

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3HUV, 2013

ARRL
Affiliated
Club



VOLUME XXXX

December 1998

Number 12

The PREZ SEZ

As 1998 draws to a close it's time to look back on the year and perhaps try to assess how the Pack Rats are doing as an organization. It is the responsibility of the officers of the club to basically enforce the rules set forth in the constitution. The theory is that if the constitution is sound then the organization will remain viable by following the letter and intent of the words laid down by our forefathers. This is true for radio clubs as well as countries. Well it sounds real simple, but like everything else there are always complications. Fortunately, I think we as an organization have done a good job of dodging the larger bullets. Maybe a few pellet gun hits, but nothing serious. The club is as strong right now as I can remember. We have an excellent new group of members who are enthusiastic, energetic and competent. As an officer of the club you worry about who is going to carry on the tradition: whom do we pass the baton too? As we round the final turn of this administration we see a covey of new people waiting at the line, cleats planted firmly, ready to accept the mantle of responsibility. Ready to keep this organization running at peak efficiency. The constitution and the club are very sound.

The next big event is the January Sweepstakes. It's once again time to show your colors. Talk about history! Talk about responsibility! The Mt. Airy VHF Radio Club has 37 gavels, each of which represents a win in the January Contest! That's quite a record in anybody's book. Imagine maintaining the level of interest and participation it takes to excel at anything for that period of time! Well, here we go again. Time to get fired up and bring another one home for the club. This month's meeting is the annual January contest meeting. Please try to attend and pick up your contest packet. Included in the packet will be everything you need to participate in the January contest, plus a new club directory for 1999. (Send W3KM any changes or updates ASAP.)

I already see a lot of activity on the bands. I know of at least six members who have added three new bands this year. These are microwave bands that are worth a lot of points in the contest. Our forefathers long ago figured out that if we all just work each other you could run up a really big score. The contest scoring has changed over the years and you can't do it on just 6, 2, 220 and 432 anymore. Not enough contact points. But if you do it on the microwave bands, the total club aggregate score really jumps. You don't have to work the whole East Coast, just the guys in the local area. You don't have to live on a big hill to do that. What new band are you going to get on this year?

I would like to wish everyone healthy and happy holidays and the best for the New Year.

73, Ron, W3RIW

MEETINGS

Third Thursday each month at 8:00 PM
Southampton Free Library
947 E. Street Road
Southampton, PA 18966

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

Southampton, PA

SUBSCRIPTION RATE: \$10.00 PER YEAR (USA)
\$12.00 PER YEAR (CANADA)
\$15.00 PER YEAR (ELSEWHERE)

We operate on an exchange basis with other non-commercial publications. Anything that is printed in **CHEESE BITS** may be reprinted in a not for profit publication, unless otherwise stated, provided proper credit is given.

DEADLINE FOR ARTICLES AND SWAP SHOP IS THE MONTHLY MEETING DATE. NON-COMMERCIAL SWAP SHOP ITEMS-FREE OF CHARGE.

Pack Rat WEB Site: <http://www.ij.net/packrats>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ
7258 Walnut Avenue
Pennsauken, NJ 08110
(609) 665-8488
fnst57a@prodigy.com

EDITOR:

Harry Brown, W3HTT
3012 Potshop Road
Nurristown, PA 19403
(610) 584-4846
hbrown@voicenet.com

CLUB TREASURER:

Dave Mascaro, W3KM
1603 Mink Road
Ottsville, PA 18942
(215) 795-2648
dmascaro@gi.com

AWARDS CHAIRMAN:

Bob Fox, W3GXB
(610) 346-8698

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW
W3RJW@aol.com
(215) 355-5730

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LF

OFFICERS: 1998-1999

PRESIDENT:	W3RJW	Ron Whitsel, w3rjw@aol.com
VICE PRES:	WA3EHD	Jim Antonacci, antonacci@pacsilb.com
REC. SECR:	WA3AQA	Walt Zumbach, wzumbach@bellatlantic.net
TREASURER:	W3KM	Dave Mascaro, dmascaro@gi.com
COR. SECR:	N3AOG	Dick Comly, n3aog@compuserve.com
DIRECTORS:	WA3DRC	(2 Yrs) Ed Finn, ed_finn@ustc.vlsi.com
	N3EVV	(2 Yrs) Walt Rauscher
	AA3GN	(1 Yr) Joe Landis, landis@nael.com
	W2SJ	(1 Yr) Bob Fischer, fnst57a@prodigy.com

MONDAY NIGHT NETS

<u>TIME</u>	<u>FREQ.</u>	<u>NET CONTROL</u>
7:30 PM	50.150 MHz	K3EOD/WA3EHD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW
9:30 PM	1296.100 MHz	WA3NUF/AA2UK
10:00 PM	903.100 MHz	N3AOG

COMMITTEE CHAIRMEN

LADIES' NIGHT:	N3AOG	215-443-9965
JUNE CONTEST:	N3ITT	610-847-5490
HAMARAMA:	NK8Q	610-847-2285
VHF CONFLRENCE:	KB3XG	610-584-2489

PACK RAT BEACONS - W3CCX/B FM29JW

50.080 144.284 222.065 432.295 903.072 1296.251 MHz
2304.037 3456.220 5760.200 10,368.200 MHz



THE AMERICAN RADIO RELAY LEAGUE

KAY C. CRAIGIE, WT3P
DIRECTOR, ATLANTIC DIVISION

5 Faggs Manor Lane
Paoli, PA 19301-1905
(610) 993-9623

wt3p@arrl.org



THE AMERICAN RADIO RELAY LEAGUE

Bernie Fuller, N3EFN
VICE DIRECTOR, ATLANTIC DIVISION

17668 Price Road
Saegertown, PA 16433
814-763-1529

n3efn@arrl.org

STEVEN N. WHITE
Attorney at Law

2217 PALOMING DRIVE
WARRINGTON, PA 18976

TEL: (215) 343-6902
FAX: (215) 343-6903

CONTEST LETTER

By: Bill, AA2UK, 99 CONTEST CHAIRMAN

Well it's that time of year again gentlemen. Its the time to get the dust out of those amplifiers, blow up those dry electrolytics in high voltage supplies and check the rain gauges, I mean feedlines and connectors. The Packrat machine is in full swing. There is no turning back, just forge ahead. Our opponents are ready to strike and can smelt blood.

There is still time to ask for help but you do have to ask. Many stations have already asked for assistance and received it. Thanks for the overwhelming response to the questionnaires.

On any given night you can hear the activity, stations testing or looking for tests on the club repeater. Many Rats are getting on new bands. The big question you can ask yourself is have I done all I can do to support the Club in the contest? See you in the QRM.

CALENDAR OF COMING EVENTS - DECEMBER 1998

- 1 Only **54 days** until the 1999 January Sweepstakes.
 - 4-6 **ARRL 160 Meter Contest** See page 109 of the November issue of QST for the rules.
 - 5-6 **ARRL International EME Competition** - 2nd weekend. See Sept. QST for the rules.
 - 7 Check into the **2 Meter Net** on 144.150 MHz at 8:00 PM EST.
 - 7 Check into the **1296 MHz Net** on 1296.100 MHz at 10:00 PM EST.
 - 10 Packrat **board of directors meeting** at the QTH of Phil Miguelez, WA3NUF, or alternatively at the QTH of W3RJW. All interested parties invited. Meeting starts at 8:00 P.M.
 - 12 Predicted peak of the **Geminids meteor shower** around 0440 UTC.
 - 12-13 **ARRL 10 Meter Contest**. 1800 UTC Saturday until 0200 UTC Sunday. See page 111 of the November issue of QST for the rules.
 - 13 **Hanukkah** begins at sundown.
 - 14 Check into the **220 MHz Net** on 222.125 MHz or 224.58/R at 8:30 PM EST.
 - 14 Check into the **432 MHz Net** on 432.110 MHz at 9:00 PM EST.
 - 17 Regular meeting of the Mt. Airy VHF Radio Club at the Southampton Free Library on Street Rd. in Southampton, Pa. Have you qualified to submit a contest log for the January contest for the club by attending the minimum of 2 meetings? Come anyway!
 - 21 Check into the **6 Meter Net** on 50.150 MHz at 7:30 PM EST.
 - 21 Check into the **903 MHz Net** on 903.100 MHz at 10:00 PM EST.
 - 22 Predicted peak of the **Ursids meteor shower** around 1900 UTC.
 - 24? **LEAP INTO THE MICROWAVES** with the Packrats! 903 and above. Every 4th Thursday of the month operate from 8 to 10 PM local time on any band 903 MHz and above. For coordination on those difficult long haul contacts 144.260 MHz is the suggested liaison frequency. So here's your chance to fix what broke in the contest and work all those stations you missed.
 - 25 **Merry Christmas** to all.
 - 28 Check into the **2 Meter Net** on 144.150 MHz at 8:00 PM EST.
 - 28 Check into the **1296 MHz Net** on 1296.100 MHz at 10:00 PM EST.
- Jan. 1999
- 23-25 **THE CONTEST**. Everyone's help in getting at least 51 logs submitted this year is necessary to qualify the club for the Unlimited Class in the club competition. See this issue of Cheesebits or consult your contest package for the rules. See the Dec. 1998 issue of QST, page 96 for the rules.
- Mar. 17 **Homebrew Night** at the regular meeting.

John Miller, N3NIA, SK

One of our members John Miller, N3NIA, became a silent key on 13 Nov. 1998 at the Bradford Regional Medical Center in Bradford, PA. He had suffered a bout with cancer. I know he was a member of The Pack Rats so I thought I would pass the information along. John made weekly skeds with some of the members. John always spoke HIGHLY of the Pack Rats. It was an organization that he really loved. Since his move to northwestern PA, he was instrumental in getting many amateurs, into VHF contesting. Report via Tony, N3KTA, Allegheny Mountains Amateur Radio Group, KB3BLA, McKean County Pennsylvania.

K3GNCs' Fearless Prediction January 1999 VHF Contest

Release 2.0 (Single Operator Category)

<u>Prediction</u> 1999	<u>Rank</u> 1998	<u>Scouting Report</u>
1	WA2TEO 1	WA8WZG will go multi. DaDaDaDaaaaDaDaDaDaaaaaDaDaDaDaaa
2	AA2UK 2	The Jersey Borg Cube has not been seen. Is Ia total attack coming?
3	W3RJW 3	Its good to be the KING - One more time??
4	K1RZ 4	The Terminator has tasted 200K blood. He'll never stop.
5	WA2FGK N/A	Business and weather may stop Herb, but will anyone else?
6	WZ1V 7	Ron has been seen oiling his trusty tommy-gun. Will it be enough?
7	K1UIF N/A	
8	N1DFM N/A	
9	KE8FD 5	
10	WA3NUF 8	
11	WB3KRW10	
12	N2BJ 9	
13	K2TQK 11	
14	WB3JYO 12	
15	N3NGE 20	
16	N3FXA 14	
17	W2UR 19	
18	K2TXB 16	
19	W0UC 13	
20	K3DNE 18	
21	K3GNC N/A	
22	?	
23	?	
24	?	
25	K5MA NA	Only FOUR bands, but great station improvements - Great Contestor
?		CONTENDERS (OTHERS?? Let me know about your plans/station) N3DQZ, W2SJ, WB2VVV, AF1T, W3KM, N0HJZ, WA1MBA, AA9AO, K8MD, WA4GPM, N3OPM, WA0BWE, W2AAA, K2YAZ,?

STATUS UNKNOWN - BUMPERS Someone will get BUMPLD it (they contest) WC2K, N2CEI, WD8ISK, KA1ZE, WA8NJR, W2FU, W3OR, K2SMN?.

TID BITS

It was good to see **Ernie, W3KKN** at the November meeting.

VUCC Award Checking: If you want QSL cards checked for your initial VUCC Award or an update, contact Harry, W3LIT at hbrown@voicenet.com or 610-584-4846. I'll do updates (up to 25 additions) at regular club meetings.

Visitors at the November meeting included: W3SZ, Russell, KB3UI, and the speaker, Dennis, K3DS

1998 LEONIDS VIA MARK, NK8Q/3

First MS activity ever for me. Worked it on Tuesday from 1 AM to 5 AM and again 7:30 AM to 11 AM. First session was better than second. All QSOs were random on SSB within about +/- 10 kHz from the calling frequencies. Had 14 QSOs on 2m, a couple were local, non-MS. Out of those 14 I had 11 new grids, including 6 grids in Florida, Kansas, Minnesota, and Wisconsin.

I also worked 6m and had about 24 QSOs with about 6 new grids filling in holes. The most exciting new grid on 6m was FN84 in New Brunswick, Canada. The burns were about three times as long on 6m, as can be seen with the QSO rate, proving the MS burn time being proportional to frequency.

Wednesday morning I tried a similar operation, however was distracted by clear skies. Tried to photograph some meteors, however all I got was tired and cold! Checked 2m and 6m before, during, and after the visual observation time from 2 AM to 4 AM and only heard locals who were wondering where all the activity was. At least the lack of activity correlated well with the lack of streaks I saw in the sky.

I think that all future MS activity will be disappointing for me after this first spectacular event, however I look forward to being wrong!

SWAP SHOP:

(send all ads to the editor)

FOR SALE: Kenwood TS-440S/AT HF Transceiver with Microphone, Mint asking \$625, Alex, N3DGO, 610-525-3400, n3dgo@crols.com.

FOR SALE: Telechrome 3508 Signal/Waveform Generator, \$20, Jim, W3JIE, 215-342-9343.

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$12 plus SASE for printed CERTIFICATE. Wanted CallBooks before 1970 and QST's before 1940 will buy or trade. Also looking for 1x2 Ham Radio License Plates for my collection. Ron Allen W3OR, PO Box 73, Bethel, De. 19931-0073 or call 302-875-1100.

FOR SALE: Kenwood TM-731 Dualband 50 Watt 2 Meter/440 FM Transceiver with Extended Transmit/Receive, Up/Down Microphone, Mobile Mount, Box and Manual, Mint at \$325, Dennis, N3DCI, 215-938-8820

WANT: Kenwood FM-741 or TM-742 Triband Transceiver, Dennis N3DCI, 215-938-8820.

MORE TID BITS

W3RJW reported that the 50, 903 and 2304 MHz beacons are still off the air until Jack Kauker, N3DQZ, can retrieve them from the top of the PFCO Building for repair.

The experts consensus for the next Leonids peak is November 19, 1999 at 0150 UTC. With the 14 hour offset this year my prediction is for 1200 UTC on Nov. 18 with a "meteor per hour" rate of 2,200 to 5000. The earth crosses the orbit of P/Temple Tuttle 622.5 days after the comet. In any case, I will be taking the day off BEFORE the peak next time. :-) 73, Jon N0JK

Packrat Tee Shirts, Jackets, or Shirts. Contact Dick, N3AOG at 215-443-9965 or at n3aog@compuserve.com to express your interest in getting Packrat Tee Shirts, Jackets, or Shirts.

222 Midwest Net Tuesday Night. Ifi all, Gary KE8FD and I (K8TQK) will begin the net on 222.150 at 0130Z by looking South. At 0140Z we will look East, at 0150Z we will look North, and at 0200z we will look West, and then at 0210Z we will look South again. We will setup skeds on the return. 73's Bob. Bob K8TQK, bmathews@bright.net

New 432 beacon in EM76. I have added a new 432 MHz beacon to my site. Now operational are 50,144, 222, & 432. Frequencies: 50.070, 0.350 watts to dipole oriented n/s, 144.300, 20 watts horizontal omni, 222.069, 3.5 watts to horiz. omni, 432.300, 15 watts to horiz. omni. Call: NS4W/b, Loc: 3000' asl near Lafollette, Tn, Grid: em76vj, Time: 24 hours / day. I now have almost 2000 miles logged in trips to the Site since this spring. Good vhfing, Bert - NS4W

CHEESEBITS SUBSCRIPTIONS

Cheesebits subscriptions are available to everyone interested in activities and information from the VHF through the microwave frequencies. Subscriptions are for 1 year of 12 issues. For a subscription, send the following information:

Name: _____ Call: _____

Street Address: _____

Town: _____ State: _____ ZIP: _____

Subscription Rate: \$10.00 per year (USA), \$12.00 (Canada), \$15.00 (Worldwide)

December 1998

Send to: SUBSCRIPTION/ADVERTISING MANAGER;

Bob Fischer, W2SJ, 7258 Walnut Avenue, Pennsauken, NJ 08110

1998 LEONIDS VIA JOE, AA3GN

Not having much MS experience I was a little hesitant to just dive in and try the Leonids. But I thought I'd just listen in on Monday, 11/16, and see what it was about. I had heard scatter QSO's done using the MS "protocol", with some taking 30 minutes or so to complete. But this wasn't happening here. The meteor burns were so long that both sides could make the entire exchange in one "burn". So I thought - what the heck - I'll just jump in and try it. I made some nice contacts, for a couple of new grids. In fact, several times, I was able to tail-end another QSO to make multiple QSO's in the same burn!

Monday 11/16 seemed to have slightly more burns, with more western grids heard - out to DM98. Tuesday 11/17 the activity was up but didn't hear anything that far west. Tried on 432 with K4TO, LM77, but heard nothing. On both days, however, I was hearing the most with the antenna pretty much due west. On both days I operated from approximately 6:45 - 8:00 AM local. I guess my best DX was W0VD, EM27, MO (1050 mi).

Conditions on 144.200 were strange. One moment there was total silence, or just someone calling CQ scatter. The next moment the frequency was filled with the jumble of a hundred calls. If you were lucky, you could pick one out, call him, and he would come back in the clear. A better strategy was to listen on .200 for the burn, then immediately go to your other VFO (at a few kc away from .200, in the clear) and call CQ scatter. This produced several Q's, as did calling on a clear spot 5 or 10kc away from .200, with the clock - 2nd and 4th quarter minute intervals. Many stations were not calling on the clock, which made it confusing at times.

Already predictions are coming in that next years Leonids will be even better. I'm hooked, and will be there! 73, AA3GN

TOWER MOUNTED PREAMPS

by Gary Dallas, W4YHO

Until recently I thought that tower mounted electronics would be nothing but problems and said I would never put anything electronic someplace where I couldn't get to it easily. And everyone knows how much I -hate- to climb towers. However, I finally decided the benefit outweighed the possible risks and two years ago I mounted 1296 and 2304 preamps up on the tower.

Now I will admit that the base of my microwave tower is just outside the shack so I wasn't suffering too badly from line loss. But, when I raised the tower to 60 feet, I started thinking about how to squeeze a few dB's out of the receive path. Since my equipment needed preamps I decided to try something "new" and mount them up on the tower.

First problem was how to handle the T/R switching. There are a number of configurations that can be used to perform T/R switching around preamps. Most important to me was to have the default, no power applied path result in a connection to the antenna. If something went wrong, I wanted to be able to have an antenna. Next I decided that I wanted the input of the preamp to be terminated except during receive. I have no real reason for this other than it seemed like the safest thing to do.

I ended up with a configuration that used two SPDT relays in front of the preamp and two coaxes down the tower. I had lots of left over "too short" pieces of coax from the previously shorter tower that would be perfect for the receive side coax. Yes, the receive signal goes through two sets of relay contacts (and associated connectors) but I decided that the protection was worth a few tenths of a dB of loss.

The first SPDT relay switches the antenna between the transmit coax on the normally closed side and the preamp relay on the normally open side of the relay. The second SPDT relay switches the input of the preamp from a termination on the normally closed side to the antenna relay on the normally open side of the relay. Both of these relays were the fancy hermetically sealed variety that I had accumulated over the years.

Weather protection for the 2304 preamp and relays is a small metal outdoor electrical box. After installing this box, I decided that the weight and difficulty hanging it up on the tower wasn't worth the ruggedness of the enclosure and went for something different in 1296.

The 1296 relays and preamp are tucked into a short piece of 4 inch PVC pipe with a cap glued onto the top and high density foam stuffed into the bottom around the coaxes. The PVC pipe is simply clamped to one tower leg with stainless steel hose clamps. Don't forget to leave a nice drip loop in the coax coming down from the antennas to keep the water from running into the enclosure.

I made up a simple "Radio Shack special" control box for down in the shack to supply power for the relays. It uses a couple of relays to provide some simple sequencing and to translate the +12V control signals to the +28V the relays required. An old piece of rotor control cable provided the wires necessary to control everything up on the tower.

And it's still working after two years. Did I go too far in trying to protect the preamps? Maybe. But they are still working and I haven't had to climb up there in the middle of winter to fix anything. Now, what else can I move up there????

1998 LEONIDS VIA JOE, KU3T

KU3T started working the Leonid meteor shower at about 0300 UTC 11/17/98. I listened to the activity on 144 MHz but must have been during the "calm before the storm" because didn't hear much, just occasional short, weak pings. Fired up the 432 amp and turned the array west. Didn't hear anything, so alternated CQs on CW and SSB for about an hour. Worked N3KRE in Willow Grove! (Not MS) Didn't copy any pings, just the usual noise from the neighborhood. Went back to 2m around 0500 UTC and the band was jumping. With the antennas west, heard the local guys working into the west and southwest. Tried a few calls in one direction, then moved antenna and called again. With 150 W it was tough to compete with the "big" signals on the band, so I adopted a strategy of sitting on 144.195 and waiting for the increase in the noise floor, then picking out calls from the din and answering the stations I could hear. This worked pretty well and I got my first at 0734 with W4WDH in EM83. Noticed that the reflections seemed to peak about every 15 to 20 minutes with some reaching S9 or better for at least a minute or two, then the band was mostly quiet with some weak bursts until next peak. I tried again off and on at 432 using different beam headings SW to N without any success at all. I have to believe that with the strong burns at 144, there was propagation at 432 as well. All in all, I worked 6 new grids using a 17 element yagi and 150W on 2 meters. It also renewed my enthusiasm to get IISMS up and running here to take advantage of the daily "meteor storms" of underdense pings that occur. Hope Leonids 1999 is a good one, too!

ONE HAM'S CONTEST IS ANOTHER HAM'S CANDY

By Rick, K1DS

I was actually surprised when Ron told me that he hated operating contests. I love them, or at least I think I do, as I anticipate each one with delight, and pine when some business or family event interrupts the pleasure of a full effort, as it is this year, with a business trip knocking out Sunday of the January VHF SS. Sound familiar? Since I started in Ham Radio as a Novice in 1959, I have been hooked on the competition of the Novice Roundup, Sweepstakes, the venerable and retired VE-W QSO Party, DX competitions, and in the past 25 years, the VHF SS and QSO parties. What is the challenge? Well, for each of us there must be a motive, and since winning a radio contest does not get you more food or money, there is a self-appointed task that generally drives each of us to research the dates, get the proper gear going, and then actually sit down and make those two-way contacts to roll up the points.

If you've got a great site, a substantial station, and the ability to get on the air regularly, I can understand that contesting may seem like drudgery. After all, spending many hours in front of the rig in an apparent race to get in all those contacts, knowing that there will always be someone out there with a bigger and better station, at a higher and more densely populated location, there is a limited reward that can be achieved. Several years ago, at Dayton, I attended a seminar at which a ham described his move from CA to CO, after having made mega-bucks in the software industry. He bought a substantial piece of land, got contractors to set up lots of towers and arrays, set up the top-of-the-line contesting stations for HF, and got first class guest ops. But he never was able to achieve his objective of beating the East-coast Big Guns, "who had a DX pipeline to Europe." Despite all the time and effort, he never seemed to be able to achieve the more modest goals that each of us have probably set for ourselves.

Now in my second year as a Packrat, having experienced one full year's cycle of club and operating events, and having been a VHF op for 20+ years, I can say that there are personal goals that drive me to participate each contest, as best as I can, despite my limitations of having an antenna restrictive covenant in a dense housing community. This past January, I was part of the group effort at K3EOD for the first 12 hours, and then after a few hours sleep, went out as a rover.

My very first VHF June contest participation came in 1971, just as I was finishing my internship at Boston City Hospital. It was a long and arduous year, and one night in the spring, there was a respiratory technician with one of those new 2 meter FM Drake walkie-talkies, the kind you needed two hands to hold and operate, and he was chatting with his pals in the Waltham Amateur Radio Club, better known as the "Heavy Hitters," through the 146.04-64 repeater. It didn't take long for me to be at a club meeting, get one of those as a loaner, and then get involved in a weekend of total escapism on top of a hill overlooking Boston. Who remembers how many contacts we made then, or what we perceived as being long-haul? What I do remember is driving late Friday night to get a 220 rig, that had one of those twin-triode amplifiers that put out about 8 watts, and being able to make about 12 QSOs on 220!

I was drafted to serve in the Air Force following internship, and hamming in Lubbock, Texas, was a novel event also. This was the starting end of tornado alley, and the locals were well organized with a fully equipped communications trailer with crank-up, foldover towers, antennas, rigs, and portable power. The local 146.94 repeater had pulse-dial autopatch capabilities and was the pride of the plains. Hamming revolved around license classes to get more ops and Field Day. One local had a pair of 4CX250s and a quad of yagis at 60', but all he seemed to be able to work was the local gang and an occasional contact in Dallas, about 300 miles away. There really wasn't much in the way of VHF operations there, except for all of us using Heathkit Twoers for foxhunting. After finishing my 2 year stint, my hamming operations were tabled for two more years of medical training in Boston, and then once we moved to RI, and bought a home, I was able to get back on the air. The big compromise was location, as the perfect family home, price and location was at the bottom of a hill, and that hill was directly west of me, effectively blocking most VHF activity. I even

had trouble hitting many local repeaters unless the antennas were substantially raised. This was the beginning of my search for alternate locations for hamming activities, as the pleasures of operating from a home location were not in the cards for me. One saving grace was the initiation of satellite communications, as the passes over the Atlantic enabled a host of contacts into Europe, Scandinavia, Russia, South America, and even Africa. My toughest challenge in getting the WAS-Satellite certificate was working Hawaii, as there was only a 30 second window of mutual visibility between RI and HI, and that of course, was on my west horizon. I managed to hook up with a ham who took his equipment to the beach in his car, actually a submarine captain from the Navy, on shore leave!

The highest hill in RI is Jeremoth Hill, at 860' ASL. It is completely blocked with 60' trees, commercial radio towers, and is also now home to a VHF buddy of mine up there, Ed Shekelton. RI sits entirely inside FN4I, and is generally a sought after grid on the higher bands, as activity above 432 is scant. Where could I go and be successful in my quest to be an active contester, and even try to be competitive? My neighbor, K1PAM had the same visions, and he had some VHF gear. Between the two of us we managed to have a four-band low-power operation, and put it all in his van, and traveled to various locations in campgrounds and shore points over the years. Most were exercises in futility, as we were hit with snow storms, ice storms, equipment problems, and universally wound up with minuscule scores, but the challenge of trying to do just a bit better every time had gotten to us. We met a local ham who was a grad student at Brown University, and one thing led to another, and we were setting up our contest station atop a nine story physics building, that had nicely arranged an elevator to the top, a telescope observatory with desks and chairs in which to operate, AC lines, a railing for antenna masts, a convenient lavatory downstairs. We were even able to store most of our bulky masts, antennas, rotors and amplifiers in the utility room. For 9 years, this was the spot from which we operated the June and September VHF QSO parties, the August UHF event, and the January VHF SS. The winters were a challenge, as there was no heat in the observatory, and our quartz electric heater had a limited effect. The wind-chill and icing atop the building could also stunt our effort. Usually 3-4 of us would get together and try to operate at least the first 12 hours, and then more time during Sunday, but often career and family obligations made us take down by 5 PM. Bit by bit, we added bands through 1296, and then added 10G. AM 6154s were purchased and modified for 2, 220 and 432. We stacked yagis for 2 meters. We got a full sized 6 meter beam. We got a quad array for 432. Then one May we went to get ready to contest and found some items missing, like masts and power cables, only to find out that an environmental survey had been done of the physics building, and it was in need of an HVAC overhaul, and a fresh-air exchanger system to improve the air quality within the building. There was a mass of sheet metal ducting, huge blower motors, and no way that this site was going to be useable again. I tried to move operations to Neutakonkenut Hill, the home of the Providence Radio Association, a venerable contesting club, of which I was an active member. The PRA has been atop the hill since building a clubhouse there in 1957. The land is under a nominal lease from the communications company that owns the local newspaper and radio and TV stations, and right next door to several commercial installations, including the 50 KW transmitters and 300' towers, with all sorts of antennas on them. Although it was an adequate HF location, VHF operation there was troublesome from the intermod aspect, as well as maintenance of antennas and feedlines, considering that this was a remote location, a parking spot for lovers, and a frequent target for vandalism. The commercial setup had alarm systems and barbed wire perimeters. We had to rely upon steel shutters for the windows and doors, and heavy conduit to protect the coax, and a barbed-wire shield for the tower.

Alas—the rover category! How can you keep a guy busy hamming who doesn't have a great VHF location, high power, big antennas or operator density? By putting him and his gear in a vehicle, and moving from spot to spot to operate, providing extra QSOs for his conferees, while providing the challenge of finding new vistas, keeping warm and fed, batteries charged and the gear operating.

As K3GNC has given us a prediction table and new goals, I too, have set my sights on achievable results, and the thrill is being able to complete or come as close to the goal as possible. Bill, AA2UK has set a goal of getting 20% of club members on a new UHF band; I am seeking 2304 gear. At least I have the looper antenna and an TF in hand! For those of us, like me, who are unable to have active radio setups at home, exploring new grids and rover sites is one of the challenges of VHF contesting.

Additional challenges include making the set-up semi-permanent, so you don't have to go through the set-up and tear-down of the station from the family vehicle with each outing, avoiding QRM with other rovers at the same site, finding places for pit-stops, and keeping a good log. As we enter the final countdown to VHF SS '99, let's each give thought to how our efforts give us not only a great club score, which provides a focal point for our group, but also what internal needs are satisfied by being in the fray. 73, KIDS

AND MORE TID BITS

Hot Air SMD Soldering Station. The Summer issue of Communications Quarterly has an article titled "A Hot Air SMD Soldering Station for the Home Workshop by Peter, K1ZJH. The major parts consist of a Weller Soldering Station and an aquarium air pump. Makes the soldering of tiny chips and IC's much more manageable.

Available on W3KM's web site: <http://www.qsl.net/w3km> Updated files for computer logging in the Jan SS. UPDATES.zip containing the Pack Rat checklist, 'Good Calls' file and 6-digit file can be downloaded.

Index of Technical Articles in past issues of Cheese Bits

<u>Issue</u>	<u>Subject</u>	<u>Author</u>
Jan. 1992	50 MHz Receive Converter	WB3JYO
Feb. 1992	Microwave Frequency Standard	K0KE
Feb. 1992	Pin Diode IF Switch and Attenuator	WB5LUA
Feb. 1992	New Twist in Microwave Transverter	WA5VJB
Mar 1992	902/903 MHz DL6WU Yagi Match*	N3CX
Apr 1992	Relationship of Sensitivity and NF	KB3XG
May 1992	24 Volt DC/DC Converter	GW4LXO
June 1992	The Strength of Masts*	N3AOG
June 1992	20 Watt 903 MHz Linear Amplifier	WA3JUF
Jul. 1992	Andrew Coaxial Cable Information	Andrew Corp.
July 1992	Mods for the SHF Systems 540 MHz LO	WB3JYO
Aug 1992	Mixer/LO Mod for the 903 MHz No-Tune Xvir*	N3CX
Aug. 1992	Tips for using P.I. Brick Oscillators	WA3IAC
Oct 1992	3456 MHz Isolator/Circulator*	WA3JUF
Nov 1992	A "Crunch-Proof" 144 MHz Receive Converter*	WB3JYO
Nov 1992	144 MHz GaAsFET Preamplifier	G1WBZ
Dec 1992	144 MHz Local Oscillator*	WB3JYO
Dec 1992	1 Watt 2304 MHz Linear Amplifier	WA3JUF
Dec 1992	Hybrid Power Splitters*	WA3IAC
Dec 1992	Plumbing Parts as 7/8 inch Hardline Connectors	WB9GKA
Jan 1993	High Performance 222 MHz Transverter I	N3CX
Feb 1993	High Performance 222 MHz Transverter II	N3CX
Feb 1993	28 MHz Low-distortion Post Amplifier*	WB3JYO
Feb 1993	2 Meter II' Load/Attenuator*	WA3JUF
Mar 1993	Motorola Impedance Matching Program	Motorola
Mar 1993	A No-Tuning Power Fct Pre-Amp	G4SWX
Apr 1993	Intermodulation Distortion	N3CX
Apr 1993	High Performance 222 MHz Transverter III	N3CX
May 1993	A Solid State 6 Meter Amplifier	Motorola
May 1993	Phase Lock Loop Source Modifications*	WA3JUF
May 1993	DJ9BV 144 Yagi Designs	DJ9BV
June 1993	Waveguide Data	-
July 1993	144 MHz no-tune Preamplifier	G4SWX
Aug 1993	Tests on the NE/SA600 NEC IC	WA2OMY
Sep. 1993	28 MHz Low-distortion Post Amplifier	WB3JYO
Oct. 1993	A 144 MHz Preamplifier*	WB3JYO
Nov. 1993	Push-Pull Mosfet Power Amplifiers	WB3JYO/KB3XG
Dec. 1993	144 MHz Band Pass Filter*	WB3JYO
Jan. 1994	II' Switching*	WA2OMY
Feb. 1994	DC/DC Converter	WA6CGR
Feb. 1994	A 144 MHz Transmit Converter*	WB3JYO
Mar. 1994	Hints & Bits - Power Output Monitoring*	WA3JUF
Apr. 1994	Gary's Test Equip. Corner / Power Meters	WA2OMY
Apr. 1994	144 MHz Transmit Mixer*	WB3JYO
May 1994	Hints & Bits - Coaxial Antenna Relays*	WA3JUF
May 1994	Hints & Bits - Driving Solid State Amps*	WA3JUF
May 1994	Gary's Test Equip. Corner / Directional Couplers	WA2OMY
June 1994	144 MHz 2N3866 Linear Amplifier	WB3JYO
June. 1994	6 Meter Scatter	WB5KYK
July 1994	More Pipe Cap Maria*	KB3XG
July 1994	Notes on HP 432/478	N5GO
July. 1994	144 MHz SD1273 Linear Amplifier*	WB3JYO

Index of Technical Articles in past issues of Cheese Bits Contd.

Aug. 1994	Gary's Test Equip. Corner / Signal Generators	WA2OMY
Aug. 1994	AM-6154/55 on 222 MHz*	WA3AXV
Oct. 1994	Some Thoughts on 432 Meteor Scatter & Shower Data	WB5KYK
Oct. 1994	Using the HP8761A Relay for a T/R Switch	WA3JUF
Oct. 1994	Power Supply and Control for DEM No-Tunes	WA3JUF
Nov. 1994	Hints & Tips For Tower Mounting	N1DPM
Dec. 1994	Parallel MMIC's*	KB3XG
Dec. 1994	9913/N Connector Assembly	-
Dec. 1994	Hints and Bits: Building Transverters*	WA3JUF
Jan. 1995	Temperature Compensation for Crystals*	WA3JUF
Jan. 1995	6 Meter FM Base Antenna	WA3AXV
Jan. 1995	More AM-6154/55 PROBLEMS*	WA3AXV
Feb. 1995	Hi-Gain Antenna Control Box Modification	WA3AXV
Feb. 1995	Microstrip Tuning Techniques	Kerry Banke
Mar. 1995	Cheap Microwave Detector*	KB3XG
Apr. 1995	10 GHz Transverter, "All the boring details", Part 1*	KB3XG
May 1995	10 GHz Transverter, "All the boring details", 10 GHz Band Pass Filters*	KB3XG
June 1995	Errata: 10 GHz Transverter, "All the Boring Details"*	KB3XG
July 1995	10 GHz Transverter, "All the boring details", Part 2 1/2*	KB3XG
Nov. 1995	Stripline Power Dividers	WA3AXV
Dec. 1995	Using the Chapparral 11 GHz Superfeed at 10.368 GHz	N1BWT
Jan. 1996	Using the MFJ-484 Beacon Keyer	WA3JUF
Jan. 1996	Do You Know where your Microwave Transverter Is?	WA3JUF
Jan. 1996	Use of Microwave Phase Lock Sources	WA3JUF
Feb. 1996	Antenna Height and Stacking	OH1ZZA/NN0Y
Mar. 1996	New GaAs MMIC Amplifiers	Minicircuits
Mar. 1996	RF Connectors	N3AOG
Aug. 1996	Using Yagi Organizer to Design the New W3CCX 6M Antenna	WA1YHO
Aug. 1996	Improved IMD Performance for the TS-850 Transverter Output	WA3U
Oct. 1996	Waveguide Around the Rotor	WA3AXV
Nov. 1996	Antenna height and Forward Scatter	VHF Reflector
Feb. 1997	T-Matching MMICS	WA3IAC
Feb. 1997	VHF/TIP - N Type Connectors	KP4XS/4
Feb. 1997	2304 MHz BP Filter	N6CA/SBRS Newsletter
Mar/Apr 1997	Six Position Transverter IF Switch	W3KM
May 1997	HP Power Sensor Check	WA3AXV
June 1997	Microwave Comb Generator for Receiver Testing	G4JNT
June 1997	Power Conditioner for the Qualcomm 10 GHz One Watt PA Modules	G4JNT
July 1997	Getting Started on 24 GHz	KB3XG
Aug. 1997	Getting Started on 24 GHz Contd.	KB3XG/WB3JYO
Sept. 1997	24 GHz Transverter	KB3XG/WB3JYO
Nov. 1998	VHF Log for Windows	W3KM
Nov. 1998	Frequency West Brick Problems - 24 GHz Continued	KB3XG/WB3JYO
Dec. 1997	24 GHz Transverter - In Search of a 24 GHz Transistor...	KB3XG/WB3JYO
Jan. 1998	Modifications of the AM6154-6155 for 432 MHz	W3RJW
Feb. 1998	SMA to WR-42 Waveguide Adapter	WA6EXV
Mar. 1998	11.644 GHz Branch Hybrid	KB3XG/WB3JYO
May 1998	More P.I. Local Oscillator Modifications	W3KM
Dec 1998	Tower Mounted Preamps	WA1YHO

* Appeared in Packrat Notes, 1995 Mid-Atlantic VHF Conference, September 1995

(302) 478-2757

Since 1977

AMATEUR & ADVANCED COMMUNICATIONS

Amateur and Shortwave
Closed Sunday & Monday

GISEL
K3WAJ

3208 Concord Pike Rte. 202
Wilmington, Delaware 19803

609-541-0120
FAX 609-541-2546

Bob Fischer Company, Inc.

AERIAL LADDERS · CRANES · MANLIFT EQUIPMENT

BOB FISCHER
PRESIDENT

2785 LINCOLN AVE.
CAMDEN, N. J. 08105



HARRIET SOLTOFF
TRAVEL CONSULTANT

616 SOUTH THIRD STREET
PHILADELPHIA, PA 19147

(215)
RES. 947-4483

THE R. F. CONNECTION

*"Specialist in
R F Connectors and Coax"*

Joel Knoblock
301/840-5477
Fax 301/869-3680

Order Line 800-783-2666
Suite 11, 213 N. Frederick Ave.
Gaithersburg, MD 20877

Graphic Design Illustration Production



Lynne D. Whitsei

209 Frog Hollow Road
Churchville, PA 18966
215 353-5730

RICHARD E. COMLY



100L DIE & MACHINE CO., INC.
2055 BENNETT RD. PHILA., PA 19116



(215) 676-1900
FAX 934-8287

(215) 745-6173
(609) 266-3568
(800) 5-EASY-DO



COMPU-SIMPLE, INC.
COMPUTER APPLICATIONS FOR SMALL BUSINESS

ELLIOTT T. WEISMAN
Consultant

P.O. BOX 7161
WILMINGTON, DELAWARE 19803

AUTHORIZED DEALER
ROMN TOWERS

TEL 908-776-2522
FAX 908-775-3635

TELEX-HY-GAIN
ANTENNA SYSTEMS
ROTATORS
TOWERS

PILOT ELECTRIC CO., INC.
1300 HWY. #35
NEPTUNE, N.J. 07753

GENE PILOT

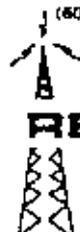


(215) 288-0325

W3HK

GEORGE S. VanDYKE, JR. P.E.

1737 Scattergood Street
Philadelphia, PA 19124



(609) 268-0738

RICHARD CONNOR

RECON Communications

- COMMUNICATIONS TOWER MAINTENANCE
- ANTENNAS, FEEDLINES, TOWERS INSTALLED
- TOWER PAINTING, RE-LAMPING, RE-GUYING
- RF SYSTEM TROUBLESHOOTING
- LIGHTNING PROTECTION, GROUND SYSTEMS

Emergency Service

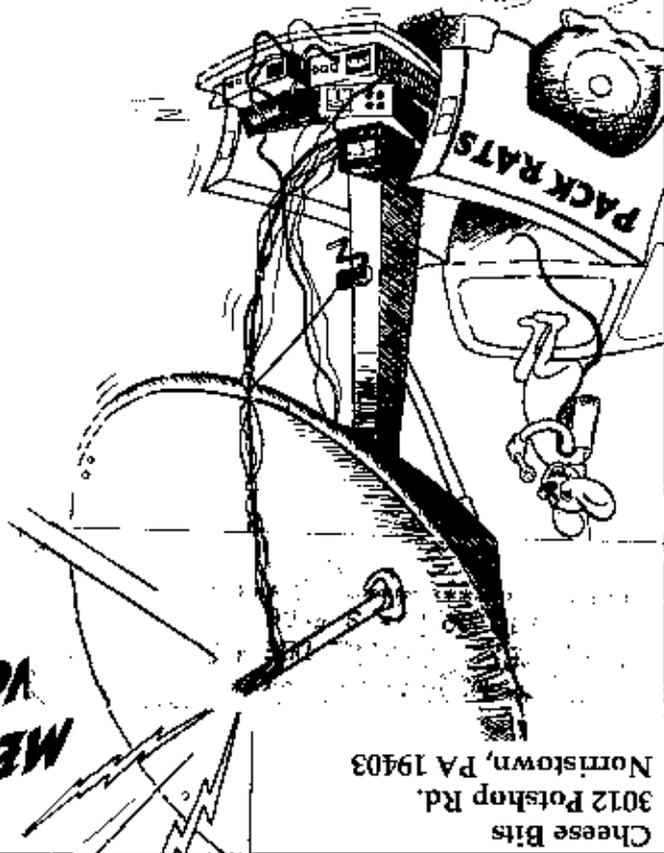
412 Carranza Road
Tabernacle, NJ 08068

DICK HUNTZINGER
W3FD
130 FAIRHILL RD.
CHURCHVILLE, PA 18966

12/97

MEETING
NOTICE

Cheese Bits
3012 Potshop Rd.
Norristown, PA 19403



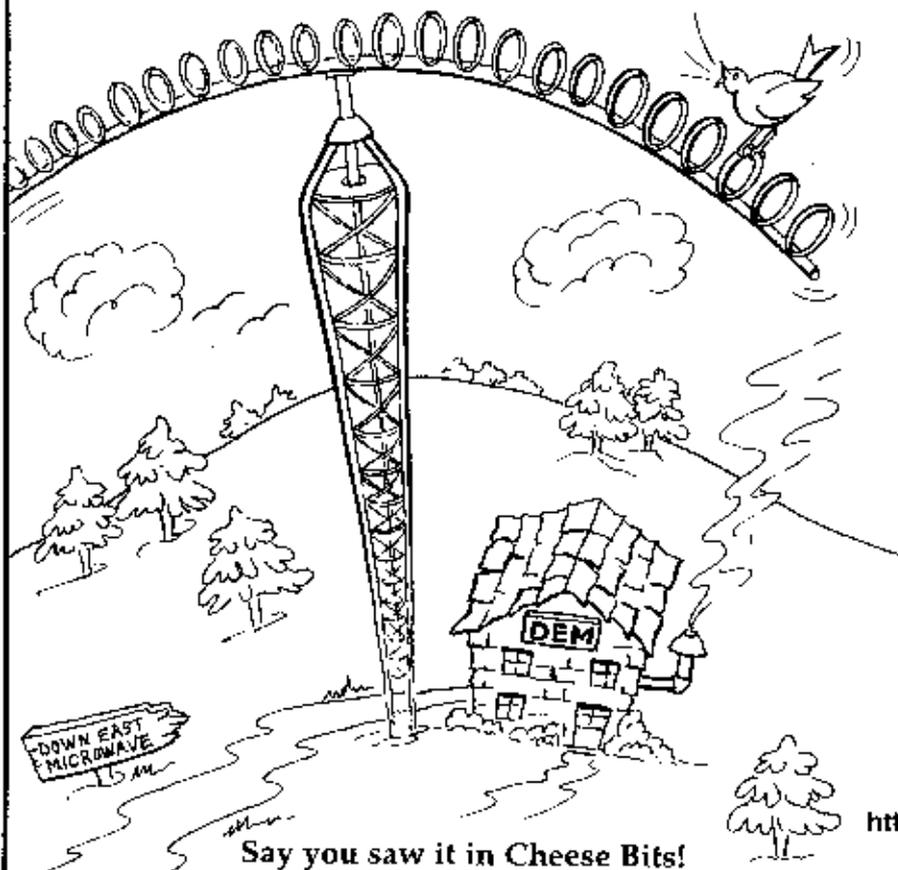
DOWN EAST MICROWAVE

Manufacturers and Distributors
of VHF/UHF/SHF Equipment and Parts
50 to 10,368 MHz

- Microwave Loop Yagis
- VHF/UHF Yagis
- No-Tune Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Components, MMICs, Transistors, RF Modules

For All Equipment & Antennas:
Steve Kostro, N2CEI
954 Rt. 519
Frenchtown, NJ 08825
Tel.. 908-996-3584
Fax. 908-996-3702

<http://www.downeastmicrowave.com/Index.html>



Say you saw it in Cheese Bits!