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# CHEESE BITS



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

ARNS

VOLUME XXX

JANUARY, 1988

NUMBER 1

## THE PREZ SEZ

Happy New Year! I hope your resolutions last longer than mine.

Congratulations to Rick, WC2K (Ex-WB2NPE) for setting a new single-op record in the August 1987 UHF Contest. Well done, Rick.

It was great to see so many people at the December meeting. The program was "Old Tyme Radio". A number of the more experienced members in the Club told us how they became interested in hamming back in the 20's and 30's. It was interesting to hear about the early days of VHF on the 5 meter band and things like swiping tubes from the family entertainment radio to get the rig going. Must have been a neat trick to get the tubes in and out before they were missed! I think it would be interesting to hear from everyone in the club about how they got interested in radio. Thanks to Horace, W3AJF, Ed, W3AJS, Harry, W3CL, John, W3CXU, Tony, W3HMU and Ernie, W3KKN for their off the cuff biographies.

Next month is the Contest meeting. Paul, WB3JYO will be giving us some ideas on strategy and organization for the Contest weekend. This is the one club activity you can do from the comfort of your own shack. With a little participation from everyone, not just the high scorers, the Pack-Rats can earn another gavel and we can have a blast working new grids at the same time. What more could you ask for on a cold January weekend?

See you at the meeting.

73's, Bob, N2SB

\* \* \*

## JANUARY CONTEST UPDATE

Paul Drexler, WB3JYO

Contest packages were handed out at the Dec. meeting. If you were absent from the meeting and have still not received your package, get in touch with your team captain. Please make sure you have all the necessary materials included in your package. Extra logs and dupe sheets will be available at the January meeting.

Don't miss the secret contest meeting this year - to be held on January 21st; get the operating tips from the experts and come out to enjoy the meeting. CU on the bands!

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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MONDAY NIGHT NETS

7:30 PM - 50.125 MHz

8:00 PM - 144.150 MHz

8:30 PM - 222.98/224.58

8:30 PM - 220.125 MHz

9:00 PM - 432.110 MHz

9:30 PM - 1296.1 MHz

NET CONTROL

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K3GAS

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WA2OMY/K1PXE

N3CX/WA3JUF/WA3NUF

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CALENDAR OF COMING EVENTS

By Harry Brown, W3IIT

JANUARY 1988

- 1 HAPPY NEW YEAR
- 4 Predicted Peak of the Quadrantids meteor shower at 2200 UTC.
- 14 Pack Rat Board of Directors Meeting at the QTH of Doc, K3GAS at 8:00 P.M.  
Call: 635-1078 for directions.
- 19 New Moon
- 19 EME Perigee
- 21 Secret January contest planning meeting. The real secrets on how to run up a big score and win. At the Southampton Free Library on Street Road in Southampton, Pa. 8:00 P.M.
- 23-25 41st Annual ARRL January Sweepstakes. See December QST, Page 80 for rules.

DUES ARE DUE

\* \* \* \*

ATLANTIC DIVISION CONVENTION

Your convention is coming. Yes, your Atlantic Division ARRL Convention is coming on Friday, Saturday, and Sunday, May 20-21-22, 1988.

The annual convention is held in Rochester at the Monroe County Fairgrounds. Usual attendance is around 6,000. Regular hamfest activities are provided. There will be talks by well known speakers. There is a huge commercial exhibit area featuring many of the major amateur radio stores and manufacturers. There is an indoor flea market as well as an outdoor tailgate flea market. A Saturday evening awards banquet is a special feature at Rochester.

Headquarters hotel is the Rochester Marriott Thruway In.. Special rates are \$75 single or double.

Tickets are: \$6.00 advance, \$7.00 at the gate. Combined registration and Saturday banquet, only \$20. Flea market tickets: \$16 per table indoors, \$5.00 per parking space outdoors. Indoor space by advance order only. All flea market sellers must hold a registration ticket as well.

\* \* \*

W1XX IN RHODE ISLAND

The W1XX multi-op crew will be in Rhode Island, FN41 for the January 1988 SS.

All bands, 6 meters thru 2304 MHz, will be manned by 8 operators.

UHF antennas will be atop an 80 ft. fire tower.

During the Pack-Rat 220 FM time frame (1700 to 1900 Sunday) will be looking west/southwest for contacts. Will be looking forward to working all the

Pack-Rats in the contest on all bands. (tnx KB9NM, Bart Janke)

RESULTS, ARRL VHF/UHF SPRING SPRINTS  
By Billy Lunt, KR1R, Contest Manager  
ARRL

The Spring Sprints are just what it takes to get the adrenalin flowing and lots of activity on the VHF/UHF bands from coast to coast. These short contests are just long enough to check out new equipment or antennas and then still participate in family activities.

There was a good turnout on all bands for the 5th running of the ARRL VHF/UHF Spring Sprints. HQ received a total of 433 logs for the 1987 events.

NOTE BY THE EDITOR: Pack-Rats among the score leaders as follows: WB2NPE, WB3JYO, N3CX, AA2Z, N2SB, and WA3AXV. Other members participating as follows: K3ACR, WA3AQA, W3CL, WA3JUF, AC3T (KA3B-op), W2EIF, N2CG. After the January VHF SS the Spring Sprints are a lot of fun.

\* \* \*

PROPAGATION REPORT  
Paul Drexler, WB3JYO

The VHF bands are alive with stations checking out gear in preparation for the upcoming contest. Keep that receiver tuned to the calling frequency, you never know what you'll be able to work.

Six meters has been open on several occasions. Stations were heard from the EM40, EL59 following the November 30th 6 meter net. N3BBI reports several zero land calls at 1900 hrs local on the 11th of December. The band again showed some life on December 12th with several stations from Alabama heard on the band. Nothing exciting really happened into our area however, until December 21st with strong signals to the Louisiana/Florida/Georgia area. K3KTY checked into our 6 meter net along with several other 4's. It's interesting to note that Florida stations have recently had openings to Mexico City and the Carribean although nothing has been heard in this area, to the best of my knowledge.

An Aurora was experienced on 6 and 2 on the evening of December 15th. WC2K (Rick, ex WB2NPE) worked a number of stations to the NW including WI, IL, IN, and MI. Sparse activity limited contacts to 6 and 2.

That's all for now. See you on the air.

\* \* \*

VISITORS DECEMBER 17, 1987 MEETING

KA3KSD - Dave Mueller - Pittsburgh, PA. (EN90)  
W3VIR - Bill Pawson - Holland, Pa. (EN20)  
KB2EFP - Cyndi Groven - Toms River, N.J. (FM29)  
W3AJS - Charles E. Keener (Ed) - Oreland, Pa. (FN20)

CHANGE OF ADDRESS

N2AQJ - Ed Morgan, RD #1, Box 285, Denver, PA 17517  
W1HDQ - Change Zip Code to 34606

\* \* \*

TID BITS

Sunspot No. for 1987 = 49.9. Smoothed No. for May 1987 = 26.3.

Helen Brick (Mother Rat - that is) did it again - made the "Red Cross Book" as a top flight disaster volunteer.

Charley, K3HSS back home after eye surgery.

Al, K3EOD, out for a while with an eye problem - stay in there pitching, OM.

(CONTINUED ON PAGE 5 )

SWAP SHOP

FOR SALE: A package deal - Harvey Wells xmtr-80 thru 144 Mhz; Heath Cheyenne xmtr - 80 thru 10; Heath Commanche rcvr; Heath HP20 pwr sply for both rigs; Heath HK7 spkr; Heath DX60B w/manual; Hallicrafter HA5 VFO - 80 thru 144 Mhz; Simpson Hi volt test probes #260, #303. Entire package \$75. Heath TV post-Marker/sweep generator IG57A w/manual; Heath FM stereo generator IG37, attenuator, cables - these 3 items \$60. Leader LBO 548 scope - 5 in. \$35. AME Co. 6&2 xmtr \$20. Electro Brand solid state AC-DC AM radio/8 track portable player \$10. National NC303 rcvr - ham bands \$65. Hallicrafter SX42 rcvr - broadcast thru FM \$45. RCA volt-ohmist \$15; Pre-recorded 8 track cassette and reel to reel tapes available. Programs for all model TRS 80 computers.

CONTACT: Doc Cutler, K3GAS  
Phone: 215-6351078

WANTED: Icom 551D 6 mtr. transcvr.

CONTACT: ZD8M8 - Mike Barry  
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FOR SALE: Odd assortment of 10 Ghz Gunn sources, complete w/horns, examples as follows: 5-10 mw units, 7.5" long, round 2.5" horn, with detector diode installed \$18.00 postpaid. 5-10 mw units, 4.5" long, round 1.8" horn, with detector diode installed \$16.00 postpaid. 5-10 mw SOLFAN units, with detector diode and rectangular horn, \$20.00 postpaid. ANY OF THE ABOVE WILL BE TUNED TO HAM FREQ. AND PWR CHECKED FOR \$5.00 ADDITIONAL. AVANTEK MSF-8885 Single-chip Front-end good to 12 Ghz, with documentation and literature, \$11.00 each, postpaid. SPARE GUNN DIODES for above Gunn Sources, 5.46 mm long, with 1.56 mm ends, about 5-10 mw output at 10 Ghz, \$5.00 each, postpaid. MINI-CIRCUITS MAR-1, MAR-2, MAR-3, MAR-4, MAR-7, and MAR-8 50 ohm in-out amplifier chips, with spec. sheet, \$5.00 each, postpaid. Check with Ham Call OK. SHF Microwave Supply, 7102 W. 500 S. La Porte, IN. 46350.

LOOP YAGIS: 902 Mhz and 1296 Mhz \$77 kit, \$93 assembled and tested. 2304 Mhz \$67 kit and \$80 assembled. Also, 2 and 4 way power dividers and stacking frames. LINEAR AMPLIFIERS. 1296 - 10W in 35W out \$295. Call for special Pack-Rat discounts and prices on complete arrays! NEW!! Microwave Transverters and preamps by LMW ELECTRONICS, 2304 Mhz deluxe transverter Model 2304 TRV2D, 144 Mhz I.F. Power out 2 watts, includes separate GaAsFET preamp. NFL db and built-in T/R sequencing circuit, relative output meter and 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. price \$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.

\* \* \*

TID BITS CONTINUED

George, WB3IGR, suffering from a neck spine problem.

Congratulations to Harry Brown, W3IIT celebrating his 25 years with G.E.

December issue of QEX has a nice write-up by Bill Olson, W3HQT telling readers how to go about getting active on VHF/UHF, Pack-Rats among those clubs that received publicity. TU Bill.

Rick, WB2NPE shall be known as WC2K from now on.

## HINTS and BITS

### Transverter and amplifier set-up

The following is generally for 10 watt 50-432 MHz transverters. Most transverters can be overdriven to up to 15 watts, but are linear to the 10-11 watt range. Higher power amplifiers made for 10 watts input will be overdriven if used with anything greater than 10-11 watts also.

The 28 MHz I-F drive level must be adjusted correctly for proper operation of any transverter. The following procedure is used for most transverters.

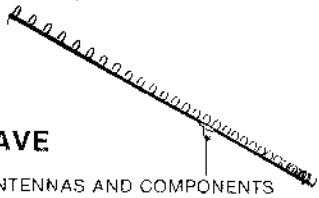
It is important that the HF radio be operated with the drive controls set at maximum. This will ensure that the transverter will not be overdriven should the drive controls of the HF rig be mis-adjusted. Proper RF attenuation is then placed between the transverter and the HF rig to provide 10-11 watts output.

1. Place a 10 watt power meter and dummy load on the output of the transverter. (A thru-line meter is the usual Amateur power meter).
2. Turn the drive controls of the HF rig down to minimum.
3. Apply 12-14 vdc to the transverter and key the unit into transmit. (hard keying of the transverter and amplifiers is suggested over RF switching).
4. Tune the preselector for maximum on 28 MHz on the HF rig (if one is available) and place the HF rig in the CW mode and depress the key (or put the rig in the tune mode).
5. Slowly adjust up the I-F drive until 10-11 watts of output is seen on the output meter.
6. If the drive control on the HF rig is not at maximum, then attenuation must be inserted between the two units.
7. OR- adjust the variable attenuator inside the transverter so that you have 10-11 watts output with the HF rig's drive control up all the way.
8. OR- a combination of both 6 and 7.
9. The drive level is set properly now and the transverter will not be overdriven into the non-linear region of output.
10. For SSB; turn up the Mic gain until the output meter reads about 1/3 of a 10 watt full scale while speaking into the Mic. (full scale voice peaks **mean distortion**)

If a 100 watt linear is spec'd at 10 watts input, then 10 watts is all that you should use. A few watts more output at the 100 watt level is never seen at the other end anyway. Also note that the amplifier's output power is spec'd while being measured on a real power meter into a good 50Ω load, with the rated input at the input connector. An amplifier may appear out of spec on a thru line meter. Enough said!

de WA3JUF

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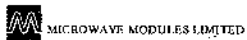
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