



# CHEESE BITS

W3CCX  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume LV

March 2014

Number 3

## PREZ SEZ:

With Spring in the air this month and a small reprieve from the snow and ice, things are looking up for the end of a wild winter. Soon it will be time to go outside and see how the tower and antennas survived.

Hopefully we are finished with the snow and can look forward to steadily higher temperatures and longer days. Clocks get set ahead and we have nice bright evenings.

In the March meeting we also are the hosts to our annual "Home Brew Night", where the packrats bring their latest project(s) in to show to the group. Judges are selected to choose winners in a variety of categories. Start digging to decide what project you will bring to the meeting. And don't forget, meet us for dinner at 6 PM before the meeting at Giuseppe's.

Next month has lots of activity in store for the active Packrat; first it's the 144 MHz Spring Sprint held on April 7<sup>th</sup>. That is followed by the 40<sup>th</sup> Eastern VHF/UHF Conference in Hartford. We need to attend and enjoy the fellowship of our like minded "weak signal" affiliates. It's always a fun and inspiring event (as is ours in the fall).

ARRL night at the Packrats happens next in the sequence and this year we have the Chief Operating Officer of the League coming to tell us all about their special event this year and to answer any

questions you have about the running of the largest and only affiliation of amateur radio operators in America. We are grateful to Harold Kramer for agreeing to take the time to come and address our group.

Then the 222 MHz Spring Sprint is held the week after and in the next week we have the 432 MHz Sprint. Great ways to keep the skills sharp and check out the equipment; it might also bring you a new grid or more.

I recently dug up the cards and produced the finishing touches on VUCC for all of the bands from 50 through 24 GHz (minus 144 MHz where I still need a few more confirmations).

If you thought that April was finished supplying fun VHF/UHF activities then you didn't remember that the Southeastern VHF Society Technical Conference will be held during the last weekend of the month of April. **What a month** and it's right around the corner.

So let's count off the days until we are out of Winter and get ready for the possibility for some Es propagation. My six meter station is ready to be turned on at a moments notice when the EsSense app on my cell phone goes off indicating some kind of activity on the bands; it's connected to the DxRobot.

While we're on the calendar, don't forget the longer range events; Dayton in May and the

Pack Rats **CHEESE BITS** is a monthly publication of the **Mt. AIRY VHF RADIO CLUB, INC.** -Abington, PA.

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**PACKRAT BEACONS - W3CCX/B**

FM29jw Philadelphia, PA  
50.080 144.284 222.064 432.286 903.072 1296.245 MHz  
2304.043 3456.207 5763.196 10,368.062 MHz (as of 1/08)

**MONDAY NIGHT NETS**

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.145 MHz	K3EOD FM29II WA3QPX FM29di
8:00 PM	144.150 MHz	N3ITT FN20ki
8:30 PM	222.125 MHz	KB1JEY FN20je
8:30 PM	224.58R MHz	W3GXB FN20jm
9:00 PM	432.110 MHz	WB2RVX FM29mt
9:30 PM	1296.100 MHz	K3TUF FN10we
10:00 PM	903.100 MHz	WA3SRU FN20le

Visit the Mt Airy VHF Radio Club at: [www.packratvhf.com](http://www.packratvhf.com) or [www.w3ccx.com](http://www.w3ccx.com)

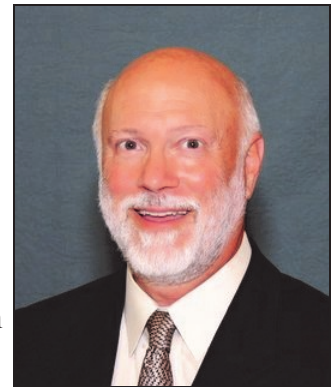
Centennial in July. I know you have the Mid Atlantic VHF Conference already on your calendar.

What band will you operate during the June VHF Contest on Camelback? We need operators and helpers. Get committed and ready to have fun on the high point known as Big Pocono State Park. We receive special permission to stay on the top of the mountain all weekend.

Contributions to the Beacon Fund are still coming in and early progress is happening that will result in disciplined beacons for the future.

Meanwhile, lets work on lots of bands,

**Phil K3TUF**



**Editors Note**

For the first time, this months Cheese Bits was produced with newer and better editing software.

Though still a challenge, the **Contest Result Grids** no longer struck fear in your editor's heart, that entering and editing the grid would crash the program leaving hours of work to be re-done.

The new software also is capable of creating PDF files directly from the program's native ".pub" file. What this means is that Cheese Bits can use more and higher resolution pictures and diagrams while still producing **smaller** files to be distributed.

It will take a month or two to figure out how high res we can go, but things already look very promising. Not only will you see clearer photos, your editor will not need to spend as much time figuring which resolution of down-sampled photos is the best compromise between small enough and clear enough! Three cheers for technology!!

**73, Lenny W2BVH**

**Mt. Airy VHF Radio Club, Inc.**  
**'The Pack Rats'**  
**January 2014 VHF Sweepstakes Contest**

**Total Logs: 68**

**Club Claimed Score: 2,277,747**

Here's the results of the January Sweepstakes as compiled by W3KM. How did you do? Check it out below. What can you do to improve for next year? Start planning soon!

**Contacts and Grids by Band THANKS to Dave W3KM for gathering and summarizing the data!!**

Nr	Call	QSO's	Total-Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	Laser
1	K3TUF	642	142	229330	133 24	156 28	88 23	103 24	39 10	49 11	27 6	21 6	16 5	10 5		
2	WB2RVX	596	136	203592	116 27	143 26	83 19	104 20	38 9	46 11	24 8	20 8	13 5	5 2		4 1
3	WA2FGK	623	166	184426	164 34	215 44	77 28	91 29	20 8	33 12	14 6	9 5				
4	WA3NUF	550	95	118085	135 19	142 19	77 14	84 14	31 7	32 6	18 5	15 5	5 2	7 2	2 1	2 1
5	K3IPM	535	80	82160	172 20	127 18	76 13	86 13	14 2	33 7	12 3	10 2		4 1		1 1
6	N3RG	386	100	78800	109 28	97 19	46 16	65 17	20 5	28 6	11 4	9 4				1 1
7	NN3Q/R	464	58	76096	57 5	127 7	68 8	62 6	44 6	39 6	15 3	16 4	15 3	15 3		6 3
8	WA3GFZ	432	88	75768	96 15	119 18	63 15	84 17	24 7	28 7	13 5	3 2	1 1	1 1		
9	WA3DRC	371	73	68839	48 5	107 15	51 11	71 14	23 6	29 6	16 5	13 6	6 2	6 2		1 1
10	WA3QPX	311	102	54366	94 17	105 44	36 14	39 13	13 6	15 4	9 4					
11	WA2OMY	353	61	44347	60 9	139 19	49 13	41 3	21 5	20 3	9 3	9 3	5 3			
12	N3YMS	320	78	44148	69 16	109 18	46 15	50 14	19 7	24 7	3 1					
13	KC2TN	312	67	37855	75 14	90 17	48 14	54 10	17 5	24 6						4 1
14	W3SZ	264	54	33480	67 11	75 12	31 7	34 7	13 4	14 4	8 2	8 2	7 2	6 2		1 1
15	W3GAD	345	49	30576	82 9	92 11	53 9	66 9	24 5	27 5						1 1
16	W0RSJ	311	67	28408	94 17	104 18	54 16	59 16								
17	N3ITT	299	50	27200	60 9	102 13	47 9	50 8	10 3	23 5	7 3					
18	K3GNC	311	51	26826	60 6	98 14	53 11	69 12		31 8						
19	N3FTI	303	57	22971	111 16	92 16	47 13	53 12								
20	WA3SRU	300	35	18935	72 7	79 9	46 5	59 6	17 3	26 4						1 1
21	W2BVH	291	48	18432	85 14	113 17	37 8	56 9								
22	W2SJ	246	40	17520	66 7	72 10	33 6	41 6	14 4	16 4	2 1	1 1				1 1
23	K1JT	274	61	16714	157 25	117 36										
24	WA3YUE	-	-	16296												
25	K3MD	160	54	12744	52 16	54 13	21 9	22 9		11 7						
26	K3JJZ	231	32	11296	72 8	75 7	29 4	44 5	4 2	3 2	2 2	1 1				1 1
27	W3KM	216	36	11016	52 5	84 13	41 9	36 7		2 1	1 1					
28	K3IUV/R	115	25	10425	10 2	23 2	22 2	12 2	8 2	9 2	5 2	6 2	3 2	4 2	1 1	12 2
29	AA3JH	201	26	7020	87 9	45 6	34 6	35 5								
30	KB2AYU	139	28	6804	29 5	38 6	24 6	32 6		16 5						
31	KB1JEY	217	21	6573	63 6	64 6	42 4	47 4								1 1
32	W3HMS	109	32	6464	22 5	34 8	17 6	16 5	10 4	10 4						
33	W3ICC	188	21	5502	41 4	73 9	46 5	28 3								
34	KB3MTW	209	14	4466	60 4	63 3	34 2	40 3		12 2						
35	KA3FQS	166	17	3859	57 6	48 5	33 3	28 3								

# Mt. Airy VHF Radio Club, Inc. `The Pack Rats` January 2014 VHF Sweepstakes Contest (cont'd)

Total Logs: 68

Club Claimed Score: 2,277,747

Nr	Call	QSO's	Total-Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	La-ser
36	K3VEQ	134	21	3591	32 5	65 10	18 3	19 3								
37	K3IUUV	156	17	3553	43 4	60 8	27 3	26 2								
38	N2DEQ	145	20	3500	57 6	58 8	8 2	22 4								
39	KA3WXV	142	17	3043	60 5	45 6	14 3	23 3								
40	N3PLM	101	21	2793	41 5	34 8	11 3	12 3	2 1	1 1						
41	WA3ELQ	126	16	2496	65 7	31 5	18 2	12 2								
42	W2MC	78	14	1932	26 5	22 3	12 2	13 3								5 1
43	K3EOD	108	16	1728	108 16											
44	W3GXB	88	17	1649	41 7	38 9	9 1									
45	K3EGE/R	19	18	1422		3 3	3 3	3 3	4 3							6 3
46	WA3RLT	59	15	1110	18 6	26 5		15 4								
47	K2TXB	79	14	1106		79 14										
48	WB2VLA	53	14	910	28 7	13 3	6 2	6 2								
49	KB3XG	59	12	900	23 3	20 5		16 4								
50	W2TAG	61	11	869	20 3	23 4	5 2	13 2								
51	WA2DTW	53	12	864	24 4	14 2	6 2	7 2	2 2							
52	K3DMA/3	30	10	860	1 1	5 2	13 2	5 1	1 1					1 1	1 1	3 1
53	KB3GJT	75	10	850	23 2	42 5		10 3								
54	K3BPP	42	18	756	17 8	25 10										
55	W2PU	45	8	720				45 8								
56	W2SK	61	6	528	17 2	17 2	17 1	10 1								
57	W3CMP	24	10	240	13 5	11 5										
58	K3BFS	29	6	222		21 4		8 2								
59	W3FEY	22	7	217	13 4		9 3									
60	KU3A	36	6	216	20 4	16 2										
61	KB3HCL	13	3	57	4 1	3 1	6 1									
62	NE3I	8	3	27	3 1	4 1		1 1								
63	WA3WUL	3	1	24												3 1
64	K3IB	5	4	20		5 4										

### Multi-OPS

Call	QSO's	Total Grids	Score	6M	2M	222	432	902/3	1.3 GHz	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	La-ser
N3NGE	1230	222	541680	350 55	344 46	146 34	209 34	46 12	57 14	28 9	19 7	14 5	11 5		6 1
Ops: N3NGE K1WHS K3EGE K9PW N3EXA W2PED WA3WUL															
WA3EHD	351	51	34680	73 9	103 13	56 10	64 7	22 4	22 4		9 3				2 1
Ops: WA3EHD K3DMA															
WB3IGR	204	68	22168	54 15	64 17	34 15	40 15	9 5							3 1
Ops: WB3IGR WF1L															
W3CCX	87	13	1677	25 4	20 3	21 3	21 3								
Ops: KA3WXV K3BFS															

# Mt Airy VHF Radio Club Current + Previous 6 Years Scores by Station

Call	2014	2013	2012	2011	2010	2009	2008
K3TUF	229330	272384	340091	229425	195295	236082	248663
WB2RVX	203592	199056	65892	119103	153360	109863	89352
WA2FGK	184426	116242					
WA3NUF	118085	132496	147854	156604	142040	101970	158976
K3IPM	82160	87480	111760	66276	77028	46004	49432
N3RG	78800	91000	106236	46588	8	24486	31680
NN3Q/R	76096	110228	42552	79900	51675		
WA3GFZ	75768	68526	26049	16215	25434	468	48384
WA3DRC	68839	94400	73100	81004	83585	69207	80595
WA3QPX	54366	27840	247	31376	35642	31120	37840
WA2OMY	44347	53392	57532	15171	20430		26048
N3YMS	44148		69286	33441			
KC2TN	37855	15720	28832	5564			
W3SZ	33480	185725	83066		148821	55722	128392
W3GAD	30576	26688	19823	18040	45880	10626	35750
W0RSJ	28408	50544	43512	46000	44979	48380	65520
N3ITT	27200	26250	34560	36250	18032	37996	
K3GNC	26826	34048					
N3FTI	22971	1862	931	3660	1026	3920	
WA3SRU	18935	24435	32376		12888		
W2BVH	18432	14288	16014	13489	20460	8322	5508
W2SJ	17520	15470	24	88764	125370	54126	55062
K1JT	16714	25728	65940	111899	130509	105780	125391
WA3YUE	16296	8046	1650	8616	9656	14328	154
K3MD	12744	15433	11948				
K3JJZ	11296	14245	22736	16212	15785	9579	6688
W3KM	11016	14523	4104	17388	31744	17591	6262
K3IUV/R	10425	10920	7935	8257	9775	3615	1896
AA3JH	7020	4437	10640	2325			
KB2AYU	6804	90	315	15	45	90	162
KB1JEY	6573	6279	9126	6510	4656	4318	2576
W3HMS	6464	6688	10868				
W3ICC	5502	6744	24300		19782	6994	5660
KB3MTW	4466	1960	795	1040	1920		
KA3FQS	3859	5140	5136	276	20007	10179	16400

## Mt Airy VHF Radio Club Current + Previous 6 Years Scores by Station (cont'd)

CALL	2014	2013	2012	2011	2010	2009	2008
K3VEQ	3591	3630	6120	2736	2489	1708	2431
K3IUUV	3553	3553	5170	3247	2716	7980	4920
N2DEQ	3500		5452	5070	3888	3087	1248
KA3WXV	3043	3819	7830		4746	1230	768
N3PLM	2793	1920	3950	396	4025	2478	3335
WA3ELQ	2496		4536	3363		2715	
W2MC	1932		6984				
K3EOD	1728	69192	143130	73429	110040		99900
W3GXB	1649	828	744	1275	1854	912	858
K3EGE/R	1422		5075				
WA3RLT	1110	8704	14872	8576	14352	9930	15120
K2TXB	1106		495	1680	9024		33
WB2VLA	910	638	2262	705	1848	2040	1323
KB3XG	900	4075			2560		
W2TAG	869		4788	1344			
WA2DTW	864	441	3509	1710		2128	
KB3GJT	850	1296	2430	2490		488	2550
K3BPP	756		1672	286	450		8
W2PU	720						
W2SK	528						
W3CMP	240						
K3BFS	222	140	913	880	432		
W3FEY	217	2352	1241	1344	3828	2240	2888
KU3A	216		14		2		
KB3HCL	57	68	1120	441	1298	2715	8092
NE3I	27		5510	8844	4176	7582	5280
WA3WUL	24	48	16	24	8		32
K3IB	20	203	18	360	756		1620
N3NGE	541680	591832	541722	541944	735885	575424	554710
WA3EHD	34680	45980	52399	33372	8234	35828	37400
WB3IGR	22168	28560	26670	28535	27720	6720	6194
W3CCX	1677	2822					

**Mt. Airy VHF Radio Club  
January VHF SS  
Previous Aggregate Claimed  
Scores**

Year	Logs Submitted	Score
2014	68	2,277,747
2013	65	2,659,242
2012	77	2,491,702
2011	67	2,156,784
2010	70	2,699,809
2009	58	1,891,225
2008	63	2,232,731
2007	63	2,055,259
2006	57	2,724,560
2005	53	1,459,052
2004	56	2,856,837
2003	61	3,127,678
2002	49	2,113,624

**MIKE, WB2RVX  
2014 CRYING  
TOWEL WINNER**



Paul presents the 2014 Crying Towel to Mike at the February meeting. Mike gave Gerry Seinfeld a run for his money with his presentation!

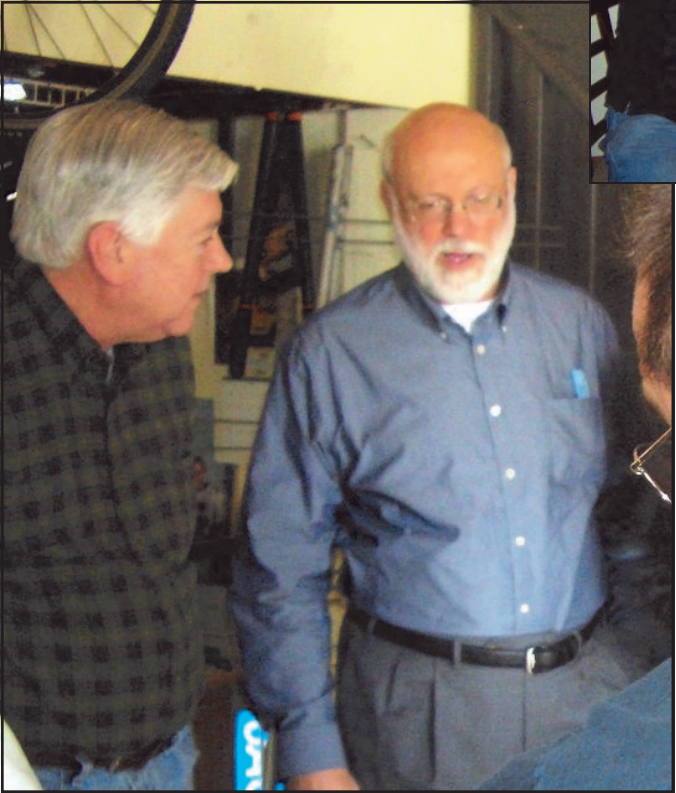
Baxter, a friend of Tom KA3FQS, provides some advice on QS0 selection in the 20 Meter PSK sub-band.



After 31 years of "trying" Mike gets a Hat Trick of towels. 3 Towels on a line. Notice 4 Birds on lines too

# CONTEST WRAP-UP MEETING

## PIX





# PERSPECTIVE OF A PACKRAT IN THE BOONIES

No one wants to admit living in the boonies yet the admission of reality is often worth while and so it is in this case. My QTH is in a normal neighborhood in Mechanicsburg, PA and on a regular size city lot. We have some antenna restrictions caused by the "usual suspects": the town fathers, lot size, XYL rules, neighbors' views of beautiful antennas, etc.

I suppose the majority of contesting hams do not have their ideal tower height nor their most desired antennas and equipment. If you live on a standard size city lot, the outside part of your station is without doubt much less than optimal.

When I read contest scores from so many Packrats, I am indeed envious of not living in the thick of Packrat country where all bands 6 m. through laser QSOs are feasible with a large number of stations; hence the resultant high scores. As this tack could lead to endless complaining and wallowing in self-pity, I will tack in another direction.

Now, this new course asks: Am I doing the best with the time/resources/gear I have? Another way to put it.....am I working smarter not harder. The following ideas spring to mind:

- How do the LNAs for 432, 903, and 1296 (now repaired) on my shelf to be installed in the Spring 2014 help me in the January 2014 Contest? (5<sup>th</sup> Amendment Rights apply here, HI!!)
- Have I recorded defects or needed improvements noted during the contest battle for transfer to the **Action List** for work before the next contest? Well, this one I did!!
- Have I set up a personal clock on my PC or on paper .....or even a better way....to remind me of various events? Examples: schedules made, rovers to look for, good times to call CQ, good times to check 2 m. and higher FM simplex channels, EME times to get some rare grids, times to check 223.5 MHz FM, etc. This idea just came to me this contest. The Packrat Clock is a good start but tailoring to each station is to me paramount...even at MGM, HI!!
- For my personal clock, have I added each rovers' schedule so that at any GIVEN time I know who I can call by call sign, frequency, and time? Another way to put it is to ask, for example, at 1042 on the Sunday morning what should I be doing?
- Have I made schedules/specific arrangements with local hams/radio club members to work me on 2 bands simplex during contest? Next time I will do it at the level of name, call, time, and frequency.
- Have I made a presentation on 6 m. and up contesting to a local radio club and did I "convert" some members at least for the next contest? No as I just thought of it, HI!!
- Did I plan and order materials for my antenna work in warm weather?.....the old adage about cold WX installed antennas working better is as valid as a politicians' promise, HI!!
- Can I move to a more automated or simplified station that is easier to use? For me, plans are under way on this and at the schematic level.
- Can I do logging even easier and perhaps better than before?
- Can I add or expand use of band-scopes so that I can see more activity on the most popular bands? **The W3SZ Cheese Bits articles** are a gold-mine on this one.
- Can I convince more Packrats to look my way for QSOs....maybe set frequencies/modes/ times will work?.....OVER!

There are no doubt many other ideas that could help both **me and thee**. So now comes the really hard part...integrating some or all of the above, and maybe even some more items, into our daily lives in a way that they get completed by the next contest!!!!

**73 and GL, John, W3HMS, 22 Jan 14**

PS Don't overlook that last bullet item...please!!!

# Solar News

January 2013 Solar Report to The January Six Meter Report  
 KH6/K6MIO  
 01/06/14 - Solar Cycle 24

Figure 1

While it *may* be too little too late, it does indeed appear that the anticipated Cycle 24 wintertime peak in the Sun's southern hemisphere has been occurring. Figure 1 shows plots of the Sun's northern and southern hemispheres' individual Sunspot indices (Rn and Rs), and their combined, whole Sun, index (Ri), as computed by the Solar Influences Data Center (SDIC).

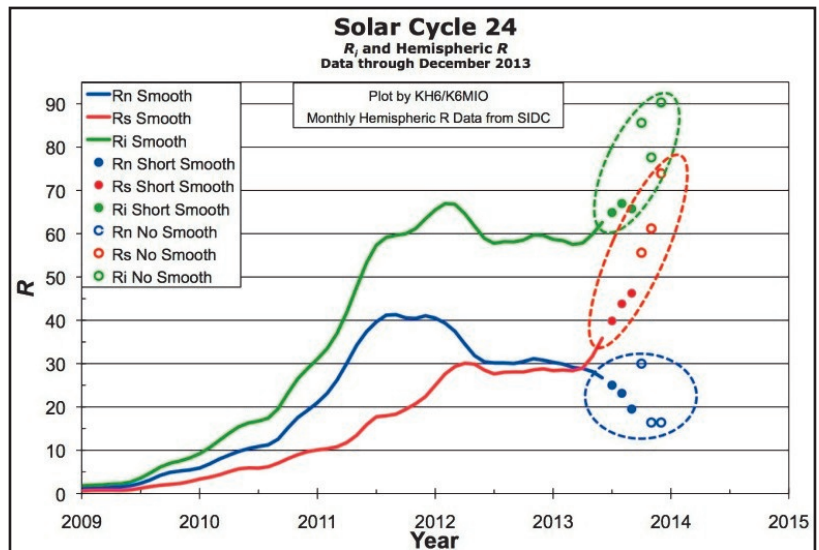


Figure 1 is a chart showing overall solar activity Ri, and activity peaks of northern and southern solar hemispheres. The blue line shows the solar northern hemisphere peak that occurred in the second half of 2011. Though not shown here, as usual this corresponded in a distinct peak in more powerful solar flares during that same period. The red line clearly shows the southern solar hemisphere phase lag behind the north, and now, its long awaited attempt to produce its own solar maximum.

The green line shows the sum of the north and the south, which produces the commonly reported solar overall activity index, Ri. The solid lines represent the points that have the traditional twelve-month smoothing process, i.e., averaging over six months before and six months after the date shown. The filled dots represent later points that have been averaged over 10, eight, and six months respectively to give some sense of what the trend may be looking like. While I almost never show the most recent, totally unsmoothed, monthly data, I've made an exception here. These un-averaged points are shown as the open circles. More on that in just a bit.

As was the case in Cycle 23, it is not at all uncommon for solar cycles to show double peaks. These peaks are almost always the result of one hemisphere having a single peak and the other hemisphere producing the double peak. However, the indications are that this cycle is an *exception* to that custom as well.

Figure 2 (next page) shows the Stanford University's Wilcox Solar Observatory data on the weak solar dipolar magnetic field that flows between the Sun's north and south poles. The field then flows out into space and curves back again in a loop much like the Earth's magnetic field does. Unlike the Earth though, the Sun's polar field starts to build up between the poles in one direction around the time of solar activity maximum, reaches a magnetic maximum a few years later, and

then gradually decays, and passes through zero again near the next solar maximum. In going through zero, the polarity of each field reverses and begins to build up again in the opposite direction. So, the reversals of the solar northern and southern hemispheres' polar fields are good signs that hemispheric solar maxima are near.

[\\W3fey2\shareddocs\AmateurRadio\SPARC\QRZnews\W3CMP\Jan2014\SN118\\_11\\_Solar\\_Fig\\_2sm.jpg](\\W3fey2\shareddocs\AmateurRadio\SPARC\QRZnews\W3CMP\Jan2014\SN118_11_Solar_Fig_2sm.jpg)

The plot in Figure 2 shows that the solar northern hemisphere reversal occurred around May 2012, some months after the northern sunspot maximum. It also shows that the solar southern hemisphere field also has already reversed, but much more recently, in late June 2013, corroborating that the southern activity peak was near. Sure enough, it was accompanied by a distinct increase in solar flares in the southern hemisphere during the recent Fall months, and they seem to be continuing at this writing.

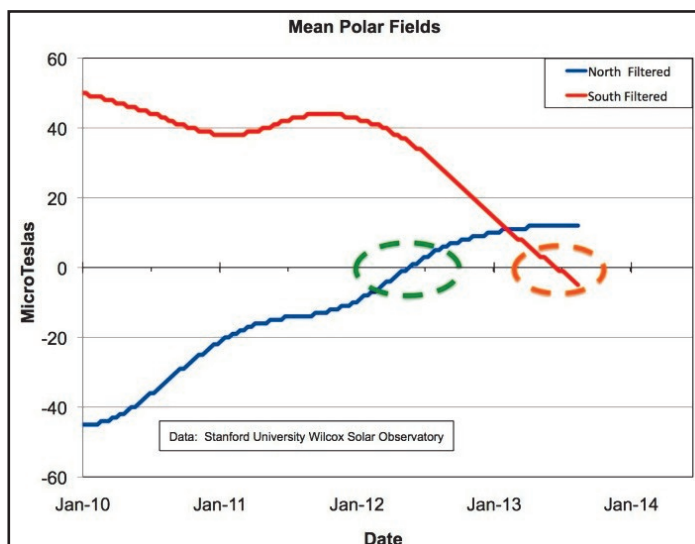


Figure 2. Chart showing reversal of solar northern hemisphere magnetic field and more recent reversal of southern hemisphere magnetic field.

Returning to Figure 1 and the sunspots, since the overall peak of the sunspot cycle is the sum of both the northern and southern solar hemispheres, one would correctly expect that the closer together in time those two separate peaks occur, the higher the total sunspot index will go.

One of the problems with the current cycle is the fact that the peaks are occurring at very different times. The dotted blue oval shows the declining phase of the northern cycle has already begun. On the other hand, the dotted red oval shows that the current trend in the south seems to be on a sharp up-rise, which has a positive effect on the overall value (green dotted oval). There is a possibility that, in the next very few months, the indices may climb above the weak maximum in late 2011. However, that will depend as much on how fast the north drops as it does on how fast the south rises.

**They have already had some modest impact on northern Fall and Winter six-meter F-layer propagation.** It has been felt the most in regions with TEP paths and AEP (Aligned Equatorial Propagation) paths. It is certainly possible that the northern Spring will provide some good transequatorial openings, but the likelihood of widespread consistent east-west propagation seems rather bleak at this point, especially being past the Fall-Winter east-west seasonal peak.  
**73, Jim KH6/K6MIO**

## CSVHFS

The Central States VHF Society, Inc. is soliciting papers, presentations, and Poster displays for the 48th Annual CSVHFS Conference on 25–27 July, 2014. Papers, presentations, and Posters on all aspects of weak-signal VHF and above amateur radio are requested. You do not need to attend the conference, nor present your paper, to have it published in the Proceedings. Posters will be displayed during the two days of the Conference.

More information can be found at: <http://www.csvhfs.org/2014conference/2014callforpapers.html>

Tom / K5TRA [csvhfs2014@gmail.com](mailto:csvhfs2014@gmail.com)

# W3SZ CONTEST FOLLOW-UP

1/20/2014 —Thanks for the qsos during the contest! Sorry I missed doing the upper bands with so many of you. This was due to the fact that my rotor quit Saturday night (I think around 0000Z based on my log)., while I was pointing at a heading of 298 degrees. It died sometime after N3NGE worked Steve KB8VAO on 6 meters. I can say that because at that point my antenna was rotating OK and I rotated it to hear Steve, and found that he was weak but solid copy.

The motor cable to the OR2800 was open circuit Saturday night and all day yesterday; I checked it multiple times during the contest, hoping for some "magic". There was none.

Today I measured the cable again (before lowering the tower all the way down so that I could safely climb it), and the resistance of the motor as measured through the cable was back to its usual 7 ohms or so, as it is supposed to be.

What is different today than Saturday night or yesterday is that the temperature is higher today, and the tower is only at 1/2 height. I put the tower down to 1/2 height Saturday night, and hoped that if something had been stretched by the weight of the hanging cable bundle, that it might relax enough to give some contact between the ends of the broken conductor so that I could use the rotor again during the contest.

The "magic" appeared **about 24 hours too late** to do me any good during the contest.

This [Monday] afternoon I climbed the tower and found that the rotor cable must have been gradually pulled taut by the 110 foot long hanging cable bundle over the past 8 years of use. This was a particular problem because the cable had unnecessarily been run through a hole in the top plate of the tower, instead of being run directly to the M2 rotor terminal box. Due to the tension on it, the cable was heavily gouged by the edge of the hole that it was positioned across, with the resultant gouge cutting nearly 1/2 way through the cable.

I am speculating that with the warmer temperatures today and with the pull on the cable bundle much less since the tower was only 1/2 way up for the last 36 hours, that the wires that were severed by the gouge moved back together enough to tenuously re-establish the connection.

I will know if this is the only problem after I cut the cable at the defect and connect the new end into the terminal box. Fortunately, there is enough "extra" cable length at the top of the tower to do that without needing to introduce a splice.

I am not sure why the cable was run through the hole in the first place. I would not have done that. But it took 8 years for the problem to surface, and it's really NOT a big deal. Just another example of the fact that seemingly trivial details often end up mattering.

I put a few pictures for those interested at:

<http://www.nitehawk.com/w3sz/crimpedrotorcable.jpg>

<http://www.nitehawk.com/w3sz/crimpedrotorcablecloseup.jpg>

<http://www.nitehawk.com/w3sz/crimpedrotorcablethruhole.jpg>

The pictures are not high quality. They were taken with an old cellphone with me leaning back at the top of the tower. But I think they illustrate the point.

Though many of my problems at Hilltop have related to mice, I don't think I need to blame them for this one

Thanks again for the Qs!!

--

73, Roger Rehr W3SZ

<http://www.nitehawk.com/w3sz>

## Inexpensive LNA Kit

Justin Kelly sent the following reference: <http://lna4all.blogspot.com/> to an LNA kit that recently became available. Though not EME grade its more than suitable for terrestrial communication. In addition, the MMIC that it uses has good IM numbers. Worth checking out. THANKS Justin!

## Save the Date!

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## Spring Sprints

CSVHFS is pleased to announce the following dates for the 2014 Central States VHF Society sponsored Spring Sprints:

1. **144 MHz:** Monday, 4/7/14 from 7 - 11 PM local.
2. **222 MHz:** Tuesday, 4/15/14 from 7 - 11 PM local.
3. **432 MHz:** Wednesday, 4/23/14 from 7 - 11 PM local.
4. **Microwave,** 902 MHz and up: Saturday, 5/3/14 from 6 AM - 1 PM local.
5. **50 MHz:** Saturday, 5/10/14 from 2300z until 0300z Sunday, 5/11/14.

Rules for the 2014 Spring Sprints will be posted on the following web sites:

<http://www.3830scores.com/index.php>

<https://sites.google.com/site/springvhfupsprints/>

Please let me know if you have any further questions.

**The Spring and Fall Sprints are a great way to interest new hams in the world of VHF and above operating!**

73, Kent O'Dell

KA2KQM

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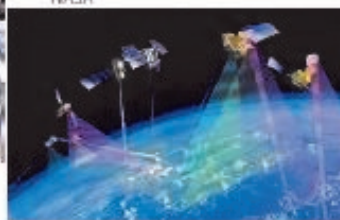
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Registration/Flea Market open at 9 am, Talks start at 10:15 am.

- A Full Track on Internet-of-Things
- Google Glass talk by author Barry Burd
- Cloud Computing
- Android/iPhone Apps



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**Bitcoin - Learn about the Digital Currency**

**Arduino Developer/User Tutorial/  
Workshop**

## TCF IT PROFESSIONAL CONFERENCE

**Friday March 14, 2014, 8:30 am — 5:00pm\*\***  
Continuing as part of TCF's Saturday Talks.  
For Conference Info and Fees See  
<http://princetonacm.acm.org/tcfpro/>

**\*\*The IT Pro (Friday) and ISEC Conferences require separate registrations.**

**For additional TCF'14 info,  
directions and advance tickets:  
[www.tcf-nj.org](http://www.tcf-nj.org)**

## DOOR PRIZES

**Integrated STEM Education Conference (ISEC)\*\***  
Saturday, March 8 — 9:00 am — 5:00 pm  
at Friend Center, Princeton University, NJ  
Designing Pathways to STEM Success  
Info: <http://ewh.ieee.org/conf/stem/>

*The 2014 Trenton Computer Festival™ is sponsored by The College of New Jersey and its School of Engineering.*

## ***The Wayback Machine***

Gleaned from the pages of  
Cheese Bits, March 1964  
(Vol. VI Nr. 12)

(Authors comments in *italics*)

- Cover featured Helen's cartoons, highlighting Easter and Passover.
- Ladies Night announcement. \$6.00 per "head", to be held at the Southwark Athletic Ass'n, 4/11/1964.
- Citation from a letter to the Editor of The Evening Bulletin, 3/16/1935 (yes, 1935) by W3EXS. He encouraged aspiring hams, pointing out the availability of the ARRL License Manual to learn the technical skills, and suggesting listening to code stations on the air to achieve code proficiency.
- January VHF **contest results** listed for club members. (#1 was Stan, K3IPM/3. #10, Bert, K3IUV and #15, El, K3JJZ. All still contesting!). W3CCX, the club station, was activated by K3HJA, Earl.
- A 3-1/2 column, interesting article titled "The Amateur vs. The Professional", by member K3PXT, Carmen. His article deals with the FCC's proposed Incentive Licensing program, citing many details of the pros and cons. Read the full article online at W3CCX.com.
- The K.U.I. (*Keeping You Informed*) column by member W3HKZ, Ed, contained a description of "Ham Equipment Used to Control Seattle Air Defense". While not an actual remote

control, an Army MARS station used Ham gear to relay target information from a picket ship, to fighter Aircraft using UHF gear. (*Early version of an Early Warning System?*).

- Report on OSCAR-III status. Scheduled to launch in April, with characteristics as follows: Freq. 145.900, a Repeater communication channel. Frequency 145.850, C.W. Beacon, and continuous Telemetry. (*Hard to believe Oscar's go back 50 years!*).
- W3HFY, Hal, announced plans for another Transmitter hunt in May. (*They were fun. **Whatever happened to them, and why not one now with so many mobile equipped stations?***).
- The Overbrook School for the Blind has just established a Radio Club, with equipment donations from Heath and other local Hams. K3RYD, Hank from Havertown was an instructor at the school, and was instrumental in getting the club started.
- A great Biographical "who is it" column detailed the life of one of the club members, emphasizing the Ham aspects. Where his call would appear in each factoid, a blank was left. Readers were asked to identify the member, with the answer in the next issue. (*If you want to read ahead and find out, look at the April, 1964 issue at W3CCX.com*).
- Announced that the Shriner's Hospital for Crippled Children (*on Roosevelt Blvd at Pennypack Circle – anyone else remember where that was?*) is

starting a radio club, and is seeking donations of equipment or literature.

- Technical article. A two-tube 6-meter converter is described, with schematic and construction details. First published in "The VHFer", a small magazine focusing on the 6-meter and up group (*I still have a few copies. Anyone interested?*). Using a 6CW4 Nuvistor as the front end and a 6BS8 dual triode as an oscillator and mixer, the unit was designed to work with the ubiquitous ARC-5 40-meter receiver.
- February 19 meeting was held despite the continuing snow storm which started the day before (*Déjà vu?*). 45 members and friends attended. All 7 past Presidents of the club were present, and introduced to the members. Starting with the 1<sup>st</sup> president, W3IBH, Charlie, 1956; W3FSC, Oscar (Ozzie), 1956-57; W3OZP, Bill, 1957-58; W3CL, Harry, 1958-59-60; W3HKZ, Ed, 1960-61; W2AXU, Jack, 1961-62; and K3IUV, Bert, 1962-63.
- Member K3ACR, Rich, fell 15' from his window, while trying to reach a tree to climb to the roof and work on his antennas. K3LOM, Harry rushed to his side and summoned police and rescue workers. Rich was taken to Abington Hospital with multiple injuries, including a shattered wrist and a concussion. (Fortunately, Rich recovered and can still occasionally be heard on 6-meters). (**REMEMBER, Safety first, particularly when working with heights!**)
- Swap Shoppe ad. A listing by W3GCO, Ralph, offered "Two CDR Rotators and a 50' Tower (10' sections)

for \$150.

- FCC's application fees become effective March 17, 1964. \$4 for original and renewal, \$20 for special call sign.
- ARRL Bulletin Nr 934. Amateurs receiving signals from reflective satellite Echo-Two are asked to immediately forward details of their observations to the ARRL.
- K3LOM, Harry, the June QSO party chairman described plans for the operation. He presented a nice synopsis of the club performance in the last few contests, and implored us to do better this year.
- This issue consisted of eight (8) sheets, double-column format, printed double-sided on heavy stock legal size paper. (*Postage 6-cents. Have you checked the current cost to mail a 1-oz letter!?*)

(As in previous editions, many "folksy" comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more details, visit [www.W3CCX.COM](http://www.W3CCX.COM) and read the full issue posted there by our Webmaster, Ron, W3RJW).



—Thirty— K3IUV, Bert



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## Events

**For inclusion, please direct event notices to the editor.**

**Trenton Computer Festival Conference** --  
March 14/15, 2014. TCNJ Ewing NJ. See <http://tcf.pages.tcnj.edu/> for details

**Spring Sprints—Contest** Early April to early  
May 2014. See information on page 12 of this  
issue for details.

**Eastern VHF/UHF/Microwave Conference** -  
April 11-13, 2014 Baymont Inn, Manchester, CT  
See information on page 12 of this issue for  
details.

**SVHFS Conference**—April 25-26, 2014. Atlanta  
GA. See <http://www.svhfs.org> . Conference chair  
Bob Lear, W4ZST

**ARRL June VHF QSO Party - Contest** June  
14-16, 2014. The annual Camelback trek.  
Details to follow.

**CSVHFS Conference**— 48th Annual  
Conference July 25-27, 2014 in Austin, Texas.  
See [http://www.csvhfs.org/2014conference/  
index.html](http://www.csvhfs.org/2014conference/index.html) for details

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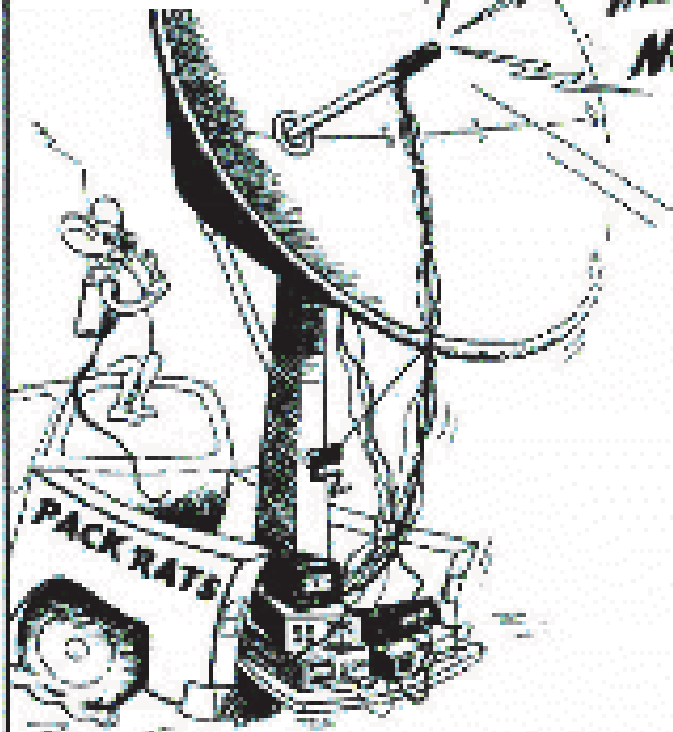
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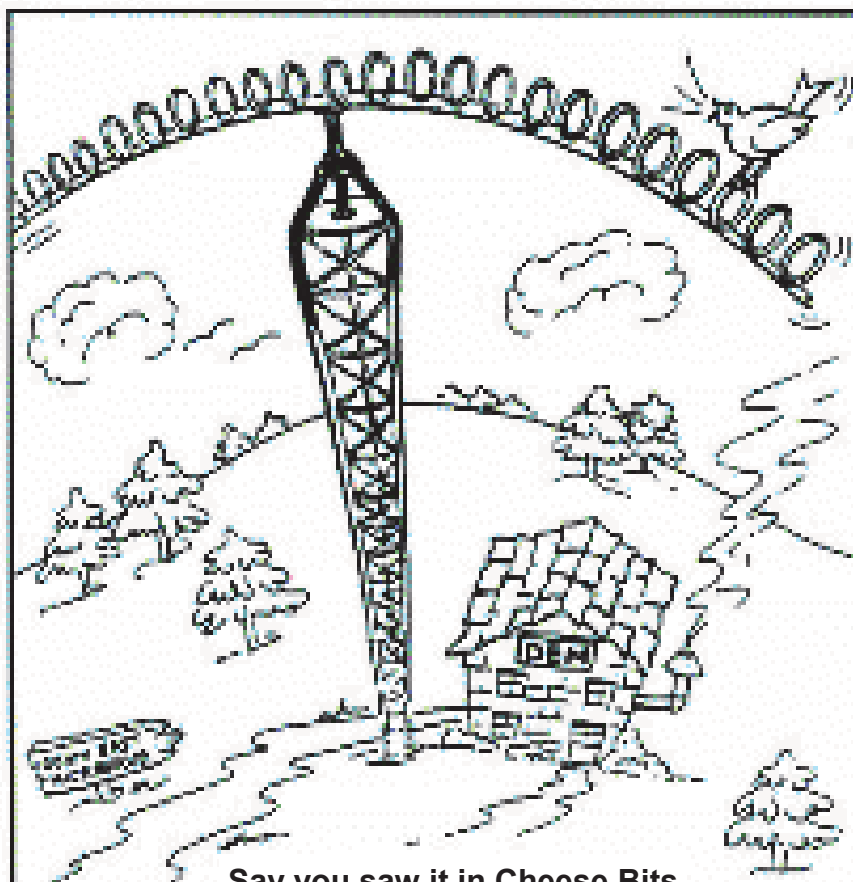
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