# CHEERSE SHEER



RATS

W3CCX CLUB CALL:

RADIO CLUB, INC.

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

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

VOLUME XXVI

JANUARY, 1987

NUMBER

ARNS

#### THE PREZ SEZ

First I would like to say HAPPY NEW YEAR to all Packrats and their families for 1987. I hope everybody is enjoying the holidays. I also thank Bob and Rick for giving a good kickoff for the Contest in January.

There were a few items of concern expressed at the meeting which I also have been thinking about. The largest is the concern of competition for the club in the future. It is entirely possible that within a couple of years, we could find outselves struggling to maintain our position in the unlimited catagory. New clubs HAVE BEEN formed that seem to be rapidly attracting new members to join. Take, for instance, the increase of activity on 2 alone. How many of these new calls is a Packrat?

Looking back, it is easy to see how far we have come, especially on the higher bands. I remember funning checks with stations starting about a month before the contest on 1296,432 and 220. Now, however, few stations seem to need help getting things ready. for established stations, but it is hard to see real growth. We have to be on the lookout for station's that seem interested in trying new bands and modes. If you hear of a new call on 2 SSB and he is in your area, let the board know. We can send Cheesebits to people to let them know there are people interested to help him!

That's all for now. If anybody needs any last minute help, let Bob, N2SB know or myself.

Gary Hitchner, WA20MY

# IN MEMORIUM

William Benner, W3KM, a Charter Member of the Pack-Rats, became a silent key on December 7, 1986. Bill was a good man and will be missed. May his soul rest in peace.

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:

WASTEM, 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	NET CONTROL
7:30 PM - 50.125 MHZ	W3CL
8:00 PM - 144.150 MHZ	W2EIF
8:30 PM - 222.98/224.58	3 MHZ K3GAS
8:45 PM - 220.125 MHZ	KS2T
9:00 PM - 432.110 MHZ	K3IUV/K1PXE
9:30 PM - 1296.1 MHZ	<b></b>

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

PRESIDENT: WAZOMY, 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

44 Ju

1-302-478-2757

# AMATEUR

and

ADVANCED

"Gisele"

K3WAJ

COMMUNICATIONS

G. B. WALLS

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



# Pennsylvania Institute of Technology

ENGINEERING

PAUL D. MERCADO

Chairperson, Drafting Design Department

215-565-7900

Rose Valley-Notre Dame Campus 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

JANUARY	
	HAPPY NEW YEAR
3	Predicted peak of the Quadrantids meteor shower at 1930 UTC.
8	Packrat Board of Directors meeting at the QTH of W3KKN at 8:00 P.M. Call 659-3485 for directions.
10-12	The 40th Annual ARRL VHF Sweepstakes will be held. See December QST Page 79 for rules.
15	January Packrat Meeting at the Southampton Free Library on Street Road in Swouthampton, Pa. Program will be the annual Crying Towel session. Be prepared to tell why you had it so bad, the QRM, the grids that got away, the openings missed, the frozen rotators, etc. All interested VHF ers are welcome. Meeting starts promptly at 8:00 P.M.
18	The Richmond Frostfest will be held at the State Fairgrounds. Talk-in on 28/88 and 34/94.
24-25	The Sarasota ARA will hold the 8th Annual Sarasota Hamfest at the Civic Center at 801 N. Tamiami Trail. Talk-in on 13/73, and 31/91.
25	The Yonkers ARC Electronics Auction will be held at Lemko Hall, 556 Yonkers Avenue, Yonkers, New York. Talk-in on 146.865, 440.150, or 146.52.
28	EME Perigee.
31	First U.S. Satellite launched 1958.

# DUES ARE DUE FOR 1987

# BICENTENNIAL CELEBRATION OF THE U.S. CONSTITUTION

The following is quoted from a memorandum sent by Steve White, WA3IAO to all members of the DELAWARE VALLEY COUNCIL OF AMATEUR RADIO CLUBS.

"During 1987, Philadelphia will be host to the "We the People 200 Celebration" commemorating the 200th Anniversary of the United States Constitution. As an attorney and native Philadelphian I appreciate the special historical significance which this event represents throughout the world and to our region in particular.

There is a major role for Amateur Radio during this celebration. Not only can we "advertise" the existence of the event by operating a Special Events Station, but we can also generate substantial interest among visitors to the station to become licensed Hams themselves.

DVCARC has approached the National Park Service ("NPS") for permission to operate a Special Events Station within the Visitors Center, 3rd and Chestnut Streets, Philadelphia."

NOTE: If DVCARC is interested in proceeding with this project, a working committee will be established  $\dots$  more later.

# VHF/UHF NEWS

The VHF,UHF bands (from 2 meters up) went crazy over the Transkgiving Holiday period. A number of Pack-Rats worked DX grids all the way up to 2304 Mhz. N3EAX, Tom reported working 162 contacts on 2 meters with 20 new grids. The best DX EM 12 and 13. On 432 Mhz he made 40 contacts and 22 grids - best DX also EM 12 and 13. He was only running 10 watts! KS2T reports receiving an FB QSL card from W6JKV/CU2. Also stated he is really a loser at the Casinos in AC - out \$275!!

\* \* \*

# GREETS FROM NOVA SCOTIA

Received a nice letter from Bernie, VELUT making a correction to Bob's (W3GXB) article on his and XYL Ruth's visit with VELUT in Nova Scotia. There are about 40 hams in the Yarmouth Area but there are approximately 1200 licensed hams in all of Nova Scotia. Bob at the December meeting said he stands corrected - and he did Bernie - hi! VELUT closed by writing "73 and happy holidays to all your members."

# TID BITS

Sunspot No. for November 1986 = 14.7. Smoothed No. for May 1986 = 14.5.

Congratulations to Helen Brick (Fondly known as "Mother Rat") making the "cover girl" on the Red Cross Disaster Action Team Information Pamphlet. Helen has been a red cross volunteer for many years.

A note from Lyn and Sally Rowland (W3NSI) from Hawaii - Send their holiday greetings to all  $_{\circ}$ 

Sorry to report that an old time Pack-Rat, EX-W3CKP, Warren Parker became a Silent Key. A memorial service was held in Doylestown in November.

The 6 meter band was open the 19th, 20th, 21st and 22nd to the Southwest and West. A number of Pack Rats worked some new grids.

The Rowlands, Lyn and Sally W3NSI, have returned to spend their holidays in the local area..... and to celebrate Lyns birthday on December 24th.

\* \* \*

#### CONTEST TIPS

Did you receive your Contest Packet - if not, contact your Team Captain.

The Contest Chairman, Bob Cook, N2SB reminds us to contact our club members on all available bands. Use the Pack-Rat check-off list on January 10 - 12, 1987.

All logs must be turned in to your Captain or Committee members prior to Thursday, January 22, 1987, when a recap meeting will be held that evening at the home of Dave Zimmerman, W3ZD.

Our Indianna Pack-Rat, Dick Bokern, WB9PUJ, suggests we look for him on Sunday morning (time in EST out there also). Turn your beam West Dick sez and fire up the 6 meter rig.

Our Georgia Pack Rat, Jim Holt, N3AHI will be on 6 meters after 12 P.M. Saturday Nite until 9 A.M. (local time) in the morning. He sez if you want a sked - U call and we haul! (Note: Jim was the Contest Chairman for Gavel #22).

\* \* \*

## SWAP SHOP

FOR SALE: 1975 VW Beetle; HO trains and accessories; Club Mimeo Machine (Gestetner) New \$25. Tubes:

variable caps, feed through caps, button caps & piston caps, resistors (all types)

Small stereos; cassette tapes. CONTACT: Doc Cutler, K3GAS

Phone: 215-635-1078

WANTED: Clegg 6 meter Venus w/or

without power supply.

CONTACT: WA3RSQ, Charles Gianetti Phone: 215-266-1552 or on

A.M. 50,110 SSB or

144.2 SSB

# COMMERCIAL ADS

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, N.F. 1 dB and built in T/R sequencing circuit, relative output meter and built in I.F. Attenuator to match inputs from 100mW 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 to 1.2 GHz range depending on xtal. \$33.75 less xtal. Write for complete catalog. DOWN EAST MICROWAVE, Bill Olson, W3HQT, Box 1655A, RFD #1, Bernham, ME 04922. Phone: 207-948-3741.

^ ^ ^

# WHY IS IT?

(An Oldie from Pack Rat Cheese Bits, Philadelphia)

## WHY IS IT THAT:

1. Everybody has to use the same frequency at the same time?

- 2. After working a DX station, the buy calls CQ right on top of him?
- 3. Everybody knows where the new station is and they all call at once.
- 4. Everybody has to cram into the lowest 5 kHz of each band.
- 5. Phone stations have to work on top of CW stations.
- 6. Some stations call CQ, then move off frequency before they listen.
- 7. Some stations use splatter modulation.
- 8. Everybody works somebody twice during the contest.
- 9. The guys with the calls with letters that all sound alike talk the fastest.
- 10. The ball point pen runs out of ink in the middle of the contest.
- 11. The log sheets keep falling on the floor.
- 12. You are deaf after the contest.
- 13. You remember the guy that steps on a new station, but forget the one that helps you get a new one.
- 14. DX always show up 180 degrees away from where your beam is pointed.
- 15. You hear that the band was open when you were away from the operating position. and on and on and on..... (from the December 1986 issue of the ARNS Bulletin)

\* \* \*

# VOTED TO MEMBERSHIP December 18, 1986 meeting

KB3XG - John Sortor XYL-Cinda 8 Belmont Square Doylestown, Pa. 18901 215-340-0847

# Sources of Electronic parts

DIGI-KEY CORP. \*\*
P.O. BOX 677
THIEF RIVER FALLS, MN. 56701
1-800-344-4539

KCS ELECTRONICS CORP. P.O. BOX 33205 PHOENIX, AZ. 85067 602-274-2885

MOUSER ELECTRONICS \*\*
2401 HIGHWAY 287 NORTH
MANSFIELD, TX. 76063
817-483-4422

SPECTRUM ELECTRONICS 5932 MARKET ST. PHILA., PA. 19139 215-748-3010 1-800-523-0721

CIRCUIT SPECIALISTS
P.O. BOX 3047
SCOTTSDALE, AZ. 85257
1-800-528-1417

JAMECO ELECTRONICS 1355 SHOREWAY RD. BELMONT, CA. 94002 415-592-8097

HANIFIN ELECTRONICS CORP. P.O. BOX 188 BRIDGEPORT, PA. 19405 215-275-3233 SVEA ELECTRONICS P.O. BOX 3375 TORRANCE, CA. 90510 1-800-421-2841

RF ELECTRONICS 1086-C N. STATE COLLEGE BLVD. ANAHIEM, CA. 92806 1-800-854-4655

ALL ELECTRONICS CORP. 905 S. VERMONT AVE. P.O. BOX 20406 LOS ANGELES, CA. 90006 213-380-8000

CALL OR WRITE FOR CATALOGS

\*\*START WITH THESE FIRST

D. MASCARO, WA3JUF

- 6 -

# Jan.1987 1296 Activity List

Call	Grid		Call .	Grid		Call	Gr i d		Call (	3rid	
WORSJ	FN20	*#+	K2BWR	FM29		К2UYН	FN20		кзмтк	FN21	*#
N1BC	FN42		K2CBA	FN32		W2VC	FN20		WA3NUF	- FN20	
KA18XB	FN31		N2CEI.	FN20		WB2W1K	FN20		WASINUL	FN20	
WB1CJT	FN42		W2CNS	FN13		N2UK	FN13		WA3NZL	FM19	
WIDGA	FM19		W2CRS	FN32		WA2WVL	FN13		AK30	FN20	* +
KA1 DHO	FN42		N2CYM	FN20		K2YC0	FN13		K3QCQ	FN20	•
N1 DPM	FN32		KK2D	FN30		WB2YEH	FM29	¥	KB3QM	FM28	
KIDPP	FN42		W2DMC	FN21		AA2Z	FN31	#	KQ3R	FN11	
KIDS	FN41		W2DRZ	FN02		K2ZRJ	FM29		W3SJI	FN20	
W1EJ	FN42		W2EIF	FM29	#+	N3AOG	FN20	* +	K3SXA	FM29	
WB1FKF	FN42		WA2EUS	FN30	**	WASAXV	FN20		W3TNP	FN20	
W1GCI	FN31		K2EVJ	FN13		N3BBI	FN20	+	WASTTS	EN90	
W16XT	FN42		WA2F6K	FN20	¥	K3BPP	FN20		WA3TXR/		
WAIJOF	FN42	#	WA2FVN	FN20		M3CCX/8			WASTZH	FN20	
WIJOT	FN42		K2GAL	FM29		N3CFE	FN20		WA3UGP	FN20	*
W1JR	FN42	*#	K2GE	FN20		N3CX	FN20		W3VIR	FN20	
K1LPS	FN44		WB2GEZ	FN20	+	M3CXII	FN20		K3VIT	FN20	+
WAIMBA	FN32		K2GK	FN12	•	WB3CZG	FN20		W3WFM	FM18	•
WINY	FN31		W2GUN	FN20		N3DCR	FN20	¥	W3W1	FM18	
KA10J	FN43		K2IBP	FN20		VE3DKW	FN03	•	WA3YON	FN20	
WA10UB	FN31		W2IJX	FN20		WB3DN1	FN20	. +	KSYTL	FN11	×#
WiPBB	FN31		KC2J	FN20		KASEAQ	FN20		WA3YUE	FN20	· •π +
K1PQ0/:			WB2JHG	FM29	#	NSEAX	FN20		K3ZMA	FN20	т
W1PV	FN31		W2JHY	FN20	11	KASEEO	FN20	ŧ		FM07	
K1PXE	FN31		KA2JKI	FM29	_				AB4L		
	FN31		W2KFC/4		+	WA3E0Q	FN20		W40JK	EM96	
WIQK		~ #	•			WB3ESS	FN20	*	K4QIF	FM16	*1
W1RIL WA1RWU	FN42	× #	WA2LSE	FN20		WASFFC	FN20		K4QKR	FM06	
K1RZ	FN32		K2LZF WB2NEC	FN12		N3FL	FM19		KF6AJ	FN31	+
	FM19			FN21		WA3FYJ	FN00		WB88KC	EN82	
WA1STO AF1T	FN31	y- M	K2NJ	FN20	v 11 .	K3GAS	FN20	+	N8DJB	EN81	
WAITFH	FN43 FN42		WB2NPE	FM29		WA3600	FM29		W8DJY	EM79	
		*	WA20MY	FN20		K3GYS	FM29	+	NI80	EN80	
W1TKZ/:			WB20NA	FN20	+	W3HFY	FM29	#÷	KD8SI	EM79	
K1TR	FN42		NF2P	FN20		КЗНР	FN20	11 .	WASTXT	EN81	
WA1T2V	FN42		W2PGC	FN02	#	W3HQT	FN54	*#+	KBW	EN91	
WAIUQC	FN31		KC2PX	FN20		K3HWC	FN20		W8YIO	EN82	
VE1UT	FN63		WB2Q0Q	FN20		K3HZ0	FM18		WB8ZAR	FN10	
WIVD	FN31		WA2RGC	FN23		W3IIT	FN20	+	W91P/2	FN24	
K1WHS	FN43		WA2RUG	FM29		W3IP	FM19		W9Z1H	EN61	*
WA1WXV	FN31		WB2RVX	FM29	<b>+</b>	K3IV0	FM18				
KiZZ	FN31		KA2SAT	FN20		WASIWT	FN20	+			
W2AWX	FN31		N2SB	FM29	*#+	W31Y/4	FM19				
KT2B	FN20		K2SMN	FN20		KC3JH	FM28				
N2BJ	FN21		W2SZ	FN22		WA3JUF	FN20				
K2BJG	FN21		W2SZ/1	FN32	*	W3KKN	FN20	+			
N2BKT	FN21		W2TC	FN20		M3KMH	EN90				
N2BMN	FN20		WA2TEO	FN31		WA3LBI	FN20				
N2BNL	FN20		W2TTM	FN20		VE3LNX	FN03	*#			
N2BOW	FN20		K2TXB	FM29		W3LP	FN20				
KA2BTD	FN20		K2U0P/4	FM17		KC3LX	FM18	*			
Total	= 189	Pack	Rats = 31	*	on 230	4 # o	n 903	+	Pack Rat	d	e WA3JUF

DS 1 Common Cethode Display

DS2 Common Catho: Display

DS3 Common Catho

Display

150 Ω

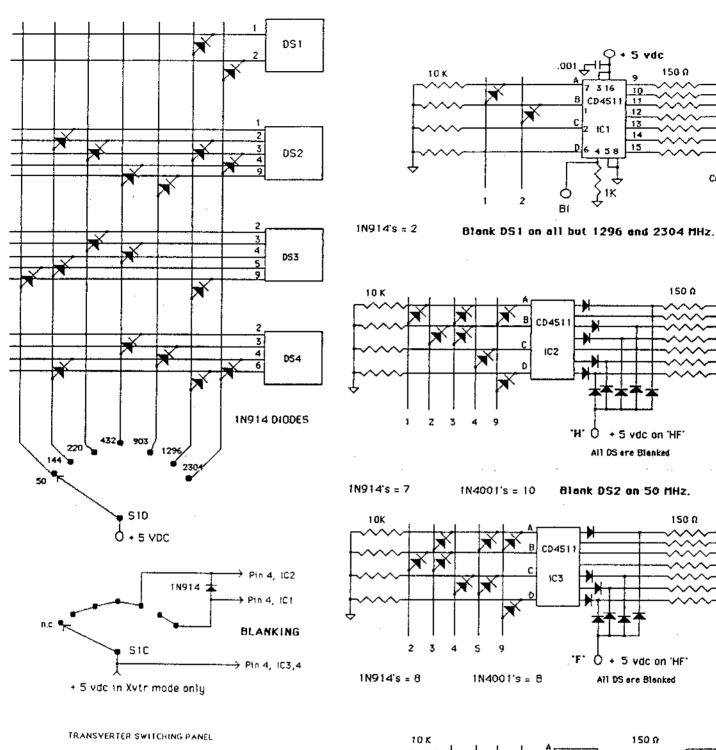
150 Ω

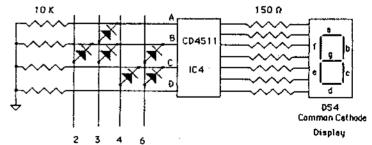
1296

**WA3JUF** 

2304 CY O SS2

WATTS





1N914's = 6 ~ **~** 

# DOWN EAST MICHONIANE

90X 1655A - RFD #1 BURNHAM . ME 04922

Microwave Antennas and Amplifiers by W3HQT

902 1296 2304 3456 mHz.

Bill Olson

(207) 948-3741

Amateur Radio's Technical Journal PO BOX 931 **FARMINGDALE, NY 11737** 

\$25 one year \$53 three years

NE 7-8329

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

изнк

4607 CONVENT LANE



AMIL S. GUMULA PRESIDEN'S

A G RADIO PARTS CO. 939 TOWNSHIP LINE RD. ELKINS PARK, PENNA. 19117 TELEPHONE: 218 - 886-5100

Authorized Distributor



Delaware Amateur Supply

"AMATEUR SALES AND SERVICE"

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

TIHEAW

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 - 15

PRINTECH PRINTING 746-6000

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

Home: (215) 947-4483

xyl K3IUV

Neshaminy TRAVEL SERVICE

2337 Neshaminy Blvd. Bensalem, PA 19020

BROWSING-THURS, 7%,9% SAT. 9" 54"

Day-Nite (215) 455-2121

FERTIK'S ELECTRONICS . . . . .

Components & Equipment

LEON FERTIK

SADO FILA STREET PŘIKAĎELPHIA, PA. 19120

LUNAR, MICROWAVE MODULES, ARCOS, ASTRON, KLM TAMA, TONNA F9FT

VHF SHOP

TOM KOSR 16 South Mt. Boulevard Mountaintop, Pa. 18707

(717) 474-9399 M - Fafter 6:00 p.m Weekends Anytimal 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"

71 MEADOW ROAD NEW CASTLE, DELAWARE 19720



RCA FEDDERS

Jenkintown & Glenside Electric Co.

WA3WLQ

220 YORK ROAD JENKINTOWN, PA TUrner 4-0375 - 4-1050 See SWA 7-4325

