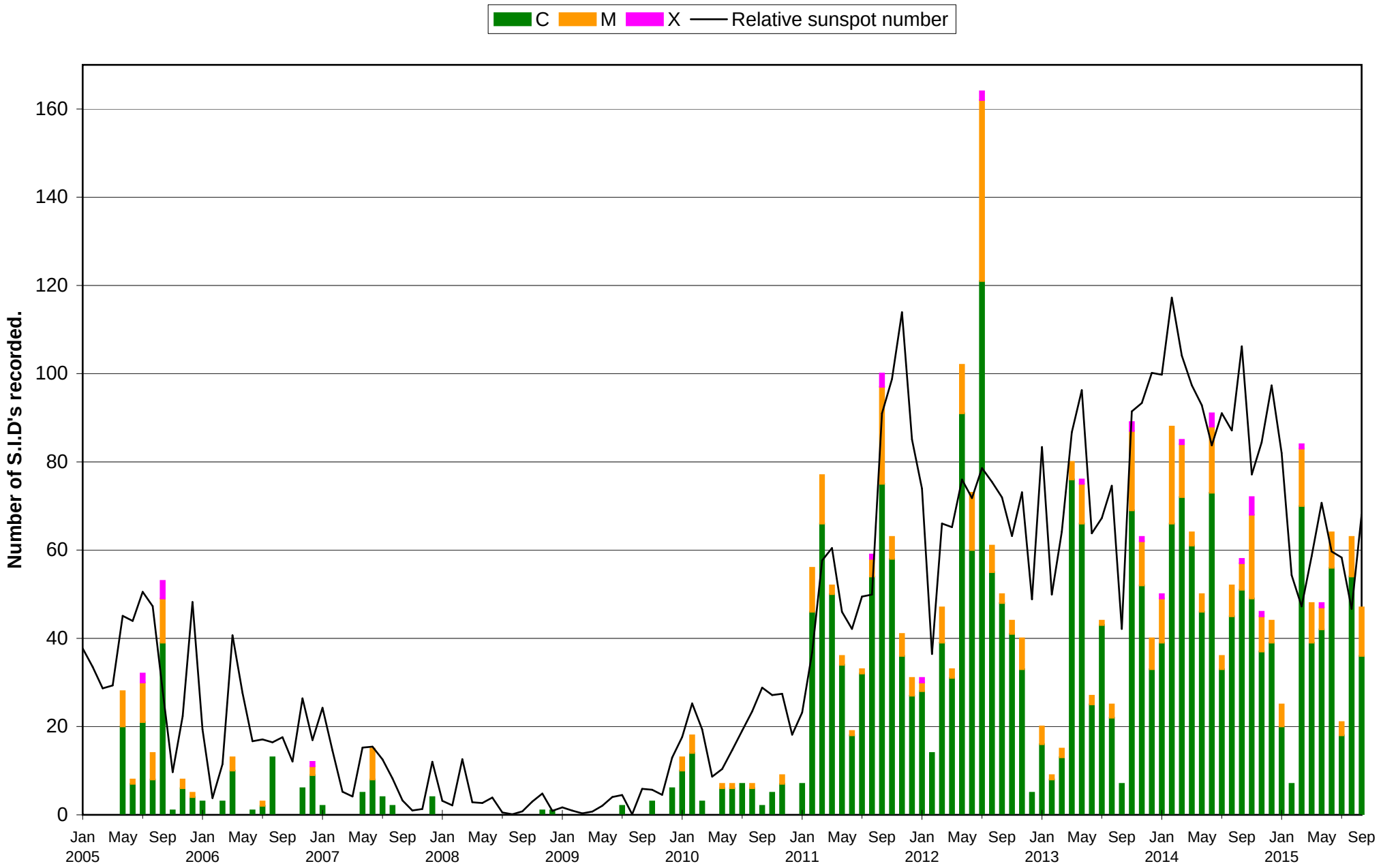
BAA Radio Astronomy Group. **2015 SEPTEMBER**

			John Cook (23.4kHz/*22.1kHz*)				Roberto Battaiola (20.3kHz)				Paul Hyde (22.1/23.4kHz)				Mark Edwards (**22.1**/24.0/*19.6kHz*)				Colin Clements (23.4kHz/*22.1kHz*)			
	Xray class	Observers	Tuned radio frequency receiver, 0.58m frame aerial.				Modified AAVSO receiver.				Tuned radio frequency receiver, 0.96m frame aerial.				Spectrum Lab / PC 2m loop aerial.				AAVSO receiver, 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	C1.7	2									11:33	11:39	12:15	2	11:34	11:45	12:11	2				
16	C1.4	4									12:42	12:47	13:19	2	12:43	12:50	13:11	1+	12:36	12:50	14:03	3
16	C3.0	5	*15:25*	*15:30*	*15:46*	*1*					15:24	15:32	16:15	2+	15:24	15:36	16:12	2+	15:22	15:37	16:58	3
17	**M1.1**	7	09:38	09:40	10:50	2+	09:36	09:46	10:45	2+	09:37	09:42	10:37	2+	09:37	09:43	10:29	2+	09:36	09:42	10:38	2+
17	B7.9	1																				
17	C1.3	1													17:22	17:25	17:39	1-				
17	C3.2	1													18:11	18:21	18:40	1+				
18	C1.4	3	11:31	11:35	12:09	2									11:33	11:37	11:59	1+				
18	B9.1	1													13:09	13:13	13:18	1-				
19	?	1													16:38	16:45	16:50	1-				
19	C1.5	1													17:12	17:13	17:16	1-				
20	CME	2									07:42	07:59	08:31	2+	*07:39*	*07:46*	*08:00*	*1*				
20	C2.6	5	09:34	09:36	10:04	1+					09:34	09:37	10:18	2	09:34	09:42	10:00	1+				
20	C1.4	1													14:12	14:18	14:32	1				
20	**M2.1**	1													17:38	17:59	18:53	2+				
23	C2.9	3									07:27	07:30	08:09	2	*07:28*	*07:32*	*07:38*	*1-*				
23	C1.8	6	09:59	10:02	10:34	2					09:59	10:04	10:22	1	10:00	10:03	10:08	1-	09:53	10:03	10:41	2+
23	C1.2	3									11:37	11:42	12:09	1+	11:37	11:42	11:44	1-				
23	C1.5	5									14:44	14:50	15:17	2	14:45	14:49	15:26	2	14:41	14:50	15:25	2
26	C1.1	2													12:55	12:58	13:10	1-				
27	C2.1	1									07:54	07:58	08:08	1-								
27	**M1.9**	9	10:36	10:43	12:06	3	10:17	10:43	11:44	3	10:34	10:43	11:44	2+	10:35	10:44	11:46	2+	*10:35*	*10:41*	*11:46*	*2+*
27	C2.4	6	12:25	12:28	?	-					12:23	12:29	?	-	12:23	12:30	?	-	12:11	12:26	12:46	2
27	C2.4	6	12:51	12:54	13:24	2					12:50	12:55	?	-	12:48	12:58	13:31	2	12:46	12:57	13:40	2+
27	C1.4	1									13:30	13:36	?	-								
27	C2.2	6	13:44	13:46	13:55	1-					13:44	13:48	14:05	1	13:44	13:47	14:38	2+	13:41	13:50	14:17	2
27	C5.4	5	15:36	15:39	15:53	1-					15:34	15:41	16:22	2+	15:36	15:40	15:45	1-				
27	C2.0	1													16:14	16:17	16:40	1+				
27	C4.3	2	16:46	16:49	16:56	1-									16:41	16:50	17:31	2+				
27	C4.2	1													17:44	17:47	18:33	2+				
28	**M1.1**	4	*07:27*	*07:33*	*07:53*	*1+*					07:32	07:39	?	-	*07:29*	*07:35*	*07:40*	*1-*				
28	C3.7	2									08:47	09:06	09:43	2+	**08:59**	**09:07**	**09:29**	**1+**				
28	C8.5	7	11:23	11:35	?	-	11:24	11:36	11:51	1+	11:25	11:35	?	-	11:24	11:37	?	-	*11:24*	*11:33*	*11:51*	*1+*
28	C8.1	4					11:54	11:58	12:27	2	11:54	11:58	?	-	*11:54*	*11:57*	*?*	-	*11:51*	*11:57*	*12:31*	*2*
28	C5.4	6	12:32	12:36	?	-	12:29	12:39	12:59	1+	12:32	12:39	?	-	*12:32*	*12:39*	*13:02*	*1+*	12:39	12:45	13:02	1
28	**M1.1**	6	13:02	13:09	?	-	13:03	13:22	13:34	1+	13:03	13:11	?	-	*13:03*	*13:10*	*?*	-	*13:01*	*13:09*	*13:12*	*1-*
28	?	4	13:14	13:17	?	-					13:15	13:22	14:13	2+	*13:15*	*13:22*	*?*	-	13:13	13:20	13:37	1
28	*	3	13:23	13:33	14:28	2+	13:36	13:41	14:10	2					*13:39*	*13:40*	*14:13*	*2*				
28	?	3									14:16	14:20	?	-	*14:16*	*14:22*	*?*	-	14:12	14:19	14:26	1-
28	C9.8	4					14:20	14:36	14:47	1+	14:27	14:33	?	-	*14:28*	*14:36*	*?*	-	14:26	14:33	14:54	1+
28	**M7.6**	8	14:53	14:59	16:04	2+	14:55	15:01	15:42	2+	14:55	14:58	16:31	3	*14:55*	*15:00*	*15:47*	*2+*	14:54	14:58	16:20	3
28	C2.8	1									16:48	17:19	?	-								
28	*	1									17:33	17:56	18:16	2								
29	C8.6	1													*06:16*	*06:18*	*06:20*	*1-*				
29	**M1.4**	2									06:42	06:46	?	-	*06:36*	*06:43*	*06:47*	*1-*				
29	?	1									07:56	08:04	?	-								
29	?	1									08:15	08:20	08:34	1								
29	?	1									08:38	08:43	?	-								
29	**M1.3**	8	08:49	08:52	09:21	1+	08:46	08:55	09:12	1+	08:49	08:53	09:24	2	*08:49*	*08:53*	*09:23*	*2*	08:46	08:52	09:22	2
29	C5.2	3													*09:24*	*09:27*	*09:33*	*1-*	09:22	09:25	09:46	1
29	C3.1	3									10:08	10:17	10:37	1+	10:14	10:17	10:18	1-				
29	**M1.6**	8	11:11	11:15	12:19	2+	11:12	11:20	12:03	2+	11:11	11:17	12:26	2+	11:11	11:18	12:10	2+	11:08	11:17	12:54	3
29	?	1													12:56	13:00	?	-				
29	C4.6	6	12:55	13:06	13:44	2+					12:57	13:07	14:05	2+	13:01	13:09	13:59	2+	12:54	13:09	15:04	3+
29	*	1													16:17	16:22	16:25	1-				
29	C5.0	1													17:37	17:45	18:17	2				
30	C5.9	2									06:52	06:57	07:52	2+	**06:51**	**06:58**	**07:08**	**1-**				
30	**M1.3**	7	10:50	10:55	12:32	3	10:51	10:59	11:31	2	10:51	10:59	13:03	3+	10:51	11:01	?	-	10:49	11:00	13:08	3+
30	?	1													11:07	11:08	?	-				
30	C4.4	1													11:38	11:40	12:44	2+				
30	**M1.1**	6	13:18	13:20	14:28	2+					13:19	13:23	14:05	2+	13:19	13:21	14:07	2+	13:18	13:20	14:12	2+
30	*	1													15:07	15:12	15:15	1-				

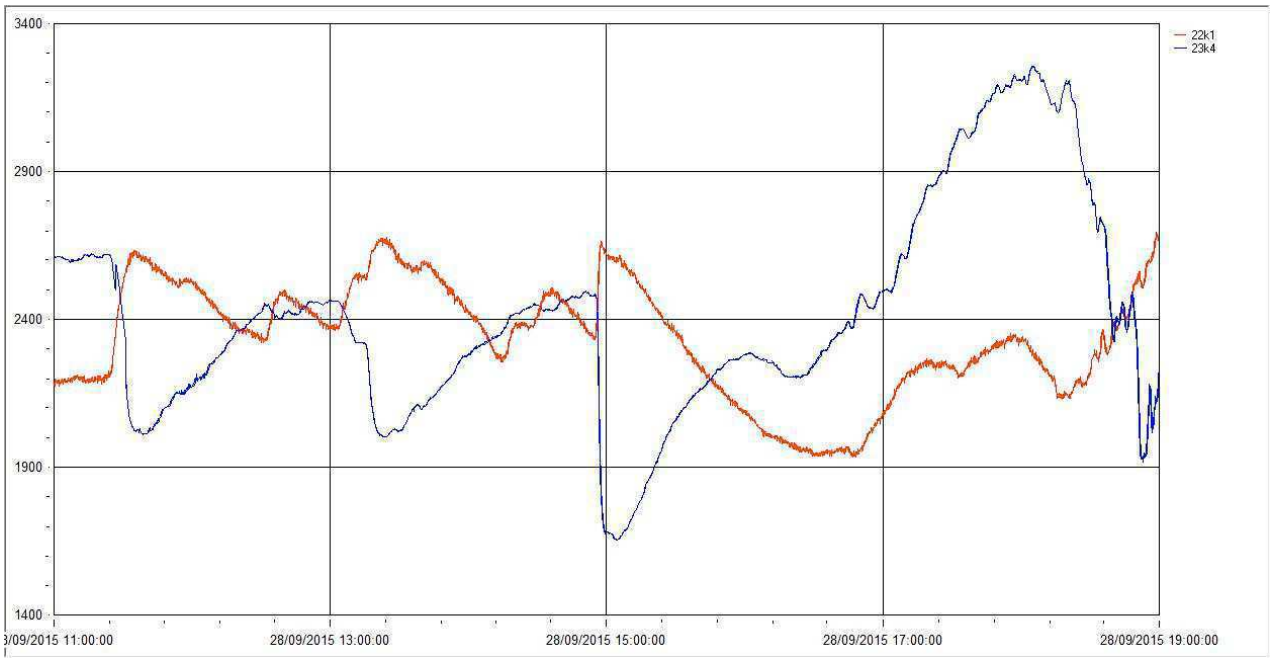
BAA Radio Astronomy Group. **2015 SEPTEMBER**

			Steve Parkinson (Various)				John Wardle (19.6/23.4kHz)			Phil Rourke (23.4kHz)				Jim Barber (22.6kHz)				John Elliott (23.4kHz)			
			Tuned radio frequency receiver, frame aerials.				PC soundcard, 0.7m frame aerial.			Spectrum Lab, 0.6m frame aerial.				Spectrum Lab, 0.6m frame 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	C1.7																				
16	C1.4		12:43	12:48	13:20	2															
16	C3.0		15:24	15:32	15:55	1+															
17	**M1.1**		09:37	09:41	10:45	2+				09:34	09:43	10:34	2+								
17	B7.9		12:26	12:31	12:48	1															
17	C1.3																				
17	C3.2																				
18	C1.4									11:20	11:40	13:06	3								
18	B9.1																				
19	?																				
19	C1.5																				
20																					
20	C2.6		09:27	09:40	?	-				09:34	09:41	?	-								
20	C1.4																				
20	**M2.1**																				
23	C2.9		07:28	07:32	07:40	1-															
23	C1.8		09:59	10:04	10:20	1				10:00	10:03	10:30	1+								
23	C1.2		11:37	11:40	11:46	1-															
23	C1.5		14:45	14:50	15:05	1				14:45	14:49	15:23	2								
26	C1.1		12:54	12:58	13:09	1-															
27	C2.1																				
27	**M1.9**		10:36	10:42	11:40	2+				10:35	10:42	12:16	3	10:37	10:39	11:06	1+	10:33	10:45	11:30	2+
27	C2.4		12:25	12:28	12:38	1-				12:24	12:28	?	-								
27	C2.4		12:50	12:54	13:15	1				12:50	12:56	13:27	2								
27	C1.4																				
27	C2.2		13:44	13:47	13:55	1-				13:45	13:46	14:00	1-								
27	C5.4		15:35	15:40	16:00	1				15:37	15:41	15:57	1								
27	C2.0																				
27	C4.3																				
27	C4.2																				
28	**M1.1**		07:33	07:39	08:12	2															
28	C3.7																				
28	C8.5		11:24	11:36	?	-												11:25	11:35	12:15	2+
28	C8.1																				
28	C5.4		12:32	12:38	?	-															
28	**M1.1**		13:05	13:21	?	-															
28	?																				
28	*																				
28	?																				
28	C9.8																				
28	**M7.6**		14:55	15:00	16:17	2+								14:54	14:55	15:30	2	14:55	15:00	15:50	2+
28	C2.8																				
28	*																				
29	C8.6																				
29	**M1.4**																				
29	?																				
29	?																				
29	?																				
29	**M1.3**		08:40	08:55	?	-				08:47	08:54	09:42	2+	08:56	09:00	09:15	1				
29	C5.2		09:24	09:27	09:40	1-															
29	C3.1									10:09	10:15	10:51	2								
29	**M1.6**		11:12	11:17	12:10	2+				11:11	11:18	12:52	3					11:15	11:20	12:00	2
29	?																				
29	C4.6		12:56	13:07	13:40	2				12:57	13:09	13:52	2+								
29	*																				
29	C5.0																				
30	C5.9																				
30	**M1.3**		10:52	11:00	12:15	2+				10:51	11:00	12:41	3								
30	?																				
30	C4.4																				
30	**M1.1**		13:19	13:22	13:50	1+				13:20	13:22	14:00	2								
30	*																				

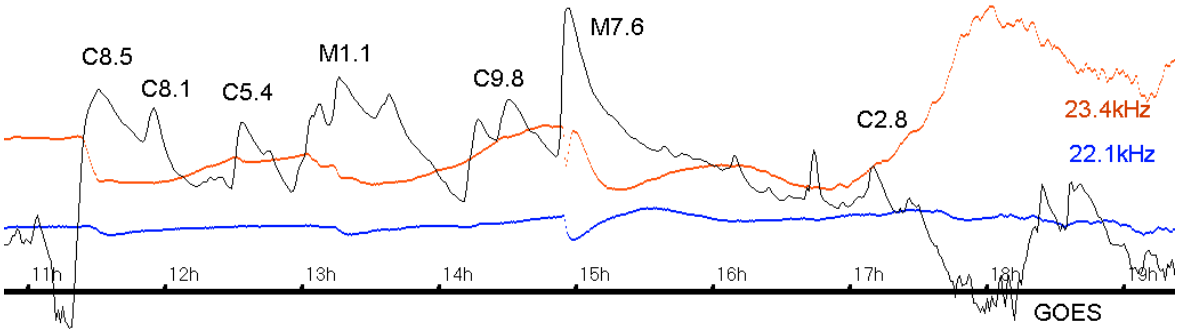

VLF flare activity 2005/15.
C
M
X
Relative sunspot number
Number of S.I.D's recorded.
0
20
40
60
80
100
120
140
160
Jan 2005
May
Sep
Jan 2006
May
Sep
Jan 2007
May
Sep
Jan 2008
May
Sep
Jan 2009
May
Sep
Jan 2010
May
Sep
Jan 2011
May
Sep
Jan 2012
May
Sep
Jan 2013
May
Sep
Jan 2014
May
Sep
Jan 2015
May
Sep

BAA Radio Astronomy Group. **2015 SEPTEMBER.**

Following on from August, September was another month of strong solar activity split into two halves. The first three weeks of the month were fairly quiet, the background X-ray flux dropping below the B1 level from the 7th until the 10th. By the 28th the background had risen above C1, remaining high until the end of the month. There were no X-class flares in the GOES record, the most energetic event being the M7.6 Flare peaking at 15:00UT on the 28th.

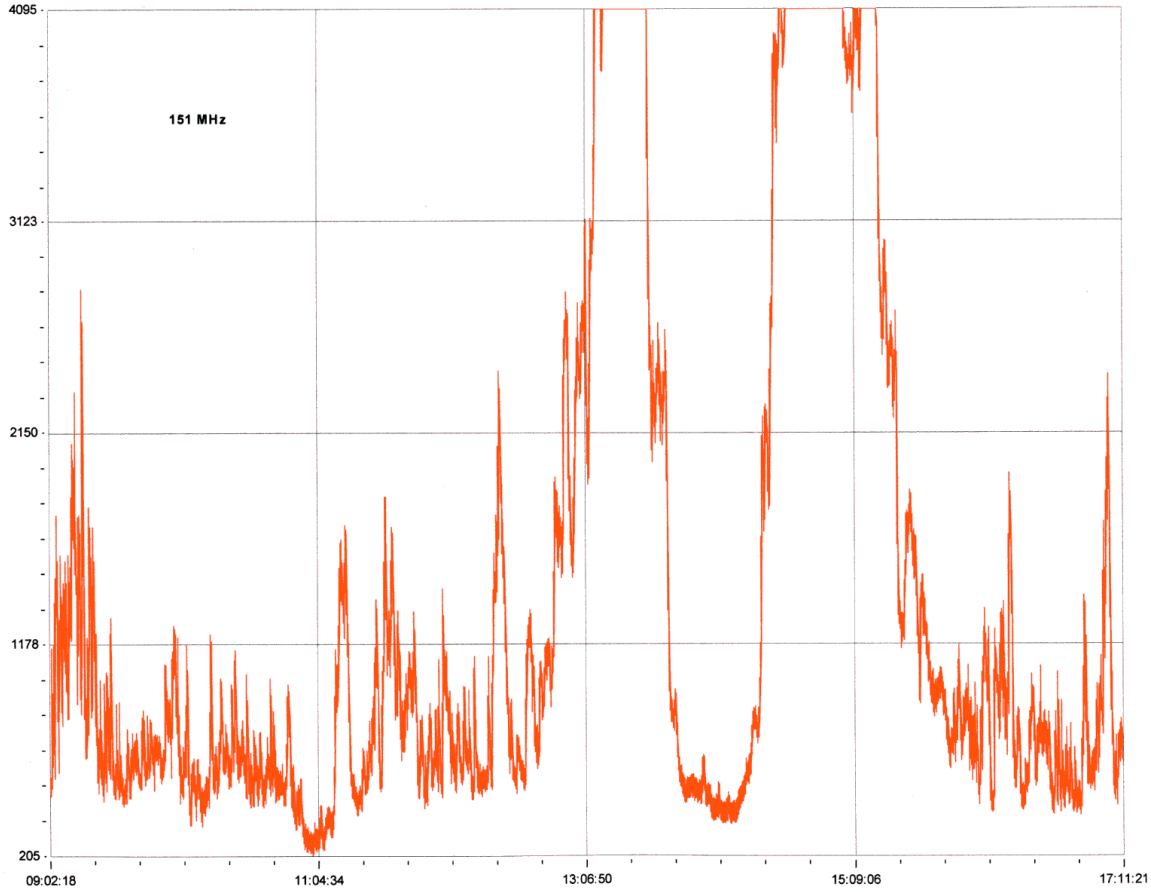


The chart by Paul Hyde, above, shows the multitude of flares on the 28th, the busiest day of the month. 22.1kHz is red, 23.4kHz blue. Analysis of these SIDs was particularly tricky, with flares from two active regions (AR12422 and 12423) firing off in rapid succession.

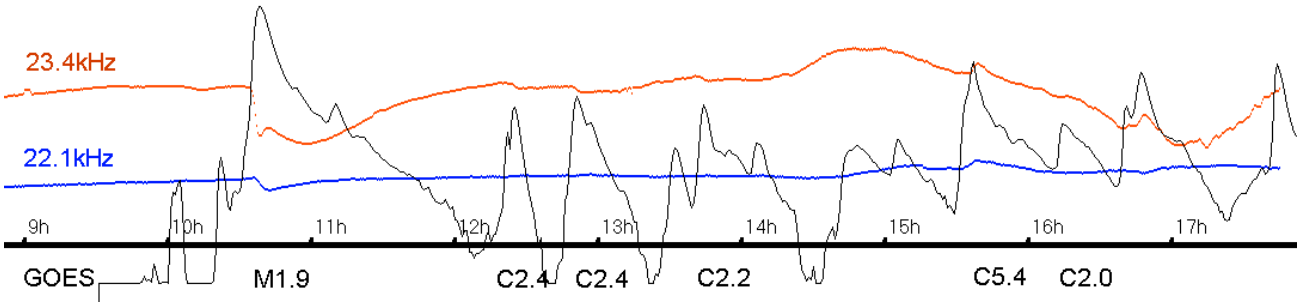


I have added the GOES15 X-ray flux to my own recording of the same period, above, illustrating the high level of flux following the C8.5 flare and lasting until about 17:30UT. The M1.1 flare has produced three peaks, the middle one being the highest. The resulting SID is most unusual, and far from sudden in appearance!

Many of these flares had associated VHF (151MHz) radio bursts, the M1.1 and M7.6 being particularly strong in the recording By Colin Clements shown at the top of the next page. High 151Mhz noise levels were also present during the afternoon of the 27th and for periods on the 29th. Colin also noted some very strong noise and oscillations at 22.1kHz during the first week of the month.



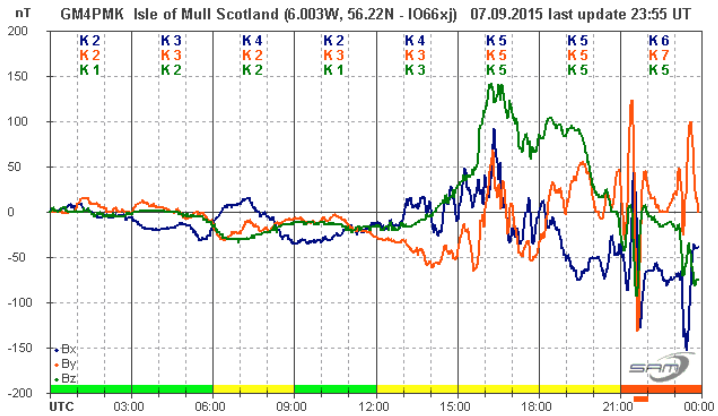
151MHz, Colin Clements, 28th September.

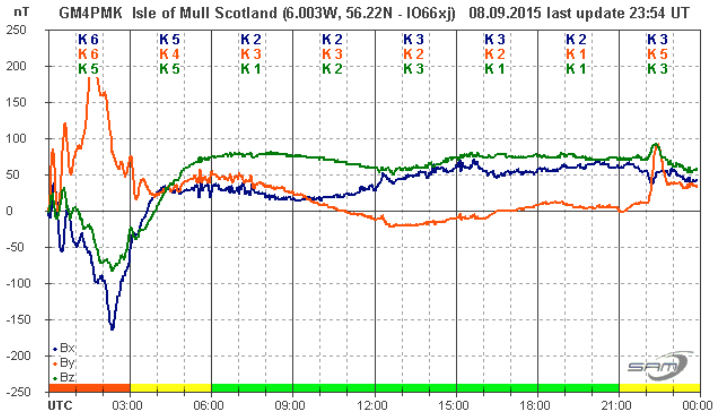


My own recording, above, from the 27th shows a strong SID from the M1.9 flare, followed by a series of smaller C-class events through the afternoon. The 22.1kHz response is rather weak as I have the gain set low to reduce local interference.

MAGNETIC OBSERVATIONS.

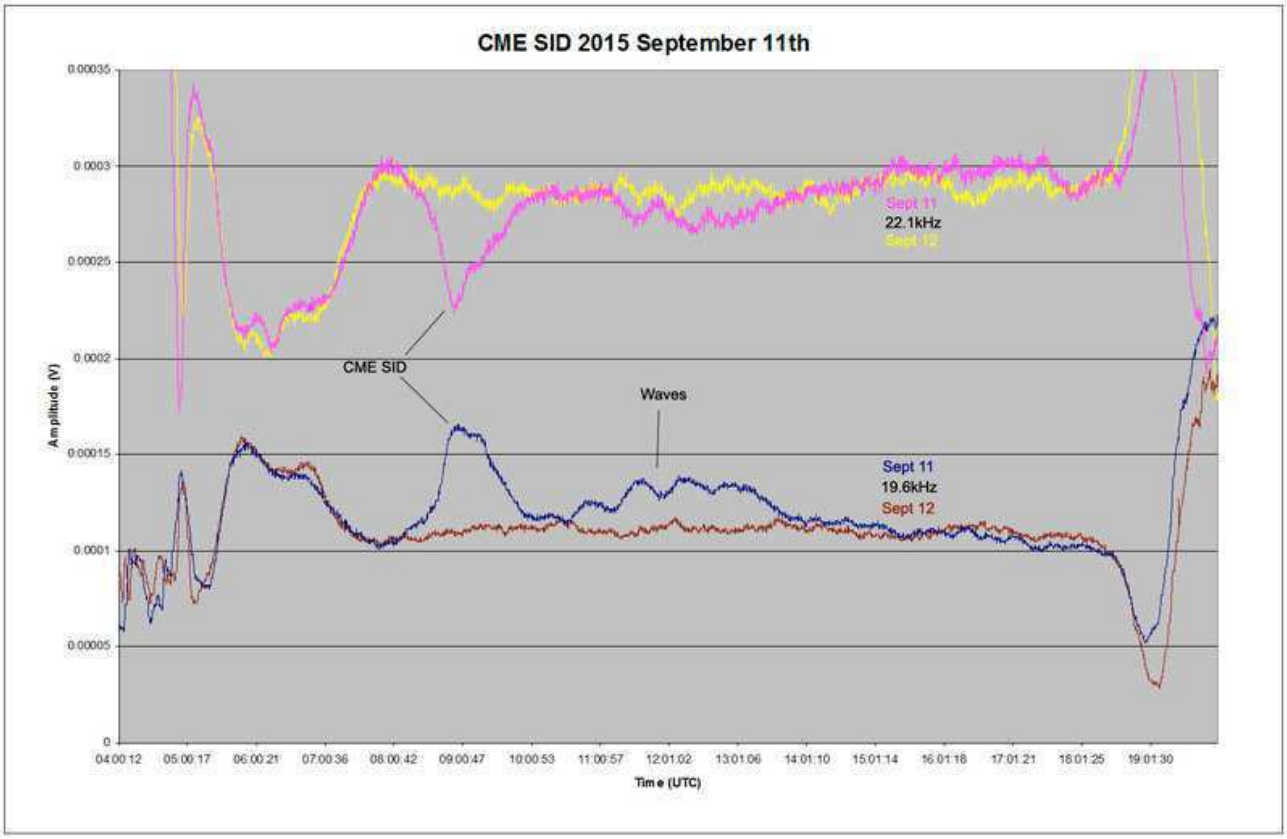
Magnetic activity in September was again a combination of CHHSS and CME effects, with some particularly active periods in the first half of the month. The solar wind speed increased from a coronal hole on the 7th, and was further disturbed by the addition of a filament eruption that occurred on the 4th. By mid-afternoon of the 7th the magnetosphere became disturbed, with a very active period until about 03UT on the 8th. The effects are shown in Roger Blackwell's magnetogram on the next page. Note that the vertical scale is slightly different for the two 24 hour recordings. A quiet period followed until 22:UT when the magnetosphere again became disturbed, lasting through until the afternoon of the 9th.





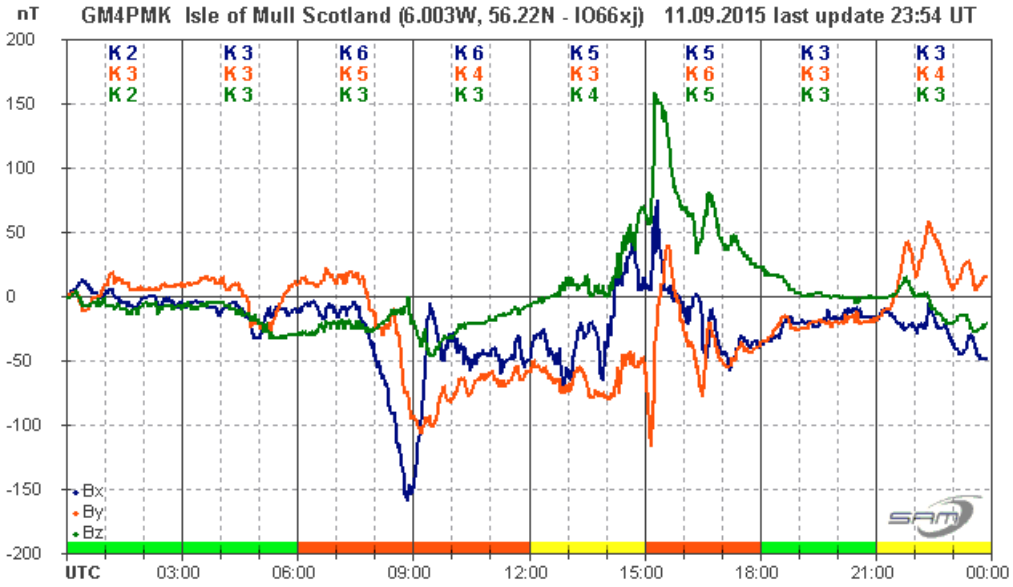
Roger Blackwell, Mull.

Solar wind from a much larger equatorial coronal hole became effective on the 11th. This gap in the Sun's corona spanned 20N to 20S, and produced a sudden jump in solar wind speed around 06:40UT on the 11th. A strong magnetic response was recorded around 09UT, along with a SID -like VLF disturbance. Mark Edwards recorded this, and has overlaid data for the 12th as a reference:



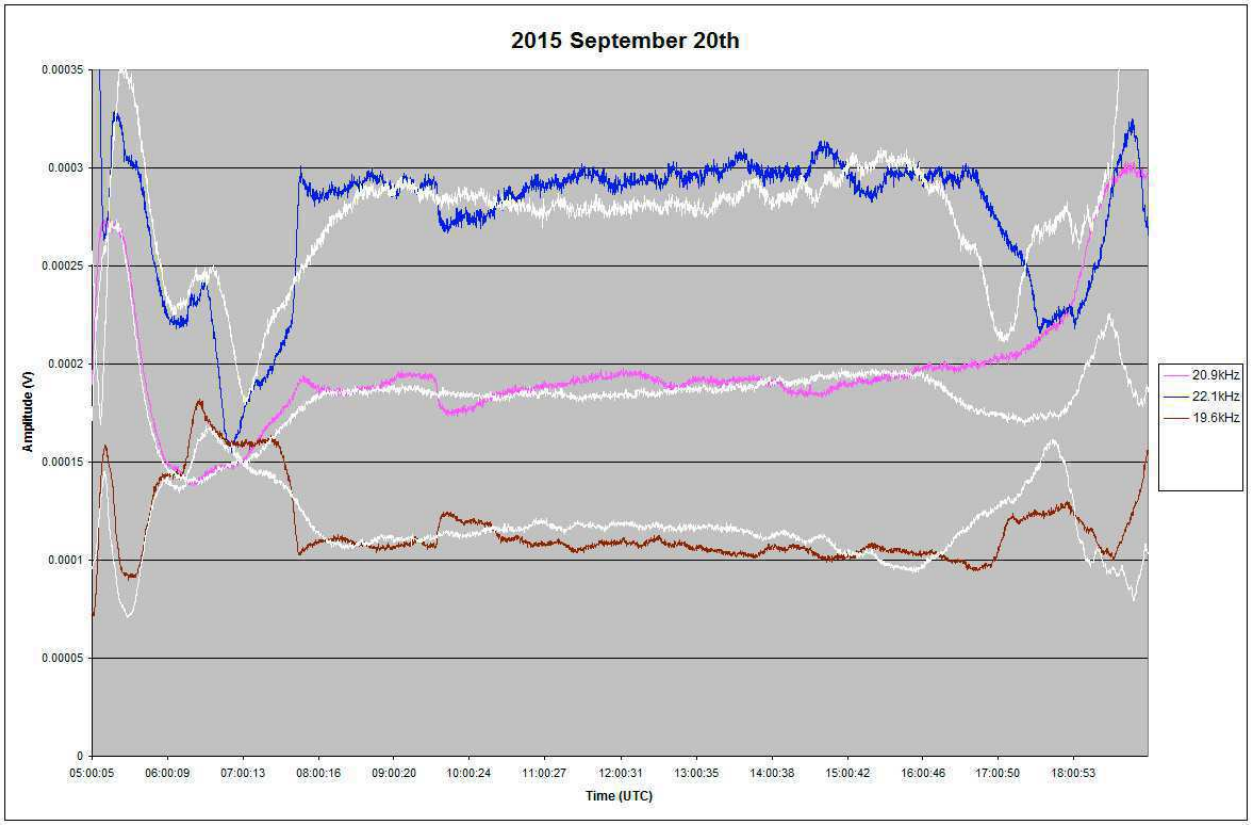
The 'SID' shows inverted responses at the two frequencies, and is followed by a series of waves that are particularly clear at 19.6kHz. There were no flare induced SIDs on either the 11th or 12th.

Data from the Hartland magnetic observatory of the British Geological Survey shows a strong change in magnetic declination from 09UT to 15UT on the 11th, and a drop in horizontal intensity at 09UT. My own recording shows a change of 70 to 90nT during this period. Roger Blackwell's chart shows the changes in much more detail on the next page.



Roger Blackwell, Mull.

Similar circumstances led to another unusual VLF response on the 20th. A C2.6 flare at 06:31 on the 18th (not recorded as a SID) produced a small CME that arrived at Earth early on 20th, adding to existing CHHSS effects to produce a sudden jump in solar wind speed and temperature.



This chart from Mark Edwards has data for the 19th added in white as reference. A very sharp change is clear at 22.1kHz (blue) and 19.6kHz (brown) again going in opposite directions just after sunrise. The peak is at 07:46UT in Mark's recording, while Paul Hyde measured the peak at 07:59. Although very close to sunrise, the effect is quite distinctive. A small magnetic disturbance was seen starting at about 06UT, but in this case the temperature change from 10^5K to about 7x 10^5K seems to have been more important.

Magnetic observations received from Colin Clements, Roger Blackwell and John Cook.

BAA Radio Astronomy Group

BARTELS DIAGRAM

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

2454			2138																					2013 July					
	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 BC									CC	CCC	CC	C	M	CCCC	B	C	CBC	C		CCCC	CC	CC	MCCC	CCCC	CCCC			
2455			2139																								2013 August		
	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 CB		C	C	CC	C	C	C	CC	C	C	CC			CC						C	CCCC	C						
2456			2140																										
	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								CCC	M	CCCC	CCC	CC	CC	CMM	C	C	C	CC	C									
2457				2013 September																									
	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		BC	C				C					C							CCCC						
2458			2142			2013 October																							
	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		C	CCCC	MCCC	CCC	C	C	CMCC	CCC	CCM	CCCC	CCC	CC		CCCM		
2459			2143							2013 November																			
	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 CCCC	CMMC	XMXM	MMMM	CCMC	MMMM	CCCC	C	MCC	C	CCC	C	CCC	MCCM	CCCM	CCMC	M	CC	CCC	CMC	CC	CCCM	CCC	C	MCC	CCC	CCC		
2460			2144										2013 December																
	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 X	CC	M	C	CCM	CC							C	C			C	C		C	CCC		CC	C		CC	CC		
2461				2145															2014 January										
	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		
	F C			C	CMCC	C	MMMM	M		C		CC	CC	MCCC	C	C	C	C	CCMC	CCMC	C	C	CMCX	CCCC			CCC		
2462				2146																		2014 February							
	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		
	F	CC	C		C	CCCC	CC								C	C	MMMM	CCC	MCC	CM	CCCC	MMMM	CCCC	MCCM	CCCM	CCC	CCMC		
2463					2147																			2014 March					
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3	4	5	6		
	F CCC	M	CC	CM	CM	MCCM	CMMM		MCC	CCC	CC	C	M	CC	C	CC	MMC	C	CCM	CCCC	CCC	MC	CCC	CCCM	CCCC	C			
2464					2148																					2014 April			
	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		CCMM	CCCM	CMCC	CMC	CCM	C	CCC	CC	CCC	C	CCCC	CC	C	MCC	CC	CC		CC		CM	CCCX	M	MC		CCM		
2465					2149																								
	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	CCC	CCC		CC			C	CCC	C	C	CCCC	CCCC	CCCM	CC	CM	CCCC	CCCC	C	CCCC	CCCC	C	CC	C		BC	B		
2466		2014 May					2150																						
	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 B		CCC	CCCC	CCCC	C	MCC	CMC	M	CCCC	CCC	CCCC		C	CCC	C	CCC				B	C	C		M	C	CCC		
2467						2014 June																							
	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 C				B	C	M	CCM				CC	CC	CCC	CCXX	MMXC	MMMM	MCCC	CCM	CMCC	CCCC	CBCC	CC	C	CC	C	B		
2468						2152			2014 July																				
	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	BBB				CCCC	CCCC	CC	CCCM	C		C		CC	CC	CM	C	CC		CCC	CCCC								
2469						2153										2014 August													
	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	B				C	CCCB	CC		CC	CC	CMCC	CMM	CC	C		CCC			CCCC	C							CC		
2470							2154															2014 September							
	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		
	F C		C		CCCC	CMCC	MCCC	CCCC	CMC	MM	C		CB	C	CCB	CCCC	CC	CC	CCM	CCCC	CC	CCMC	CCC	C	C	CCX	CCM		
2471							2155																2014 October						
	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	7	8		
	F CCCC	CC			CC		CMC	C	CC	CCC			CC	C	CCC	M	CCMM	C			MM	CCC					C		
2472							2156																			2014 November			
	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 MCCC							CCM	CC	MCCC	CCCC	MCMM	CCCM	CCXM	MCC	MCC	CCCX	XCCM	CCMX	CCM	MMMM	CCCC		CCCC		M	MM		
2473							2157																						
	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 MC	C	MCCX		CCM	CC	C	C	C	CC	M	CCCM	C					C	C	C			CCC	C	CCCC	CC			
2474	2014 December							2158																					
	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 CCC	CCCC	MCM	CCM	C			CCCC		C	C	CCC	CC		CCC	CC	CCC	MC	C	M	C			C	C		C		
2475			2015 January					2159																					
	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 C		C			M	M	C	C	CC	C	C	C		CC	C	CM	CC						CCC		CC			
2476								2015 February																					
	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	20		
	F		CC	C	MC	M		C		CC	C																C		
2477									2015 March																				
	21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
	F							CC	C	CMCCM	CC	CC	CM	MCCC		C	CCMC	CCCC	MMCX	CMMM	C	CCCC	MCCC	CCMC		CCCC	C		
2478									2162				2015 April																
	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			C		CC	CC	CCC	CC	CCCC	CC									M	CCCC	CCCC	C	CMCC	CCC		C		
2479									2163							2015 May													
	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	C	CCC			MMMM	CCMC	CMCC	C	C	C							C	CCC	MMMX	CCMC	CCCC	CC	CC	CCC		CC		
2480										2164												2015June							
	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 CCCC	CCCC			B		C	C			CC										C		CC	CC		CC			
2481										2165															2015 July				
	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	CMCC	CC	MCCC	C	CC	CC	CC	CCM	CCCC	MC	MCCM	CCCM	C	C	M			C	CCCC	C		C	CCCM				
2482										2166																			
	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 MCCM	C			C				C				C						CC		C						C		
2483	2015 August										2167																		
	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				C	CBCC	CC	C						C					CC	MCM	MCCM	CCCC	MCCM	CCCC	CC	M	CMCM		
2484			2015 September							2168																			
	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 CCC	CC				C													CC	CMCC	C	C	CCM			CCC			
2485							2015 October			2169																			
	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	C	CMCC	MCMM	MMCM	CMCM																							