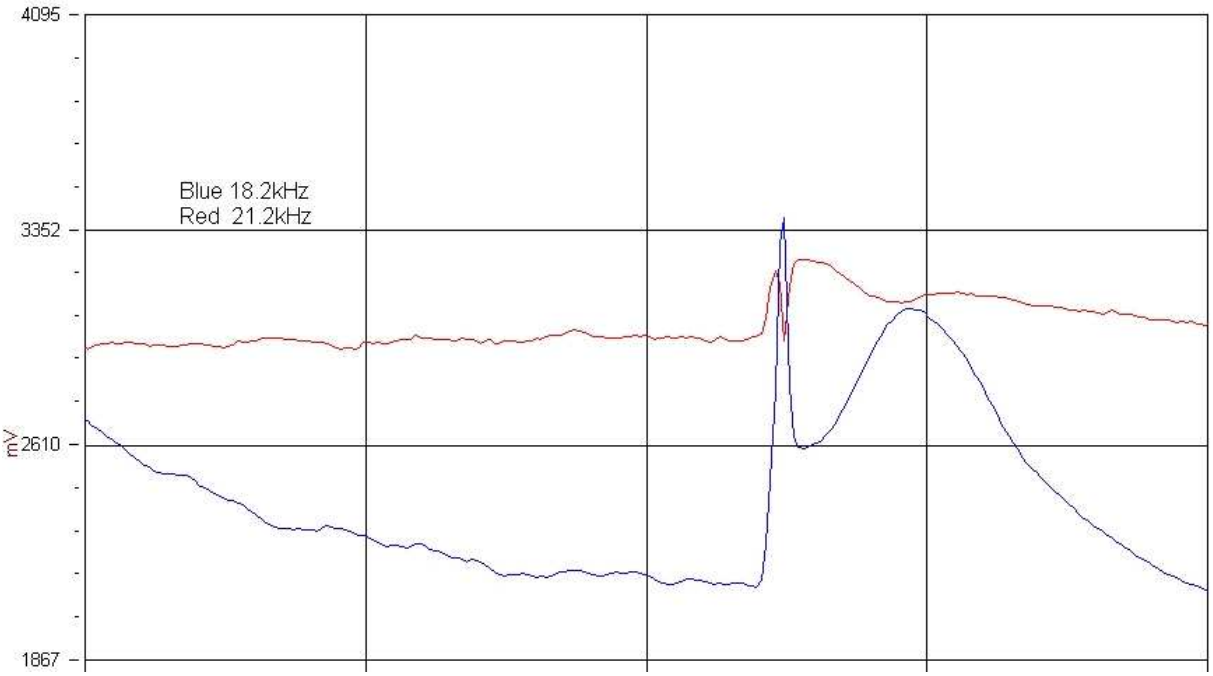
			Paul Hyde (22.1kHz)				Gordon Fiander (18.3kHz)				John Elliott (18.3kHz)				Martyn Kinder (18.2kHz)			
			Tuned radio frequency receiver, 0.96m frame aerial.				PC sound card.				Tuned radio frequency receiver, 0.5m frame aerial.				Tuned radio frequency receiver, 0.58m frame aerial.			
DAY			START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)		START	PEAK	END (UT)	
6	C1.0																	
6	C3.4						15:30	15:38	15:50	1	15:35	15:39	16:00	1				
8	**M4.0**																	
8	C2.8		09:56	09:59	10:12	1-	09:55	10:00	10:10	1-	09:58	10:00	10:18	1				
8	C1.8																	
8	**M1.1**		12:00	12:04	13:08	2+	12:00	12:08	12:45	2	12:00	12:05	13:20	2+	12:02	12:04	12:14	1-
8	**M2.0**		13:43	13:48	14:36		13:44	13:50	?	-	13:41	13:56	14:48	2+	13:44	13:46	14:00	1-
8	C1.2														14:57	14:59	15:04	1-
8	C3.8		15:49	15:52	16:05	1-									15:46	15:48	15:52	1-
8	C1.3																	
9	C1.8		11:28	11:32	11:39	1-												
10	C1.2										15:05	15:09	15:20	1-	14:58	15:01	15:06	1-
10	C3.7		15:11	15:15	15:25	1-	15:12	15:16	15:26	1-					15:10	15:11	15:20	1-
12	C7.9																	
12	B9.6																	
12	**M8.3**		11:22	11:26	12:36	2+					11:16	11:48	12:30	2+	11:23	11:26	11:28	1-
13	C4.3																	
13	C9.6		12:32	12:42	13:42	2+					12:31	12:37	13:20	2+				
14	C4.3		11:52	12:04	12:47	2+					11:48	11:56	12:18	1+				
15	B2.3														10:28	10:29	10:34	1-
15	B5.0														10:42	10:44	10:48	1-
26	B1.1														12:23	12:25	12:31	1-

February was the first month in 3 years without a spotless day on the sun, and provided a good supply of flares and SIDs. Members recorded 4 M-class flares together with 14 C-class and 4 B-class events. February 8th. produced 8 of these, and is nicely summarised in the chart by Roberto Battaiola:-



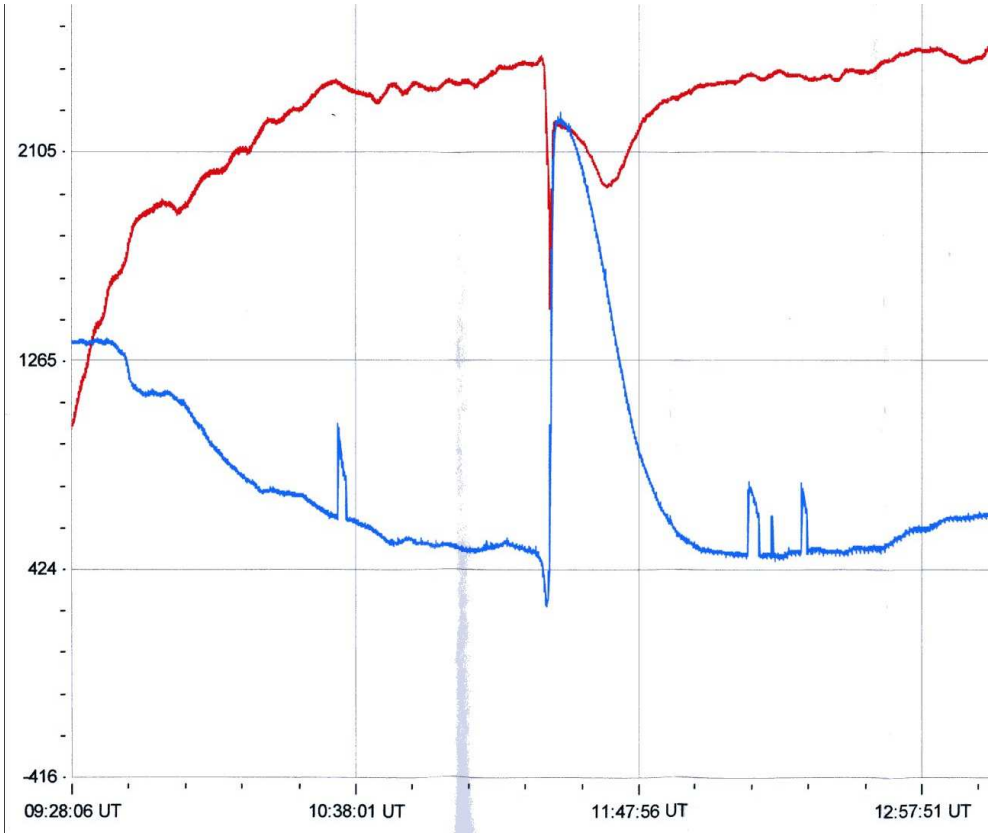
The largest event of the month was the M8.3 on the 12th. This chart by Martyn Kinder shows differing responses at two frequencies:-



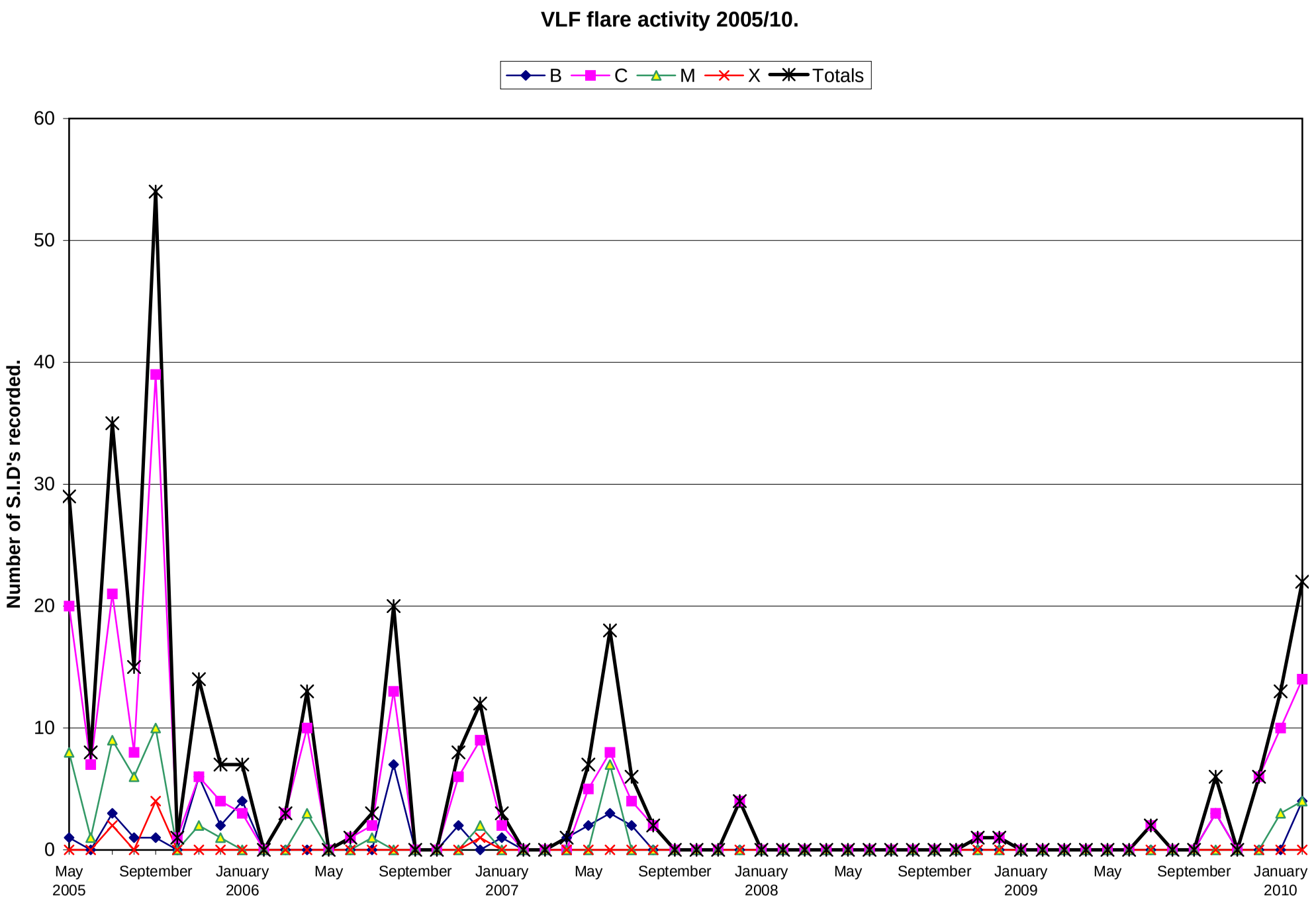
The responses are in antiphase, which helps in timing the event.

Several members have asked recently about a suitable reporting format. I am quite happy to accept data as text or as an xls file, listing the start, peak and end times of each event. Timings need only be to the nearest minute, as often the exact time is difficult to determine. Also include the frequency used. I compare timings with the GOES data to determine the flare classification, and automatically add the importance figure. Any other comments are always welcome, including suggestions for improving this summary. My current format includes a single frequency per observer, but as several observers are now using software receivers their reports cover 4 or 5!

I had been led to believe that 37.5kHz was too high a frequency to record SIDs. However, Colin Clements has recently started monitoring the signal from Keflavik in Iceland at this frequency. Here is his recording for the M8.3 flare on the 12th:-



Red is 23.4kHz, blue is 37.5kHz. The response is good and exceeds that from Germany, thus proving my assumption wrong. The path to the north west should provide a little extra coverage before sunset.


VLF flare activity 2005/10.
B
C
M
X
Totals
Number of S.I.D's recorded.
60
50
40
30
20
10
0
May 2005
September
January 2006
May
September
January 2007
May
September
January 2008
May
September
January 2009
May
September
January 2010