

# PACK RATS'



**PACK RATS**

CLUB CALL: W3CCX

MT. AIRY VHF RADIO CLUB, INC.

# CHEESE BITS



MT. AIRY VHF RADIO CLUB, INC., PHILADELPHIA, PA  
50.2, 145.2, 432.03, 1296.01, Repeater, WR3ACD - 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

ARNS

VOLUME XIX

AUGUST, 1977

NUMBER 8

## THE PREZ SEZ

It is hard to believe that a whole year has gone by since the HK1TL Moonbounce Dxpediton to South America. Your Packrat Dxpediton crew still experience a rush of excitement when we think of that memorable adventure.

The Pack Rat Picnic is on for August 14, 1977 at the Ft. Washington State Park in Flourtown, Pa. This is always a fun day for the Pack rat family. Our friend N6UB alias K6YNB, Wayne Overbeck left Encino, California on July 14 with his final destination - the Pack Rat Picnic. I wonder if Wayne is up for Elliott's famous Egg Toss.

The annual Antenna Measuring Contest and Free Flea Market run by WAZZZF and K2UYH is on for August 7, 1977 at Trenton State College. Antennas will be measured on 432, 1296 and 2304 MHz. This affair always attracts the top VHF'ers on the East Coast and is a must for anyone interested in VHF antennas.

73, Tony, W3HMU

\*\*\*

## VISITORS AT THE JULY 21, 1977 MEETING:

WB3EVV, Jerry Russell, Rydal, Pa.  
W3DWJ, Bill Romanow, Elizabeth, NJ.  
K2DZM, Mike Medwig, Colonia, N.J.  
WB3GTW, John McCracken, Bridgeport, Pa.  
WB3CEZ, Paul Yoder, Bridgeport, Pa.  
WA3QNS, Joe Reed, Norristown, Pa.  
WB3BKO, Dave Smith, Horsham, Pa.  
John Sortor, Langhorne, Pa.

WA3VGR, Joe Frezza, Horsham, Pa.  
WA3KSK, George Hinkel, Hatboro, Pa.  
WA3WAS, Steve Simons, Phila., Pa.  
WB8REQ, Doug Simpson, Centre Sq, Pa.  
WB3CFW, Charles Cloud, Blue Bell, Pa.  
WB3IHY, Joe Garber, Phila., Pa.  
WA3ZZF, Paul Wade, Somerville, Pa.  
K2KJL, Gene Niemiec, Cedar Grove, N.J.

\*\*\*

## APPLICATION FOR MEMBERSHIP:

WA3WAS, Steven M. Simons  
8506 Kendrick Place  
Phila., Pa 19111

WB8CDE, Don Biresch  
Tabor Road  
Ottsville, Pa. 18942

\*\*\*

CENTRAL STATES VHF CONFERENCE 1977. Kansas City, Mo. - August 19, 20, 21, 1977  
Hosted by K0TLM and W0YZZ

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

Subscription Rate - \$1.50 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.

EDITOR:

W3CL, Harry B. Stein  
2087 Parkdale Avenue  
Glenside, Pa. 19038  
215 - TU 7-5052

PUBLISHER/SUBSCRIPTION MANAGER:

K3GAS, Doc Cutler  
7815 New Second Street  
Elkins Park, Pa. 19117  
215 - ME 5-1078

PRINTER:

K3IGX, Richard Boyle  
7915 Bayard Street  
Philadelphia, Pa. 19150  
215 - 927-6471

PRINTERS DEVIL:

WA3FOF, Ralph Alexander

TYPIST:

WA3TEM, Marsha Lissauer

TRUSTEE OF CLUB CALLS: W3CCX-WR3ACD

WA3AXV, Ronald Whitsel  
209 Frog Hollow Road  
Churchville, Pa. 18966  
215 - 355-5730

AWARDS CHAIRMAN:

W2EIF, Joseph Kilgore  
#5 Sunnybrook Court  
Stratford, N.J. 08084  
609 - 783-9478

CLUB HISTORIAN:

W3CL, Harry B. Stein

OFFICERS: 1977 - 1978

PRESIDENT: W3HMU, Tony Souza  
VICE-PRES: W3HQT, Bill Olson  
COR. SECY: W3IIT, Harry Brown  
REC. SECY: WA3NFV, Dan Mitten  
TREASURER: K3GAS, Doc Cutler

DIRECTORS:

K3MXM, Lee A. Cohen (Ex-Officio)  
K3MWV, Dick Pierce (2 years)  
WB2SZK, Randy Bynum (2 years)  
K3IGX, Dick Boyle (1 year)  
K3JJZ, El Weisman (1 year)

\*\*\*\*\*

MONDAY NIGHT NETS:

145.2 MHZ 7:30 PM  
50.2 MHZ 8:30 PM  
221.4/224.58 MHZ 9:00 PM  
432.03 MHZ 9:30 PM  
1296.3 MHZ 10:00 PM

NET CONTROL

W2EIF  
W3CL  
K3GAS  
K3IUV  
W2EIF

FRIDAY NIGHT ATV NET:

439.25 MHZ 7:00 PM

NET CONTROL

WA3AXV

PACK RAT REPEATER - WR3ACD - 222.98/224.58  
Churchville, Pa.

215-674-0300



LAFAYETTE RADIO ELECTRONICS  
"Associate Store"  
531 Easton Road  
Horsham, Pa. 19044



Paul Hamilton, Bruce Clark



PENNSYLVANIA  
INSTITUTE OF TECHNOLOGY

PAUL D. MERCADO - W3FBF  
FCC AMATEUR Instructor COMMERCIAL  
LICENSE INSTRUCTION

(215) FL 2-7100  
(215) JA 8-6998

414 SANSOM STREET  
UPPER DARBY, PA. 19082

**HIGH VOLTAGE**

MUSIC FOR ALL OCCASIONS

P12 3525 P156785

CALENDAR OF COMING EVENTS

Syllabus By Lee, K3MXX

AUGUST

From the Latin Augustus named for Augustus Ceasar

- 1 First U.S. Census, 1790
- 7 40th Annual Hamfest, South Hills Brass Founders, St. Claire Beach, Pittsburgh, Pa. area.
- 7 Shenandoah Valley ABC (Winchester) Hamfest - Raritan Fairgrounds, Berryville, Virginia. Info, Fred Wetzel, 308 W. Main St., Berryville, Va.
- 6-7 Montreal Hamfest, Quebec. Listed if any of our readers are visiting Canada and would like to see a Canadian Hamfest, St. Lambert Recreation Assoc. Arena. Info. Lloyd Courtice, VE2WX, 65 des Lilas St., St. Bruno, Quebec J3V 2R8
- 7 Hamfest and Antenna Measuring Contest on 432, 1296 & 2304 Mhz. Trenton State College, Ewing Township, N.J. Follow signs from Rte. 1 Fun Starts at 10 A.M. Flea Market free for buyers and sellers.
- 11 First Radio S.O.S. 1909 - Come on you old timers. A free ride on the "PRI" to the first one who, lets the editor know the 4 W's - Who, What, When & Where.....
- 12-14 CB World Jamboree, Sunnybrook, Rt. 422 East of Pottstown, Pa.
- 11 Board of Directors Meeting, QTH, W3CL, Harry B. Stein, 2087 Parkdale Avenue, Glenside, Pa. 19038. Directors and interested parties invited. Phone: 215-TU 7-5052.
- 14 Columbus Ohio Hamfest
- 14 V-J Day
- 14 SUNDAY, PACK RAT PICNIC, Ft. Washington State Park, Flourtown, Pa. All invited, Pack Rats and friends and families.. Door Prizes, Free Soda, Free Parking, Free Tables. Children Games, Teener Games, Adult Games, Famous Egg Toss, Bingo for the Ladies. 52/52 and 222.98/224.58 FM Talk Ins...
- 18 General Club Meeting, QTH - K3GAS, Doc Outler. Nostalgia Nite, Films, Slides, Bringing back the old days of slim good looking Pack Rats. Especially commentary by our own W3CL.
- 21 First U.S. Oil Well Discovered 1859, Now look at the mess we are in.
- 21 2nd Annual New Delmarva Hamfest, Delaware Technical and Community College, Stanton, Delaware, Talk in, 52/52 and 13/73. Info, John Low, K3YHR, 11 Scottfield Drive, Newark, Delaware 19713
- 21 Warren Ohio Hamfest

SEPTEMBER

- 4 York, Pa. Hamfest, New Place, Drag-O-Way at York Airport.
- 17 Hamburg, Pa. Hamfest
- 18 Cincinnati Hamfest. Info. Lillian Abbott, K8CKI, 1424 Main St., Cincinnati, Ohio 45210
- 24 Elmira, N.Y. Chemung Fair Grounds, Info, WA2SMM, 320 West Ave., Elmira, N.Y.

OCTOBER

MidAtlantic States VHF Conference on the 1st. HAMARAMA on the 2nd.....

NEW PRODUCTS OF INTEREST TO HAMS

By Lyn, W3NSI

1. Digital VOM Model #2000: Sabtronics International, Inc. is advertising a VOM kit at a rather attractive price. The unit is portable, being battery operated on 4 "C" cells. This makes it easy to make tests out in the car, without having to run a long AC cord out the window. Voltage ranges run from 100 uv to 1000 volts AC and DC, while current readings can be taken up to 2 amps. Resistance in 6 ranges from 1 ohm to 20 million will cover just about all ham tests. Size of the 4 digit instrument is 8" wide by 6 1/2" deep by 3" high. As of this writing, the kits are in such demand that there is a 4 week wait for delivery. Price Kit \$60.00. P.O. Box 64683, Dallas, Tx. 75206.

2. General Coverage Receiver: McKay Dymak Co. is selling a fully synthesized digital readout receiver that covers 50 KHz to 29.7 Mhz. Frequencies are read on a 5 digit LED display. Crystal filters are used in the first and second IF amplifiers, while a ceramic filter is used in the third IF. The frequency is set using four rotary switches and a fifth knob for fine tuning over a range of 5 KHz up or down. A front panel switch selects either 4 or 8 KHz bandwidth. Unit size is 17 1/2" wide by 14 1/2" deep by 5" high. Price \$995. 675 N. Park Ave., P.O. Box 2100, Pomona, Cal. 91766.

\* \* \*

VHF/UHF REPORT

By Jo, W2BTF

This report covers the period June 16 to July 21, 1977. This period produced some good openings on both six and two meters. Six meters was open to the West Coast a number of times and our own K3MWV managed to work a KH6 on CW during one opening. The KH6 was in for only a few minutes and was heard by other operators. Dick was the only one to make the grade. Tony, K4AWS reports working KH6TAA but gets a greater kick working Delaware Valley boys!

Those who operate two were looking for short skip on six as a signal that two was open. The 7th of July provided the necessary ingredients. Station in W. Pa. could be heard working R.I. and Maine on six, and K1TOL in Maine was 59+ no matter where the beam headed. Unfortunately, this meant the E cloud was almost overheard for the NYC & Conn. boys. Stations in Southern Va and Washington, D.C. area could be heard working VE1's in Nova Scotia. I was on the edge and managed to contact VE1YZ in Halifax.

The 12th of July provided just the right 2 meter E Skip conditions for the East Coast operators. E Skip stations were worked from Texas right up the line to Minnesota. The band was open from about 20:00 to 21:40 EDT.

The 14th of July provided a very good tropo opening on 2 meters from the East Coast to Central Ohio and Michigan with the band opening at about 20:00 P.M. It was still open at 23:30 EDT with W8IDU (Mich) still coming in strong. The 15th provided good tropo to the South with stations in N.C. working into New England.

There will still be some good openings for the rest of July and August, so keep listening and working the bands.

\* \* \*

JULY 8, 1977 HR REPORT NO. 156: Two-Meter Signals Crossed the Atlantic last week when PY20B in Sao Paulo, Brazil heard TU2EF in the Ivory Coast on 145.2 Mhz OMT. A two-way contact didn't result at the time, but a series of followup attempts are now under way by TU2EF and TU2GA with PY20B and other Brazilian VHF buffs on the other end of the 3496-mile circuit.

On Six Meters, long haul has also been prevalent with a contact between WB2RLK/VE1 and KH6HI on Sunday and a number of U.S. stations working into northern S. America. The 50Mhz beacon on Gibraltar is supposed to be back on the air shortly, supplementing France's FX3VHF on 50.1, while S. Africa has another form of six-meter beacon with a new channel 1 TV station. FROM HR REPORT NO. 158 OF JULY 22, 1977: Another VHF-Moonbounce Expedition by K6YNE/N6NB began this week on the Utah-Nevada border. He'll next operate 2-meter EME from the Mississippi-Tennessee border starting about July 23, with later operations planned from Alabama, Georgia, Rhode Island, Vermont (with Ham Radio Horizon's W1SL and QST's W1XZ), Minnesota and N. Dakota over a six-week period.

For updates and schedules Wayne will be on the low bands on Tuesdays and Thursdays, 14262 at 1700 EDST (2100Z) and 3815 at 2300 EDST (0300Z Wednesday and Friday); he'll also operate on those same frequencies at other times when possible. The ambitious trans-continenta trip is being sponsored by the Northern California DX Foundation.

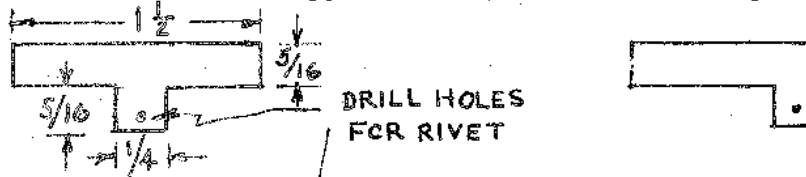
\* EDITORS NOTE: Wayne will be stopping over to attend the Pack-Rats Family Day and Picnic on August 14, 1977.

SERVICE HELP FOR THE FM-21

By Chas, K3HSS

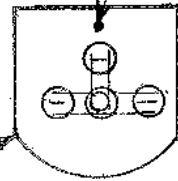
After persevering several break downs on the air with the FM-21 and feeling embarrassed because of it, I decided it was time something was done about it. My trouble with the unit was the right angle mike connector. The mike cable is not secured in anyway, therefore, any movement of the connector or the cable puts a strain on the wires at the terminals. This continuous movement eventually breaks a wire. I did not care to fill the connector with epoxy so I made a clamp for the cable which should eliminate that particular problem with the connector.

Cut a piece of sheet metal approximately .020 thick shaped like a T or an L thus -

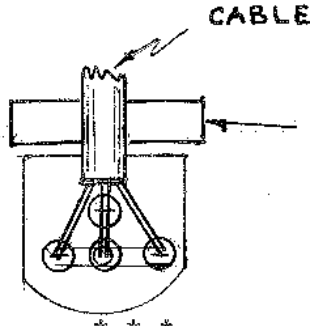
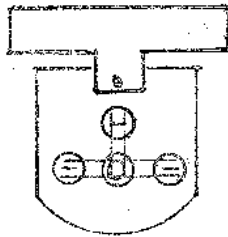


DRILL HOLES FOR RIVET

CONNECTOR -  
SIDE OPPOSITE  
PLUG



I used a brad, approximately .070 - any size should be o.k. nothing is critical. Place T on connector, match the holes, insert rivet and peen both ends making a tight joint so it does not move.



The two arms of the T are wrapped very tightly around the cable. Assemble the connector cover. You now have a trouble free connector.

\*\*\*

SCHEDULE OF CLUB MEETINGS FOR THE 1977-1978 SEASON

MARK YOUR CALENDAR ACCORDINGLY.

1977  
September 15  
October 13  
November 17  
December 15

1978  
January 19  
February 16  
March 16  
April 20  
May 18  
June 15

\*\*\*

UNOFFICIAL RECAP OF CLUB SCORES FOR THE PAST JUNE VHF QSO PARTY

Reported by the Chairman, Bill, W3HQT

BAND	CONTACTS	POINTS	MULTIPLIER
50 Mhz	417 x 1 =	417	56
144 Mhz	348 x 1 =	348	22
220 Mhz	139 x 2 =	278	15
432 Mhz	78 x 2 =	156	20
1296 Mhz	11 x 3 =	33	5
2304 Mhz	2 x 3 =	6	1
3300 Mhz	1 x 3 =	3	1
5600 Mhz	1 x 3 =	3	1
10000 Mhz	1 x 3 =	3	1
TOTALS	998	1247	122

Claimed score - -  
1247 X 122 = 152,134

THE RATS

We are unhappy to report that Ric Janssen's (WA3JDS) house was destroyed by fire over the 4th of July week-end. Ric is working hard preparing for the rebuilding and could use help. He is at that QTH every day. Drop by and give a hand. 143 Fairhill Drive, Churchville, Pa. Phone is connected, 215-355-1980.

Congratulations are in order to the Huntzingers (W3FQD) on their son Robert obtaining his BA in Ed. from Beaver College.

Moonbounce fever strikes 3 of the 7 members of the ERILL team who changed their jobs in less than one year. K3JJZ, K3BPP and WA3NFV made the moves for the better.

Congratulations to the Tate family (K3KTY) on the upcoming marriage of their daughter, Barbara to Richard Ostroff. Best wishes from the Pack-Rats.

Congratulations from all of us to Lucy and Horace Descon (W3AIF) on the occasion of their Golden Wedding Anniversary July 22, 1977. Many more wonderful years together!

There was a nice PR type write-up on Ham Radio in the "Today's Post" of the Murrivtown, Pa. area. It was written by Margie Freaney of their staff and entitled "Life is never dull for a 'Ham'". It featured interviews with Tom Gibson, W3EAG, Deputy Director of Communications for Montgomery County and our own Dan Mitten, WA3NFV Recording Secretary.

Many thanks to W3QY, Eugene Pearson for his FB donations of Ham Radio parts to the Club.

Talked on the fone with Carl Barish (WA2MWB/7) on July 25, 1977. He and Jane want to be remembered to the gang. He reports that they are happily settled in their new apartment and waiting for his 7th District call to arrive. Meanwhile, they are having fun cruising around Puget Sound in a new 24 foot cabin cruiser. Wowie! Sez there are three 22000 repeaters in that area and he has crystalized his 220 Mhz repeater.

Pack-Rats -- If you participated in the July 16-17 Apollo II contest, get your log sheets ready and assign the score to the Club. Tony, K4AWS must receive them by August 19th to be counted. VHF Space Center, Attn: K4AWS, P.O. Box 15, Sunterville, Fla. 32585

The 21 April 1977 National Bureau of Standards projected sunspot numbers for use with their intermediate and short distance skywave propagation charts show that DX conditions are rapidly improving. Their current figures are:

<u>1977</u>		<u>1978</u>	
July	40.8	January	66.7
August	44.2	February	72.2
September	47.6	March	77.6
October	51.8	April	81.3
November	56.5		
December	61.6		

Do you remember how bad things were when we bottomed out at 6 in June, 1976?

\*\*\*

Bulletin readers who want a plain language simple introduction to the facts about coaxial transmission lines are welcome to a free copy of the W6LS "Coaxial Cable Data" class aid prepared by Bill Welsh (W6DDB). This 14 sheet aid provides basic facts about hundreds of coaxial cables and it should convince you not to use RG-8/U, RG-58/U, or RG-59/U, as are used by many Amateurs. Just send a self-addressed 10 by 12 inch envelope with 24 cents postage attached and include a note stating what you want. Exchange Bulletin Editors are welcome to pick up this item for the benefit of their own readers. This entire article has been enclosed in recent issues (a couple of sheets at a time) sent to W6LS Bulletin Readers.

(Both above items from LERC ARC Bulletin)

# MT. AIRY V.H.F. RADIO CLUB, INC.



AD  
MANAGER  
K3MMW

## ADS

### A request from your AD Manager

**PATRONIZE OUR ADVERTISERS**  
Tell them you saw their ad in  
**CHEESEBITS**. Leave your QSL card  
with them.  
**CHEESEBITS** is one of the best  
read local radio club papers.  
Circulation - 200

**B.B.C**  
ELECTRONICS COMPANY, INC.  
"ONE OF THE FINEST NAMES IN THE INDUSTRY"

### SPECIALISTS IN

High power RF transistor components  
CMOS integrated circuits and  
associated components.  
A complete line of amateur HF and VHF  
equipment including the best names in  
the business.  
Liberal discounts to licensed amateurs  
has been, and still is, our policy.

TRADE-INS ACCEPTED

FOR ALL YOUR AMATEUR NEEDS  
WRITE - CALL - OR COME IN

B.B.C

Blue Grass Plaza  
2417 Welsh Road  
Phila., Pa. 19114  
Phone 215-464-1880

ROOSEVELT BLVD.

KORVETTE  
SHOPPING  
CENTER

BBC

PROVIDENT BANK

WELSH RD.

DRIVEWAY  
BLK GRASS

1ST TRAFFIC SIGNAL  
SWAP SHOP  
EAST OF BLVD.



AMERICAN RADIO RELAY LEAGUE  
HARRY A. MCCONAGHY, W3SW/W3EPC  
DIRECTOR, ATLANTIC DIVISION

8708 FENWAY DRIVE - POTOMAC  
BETHESDA, MARYLAND, 20824

1970 707-2924

W3CL

HARRY B. STEIN ASSOCIATES

COMMUNICATIONS CONSULTANTS

HARRY B. STEIN

2007 PARKDALE AVE.  
GLIDESIDE, PA. 19033

NE 7-8328

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

CONSULTING ENGINEER

W3BK

4907 CONVENT LANE  
PHILA., PA. 19114

FOR SALE: Clagg Zevo Transmitter, 6 and 2  
meters, AM/CW, 180 W. Input, Asking \$150.

Contact: Mario Detucca, W3KXZ

Phone: 215-343-6818

FOR SALE: Drake Line T4X, R4, MS4 and  
A03 per supply. \$700. Drake B4E Revr.  
\$350. Moolay 40.80 mtr. vertical, used  
once for field day. \$65.

Contact: Wally Newall, K3J3C

Phone: 215-639-9504

FOR SALE: Complete 6 mtr station. SSB, AM,  
CW, Heath HX-30, Ameco CN 80 with pwr supply.  
Dow-Key Ant. Relay. Cables and manuals.

Contact: Bruce Loss, W3YUR

3747 Warfield

Huntingdon Valley, Pa. 19006

FOR SALE: Dumont 450 Mhz FM rig - 2  
channel xmt & rcv. styled for WR3ABE rcvr.

Will operate on 12V AC (Batter) or 12V DC  
(Mobile), control head, cables & mike included.  
6 digit LED solid state counter. Xtal freq.  
reference counts up to 45 Mhz (± 100 Hz)

Contact: Richard Pierce, K3MWB

2700 New Falls Road

Newportville, Pa. 19056

Phone: 215-785-0058

FOR SALE: Clagg, 27B, 2 mtr. FM with pwr  
supply. \$150 for radio, \$50. for P.S. will  
sell separately.

Contact: Al Spector, K3OC

409 Waring St.

Phila., Pa. 19116

Phone: 215-OR 3-4341

FOR SALE OR SWAP: Hallcrafters rcvr. SX-28.  
\$50. Ecophone rcvr. EC-1, \$20; Hewlett-Packard  
Audio Oscillator, 200C-925.; Heath Xmtc.  
Cheyenne, MT1 \$40.; Heath Transistorized pwr  
supply BF-10, for Cheyenne, \$20.; Standard  
signal gen. measurements model 84, \$50.  
Manuals for all above.

Contact: Al Schnipper, W3AYJ

1409 Glenview St.

Phila., Pa. 19111

Phone: 215-RA 5-2869

FOR SALE: "Microwave Module" Hm. 402/144  
Solid State Xverter. Works great with TS-300s,  
Yaesu, Icom, etc. Midland 13-509 220 Mhz  
receiver with 4 channels, including Pack-Rate.

Contact: Jerome Byrd, K3GNC

P.O. Box 25638, Phila., Pa. 19144

Phone: 215-842-3782



# BARRACKS TRADING POST

Camping • Electronics • Canvas

RT. 38 AT RUDDEROW AVE.  
MAPLE SHADE, N. J. 08052

HARVEY PRIMOST  
609-662-6114



ELECTRONIC CENTER  
SCHLUMBERGER PRODUCTS CORP.  
OVER 300 ELECTRONIC KITS

TED HALDIS  
MANAGER  
K3EPK

6318 ROOSEVELT BLVD.  
PHILA., PA. 19149

TELEPHONE  
215 CU 9-0180



## Scott's Surplus Electronics

134 E. Park Av. Merchantville, N.J. 08109

Division Of dab Associates Inc.

Pres: Scott Layman

609-665-2466



AMIL S. GUMULA  
PRESIDENT

A. G. RADIO PARTS CO.  
939 TOWNSHIP LINE RD.  
ELKINS PARK, PENNA. 19117  
TELEPHONE: 215-566-5100

Authorized  
Distributor

HOURS  
CLOSED MONDAY  
TUE. & THUR. 9:30-6:00  
WED. & FRI. 11:30-9:00  
SAT. 9:30-5:00

(215) 723-1200  
(215) MI 6-2511

ELECTRONIC EXCHANGE  
ALL TYPES OF HAM GEAR & ELECTRONIC EQUIPMENT  
BOUGHT, SOLD, TRADED & REPAIRED

GORDON R. KITTEL  
K3AIG

138 N. MAIN STREET  
SOUDERTON, PA. 18964

AMATEUR & CB RADIO  
SALES & SERVICE

(215) OL 9-5900

"HAM" BUERGER INC.  
Communication Specialists

BOB HERSHMAN  
WA3ZID

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

Bill Ryan, WB3DPJ  
Tony Wilczynski, WA3AJW

Suburbs: (215) 448-2300  
Phila.: (215) 528-8120

## KASS ELECTRONICS DISTRIBUTORS



DISTRIBUTORS OF  
RADIO — TELEVISION PRODUCTS  
INDUSTRIAL ELECTRONIC PARTS & EQUIPMENT

2502 TOWNSHIP LINE ROAD  
(West of Lansdowne Avenue)  
DREXEL HILL, PA. 19026



## J.C. R/C HOBBIES

215/659-0770

Hours:  
Mon. & Sat. 10:00 — 5:00  
Tues. thru Fri. 10:00 — 9:00



MINIATURE FLYING MODELS  
Radio Control Equipment & Supplies  
Crafts for All Ages  
BOATS, TRAINS, CARS & PLANES

23 EASTON ROAD  
Willow Grove, Pa. 19090

JERRY COW  
Owner

K3KTY

215-567-7130

## TRANSPORT EQUIPMENT COMPANY

"EVERYTHING FOR THE TRUCK"

JOHN A. TATE  
President

2215 - 2217 Race Street  
Philadelphia, Pa. 19103

WA2MWB

CARL BARISH  
(609) 667-9092

## MELCO LABS

Suite 309, 606-110th N.E.  
Bellevue, WA 98004

(206) 455-5661

Day-Nite (215) 455-2121

## FERTIK'S ELECTRONICS . . . .

Components & Equipment

LEON FERTIK

5400 ELLA STREET  
PHILADELPHIA, PA. 19120

RICHARD E. BOKERN  
PRODUCT MANAGER  
COMMUNICATIONS PRODUCTS OPERATION  
FORT WAYNE DIVISION

1313 PRODUCTION ROAD  
FORT WAYNE, INDIANA 46806  
PHONE: (216) 482-4411

MAGNAVOX GOVERNMENT AND  
INDUSTRIAL ELECTRONICS COMPANY

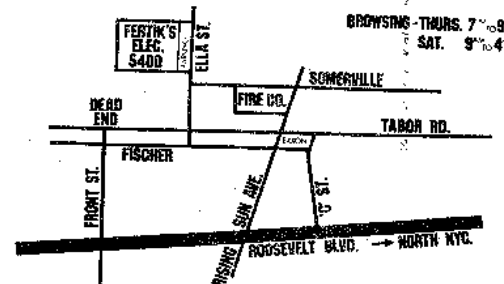


W3KKN

ERNEST KENAS  
TOOL DESIGN  
MANUFACTURING ENGINEERING DEPARTMENT

THE BUDD COMPANY  
AUTOMOTIVE DIVISION

PHILADELPHIA, PA.



People who look for peace get it.

—Guru Maharaj Ji

For information contact:

DIVINE LIGHT MISSION (DUO)  
6037 Overbrook Ave.  
Phila., Pa. 19131  
Office: 215-GR 7-2800

# 73

## magazine for radio amateurs

PETERBOROUGH, NEW HAMPSHIRE 03458

1 Year = \$15  
3 Years = \$25

FIELD MOWING - EASTERN PENNA.

GROUNDKEEPING -  
PHILA. AND SUBURBS  
INSTITUTIONAL - INDUSTRIAL - PRIVATE  
EQUIPMENT LEASING

PETER H. SHAVNEY  
LANDSCAPING  
111 S. EASTON ROAD  
GLENSIDE, PA.

WA3OVH

866-1859  
OR  
933-0451



THE AMERICAN RADIO RELAY LEAGUE, INC.

Administrative Headquarters Newington, Connecticut 06111

July 25, 1977

ARRL BOARD MEETING HIGHLIGHTS

ARRL OBS: If transmission of this bulletin runs over ten minutes, don't forget to identify. Make extra transmissions if you can, because of the importance of this information. Thanks -- 73, W1FJL

OFFICIAL BULLETIN NR 660 FROM ARRL HEADQUARTERS  
NEWINGTON CT JULY 23 1977 TO ALL RADIO AMATEURS BT

THE ARRL BOARD OF DIRECTORS AT ITS SECOND MEETING IN HARTFORD CT ON JULY 21 AND 22, 1977, APPROVED AN APPROACH FOR THE LEAGUE'S RESPONSE TO THE FIFTH NOTICE OF INQUIRY ON DOCKET 20271, THE WARC PROCEEDING WHICH WILL DETERMINE THE U.S. POSITION ON FUTURE FREQUENCY ALLOCATION. A FULL TIME STAFF COORDINATOR FOR WASHINGTON ARRL ACTIVITIES WAS APPROVED. THE BOARD ENDORSED RETENTION OF THE NOVICE PROGRAM AND THE PRESENT NOVICE EXAMINATION LEVEL AND THE GENERAL COUNSEL WAS INSTRUCTED TO PETITION FCC TO EXTEND THE 80-METER NOVICE BAND TO COVER 3675 TO 3750 KHZ. THE BOARD RENEWED ITS REQUEST FOR INCREASED VOICE SEGMENTS ALREADY ON FILE IN COMMENTS ON DOCKET 20282. AN ARRL HALL OF FAME WILL BE ESTABLISHED UNDER GUIDELINES TO BE DRAWN UP BY THE HEADQUARTERS AWARDS COMMITTEE. THE ARRL REQUEST TO AUTHORIZE TECHNICIAN LICENSEES ON ANY PART OF 50 AND 144 MHZ BANDS WILL BE RENEWED. A FOUR PART PROGRAM FOR LEAGUE REPRESENTATION BY THE PRESIDENT, FIRST VICE PRESIDENT, GENERAL MANAGER AND GENERAL COUNSEL TO CONGRESSIONAL COMMITTEES WAS ADOPTED. A GROUP INSURANCE PROGRAM FOR LEAGUE MEMBERS ON A VOLUNTARY PARTICIPATION BASIS WAS APPROVED. MATTERS COMMITTED TO COMMITTEE STUDY INCLUDE A PROGRAM TO ENCOURAGE AMATEUR MICROWAVE ACTIVITY, CONFIRMATION REQUIREMENTS FOR SINGLE MODE DXCC, RULES FOR PROVIDING AVAILABILITY OF ARRL MEMBER MAILING LISTS, CATEGORIES OF CLUB CONTEST PARTICIPATION, WAS MILEAGE REQUIREMENTS, ZERO BASE BUDGETING OF FUNDS AUTHORIZED BY THE BOARD OF DIRECTORS AND ARRL BAND PLANS FOR 50 MHZ AND ABOVE. OTHER ACTIONS INCLUDED PREPARATION OF LISTS OF STOLEN GEAR TO BE MADE AVAILABLE ON REQUEST TO AMATEURS AND DEALERS FOR A TRIAL PERIOD OF ONE YEAR; ENDORSEMENT OF A PROPOSAL TO ESTABLISH A CODE OF ETHICS FOR ADVERTISERS; ENCOURAGEMENT OF EXPANSION OF AMATEUR EXAMINATION OPPORTUNITIES AT CONVENTIONS AND HAMFESTS; AUTHORIZATION OF A REQUEST FOR SPECIAL FCC TEMPORARY AUTHORIZATION FOR A STUDY OF NARROW BANDWIDTH TELEVISION ON TEN METERS; INSTRUCTION TO THE GENERAL MANAGER TO PROVIDE A LEGAL GUIDE FOR ANTENNA PROBLEMS; PROVISION OF MORE INFORMATION IN QST ON LOW PRICED GEAR FOR NOVICES; REHEVAL OF EFFORTS TO PERMIT USE OF ASCII BY AMATEURS; URGING OF FAVORABLE FCC ACTION ON PROVIDING SPANISH LANGUAGE AMATEUR EMAILS; PUBLICATION OF A QST ARTICLE ON WOMAN'S IMAGE IN AMATEUR RADIO; INCREASE IN AUTO TRAVEL RATE TO 17 CENTS PER MILE; REQUEST FOR MORE FLEXIBLE HOURS FOR FCC AMATEUR EXAMS; DISSEMINATION TO MEMBERS OF COMPLETE INFORMATION ON RFI LEGISLATION. COMMENDATIONS WERE MADE OF FORMER DIRECTOR ALBRIGHT FOR THE EC WORKBOOK AND OF THE DX ADVISORY COMMITTEE FOR ITS EXHAUSTIVE SURVEY. THE PROPOSAL TO START DXCC OVER IN 1980 WAS DEFEATED. COMPLETE MINUTES WILL BE PRINTED IN SEPTEMBER QST. AR

## THE MODEL 14 REPERFORATOR

There are two basic styles of model 14 reperforators, the typing and the non-typing. The non-typing reperforator punches the holes for mark all the way thru the paper tape but a character is not printed on the chad tape. This is like the model 19 perforator punch system but the model 14 uses the loop current of 60 ma and does not require a 1 A. 110 VDC supply.

The typing reperforator is a different type of machine in that the holes are not punched all the way around in the tape. This is called a chadless tape. The typing reperforator and the model 15 page printer are similar in operation and the entire selector system is identical. Both machines have similar type baskets. On the model 15 the horizontal type basket moves across the page; while on the model 14, the vertical basket does not move, and types down on the tape against a small flat rubber platen. The typing reperforator has the main shaft mounted vertically with the selector system on the top of the machine.

Some typing reperforators use keyboards which differs from that of the model 15 page printer. That keyboard and base are cast as a single unit. However, the method of generation of Baudot code is identical. In the reperforator the code bars on the type basket are directly connected to the "T" levers of the selector system. No vanes and bell cranks like that of the model 15 are used since the type basket does not move. On the right hand side of the code bars there are extensions that go to the punch block system. The power for the punch system is mechanical and comes from the main shaft of the machines that is driven by a 110 VAC motor. On the lower part of the main shaft there is a large cam and its cam follower provides the power for the punch block system. Like the model 19 keyboard the character is first set by the code bar extensions and then it is punched. With the model 14 reperforator the character will be typed on the tape six characters behind where it is punched in the tape; and like the 19 when the punch operation is finished and the punch system releases, the tape advance system moves the tape ahead one position. When in the 'letters' mode, the model 14 types on the top of the chadless tape with the letter character on the type pallet hitting a small flat rubber platen. In the figures mode, the rubber platen moves to just below the feed hole and the 'figures' character on the type pallet is printed on the bottom of the tape hitting the platen in the 'figures' location. The ribbon system is somewhat similar to that of the model 15 page printer but there are some changes since one system is vertical and the other is horizontal. All characters in the 14 are punched and carriage return, line feed, blank, and signal bell are also additionally printed characters. The reperforator must faithfully reproduce what is received from the loop since the results of a carriage return or a line feed cannot be seen on a tape as on a page.

On some machines there is a system for spacing out tape at the beginning or ending of a tape. When, and as long as the space out lever is activated, the stop arm for the range finder is released; since all of the segments are in the mark condition as the loop circuit remains unbroken, the machine spaces out by punching and printing the character letters. Another feature on some typing reperforators is a mechanical method for back spacing the tape for correcting errors. To correct an error, count and back space to the error and then type the character letters over the error and all subsequent typing using the back space count. Typing the character letters, which is five marks or holes, effectively deletes any other character that had any spaces present and the 'letters' character does not print when the tape is read. Note, if the error was in the figures mode, a figures will have to be typed before a figure character can be punched in the tape. However, this method of correction is only good for a character or two because too much back spacing tends to bunch up the tape which jams in the tape guide.

Reperforator tape is 11/16" wide and comes in 8" diameter reels. The reel is housed on the right hand side of the machine. On some machines there is an end of tape arm that follows the lever of the tape. When the arm gets near the center of the spool, the arm activates an alarm which is either a bell or a light.

The model 14 typing reperforator is not to be confused with the 2B strip printer that is somewhat like it. The 2B printer is essentially a model 14 typing reperforator without the punch system but it types the characters on a 3/8" wide gummed tape. This is the machine that produced the old style telegrams by pasting the printed gummed tape strips on a telegram blank. It is a nice machine to operate, but not much used today for 2 reasons. First, the 3/8" tape, gummed or ungummed, is almost impossible to obtain. Secondly, the tape is used once and thrown away. After an evening of RTTY activity, you end up with a trash can full of gummy tape stuck to everything.

July 25, 1977

To Our Friends Of The Area - 2 Radio Club

From The Pack-Rats

By the time this reaches you, HK1TL will have passed it's one-year Anniversary. We in the States have given the Moonbounce presentation to eight or ten groups and more are scheduled.

In the near future, I will send you photographs of the various awards which have been presented to the Moonbounce team.

It was while we were discussing these awards that the Atlantic Division Director of the American Radio Relay League, W3SW, Harry A. McConaghy announced that he would like to sponsor an award to Area-2.

I've asked that this award be presented to you from the Pack Rats sponsored by W3SW, Harry A. McConaghy.

I hope that it brings back fond memories, not only of HK1TL, but also of the Pack Rats.

Each time you look at this plaque, you should be very proud because without you my friends, there could not have been an HK1TL.

Best regards to all of you and your families from all of us.

For The Mt. Airy VHF Radio Club

Elliott Weisman, K3JJZ

Coordinator South American Moonbounce Expedition

\* \* \*

If you agree that the FCC should be adequately staffed to do its job, you could help ease their burden by writing letters to your Senators and Representatives. Your letters should express your desire to staff the FCC with the people they require. The Office of Management and Budget (OMB) has cut the FCC Gettysburg staff at a time when it needs to be increased. Most Amateurs know that their local FCC examination offices and monitoring stations are also understaffed. Please take the time to write at least one letter to your Congressional Representatives. If you want a sample letter to modify for your own use, just send your request and SASE (Self-Addressed and Stamped Envelope) to Bill Welsh (W6DDB) at W6LS.

(From LERC ARC Bulletin)

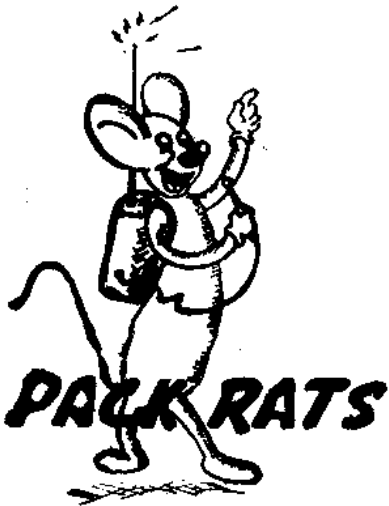
\* \* \*

#### DISASTER ANNOUNCEMENT

Hams again have been doing yeoman emergency duty in connection with the JOHNSTOWN FLOOD.

As of this writing, licensed operators and equipment ( HF rigs and 2 meter FM units) are desperately needed to relieve those who have been on duty for long periods of time. Those able to make it for a three day period are requested to report to the Cambria County Courthouse about 10 miles out of Johnstown, Pa.

Cheese Bits  
2087 Parkdale Ave.  
Glenside, Pa. 19038



STEVEN M. SIMONS, WABWAS  
8506 KENDRICK PLACE  
PHILA., PA. 19111

MT. AIRY VHF RADIO CLUB, INC.

**FIRST CLASS**

**MEETING NOTICE**