

PACK RATS

SCANNED TO PDF BY BERT, K3IUV



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

MAY, 1987

NUMBER 5

THE PREZ SEZ

Spring is definitely here although this is a perfect time to get out and fix up the antennas after a hard winter, I must choose to look at them while I mow the grass and paint the windows. I do take comfort in the thought that I am probably not alone. We had a good turnout for the April meeting. The night ended up with an enjoyable eyeball QSO since the scheduled speaker was unable to make it.

There are a few activities coming up which deserve your attention. First, the regular meeting on May 21st at the library; our famous ARRL Nite. The "meet the speaker dinner" at the Buck Hotel will be at 6 PM. The speaker this year will be John Lindholm, W1XX. John has had a lot of experience with VHF mountain-top contesting which he will be glad to review. Am sure he will answer our questions on VHF operations. Additional guests expected are Atlantic Division Vice-Director, Jim Mozley, W2BCH and E. Pa. Section Manager, Kay Craigie, KC3LM.

On May 30th is the Ladies Nite Banquet at the Warrington Motor Lodge. Please send back your ticket which you should have at this time. This is the event the ladies enjoy and a good turnout will make it a night to remember.

The weekend of June 12 and 13 is the ARRL VHF QSO Party and plans for the annual trip to Spruce Knob, W. Va. are under way. Get in touch with Ron, WA3AXV or Bob, N2SB if you wish to participate.

Don't forget, the dinner at the Buck is open to all members and a chance to meet the speaker. Let Harry, W3CL know if you are coming so he can make the reservation.

That is all for this month. There are activities coming up which should interest everyone - the Spring Sprints for example. Lets have a good turnout for the May Board and Club Meetings.

73, Gary Hitchner, WA2OMY

NOTE: The Pack-Rats participated very well in the 144 and 220 Mhz Sprints - they have been a lot of fun!

* * *

AFD COMMUNICATION TEST

The annual Armed Forces Day Communication Test is set for Sat., May 16, and marks the 38th anniversary of this event. The traditional military-to-amateur crossband operation and broadcast of the Secretary of Defense message are the featured highlights and include operations in CW, SSB and RTTY.

(CONTINUED ON PAGE 4)

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

SUBSCRIPTION RATE - \$3.00 PER YEAR

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.

EDITOR:

W3CL, HARRY B. STEIN
2087 Parkdale Avenue
Glenside, Pa. 19038
215-887-5052

PUBLISHER/SUBSCRIPTION MANAGER:

K3GAS, DOC CUTLER
7815 New Second Street
Elkins Park, Pa. 19117
215-635-1078

PRINTER:

WB2VLA, DAVID POWER
609-882-1040

TYPIST:

WA3TEM, MARSHA LISSAUER

TRUSTEE OF THE CLUB CALL - W3CCX:

WA3AXV, RONALD WHITSEL
215-355-5730

AWARDS CHAIRMAN:

W2EIF, JOSEPH KILGORE
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

NET CONTROL

W3CL
W2EIF
K3GAS
KS2T
K3IUU/K1PXE
- - -

PACK RAT REPEATER 222.98/224.58 MHZ/ W3CCX
LOCATED IN CHURCHVILLE, PA.

OFFICERS: 1986-1987

PRESIDENT: WA2OMY, GARY HITCHNER
VICE-PRES: N2SB, BOB COOK
COR. SECY : W3CXU, JOHN ALLEN
REC. SECY : WA3AQA, WALT ZUMBACH
TREASURER: K3GAS, DOC CUTLER
DIRECTORS: WB2RVX, MIKE GULLO (EX-OFF)
WB3DNI, PAT CAWTHORNE (2 Yrs)
WB2VLA, DAVE POWER (2 Yrs)
N3CX, DAVE HACKFORD (1 Yr)
WA3JUF, DAVE MASCARO (1 Yr)



THE AMERICAN RADIO RELAY LEAGUE

OST

HUGH A. TURNBULL, W3ABC
Director, Atlantic Division

6903 RHODE ISLAND AVE.
COLLEGE PARK, MD. 20740

(301) 927-1797

1-302-478-2757

AMATEUR
and
ADVANCED
COMMUNICATIONS

"Gisele"
K3WAJ

G. B. WALLS

3208 CONCORD PIKE (RT. 202)
WILMINGTON, DEL. 19803



Pennsylvania Institute
of Technology
ENGINEERING

PAUL D. MERCADO
Chairperson, Drafting Design Department

Rose Valley-Notre Dame Campus
215-565-7900 800 Manchester Ave., Media, Pa. 19063-4098

FOR SERVICE CALL
(215) 672-3850
(215) 822-0808



MICHAEL McMACKIN

REGISTERED PLUMBING & HEATING
BATHROOM INSTALLATIONS • ELECTRIC DRAIN CLEANING

1307 HILLTOWN PIKE
LINE LEXINGTON, PA 18932

2405 PARKSIDE AVE.
HATBORO, PA 19040

CALENDAR OF COMING EVENTS

By Harry Brown, W3IIT

MAY

- 3 Delaware County ARA 8th Annual Hamfest will be held at the Hill Middle School, State Road and Penn Avenue (5 miles SW of Phila.) Talk-in on 96/36 and 224.5.
- 6 East Coast 70 CM Net meets from 9 to 10 P.M. every Wed. night. Freq. 432,090. K4CAW covers the Northern half of the area from Greensboro, N.C.
- 8 902 Mhz Sprint, 7 PM - 11 PM local time. See Pg. 97 of April 87 QST for rules.
- 9-10 Second weekend of the Spring EME Contest.
- 14 Pack Rat Board of Directors meeting at the QTH of WA3JUF at 8 P.M. Call: 795-2648 for directions.
- 14 1296 Mhz Sprint. 7 P.M. - 11 P.M. local time. See Pg. 98 pf April QST for rules.
- 15-16-17 Rochester Hamfest & Atlantic Division Convention. New York State ARRL
- 16-17 Southern California 6 meter Club QSO Party. 1200Z May 16 until 1200Z May 17. See Pg. 98 of April QST for rules. Scoring is 1 point per mode per call sign. Multiplier is the number of grid squares.
- 17 13th Annual WARC 1987 Hamfest at the Middletown Grange Fairgrounds, Wrightstown, Pa. Talk-in on 147.69/09 or 146.52 simplex. A good local Hamfest.
- 21 May Pack Rat Meeting at the Southampton Free Library on Street Road in Southampton, Pa. Program will be ARRL Night with the guest speaker being John Lindholm, W1XX, Manager of Membership Communication Services. Guests - Atlantic Division Vice-Director, Jim Mozley, W2BCH and Kay Graigie, KC3LM -SM EPA. All interested VHF'ers are welcome. Bring along your "on the air" buddies. The meeting starts promptly at 8 P.M. Visitors welcome.
- 23 6 meter Sprint, 7 PM - 11 PM local time. See Pg. 98 of April 87 QST for rules.
- 25 EME Perigee
- 29 432 Mhz Sprint, 2300Z-0300 Z.
- 30 Amateur Radio and Computer Fest Allyn Arena, Skaneateles, N.Y. Sponsored by Skaneateles, NY Lions Club.
- 30 Annual Banquet & Ladies Nite - Warrington Motor Lodge, Warrington, Pa. (Rte. 611 and 132). Advance registration required. Open bar, dinner at 7:30 PM. Prizes for the Ladies, presentation of member trophies, entertainment. Visitors contact K3GAS two weeks in advance.

* * *

NATIONAL STANDINGS IN THE JANUARY 1987 VHF SS

MULTI-OP

- No. 1 - N2SB - 427,929
- No. 2 - WA2OMY - 199,500
- No. 10 - W3KKN - 77,183

CLUB CATEGORY

- Unlimited - Mt. Airy VHF R.C. Inc. (Pack Rats) 1,613,657
- Medium - Delaware Valley VHF Society

SINGLE OP

- No. 1 - WA3AXV - 170,750
- No. 8 - WA3NUF - 74,802

ANOTHER VIEW ON DOCKET 87-14

By Jo Kilgore, W2EIF

The FCC Docket discusses the subject of interference but only with respect to what might happen to TV viewers, by the proposed compandered SSB system. Channels 12 and 13 would be the signals interfered with.

The FCC completely overlooked the fact that 220-225 Mhz is an International band and is used from end to end by amateurs in Canada and Mexico. To make matters worse, most of the Canadian and Mexican activity is concentrated along our own borders. There are many cities and towns along the border that would be very close to Canadian and Mexican amateur operation in the low end of the 220 band. Detroit is one example, and many American towns and cities along the Rio Grande have counterparts just across the river.

Interference by the proposed compandered SSB system to our brother amateurs on the other side of our borders seems to be a certainty and the reverse is also true. Implimenting a commercial service into an active amateur band, of a foreign government is not something that they will take lightly.

If I were a Canadian or Mexican amateur I would be infuriated and implore my government to demand an explanation for this proposed take over of an amateur band by commercial interests, that can only jeopardize Canadian and Mexican amateur operations.

It is important in my thinking that copies of our responses to the FCC Docket be supplied to our Senators, Congressmen, Canadian and Mexican friends, and possibly the US Secretary of State.

NOTE: Response to Docket 87-14 has been moved up to May 21, 1987. Please send your letters in at once.

LOCAL NOTE

There is a possibility that the Pack-Rat simplex channel of 223.42 Mhz might be taken over by packet. Members please use this channel instead of 223.5 Mhz. Local packet users please find another frequency.

* * *

DUES DELINQUENT MEMBERS

KF6AJ	WB3CDE	WA3HIT	KC7ZK
N3AOG	WB3CPW	K3HW	WA3NDE
N2AQJ	WB3CTP	K3IGX	
N2ASC	N3EAX	K3IPM	W3RZU
N3BBI		KA2JKI	AC3T
WB2BJH	W3FEY	KD6KD	K3VEQ
	W3FGQ	NF2L	WA3YDZ
	K3GFF		AA2Z

* * *

VISITORS - APRIL 16, 1987 MEETING

K3BRS - Al Lanham, MD
W3ICC - Drex Wycombe, Pa.
W3AJS - Ed Oreland, Pa.

* * *

AFD COMMUNICATION TEST -cont'd

QSL cards will be awarded to those Amateur Radio operators achieving a verified two-way radio contact with any participating military radio station.

The military-to-amateur crossband operations will be conducted from 1300 UTC, May 16, to 0245 UTC, May 17. (Tnx Rag Chew) Worldradio

* * *

Do you have any technical hints - send to our "Hints and Bits" columnist, WA3JUF, Dave Mascaro -- he will give you by-line credit.

SWAP SHOP

FOR SALE: Collins crystals for "S" line radios: complete set for 10 meter band - 28.0 to 30.0 Mhz ten crystals \$45, Following crystals for 200 Khz segments: 12.0 to 12.2 Khz, 13.2 to 13.4 Khz; 13.4 to 13.6 Khz, 13.6 to 13.8 Khz, 13.8 to 14.0 Khz, 4.0 to 4.2 Khz, 4.8 to 5.0 Khz, 7.4 to 7.6 Khz, 7.8 to 8.0 Mhz, 8.0 to 8.2 Mhz 8.2 to 8.4 Mhz; \$2.50@ or \$25 for all.

Collins mechanical filters for "S" line: one (1) F455Y-31 - 3.1 Khz 6dB with USB & LSB crystals at 20dB points \$50; Two (2) F455Y-21 - 2.1 Khz 6dB \$45@; One (1) IF transformer for "S" line Collins Pt. No. 278 0281000-455 Khz \$2.

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

FOR SALE: A rack of 1296 Mhz & a rack of 2304 Mhz equipment looking for a good home - very cheap!

CONTACT: Tony Sousa, W3HMU
Phone: 215-847-5017 - home
215-548-6544 - work

WANTED: ICOM-211 2 meter rig

CONTACT: Dave Gindin, K3BPK
Phone: 215-688-5709

FOR SALE: Heath T.V. alignment generator TS3 w/manual \$15; Hickok Universal T.V. alignment generator #610A-w/manual \$15; National NC60 special rcvr, broadcast band to 30 Mhz - Heath DX60B w/Heath VF-1 VFO \$40; Hammarlund SX110 rcvr \$60.

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

FOR SALE: AEA CPl computer patch w/software on ROM VIC-20 computer \$150.

CONTACT: Walt, WB3HTK
Phone: 215-887-9124 after 7 P.M.

FOR SALE: ICOM IC-502 CW/SSB xcvr w/10 watt IC-50L amp, & IC-3PS pwr/sply & spkr \$225.

CONTACT: George, WB3IGR
Phone: 215-576-1897 after 7 P.M.

FOR SALE: MMT 28 - 144 Mhz 2 mtr xvrter - \$200.

CONTACT: Bill, WB3LGO
Phone: 215-885-3595

COMMERCIAL AD

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 35 watts out \$295, 1W in 18W out \$245. 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 GaAs FET preamp, NF 1 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 Mhz 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 1655A, RFD #1, Bernham, ME 04922. Phone: 207-948-3741.

* * *

LAST MINUTE 220 MHz SPRINT INFORMATION

The following list of Pack-Rats were heard operating the 220 MHz band the evening of April 21, 1987. There were also Novice family members that are shown in the last column.

K3ACR	N3CX	W3HFX	WB2NPE	KB3QM	KA3COM
WA3AQA	WB3DNI	WA3JUF	WA3NUF	WB2RXM	KA3MXS
W3CL	W2EIF	K3LOM	K1PXE	AC3T	KA3PGZ

DONN'T FORGET THE 903 Mhz SPRINT ON MAY 8, 1987.

TID BITS

Sunspot No. for March 1987 = 14.8 - Smoothed No. for September 1986 = 13.9.
Preliminary prediction for the Sunspot Low Number for Cycle 21 appears to be March 1986 (tnx. W2AXU).

K3LOM, Harry Brandt has finally gotten on 432 Mhz with an FB signal. Two other calls in the family on 220 FM - XYL Roseann is KA3PGZ; daughter Altair is KA3COM.

Garry Dallas, WAIYHO reports he is back on the air again on 4 bands 50 Mhz - 432 Mhz. He asks we should turn our beams up to Windham, NH and make contact with him. Lots of 432 Mhz activity up there nightly.

Steve Simons, KF6AJ, our Connecticut Pack-Rat reports the loss of his 220 to 2304 antenna systems during a recent wind storm. He sent along photos of the disaster which brought gasps from the members at the April meeting. Steve is rebuilding. He is looking forward to Spruce Knob.

John, K3KTY presently your man in Myakka, FL, reports a few contacts on the 2 meter Sprint.

Congrats to our friend Yardley Beers, W0JF, who was inducted in the Explorers Club on a visit to the East Coast recently.

Congrats to our friend W3SOB, Bob Sutter who celebrated a birthday recently.

* * *

NOTICES

W1QK and crew will be operating in the June 12 and 13 ARRL Contest from N. Eastham, Mass., Grid Square RN 51. Bands operated will be 6,2,220,432 and 1296 with moderate power and modest antennas from this rare grid square on Eastern Cape Cod. Schedules for 432 and 1296 are encouraged. We will gladly QSY from 6 or 2 to coordinate contacts on 432 and 1296. We are looking forward to providing Grid Square FN51 to all Pack Rats on the bands and modes we'll be operating. Please point your antennas in our direction and make contact with us and pass this notice of our activity to other VHF contesters.

S.C.O.R.E. Operators to put FM 27 on the air from Chincoteague Island, VA. during the June 12 and 13 VHF Contest. The line-up presently includes KT2B, KC2PX and WB2WIK. They will be active on the bands from 50 to 1296 Mhz. Scheduling for the higher bands will be via 50 and 144 Mhz.

The Pack-Rats will be working from Spruce Knob, W. Va. during the June VHF QSO Party. A planning meeting will be held on Sat. May 16, 1987 at the QTH of Phil Miguez, WA3NUF starting at 10 A.M.

* * *

THE ART OF SELLING AMATEUR RADIO

From Delmont Rag Chew

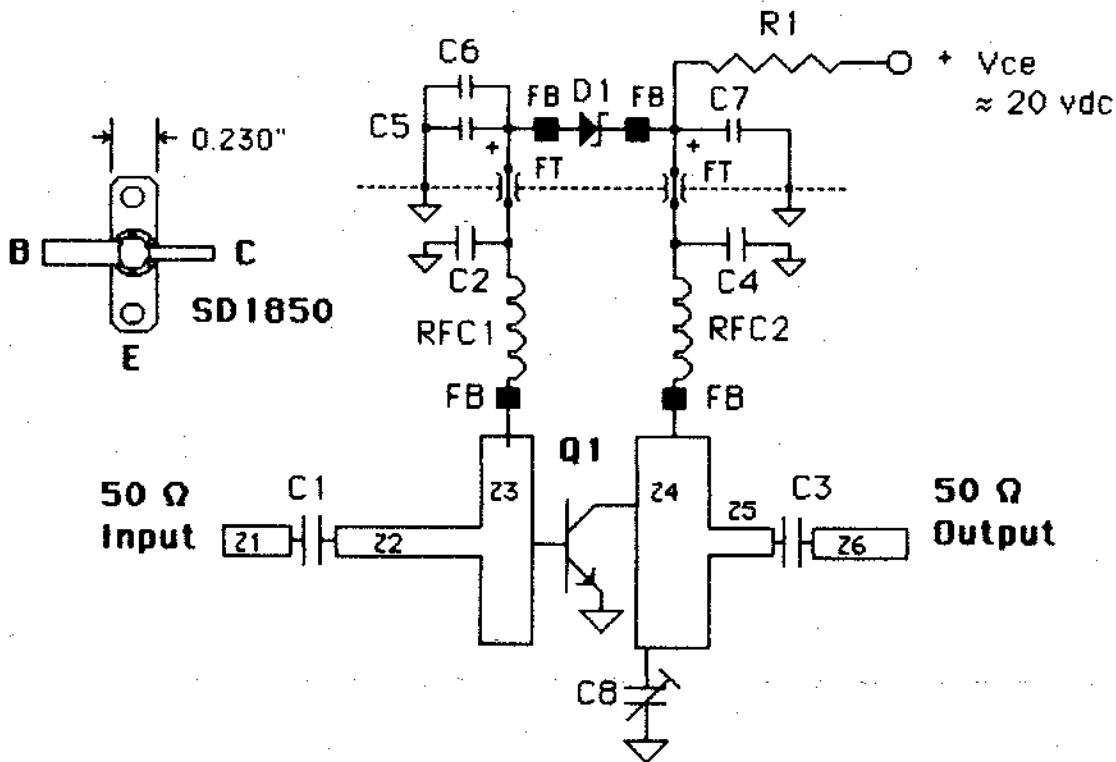
The North American Teleconference Radio Network will present an evening with the Pros on Fri. night, May 8th at 0100 EDST. Sharing the microphone will be Roy Neal, K6DUE; "Frosty" Oden, N6ENU; and Bill Pasternak, WA6ITF. Each of these gentlemen have a unique and particular interest in Amateur Radio.

The North American Teleconference Radio Network is heard throughout the N. American continent on more than 200 Amateur Radio repeater stations.

The May 8th program will deal with the "Art of Selling Amateur Radio." Spanning from the printed page to the space age, we will hear how amateur Radio is at work today and catch an exciting glimpse of where it may very well be tomorrow. Through the years of experience we will hear the where, when and how of obtaining credible publicity for Amateur Radio.

Questions will be accepted through the program from interactive stations Across the continent. Participating repeater for our area 147.375, WB2NQU/R Cherryville, N.J.

3456 MHz Linear Amplifier
150 mw Pout
9-10 dB Gain



- RFC1,2 3t, #24, 0.1" ID
- C1,3 10 pf chip
- C2,4 20 pf chip
- C5,7 1 ufd Tantalum
- C6 0.1 ufd
- C8 3 pf Johanson Gigi-trim
- FT 470 pf feedthru
- FB Ferrite bead
- D1 18 volt Zener

Board material is 1/32"
 Teflon Er=2.5

- Q1 Thomson SD1850
- Z1,6 0.080" X any length 50 ohm line
- Z2 0.060" X 0.400"
- Z3 0.100" X 0.300"
- Z4 0.150" X 0.350"
- Z5 0.060" X 0.200"

Adjust length of Z3 for RTL
 Adjust Icq with Vce for 20-80 ma.
 (peak idling current for gain or Pout)

WA3JUF
D. Mascaro 1987



CALLING W2JAV-W2JAV "Testing, Testing--'What Hath God Wrought?'" DE WAZOMY

**DOWN
EAST
MICROWAVE**

MICROWAVE ANTENNAS AND COMPONENTS

BILL OLSON
W3HQ7

Box 1655A, RFD 1
Burnham, ME 04922
(207) 948-3741

**73 Amateur Radio's
Technical Journal**

PO BOX 931
FARMINGDALE, NY 11737

\$25 one year \$53 three years

NE 7-8929

GEORGE S. VAN DYKE, JR., P.E.
CONSULTING ENGINEER

W3HK

4607 CONVENT LANE
PHILA., PA. 19114



AMIL S. GUMULA
PRESIDENT

A. G. RADIO PARTS CO.
939 TOWNSHIP LINE RD.
ELKINS PARK, PENNA. 19117
TELEPHONE: 215 - 886-5100

RCA Authorized
Distributor

(302) 328-7728
ORDER LINE 800-441-7008



Delaware Amateur Supply
"AMATEUR SALES AND SERVICE"

PAUL WA3QPX
KATHY KA31YO

71 MEADOW ROAD
NEW CASTLE, DELAWARE 19720

AMATEUR
SALES & SERVICE

(215) OL 9-5900

"HAM" BUERGER INC.
Communication Specialists

BOB HERSHMAN
WA3ZID

68 N. YORK RD.
WILLOW GROVE, PA. 19090

215-342-5982

WA3HIT

Paul and Betty Rilling

INCOME DIVERSIFICATION

5830 Weymouth Street -Phila., Pa.19120

The Ham Radio Publishing Group



Greenville, NH 03048 (603) 878-1441

HAM RADIO - the Technical Ham's
Magazine. Ask for a free sample
copy or our Book Catalog.

CALL DOC CUTLER (K3GAS)
FOR YOUR ELECTRONIC NEEDS

NEW, RECONDITIONED, OR AS IS.

LOW PRICES

by appointment 215-635-1078

CARL BARISH

**PRINTECH
PRINTING**

13620 NE 20th Suite D
Box 4247
Bellevue, WA 98009
746-6000



**NESHAMINY
TRAVEL
SERVICE**

Harriet Soltoff
Home: (215) 947-4483

xy1 K3TUV

2337 Neshaminy Blvd.
Bensalem, PA 19020

BROWSING - THURS. 7⁰⁰ - 9⁰⁰
SAT. 9⁰⁰ - 4⁰⁰

Day-Nite (215) 455-2121

FERTIK'S ELECTRONICS

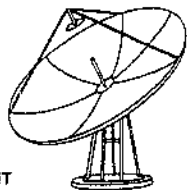
Components & Equipment

LEON FERTIK

5400 ELLA STREET
PHILADELPHIA, PA. 19120

IVARS LAUZUMS
52 Stonewyck Drive
Belle Mead, New Jersey 08502
(201) 874-6013

Tonna Antennas
Microwave Modules



THE "PX" SHACK

KC2PX

VHF/UHF
EQUIPMENT

EASTSIDE SURPLUS SALES

12894 NE 15th PLACE
BELLEVUE, WA 98005

(206) 453-0795

Carl Barish
KC7ZC

A CANDY STORE OF PARTS FOR THE EXPERIMENTER.

(302) 328-7728
ORDER LINE 800-441-7008



Delaware Amateur Supply
"AMATEUR SALES AND SERVICE"

ROB WA3QLS
GAIL KA3ITN

71 MEADOW ROAD
NEW CASTLE, DELAWARE 19720

(215) 745-6173
(302) 575-4142
(215) 342-8832



COMPU-SIMPLE
COMPUTER APPLICATIONS FOR SMALL BUSINESS

ELLIOTT T. WEISMAN
Consultant

P.O. BOX 7161
WILMINGTON, DELAWARE 19803



Jenkintown & Glenside Electric Co.

220 YORK ROAD
JENKINTOWN, PA.
TUmer 4-0375 - 4-1050
WA 7-4325



**JUDGE
INC.**

HOWARD WEINSTEIN
K3HW
DoD Tech Recruiter

THE EXECUTIVE NEWS
SUITE G-37
1930 E. MARLTON PIKE
CHERRY HILL, NJ 08003
609-424-8600

"HAM" BUEGER, INC.
 Electronic Equipment Distributor
 "Right in the middle of a lot of good company!"
 68 N. YORK ROAD
 WILLOW GROVE, PA. 19090
 215-659-5900
 Service Since 1956

If we're
 judged by the
 company we
 keep, we should
 do pretty well!



COOL OF EARTH

Wilson Electronics Corp.

Xcelite

TELEX

SPRAGUE THE MARK OF RELIABILITY

AMPHENOL

Cushcraft

TEN-TEC

TRW

NBC

VIBROPLEX

BRANCOF

"W2AU"

Larsen Antennas

CBS

ICOM

Saxton

CDE

DRAKE

ASTATIC

ROHN

HAM-KEY

MIDWEST

WELDER

GILFER

LMB

Waldom

communication specialists

MISCO

MILNER

HUSTLER

AMCO

AMG

SWAN

COVER CRAFT

AMPS SPECIAL INDUSTRIES

BOMAR

SMART

BIRD

Vector

WELTER

TPL

Weller

TELEX

SPRAGUE

AMPHENOL

Cushcraft

TEN-TEC

TRW

NBC

VIBROPLEX

BRANCOF

"W2AU"

Larsen Antennas

CBS

ICOM

Saxton

CDE

DRAKE

ASTATIC

ROHN

HAM-KEY

MIDWEST

WELDER

GILFER

LMB

Waldom

communication specialists

MISCO

MILNER

HUSTLER

AMCO

AMG

SWAN

COVER CRAFT

AMPS SPECIAL INDUSTRIES

BOMAR

SMART

BIRD

Vector

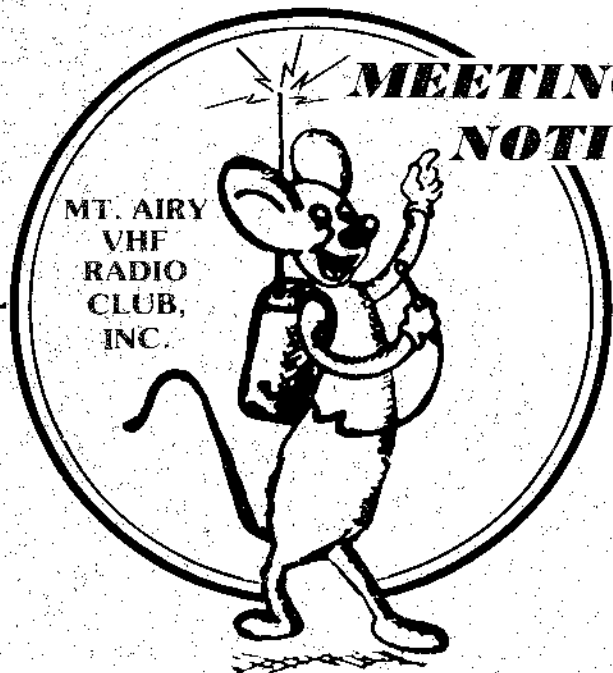
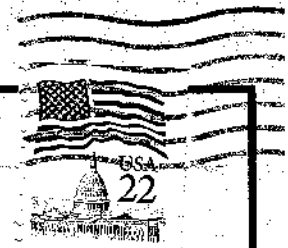
WELTER

TPL

Weller

Cheese Bits
 2087 Parkdale Ave.
 Glenside, Pa. 19038

TRENTON, NJ 80
 1987
 4 PM



**MEETING
 NOTICE**

MT. AIRY
 VHF
 RADIO
 CLUB,
 INC.

W3F0D
 DICK HUNTZINGER
 130 FAIRHILL DR.
 CHURCHVILLE, PA. 18966

PACK RATS

FIRST CLASS