



# CHEESE BITS

**W3CCX**  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Incorporated May 1956

Volume XLVIII

JANUARY 2007

Number 01

## PREZ SEZ

Yikes! If this issue is on time, there are only 19 days left until the January Contest—and if this is coming to you after January 10<sup>th</sup>, there's not much more than a week. And we hope for

fair weather, especially for the rovers and the propagation; and for good health so that all the ops can be at their keys and mikes; and that Murphy stays home. I learned a little lesson about my own logging by going to the ARRL site and clicking on the June Contest to see the log check reports. I had no errors in June. But there were reports of six other HF contests, and I had a 3-5% error rate in my logging. The common problem was typing a "zero" when it should have been the letter "O" and some number substitutions in CW contests where those dits seem to run together. Several other stations posted their error reports, and it was common to see prefixes substituted—like "K" for "W" and vice-versa. The moral of the story—accuracy counts—double check your entries in the log and verify and validate the exchange with a "QSL" to the other station. Not only will the League's software subtract points for busted calls and incorrect exchanges, but a percentage penalty may also be imposed if there is a high enough error rate.

I am very grateful for all the support from the club members for all of our activities. So many things are being done so often, that one can easily forget all the volunteerism and elmering that goes on to make this such a super group. Microwave Update 2007 is well underway under the chairmanship of Phil

K3TUF and Dave KB3HCL. They have 10 committees with a broad base of participants to make this a memorable event. Be sure that you'll be attending this coming Oct 18-20. Yes, our 3, 5, & 10GHz beacons are back—thanks to Jack, K3CX and Ron, W3RJW. Ron has also continued to manage our web-site in an active fashion. Joe, AA3GN is our reflector chief and has kept this well enabled as an important communication tool. Our nets are thriving, thanks to leadership from Al, K3EOD and a number of band captains: N3ITT, W3GXB, K3TUF, WA3GFZ, WA3NUF, W2SJ and others who have filled in. Brian, N3EXA and Joe, AA3GN have moved the repeater and are working to improve its coverage and linkage. As of 1/1/07, we will be using CTCSS with a 131.8 Hz sub-audible tone. Thanks to all of our officers for fulfilling their responsibilities: KB3HCL, VP and program chair, W3KM, our double-decade treasurer, K3EGE, recording sec'y and WA3EHD, corresponding sec'y. Drex, W3ICC keeps us well refreshed during meetings. Doc, W3GAD gets Cheese-Bits printed and sent via email and post every month. Several members have volunteered their homes for meetings, picnics and auctions. Everyone seems to be supplying Mario raffle items, and Doc enjoys calling the numbers. Our contest chairs, N3FTI, KF6AJ and W3ITT manage big tasks. I've said it many times, that you get from the club what you put in. Yes, I'm really enjoying myself as a Pack Rat. Aren't you?

We'll meet again two days before the contest to hear Ben, WA3RLT do his annual analysis. Be there and be prepared! 73, Rick, K1DS



**SAVE THESE DATES**  
**October 18, 19, 20**  
**MICROWAVE UPDATE 2007**

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**PACKRAT 222 MHz REPEATER - W3CCX/R**

222.98/224.58 MHz (PL 131.8) Hatfield, PA

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**PACKRAT BEACONS - W3CCX/B**

FM29jw Philadelphia, PA

50.080, 144.284, 222.065, 432.295, 903.071, 1296.251,  
 2304.037, 3456.220, 5763.190, 10,368.140 MHz (as of 3/1/01)

**MONDAY NIGHT NETS**

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.150 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	WA3GFZ FN20kc
9:30 PM	1296.100 MHz	WA3NUF FN20Ie
10:00 PM	903.125 MHz	W2SJ

Visit the Mt. Airy VHF Radio Club at:

**Editor's Column**

It was once said that the only things certain in life were death and taxes.

To that thought I would add CHANGE. The FCC is a prime example of CHANGE. Their newest decision to eliminate Morse Code from the licensing requirements is one of those perhaps not too surprising changes.

Since the announcement just after Christmas there have been many and, perhaps too many, words written about the decision—from those saying it is about time to those who have threatened to quite the hobby because of the decision.

From my perspective I am not a great CW operator but I find the skill fun and, during the VHF WEAK SIGNAL ACTIVITIES, necessary for the completion of contacts. To not KNOW CODE is like having a car with cruise control and/or air conditioning and using them. Morse Code adds to my enjoyment of the hobby and just because it is no longer "required" does not mean I will not stop using Morse Code during my Ham Radio activities.

Enough said about the CW issue get on with life, ham radio and the January Contest, use your skill with CW, DIGITAL, SSB, FM—Whatever.. Get on the air, make some contacts, have fun and submit your log on time.

This winter has started off blessedly mild affording those of you who need to be outside to get antenna work done plenty of additional tower time for your preparations.

We to have been busy with our preparations. While I do not have any new bands, I have been working to improve the bans I currently have to cure drifting problems, improving the power out on a few key bands and tweaking the receives so I hear as well as I am heard. I have many projects on the shelf to be completed but, like many other, there is not always the free time to devote to the hobby.

With the PACKRATS decision to host Microwave Update 2007 many of us will be undertaking more duties than usual this coming year. Mark your calendars now for the October , 18, 19 and 20 for the MUD 2007. Thursday the 18 is a touring day with several options for surplus dealers and family activities to tour the sights of historical Philadelphia and Valley Forge. Friday starts the presentations, which continue into Saturday afternoon. The Saturday wraps up with the banquet where there will be plenty of door prizes for everyone.

This all sounds really grand and it will be with the help of ALL the PACKRATS and several other area clubs that have also pledged their support.

Come to the meetings or contact Phil Theis, K3TUF or Dave Fleming, KB3HCL to see what part you can play to make this a memorable event you yourself and those attending from distant places. (I have heard the some folks from England are hoping to attend.) We have had attendees from Japan, New Zealand and Australia, too.

Time to shut up and get this issue off to press. Send me your good stuff to share so we can make CheeseBits bigger and better.

Listen for the WEAK ONES

73

W3GAD Doc



# FCC MAKES ANOTHER CHANGE

## *KNOW CW becomes NO CW*

(At least to get a license)

One man's view from PACKRAT  
N4HY, Bob McGuire

Frank, AB2KT, and I are at GnuRadio Hackfest. I doubt anyone who knows us would categorize us as anything but techno-geeks. We are constantly looking at the latest technology (we are about to have an OFDM system running in GnuRadio for example) that could be of benefit to amateur radio in particular and communications in general. That said, though we both support this FCC decision, we are die hard CW users. Almost without exception, when we sit down in front of a radio in either of our homes, the first thing either of us touches is the paddle.

I believe the FCC has done a thing they think will help save amateur radio. That they would attempt this is surprising since they could have just as easily made everyone do 20 wpm and killed the hobby for sure and then auctioned off the spectrum. I hope they are right and this succeeds. We must stop having our population grow one year older per year. This is a prescription for utter disaster. The other prescription for disaster is to sit on our backsides and fail to recruit new people, as many as we can that are under 30 years old, into our hobby. Software Radio, Cognitive Radio, and other high tech toys are good tools to use to recruit interesting your people. We have VHF UHF and Microwave equipment the likes of which many of us never dreamed would come to pass. USE THIS and other things as recruiting tools.

It is up to each of us in the US to use this opportunity to do all we can do for our hobby. If we do not begin to recruit new amateurs the inexorable march of demographics (our rising age) will end the amateur radio marketplace and then the hobby as sure as I am typing this note.

May 2007 be a great year for Software Radio, VHF+, AMSAT, Packrats and amateur radio in general.

73's and Season's Greetings to one and all  
Bob N4HY

# BEACON NEWS

Happy New Year !!

All the beacons are back on the air and confirmed (by me) to be xmitting !

Note: There are a few frequency changes (+/-) and they are updated on the Pack Rat WEB page. 5760 is still settling in.

It took more then a few trips to the site by the Chief Maintenance Officer (CMO), K3CX, LLC, to get the repaired and replaced equipment back in place and working. Today the 5760 feed line was replaced by Jack to complete the job. We are both happy it's done, at least for the time being.

Now get on the air !!

Ron Whitsel, W3RJW

[w3rjw@verizon.net](mailto:w3rjw@verizon.net)

<http://mysite.verizon.net/w3rjw/>

## *VHF/UHF BEACONS*

ANTENNA	POWER	ANTENNA
50.080 MHz	0.3 Watts	3 Ele. Halo
144.284 MHz	4 Watts	Single Loop
222.065 MHz	4 Watts	Single Loop
432.295 MHz	5 Watts	Big Wheel

## *Microwave Beacons*

ANTENNA	POWER	ANTENNA
903.071 MHz	5 Watts	Little Wheel
1296.251 MHz	5 Watts	Alford Slot
2304.043 MHz	1Watt	8 Slot
3456.205 MHz	5 Watts	16 Slot
5760.190 MHz	5 Watts	32 Slot
10368.060 MHz	1/2 Watt	32 Slot

To learn more about the PACKRAT beacons visit our web site at: <http://www.ij.net/packrats>

# W3SZ Reports On Beacon frequencies

This is being forwarded from Roger Rehr, W3SZ: The 5GHz beacon will be back on line soon as the radome of the antenna needed repair. Check all of your gear now. De K1DS

Here are the beacon numbers checked today at Hilltop. Outdoor temp here was 42 deg F, Humidity 77%, Barometer 30.42 inches and falling. Time was 1145 am to 1230 pm EST. *You have my permission to repost/publish/whatever. Please include the methods and caveats if you do so ;)*

I used both FT1000MP and Linrad, but publish only the FT1000MP. Neither the Linrad hardware nor the FT1000MP are GPS locked, but I confirmed during these measurements that 10 MHz GPS-locked signal is received on the FT1000MP at 10.000.00 MHz so I report the FT1000MP numbers. The Linrad numbers were consistently 250-650 Hz higher.

I used the FT1000MP in CW mode with 50 Hz filter, and viewed the received signal on Spectran to document that it was centered in the passband in each case.

The 10 GHz beacon is [as usual] very weak here and as a result I cannot guarantee that what I am hearing is the W3CCX beacon by code copy. But the signal reported is the only signal I see within 100 kHz of 10368.050. It has the proper pattern of long

carrier/CW intervals consistent with the W3CCX beacon. It has the proper compass heading and quickly disappears if I move the dish off of the proper heading. The scattered code fragments that I can copy are consistent with the W3CCX message. So I am confident that the signal reported is the W3CCX 10 GHz beacon.

Please note that 50 MHz thru 432 MHz and 1296 MHz are NOT GPS-locked here and I make no claims as to the accuracy of those numbers. 903 MHz and 2,3,5,10,and 24 GHz are all GPS-locked and those numbers should be accurately reported. Please note that the beacon frequencies DO vary, particularly when there are significant temperature changes.

Here are the results: W3CCX beacon frequency received: GPS-Locked:

10368.060.74  
3456.205.55  
2304.043.61  
903.072.31

5 GHz Beacon not yet reinstalled as of 12/30/2006.

NOT GPS-Locked:

1296.251.93  
432.292.09  
222.065.75  
144.284.10  
50.079.72

I hope that is helpful.

Best Wishes for a Happy and Healthy and Prosperous New Year!

73, Roger Rehr W3SZ

## LOOKING NORTH on 903?

The K1TR 903.060 MHz beacon in FN42IV is back up and running tnx to some hardware improvements by Brian, WA1ZMS.

Same great location (tnx Larry K1CA) with slightly more power (15W at the Big Wheel antenna).

Signal reports appreciated.

Happy Thanksgiving!

73, Ed K1TR

## How to find your 6 Digit Grid Square Fast

Laurent, F6FVY, has programmed a tool based on Google Earth so that you can click on any spot in the world and automatically the corresponding full grid locator is being displayed. Just go to: <http://f6fvy.free.fr/qthLocator/fullScreen.html> and adjust the map to the desired resolution. Then just click on the spot you want to know and a small window pops up with longitude, latitude and...ww-grid.

vy 73 Bernd DF2ZC (JO30RN)

The GOOGLE MAPS give you a street map and Aerial Photo map and a "HYBRID" map that combines both. Here in the Philadelphia area the mapping is fairly recent (5 years) so at my QTH I can see the all the new housing and my own home quite clearly. Editor

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## AMSAT-NA SIGNS AGREEMENTS TO BUILD "EAGLE" AT MARYLAND FACILITY

AMSAT-NA will co-locate its Satellite Integration Lab with the Hawk Institute for Space Sciences (HISS) in Pocomoke City on Maryland's Eastern Shore and construct its Eagle satellite <http://www.amsat.org/amsat-new/eagle/> there. A division of the Maryland Hawk Corporation, HISS is a non-profit educational organization affiliated with the University of Maryland Eastern Shore (UMES).

"I consider these happenings to be a serious beginning of the activities towards a real spacecraft," commented AMSAT Vice President for Engineering Bob McGwier, N4HY. The new site will replace AMSAT's former lab facility in Orlando, Florida, damaged beyond repair during Hurricane Charley in August 2004.

With the unanimous approval of its board of directors, AMSAT-NA has executed memoranda of understanding with the University of Maryland Eastern Shore and with Maryland Hawk Corporation to formalize the relationship. Per the agreements, AMSAT-NA will gain essentially no-cost access to the HISS facility in return for sharing its equipment and ideas with HISS as well as limited access to the NASA Wallops Flight Facility, which includes environmental testing, machine shop, rocket manufacturing and launch facilities.

In addition, AMSAT-NA will work with UMES to identify opportunities to work together on satellite and related technology projects as well as to work with students and faculty to enhance hands-on studies and research.

HISS is currently constructing the interior walls for the new 8000-square-foot facility. It's being designed around AMSAT's dual clean room, used for AO-40 and now in storage at Florida Space Institute. AMSAT's lead mechanical engineer, Bob Davis, KF4KSS, an employee of HISS, was AMSAT's mechanical design expert in the Orlando lab during the AO-40 (Phase 3D) campaign. AMSAT expects to

move its "clean room" plus parts and equipment currently in storage in the Orlando area to the new lab in the next few months.

The next-generation high-Earth orbit satellite, Eagle will provide many services and reliable communication on bands not previously available. It will take maximum advantage of software-defined transponder (SDX) technology to offer a broader range of easily accessible Amateur Radio payloads. The AMSAT Board of Directors okayed the Eagle upgrade plans during the 2006 AMSAT-NA Space Symposium and Annual Meeting last October in San Francisco.

Under the new plan, Eagle's communications payloads will include a mode U/V linear transponder for SSB, CW and other modes. A second SSB/CW transponder will uplink on L band (1.2 GHz) and downlink on S1 band (2.4 GHz). Both would be usable over 75 percent of the satellite's orbit by an AO-13 or AO-40-capable ground station, AMSAT says. Jim Sanford, WB4GCS, is the Eagle project manager.



## PACKRATS SHIRTS ARE NOW AVAILABLE

These 100% pima cotton polo shirts have a 2 button collar and a left shirt pocket. The Pack Rat logo and club name will be embroidered and appear above the pocket. Once we have a sufficient order, we will place this with the shirt company and they should be ready for distribution within 3-4 weeks. If you want the shirt mailed to your house once the shipment comes in, you'll need to add another \$3 per shirt. See the order form below. Please email or mail your order to me at: [rick1ds@hotmail.com](mailto:rick1ds@hotmail.com). Checks should be made out to the club: Mt Airy VHF Radio Club and sent or given to Dave Mascaro, W3KM. Payment can also be sent by PayPal or credit card to: [w3km@verizon.net](mailto:w3km@verizon.net) or mail your payment to:

W3KM, DAVID J MASCARO, SR  
1603 MINK RD, OTTSVILLE PA 18942

Indicate your order in return email to [rick1ds@hotmail.com](mailto:rick1ds@hotmail.com)

COLOR: (Burgundy) or (Navy Blue)

SIZE: (Medium) (Large) (Extra-large) (Double-extra-large)

Club Logo & name only (cost=\$17 per shirt):

Personalized (cost=\$22 each shirt): fill out below

Name and Call sign exactly as it is to appear on shirt:

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_

Delivery options: Mail to my QTH (cost=\$3 per shirt) or Pick up at club meeting.

Total enclosed \_\_\_\_\_ check or sent by PayPal

To the right is the "Contest Clock" used by the PACKRATS.

Most of the PACKRATS follow the recommended activities hours outlined on the clock. In addition, On Sunday afternoon many PACKRATS will be more active on the popular FM simples frequencies looking for those who have not discovered the capabilities of single side band or CW.

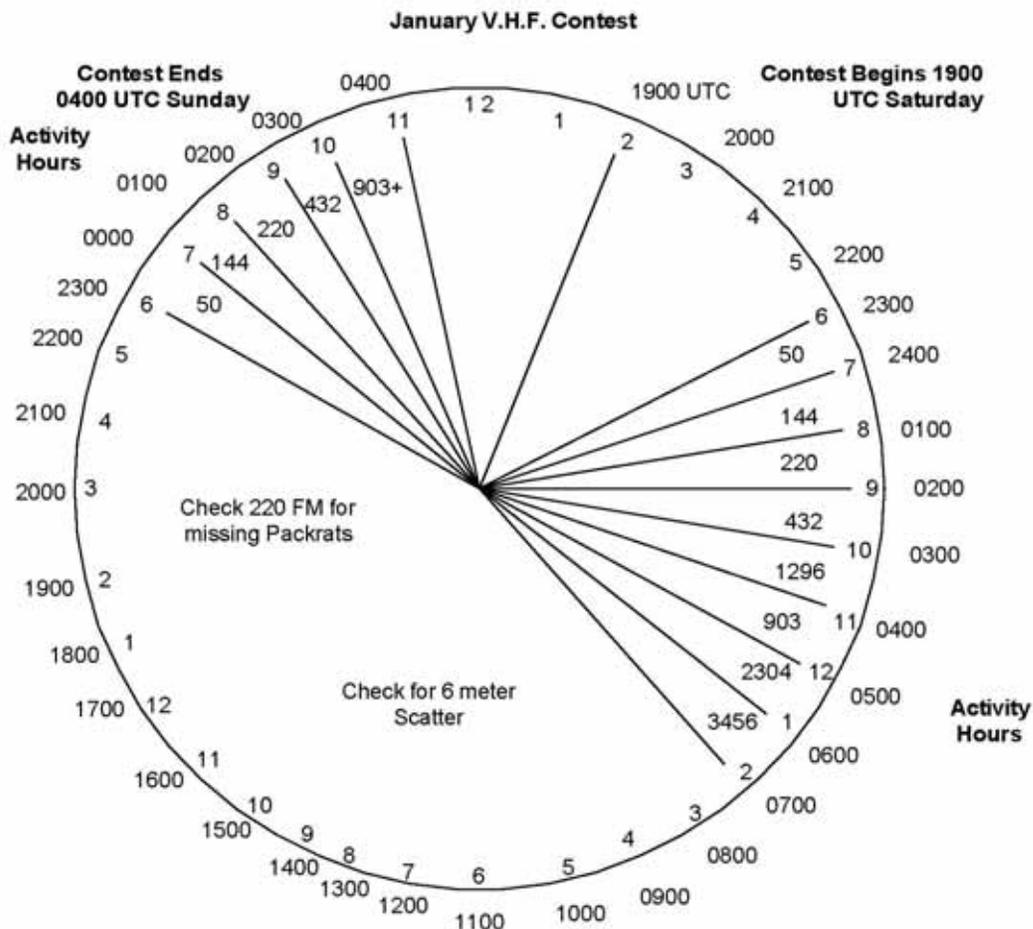
Many contesters will also be using WSJT for meteor scatter and EME over the late night hours on 50 and 144 MHz

If you have one of the new expanded coverage HF radios with 50, 144 and 400 MHz capabilities give those bands a try on sideband with a simple dipole antenna of FM with your mobile whip on a pie plate. If mobile just find a hill top and give a call.

What ever you chose to do and what ever modes you chose to experiment with—GET ON THE AIR and as the Last W3IY would say MAKE SOME NOISE.

To add to your pleasure google to the W3KM website, download the free VHF Contest logging software and update so it is easy to know where to look for packrats and :

MOST IMPORTANTLY  
SUBMIT  
YOUR  
LOG  
to the ARRL



# WHATS HAPPENING

## A LISTING OF INTERESTING EVENTS

**6, 13 AND 20 JANUARY 2007 MICROWAVE ACTIVITY DAYS (MAD)** - not Just any Saturday morning but the first MAD for 2007. As has been the practice in recent years we will have MAD each Saturday until the contest including the contest morning. 8 AM until?? The customary MAD will resume on 3 February 2007

**11 JANUARY 2007 MEETING OF THE PACKRATS BOARD OF DIRECTORS** at the QTH of AA3GN, Joe Landis, Hatfield, PA

**18 JANUARY 2007 MEETING OF THE MOUNT AIRY VHF RADIO CLUB** Ben Kessel WA3RLT will give us his analysis of the log submitted for the 2006 contest—This is an excellent opportunity for us to see just how important each persons efforts are for the success of the club during the contest. Ben also offers insight on the importance of following the contest clock. See you there.

**20 TO 23 JANUARY 2007 ARRL JANUARY VHF SWEEPSTAKES**—This is it—the major contest for the PACKRATS to start off another year of success for the Mount Airy VHF Radio Club. Get on the air, work your fellow PACKRATS and everyone else, too.

**3 FEBRUARY 2007 MICROWAVE ACTIVITY DAYS (MAD)** Just because the contest is over is no excuse to leave all you fine equipment idle—get on the air and give a call on 144.200 then work a few Q's and have some fun on the higher bands when you can pause and have a chat.

**8 FEBRUARY 2007 MEETING OF THE PACKRATS BOARD OF DIRECTORS** at the QTH of WA3EHD, Jim Antonocci, Roslyn, PA

**15 FEBRUARY 2007 MEETING OF THE MOUNT AIRY VHF RADIO CLUB** - This meeting is a long standing tradition—THE CRYING TOWEL—Bring you tales of success and woe and vie for the coveted CRYING TOWEL AWARD. Come for the laughter and the tears as we wrap up the January contest and begin preparation for the major effort on Camel Back in June

**8 MARCH 2007 2007 MEETING OF THE PACKRATS BOARD OF DIRECTORS**—

**15 MARCH 2007 MEETING OF THE MOUNT AIRY VHF RADIO CLUB** - Another traditional occurrence is the PACKRATS HOMEBREW NIGHT. Bring your latest project to present to you peers. This you best opportunity to brag a bit and/or learn more about how to successfully do things in VHF/UHF and Microwave construction.

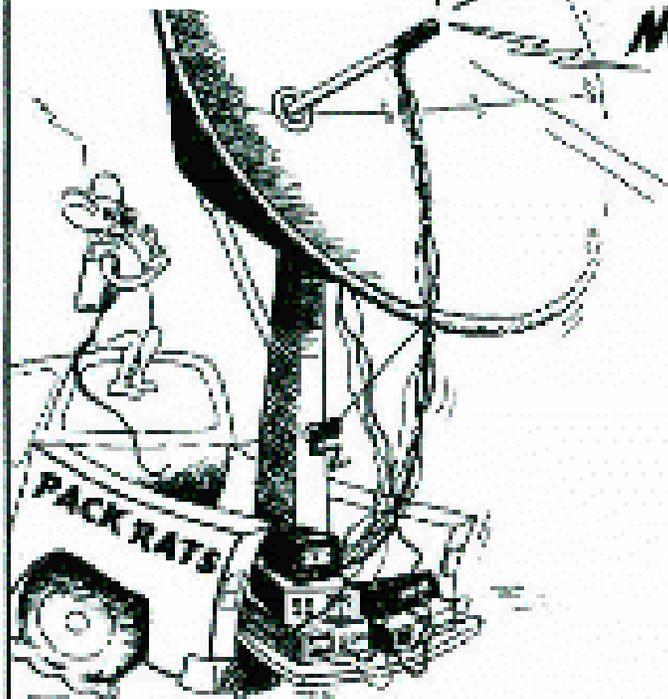
**09-11 JUNE 2007 W3CCX/PACKRATS ANNUAL TRIP TO CAMEL BACK FOR THE JUNE VHF QSO PARTY**—Plan on joining us for the unique experience this weekend offers in testing your technical and operating skills. The comraderie and food are also terrific

**19-20 OCTOBER 2007 MICROWAVE UPDATE RETURNS TO PHILADELPHIA.** This is a multi club event and we are looking for full participation from the PACKRATS to make this the very best MUD ever. When called please take the challenge. Co-Chairs are K3TUF, Phil Theis and KB3HCL, Dave

All meetings are announced on the regular Monday Evening Nets. (See Page 2) - Board meetings of the Mount Airy VHF Radio Club are open to all members. Teleconferencing for members is usually available. Regularly scheduled meetings of the PACKRATS are held at 8 PM in the basement meeting room at the Southampton Public Library on Street Road in Southampton, PA. Meetings are open, not only to the membership, but to any party interested in VHF/UHF/Microwave contesting, equipment design and construction for use on the VHF/UHF and Microwave Frequencies or amateur radio in general.

CheeseBits  
c/o Doc Whitticar W3GAD  
28 Twining Bridge Rd  
Newtown, PA 18940-9704

# MEETING NOTICE

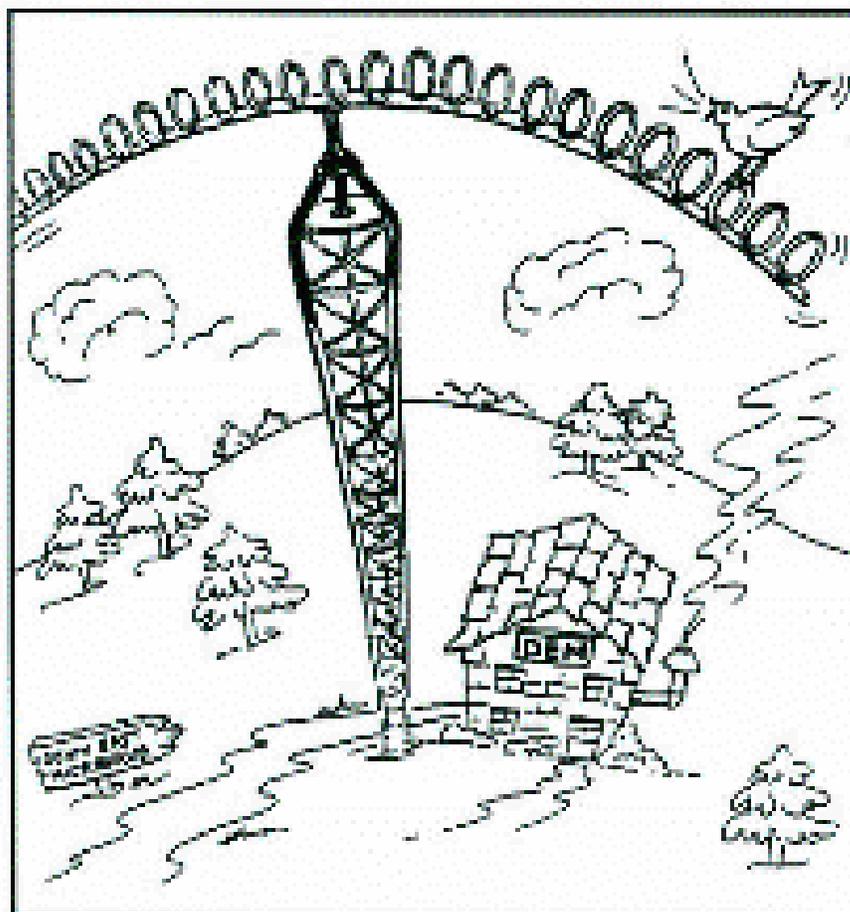


LOOKING AHEAD:  
JANUARY VHF/UHF SWEEPSTAKES

INSIDE:  
All The beacons are "On the air"

FIRST CLASS

**MT. AIRY VHF RADIO CLUB, INC.**



## DOWN EAST MICROWAVE

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