

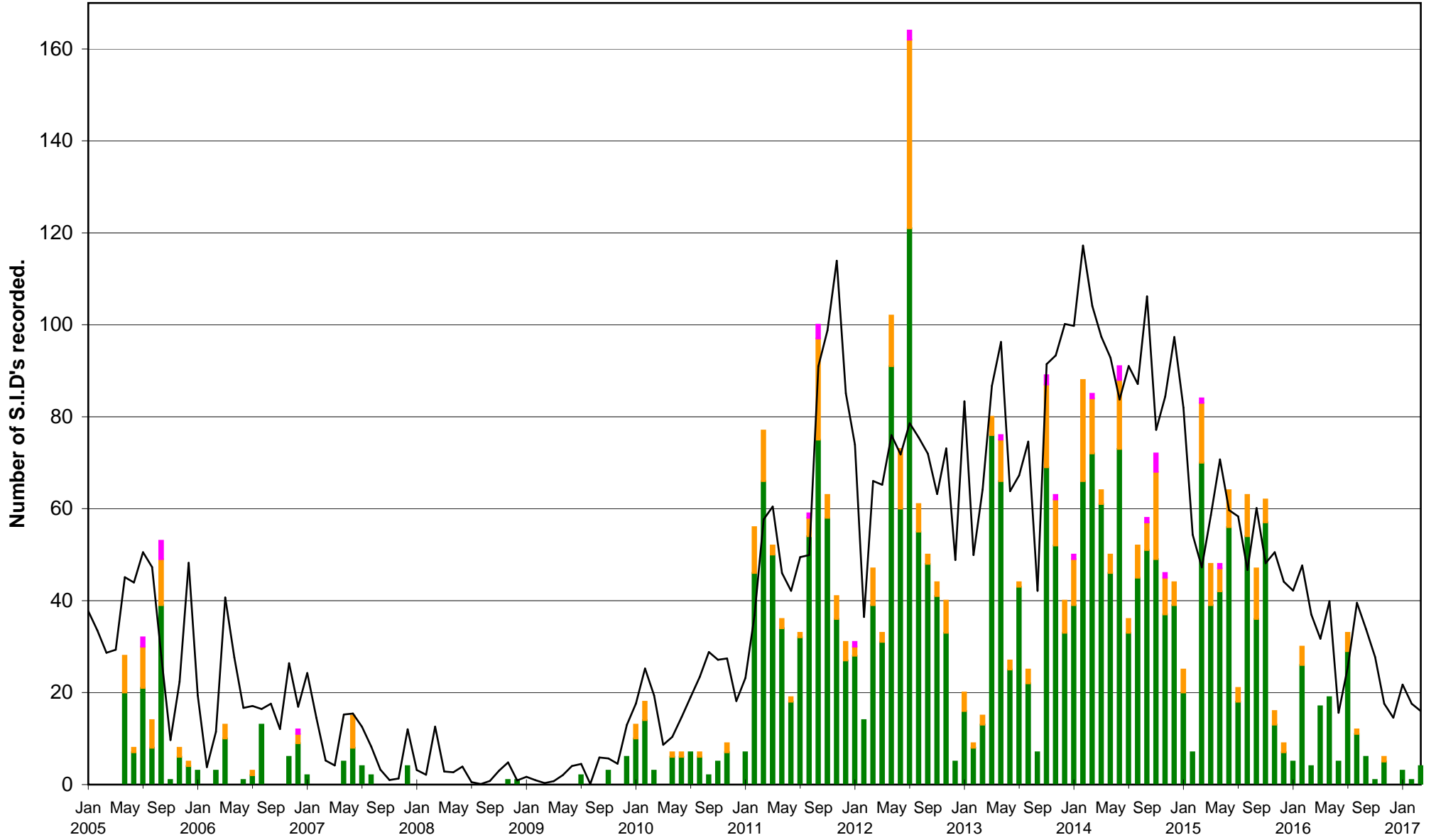
BAA Radio Astronomy Group.

2017 MARCH

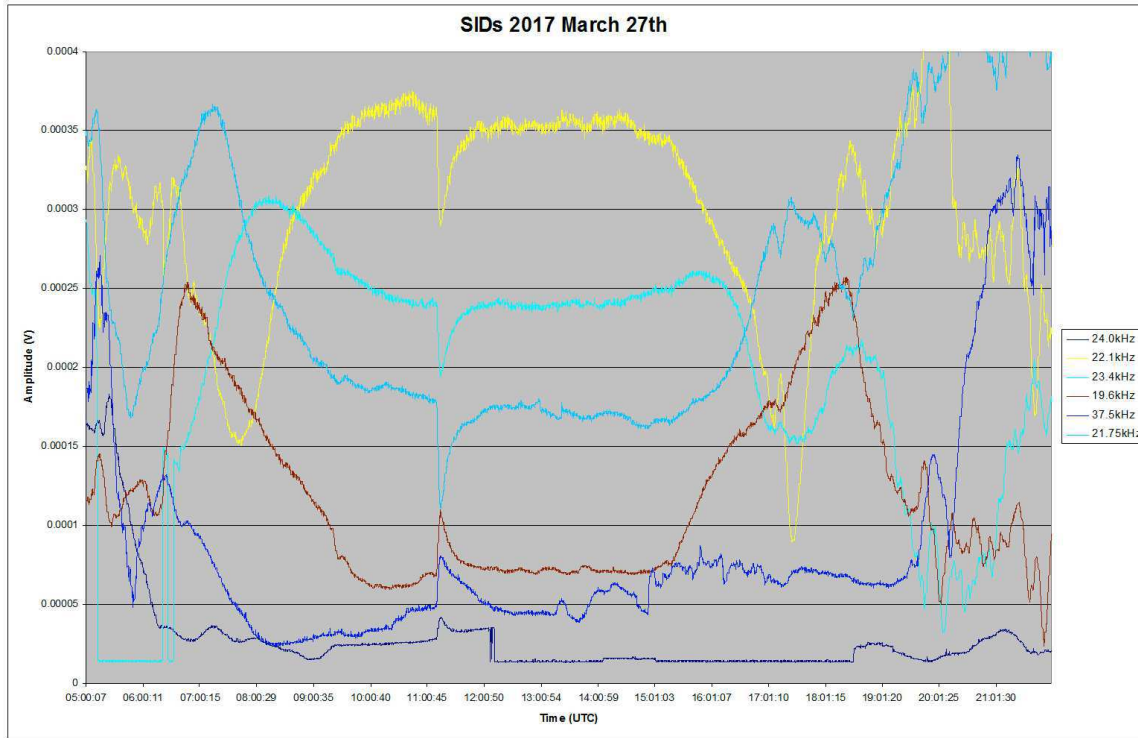
DAY	Xray class	Observers	John Cook (23.4kHz/22.1kHz)	Roberto Battaiola (21.75kHz)	Paul Hyde (22.1kHz)	Mark Edwards (37.5/24.0/19.6kHz)	Colin Clements (23.4kHz/22.1kHz)
			Tuned radio frequency receiver, 0.58m frame aerial.	Modified AAVSO receiver.	Spectrum Lab / PC 1.5m frame aerial.	Spectrum Lab / PC 2m loop aerial.	AAVSO receiver, 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)
27	B4.7	1				09:23 09:27 09:31 1-	
27	C3.2	5	11:11 11:14 11:38 1+			11:10 11:16 11:39 1+	11:09 11:14 11:45 2
27	C1.6	2	17:08 17:13 17:24 1-			17:09 17:14 17:19 1-	
28	B7.0	1				09:09 09:12 09:16 1-	
28	C1.0	3	09:58 10:01 10:09 1-			09:59 10:02 10:11 1-	
31	C1.7	1				17:32 17:38 17:53 1	

DAY	Xray class	Observers	Steve Parkinson (Various)	Andrew Thomas (23.4kHz)	Phil Rourke (23.4kHz)	Jim Barber	John Elliott (18.3kHz)
			Tuned radio frequency receiver, frame aeriels.	Tuned radio frequency receiver, 0.6m frame aerial.	Spectrum Lab, 0.6m frame aerial.	Spectrum Lab, 0.6m frame 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)
27	B4.7						
27	C3.2		11:10 11:15 11:55 2	11:08 11:12 11:30 1			
27	C1.6						
28	B7.0						
28	C1.0		09:58 10:02 10:17 1				
31	C1.7						

VLF flare activity 2005/17.

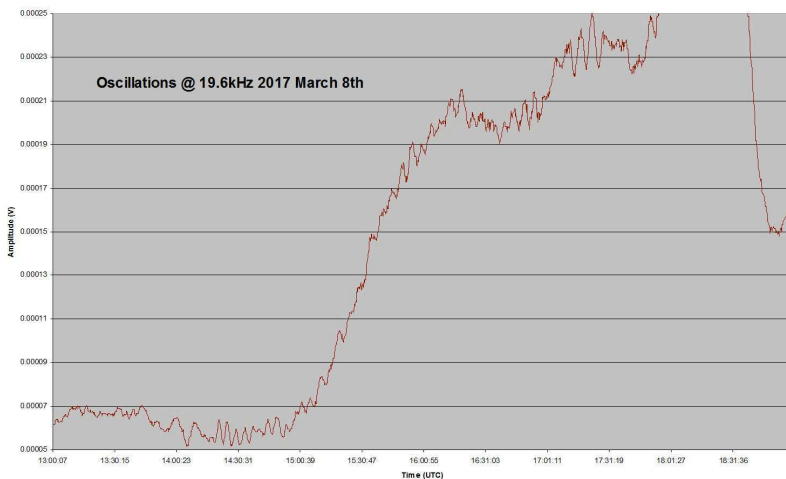


Following on from the low activity in February, X-ray flux levels started the month at A9 levels, decaying to A4 by mid-month. The appearance of AR12644 provided some activity starting on March 26th, and was rapidly followed by AR 12645 which provided the first SID of the month early on the 27th. At just B4.7 this was a very modest flare, but is clearly seen in this chart by Mark Edwards.

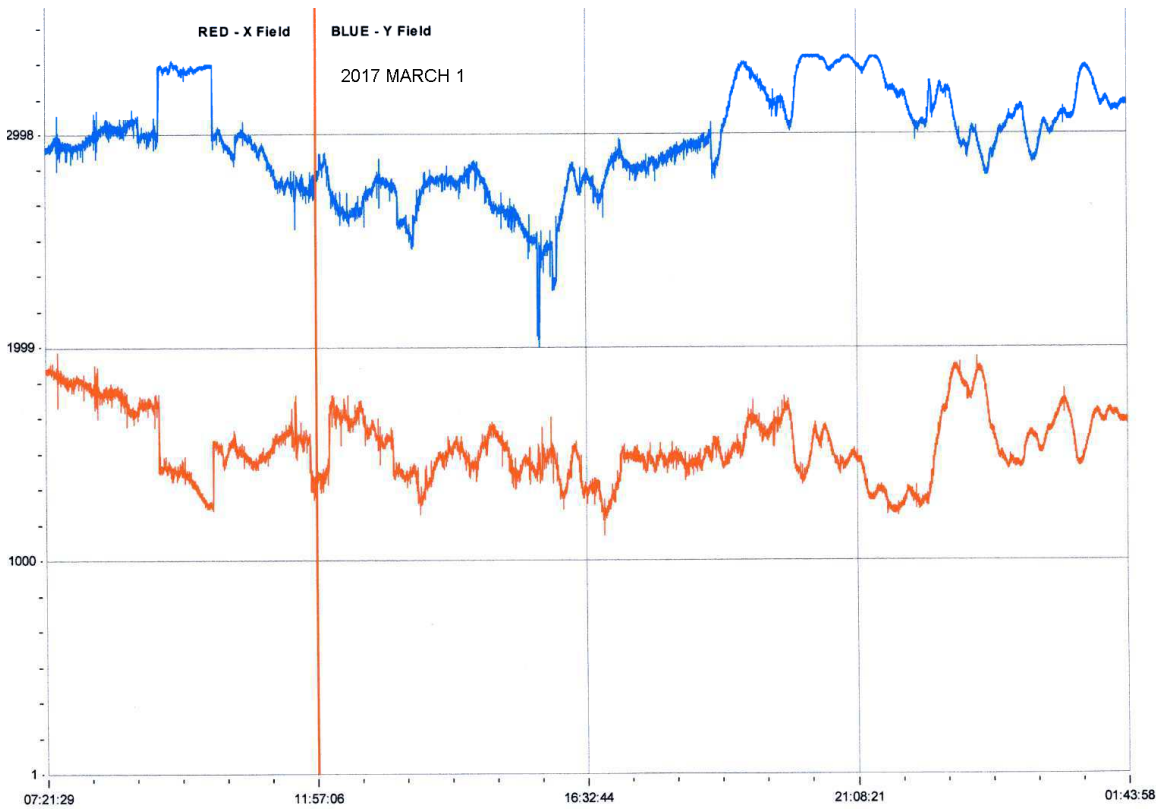


The C3.2 flare at 11:15UT stands out well on all of the European signals, while the C1.6 flare at 17:13 is particularly strong at 22.1kHz (yellow trace). There was a C5.1 flare recorded by GOES15 peaking at 17:55. This was too late for the European signals, and unfortunately 24kHz from Cutler was off-air at the time. This was the strongest event in the GOES data for March.

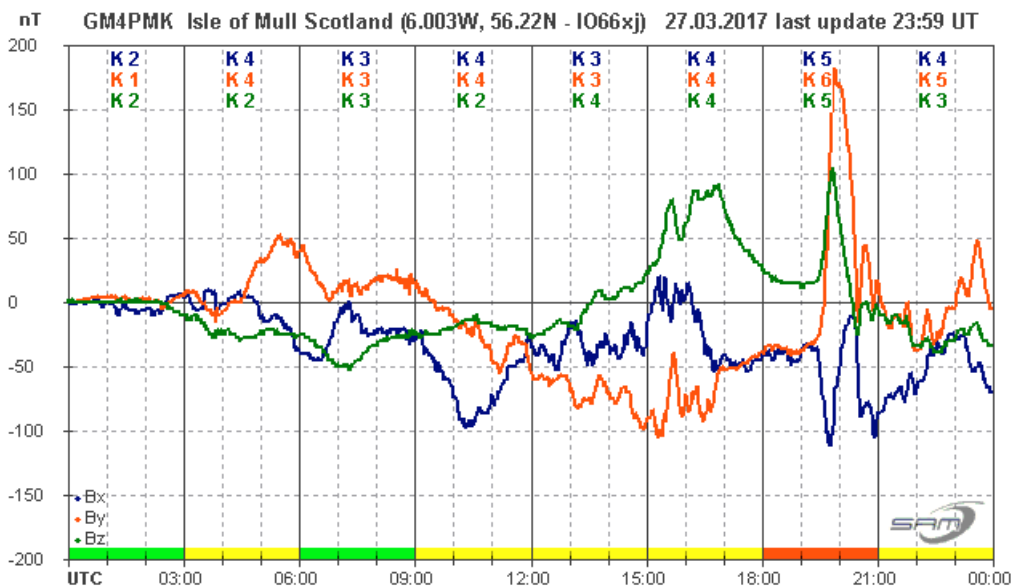
The quiet background allowed some strong oscillations to appear early in the month. My own recordings were very 'noisy' on the 4th and 5th, with weaker effects present until the 10th. Mark Edwards noted strong oscillations on the 8th, with the usual 5 minute period. They show well at 19.6kHz:



MAGNETIC OBSERVATIONS.



Aurora were widely seen in Scandinavia in the first few days of March. The large coronal hole that has been evident for several rotations was again present. The recording above is from Colin Clements, showing some strong activity in the afternoon of March 1st. My own recordings show this continuing until about 05UT on the 2nd, before picking up again in mid-afternoon. Mark Edwards noticed several transients in the 37.5kHz signal between 16:00 and 17:00UT that matched well with magnetic transients at the same time. These can be seen in both the X and Y fields of Colin's recordings. Sunset over the 37.5kHz path covered any further disturbances.



As expected, the coronal hole was again present at the end of the month, with a very strong transient at 20:00UT on the 27th shown in the recording by Roger Blackwell, above. The VLF chart on the previous page shows a further disturbance to the 37.5kHz signal that matches this transient.

