

# PACK RATS'

SCANNED TO PDF BY BERT, K3IUV



**PACK RATS**

CLUB CALL: W3CCX

# CHEESE

# BITS



ARNS

MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PENNSYLVANIA  
50.125, 144.150, 220.125, 432.110, 1296.110 Mhz - W3CCX - Repeater 222.98/224.58 Mhz

Affiliated Club: AMERICAN RADIO RELAY LEAGUE

Meetings: Third Thursday of each month at 8:00 P.M.  
Southampton Free Library, 947 E. Street Road  
Southampton, Pennsylvania 19866

VOLUME XXX

FEBRUARY, 1988

NUMBER 2

## THE PREZ SEZ

The January meeting was the annual secret contest meeting. Contest Chairman, Paul, WB3JYO, put together an informative program. Between Paul and his panel of experts, everyone at the meeting got some good operating hints and ideas on strategy to have our contest operating and logging skills to near perfection.

By the time you read this, the contest will be all over except for the Crying. So bring your sad, funny or Murphy type disaster story to the February meeting. The best story, judged by a randomly selected panel of club members, will receive the coveted Pack-Rats Crying Towel Award.

As you know, the Board of Directors meet once a month, the week before the general meeting at the Library and all members are welcome. For the last six months or so, the hot topics have been membership and participation in club activities. The main activities are the club sponsored nets, club meetings, the annual Conference and Hamfest, the January VHF SS and the June/August/September Contests and grid-peditions.

The Mt. Airy VHF Radio Club, by our Constitution and By-Laws, limits the number of active members to 90. For a club our size to stay healthy and attain the objectives set forth in our Constitution, we need the active participation of all our members. By active participation, I do not mean just attending meetings. The Pack-Rats have many active members who for reasons of personal or family health problems or disability cannot attend many club functions in person but are active on the air, in the club Monday night nets, and in the various contests throughout the year. The Pack-Rats have members that make 1/2 hour to 1 hour trips each way to make it to club sponsored activities. There are quite a few members who make every meeting and participate in every activity. Those people are active, interested and proud to be a member of the Mt. Airy VHF Radio Club.

I would like to direct those comments to the members that have not been to a meeting or a club activity for six months or more. Where have you been? Have you lost interest? If so, what can this club do to rekindle your interest in our activities? Is there some kind of activity that we are not involved in that would spark your interest? Do you need a antenna party or a rig repaired? Let someone on the Board of Directors or one of the club officers know. Better yet, try and make it to a meeting. The February meeting would be a good choice. Come out to the Southampton Free Library and renew old friendships and reintroduce yourself to the Mt. Airy VHF Radio Club. I think you are missing a lot of fun by staying away.

I'll step down off the soap-box now and hope to see everyone at the next meeting.

73's

, Bob, N2SB

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P.S. See Page three for excerpt from Constitution and By-Laws.

Pack Rats CHEESE BITS is a publication of THE MT. AIRY VHF RADIO CLUB, INC. Philadelphia, Pa. and is published monthly.

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SWAP SHOP ITEMS - NO CHARGE

DEADLINE FOR ARTICLES IS THE GENERAL MEMBERSHIP MEETING: THE THIRD THURSDAY OF THE MONTH.

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W3CL, HARRY B. STEIN

MONDAY NIGHT NETS

<u>MONDAY NIGHT NETS</u>	<u>NET CONTROL</u>
7:30 PM - 50.125 MHz	W3CL
8:00 PM - 144.150 MHz	W2EIF
8:30 PM - 222.98/224.58	K3GAS
8:30 PM - 220.125 MHz	KS2T/WB2NPE
9:00 PM - 432.110 MHz	WA2OMY/K1PXE
9:30 PM - 1296.1 MHz	N3CX/WA3JUF/WA3NUF

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DIRECTORS:


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CALENDAR OF COMING EVENTS

By Harry Brown, W3IIT

FEBRUARY

- 6-7 Crazy 8s HF, VHF and UHF Contest. See January 1988 QST, Pg. 87 for details
- 9 Birth of Brendan Behan, Dublin 1923
- 11 Pack Rat Board of Directors Meeting at the QTH of WA3OMY at 8 P.M. Call: 539-6409 for directions.
- 13 January Contest Wrap-up at the QTH of WA3AXV. Get your logs and check sheets to your contest coordinator so they can be checked and submitted.
- 14 St. Valentine's Day. Remember your sweetie!
- 18 Pack Rat meeting at the Southampton Free Library on Street Road in Southampton, Pa. The celebrated "Crying Towel Session" is scheduled so start preparing your story on how bad and miserable you had it during the contest.
- 20-21 ARRL International DX Contest. See Dec. QST, Pg. 86 for rules.

\* \* \*

ARTICLE II  
Objectives

The objectives of this Club shall be:

1. To form a body of men interested in the use of very high frequency radio spectrum as a means of communications.
2. To encourage participation in communication contests with other radio amateurs and radio clubs in the United States and in other countries.
3. To assist in every honorable way the desires of our fellow club members to secure better and more reliable radio communication and test equipment.
4. To encourage application of the highest engineering knowledge and standards in the design, construction, and use of radio communication equipment.
5. To promote an interchange of ideas and technical information between members and to assist each other in the design, construction and adjustment of radio equipment.

\* \* \*

Visitors - Meeting, January 21, 1988

- KA3KSD - Dave Mueller, Pittsburg/Morrisville, Pa.
- W3VIR - Bill Pawson, Holland, Pa.
- KD3CG - Mike Hrynio, Warrington, Pa.
- W3FPB - Tal DiLorenzo, Southampton, Pa.

VOTED TO MEMBERSHIP 1/21/88

- W3VIR - William Pawson  
747 Rising Sun Avenue  
Holland, PA. 18966  
215-357-8549

APPLICATION FOR MEMBERSHIP

- KA3KSD - David Mueller  
420 Leavitt St.  
Pittsburg, Pa. 15226  
412-481-4087  
215-295-5135
- Local QTH: P.O. Box 519  
Bensalem, Pa. 19020

VOTED TO RETIRED STATUS 1/21/88

- K3JJZ - El Weisman
- K3NHX - Joseph Gardocki

## PROPAGATION REPORT

Paul Drexler, WB3JYO

The last month has produced some interesting openings on 6 thru 432, not to mention the activity levels spawned by the January contest.

On the 22nd of December 6 meters opened up to the south with Puerto Rico and the Virgin Islands available to the Northeast around 2200 hrs GMT. The HC8SIX beacon on 50.082 was Q5 just prior to the author's contacts. At 2200 hrs GMT KP4EIT in Puerto Rico was worked, followed by KP2A in the Virgin Islands (FK64). Both stations were heard on the band for approximately 20 minutes before conditions changed. A number of stations to the south and southwest were worked including grids EL49, EM40, EM60, EM76, EM84, EM93, and EN10. On the 24th 6 was open to 9 and 0 land with grids EN52, EM29, EM38, EM88 worked during a short time period. The band sounded like a contest was underway with signals from 50.1 to 50.2 MHz. Not too bad for late December!

On the 6th of January a short opening was experienced around 2100 hrs local time. Grids EM40, EL49, EL59 etc. were heard.

The higher bands were not without their share of enhancement, either. K1PXE reports working WA4NJP on 432 on the 4th of January. On the morning of the 10th of January Mark, WB2JHG reports hearing radar on the 903 band. I would be interested in hearing if any one else has observed radar on 903 on any basis. It should be interesting to see if there is any correlation with this phenomenon and enhancement on the band.

Joe, W2EIF reported an aurora on 144 MHz on the evening of January 14th. WB2JHG confirms also with a contact to EN91 on 432 with K8WW! Signals were S7-S9.

Another 6 meter opening was observed to the Midwest on the 18th of January around noon.

The January contest activity level seemed to be at an all time high this year, although some of the grids on various bands were not as easily worked. It was encouraging to note a increase in the number of stations to be worked on 220 and up. Perhaps some of the mystique of the higher frequencies is wearing off and more hams are willing to give it a shot. The 903 band was well worth having - with a modest station this author worked 21 stations and 7 grids on our 'new' 903 band. Why not give it a try?

WANTED: 3 or 4 foot dish for use at 10 Ghz. Also, 432/28 transverter.

CONTACT: WA3IAC - Chuck Steer  
Phone: 215-335-0637  
after 6 P.M.

FOR SALE: TRS80 Quick Printer w/3 rolls of paper gd. cond. \$35. IBM PC Compact Printer w/4 rolls paper and serial adapter for clones gd. cond. \$40. 150W power supply for PC clones brand new \$35. Yaesu FT-757GX & FP-757GX gd. cond. \$635. Yaesu FTV-700 transverter w/6M module gd. cond. \$235 or \$825 for all. Heath HD-4040 TNC Packet Controller w/status indicator & HF filter gd. cond. \$110. Lear Siegler ADM5 terminal (crt-keyboard) gd. cond. \$50 or \$140 for all. Manuals for all except ADM5 & Quick Printer.

CONTACT: Mike(N3BBI) at 215-767-5891  
8:30 AM to 3:30 PM Mon - Fri.  
or 717-325-3580 after 4:30 PM and weekends.

FOR SALE: Club members first! Varil mixers model DBM-400. 100 Mhz to 3 Ghz spec. Will work on 3456 with 11 DB conv. loss, 144 IF. SMA gold connectors. High isolation, stainless body. Units appear new. \$30.00.

CONTACT: Gary, WA2OMY  
Phone: 215-539-6409

FOR SALE: Dentron GLA1000 linear w/input and 10M mods. \$225; Swan SW240 HF transceiver 20/40/80m \$195; Kenwood TS820 w/VFO 1.8kHz SSB filter, 800 cycle CW filter switchable on front panel, recent finals \$650; Heath 75m SSB transceiver \$35; 48 ft. steel tower w/new 3-ft. angle iron sections welded on to base; rust proofed, 3 coats of Rustoleum. Rotor already installed. On ground, ready to go. \$225; Hygain TH6DXX reconditioned, better than new, tuned to phone bands. On ground, assembled, ready to go. \$225; 40 ft. wooden tower, fine for supporting wire antennas Free; Several hundred feet of radio wire. Free w/tower or beam. 7-drawer metal desk, 5 Ft. width, includes top shelving for ham radio use. \$65. 40 yrs. accumulation of junk boxes at amazing prices. Modern Rancher on 2 acres in peaceful farming community 20 min. from Atlantic City, 5 min. from upcoming high speed line to Philly. Lots extras including all above free: Garden Tractor: Pool Table, etc.

PHONE: Vince Luciani, K2VJ  
609-965-5163

A DISCLAIMER: Howard Weinstein, K3HW, has not been associated with Judge, Inc. since February, 1987.

### COMMERCIAL ADS

FOR SALE: Several types of 10 Ghz Gunn Sources as follows: SOLFAN 5-10 mw units, w/detector and horn, \$20; Round horn 5-10 mw units, same ERP as SOLFAN units, w/detector diode and horn, \$18; Flat-plate antenna (5"x8") 5-10 mw units, w/separate detector block, connected w/SMA's and co-ax, \$20; Spare Replacement Gunn Diodes for above, 5.46 mm long w/1.56 mm end caps, \$5. each; Gunn-Heater Kit for Round-horn and Flat-plate Gunn units above! Will keep Gunn within 3 degrees temperature down to zero outside temperature, if encased in insulating case. \$20 each. (uses +12vdc at 16 watts max.) Avantek MSF-8885 single-chip Microwave front-ends, good to 12 Ghz, with documentation and other literature, \$11 each. MiniCircuits MAR-1,2,3,4,7 and MAR-8 50 ohm I/O devices, with spec sheets \$5. each. Any Gunn Source will be tuned to Ham Freq of choice and power checked for \$5. additional each unit. Payment by check with Ham Callsign ok. All prices post-paid!

SHF Microwave Supply  
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\* \* \*

LOOP YAGIS: 902 Mhz and 1296 Mhz \$77 kit, \$93 assembled & tested. 2304 Mhz \$67 kit & \$80 assembled. Also, 2 & 4 way pwr. dividers & stacking frames. LINEAR AMPLIFIERS. 1296-10W in 35W out, \$295. Call for special Pack-Rat discounts & prices on complete arrays! NEW!! Microwave Transverters & preamps by LMW ELECTRONICS, 2304 Mhz deluxe transverter Model 2304 TRV2D, 144 Mhz I.F. Power out 2 watts, includes separate GaAsFET preamp. NFI db and built in T/R sequencing circuit, relative output meter & built-in I.F. attenuator to match inputs from 100 MW to 10 watts. Price complete \$569; 1296 deluxe transverter, model 1296TRV6D similar to 2304 unit 6-7 watts out. .7db N.F. \$489. Stripped down versions available at lower cost, also available in kit form. 902 Mhz version coming soon. Universal local Oscillator Kit model ULO. Multiple outputs in 1 and 1.2 Ghz range depending on xtal. \$33.75 less xtal. Write to obtain complete catalog. DOWN EAST MICROWAVE, Bill Olson, W3HQT, Box 2310 - RD1, Troy, ME 04987. Phone: 207-948-3741.

NEW EME RECORD ESTABLISHED: On January 5, 1988, a new record was established for EME contacts on 6 meters. Ray Rector, WA4NJP in Georgia, and Mike Staal, K6MYC/KH6 in Hawaii, established the new distance record at 0940 UTC on January 5, 1988. This was the first transoceanic 6-meter EME contact, and the ninth 6-meter EME contact made to date.

FCC AMATEUR AUXILIARY VOLUNTEERS SOUGHT: The Amateur Auxiliary to the FCC's Field Operations Bureau -- a much-enhanced version of the former Official Observer program--is still looking for a few good men and women to assist in the following areas: Fostering a wider knowledge of and better compliance with the rules and regulations governing the Amateur Radio Service. Extending the concepts of self-regulation and self-administration of the Service. Enhancing the opportunity for individual amateurs to contribute to the public welfare as outlined in the basis and purpose (Part 97.1) for the Amateur Radio Service. Enabling the Field Operations Bureau of the FCC to efficiently and effectively utilize its manpower and resources. For further information on becoming a member of the Amateur Auxiliary, contact Luck Hurder, KYIT at ARRL HQ.

\* \* \*

ANOTHER CONTEST BIT

It was late in the recent January VHF Contest, when people are tired and strange things happen. I was working 146.55 FM, and got a call from K3LOM, Harry who said "Jo we have not worked on 2 meters yet, so can we go to 144.15 sideband? I was stunned for a moment, but finally blurted "Whats wrong with this frequency Harry? There was a moment of silence and Harry came back "sorry about that, take FN20". I gave him FM29 and we both departed laughing.

Jo, W2EIF

P.S. Final Score 48050

\* \* \*

TID BITS

Sunspot No. for December 1987 = 26.5 -- Smoothed No. for June 1987 = 28.2.

We welcome BillPawson, W3VIR, an old friend of the Pack-Rats. Bill joined the club at the January 21st meeting.

We missed hearing KS2T over the 23rd week-end. Hope all is well Jay.

Jo, W2EIF unable to make the February meeting sent along a fun item - read it above!

K3HSS and NF2L were inadvertently left off the Pack-Rat check-off list for the January SS. Apologies are in order!

VHF CONTEST TID BITS

There were 71 club members in the Delaware Valley area who participated - 61 single ops and 10 assisting as multiops. That was a fairly good turn out. We were all happy that the snow held off until Monday. There were some station and antenna problems - you will hear about these at the "Crying Towel". In spite of the low activity on the 50 Mhz band (and no openings) it appears that the club score will exceed last years total. Good show gang!!

\* \* \*

COMMERCIAL AD

I am now taking orders for the 1988 NORTH AMERICAN 50 MHZ SSB DIRECTORY & BEACON LIST and the 1988 NORTH AMERICAN 6 METER REPEATER DIRECTORY. The SSB/Beacon Directory is 40+ pages of the following information: active SSB stations listed according to state and grid square, up-to-date beacon list, QSL and grid information on 6 meter DX operators, 6 Meter award info, VUCC info and application procedures, and much more. The Repeater Directory is 24 pages in length and is the most accurate listing of 6 meter repeaters currently available. ORDERING INFORMATION: Both publications are \$8.00 a piece or \$15.00 for both. Preferred payment is postal money order. Both publications will be mailed out to those ordering by late February or early March. Contact: Harry A. Schools, KA3B, 1606 S. Newkirk St., Phila., Pa. 19145

DELAWARE VALLEY COUNCIL

The Open INTERFERENCE MEETING  
Edith Rosner, W3AAU

There were about 18 Delaware Valley clubs that sat down for some answers from the "powers that be" on 14 December 1987 at the Aviation Supply Office. The powers were represented by: James Sheehan, Chief, Civil Division, U.S. Attorney's Office, Phila; Ennis Coleman, K3EL, Engineer in Charge, Third District F.C.C. Field Operations (Langhorne) Phillip Stein, K2RCG, an Official Observer appointee, Southern New Jersey section, ARRL (He did not officially represent the ARRL.)

The bottom line is that if we, the Ham Community, can't or won't help ourselves no one else will help us. the way things are, the OO has no legal authority. His job is to tell you when you goof. You can get a love note in the amil that your signal stinks and please please do something about it. the laws have no money, no staff and too many more important priorities. So we're on our own!

The only way, it seems, to get their attention and eventual action is to form an active local interference committee. Since such a committee necessarily covers a wide area, it is beyond the scope of any single club. This is where the Council can be important as the coordinating organization. So the Council wants some interested hams to sign up. You are needed.

The job is not easy. Once the violator has been identified and positive proof is obtained individual letters and petitions will be needed to be directed to the authorities -- and, please note, volume will be required.

If you are willing to pitch in please call W3AAU, 215-464-2665 or your club's Delegate (K3TX, 946-1040) and a sign-up form will be sent to you.

Jay, WA3IFY did a video of the event until his shoulder gave out; it is available on loan to clubs, and there is an audio tape (90 minutes) available, \$5 each payable to the Council.

\* \* \*

CLUB COMPETITION RULES AND CONTEST DISQUALIFICATION CRITERIA  
From QST

1) Unlimited: Any club submitting 51 or more entries. (One station can submit two entries - one on phone and one on CW - in the November Sweepstakes and the DX Contest.) All stations and all operators must reside within 175 miles of the club's center. All members must attend at least 2 club meetings per year to be eligible to submit an entry. If, however, they have not been a member for a year's time, they must have attended a meeting as a member prior to the contest. To be considered bona fide, a member must be active in club affairs. Members living outside of 175 miles and/or members operating stations outside 175 miles may not compete in the club competition. the club must be ARRL affiliated.

Single and multioperator-station scores may be counted. At a guest-operated single-operator station, both the guest operator and the station licensee must be members of the same club in order to count the score for that club. At multioperator stations, at least 66 percent of the operators must be members of the same club for the score to count for that club.

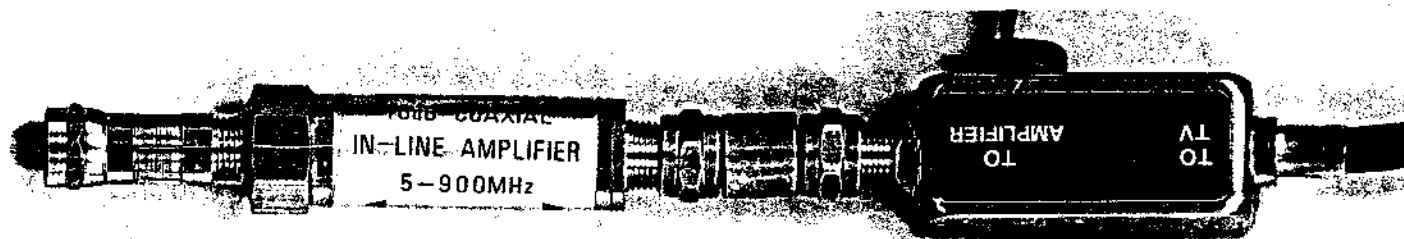
In conjunction with the two meetings per year rule, the club must hold at least four in-person meetings per year. A club's entry classification may be changed if, in the opinion of the ARRL Awards Committee, the club has manipulated its number of entries to fall into a lower classification (eg, if a club with 100 members submits only the 10 highest scores, even if more than 10 of its members wish to compete).

It is not within the intent of these rules that a club should vote out a member or that a member resign and then be voted back into the club later so the member-attendance rule can be met.

## Using a CATV amplifier on 903 MHz

by Dave Mascaro, WA3JUF

The CATV amplifier covering 5-900 MHz is useable as a transmit amplifier or as a second stage receive amplifier. The amplifier is available from Radio Shack, #15-1117 for \$14.95 (includes 9V supply and DC inserter). Also available mail order thru MCM Electronics, for \$7.95 (power supply \$6.96 additional).



Although this amplifier is 75  $\Omega$  in/out, straight adapters from 'F' to BNC work very well. Using 75 $\Omega$ -to-50 $\Omega$  baluns did not make a significant difference. The amplifier's dc supply is fed in thru the output connector using a dc bias 'T'. The unit has a removable dc blocking adapter on it's input. Removing it makes the amplifier "dc passive" and allows dc to be fed to a second stage when cascading units. Stability seems good even when an infinite mismatch was presented to the input using an adjustable line.

The following performance data was taken on two different units. Also useable at lower frequencies @ reduced Pout. Power output seemed best at 800-900 MHz. NF is rated at 4 dB across the frequency range.

	Gain/Pout @1dBc	PoutSat	Small Signal
@9vdc #1	12dB/20mw	25mw	G=13dB NF=4.30dB
#2	11dB/22mw	28mw	G=12dB NF=4.45dB
@12vdc #1	10dB/24mw	28mw	
#2	10dB/30mw	35mw	



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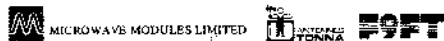
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CODE OF ETHICS

Logos and text around the circle include: AMP SPECIAL INDUSTRIES, COVER CRAFT, BOMAR, AMCO, MFG, HUSTLER, MISCOS, BIRD, WILSON, WELDER, TPL, GILFER LMB, nte, CDE, Saxon, MIDCO, ASTATIC, ROHN, HAM-KEY, BRANCOF, South River, VIRHOPEX, TAB BOOKS, CUSHCROFT, AMPHENOL, Xcelite, Wilson Electronics Corp., TEN-TEC, TRW, NBC, and ICOM.

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