

# PACK RATS'



## PACK RATS

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

# 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

ARNS

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

JULY, 1985

NUMBER 7

### THE PREZ SEZ

At our June meeting, we heard Mr. Jack McCartney, a project manager with Bell Atlantic Mobile Systems speak about cellular radio systems. We would like to thank him for an enlightening presentation on an aspect of communication that will certainly be prominent in the future.

We also heard from Dave, N3CX and his roving micro-nauts Dick, M3AOG and Pat, WB3DNI describing their venture to give the Packrats first and second VUCC awards on 2304 Mhz. Congratulations goes to them as Ron, WA3AXV brought his total grid count to 11, and Dave, WA3JUF, brought his to 10.

I would like to thank Dave, WB2VLA and his staff and all the members for a great year and ask for their continuing support as I take office.

By the time you receive this issue, Ladies Nite will have come and gone and a good time will have been had by all.

73,

Mike, WB2RVX

\* \* \*

### RESULTS OF THE ELECTION OF OFFICERS FOR THE 1985-1986 TERM

PRESIDENT - Mike Gullo  
VICE-PRESIDENT - Gary Hitchner, WA2OMY  
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REC. SECRETARY - LYN ROWLAND, W3NSI  
TREASURER - DOC CUTLER, K3GAS

DIRECTORS (TWO YEAR TERM):  
Dave Hackford, N3CX  
Dave Mascaro, WA3JUF  
Dave Power, WB2VLA (Ex-Officio)

*Note*  
*July General Club Meeting*  
*Saturday July 20*  
*See page 3*

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

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We operate on an exchange basis with other publications. Anything that is printed in CHEESE BITS may be reprinted, unless otherwise stated, provided that proper credit is given.

SWAP SHOP ITEMS - NO CHARGE

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

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WA3TEM, MARSHA LISSAUER

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AWARDS CHAIRMAN:

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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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- - -

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WB3IND, GEORGE McMAHON (1 Yr)



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CALENDAR OF COMING EVENTS

Syllabus by Lee, K3MXM

JULY

- 1 Battle of Gettysburg began 1863
- 3 Dog Days of Summer begin. . .
- 3 Warminster ARC meeting 8 PM - St. Johns Luthern Church, Hatboro, Pa.  
The program is of special interest to the members of the Old York Road Radio Club  
that ceased to exist many years ago. Films and slides will be shown to bring back  
many good memories.
- 4 Independence Day - Happy 4th of July - enjoy a picnic, enjoy a parade, enjoy the  
fireworks...Have a safe 4th!!
- 4 Harrisburg Annual Firecracker Hamfest - Bressler Fire Company Picnic Grounds,  
Exit #1 off I-283 Harrisburg, Pa. Info: 717-939-4957
- 6-7 Atlanta Hamfestival - Atlanta, GA.
- 7 Murgas ARC Hamfest - Wilkes-Barre, Pa. 109th FA Armory - Market St., Kingston, Pa.  
Info: Hamfest Comm. POB 1094, Wilkes-Barre, Pa. or call 717-388-6863. A nice local  
hamfest only a couple of hours up the NE Pa. Turnpike.
- 10 Board of Directors Meeting - QTH, WB2RVX, Mike Gullo, 22 Tenby Chase Dr.,  
Voorhees, N.J. 609-768-4789
- 13 U.S. Patent Office Opens - Patent #1 issued in 1838 - wonder what it was for --  
any input....
- 17 Disneyland Opens 1955
- 20 Saturday at 10 AM (instead of previous Thursday)  
General Club Meeting - 1st Outdoor Meeting of the Season.  
WHITE ELEPHANT AND COC AUCTION SALES, ZIMMERMAN'S GLENN - Centennial Road,  
Warminster, Pa. Plenty of Parking Space Available. Usually one of the fun filled  
meetings of the year. Be sure to bring your "Goodie" wrapped and for sale by the  
Club. Plenty of refreshments - a very short business meeting. Be sure to bring  
your friends and make this a big one....
- 20-22 The First Annual CQ World Wide VHF WPX Contest, 50 through 1296 Mhz. For  
details, logsheets, etc. write to SCORE, P.O.B. 1161, Denville, N.J. 07834 or  
CQ Magazine.
- 20 Sussex County ARC Hamfest - August, N.J. info: K2OX, 201-663-0677
- 25 EME Perigee
- 27 For you fishermen - 11 th Annual Greater Atlantic City Inshore Boat Fishing  
Tournament. Info: 609-348-7044
- 27-29 Central States VHF Conference, Tulsa, OK.
- 28 Maryland Hamfest and Computerfest, Howard County Fairgrounds. Info: P.O.B. 5919,  
Baltimore, MD. 301-594-3314
- 28 Predicted Peak of the Delta Acquarids Meteor Shower (0300 UTC)

SWAP SHOP

FOR SALE: Amateur TV station: Good working HB camera; 2 small TV sets (monitor & receive) RCA CMU 15 xmitter, motorola T44 rcvr. 2 - MRF 901 - pre amp. All power supplies and cables for above, output meter, rcvr function meter, televerter. Literature and ATV magazines from first issue. Box of good vidicons - entire package \$75 cash.

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

FOR SALE: Heathkit SB-104A HF xcvr. 80 thru 10M all solid state 100W out & low power (QRP) w/noise blanker, CW filter & SB-604 speaker supply. Excellent condition. \$300 or best offer. Clegg Apollo 6 meter amplifier 10W in for 325 out good condition \$125 or best offer. Swan 500 HF xcvr & Swan 117XC speaker supply & D104 mic (belongs to John K3KTY) \$300 or best offer. Exc. Condition.

CONTACT: Mike Pandolfo, N3BBI  
Star Rt. Box 10-1-B4  
Jim Thorpe, Pa. 18229  
Phone: Home - 717-325-3580  
3:30 PM till 10 PM  
Work - 215-767-5891  
7 AM to 3 PM

FOR SALE: Kenwood 9130 2 meter all mode w/MC46 TTP mic & TKI memory supply excellent condition \$375. Yaesu FT-208R 2 meter HT good condition \$180.

CONTACT: Tom Williams, N3EAX  
112 W. Fell Street  
Summit Hill, Pa. 18250  
4 PM to 10 PM

FOR SALE: Cushcraft TRI-band beam, model ATB-34, 4 element 10, 15 and 20 meters w/ coreless balun and extra boom brace \$100. CARDCO ?/+G graphics interface for C-64 computer and any printer w/"Centronics" parallel port \$45. Homebrew electronic keyer w/Curtis 8044 chip, outputs for positive or negative keying \$25.

CONTACT: Ron Whitsel, WA3AXV  
Phone: 215-355-5730 after 4 PM

COMMERCIAL AD:

FOR SALE:  
~~Collins KWM-380~~ xcvr, all mod's by factory, excellent shape includes operators manual, service manual and orig. box \$2,495. For DRAKE TR-7 xcvr.... NB-7, noise blanker brand new \$65, SL300 or SL500 filters, brand new \$50 ea. Drake MN2000 antenna tuner 80 thru 10 meters \$200; Dentron antenna tuner 160 thru 10 meters \$300; Astatic D-104 microphone, \$30; Kenwood MC-50 microphone \$35; Kenwood TS430S, (Pkg.) \$1,400; Kenwood TR7950 excellent shape w/MC-46 and std. mike \$320; Coleco (Mfg. Byge) cassette recorders new \$15 ea;

CONTACT: K3UKW, Tony Musero  
1609 S. Iseminger St.  
Phila., Pa. 19148  
215-271-8898 after 6 PM daily

COMMERCIAL AD:

FOR SALE:  
1296 & 2304 antennas. 1296-45 el. 12 ft. boom \$80; 2304-45 el. 7ft. boom \$70; all antennas completely assembled & tested. All stainless hardware complete w/boom to mast mounting bracket, Pwr. dividers & phasing lines are available for stacked arrays.

CONTACT: Bill, W3HQT, at Down East Microwave  
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\* \* \*

VISITORS-JUNE 20, 1985 MEETING

KC3SM - Chuck, Bryn Athyn, Pa.  
KA3NME - Robyn, Bryn Athyn, Pa.

Jack McArtney, Guest speaker representing  
Bell Atlantic Mobile Systems, Inc.  
Basking Ridge, N.J.

Using 'N' connectors on 1/2" hardline

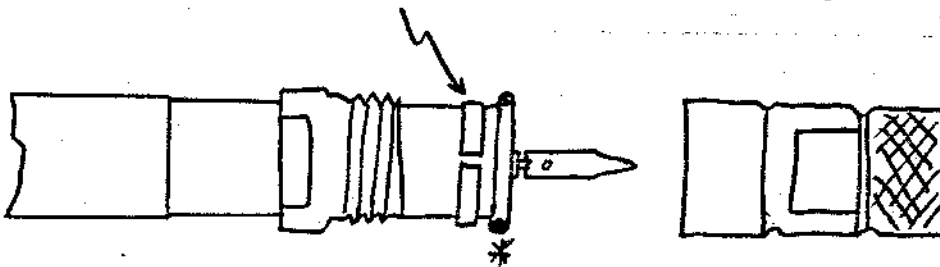
by D. Mascaro, WA3JUF

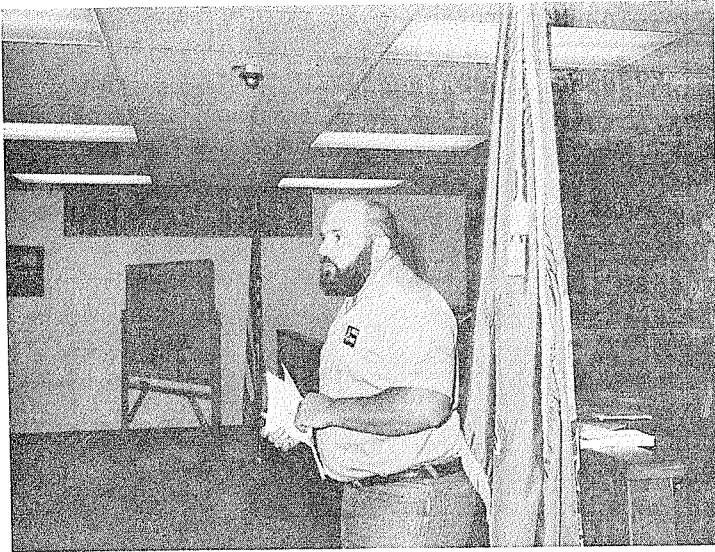
I have used standard 'N' fittings on 1/2" aluminum hardline for the past 10 years. Performance and weatherability is as good or better than commercially made connectors. Most commercial connectors have a push fit center conductor connection that turns green after six months outside.

This procedure allows the use of ordinary 'N' connectors to be used on 1/2" aluminum hardline with the solid copper center conductor.

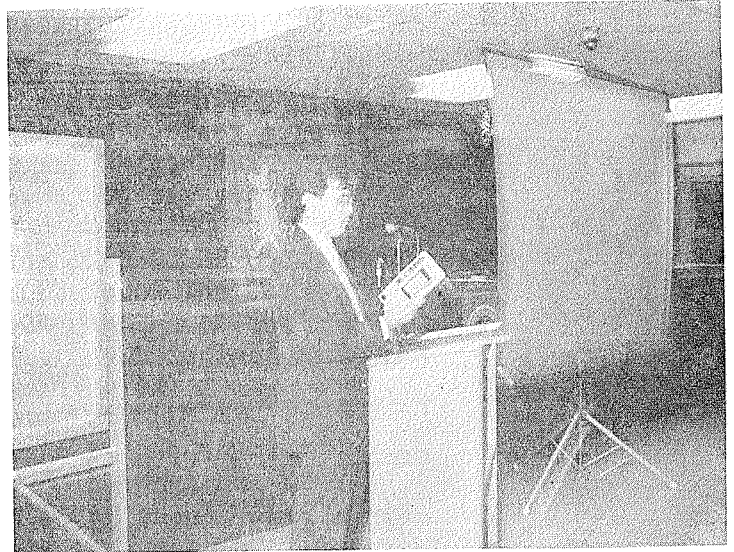
1. Strip off the plastic covering (do not nick aluminum)
2. Bore the nut to 1/2"
3. Slide the nut on the cable
4. Slide the furrel on (file to fit the inside of connector)
- \* 5. Bend down  $\approx 1/8$ " of aluminum to form a clamping ring inside the housing
6. Cut the center conductor flush
7. Drill a hole in the center conductor for # 18 tinned wire
8. Solder center pin and wire to center conductor
9. Assemble the connector. After tightening the nut, the connector housing should not turn. If loose or nut bottoms out, increase the width of the furrel.
10. Use Oxiban or other oxide inhibitor at the furrel to aluminum connection
11. Use GE RTV on all connectors outside. Tape is not needed

Furrel is 0.2" wide piece of 1/2" soft copper pipe with a piece taken out to fit snug around alum. jacket

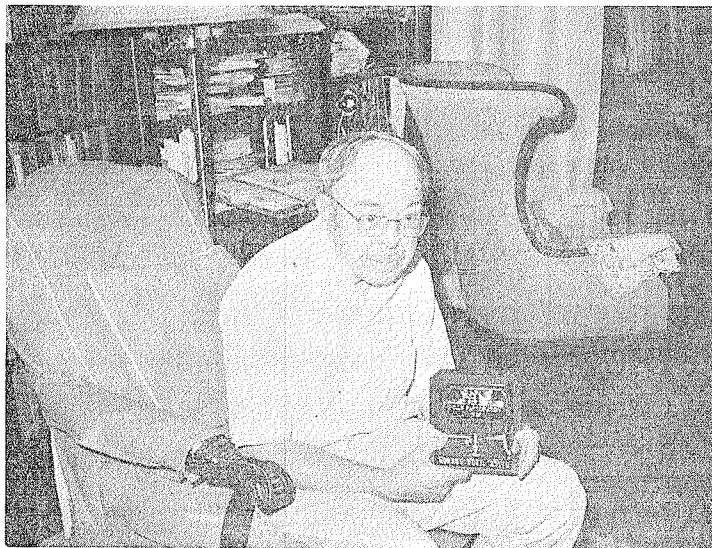




N3CX PRESENTS THE PACK-RAT 2.3 GHZ  
GRID DXPEDITION



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K3VYG SHOWS HIS PACK-RAT AWARD FOR  
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PREZ, WB2RVX ACCEPTS THE GAVEL FROM WB2VLA



WA3AXV, K3CYS, WA3YUE DISPLAY THEIR  
1985 JANUARY VHF SS PLAQUES

JUNE 20, 1985 MEETING

PACK RAT 2.3 GHZ GRID EXPEDITION  
(FN10, FM18, FM19, FM28, FN30, FN 31)

BY DAVID T. HACKFORD, N3CX

After getting operational on 2.3 ghz in the fall of '84 and noting the interest in the band during the January '85 contest, I decided to try and get a 2.3 ghz expedition together. I wanted to see if it would be possible to get the VUCC award for some members of the Pack Rats (WA3AXV and WA3JUF). I discussed this with Ron, WA3AXV and Dave, WA3JUF and we chose the weekend of the June contest for the start, mainly because of the activity level on the band from some of the big multiops in needed grid squares. Dick, N3AOG and Pat, WB3DNI said they would lend a helping hand and Dick said he would take his RV for a base. Everything was set and Ron and Dave said their gear was ready and peaked. After a small meeting of the minds, we decided to take 2 meter ssb for liaison back home and 23 cm for initial microwave antenna alignment. On 2 meter we had 40 watts and a small boomer and on 2304 we had about 6 watts out and two 45 element loopers at about 25'. All antennas were on the same mast. Friday, June 7th rolled around and it was raining like cats and dogs when we arrived at the site in MD. (Tuckahoe State Park). Tuckahoe is very close to where all four grids come together (FM19, FM18, FM28, FM29). The Park Ranger was nice enough to let us in the park after seeing Dick, N3AOG backing his RV around looking for a place to sit till morning. We explained to the ranger what we were trying to do and he took us to an open spot in the park. After some signal tests on 1296, we decided to move location. Next morning we went to the Delaware coast, Cape Henlopen (FM28). Signals coming off Delaware Bay were unbelievable, 2 meters - 59, 1296 - 59/599, 2304 WA3AXV was 559 to 579, WA3JUF was 539 to 569. That completed grid FM28. After packing the gear into Dick's RV, we decided to go south to Annapolis. We picked a location on Chesapeake Bay south of Annapolis, Curtis Point. We set up only a few yards from the shore line. All went well except Dave, WA3JUF had antenna relay problems. Ron, WA3AXV was still 559 to 579 on 13 cm. We realized having 2 mtrs and 1296 to establish contact was a good method to align the antennas. We stayed at Curtis Point for about 1 1/2 hours trying to get Dave, WA3JUF on 2304 but no luck. That took care of FM 18 and we were off to Pa.

We were exhausted from all the driving and erecting and dismantling. Dick, N3AOG and Pat, WB3DNI did an outstanding job during the entire expedition. I appreciated their enthusiasm, they're real Pack Rats.

Saturday night we drove to a State Park northeast of Baltimore. We slept for a few hours and then decided to go to the Northwest corner of FM19. We were in Gap, Pa. for FM19 and moved down the road to Vintage, Pa. for FN10. By 2 PM, Sunday afternoon, we had accomplished most of what we had set out to do except Dave, WA3JUF on 2304 down in FM18.

On June 16th, (Father's Day) Dick, N3AOG and myself headed for Long Branch, N.J. FN30. We set up in Sea Bright right on the coast. All signals were good again but Dave was very weak 339 on 13 cm. Ron, WA3AXV was still strong on 2304, 559 and 579. From all locations signals were good on 1296. Dick and I discussed FN31 with Ron, WA3AXV and Dave, WA3JUF while we were driving to Conn. on 75 meters. We decided to go to Greenwich Point, Ct. When we arrived at Greenwich Point we discovered that only residents of Greenwich were allowed in the Park, We explained to the police and park officials why we were there and after checking with headquarters we were escorted to a nice location on the tip of Greenwich Point. We set up about 15 feet from the water's edge and made 2 mtr. contact, then went to 1296. Signals on 1296 were fantastic, 59 very rapid QSB. We went to 2304 and made contact with Ron, WA3AXV and his signals were 549 and 569. Dick and I wondered if we would hear Dave's signals. We made contact with Dave, WA3JUF on 1296 and adjusted the antennas right on him, went to 2304 and there he was 559 and 579. We even talked on sideband. Dick and I were very excited.

We checked with Ron, WA3AXV he had 11 grids not all confirmed, and Dave, WA3JUF had 10 grids not all confirmed.

Distance from WA3AXV and WA3JUF home stations to grids: FM28 - 105 miles, FM-18 125 miles; FN10 and FN19 approx. 45 miles. FM31 95 miles and FM30- 75 miles.

(CONTINUED ON PAGE 8 )

PACK RAT 2.3 GHZ GRID EXPEDITION CONTINUED

I want to thank Dick Comly, N3AOG and Pat Cawthorne, WB3DNI for their help during the expedition. I would also like to thank Rick, WB2NPE for the 2 meter antenna, Bill Olson W3HQT/1 for his Downeast Microwave 45 element loopers and power divider loaned to us by Frank, AK30. I would also like to thank WA3AXV and WA3JUF for their help in the microwave spectrum. A big thank you to all the wives of the participants of this expedition and to the Pack Rats.

This expedition proved that you don't need a lot of power and a lot of antenna height to make contacts on 2304 good tropo. The Club call W3CCX was used during the entire expedition.

73, N3CX

NOTE: Thanks to WA3IWT for the use of his 23CM looper.

\* \* \*

TID BITS

Sunspot No. for May 1985 = 27.4. Smoothed No. for November 1984 = 24.0.

A speedy recovery to Gracie Van Dyke (WA3BJQ) EYL of George, W3HK.

Congratulations to W3TNP (Bert) and W3KKN (Ernie) on being Grandparents second time around - Michael Joseph and mother doing well.

Our alternate 432 Net Control, Pete, K1PXE is a Packet Buff.

John, K3KTY our man in Florida, keeps us advised weekly from his many stopovers in that area.

Hy Ecksell, WA3NDE back home recuperating from triple by-pass heart surgery. A speedy recovery Hy... looking to see you soon.

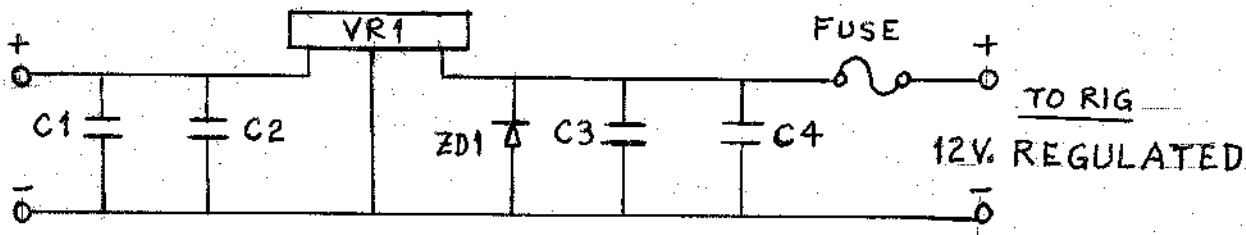
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De, WA2FXB



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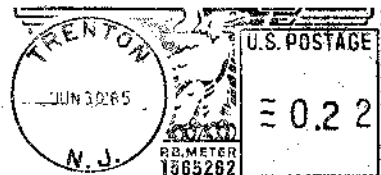
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