



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume L

January 2009

Number 1

PREZ SEZ:

Start off the New Year right with a resolution to add another band. Yes, many of the 'rats have the basic 4, but there's gold in them there hills on 903 and above. Transverters are not too hard to build, and not too expensive to purchase, and amplifiers are getting cheaper by the minute. Several 'rats took advantage of the latest eBay offerings of the 150W 903 amps, and there have been opportunities for 1296 and 2304 and 3456 amps also over the past few years. They have been snatched up by many of the EME'er's and several folks have used combiners to put a few of these together and crank out the BIG watts on microwaves. The power is easily supplied from these great switching power supplies in the 12 and 24 volt models, also coming down in price on the internet.

Did everyone enjoy the December Tech Night as much as I did? I think that the casual tone and the great techs and their gear was a great boon to the upcoming January activity, as folks figured out what worked and what didn't. Now just to get everything fixed! I still have a 432 beam and a 1296 looper for loan. If you need any additional gear for January, speak up now. There are still some items available. Thanks to Phil for organizing and Warren, Paul, Gary and Brian for sharing their expertise in getting things done. Not only did we learn a bit about cable preparation and connectorizing, but we also saw Mike's great antenna analyzer in action, and the post-script on the reflector about crimp-on vs. clamp-on connectors was educational. The immediate feedback is that we should do this more often and for a longer period of time so that everyone can get all their gear primed and ready for action.

Ron W3RJW donated his time and effort to build us a new "GAVEL DISPLAY BOX" and this will be loaded with the recent January VHF SS gavels from the ARRL first Place Awards for the Unlimited club class. We'll hopefully keep the string and fill it all the way. We also displayed our new club jack hammer that will enable easier placement of the guy stakes on the mountain.

It's never too soon to think about what your contributions to the club will be in 2009. You can write an article for Cheesebits, get something ready for homebrew night, reach out and help another rat get their tower up, antennas fixed, or gear repaired and aligned. You can prepare a presentation for the VHF Conference, volunteer to be a captain of something for June, or set up a rover to add to the fun of microwave roving. You can electioneer to gain an officership or board position when election times come and even volunteer to be on the nominating committee. We will need additional help with our nets, especially 6m.

I'm certain that 1959 was the year that I was first licensed as WV2ITR while living in the Bronx. I passed the code and novice regs and theory exam, along with my buddy Al Steinfeld, at the local hardware shop under the tutelage of one of the store owners. Al got his call WV2IUQ, eventually became a KL7 while he did auroral research in Alaska, and most recently, he is the director of the NYC Marathon. We went down to Canal and Vesey streets in NY and got ourselves some of that fine ARC-5 stuff. Al also got a TCS rig from a local ham, and the two of us moved from novice to General real quickly and chatted on 75 phone across the ½ mile that separated our homes in the Bronx. Eventually we made those acorn tube walkie-talkies for 2 meters, and graduated to Heathkit Twoers. What's the point—it's 50 years in Ham Radio for the two of us—a milestone. There are probably other club members who have also celebrated this milestone, so I'm glad to be in good company.

The January meeting will be important for all the newer contesters—it is a telling disclosure of operating habits and the best opportunities to improve your score. Having listened to this for several years, I never grow tired of the graphs showing the score vs time graph, and who is sleeping when, and what bands are most active and when. Watch the reflector for the posting of all the info that you need for January. I am planning my rove now, and there are additional rovers with higher bands that will also be making the airways ring. Get ready, get set....see you at the January meeting and on the air for the contest.

73, Rick, K1DS

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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
8:00 PM	144.150 MHz	N3ITT FN20KI
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

Editor's Column

Next Meeting: January 15, 2009 7:30 pm. At our usual site: the Ben Wilson Senior Center, 580 Delmont Av, Warminster PA. The first meeting of the new year features the annual presentation by **Ben,WA3RLT** of operating results from last years ARRL January VHF Sweepstakes. I always find Ben's presentation fascinating, especially his computer animations of qso's during band enhancements that often occur during the contest. His examples of the multiplier effect of just a few extra qso's , grids and member entries always serves as a great motivator. This meeting will also be a great opportunity to use Ben's details from last year to brainstorm strategy for the 2009 test. Remember the test starts only 2 days after the meeting!! So make sure to get over there. Last minute details presented there may make all the difference.

At the December meeting, I was presented with a loaner IC-736 by **Bill K3EGE** and was loaned a nice compact 432 yagi by **Bert K3IUUV**. In addition I was given a 222 and 432 yagi both of which need a bit of work before they can be put to use. So yesterday (12/26/08) I found myself at the high --e.g. the "scary" end-- of a 30 foot extension ladder which shakes like a wet noodle while its being climbed. For my effort, the pipe attached to the small rotator that's out the shack window is now on the ground along with the sorry piece of junk that was my spare 2 meter antenna. Attaching Bert's 432 yagi and repairing and attaching the 222 antenna to that pipe is the next order of business. I'll still need to get some LMR and N-connectors before I can find myself back on that ladder with 2 "new" antennas for the January test. With a little luck and good weather I'll be able to have it all done by the end of the first weekend of January. The point is, even an easy sounding job takes awhile. Do what you can as early as you can to be prepared for the "big one" January 17-19. And if you need some help, put a message on the club reflector; there's a good chance someone can come over and give you a hand.

In This Issue: **Phil, K3TUF** presents some of the results from our well attended December "Tech Nite". We also present a photo essay on Rich, KB3NRL's new tower.

Finally, **sincere thanks** to the organizers and testers who made December's Tech Nite such a success. Bringing in all that superb test gear and doing the testing was no small feat !

73, Lenny W2BVH

P.s - Please forward any material for next month's Cheese Bits to myself or to Ed WA3BZT -Lenny

Results from Packrat Tech-Nite December 2008

by Phil K3TUF

With the help of Paul W2PED, Gary WA2OMY and Warren WB2ONA I led a team of technicians to test equipment that the packrats brought in. We also had additional assistance from WA3NUF, W3GAD and W3IIT. We didn't get to all of the equipment, so we'll have to do it again.

I hear tell that this kind of a working technical night was done long ago, certainly before my time with the club. It was also mentioned that there was a Saturday event at Gary's place as well.

Nevertheless, the evening was a hit. I didn't get to count but I believe we had one of the best attendance counts in recent history.

Another powerful draw was the pizza that was graciously provided by a vote by the Board of Directors. We ought to do that again as well.

With an early start time folks started to accumulate their gear on the incoming table while (after some pizza) the Technicians set their equipment up on two test benches.

One bench had a signal generator and spectrum analyzer combination and the other had a noise figure analyzer.

You can see from the table below that we had a wide array of equipment for various bands from 144 up through 2304 with the preponderance of gear in the 1296 band.

Some folks got their gear repaired and others just got it checked out, but all in all it was generally agreed that there is a need for this kind of service.

There were antennas that we didn't have time to check out. That will have to be a dedicated event just for antennas.

So stay tuned for the next Tech Night, you never know, it may just happen on a Saturday.



Paul & Phil make a precision noise figure measurement



Our testers brought in some very impressive precision instrumentation

Measurement Results

CALL	BAND	TYPE	NF (dB)	GAIN	COMENTS
K3TUF	144	LNA	0.11	19.8	
KB2AYU	144	LNA	0.89	21.7	
WA3QPX	144	LNA	1.40	20.8	
K3JJZ	222	Transceiver			Checkout
WA2DTW	222	Transverter			LO Repair
WA3DRC	222	Transverter	1.30	18.4	
WB2RVX	222	Transverter	29	-31	Broken
K3MF	432	LNA	0.6	18.4	
K3TUF	432	LNA	0.35	20.6	
KB2AYU	432	LNA	0.79	21.9	
KB2AYU	432	LNA	0.72	16.0	Advanced
WA3DRC	432	Transverter	3.8	25.0	
WA3DRC	432	Demi	3.9	28.5	Bad Relay ?
NE3I	903	Transverter			250 mW
K1DS	1296	Transverter			Loaner Works
KB2AYU	1296	LNA 211	0.76	27.6	
KB2AYU	1296	LNA 908	0.92	14.8	
WA3BZT	1296	LNA 1-AGO			Blown
WA3BZT	1296	LNA 4-FRA	0.71	16.24	
WA3BZT	1296	LNA 3-DEMI	0.80	16.0	
WA3BZT	1296	LNA 2-AGO	0.26	32.7	
WB2RVX	1296	LNA LABE	0.46	15.5	
K3TUF	2304	LNA DEMI	0.82	16.7	
WA3QPX	2304	Transverter	2.0	20.0	Kuhne



Connectors go on Mike's new feedline



Joe & Ernie shooting the breeze

Rich KB3NRL Gets a “New” Tower and Antennas

This fall, club secretary Rich Enwright picked up a “new” (used) Tri-Ex tower along with some nice antennas from Horst Zodrow W3/DL7LC who lives just 1/4 mile from Rich.

The tower came with an AR-22R rotator, a TH3Jr, a 10el 2 meter crossed element yagi and a 440 MHz crossed element yagi.

Club members and friends, Dan KB3IBQ, Mike KB1JEY, Ron NY3J and Lenny W2BVH helped to dismantle and transport the tower to its new home.

This is a tilt and telescope type tower. The tower was supported by guy wires, and a steel angle-iron bracket attached to the adjacent garage at about the 6 foot level. The tower legs had completely rotted away from the ground level tilt base, so some ingenuity was called for in lowering it safely.

In lieu of 1000 words, here are some pictures that tell the story of how it found its new home.



Your mission, Mr Enwright, should you choose to accept it....



...bring this safely to the ground with only 4 friends and no one getting hurt!

The tower base was secured to two steel stakes with some stout rope to keep it from sailing into the garage wall as it was lowered down. Then.....



Feedlines were detached

.....Tower (continued)



...and it was carefully lowered to the ground



.....without incident!



Of course, the support pole had to be removed, in spite of some stubborn rusted on nuts.



Michael, Ron, Rich and Lenny then ganged up on the 2 meter crossed yagi and successfully separated it from the mounting pole



Dan and Rich tied it up to the van roof and it proceeded to its new home at about 5 mph. **SUCCESS!!!**

Next December “Look Down”

Down in frequency that is. Your editor spent a couple pleasant hours this past December 13-14 working the ARRL 10 Meter contest. Given the current state of the sunspots (few to nil) I didn't expect much activity. But there was quite a bit going on. With a 10 meter dipole “fan” element on my 80 Meter cf zepp and my K-2 maxed out at 12 watts I was able to work about 20 q's in a couple of hours of operation.

About 1/3 of the q's were into Florida. Early December isn't known for Es so the pipe to Florida may have been tropo (experts in propagation may correct me on that). I even got in one q as far as California. With my modest set-up and the current state of the sunspots, I was only able to complete perhaps 60% of attempted q's. The loudest signals were about S7 with most S3/S4.

The 10 meter test is a fun activity in itself. But it also makes an excellent warm-up for the January VHF Sweepstakes. Looking for enhancements on 10 is very much like VHF ops. With similar propagation characteristics to VHF, and lots of weak signals that need to be dug out, it provides great live practice just a month before our favorite contest.

So keep it in mind and next December try and “Look Down”.

-Lenny W2BVH

N.E.W.S. Reports Damage at K1WHS

The January issue of the North East Weak Signal Group newsletter reports antenna damage at K1WHS. The December ice storm that blanketed New England, severely damaged the 2 Meter array at the contest station. All other antennas were unaffected. Let's hope Dave can get repairs in before the January contest!

HAM RADIO URL OF THE MONTH

Check out the web site of Jim Klitzing at <http://www.w6pql.com/>.

The column of hyperlinks down the left side of the home page is a treasure trove of well documented articles on ham radio microwave projects. Its slanted toward hardware for 23 cm and up operation. Several power amplifiers, tube, transistor and rf module based are presented in plenty of detail. Many have enough detail that the projects can just about be replicated using nothing but the info on the web site. Also shown are LNA's, microwave antenna projects, sequencers, lo's and useful accessories such as marker generators, crystal oven controllers, OCXO, etc.

Lots of useful information and food for thought at this site. Enjoy!

Joel Knoblock W3RFC
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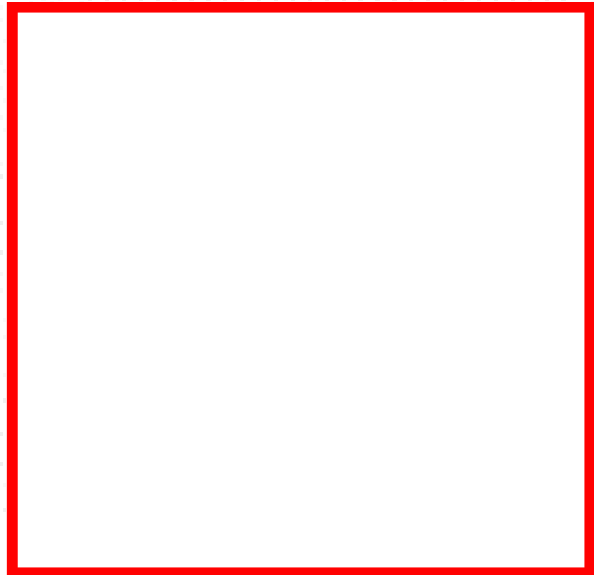
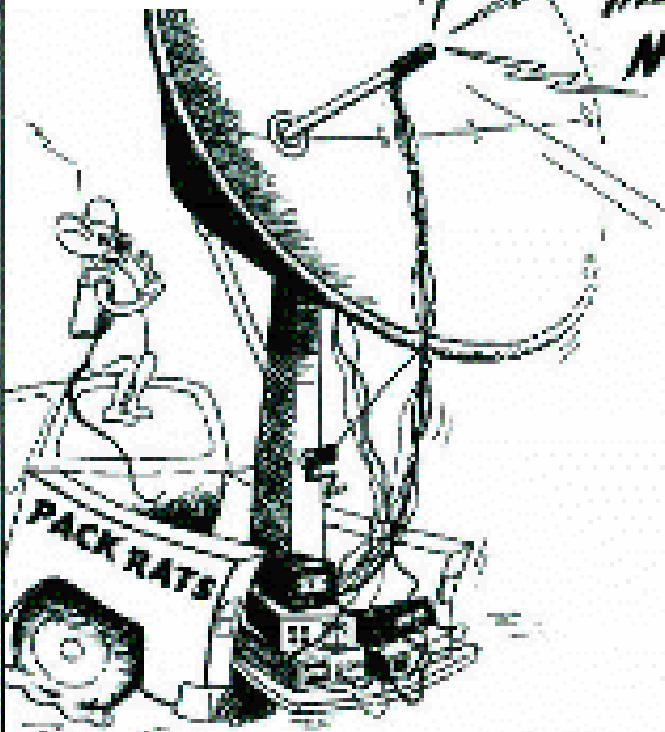
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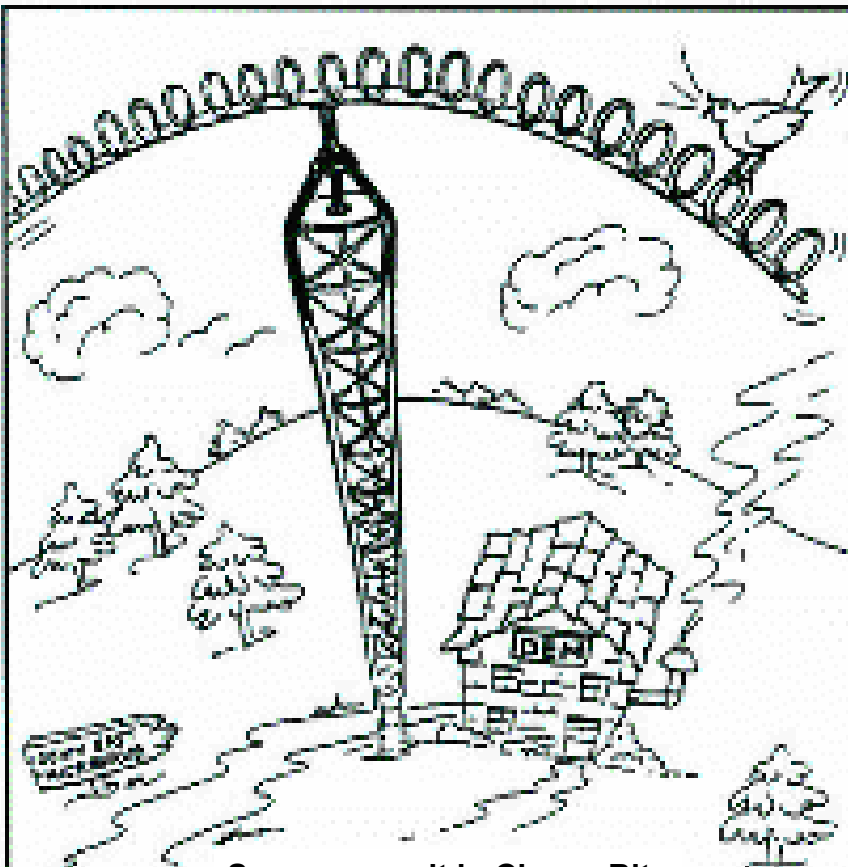
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