

# PACK RATS'



## PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

# CHEESE BITS



MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PENNSYLVANIA ARNS  
 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 XXVI

OCTOBER, 1984

NUMBER 10

### THE PREZ SEZ

The September meeting turned out to be a good crowd. If you were not there, you missed a presentation on 1296. Thanks to Dave (WA3JUF), Bill (W3HQT), Paul (WB3JYO), John (W3CXU) and to our V.P. Mike (WB2RVX) for putting together the presentation. Hope 1296 stations will increase for January.

Plans for the Mid-Atlantic V.H.F. Conference and our Annual Hamarama indicate that the club members have been busy. Looks like another outstanding list of events. See Page No. 8. I know I will see every Pack-Rat out helping for the Hamarama. Success depends on all of the members doing their part.

How can we go wrong in this year's January Sweepstakes. We not only have one Contest Chairman, but have two. Rick (WB2NPE) and Bob (N2SB) were the outstanding choices by the club members. I know we'll give them 100% of our support. Remember, this will be our 25th year. Thanks to Rick and Bob for co-chairing this effort.

73, Dave, WB2VLA

\* \* \*

### FROM ARRL LETTER 9/13/84

On September 15, the North American Teleconference Radio Net will be managed by the Midway Amateur Radio Club of Kearney, Nebraska, under the direction of its President Merlin "Mert" Feikert, WBØUSW, Timothy Loenwenstein, WAØIVW, will be the new Net Manager. The first TRN under the new sponsorship will be "Packet Radio: Overview and Prospective," on Sunday, December 2 at 7 P.M. EST. The speakers will be Lyle Johnson, WA7GXD, and Harold Price, NK6K.

Correspondence and requests for information on the North American Teleconference Radio Net should be addressed to TRN Manager, c/o Midway Amateur Radio Club, P.O. Box 1231, Kearney, NE 68847-1231. Please enclose an S.A.S.E. with your inquiry.

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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609-783-9478

CLUB HISTORIAN:

W3CL, HARRY B. STEIN

MONDAY NIGHT NETS

7:30 PM - 50.125 MHZ

8:00 PM - 144.150 MHZ

8:30 PM - 222.98/224.58 MHZ

8:45 PM - 220.125 MHZ

9:00 PM - 432.110 MHZ

9:30 PM - 1296.1 MHZ

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CALENDAR OF COMING EVENTS  
Syllabus by Lee, K3MXM

- OCTOBER: "October always has 19 fine days" 1984 Old Farmer's Almanac and we are hoping for one on the 7th.
- 6 YOM KIPPUR
- "OUR WEEKEND"
- 6 Mid Atlantic States VHF Conference - Warrington Motor Lodge, Buffet Luncheon, Cocktail Hour - Dinner. Gary, WB2OMY, Chairman
- 7 HAMARAMA - Bucks County Drive In Theater, Warrington, Pa. The Club's #1 affair. All your help is needed. Offer your services and help. Free breakfast to workers 5:00 A.M. Contact Lee, K3MXM. We need help in parking, ticket selling, club tent and tables.
- 6-7 ARRL QSO Party - CW - Info: September QST Page 78
- 8 Columbus Day Observance - Post Offices closed. No bills received today!
- 11 Board of Directors Meeting - QTH: WB2RVX, Mike Gullo, 22 Tenby Chase Drive, Voorhees N.J. 08043. 609-768-4789. Directors and interested parties always welcomed.
- 11 For you trivia buffs - Lambing Seasons begins in New Zealand.
- 13-14 ARRL QSO Party - Phone - Details September QST Page 78
- 16 If dry on GALLUS DAY expect a dry Spring
- 18 Want to feel older - the First "Perry Mason" radio show 1943
- 18 General Club Meeting - Southampton Free Library - Street Road, Southampton, Pa. Topic: To be announced on the Monday Night Nets. An open meeting to all. Bring your friends along. The Mario Raffle, Frankie's Silent Auction, Refreshments.
- 20-21 ARRL International EME Competition - Part 2
- 24 United Nations Day
- 24 First Electronic Wrist Watch 1960 - now you can obtain them for as little as \$3.00
- 28 RED ROSE Computerfest - Guernsey Sales Pavilion, Rt. 30, Lancaster, Pa. Info: Computerfest Committee - P.O.B. 5029, Lancaster, Pa. 17601
- 27-28 CQ WW Contest - Phone
- 28 Daylight Saving Time Ends - Remember - FALL BACK
- 31 Wednesday Night - HALLOWEEN - Have your goodies ready for the kiddies - we were all young once...and it was fun!!!

NEW PRODUCTS OF INTEREST TO HAMS

By Lyn, W3NSI

1. SANTEC LS 202A HT: The Santec LS 202A HT operates both SSB and FM on the 2 meter band. Frequency selection is the usual 5 Khz step synthesizer for both modes. On SSB a VXO and RIT allow continuous tuning of both upper and lower sidebands. Output is 2 1/2 watts PEP in the Hi Pwr position.
2. DUAL AXIS ROTOR: The DR 10 rotor is designed for use with Oscar 10 antenna systems. The control unit contains a single dual scale meter to indicate azimuth and elevation. Eight wire cable is used for the control lead and the rotor box accepts 1 1/2" size booms. This a top of tower mount and does not lend itself to mast mounting. Dynetic Systems, 19128 Industrial Blvd., Elk River, MN 55330
3. ICOM IC 471 H: A new version of the IC 471 is now available. The H model has an output of 75 watts on the 430-450 Mhz band. In addition the H has an optional mast mounted pre-amp which can be switched in or out from the front panel. The A model with 25 watts out will continue to be sold. Price (List) \$1099
4. KENWOOD POCKET SIZED HT. (FM): The new TH 21 and TH 41 HTs are 1 watt units covering the 2 meter and 440 Mhz bands. Full coverage in 5 Khz steps is controlled by a 3 digit thumb wheel switch. Size of the HT is 2 1/4" wide by 4 3/4" high and 1 1/8" thick. AT versions are available with 16 key pad encoders for autopatch operation.

\* \* \*

ARRL BULLETIN NR 73 FROM ARRL HEADQUARTERS NEWINGTON CT SEPTEMBER 14, 1984 TO ALL RADIO AMATEUR: Bills have been introduced into congress which would add malicious interference to radio communications as an offense named in the communications act of 1934, permitting enforcement directly by the Justice Department. Up to now, interference cases have generally been handled administratively as violations of FCC regulations. Representative Jim Bates, D/CA, is sponsor of HR 6195 and Senator Barry Goldwater, R/AZ, K7UGA, is sponsor of S 2975, each of which would amend the Act making malicious interference a statutory offense. QST and the ARRL letter will have more information.

ARRL BULLETIN NR 72 FROM ARRL HEADQUARTERS NEWINGTON CT. SEPTEMBER 14, 1984 TO ALL RADIO AMATEURS: ARRL has requested that the FCC issue a declaratory ruling of limited Federal preemption of State and local regulation of amateur radio station installation and operation, or, in short, antenna zoning rules. The FCC seeks factual, unemotional comments on the leagues filing. An original and four copies of any comments must be received by the Secretary, FCC, 1919 M Street, NW, Washington, DC 20554 on or before Nov. 9. Please send a copy to ARRL. Comments should refer to document number PRB 1. A copy of the leagues request is available from ARRL HQ for a 9x12 inch S.A.S.E. with 88 cents postage. Details in league lines, Oct. QST.

ARRL BULLETIN NR. 71 FROM ARRL HEADQUARTERS NEWINGTON CT. SEPT. 14, 1984 TO ALL RADIO AMATEURS: FCC has proposed to reallocate half of the 160 meter band, from 1900 to 2000 Khz, to non-government radiolocation because of an anticipated expansion of the AM broadcast band that would force certain radiolocation stations to move. Although the timing of the Sept. 11 release of Docket 84 874 came as a surprise to the Amateur Radio community, ARRL reacted swiftly. ARRL today filed a motion to hold this NPRM in abeyance pending the resolution of an ARRL Petition filed Sept. 10 to show the MF band needs of nongovernment radiolocation stations. Details in the Sept. 13 ARRL letter.

ARRL BULLETIN NR 78 FROM ARRL HEADQUARTERS NEWINGTON CT. 9/21/84 TO ALL RADIO AMATEURS: ARRL MEMBERS ARE REMINDED OF THE ARRL QSO PARTY SCHEDULED FOR 10/6 and 7 FOR CW AND 10/13 and 14 FOR PHONE. EXCHANGE IS STATUS AND ARRL SECTION; COMPLETE RULES APPEAR ON PG. 78, SEPT. QST. LOG FORMS ARE AVAILABLE FROM ARRL HQ. FOR AN S.A.S.E.

ARRL BULLETIN NR. 79 FROM ARRL HEADQUARTERS NEWINGTON CT. 9/21/84 TO ALL RADIO AMATEURS: The new edition of the ARRL net directory is now available. Listing over 1200 public service nets by location and frequency, as well as many computer and maritime service nets. This newly revised booklet is also packed with information on all the basics of traffic handling and net operation. You may obtain a copy by sending a SASE 9x12 inch envelope with 88 cents U.S. postage to ARRL net directory, 225 Main St., Newington, Ct. 06111.

SWAP SHOP

WANTED: Solid States Amplifier for 144 MHz, 220 Mhz, 432 Mhz - 40 to 60 watts. Transverters (SS) for 220 Mhz & 1296 Mhz. VHF Wattmeter.

CONTACT: Richard Subin, K2EVW  
Phone: 609-392-2814  
or 215-878-4615

FREE: RCA console 25" color TV w/new picture tube; has minor B plus short, also needs minor repair to cabinet. Also have identical chassis, spare tubes & service data.

FOR SALE: Sony 15" color TV, operating condition, good picture. Needs volume control. \$35.

CONTACT: John Allen, W3CXU  
Phone: 215-886-4109  
1119 Highland Avenue  
Abington, Pa.

ELECTRONICS INSTRUCTOR OPENING

W3FBF, Paul Mercado advises there is an opening for an Electronics Instructor at the Pa. Institute of Technology. 800 Manchester Avenue, Media, Pa. 19063. Contact John Strayer, V.P. on 215-565-7900

FOR SALE: Test equipment by Heathkit - 1-5 inch oscilloscope, mod. 0-8; 1-capacity meter, mod. CM-1; 1-vacuum tube voltmeter, mod. V-6; 1-A.C. vacuum tube voltmeter, mod. AV-2. All in good condition and operating. Each with it's manual. Meters have microampere sensitivity. Will entertain an offer for each or all.

CONTACT: Jack Power, W2AXU  
Phone: 609-882-8811

FOR SALE: R390A receiver

WANTED: 220 Mhz FM transceiver

CONTACT: Gus, K3GYS  
Phone: 609-767-3628

FOR SALE: 40' Rhon self supporting hdbx 40 tower. Good condition \$75.00 1296 Spectrum International Loop Yagi \$15.00.

CONTACT: WA2OMY, Gary Hitchner  
39 W. Mt. Kirk Avenue  
Norristown, Pa. 19403  
Phone: 215-539-6409

FOR SALE: Heath SB-200 Linear (80-10 Mtrs) The 572 B. Tubes are almost new \$325. (This equipment belongs to KB3BZ).

CONTACT: K3QQ, Ric  
Phone: 215-355-1980

\* \* \*

VISITORS-SEPTEMBER 20, 1984 MEETING

KA2NYF, Janet, Voorhees, N.J.  
W3AJS, Ed, Orelan, Pa.  
N3AOG, Dick, Hatboro, Pa.  
WB3DNI, Pat, Warminster, Pa.

WA3YOB, Silvio, Southampton, Pa.  
Earl, Southampton, Pa.  
WB8ZAR, Dave, Cinnaminson, N.J.  
N3DQZ, Jack, Holland, Pa.  
Chuck, Bryn Athyn, Pa.

APPLICATION FOR MEMBERSHIP

N3AOG, Richard E. Comly  
56 Home Road  
Hatboro, Pa. 19040  
215-443-9965

CHANGE OF ADDRESS

KF6AJ, Steven M. Simons  
30 Main Street  
Danbury, CT 06810  
203-743-4416

(The above is his office address - all correspondence should be sent there).

K3HW, Howard Weinstein  
15 Lakeside Drive  
Marlton, N.J. 08053

(K3HW has been reinstated as a regular member)

CHANGE OF ADDRESS CONTINUED

K2EVW, Richard Subin  
614 Indiana Avenue  
Trenton, N.J. 08638  
609-392-2814

K3KTY, John Tate  
306 23rd Avenue, West  
Bradenton, FL 33505  
813-749-1509  
(K3KTY request to be placed on retired list  
was approved)

\* \* \*

TID BITS

Sunwatcher, Jack Power, W2AXU reports the Monthly No. for August 1984 = 24.8 - Smoothed No. for February 1984 = 56.1.

W2EIF, Jo Kilgore is on the sick list with a back injury - Susie, however, was out of the hospital. We sure wish them well.

Ric, K3QQ reports "Both Harmonics have received their Novice tickets." Jonathan (Age 10) is KA3NDF and Ian (Age 13) is KA3NDG. For his first QSO Jonathan worked VE2GXI -it was also VE2GXI's first QSO!

Jack, N3DQZ, reports that the Warminster ARC has a new net on 50.125 Mhz on Wednesday evenings at 8 P.M. except for the first Wednesday of the month.

Dave, N3CX reports a 220,120 MHz net from Kentucky and Tennessee on Tues. nites at 2200 to the North, 2215 NEE and so on - KC4EG - Net Control. Tnx Dave.

WB2NPE was appointed January 1985 SS Chairman assisted by N2SB (WB2VLA, W2EIF and W3CL). They will have to sell grid squares to the Pack-Rats.

\* \* \*

(The following letter was also submitted to the FCC in the Proper Form).

Richard E. Connor, Jr.  
R.D. 3 Box 107 Carranza Rd.  
Tabernacle, N.J. 08088

August 27, 1984

Honorable William Bradley  
Hart Office Bldg.  
Washington, D.C. 20510

Dear Senator Bradley:

I am an amateur radio operator, call sign WB2NPE, from southern New Jersey. I represent the Mt. Airy VHF Radio Club, Inc., a Delaware Valley based Radio Organization dedicated to the promotion and preservation of VHF amateur radio operation. A matter concerning the encroachment of an amateur allocated frequency band has surfaced with the F.C.C. It concerns our VHF band from 220.0 to 225.0 MHz which is used in the South Jersey/Phila. area for Emergency Ham Communications as well as for other purposes crucial to the hobby.

PRM #4829 submitted by the Land Mobile Communications Council asks the F.C.C. to allow for re-allocation of the 220-225 MHz band to commercial use on a non-shared basis. PRM #4831, submitted by Sideband Technology, Inc., a radio manufacturer, requests that the specific portion of 216-222 MHz be re-allocated for commercial channelization.

(CONTINUED ON PAGE 7 )

LETTER TO SENATOR BRADLEY  
CONTINUED

The 220 MHZ band of frequencies is assigned for Radio Amateur Civil Emergency Services (R.A.C.E.S.) operation and many established emergency management nets throughout the U.S. will be displaced with no place to re-establish. The occupancy of the 220 MHZ band by the amateur service is fairly high; in the South Jersey/Philadelphia area there are several hundred Ham stations operating regularly. It is known that there is other activity of comparable numbers throughout the U.S., particularly around urban areas. The portion of the band specifically in jeopardy, 220.0 - 222.0 MHZ has become extremely active in recent years by amateurs pursuing the challenge of Earth-Moon-Earth (moonbounce) Communications. The remaining portion of the band, 220.0 - 225.0 MHZ is currently populated with FM repeaters, local emergency operations, and remote control systems. The 220.0 MHZ band has proved invaluable lately in relieving the congestion of our overpopulated two meter VHF band.

Before the commercial manufacturer and organizations propose to usurp frequencies assigned to our amateur service, they should explore their technical capabilities and make use of new or unassigned frequencies.

The many public services provided by amateur radio in this country should provide solid reason to preserve our frequency allocations.

Therefore, the Mt. Airy VHF Club and the Amateurs of the Delaware Valley hold strong opposition to the rule making proposals RM4829 and RM 4831 and request immediate recommendation by your office that no action be taken on these rule making proposals. F.C.C. decision making on this issue is scheduled for August 29, 1984.

Thank you for your help and support.

Respectfully yours,

Richard E. Connor, Jr. WB2NPE

REC/lm

cc: David Power, WB2VLA, President - Mt. Airy Radio Club

Hugh Turnbull, W3ABC, Director - Atlantic Division American Radio Relay League

David Sumner, K1ZZ, General Manager - American Radio Relay League

Christopher Imlay, N3AKD, Counsel, American Radio Relay League

\* \* \*

September 5, 1984

Mr. Richard E. Connor, Jr.

R.D. 3, Box 107 Carranza Road

Tabernacle, N.J. 08088

Dear Richard:

Thank you very much for your recent letter in which you expressed deep concern relative to two Notices of Proposed Rule Making currently being considered by the Federal Communications Commission that you feel will result in the loss of the 220 MHZ band by radio amateurs. After checking into this situation, I have learned that although various considerations are being reviewed in this particular area, no decision can be expected to be reached for some time.

As an amateur radio operator myself, you can be sure that I will continue to follow this situation closely as it develops.

Thank you again for taking the time to write and give me the benefit of your thoughts on this matter that is of such importance to so many of us.

73's

Barry Goldwater

REPORT BY GARY HITCHNER WA2OMY - CHAIRMAN VHF CONFERENCE

Everybody should be aware by this time of the 8th Annual VHF Conference. There should be something in the program for everyone. Lets do what we can to get attendance up by asking friends and people we work with to attend. Especially if someone is thinking about ham radio. See everybody on the 6th.

PROGRAM MID-ATLANTIC STATES VHF CONFERENCE OCTOBER 6, 1984  
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0900 PACKET RADIO...Jeff Ward, K8KA, is a laboratory engineer at ARRL and editor of ARRL's Packet Newsletter, Gateway. Jeff will discuss what Packet Radio is and what is necessary to operate 2 meter Packet Radio.

1000 MOONBOUNCE: AN UPDATE...Bill Lakotosh, K3QCQ, an operator of Moonbounce for several years, will discuss some methods for measuring noise of receiving systems and technology of new amplifiers for 1296. Several pictures of leading stations will be shown.

1100 ANTENNA STACKING...Steve Powlishen, K1FO, a well known leader in VHF and UHF will discuss new methods of antenna stacking of VHF arrays.

1200 LUNCH

1300 AMSAT: AN UPDATE...Tom Clark, W3IWI, will present the plans for future satellites and will discuss how to get the most out of the present satellites.

1400 23 AND 13 CM BANDPLAN...Dick Jansson, WD4FAB, Chairman of the ARRL Advisory Committee, will present the Bandplan submitted to the Board of Directors of ARRL. Questions are welcome.

1500 SOLID STATE FOR 1296 AND 2304...Bill Olsen, W3HQT, and Dave Mascaro, WA3JUF, from Tompson CSF, will present how 1296 and 2304 linear amplifiers are designed. Practical construction and samples will be shown.

COCKTAIL PARTY...Hospitality suite hosted by the Packrats

BUFFET DINNER...Conference Room

\* \* \*

FROM ARRL LETTER 9/13/84

Ralph Wallio, WØRPK, of Indianapola, Iowa, and Robert Carpenter, W3OTC, of Rockville, Maryland, have been having routine contacts by 6-m meteor-burst propagation. These contacts have been 100 per cent error-free, thanks to the use of packet-radio techniques. Other than the use of TAPR (Tuscon Amateur Packet Radio) packet-radio modems and computer terminals, conventional Amateur Radio equipment is used. WØRPK uses an unmodified 250-W Motorola FM base station and a 5-element Yagi. W3OTC employs a modern all-mode rig, a 150-W solid-state amplifier and a 6-element Yagi.

Packets are limited to 30 or 40 information characters and about 20 overhead characters (calls, error-detection characters, etc.) requiring a burst 320 to 380 ms long. Acknowledgement packets are about 20 characters long (128 ms). Because of the slow recovery time of the older FM rig, as much as 100 ms of fill is allowed before acknowledgement. Thus, a burst has to be about 610 ms long to transmit a 60-character packet and receive an acknowledgement. Shorter times are now being tried successfully.

\* \* \*



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