

# PACK RATS'



## PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

# CHEESE BITS



MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PA. ARNS  
 50.125, 144.50, 432.110, 1296.025 Mhz, WR3ACD - 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 18966

VOLUME XXIII

JANUARY, 1981

NUMBER 1

### THE PREZ SEZ

I was never one for making up New Year's resolutions, but it is helpful sometimes to stop and take stock on where we're at and where we're headed. The Clubs' outlook for the year looks bright with the January VHF Sweepstakes just a few weeks away, homebrew night in February, ARRL Night, the June Contest, the Club Banquet, etc. Almost wears me out thinking about it all. Hope you're planning to be a part of these activities and to enjoy the rich fellowship we've developed over the years. It's the working together that has made us mighty - from knocking off the top competition in the January Contest 21 years ago and continuing today when we annually ward off competition from clubs many times larger than us in this same contest. If you were at the December meeting and were able to observe John, K3KTY, go thru his pep session, you would easily see how we get together. John sure was a one man cheering squad and was right - we're all NO. 1!

As far as club activities go, we've always got more things to do than we have volunteers to do them. If you see something that you think needs done or that you think we should do, by all means feel free to bring it up. Better yet, volunteer to do it or assist or suggest someone for the job. Sometimes it seems like the same guys are doing all of the jobs and I guess they are - how about volunteering to be one of them. We need rats to do everything from designing new club projects to cleaning up the coffee pot after the meetings and for everything in between - theres a job waiting for you. How about including the Packrats in your list of resolutions this year.

Thanks to Steve, WA3WAS, Ron, WA3AXV, Bill, W3HQT, Joe, W2EIF and John, K3KTY for the fine contest program at the December meeting. Speedy mending to Ernie, W3KKN and Harry, W3CL.

73, Harry, W3IIT (5/9 E.Pa.)

\* \* \*

A REMINDER FROM THE TREASURER, K3GAS. DUES ARE DUE BEFORE APRIL, 1981

Regular Members	-	\$8.00
Retired Members	-	\$4.00
Students	-	\$2.00

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      NET CONTROL

7:30 PM - 50.125 MHZ      W3CL  
8:00 PM - 144.150 MHZ      W2EIF  
8:30 PM - 222.98/224.58      K3GAS  
9:00 PM - 432.1 MHZ      K3IUV  
9:30 PM - 1296.025 MHZ      W3CXU  
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CALENDAR OF COMING EVENTS  
Syllabus by Lee, K3MXX

NUARY 1981

- 1 HAPPY NEW YEAR - MAKE IT A HEALTHY, HAPPY ONE!!
- 1 Straight Key Nite - See December QST
- 1-4 For those Las Vegas Bound Travelers - SAROC - The Dunes Hotel
- 3 ARRL - CD Party - Phone
- 7 First Boat through the Panama Canal - The "Lavellex" = 1914
- 8 Board of Directors Meeting - QTH - W3IIT, Harry Brown, 3012 Potshop Rd., Norristown, Pa. Directors and interested parties invited. If lost, 584-4846.
- 10-11 Hunting Lions on the Air - Contest - See December QST - A most interesting contest.
- 11 Richmond Virginia Hamfest - FROSTFEST - Chesterfield, VA. Info: P.O. Box 1070, Richmond, VA 23208
- 15 MEETING NITE MOVED TO THE 22ND - MAKE A NOTE!!
- 17-18 THE CONTEST - ARRL-VHF Sweepstakes - 1800 UTC Saturday January 17 - 0400 UTC Sunday, January 19. All VHF Bands. The Clubs' one big united effort. Let us all put our efforts in and better last years score by 15%.
- 17 For the Snowbirds - Sarasota, Florida Hamfest
- 19 To those South of the M and D Line. Happy Birthday, Robert E. Lee
- 22 General Club Meeting. One of the most original and funniest of the whole year. Every club member participates. CRYING TOWEL SESSION. All the trials and tribulations of the contest and past weekend. All the goofs and all the triumphs. How each of us beat ole murphy's law. The Mario Raffle - Frankie's Silent Auction, Refreshments. An open meeting to all club members and their friends and amateurs throughout the whole Delaware Valley.
- 24 S.F.B. Morse First exhibited the Dot and Dash Telegraph Code 1838
- 25-26 160 Meter Contest - See December QST
- 29 First Five Members inducted into Baseball Hall of Fame - okay that your guess before reading on - no peeping - they were: Cobb, Johnson, Mathewson, Ruth and Wagner, 1936.

\* \* \*

VISITORS AT THE DEC. 18, 1980 MEETING

Ex-K3EMR - Gus, Elkins Park, Pa.  
WB2TFH/N2CG - George Hall, Saddle Brook, N.J.

VOTED TO MEMBERSHIP

WB2TFH/N2CG - George E. Hall  
18 Miller St. XYL-Paula  
Saddle Brook, N.J. 07662  
201-843-5130

NEW PRODUCTS OF INTEREST TO HAMS

By Lynn, W3NSI

1. SYNTHESIZED 440 FM RIG - TR 8400: Kenwood has introduced a new 440 Mhz rig that covers range 440-450 Mhz in 25 Khz steps. Rpt operation with 5 Mhz offset is a standard feature, as is up and down scan, controlled by buttons on the mic. Scan can also be used in the automatic mode, in 25 Khz steps, stopping on any active channel. A four digit frequency display indicates channel in use. The S/RF meter is one of the new bar LED indicators. RF output is 1 W or 10 Watts switched from front panel.
2. NEW 220 HT: Talk is around concerning a new 220 HT from Digicom. The unit, DG220A, is crystal controlled on six channels, and has an output of 2 watts. This should be about the same size as the Tempo S2 220 Mhz unit, which is also synthesized, but sells for about twice as much. Price \$169?? Digicom, 5419 LaPalomas Ct., Las Vegas, NV 89120
3. HAM OPERATING CONSOLE: Keith Engineering Corp. is advertising their Keith Konsole, designed with the ham in mind. The cabinet is 72 inches high, 36 inches wide, and 20 inches deep. A choice of two plastic laminates is available - Oak or Pecan. A sample of each will be sent with the order blank. Four front doors allow storage of power supplies in the bottom, while the upper doors open to allow access to equipment placed on the adjustable shelves. A working surface slides out on ball bearing tracks that allow 19 inches of travel. Appears to be well built. Price \$380 + ship., P.O. Box 16782, Clayton, MO. 63105

\* \* \*

VHF/UHF REPORT

By Joe, W2EIF

The VHF/UHF bands have not shown any activity of note.

The 50 Mhz band continually (up to Dec. 18) has been opening to Ireland and Holland in the morning. Contacts are few since the openings are very short and seem to be very spotty as to location. Stations relatively close have noted that one maybe making the contact ok - the other may hear little or nothing. There have been no openings to the West Coast in the PM as is sometimes noted when the band opens to Europe. These openings seem to be occurring even on a declining sun spot cycle and maybe, according to our Sun Expert W2AXU, some kind of propagation other than F2.

The openings are supposed to be gone completely by January, but we shall see!

Have a Happy Holiday Season - Lots of DX and a fine Contest.

\* \* \*

TID BITS

Walt and Candice Bohlman (K3BPP) announced the birth of a Junior Op, Scott Walter, on Dec., 17, 1980 at 1:51 P.M. He was "transmitting on a frequency of 9 lbs. 2 oz. Mhz from the North Penn Hospital. All this by authority of the F.C.C. (Fine Children Commission) Our best wishes to the proud parents.

A friend of the Pack-Rats, Paul Mercado, W3FBF, was recently elected as President of the Rotary Club of Broomall (Delaware County) Congrats Paul!

Stan Smith, K3IPM/8 reports he will be on the Jan. VHF SS from Ohio. He says to keep our beams West.

The Mittens, WA3NFV, suffered a disappointment when Lucy had a miscarriage recently. She is home now recuperating.

We are happy to report that Ernie Kenas, W3KKN came home from the hospital to enjoy the Christmas Holidays.

The Editor, W3CL was unexpectedly hospitalized for a week with a bad seige of the Flu that has been running rampant throughout the area. Many thanks to all that passed along good wishes via phone calls and cards.

(CONTINUED ON PAGE 5.)

SWAP SHOP

FOR SALE: Kenwood TS-820S xcvr - 160 thru 30 mtrs. 100W. Pep out. Like new - \$750.

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

FOR SALE: Drake TR-4C SSB xcvr - 80-10 mtrs. \$399. Drake RV-4C Remote VFO - \$90

Drake AC-4 pwr sply with manuals \$90  
Drake TR 22C- 2M FM xcvr w/manual \$115  
(Includes 12 xtals)

CONTACT: Al Gaskill, W3JWF  
Phone: 215-744-7748

FOR SALE: (From Estate of W3UKY)

HA 500 Lafayette rcvr., Johnson Viking II w/VFO, SB401 Heath xcvr., SB500 Harvey Wells xmtr. Parts, tubes, etc.

CONTACT: Ed Keller  
Phone: 215-365-5195

FOR SALE: TS-520 w/manual - mint in original box \$475. WRL DuoBander 84 SSB xcvr, AC/DC pwr sply, Shure Mobile mic., manual \$250.

Hallicrafters HA-1 electronic keyer w/manual, vry good cond. \$35. Hustler Mast, heavy duty spring, resonators 80, 75, 40, 20 mtrs. \$50. Will ship UPS insured anywhere USA

CONTACT: Howard Weinstein, K3HW/6  
5769 El Cajon Blvd., Apt. 18  
San Diego, CA 92115  
Phone: 714-466-8702

FOR SALE: Amplifier, Henry K-2000, 2 Kw PEP 80 thru 10 mtrs. Matches Kenwood line \$685.

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

FOR SALE: Sun zoom lens 85-210 mm, universal Pentax screwmount, very little use \$75.

CONTACT: Paul Drexler, WB3JYO  
Phone: 215-598-3934 after 6 PM

FOR SALE: Realistic DX6 - 5 band comm. rcvr. w/spkr, new \$125. Atlas sound coax projector (speaker horn) indoor/outdoor - 15W; 80 ohms, 16 in. dia. x 12 in. deep w/mtg. bkt. \$25. Sharp solid state TV camera & 8 1/2 in. (diag) monitor \$200. 2 channel walkie-talkies w/bat. new \$10. ea. Rcvr - NC sixty special - 4 band \$20; rcvr - HQ 129X & manual \$35; Rcvr - Lafayette - HA 350 \$50; Rcvr - Hallicrafter - SX71 (needs work) \$40; Rcvr - Hallicrafter - SX 99 & manual \$75; Rcvr - NC 188-Q mult. 100 Khz cal. \$75; Heath VTVM - 1M 11 & manual, like new \$20; Heath VTVM - 1M-32 \$30; Rcvr - 450 Mhz \$25; Realistic new 42-3020 Stereo component rack \$25; Monkey see right-wrong calculator with battery \$6; many parts, CB & auto ant., hifi used & new components, records (new), tapes (new) TV games, perf box kits plus many other items.

CONTACT: Doc Cutler, K3GAS  
Phone: 215-635-1078

\* \* \*

TID BITS CONT.

We were delighted to receive the new ARRL Flag donated to the Club by George VanDyke, W3HK. It will be on display at the January Meeting.

Condolences to Bill Murphy, WØRSJ and his family on the recent death of his father.

Sun watcher Jack Power, W2AXU, reports the monthly sunspot number for Nov. 1980 is 146.5

Greg Adams is Ex-WA3UXM. He sports a new call obtained in San Diego, CA; it is

KD6KD - kinda neat - eh wot?

Have not heard W3HQT lately. Could it be that amorous distraction has taken over?

:CORRECTION:

Refer to schematic diagram on Page 6 of the December issue of Cheese-Bits - "RF SWITCH USING PIN DIODES" The "RCV" line is shown connected between the pin diode and ground - change this lead to go between the coil marked "RFC" and the pin diode. The coil marked "RFC" is also in error - it should be designated "COAX - 1/4 WAVE LINE".

\* \* \*

NOTICE: Pete Shavney, WA3OVH, plans to move to Texas late January or in February. His new address is as follows: Peter H. Shavney, WA3OVH, Box 176, Rte. 10, San Antonio, TX 78216

\* \* \*

ARRL BULLETIN NR 136 FROM ARRL HEADQUARTERS NEWINGTON CT DEC. 18, 1980 TO ALL RADIO AMATEURS BT  
The FCC has decided to make permanent the rule requiring commercially made Amateur Radio amplifiers to be type accepted. The Commission has also decided to release a further notice of proposed rulemaking in Docket 21117 looking toward allowing manufacturers of amplifiers to supply to licensed amateurs instructions on how to modify the amplifiers already purchased to operate in the 28 MHz band. Details will appear in QST AR.

ANNOUNCEMENT

2nd Annual 1981

SPRING VHF QSO PARTY - Sponsored by the Ramapo Mountain ARC, from 1800Z March 28 until 0400Z March 29. Exchange signal report and ARRL section. One QSO point for 50-144 MHz contacts, two points for 220-432 Mhz contacts, and three points for 1215 MHz and up. Multiply by sum of ARRL sections per band. Rules are the same as for ARRL VHF QSO parties except FM OPERATION NOT PERMITTED BELOW 450 MHz. Use ARRL VHF QSO party, or similar forms; or S.A.S.E. to RMARC for entry forms. All who submit entries will receive a copy of results. Mail by April 27 to Ramapo Mountain ARC; P.O. Box 364; Oakland, N.J. 07436

\* \* \*

Next time you need a rebuff remember these: He's so old that....He sat in a rocking chair and couldn't get it going; The gleam in his eye was only the reflection off his bifocles; All the names in his black book ended with M.D.; His knees buckled but his belt couldn't. Thanks to Jim Spencer - BBB

\* \* \*

FROM HR REPORT DECEMBER 19, 1980

PLAIN LANGUAGE AMATEUR RULES, docket is due out in today's (Dec. 19's) Federal Register, where it's likely to occupy 25 to 30 pages of small print. The Notice of Proposed Rule Making, PR Docket 80-279, includes both the texts of the present Part 97 rules and the proposed rewrite plus explanations.

Significant Changes, such as the deletion of all logging requirements and addition of a requirement that licensees must keep a copy of the Amateur rules on hand (HRR 329), also include a warning that the FCC can inspect a station "at any time during the business day or any time your station is transmitting or has just finished transmitting." The new rules no longer tell an Amateur how he should make various measurements, but only how the FCC inspector would make them during a station visit. The proposed new rules also clarify rules on inter-connects (phone patches), antenna heights, and emergency and prohibited communications. They also include much more information on exams, both written and code, and propose that applicants with FCC Commercial CW licenses get credit for the equivalent Amateur CW exam. The rewrite also endeavors to consolidate and reorganize the rules into a more concise and logical arrangement.

In addition To Being Printed in Dec. 19's Federal Register, PR Docket 80-729 will also be available in limited quantities from the FCC Office of Consumer Assistance, Room 258, 1919 M Street NW, Washington, D.C. 20554. Comments won't be due until June 19, 1981, and Reply Comments on August 19, 1981.

\* \* \*

Heard after the election: What's so wonderful about a candidate running for office? I do it every morning...

I'm one of those older guys who still enjoys dancing - provided I can get a seat near the stage.

To keep snow from sticking to your shovel - move to Florida.

Keeping up with Christmas bills is just like trying to balance a handful of jello on the tip of a broom handle or nailing a raw egg to the wall...

A law, however you may translate it, is usually a restraint on the many because of the actions of a few...

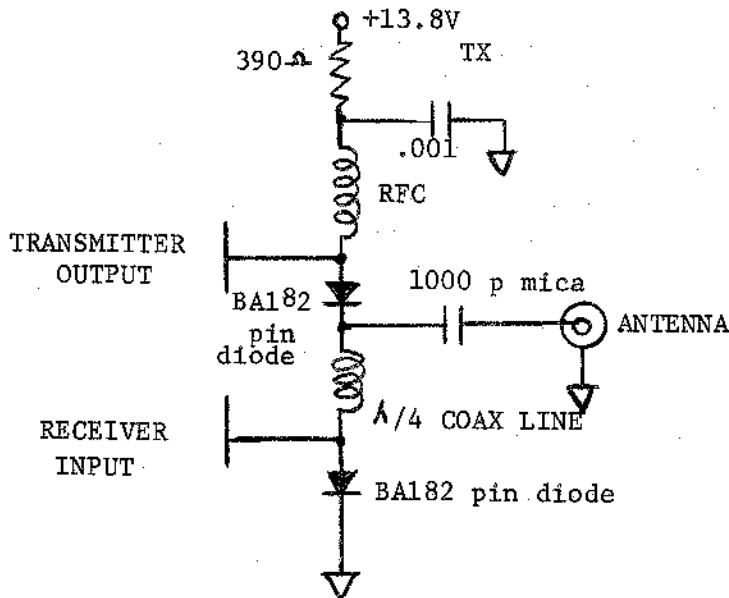
Back in the good ole days you never heard of God recalling a horse because of faulty steering, bad brakes or missing bolts...

They have a new breakfast cereal coming out made of yeast and shoe polish. It's for those people who want to rise and shine...

And there I was standing on a high hill with the wind blowing my hair...and I was too proud to chase it...

SOLID STATE RF SWITCHING  
by Dave Mascaro, WA3JUF

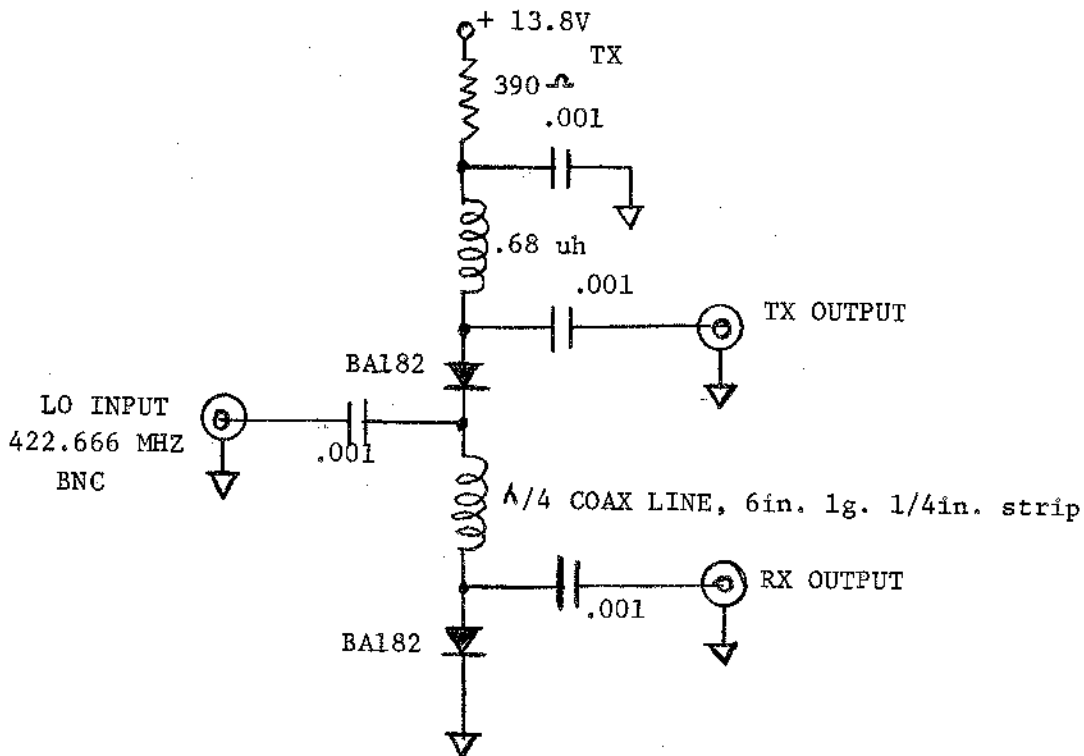
Most transceivers today use diode switching for antenna changeover instead of relays. The first schematic is a basic pin diode switch used for antenna changeover. The RFC and quarter wave coax lines determine the frequency used.



RFC, 144 = 10t, #24, 1/8in. dia.  
220 = 8t, #24, 1/8in. dia.  
432 = .68 uh

COAX LINE, 144 = 16in.  
220 = 9-3/4in.  
432 = 6in.

The second circuit is an RF switch used as a local oscillator power splitter. It feeds an RX mixer and a TX mixer. Oscillator frequency is 422.666 MHz for a 1296 MHz transverter.



FROM THE CIRCUIT BOARD  
By Jordan Kaplan, W9QKE

This month we will expand on our comments regarding the art of short wave listening. In addition to the big guns of the short wave frequencies with varied programming, the transmission of tones, and time pulses by the technical "Standard Time And Frequency" stations is of interest not only to the scientific community, but also to the casual SW listener, and of course the radio amateur. We are all familiar with the signals that are transmitted from Fort Collins, Colorado by WWV and WWVB, and from Hawaii by WWVH.

Some of us find that the signals from our friends to the North in Canada are easier to use during some times of the year; CHU transmits on 3330 Khz, 7385 Khz, and 14,670 Khz. Identification is voice in English and French.

The granddaddy of them all, The Royal Greenwich Observatory in England transmits from GBR on 16 Khz, and from GBZ on 19.6 Khz with time signals during the 5 minutes preceding 0300, 0900, 1500, and 2100 UTC.

The Radio Research Laboratories in Tokyo, Japan operate station JJY on 2500 Khz, 5000 Khz, 10000 Khz, and 15000 Khz. I.D. is transmitted every 10 minutes in Morse and Voice with time in Japan Standard Time.

Our neighbor to the South, Mexico transmits on 4800 Khz on XDP, 6976 Khz on WBA, 13043 Khz on XDD, and 13953 Khz on XBA. Daily broadcasts are only available from 1754 hrs to 1800 hrs. That's right! Six minutes a day!

From Lyndhurst, Victoria, Australia, station VNG transmits time and frequency standards at 10 KW on 4500 Khz, 7500 Khz, & 12000 Khz. Voice ID is used.

Besides the famous Woodpecker signals from the USSR, signals are transmitted from 6 different cities and in both the LF and HF bands, to provide standard frequencies. Some of the HF frequencies are: 4996, 9996, 14996, 10004, 15004, 2500, 5000, 10000, and 15000 Khz. Most frequencies in the HF bands operate at specific times during the day. Only two transmitters that operate from Irkutsk appear 24 hours each day.

Some "non-standard" frequencies used to give time and/or frequency standards are: 8167.5 Khz in Argentina, 8721 Khz in Brazil, 4298, 8558 Khz in Chile, 3810, 7600 Khz in Ecuador, 1077.5, 1387.3 Khz in France, 12763.5, 16980.4 Khz in Germany. Hong Kong uses 13020.4, 17096, 22536, 13344, and 8903 Khz. Indonesian time signals show up on 8542, and 11440 Khz. Peru uses the 8650, and 12307 Khz pair. 12724, 17018, 22455 Khz are broadcast from Capetown South Africa. 12008, & 6840 Khz come out of San Fernando Spain.

Oh yes, before I forget! The U.S. Naval Communications Station, NPG in California transmits from Stockton on 3268, 6428.5, 9277.5, and 12966 Khz. The Navy also operates NPN on Guam, and NMO in Hawaii with time signals. Next time someone asks you what time it is, turn on your receiver and give them the time from another part of the world via the wonderful world of SW listening.

\* \* \* \*

LAST MINUTE SWAP SHOP

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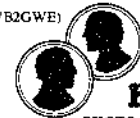
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