

MT. AIRY V.H.F. RADIO CLUB, INC.

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL _____

SCANNED TO PDF BY BERT, K3JUV, 2013



ARRL
Affiliated
Club

VOLUME XLII

September 1999

Number 9

MEETINGS

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

CALENDAR OF COMING EVENTS - SEPTEMBER 1999

- 2 Birthday of Hiram Percy Maxim, WIAW, on Sept. 2, 1869.
- 7 **Labor Day**
- 11 Mt. Airy VHF Radio Club **Board of Directors meeting** will be held at the QTH of Brian, N3EXA at 8 PM. Call (215) 257-6303 for directions. Directors and all interested parties are welcome.
- 12 **Delaware-Lehigh ARC Hamfest** at the Schnecksville Fire Co. 4 miles N on Rte 22 on Rte 309 N of Allentown, PA. TI on 146.7.
- 11-13 **September VHF QSO Party**. Starts 1800 UTC Saturday and continues thru 0300 UTC Monday. See Aug QST, page 100 for rules. Get on and at least give out a few points. Participation Pins available for everyone making 25 or more contacts. This is the first year for club competition. See the Nov. 1998 issue of QST for club and general contest rules.
- 17 **First indoor meeting** of the fall season of the Mt. Airy VHF Radio Club will be held at the Southampton Free Library on Street Road in Southampton, Pa. All members and interested VHFers are invited to meet and share with us. For directions check <http://www.jj.net/packrats/hamarama.htm>.
- 18-19 **ARRL 10 GHz and Up Cumulative Contest**. See July QST page 100 for the rules.
- 19 **Delaware Valley Radio Assn Hamfest** will be held at Tall Cedars of Lebanon picnic grove on Sawmill Rd. in Hamilton Township NJ. TI on 146.67-. Check: <http://www.slac.com/w2zq> for details.
- 19 **York Hamfest**, York County Vo-Tech High School, 2917 South Queen Street, York Hamfest, PO Box 351, Dover, PA 17315. Talk-In 146.52, Contact 717-764-8193 phone / fax or 717-764-4805 (fax, 24 hours) or www.yorkhamfest.org.
- 23 **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
- 25 **49th Annual SJRA Hamfest** at the Mt. Holly Armory, Exit 40A off I-295N, E on Rte 38 in Mt Holly NJ. VE Sessions. Talk-in on 144.69/145.29. Check: <http://www.sjra.org>.
- 26 Bowie, MD, **FAR Hamfest** (the old Gaithersburg Hamfest at a new location) Bowie Baysox [Baseball] Stadium, Near the intersection of US-50 and US-301, 8645 Tower Dr., Laurel, MD 20723, Talk-In 146.52, 7.290 MHz AM, Contact 301-490-3188, Vendors 703-971-3905
- 25/26 **VHF/UHF World Wide Fall 50 MHz Sprint** 2300Z Saturday until 0300Z Sunday the fourth full weekend of September. See rules in August 99 Cheesebits.
- 27 **VHF/UHF World Wide Fall 144 MHz Sprint**. 7 PM until 11 PM local time on the fourth Monday of September. See rules in August 99 Cheesebits.
- 2 Oct. **23rd Mid Atlantic States VHF Conference** sponsored by the Mt. Airy VHF Radio Club will be held at the Hampton Inn in Willow Grove, PA, 1-215-659-3535. Contact John, KB3XG at johnKB3XG@aol.com for further details or check the Mt. Airy VHF Radio Club web page at <http://www.IJ.net/Packrats>.
- 3 Oct. **HAMARAMA '99** will be held at the Middletown Grange Fairgrounds in Wrightstown, Pa. TI on 146.52 MHz.

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)

September 1999 Send to: SUBSCRIPTION/ADVERTISING MANAGER:

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

VUCC Award Checking: If you want QSL cards checked for your initial VUCC Award or an update, contact Harry, W3IIT at hbrown@voicenet.com.

Packrat Harry, K3HZO's 6 Meter VUCC count is up to 275 grids. Craig, K3CWH's 6 Meter VUCC count is up to 200 grids.

Great Homebrew site, lots practical circuits etc:- <http://www.inito.or.jp/jf10zl/>

Joel Harrison, W5ZN, **BIG TROPO** down this way for the past two days. Sunday we had it due north to Minnesota, although 1296 was the top band. I worked WA0BWE (EM34). Monday morning things were popping to the Ohio area. I worked WA8WZG (EN81) through 2304 and that was it. Last night, the top blew off, I worked Tom through 10 GHz, even on SSB. The 10 GHz SSB signals were 20 over S9 here. The tropo didn't extend much farther to the east, though. I was able to work N2HIT in FN12 and that was it. Great couple of days, though. That's what is unique about amateur microwave activity.....long periods of boredom interlaced with brief, intense moments of excitement! 73 all, Joel W5ZN (EM45 Arkansas)

23 rd MID-ATLANTIC STATES VHF CONFERENCE

Sponsored by the Mt. Airy VHF Radio Club

Saturday, October 2, 1999

Hampton Inn

1500 Easton Road (Rte. 611)

Willow Grove, PA

Hotel Reservations 215-659-3535 or 800-426-7866*

Rates are \$89 to \$99 + 8% tax

Conference Admission: \$24

Free Admission to Hamarama Flea Market with Conference Ticket on Sunday Oct. 3

Hospitality Suite at Hotel Friday and Saturday Night at 7 PM

Lunch and Conference Dinner Saturday at the Hotel

Door Prizes at the Conference Dinner

You don't want to miss the 1999 Pack Rat sponsored 23rd Mid Atlantic States VHF Conference . It's packed with lots of great technical presentations.

We look forward to seeing everyone on Saturday Oct. 2nd. Registration is at 0800 and the conference starts at 0900 on Saturday.

The Hospitality suite will be open Friday (7 PM) and Saturday Night.

Free Ticket to the Hamarama Hamfest the following day, Sunday October 3rd. See the Packrats web page at <http://www.ij.net/packrats/HAMARAMA.HTM> for a map to Hamarama just off of Rt. 232 Middletown Grange Fairgrounds in Wrightstown, PA north of Newtown.

See the Pack Rat Web page for additional information: <http://www.ij.net/packrats>

Tentative Conference Speaker List:

Frank Potts, NC11 - 432 EME/Limited Multi-Op Effort

Matthew Reilly, KB1VC - Line-of-Sight Plot Server

Brian Justin, WA1ZMS, Douglas A. Sharp, K2AD, Gordon Howell, WA4RTS - 1st 75 GHz VUCC

Buz Miklos, WA4GPM - 6 Meter Power using a 4CX1500B

Paul Drexler, W2PED/John Sortor, KB3XG - 1 Watt, 24 GHz Power Amp

David Meier, N4MW - Microwave Activity from FM17

Brian Skuff, ND3F - A Unique Rover Operation

Peter Anderson, KC1HR - A Direct Digital Conversion Receiver

Al Katz, K2UYH/Tom Dinyovsky, KB2AH - 60 Foot EME Dish Project

An afternoon technical session will be held from 2pm to 6pm. It will not be a Noise Figure contest. This session allows hands on data taking, tweaking, and optimization consultants will be on hand to troubleshoot dead equipment. We will have same compliment of HP equipment as last year consisting of a HP network analyzer to 6 GHz, HP Noise Figure meter to 18 GHz, HP Spectrum Analyzer to 22 GHz, Power Meters, Power Supplies, coax adapters, spare GaAs fets, and soldering equipment.

For further information, contact Conference Chairman, John Sortor, KB3XG at 610-584-2489, 610-613-9360 or e-mail at JohnKB3XG@aol.com.

* Local number preferred for the Hampton Inn. Other local hotels can be found at www.bccvb.org/hotels.html or use the link on the packrat web page.

Visit the Mt. Airy VHF Radio Club at:

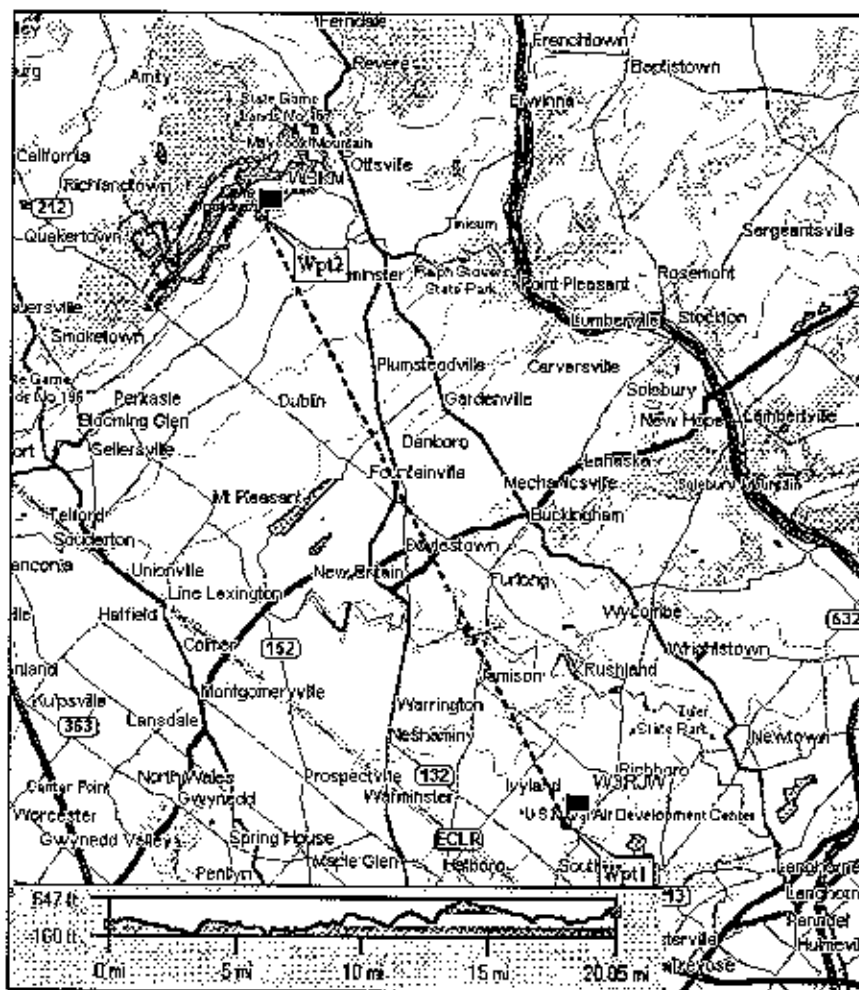
<http://www.ij.net/packrats/>

Check the June 1999 VHF Contest Photos at the Web site

Info on VHF/Microwave Nets, Beacons & Subscription to Cheesebits

Beacons at 50.080, 144.284, 222.065, 432.295, 903.071, 1,296.251,

2,304.037, 3456.220, 5,760.200 and 10,368.200 MHz from FM29JW



Topo USA will also do 3-D renderings using the contour data. While not of any great utility for analyzing signal paths, it is interesting to see what the lay of the land really looks like. Very clever software generates 3-D drawings, complete with shading that actually resembles the shape of the hills and valleys. Below is a view of Camelback Mountain in the Pocono Mountains of Pennsylvania. The software also allows you to rotate and tilt the image so you can view the map from any direction.

The program will also accept inputs from a GPS receiver and plot your position on the maps. The easiest way to use GPS is to buy the matching DeLorme GPS receiver, but the program will also accept inputs from the follow receivers:

- Earthmate™ and DeLorme GPS Tripmate
- Garmin GPS 30, 45, GPS II, GPS II+, GPS III and GPS 12XL
- Trimble Scoutmaster
- Rockwell or a fully compatible NMEA receiver



If you want to plan trips and have the computer plot your progress, then you need **Street Atlas** or similar software.

Visit the DeLorme WEB site and see some of the other features and other products available for your mapping pleasure. This is really neat stuff.

Topographic Maps on your Computer

Ron Whitsel, W3RJW

VHF, UHF and Microwave operators have always been interested in finding the highest spots for operating their radio stations. Most of us have topographic maps of our QTH or of favorite spots we have operated from over the years. Fishing and hunting areas, hiking trails and other outdoor activities may also require some knowledge of the local terrain. Wouldn't it be nice to have topographic maps for the whole country at your fingertips? Well that is now possible with computer CDs from the DeLorme Company (www.delorme.com). **Topo USA**, Version 2.0, offers complete, seamless topographic information for everyplace in the 50 states for a price of about \$100.00. Now that may sound a little pricey at first glance, but read on and see what you get for your money.

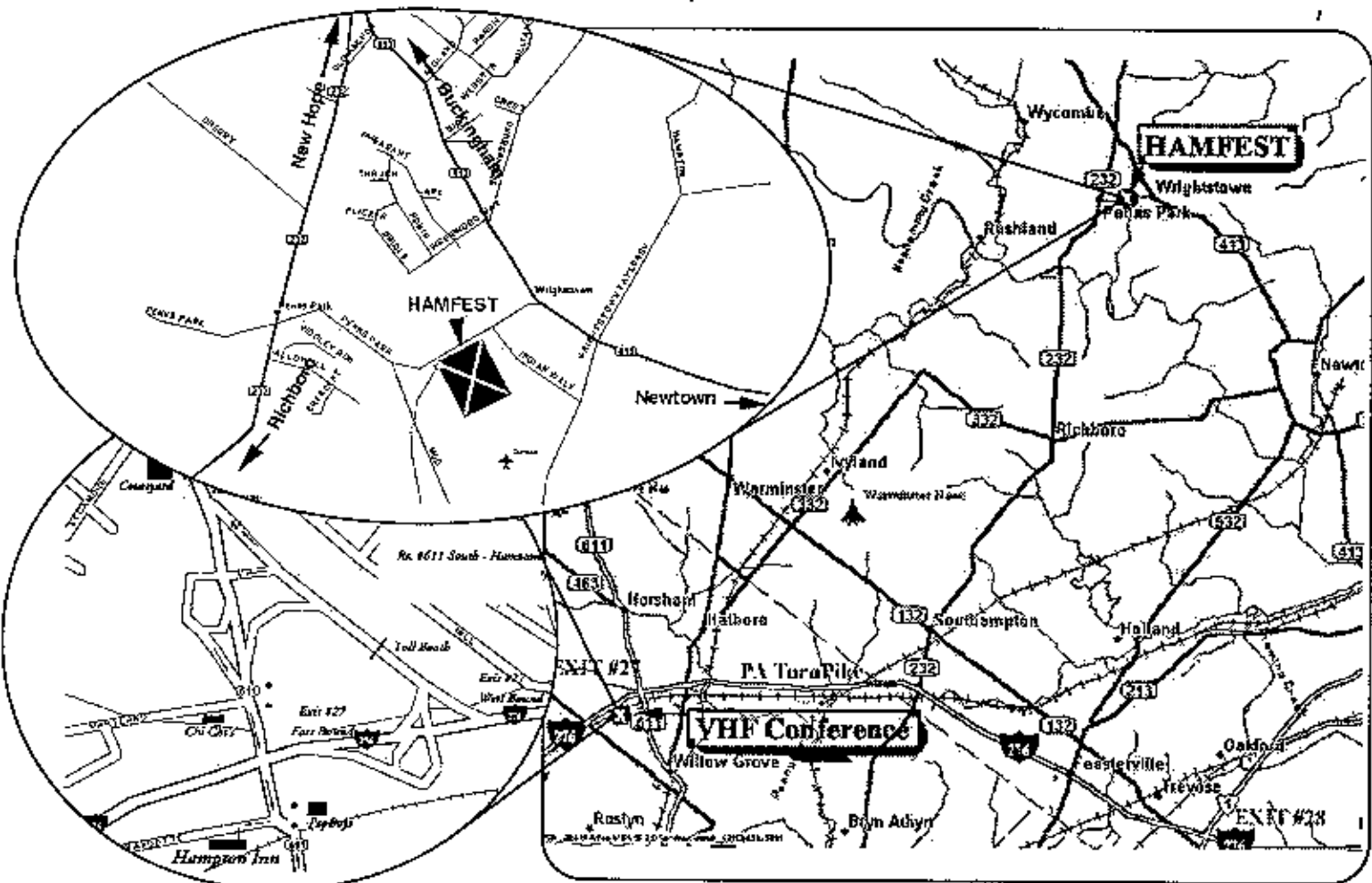
The topo map software is available from DeLorme either as a set of 6 CDs that cover the entire United States (50 States), or each CD is available separately (Pennsylvania is on the 'northeast' CD which also includes NJ, NY and New England). If you are interested in more than one CD then the pricing is such that you probably want to buy the whole set. Besides, how do you know where you will be or want to go in the future. For example, I used my set to look at the area I was going to vacation in this summer. This data was not on the same CD as my home QTH.

There is a lot of information on these CDs so you need a computer with some reasonable horsepower to display the maps. The manufacturer states that as a minimum you have to be running Windows 95/98, have a Pentium 120 MHz processor or better and 16 Meg of ram. This is a minimum. Faster processors, more ram and display accelerators will speed the fetching of data and throwing it up on the screen. This could be particularly noticeable when in the 3D mode.

What does this software do? For starters it can generate Topographic maps with detail up to 20 foot contour intervals. In addition, each map also has all the streets and roads, cities and towns, lakes, parks, wooded areas and everything else you would find on the old traditional government Topo maps. This is not, however, a real good street atlas. If you need to find specific street addresses then you need other software (DeLorme **Street Atlas** for example).

As you move the cursor across a 2D map on the screen, the ground elevation and latitude and longitude are continuously displayed. You can also draw lines and flags on the map to point out specific areas or features. 2D and 3D maps and also profiles can be printed on a printer or can be printed to a file for use in other programs such as PhotoShop. A 'profile' is a side view of the ground elevation between any two points. Want to see if you have clear path between two stations? Just draw a line on the map between the two points of interest and generate a profile drawing of the ground elevation between those points.

Below is a 2-D contour map of the area between W3KM and my home station with a line drawn along the 20-mile path between our station locations. There is a profile of the ground elevation between our two stations that I added at the bottom of the map (pasted on top of the 2-D map in PhotoShop). Dave and I have always had good signals on the microwave frequencies, but not great signals. Notice the elevation peak (647 feet) close to W3KM that effectively means Dave is looking into the side of a hill when looking in my direction! (The hill doesn't show real well on the 2-D map because the contour lines are 50 feet apart with the map scale chosen for the example) However, it's pretty clear from the profile that we don't have what you would call a "clean" path. It doesn't mean we can't work, but it does explain the lack of rock crushing signals over this relatively short path.



More TID BITS

Mark J. Schreiner, NK8Q/3, FN20K1, DX Summit (reference: <http://oh2aq.kolumbus.com/dxs/>). I am a bit concerned that not enough stateside stations use it for VHF. Looks like lots of Europeans are using it all the way up through the bands, while HF is USA and DX. I have noticed that when 6m gets busy there is a fair amount of reporting stateside, probably from HF types that now have 6m in their favorite radios.

I'm sure that many folk will say that there is no substitute for spending time on the air listening, and I certainly agree that spending time listening is very valuable. However, for folk that are too busy to sit by the radio 24 hours a day waiting for the 5 minutes worth of enhancement on any band it might be useful to check into such a website to see a running log of what has been open at what times broken down by band. This can help one decide quickly what bands might prove valuable while others are duds. I know that beacons should be used for propagation checks as well, but what if there is a fluctuating band and during the 5 minutes I spend scanning the bands there is no enhancement so I decide to shut it down and go back to doing yard work. Also suppose that just 5 minutes earlier there was some enhancement. If I had known about it by seeing a log on a web site or reflector, maybe I would spend more time waiting to see if the band will open again, or even open to this area while the enhancement was previously noted a couple hundred miles away. This could help stimulate activity rather than detract from it! Just food for thought.

A new station on 24 GHz, via Paul Drexler, W2PED. I've been feeding a few misc. 24 GHz parts to Paul Wilson, W4HHK in the Nashville area. He's been *very* appreciative as he reports there's really no surplus stuff in the deep South. If you know your ham history better than I do, Paul was one end of the VERY FIRST 2304 EME QSO circa 1965, I think. Paul put together two 24 GHz rigs using surplus mixers, etc. He first built separate Tx and Rx units so that he could do some experimenting (nobody on 24 GHz within 200 miles!). He's just completed a 2nd unit to be able to work his son, N4HHK. Note that Paul Wilson just celebrated a birthday..., 73, Paul Drexler W2PED. Paul Wilson (W4HHK) writes: Hi, Paul. Hooray, hooray... W4HHK worked N4HHK on 24 GHz, 4 Sept over a 1.6 mile path. 599 signals both ways on nb cw Grid EM65 at Clifton, TN on the Tenn. River. My son, Steve, had your 50 mW Po amp. in his rig and I had 100 mW Po. Next tune we'll try the 10 mi. path. An exciting day for me.. and tnx to you...it all worked. It was a weekend of celebrating my 75th birthday! Been out of the hospital a month now... but I was tired when it was all over. Too many batteries to lift. Hi. Hope things are going well for you. Any word on the 1 w. amp. project? Tnx again for all your help. Both rev conv. used your LNA's. 73 for now, Paul, W4HHK. Editor's note: As you might expect, Paul (HHK) has the good taste to be a subscriber to Cheesebits. I first met Paul in the 50's either just before or just after I got out of high school. There was a big gun vhf'er in my hometown in Indiana (W9ZHL) that got me interested in VHF and the local radio club sponsored what was called the "VHF Picnic" every summer. Paul would come up from the Memphis, TN area and several VHFers from the east coast would come. I'm sure that Paul does not remember me, but I'm sure that he remembers the VHF Picnics held every summer. Brings back memories, Harry, W3IIT (W9HQL back then).

The Mt. Airy VHF Radio Club Inc.

The Pack Rats

HAMARAMA '99

Sunday October 3rd, 1999

Rain or Shine

Gates Open: Buyers at 0700 Sellers at 0600

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23 rd Annual

MID-ATLANTIC STATES VHF CONFERENCE

Saturday October 2nd, 1999

9:00 AM to 9:00 PM

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1-215-659-3535

1500 Easton Road (Rt. 611)

Willow Grove, PA.

Admission \$24.00 - Lunch and Dinner at Extra Cost - Banquet Prizes

Conference: Contact John, KB3XG johnkb3xg@aol.com 1-610-584-2489

Speaker list and other information will be on the Pack Rat WEB Page

HAMARAMA '99 **INFORMATION**

Detailed Maps and other info at:
[HTTP://WWW.IJ.NET/PACKRATS](http://www.ij.net/packrats)

NK8Q
Mark Schreiner
610-847-2285
nk8q@amsat.org

N3XEM
Bob Minch
215-822-0779
raminch@bellatlantic.net

SWAP SHOP:

(send all ads to the editor)

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$15 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 TS-440SAT in excellent working and physical condition. It comes with optional 1.8 kHz ssb filter and the voice synthesizer module. Also with hand mic and original cartons. Asking \$650. Chuck WA2ONK, 609-586-7180 or email at c310508@aol.com

W3HFY's Estate Sale. The following items from Hal, W3HFY's shack are being offered for sale by Hal's daughter-in-law, Lynn Grace. See the August issue of Cheesebits. Most items listed are still available. The price on each item is negotiable. Lynn's phone number is 610-258-0231.

UHF TEST

Len, N3NGE: Hello Rats, how did you all do in the uhf contest? Most did poorly I presume, you must turn on the switches in order to make any contacts. Simple but effective. Thanks to the 14 Rats I was able work. For the most part conditions were flat and activity average during the times I operated. The rain was great in spite of damped signals on Sunday am. 3456 was added here on Friday and tested during a 45-min QSO with Joe, AA3GN on Friday night. Basic setup for now, improvements soon I hope. 100mW, 7/8" feed, 76el Blowtorch@100'. The "TEST" served its intended purpose in that it aided in further debug of the station. Fixes included replacement of an intermittent rf relay in the tower top box on 222. TV broadcast noise from PHL is now S4 as usual. Also Hi voltage supply on 1296 gave up the essential magic smoke. As a quick fix I tapped into the plate supply for 903, and found the higher current capacity of this unit to be a benefit. I now can reliably develop an unmeasurable power output (250w slug) with no sags in the voltage as measured at the RF deck. A HV distribution/switching system will be the permanent solution. In any case another opportunity to "tune up" the station and stay in shape on operating procedures. Fun too. Again thanks to all participants, please submit your log to ARRL, what ever the acronym refers to these days, to demonstrate activity. Total = 186 qso's 60 grids 14 Rats wk'd, 52,200 claimed score. My the non participants suffer from dry rot, oxidation, common failure modes, and water in their feedlines until the end of time. Anyone submitting an excuse form in triplicate might be exempted. 73 Len

Riek, K1DS. Only had a few hrs Sat to operate...so took the easy option--start in FN20 when the action is good, and move to FM29 for a few more QSOs. 432 preamp worked OK, but there was a problem getting the amp to key when it was in-line. Rotor decided it only had a 90 degree ability. Backup was armstrong, but had to leave the operating position every time to move the antennas. Had fun anyway, and laser communicator was interesting opportunity with my son, N1XKT. Sunday was a rainout for roving. Tnx all for contacts and patience! CU at the picnic. K1DS

Bill, K1DY. Hi gang, Greetings from one of the stations in the NE. I operated the UHF test from a hilltop in FN54 till I got rained out on Sunday morning. Had all low power battery powered equipment on 222, 432, 903, 1296 and was basically just checking out a rover site for KIWHS in Sept. Best DX was WA2FGK in FN21 on the two lower bands, though I did hear W2UR numerous times also WA2ONK, and a few other FN20, FM29 stations who's calls I forget now. But just didn't have the smoke to be heard. Conditions seemed fairly flat, though LATE Saturday night KITEO was S9 on 903 and 1296! All dressed up and no where to go! Worked 72Q's in 34 grids 9588pts or something like that... Anyway, look for KIWHS in September. We'll be down there with a big crew and we'll be up on 50MHz through 10GHz.

W3HFY's Estate Sale - RTTY/ATV Items. I have a Wynan Research Tridon 2000 450 MHz ATV Transceiver. I have no idea what it is worth and will not make a firm commitment on a price offer until I get an idea of their current going rate. If someone wants it, please offer an honest price for them. If you don't it and have an idea of the value, also please let me know their value. The physical appearance is very good (no scratches other than surface, no rust, tarnish or mildew, at most a little dust), Contact Harry, W3IIT, 610-584-4846 or hbrown@voicenet.com.

TID BITS Contd.

Central States Literature Index's I just ran into the article index that Central States has on their web page. Check it out: <http://www.csvlfs.org/CSINDEX.HTML> It includes an index to various VHF conferences held over the years, QST from 1989 to 1998 (when you want to look up the Jan 91 contest results, etc.), QEX from 82 to 98, another QST index from 72 thru 97, ham radio from 68 to 82, RF design magazine, and software from QEX and QST.

Air Shot (Who was the Rat in the aerial view of the June contest site?). I think that undefined Rat in the air shot is W3KM By his stance and past history I think he's #!@\$\$%^&*. Thank Me later Dave 73 Bob xem. (Ed: My sources says not KM)

Steve Harrison, K0XP, So you think you're an RF injuncar?? If so, try the three quizzes on this site: <http://members.aol.com/rftools/index.htm> Look over in the extreme left side of the page underneath the Index boxes. de Steve K0XP.

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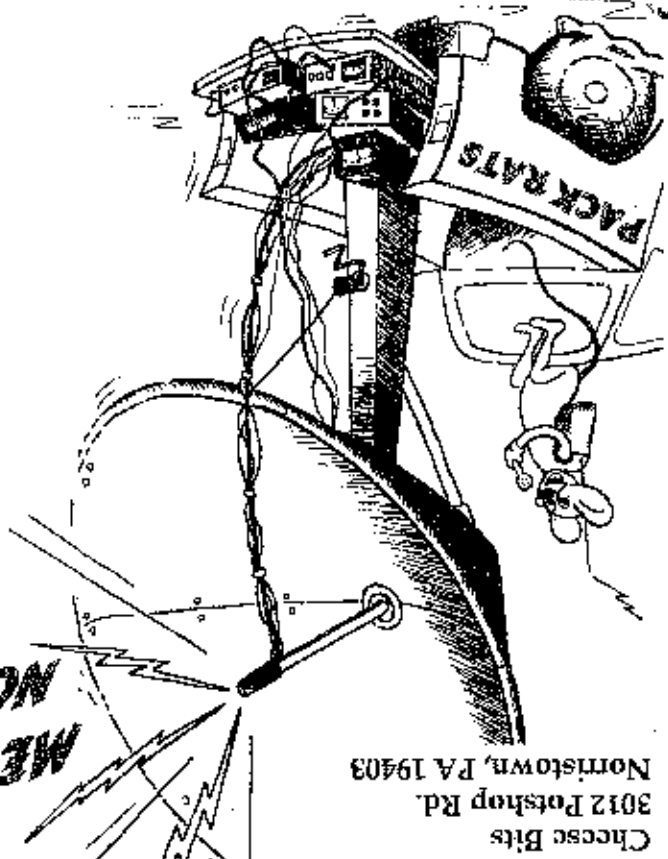
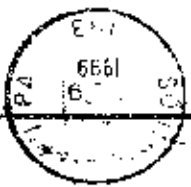
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12/1999

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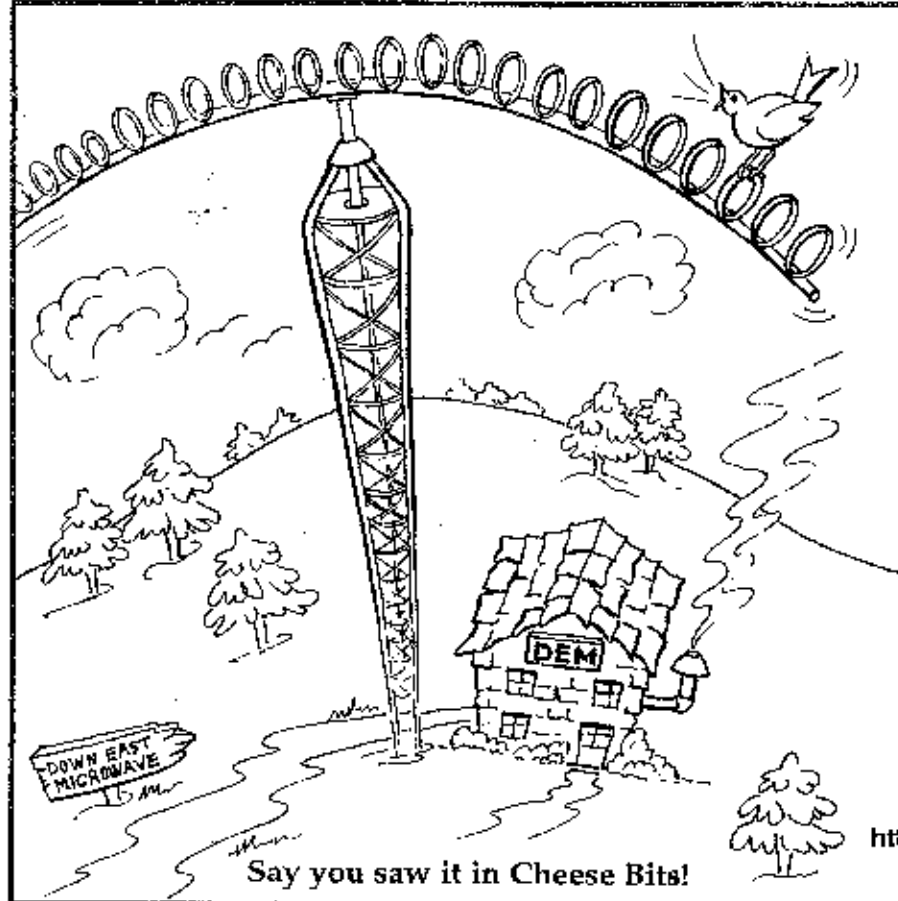
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Say you saw it in Cheese Bits!

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Southampton, PA

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

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(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 FN20LE

OFFICERS: 1998-1999

PRESIDENT:	WA3DRC	Ed Finn, ed_finn@ustc.vlsi.com
VICE PRES:	WA3EHD	Jim Antonacci, jantonacci@worldnet.att.net
REC. SECR:	WA3AQA	Walt Zumbach, wzumbach@bellatlantic.net
TREASURER:	W3KM	Dave Mascaro, dmascaro@gi.com
COR. SECR:	AA3GN	Joe Landis, landisj@nad.com
DIRECTORS:	N3EJV	(1 Yr) Walt Rauscher
	N3EXA	(1 Yr) Brian Taylor
	N3ITT	(2 Yrs) Al Sheppard, alitt@epix.net
	N3XEM	(2 Yrs) Bob Minch, raminch@bellatlantic.net

PACK RAT BEACONS - W3CCX/B

FM29JW Philadelphia, PA
50.080 144.284 222.065 432.295 903.072 MHz
1296.251 2304.037 3456.220 5760.190 10,368.170 MHz

MONDAY NIGHT NETS

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.150 Mhz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW/WA3DRC
9:30 PM	1296.100 MHz	WA3NUF
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 CONFERENCE:	KB3XG	610-584-2489



THE AMERICAN RADIO RELAY LEAGUE



KAY C. CRAIGE, WT3P
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THE AMERICAN RADIO RELAY LEAGUE



BERNIE FULLER, N3EFN
VICE DIRECTOR, ATLANTIC DIVISION

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