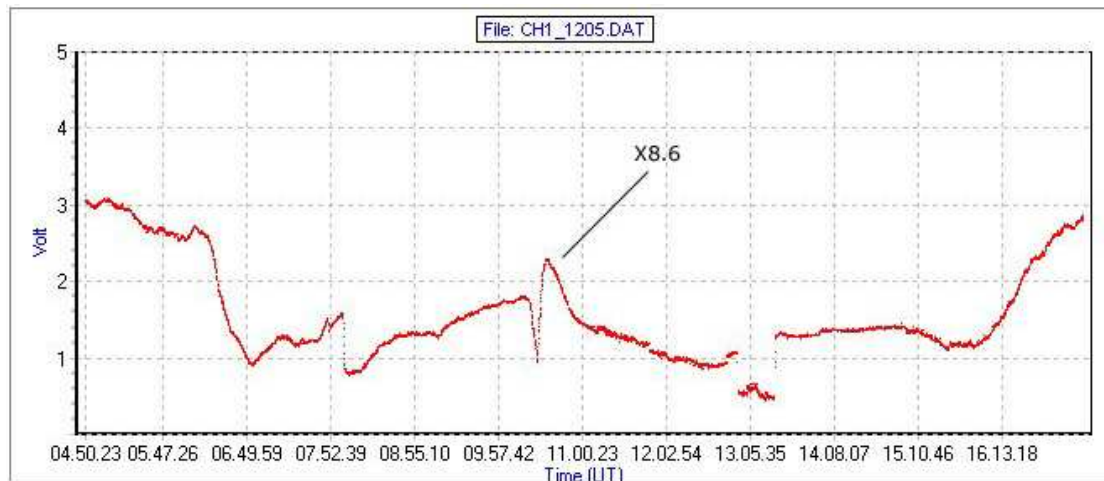


2006 DECEMBER

DAY	Xray class	Observers	John Cook (23.4kHz)		Roberto Battaiola (20.9kHz)		Nigel Curtis (23.4kHz)		Bob Middlefell (22.1kHz)		Mark Edwards (20.9kHz)	
			Tuned radio frequency receiver, 0.58m frame aerial.	START PEAK END (UT)	Modified AAVSO receiver.	START PEAK END (UT)	Gyrator receiver, shielded loop aerial.	START PEAK END (UT)	Tuned radio frequency receiver, 0.5m frame aerial.	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)
4	C1.9	2	11:31	11:35	11:43	1-	11:28	11:36	11:44	1-		
4	C1.4	1	12:38	12:42	12:51	1-						
4	C4.9	2					14:24	14:35	14:53	1+		
5	M1.8	1					07:51	08:05	08:29	2		
5	C1.5	1					09:11	09:12	09:16	1-		
5	X9.0	3	10:19	10:33	13:09	3+	10:18	10:27	10:33	1-		
6	C	1					07:43	07:51	07:56	1-		
6	M6.0	1					08:05	08:17	09:33	3		
6	C4.8	1					12:54	12:59	13:12	1-		
11	C5.7	1					08:13	08:19	08:28	1-		
12	*	1					07:56	07:57	08:02	1-		
13	C2.2	1					14:18	14:23	14:30	1-		
			Colin Clements (23.4kHz)		Karen Holland (19.5kHz)		Mike King (20.9kHz)		John Wardle (19kHz)			
			AAVSO receiver, 0.76m screened loop aerial.		Tuned radio frequency receiver, 0.58m frame aerial.		AAVSO receiver. Tuned loop aerial.		Gyrator MKII receiver, 0.6m loop aerial.			
DAY			START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)	START PEAK END (UT)
4												
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13												

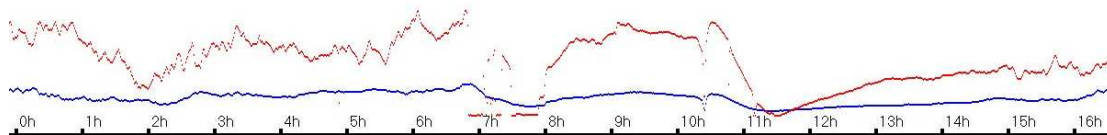
The first SID on the 6th. Is due to C1.5 & C1.7 flares nearly co-incident. The following M6 flare also overlapped to obscure the timing. The event marked '*' on the 12th. Is listed in the GOES report, but not given a flare classification.

December has seen a marked increase in flare activity from the sun, including a major X-class flare well timed during our daylight hours. This X9 event was accompanied by 3 other X-class flares during our night, as well as a couple of M-class and 9 C-class events. By the 19th. activity had dropped and there were no flares recorded for 6 days. The 26th, 27th, and 28th. were also blank.



This Chart shows the SID recorded by Roberto Battaiola on December 5th.

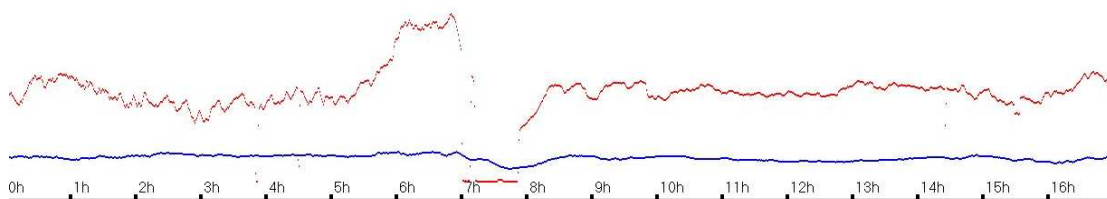
2006 December 05



This is my own recording of the same event. The top trace is 23.4kHz, the lower is 20.9kHz.

The flares responsible for these SID's caused an energetic proton event over quite a few days. I suspect that this might be partly responsible for the high noise levels reported by some observers. This is my recording from the 7th:

2006 December 07



This is heavily filtered to reduce the noise, but shows the difficulty in identifying small SID's. Also notice that the sunset dip is nearly absent, a common problem at this time of year. The 14th. was another very noisy day. As usual, the 23.4kHz transmission stopped over the Christmas holiday period, returning on January 2nd.

The activity chart shows our recorded SID's for the last 19 months. From the high peak in 2005 September, 2006 shows a cycle of 3 or 4 months; a month or 2 of no SID's being followed by a small peak of 10-20 events recorded. Prior to this month's X-class flare, the last was recorded in 2005 September. M-class events have been recorded at each peak in 2006.

VLF flare activity 2005/6.

