



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LI

March 2010

Number 3

PREZ

SEZ:

March Winds, April Showers, May Flowers... or so the old rhyme goes. I can hardly wait. March is a lull in activities for the VHF/Microwave

community. But April brings us showers of new information. First there is the New England Weak Signal Groups Conference the weekend of April 16 through 18th. A number of us will be attending this excellent weekend of presentations and fellowship.

The following weekend April 23 - 25 is the Southeast VHF Conference. Several PACKRATS attend this conference and give presentations.

That same weekend is the Trenton Computer Fest (TCF). TCF opens on Friday with a IEEE Professional Conference. Saturday and Sunday are dedicated to presentations on computers and amateur radio subjects. Sunday is also the New Jersey State ARRL Convention. The PACKRATS are a supporting group for TCF and we need your support both Saturday and Sunday. Please see Lenny, W2BVH, to sign up for a time to help out with vendor support. Plan to attend on Sunday when the Flea Market will have more Amateur Radio focus.

The beginning of March brought a work party to the QTH of W3KKN (SK) to begin the process of cleaning out a 60 year accumulation of "stuff" so treasured by a household with two hams in it. Ernie's wife,

Bert, was very active on HF and the National Traffic System. Ernie was not only a very comical fellow, he was also an ardent supporter of the PACKRATS and the ARRL, an active builder, a masterful contest operator and one of the Founding Members of the Mount Airy VHF Radio Club. Needless to say he had a lot of "stuff". There will be more about his equipment in the next few weeks as it is tested and catalogued.

We have several other major events coming up with a presentation in March by WB2RVX on PHOTO VOLTAICS. The April Showers come with the AWARDS and ARRL NIGHT with special guest KX9X from the ARRL Contest Branch. May will be blooming with antennas and an informative evening from a premier operator on the "Magic Band" (6 Meters) and his stacked long yagi array on a rotating tower.

June is the annual trip to Camelback Mountain for the June Contest followed by the June meeting at the Ben Wilson Sr. Center for ELECTIONS and a follow up on the mountain top operation. July we have the White Elephant sale and August brings the FAMILY PICNIC. This year the picnic will once again be held at the QTH of KB1JEY in Ambler.

Following up on N3NGE's recommendation from the January contest, I have been preparing a "TO DO LIST" of items that need attention at the W3GAD Station. It is beginning to look like the "Honey Do" list; as it

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

SUBSCRIPTION RATE: \$16.00 PER YEAR (USA)
\$20.00 PER YEAR (CANADA)
\$10 PDF only
\$24.00 PER YEAR ELSEWHERE

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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

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.145 MHz	K3EOD FM29II
8:00 PM	144.150 MHz	N3ITT FN20kl
8:30 PM	222.125 MHz	K3TUF FN10we
8:30 PM	224.58R MHz	W3GXB FN20jm
9:00 PM	432.110 MHz	WA3EHD FN20kd
9:30 PM	1296.100 MHz	K3TUF FN10we
10:00 PM	903.125 MHz	W2SJ FM29LW

Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

too is a perpetual project. You could almost say a station improvement list a “mobius loop” with the stop marker missing.

It is terrific to have Al, K3EOD back as lead off Net control on Monday nights. His alternative net controls have done a terrific job filling and I hope they will continue to be available for the various nets. We still need someone to fill in the empty 2304 net control position and we need operators to back up all our nets.



The next BOD meeting will be at KB3NRL's. And in April we may try another all conference call meeting using a different media. Meanwhile...

LISTEN FOR THE WEAK ONES
de Doc W3GAD

Editors Column

Our next meeting will be at our usual meeting site, the Ben Wilson Senior Center, 580 Delmont Avenue, Warminster PA., on March 19, 2010. The meeting starts at 7:30 pm with a pre-meeting dinner around 6:00 pm for anyone who cares to attend. Dinner is at Giuseppe's Pizza 1523 West Street Road, Warminster, PA 18974 (at the shopping center diagonally across from our meeting site). The Packrats usually are in the back dining room.

This month we feature a presentation by our own Mike Gullo WB2RVX on Photovoltaics. Come on down and hear what Mike has to tell us on this very **green subject**.

As always Ed, WA3BZT, and I welcome your contributions to Cheese Bits. If you have a project in the works or completed or some experience you'd like to share, please write it up and send it to Ed or myself. The whole membership would love to see your contribution!

Finally, please accept my apology for the lateness of Cheese Bits this month. An ongoing family emergency has limited my time in the editors chair. Hopefully it will be resolved in time for the April issue.

Enjoy this months issue!

73, Lenny W2BVH

Complete January 2010 Contest Results

How did you do in this years January Sweepstakes ? Find out below.

Mt. Airy VHF Radio Club, Inc. 'The Pack Rats'
January 2010 VHF Sweepstakes Contest

Total Logs: 70

Club Score: 2,699,809

Call	- Total -			Contacts and Grids per band												
	QSOs	Grids	core	50 MHz	144 MHz	222 MHz	432 MHz	903MHz	1.3GHz	2.3GHz	3.4GHz	5.7GHz	10GHz	24GHz	Laser	
K3TUF	681	139	195295	182 24	197 29	82 21	99 24	35 9	41 11	18 5	9 4	6 4	7 4	5 4		
K1DS/R	626	91	157612	82 12	162 16	107 13	103 13	36 6	41 6	22 4	19 4	19 4	20 3	11 3	4 2	
WB2RVX	593	144	153360	176 31	171 48	69 19	100 22	29 8	30 8	9 5	3 1		2 1		4 1	
W3SZ	514	113	148821	110 17	129 20	67 15	74 15	31 8	38 7	24 7	14 7	12 7	11 6	4 4		
WA3NUF	621	106	142040	142 19	184 21	82 16	95 17	33 9	38 8	24 6	12 5	6 2	3 1	1 1	1 1	
K1JT	597	153	130509	192 29	225 76	63 17	79 18	22 7	16 6							
W2SJ	545	90	125370	99 14	130 16	79 14	95 16	37 7	43 7	29 6	15 5	6 2	8 2		4 1	
W3RJW	430	82	86018	89 16	110 18	54 10	77 13	23 6	30 6	22 6	12 3	6 2	7 2			
WA3DRC	432	73	83585	62 7	111 15	57 7	77 15	31 6	43 8	22 5	12 3	8 3	8 3		1 1	
K3IPM	525	84	77028	166 24	157 24	74 13	73 10	18 4	17 4	15 3	5 2					
NN3Q/R	410	65	51675	67 8	146 15	50 9	71 11	29 6	38 6	4 2	5 2					
W3GAD	393	62	45880	109 12	91 12	58 11	78 12	22 6	25 5	9 3					1 1	
W0RSJ	378	87	44979	124 24	115 23	65 19	74 21									
WA3QPX	259	71	35642	80 16	62 16	32 11	40 12	16 5	20 6	9 5						
N3ITT	318	55	32615	72 12	93 13	55 9	55 11	10 2	24 6	9 2						
W3KM	338	62	31744	65 9	155 26	54 11	46 11		13 3	5 2						
WA3GFZ	276	54	25434	76 10	95 14	37 8	39 8	10 4	11 4	3 1	1 1	1 1	1 1	1 1	1 1	
W2BVH	281	55	20460	80 11	110 20	40 12	51 12									
WA2OMY	255	45	20430	51 8	77 12	55 7	52 11	12 3		8 4						
KA3FQS	293	39	20007	65 6	90 13	52 7	53 5	15 3	14 3	4 2						
W3ICC	341	42	19782	77 11	134 16	52 4	78 11									
K3MF	201	57	16131	52 16	91 17		46 18		12 6							
K3JJZ	252	41	15785	71 9	86 12	40 7	40 7	8 2	5 2	2 2						
WA3RLT	224	39	14352	65 9	57 10	38 7	43 8		21 5							
WA3SRU	225	36	12888	64 8	70 10	22 4	48 9	21 5								
KB3BBR	197	37	11581	52 7	61 12	31 6	37 8		16 4							
K3IUU/R	119	23	9775		25 2	32 2	16 2	7 2	9 2	8 2	6 2	5 2	3 2	1 1	7 2	
WA3YUE	140	34	9656	41 10	31 6	21 5	21 5	9 3	11 4	6 1						
K2TXB	282	32	9024		282 32											
WA3EHD	172	23	8234	32 3	50 7	33 3	31 3		15 3	7 2	4 2					
AA2UK	172	40	7640	107 21	50 13	13 4			2 2							
KB3GJT/R	156	26	6318	33 5	60 8	24 3	31 3	6 2							2 1	
NE3I/R	138	23	5037	21 4	48 7	32 3	35 4								2 1	
KA3WXV	167	21	4746	39 4	69 11	31 3	28 3									
KB1JEY	184	16	4656	51 3	56 4	38 3	24 2	7 2	8 2							
NE3I	114	24	4176	30 5	34 7	21 5	24 5		5 2							
N3PLM	114	25	4025	47 9	32 8	16 2	13 4	3 1	3 1							
N2DEQ	125	27	3888	39 8	67 12	5 2	14 5									
W3FEY	86	22	3828	20 6	16 4	20 4	11 4		19 4							
WB2ONA	88	28	3444	27 8	26 8	15 5	20 7									
K3IUU	137	14	2716	26 2	54 6	30 3	27 3									
KB3XG	96	20	2560	64 13		32 7										
K3VEQ	102	19	2489		73 12	8 1	21 6									
KB3MTW	118	12	1920	45 4	31 3	23 2	19 3									
W3GXB	90	18	1854	17 3	60 13	13 2										
WB2VLA	64	22	1848	20 7	24 7	10 3	10 5									
KB3HCL	76	11	1298	26 2	18 2	19 2	10 2	1 1	1 1	1 1						
N1XKT/R	55	15	1080	25 4	13 4	9 2	8 3									
WA3U	43	17	1037	9 4	16 6	7 3	11 4									
N3FTI	42	19	1026	13 5	17 7	6 3	6 4									
K3EGE	35	11	913		11 4	10 3	10 3								4 1	
W3VVP	24	19	760	3 3	11 6	4 4	3 3	1 1	2 2							
K3IB	54	14	756		54 14											
W2PED/R	10	7	476			2 1							5 2	3 2		
K3BPP	30	15	450	7 4	23 11											
K3BFS	42	8	432		30 5		12 3									
KB3NRL	51	7	406	4 2	40 3		7 2									
N3EXA	40	5	325		15 2	22 2	3 1									
K1DS	19	7	133		19 7											
N2NRD	12	6	120		4 2	4 2	4 2									
KB2AYU	9	3	45		3 1	3 1	3 1									
N4HY	3	3	15		1 1	1 1	1 1									
KA3MGB	5	3	15		5 3											
N3RG	1	1	8												1 1	
WA3WUL	1	1	8												1 1	
KU3A	2	1	2		2 1											
W1SMS	2	1	2	2 1												

Call	- Total -			Contacts and Grids per band												
	QSOs	Grids	Score	50 MHz	144 MHz	222 MHz	432 MHz	903MHz	1.3GHz	2.3GHz	3.4GHz	5.7GHz	10GHz	24GHz	Laser	
N3NGE	608	237	735885	471 57	504 51	149 30	254 40	60 14	69 15	42 10	23 7	14 7	15 4	3 1	4 1	
Ops: N3NGE K1WHS K3EGE K9PW KB2AYU KB3MAW N2NRD N3EXA N4HY W2PED																
K3EOD	592	105	110040	185 23	177 24	71 17	80 18	29 8	33 8	14 6					3 1	
Ops: K3EOD N2GJ N3RG WA3WUL																
WB3IGR	200	70	27720	41 11	61 16	30 11	31 12	18 9	13 7	6 4						
Ops: WB3IGR WF1L																

Eleven Years of the VHF SS

Joe Taylor, K1JT

Recently some 'Rats have been asking questions about factors that affect one's score in the annual ARRL VHF Sweepstakes. This got me to thinking... and at my age this often means reminiscing. The following account is a result of that process.

My first encounter with the VHF SS was in 1956, when I submitted a multi-op entry with my brother. We were both in high school at the time. We made 114 QSOs in 6 ARRL sections, good for 1368 points — not much of a score, but it was great fun making those contacts with equipment we had built mostly by ourselves. We were seriously hooked. Two years later we set a scoring record for the VHF SS, making 507 QSOs in 26 sections. That record stood for a decade or so.

Soon we were off to college, graduate school, marriage, and starting families. Priorities necessarily changed, but at some level our interests in Amateur Radio, the VHF bands, and contesting never died. In 1999, with four children launched on their own and a bit more time on my hands, I started working my way back into active ham radio. I bought an FT-847, strung some wire between trees for an HF antenna, and began acquiring the bits and pieces necessary to get back into "The World Above 50 Mc/s." Among other things, I was thinking what fun it would be to enter the VHF Sweepstakes once more.

By January 2000 I had a mast on the roof bearing yagis with 4 elements on six, 11 on two, 16 on 222, and 28 on 432. As expected, the VHF SS that year was a ton of fun! Some operating practices were different than I had remembered — for example, I'd never heard of "running the bands" before — but lots of the good old feelings were there, as well. I was "re-hooked," you might say, and each January since then I've been back in the fray. Prompted by the questions from fellow 'Rats mentioned above, I've looked over my results

for these 11 years with a critical eye. I'll summarize them here, together with a few comparisons with results from other operators.

Scoring in a radio contest depends to a large extent on what you can manage for station equipment and antennas. Therefore, let's start with a brief description of how my station has evolved. In 2000 and 2001 I had 100 Watts on the bottom four bands, together with the antennas mentioned above. Not too shabby, but still a small station. By January 2002 I had put up a 70-ft tower with 7 elements on six, 4×9 on two, 2×16 on 222, 4×28 on 432, and loopers for 903 and 1296. By 2003 I started adding some power: 300 W on six, 500 W on two, and 250 W each on 222 and 432. For the 2004 and 2005 contests I added 2304 MHz, increased power on six to 700 W, and configured everything for a multi-op effort with separate operating positions for six meters, two meters, and 222-and-up.

The multi-op setup worked well for a couple of years, but did not mesh well with what I wanted to do in other months of the year. I was getting seriously interested in EME on two meters, so in 2006 I went back to a single-operator setup. I increased power to 1100 W on two, and in 2008 I changed the antenna configuration to include 4×13-element dual-polarization yagis on 2m, steerable in both azimuth and elevation. I kept the 7-element six-meter yagi and the loopers, but reduced the antennas on 222 and 432 to a single yagi on each band.

How has it all worked, for purposes of scoring in the January contest? I find it easiest to tell the story graphically. Scores in this contest are given by (total QSO points) × (sum of multipliers on each band), so let's start by looking at these quantities. Figure 1 shows my QSO points, multipliers, and total scores over the past 11 January contests. The scoring high point of 254k was set in 2004 by the multi-op crew of K2TXB, KC2DLA, K2BMI, KU3A, N3EVV, and K1JT. In other years I (or we) have usually been somewhere in the 100k-170k point range.

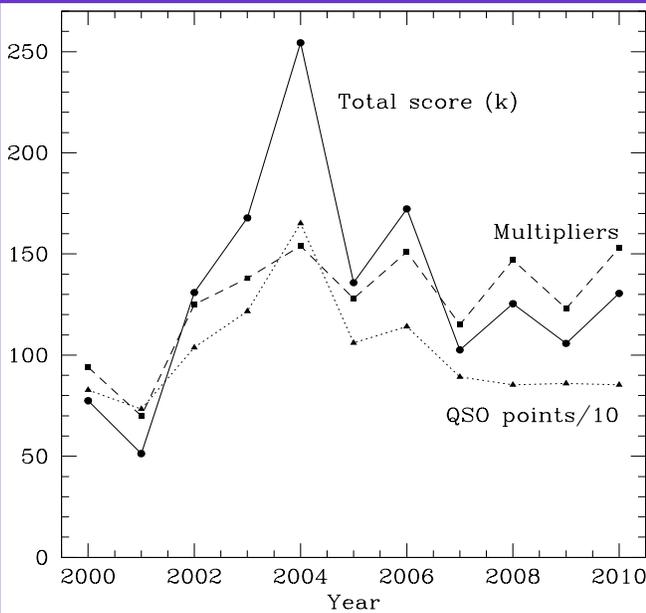


Fig. 1 – Total score in thousands of points, QSO points divided by 10, and total multipliers worked at K1JT in the VHF SS in the years 2000 – 2010.

My ratio of QSO points to multipliers is usually in the range 5 to 8, and more like 8 to 11 when operating in “multi-multi” mode (multiple operators and multiple simultaneous transmitters). These are important numbers, as they tell how many QSO points are needed to produce a scoring increment equal to that of one additional multiplier.

Figures 2 and 3 present breakdowns of QSO points and multipliers by band, over the 11 years. It’s easy to see that I haven’t capitalized particularly well on the opportunities for 4-point and 8-point QSOs at 903 MHz and above. Bigger scores would surely result from putting more effort into these “money bands.” My excuse is that I have trouble justifying such effort for use on just one weekend per year.

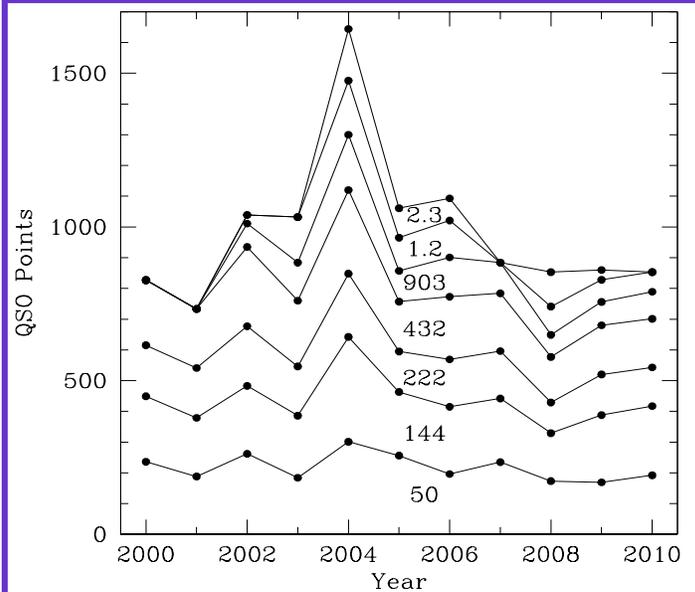


Fig. 2 – QSO points on a cumulative band-by-band basis, from 50 through 2304 MHz.

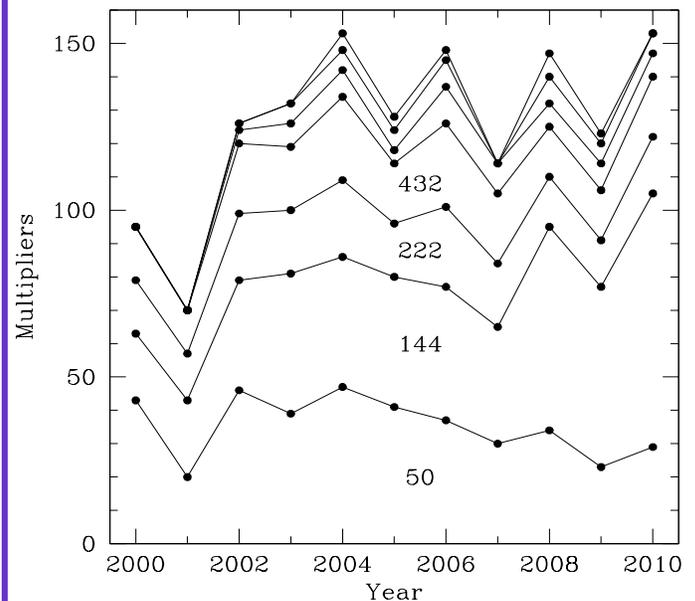


Fig. 3 – Multipliers on a cumulative band-by-band basis, from 50 through 2304 MHz.

Why do I always seem to work more multipliers and make better scores in even-numbered years? Who knows? ... but it never seems to fail. Weather has been a contributing factor: we had an ice storm in 2001, and a blizzard in 2005. I don’t know what happened in 2007 or 2009. Does global warming have a hidden biennial cycle? Maybe I can do something about this trend in 2011.

Figure 3 gives a good idea of my own interests and station priorities: I usually work more than half of my multipliers on six and two meters. Contacts via meteor scatter have added 14 to 38 multipliers to my totals each year, starting in 2002, and 2m EME QSOs have been important since 2008. I don't recommend this approach as an optimum scoring strategy for everyone, but it has been effective for me, with my present operating interests.

For some comparison examples let's look at the log summaries for W2SJ, K1JT, and K3TUF in the 2010 contest. The claimed scores are 125k, 130k, and 195k, respectively. Figure 4 shows how the QSO points and multipliers break down by band, for each station. Bob's and Phil's logs show very clearly that QSO points and multipliers on the high bands pay off handsomely. Similar conclusions would be reached by examining contest logs from other club members, e.g. WA3NUF or WB2RVX. It's interesting to note that the ratio of QSO points to multipliers this year was 5.6 for K1JT, 10.1 for K3TUF, and 15.5 for W2SJ. There's more than one way to skin a cat... but a few more microwave QSOs at K1JT would make a big difference in score, as would a few more multipliers at W2SJ.

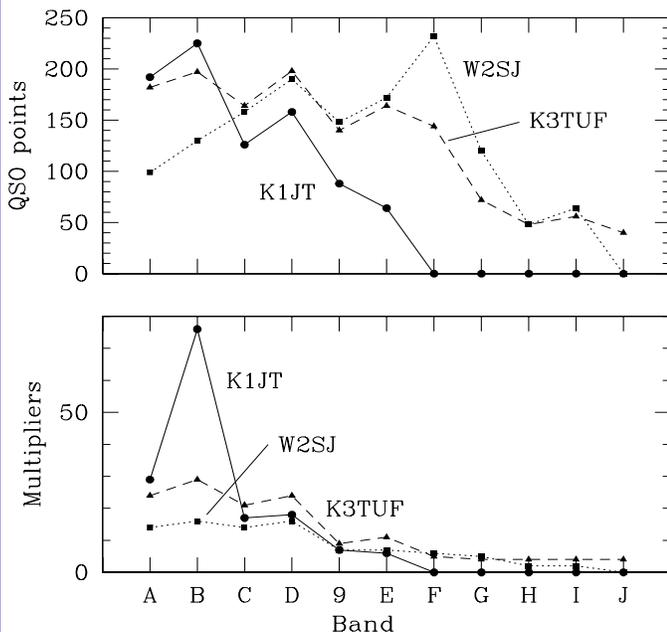


Fig. 4 – Comparison of the W2SJ, K3TUF, and K1JT logs for the 2010 VHF SS.

Finally, let me make a point about the importance of staying in the shack seeking

QSOs for as long as you can, throughout the whole contest. WA3RLT's presentation each December emphasizes this point very effectively, and my own logs also illustrate it nicely. We always feel like we're doing best near the start of a contest, when QSO rates are high. Later on activity tails off, and by Sunday afternoon things generally seem slow. As shown in Figure 5, based on my log for January 2010, these impressions are perfectly correct: we generally *are* doing best early in the contest, in terms of QSOs, QSO points, and new multipliers.

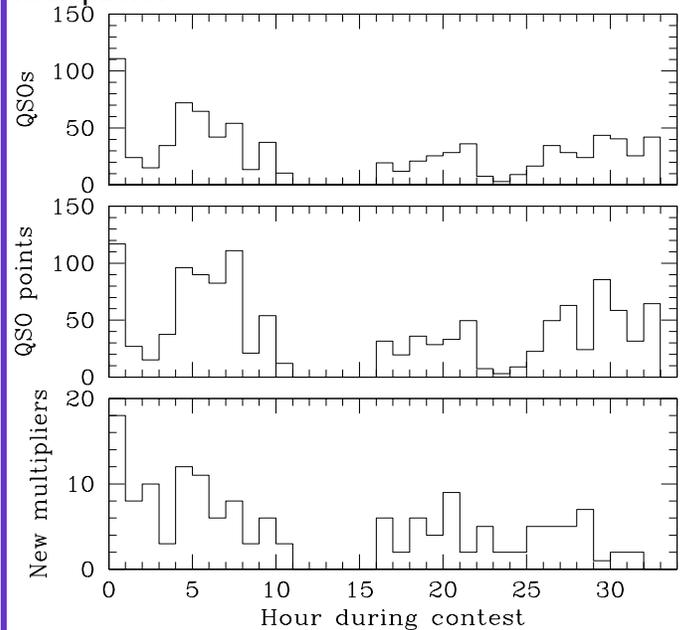


Fig. 5 – Incremental QSOs, QSO points, and multipliers on an hour-by-hour basis for the January 2010 contest at K1JT.

However, the bottom line is neither QSO points nor multipliers, but rather their product. If QSO points and multipliers both continue to grow, even relatively slowly, the final hours of a contest are very important. An hour-by-hour graph of cumulative score almost always steepens near the end. The top panel of Figure 6 illustrates this effect for my January 2010 log. The lower panel confirms that incremental score, per hour, tends to be highest in the final hours of a contest.

Here are some final thoughts on scoring in the VHF SS. I know from experience that it's extremely hard for a single-op station to break the 100k scoring barrier on the bottom four

bands alone. I didn't quite do it this year, even with a personal high of 225×76 on two meters and very respectable performances on the other three bands. Of course, if you're surrounded by hills, it's even tougher. (I'm not; most of central New Jersey is pretty flat.) You can certainly get into the 20–50k range on the bottom four bands, however, even with low power. For higher scores you definitely need more bands. Those 4-point and 8-point QSOs, which you can make with low power, make a surprisingly big difference!

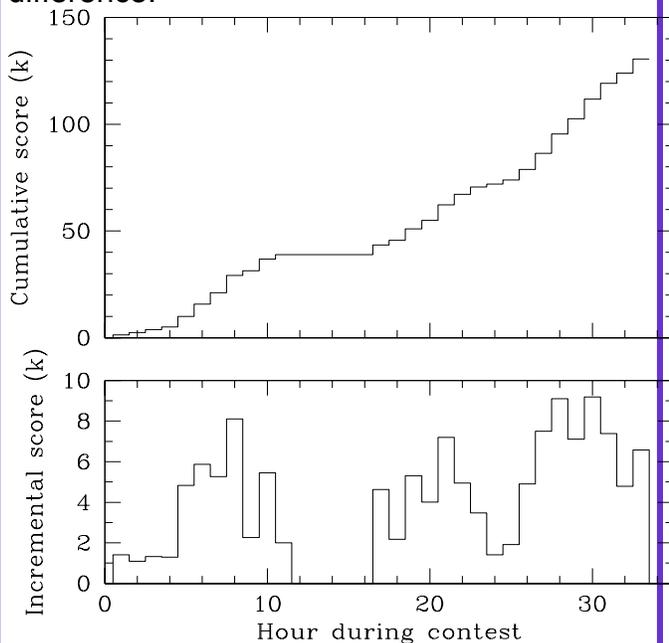


Fig. 6 – Cumulative and incremental score on an hour-by-hour basis for the January 2010 contest at K1JT.

My other advice, for the record: use digital modes to work grids that you can't work any other way. Use CW, especially on the microwave bands. Configure your station so you can run the bands quickly. Work the rovers.

See you next January!

New Antlers at WA3SRU

By Joe Seibel

Here's the story of the new tower and antenna lineup at WA3SRU, installed just in time for the January 2010 VHF Sweepstakes.

First shovel of dirt for the new tower was September, 09. Completion of job with antennas for 5 bands plus side mount for 2/440 was January 15, 2010.

The former Asplundh bucket truck was from a friend of my son. They actually do tree work. They had some spare time and since weather was going to be nice for a couple days, I went ahead and set up the installation. All antennas were in place in only 2 1/2 hours. Things go quickly when you have the right tools!

I ran all coax through a window to a temporary location for the ARRL January VHF Sweepstakes. With the help of Packrats members, KB1JEY, K1DS, WA2OMY and K3TUF, I was able to get on 903 with the club project 903 amplifier..

With 1 watt out from the transverter to the amplifier, I was getting about 30 watts out.

Once the antennas were installed, I had my temporary station up and running in 8 days on 5 bands. My totals for the contest were: 225 Q's, 36 Grids for a point total of 12, 888, beating last years 438 points by quite a margin I worked 39 Packrats and had 134 Packrats Q's.

Here are a few pictures of the antenna job:



Antennas laying on ground ready to be installed



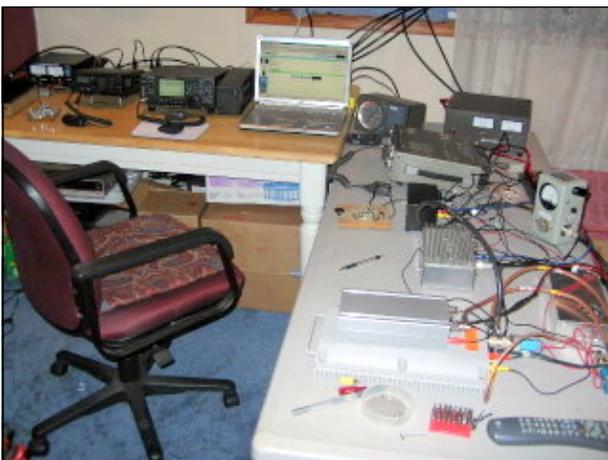
Installer placing the rotor in the tower



View of top of tower with all antennas- 903, 432, 220, 144 & 6 meter. On side mount is diamond 2/440.



6 meter beam done. Lashing coax to mast



<-- Picture of my temporary station shows, left to right, amp, ps & FT-897 for 432. Icom 746Pro for 6 and 2 meter ssb. TS-430s as an IF rig for my Demi Transverters on 222 and 903. A Demi Sequencer and a lot of cables & wiring were used to put it all together. Thanks again to all the Packrats that helped me to be on 903 for the contest. Thanks to Stan, K3IPM for the loan of the amp & power supply and AI K3WGR for the loan of the FT-897 for use on 432.

K3IUV Rover Setup in the January VHF Sweepstakes

by Bert Soltoff

Here are some pictures of K3IUV/R showing the 6-band unit on the shelf that I put in the passenger seat of my SUV. I used a couple of angle brackets to bolt the front panel to the shelf. The Icom driver was also mounted with angle brackets, and a Midland for 220 FM was held on top with Bungee cord. I had enough space to bungee down a laptop, but decided against using it. It is just easier to do paper logs, then type it all in post-contest.



And thanks to **Rick K1DS** for assembling the antennas. I used a 2-position coax switch to route the 2-Meter signal to an antenna, or to the xvtr IF input/output. So all I had to do for microwave use was throw the coax switch, and select desired band on front panel. **A really neat job, Randy.**

The picture of the outside of the IUV Rover shows the 2-meter halo, built and sold commercially by a club member, Ben Chalmers (K3BVZ), about 45 years ago. The last time I used it I was running a 6-meter AM Black Widow

rig, mobile in the Jan contest. That was in 1967 when I moved into my last house, and didn't have antennas up yet! Anybody else remember the Black Widow rig?



The insides of the microwave setup looks a little like an explosion in a microwave factory, but the fact of the matter is that it **works very well.**



Ham Radio URL of the Month

As a tie-in to the QUAGI URL a few issues back, here is an article by IK1HGE on a computer modeled QUAGI that improves performance over N6NB's original antenna

Check out <http://www.qsl.net/ik1hge/homebrew/homebrew.html>

ENJOY!

— Lenny W2BVH

ARRL New Jersey State Convention

TCNJ Hosts the Convention in Conjunction with the Trenton Computer Festival, April 23 – 25

"We are pleased to announce, for the first time, the ARRL New Jersey State Convention will be held at TCF on Sunday, April 25th 2010. This year we will feature a full day of radio related presentations, forums and vendors. Reviving the old tradition of a New Jersey State ARRL Convention and sponsored by the Delaware Valley Radio Association, planned radio related presentation topics include DXing, Contesting, Satellite Communications, Digital Communications methods, Software Defined Radio, Emergency Communications, VHF Roving, WiFi, ARRL Forums and more! We also plan to hold onsite Amateur Radio Examinations both days, run a one-day Radio Licensing prep course (on Saturday) and have door prizes. So come out and learn more about radio, and the wireless revolution!"

In addition we hope to have DXCC card checking available.

The convention will be held along with the world's original computer show, the Trenton Computer Festival TCF (which celebrate its 35th anniversary in 2010!)

Come celebrate with your fellow ham radio enthusiasts Saturday, April 24th and Sunday, April 25th at The College of New Jersey in Ewing. In addition to the Ham Radio presentations there will be a full schedule of informative panel sessions, tutorials, demos, and other computer-related educational events 10 am – 5 pm on Saturday and 10 am – 4 pm on Sunday.

The popular **computer and electronics sales center and ham radio flea market** (rain or shine!) will also be offered.

The primary venues for TCF include TCNJ's Brower Student Center and the Social Sciences Building. Exhibits and events include **Amateur Radio license exams** on Sunday, April 25th. **Two-day admission tickets are available for \$12 in advance and \$15 at the gate. Sunday-only admission is \$10.00, also at the gate. Advance tickets may be purchased from www.tcf-nj.org by Sunday, April 18.** Check the site for information on bringing your robot for free admission! Parking is free. Also visit www.tcf-nj.org for more TCF '10 details, including **festival only deals from marketplace vendors.**

Also, remember that the Packrats will be supervising the vendors at the TCF Flea Market on both days of the Festival. We already have some volunteers for this activity but **we still need more.** **Please consider** volunteering to help with this effort. Contact Lenny, W2BVH at the next meeting or at lennyw@comcast.net if you'd like more information or would like to help out.

Events

For inclusion, please direct event notices to the editor.

Eastern VHF/UHF Conference - April 16-18, 2010. See <http://www.newsvhf.com/vhfconf.html> for registration and further details

SVHFS Technical Conference - April 23-24, 2010. Morehead State University. See <http://www.svhfs.org/conference.html> for details

OMARC Tailgate Hamfest - April 17 2010. Project Diana Site, Wall NJ. See <http://www.omarc.org> for details

JCDXA Hamfest - (Jersey Coast Chapter of the NADXA) April 10 and Sept. 11, 2010. Details to follow. See <http://nadxa.org> when available.

Eastern VHF/UHF Conference - Sponsored by the Eastern VHF/UHF Society and the North East Weak Signal Group. Tentative date April 16-18 2010. Details to follow.

Trenton Computer Festival / NJ State ARRL Convention— April 24-25, 2010. A combined event. Computer and ham radio presentations, hamfest and computerfest. See article on page 10 for details. Don't miss this one!

Dayton Hamvention Convention / Hamfest - May 14-16, 2010 One of the largest ham events in the US. See <http://www.hamvention.org/> for details.

ARRL June VHF QSO Party Contest - Jun 13-14, 2010 Details to follow at <http://www.arrl.org/contests/rules/2010/june-vhf.html>, when available

Valley Forge Hamfest and Computer Fair Hamfest - July 18 2010. See <http://>

www.marc-radio.org for details

CQ WW VHF Contest— 3rd full weekend in July. Details to follow.

ARRL UHF Contest - Aug 1-2, 2010. Details to follow

ARRL 10 GHz and Up Contest—Aug 15-16, 2010. Details to follow

ARRL September VHF QSO Party Contest - Sept 12-13, 2010. Details to follow

ARRL 10 GHz and Up Contest— Sept 19-20, 2010. Details to follow

ARRL International EME Competition Contest— Oct 10-11, 2010. Details to follow.

ARRL International EME Competition Contest— Nov 7-8, 2010. Details to follow.

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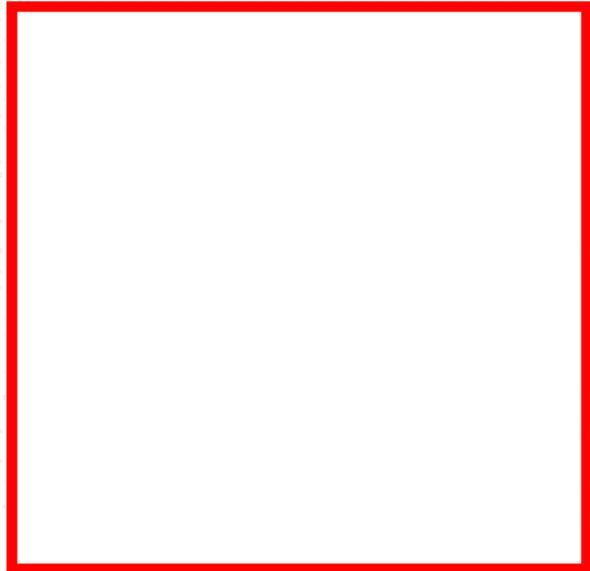
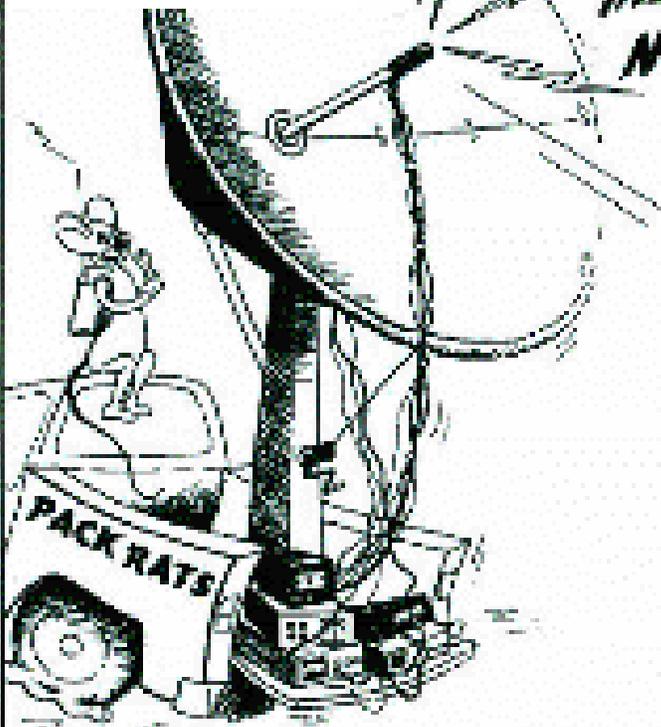
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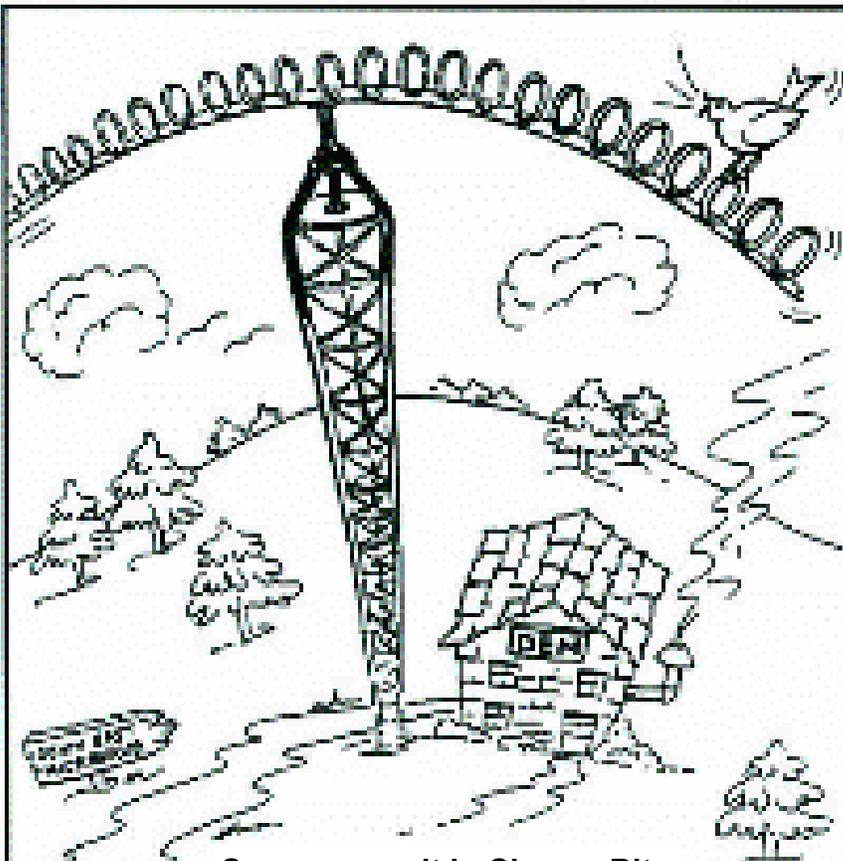
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