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

CHEESE BITS



CLUB MEMORIAL CALL

ARRL Affiliated

SCANNED TO JEDF BY BERT, KBUV, 2013

VOLUME XLI

June 1999

Number 6

The PREZ SEZ

I think everyone at last months meeting enjoyed the excellent presentation by Pack Rat WA3DRC, Ed Finn, on Large Scale Integration (LSI) circuit design and production. We all take the technology that makes our electronic toys so small and powerful for granted most of the time. It was interesting to see how the technology evolved over the years to the level that it is today. What is really going to be fascinating is where are we going in the next ten years? The meeting this month will feature a talk by Pack Rat WA3RLT on some different applications for microwave technology.

The weekend of June 12 and 13 is the annual ARRL June QSO Party. Every year since I can remember the Pack Rats have used the June contest as sort of a VHF Field day. This year we will once again be on the top of Camelback Mountain in the Pennsylvania Pocono mountains (FN21HB). Make sure you work W3CCX on all bands that you have available. For those of you with microwave equipment this is the weekend to have it all working. This is one of the reasons you have all that stuff. If you haven't noticed the club has become rather competitive in this event over the last several years. Considering we do it without hordes of captured rovers or other canned contacts, we do pretty well. The club needs your contacts. Make a real effort to work us early in the weekend. Don't wait until 10 PM Sunday night to "give it a try".

The July meeting (7/15/99) will be the annual White Elephant sale at the QTH of WA2OMY. If you don't have any white elephants, then bring some of those precious, shiny little items you have been squirreling away all these years. Maybe it should be somebody clse's turn to store them for a white. I am sure there are a few things that you could part with and never miss. Besides, if you make a mistake and part with something of really great value, just wait a few years; chances are pretty good that the same item will magically reappear at a future auction. It's always a fun meeting. Refreshments will be served.

The club is going to try and pump some new life into the annual Family Day and Pienic. This year the pienic will be held at the newly renovated facilities at the QTH of N3ITT and family on August 14, 1999. At and Carol have been gracious enough to invite the club this year to hold the event at their abode in Ottsville, PA. You will hear more about the pienic as the date grows closer.

We were saddened to learn last month of the passing of long time Pack Rat Hai Grace, W3HFY. Hal was a very active VHF'er in his prime and continued to be very active on the air until very recently. Hal's health prevented him from attending meetings, but he was always ready to support the club in whatever way he could. In particular we will especially miss his weekly propagation and solar activity reports on the Monday night nets, RIP.

73, Ron, W3RJW

MEETINGS

Third Thursday each month at 8:00 PM Southampton Free Library 947 E. Street Road Southampton, PA 18966 Pack Rats CHEESE BITS is a monthly publication of the - Mt. AIRY VIIF RADIO CLUB, INC. -

Southampton, PA

SUBSCRIPTION RATE: \$10.00 PER YEAR (USA)

\$12.00 PER YEAR (CANADA)

\$15.00 PER YEAR (ELSEWHERE)

We operate on an exchange basis with other non-commercial publications. Anything that is printed in CHEESE BITS may be reprinted in a not for profit publication, unless otherwise stated, provided proper credit is given.

DEADLINE FOR ARTICLES AND SWAP SHOP IS THE MONTHLY MEETING DATE. NON-COMMERCIAL SWAP SHOP ITEMS-FREE OF CHARGE.

Pack Rat WEB Site: http://www.ij.net/packrats

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ 7258 Walnut Avenue Pennsauken, NJ 08110 (609) 665-8488 fnsf57a@prodigy.com

EDITOR:

Harry Brown, W3IIT 3012 Potshop Road Norristown, PA 19403 (610) 584-4846 hbrown@voicenet.com

CLUB TREASURER:

Dave Mascaro, W3KM 1603 Mink Road Ottsville, PA 18942 (215) 795-2648 dmascaro@gi.com

AWARDS CHAIRMAN:

Bob Fox, W3GXB (610) 346-8698

TRUSTEE OF CLUB CALL - W3CCX

Ron Whitsel, W3RJW W3RJW@aol.com (215) 355-5730

PACKRAT 222 MHz REPEATER - W3CCX/R

222,98/224,58 MHz, Churchville, PA FN20LE

OFFICERS: 1998-1999

PRESIDENT: W3RJW Ron Whitsel, W3RFW@aol.com
VICE PRES: WA3EHD Jim Antonacci, jantonacci@worldnet.atl.net
REC. SECR: WA3AQA Walt Zumbach,wzumbach@bellatlantic net
TREASURER: W3KM Dave Mascaro, dmascaro@j.com
COR. SECR: N3AOG Dick Comly, a3aog@compuserve.com
DIRECTORS: WA3DRC (2 Yrs) Ed Finn, ed finn@uste.visi.com

N3EVV (2 Yrs) Walt Rauscher

AA3GN (1 Yr) Joe Landis, landisj@netl.com W2SJ (1 Yr) Bob Fischer, tist57a@prodigy.com

PACK RAT BEACONS - W3CCX/B

FM293W Philadelphia, PA

50.080 144.284 222.065 432.295 903.072 MHz 1296.251 2304.037 3456.220 5760.190 10.368,177 MHz

MONDAY NIGHT NETS

<u>TIME</u>	FREQUENCY	NET CONTROL
7:30 PM	50.150 Mhz	WA3EHD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW/WA3DRC
9:30 PM	1296.100 MHz	WA3NUF/AA2UK
10:00 PM	903.100 MHz	N3AOG

COMMITTEE CHAIRMEN

LADIES' NIGHT:	N3AOG	215-443-9965
JUNE CONTEST:	N31'1"F	610-847-5490
HAMARAMA:	NK8Q	610-847-2285
VHF CONFERENCE:	KB3XG	610-584-2489



THE AMERICAN RADIO RELAY LEAGUE



KAY C. CRAIGE, WT3P DIRECTOR, ATLANTIC DIVISION

5 Faggs Manor Lane Paoli, PA 19301-1965 610-993-9623

wt3p@arrl.org



THE AMERICAN RADIO RELAY LEAGUE

BERNIE FULLER, N3EFN VICE DIRECTOR, ATLANTIC DIVISION

17668 Price Road Saegertown, PA 16433 814-763-1529

n3afn@arri.org

CALENDAR OF COMING EVENTS - JUNE 1999

- 4-6 Atlantic Division Convention and 65th Annual <u>Rochester Hamfest</u> at the Monroe County fairgrounds near Rochester, NY. Talk-in on 146.28/,88.
- 9 The Arietids Meteor Shower predicted peak will be at 1500 UTC. See W6CL's column in the June issue of CQ for more details.
- 12 Packrat <u>Board of Directors meeting</u> held on the mountain at the contest site.
- 13-15 June VHF OSQ Party. See May QST Page 94 for rules. W3CCX will be operating from FN21HB, Camelback Mountain, near Tannersville, Pa. on all bands thru 24 GHz.
- 14 Flag Day
- 17 Packrat meeting at the Southampton Free Library on Street Road in Southampton, Pa. Annual election of officers. All members and interested VHFers welcome. Ben Keisall, WA3RLT, will give a presentation on his firm's use of microwave energy in a non-communications application.
- 19-20 <u>1998 SMIRK Party Contest.</u> 0000-2400Z. See rules see http://www.smirk.org Send entries by 1 August to Pat Rose, W5OZI at PO Box 393, Junction, TX 76849-0393. Brief rules are in the June issue of QST, page 98.
- Frederick, MD, Frederick County Fairgrounds, Frederick ARC, 10494 Balmoral Place, New Market, MD 21774. TI on 146.64-, 146.52, 448.425-.
- 20 Fathers Day
- 21 +/- 1 month. Look for openings to Europe on 6 meters.
- 24 <u>LEAP INTO THE MICROWAVES</u> with the Packrats! 903 and above. Starting on the 4th Thursday of the month and continuing every 4th Thursday of the month operate from 8 to 10 PM local time on any band 903 MHz and above. For coordination on those difficult long haul contacts 144.260 MHz is the suggested liaison frequency. So here's your chance to fix what broke in the contest and work all those stations you missed.
- 26-27 Field Day. See May QST page 95 for the rules. Look for lots of activity on 50 and 144 MHz.

SWAP SHOP:

(send all ads to the editor)

FOR SALE: CALLSIGN HISTORY. Name and address of each holder since 1912. Cost \$15 plus SASE for printed CERTIFICATE. Wanted CallBooks before 1970 and QST's before 1940 will buy or trade. Also looking for 1x2 Ham Radio License Plates for my collection. Ron Allen W3OR, PO Box 73, Bethel, Dc. 19931-0073 or call 302-875-1100.

FOR SALE: Two (2) Old Antenna Lab (W6OAL) 2 meter Big Wheel antennas complete with phasing harness and power divider. Excellent condition. Cost was \$450.00 brand new - will sell for \$200.00. Drake R4C Receiver with MS4 speaker. Good condition but the receiver needs repair. \$75.00. Package: Alinco DRM03SX 10 meter FM XCVR, 10 watts, in excellent condition with a 12 volt Astron slim-line switching supply, \$200.99. Contact Harry Schools, K3HS, 8566 Glen Campell Road, Philadelphia, PA 19128, Call 215-483-1111 between 4 and 8 PM.

TID BITS

N3XEM Update: I'm Back it's Great To be Home!!!! 10:30 am Sunday May 2. I'll be in touch Beautiful Day to get home Bob XEM. Check the latest happenings of the Mt. Airy VHF Radio Club by checking our web page at http://www.ij.net/packrats/. VUCC Award Checking: If you want QSL cards checked for your initial VUCC Award or an update, contact Harry, W3HT at

EME Symposium 99 will be an EME beginners workshop held on August 20-21 at the Marriott in East Syracuse. NY. Call Dave Halliday, K2DH at 716-728-9517 or e-mail him at k2dh@frontiernet.net for information. See the conference web site at http://www.geocities.com/~kb2ah/symposium99.html.

Club Jackets are still available. Contact Dick, N3AOG. He has to have a minimum of 6 to place an order.

CHEESERITS SUBSCRIPTIONS

	CHEESEBITS SUBSCRIPTIONS
Cheesebits subscrip	tions are available to everyone interested in activities and information from the VHF thorough the microwave
frequencies. Subscr	iptions are for 1 year of 12 issues. For a subscription, send the following information:
Name:	Call:
Street Address:	
Town:	State: ZIP:
Subscription Rate: :	\$10,00 per year (USA), \$12.00 (Canada), \$15.00 (Worldwide)
June 1999	Send to: SUBSCRIPTION/ADVERTISING MANAGER:
	Bob Fischer, W2SJ, 7258 Walingt Avenue, Pennsauken, NJ 08110

- June 1999 Pack Rats Cheesebits Pg.3 -

1999 NOMINATIONS FOR CLUB OFFICERS

Elections will be held at the June meeting. Nominations will be open at the meeting prior to voting.

President: Later

Vice President: Jim Antonacci, WA3EHD Treasurer: Dave Mascaro, W3KM

Recording Secretary: Walt Zumbach, WA3AQA Corresponding Secretary: Joe, AA3GN

Board of Directors: Bob. N3XEM, AI, N3ITT, Brian, N3EXA

PACKRAT BANQUET AWARDS

1st Place Single Op, January VHF Sweepstakes: Ron Whitsel, W3RJW, 255,112 points
2nd Place Single Op, January VHF Sweepstakes: Phil Miguelez, WA3NUF, 178,176 points

3rd Place Single Op., January VHF Sweepstakes: Len Martin, N3NGE, 155,349 points

1st Place Multi Op, January VHF Sweepstakes: Mark Adams, W2UR (+AA2UK, WB2EYF), 457,732 points

2nd Place Multi Op, January VHF Sweepstakes: Bill Murphy, WORSJ (+ WB2ONA, N2IX, W1PV, N3DG), 318,200 points

3rd Piace Multi Op., January VHF Sweepstakes: Al Sheppard, N3lTT (+ WU3C, N3OZO), 72,428 points

Mario Fontana Award: John Sortor, KB3XG and Paul Drexler, W2PED

Packrat of the Year: Al Sheppard, N3ITT

Worked the Most Packrats in the January contest: Joff Klein, KTTEO, 165 QSO's

HOME BREW NIGHT AWARDS

MOST AMBITIOUS: Mark Adams, W2UR, 10 GHz Tower Mounted Transverter

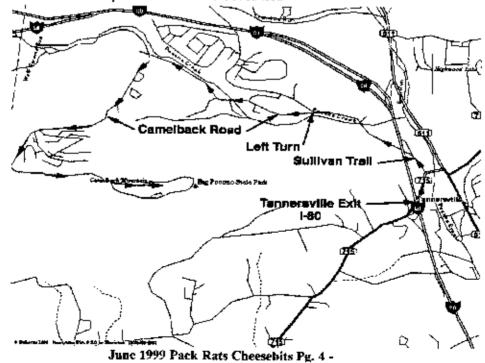
BEST CONSTRUCTION: Lon Martin, N3NGE 2304 MHz Transvertor

MOST MISERABLE FAILURE: Doc Whittacer, W3GAD, 6M Vacuum Tube X-CEIVER

BEST PROJECT FROM MARIO RAFFLE PARTS: Joe Landis, AA3GN, 222 MHz Transverter MOST UNUSUAL: Dave Mascaro, W3KM, Logging Program

MAP TO W3CCX/3 ON CAMELBACK MOUNTAIN

Take the Tannersville Exit #45 from I-80. At the bottom of the exit ramp go right on Rt. 715 toward Tannersville, PA. Go 0.2 miles and make a left hand turn (should be sign to Big Pocono State Park) on Sullivan Trail (If you come to a red light you went too far). Proceed back under I-80 and then look for small sign on right side of road to 'Camelback Ski Area' (or something to that affect) and make left on to Camelback Road. Wind your way up the mountain. Near the top of the mountain there is a restaurant area. Go past the restaurant to the top of the mountain. The park closes to visitors at sunset.



FM YAGI FOR 223,5 MHz

de Len. N3NGE (n3nge@ix.netcom.com)

Hello Packrats, I recently determined an application for FM existed here in the form of simplex intercom/liaison communications, to facilitate operations, and technical discussions (I can hardly believe that one myself!). To this end I have ordered a transceiver, and built an antenna for the 222 FM band. The enclosed word document describes the antenna for anyone interested in construction of same. Dimensions have been corrected for fm and converted to metric for ease of assembly.

NBS TYPE 6 ELEMENT YAGI FOR 223.5 MHZ (FM SUB BAND) 1.2 WAVELENGTH BOOM - 10.2 dBD GAIN N3NGE May '99

<u>Element</u>	Length (1)	Distance from end of boom	Spacing (2)
REF	652.0 mm	30.00 cm.	0.0
DE	625.5 mm	56,85 cm.	26.85 cm,
D1	595.8 mm	90.40 cm.	60.40 cm,
D2	589.5 mm	123.96 cm.	93.96 cm,
D3	589.5 mm	157.52 cm.	127.52 cm,
D4	580.1 mm	191.07 cm.	161.07 cm.

Notes: (1). Element lengths are for 1" OD., thru the boom, insulated mounting. Elements are 3/16" dia. Aluminum rod, DE is brass.

(2). Distance from end is for end mounting. If other mount is desired, add your required offset to the spacing values to get new distance.

Overall boom length in end mount config is just over 6 ft. Balanced feed (T match) is recomended, and will achieve a smooth VSWR curve across the 222-225 MHz band w/ RL = 17 dB min. at 223,500.



Match wires # 12 solid copper, 255 mm long each from balun connection. Shorting straps 8 mm wide, at 245 mm from feed point center. Spacing between DE and match wires = 20 mm (inside measurement). I/2 wave balun @ $69.5\%V_p$ (RG-142)= 466 mm shield length. For other cable multiply $V_p \propto 671$ mm(free space). See K1FO vhf yagi in ARRL handbook for details on T match feeds, fine tuning is optional, weatherproofing is not.... Len.

HAVE YOU SEEN IT?

Does anyone know the present whereabouts of the "Packrat" statue that I (K3IUV) purchased many years ago as a gift for Harry Stein (W3CL)? Harry's wife Sylvia sent it back to a club meeting (one that I didn't make) at least 8 months ago. Since I wasn't there, someone in the club offered to store it. It has sentimental value to me because of my close association with Harry over many years, and I would like to retrieve the statue (if I could only locate it!).

In case you do not recall, it was about two feet tall, and made of ceramic. If anyone has information concerning the lost "rat", please let me know via e-mail, plain mail, or pots (plain old telephone service. Tax & 73, Bert, K3IUV

1296MHz Sprint Results

PI- Station	Total T	otal T	otal	11 W2PED	9	3	27	23 N8XA	5	2	40
ace	QSO (Grids F	Points	12 WAZONK	9	3	27	24 K4RF		2	10
1 WA8WZG	14	10	140	13 AA3GN	13	2	26	25 NE8I	3	3	9
2 W6TOI	17	6	102	14 N6DN	6	4	24	-	3	3	9
3 K6TSK	15	6	90	15 N6TEB	8	-		26 K8WW	3	2	6
4 N6PI	12	5	60		-	3	24	27 KE7SW	5	1	5
5 N3NGE	14			16 N3XEM	11	2	22	28 W60MF	5	1	5
		4	56	17 K1TEO	7	3	21	29 KC0P	2	2	4
6 W2SJ	14	4	56	18 W1COT	5	4	20	30 W9GA	2	2	4
7 N2CEI	11	5	55	19 W8PAT	5	4	20	31 K3IXD	2	1	2
8 W6AQ	13	4	52	20 WA8RJF	5	3	15	32 NOCKK	1	1	1
9 WA3DRC	11	3	33	21 KB0TZA	6	2	12	33 NOLL	1	1	4
10 WA2ZFH	10	3	30	22 W9FZ	6	2	12	34 W3EKT	1	1	1
Packrats											

June 1999 Pack Rats Checsebits Pg.5-

FUTURE VHF/UHF/MICROWAVE SPRINT QUESTIONNAIRE

N8NQS, Editor / Publisher Great Lakes VHF/IJHF Newsletter, Sponsor - 1999 Six Meter Sprint

FELLOW VHF/UHF ENTHUSIASTS: Please pass this ballot along to your other favorite reflectors and fellow contesters.

With the 1999 Spring Sprints behind us, it's time to start preparing for the next ones. It may be early, and even a bit presumptuous to try to get these issues settled so soon, but I guess we'll never be accused of not being prepared. The new rules will be passed along to the Sponsor(s) of next year's events. They may even change them, but after this ballot, they will know what the participants expect.

We have had some discussion on a number of proposals. They will be listed below, and you are asked to vote either yes or no. Proposal issues without a vote will be considered as not mattering to the voter. A no vote on any issue means "leave it alone". We'll let this run for a week, then present the results and new rules. To any prospective Sponsor: Future Sprints will be your responsibility. You may elect to make changes, the purpose of this is to give you a starting point. It will represent what the contesters want. No slander is intended, and time will prove us all, right or wrong. I will not divulge how individuals vote. If you want others to know, vote publicly. Please only one response per person. Pre-ballot question - Should we change the rules?

Here we go:

Sprint Rule Changes Proposed By The Contesters:

- Include a Rover category in all Sprints.
- 2. Disallow use of call frequencies.
- 3. Make the Sprints a World-wide event.
- Move all Sprints off weeknights.
- Move Six Meter Sprint off Dayton weekend.
- Make Six Meter Sprint a weeknight local time event like rest of Sprints.
- 7. Move Six Meter Sprint to another weekend, regardless of other contest interference.
- 8. Move 903 2304 Sprints to later (warmer) month.
- Score Rovers according to pre-1995 VHF Contest Rules.
- 10. Increase operating time.
- 11. Allow only c mail submitted logs.
- 12. Add a Fall Sprint Series.
- 13. Move 903 2304 Sprints to a weeknight.

Respond, with votes and comments, to vhfuhf@voyager.net. Ballots received until 2359Z Monday June 7, 1999

					903 MHz Sprint R	esults			
Piac	eStation	Total Total	Tota	al	. 4	K7ND	7	2	14
		QSO Grids	Poir	าเร	5	W2PED	7	2	14
1	WA8WZG	10	8	80	6	KE7SW	5	1	5
2	WA2ONK	9	3	27	7	N6PI	2	2	4
8	W2SJ	11	2	22	13	N8XA	2	2	4
9	AA3GN	10	2	20	14	W9FZ	3	1	3
10	N3XEM	- 10	2	20	15	W6TOI	2	1	2
11	N3NGE	9	2	18	16	K4RF	1	1	1
12	WA3DRC	9	2	18	17	NI6G	1	1	1
3	K1TEO	5	3	15					
Pac	:krats								

2304MHz Sprint Results

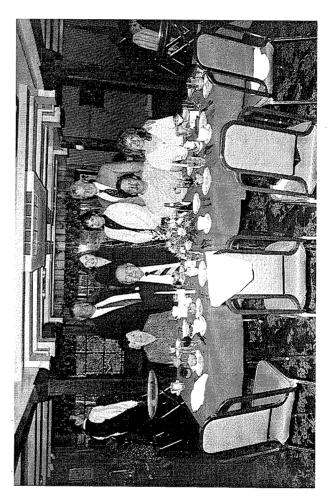
Place	Station	Total	Total	Total	6	W9FZ	2	1	2
		QSO	Grids	Points	7	K1TEO	1	1	1
1	WA8WZG	8	6	48	8	K4RF	1	1	1
2	N3NGE	5	2	10	9	NE8I	1	1	1
3	W2SJ	7	1	7	10	W2PED	1	1	1
4	N3XEM	3	2	6	11	WA8RJF	1	1	1
5	WA3DRC	2	Ż	4		crats	·	•	•



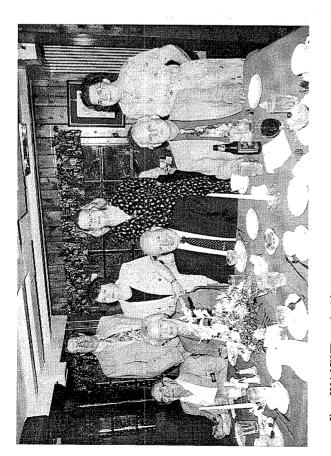
Bill, K3MFI, and wife Lois, Doc, W3GAD, and wife Arlene, Mark, W2UR and wife Alison, and Paul, W2PED and wife Naomi



Don, N3OZO and wife Ellen, Al, N3ITT and wife Carol, Bill, W0RSJ and Bob, W3GXB and wife Ruth



Rich, K1DS, and wife, Grif, NE3I, and wife Ava, Gene, KB3IB, and wife Anna, Ed, WA3DRC, and wife Crystal



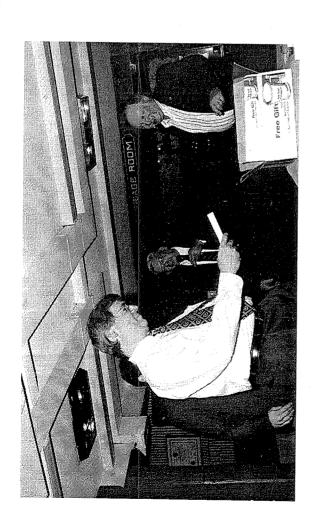
Jim, WA3EHD and wife Pat, Walt WA3AQA, and wife Jean, Ernie, W3KKN, a friend of the Rats, and Harry, W3IIT and wife Rose



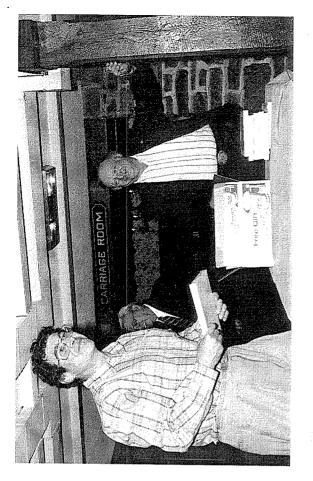
Dave, W3DFM and wife Dotty, Ron, W3RJW, and wife Lynne Mark, NK8Q and friend, Len, N3NGE and wife Linda, and Dave, W3KM and wife Barbara



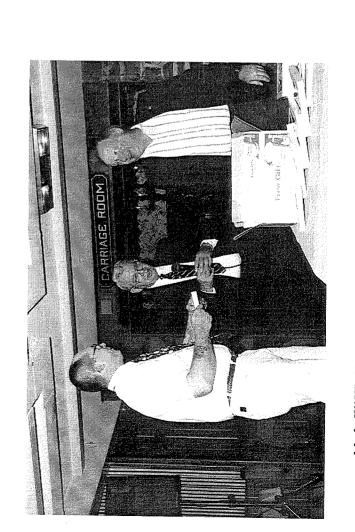
Pat, W2SK and wife Patty, John, KB3XG and Celeste, Mike, N2DEQ and wife Terry, Dick, N3AOG and wife Janice



John, KB3XG and Paul, W3PED, Mario Award for their 24 GHz Efforts



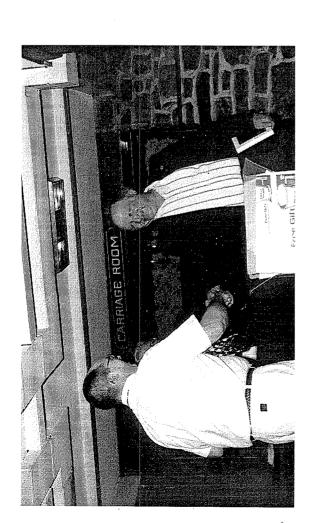
Al, N3ITT Packrat of the Year



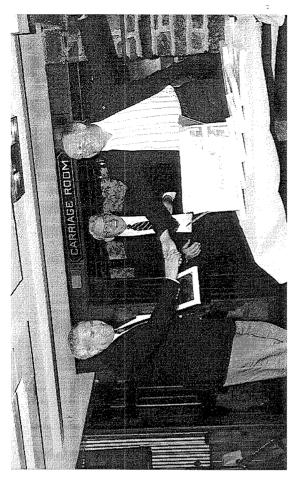
Mark, W2UR, Home Brew Night, 10 GHz Tower Mounted Transverter



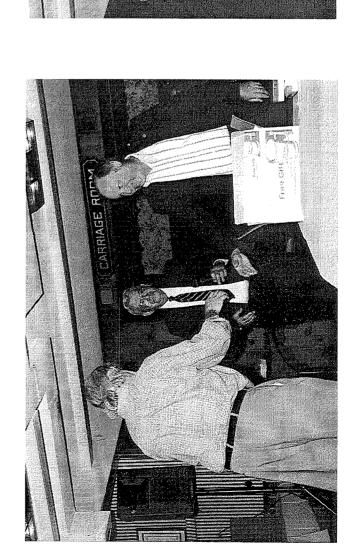
Len, N3NGE, Best Construction, 2304 MHz Transverter



Mark, W2UR with AA2UK, 1st Place MultiOp Jan VHF SS



Bill, W0RSJ, 2nd Place MultiOp, Jan VHD SS



Dave, W3KM, Most Unusual Project, Home Brew Night



(302) 478-2757

Since 1977

AMATEUR & ADVANCED COMMUNICATIONS

Amateur and Shortwave Closed Sunday & Monday

GISELE K3WAJ

3208 Concord Pike Rts. 202 Wilmington, Delaware 19803

> 609-541-0120 FAX 609-541-2546

Bob Fischer Company, Inc.

AERIAL LADDERS - CRANES - MANLIFT EQUIPMENT

BOB FISCHER PRESIDENT

2765 LINCOLN AVE. CAMPEN. N. J. 08105



HARRIET SOLTOFF TRAVEL CONSULTANT

616 SOUTH THIRD STREET PHILADELPHIA, PA 19147

(215)RES. 947-4483

THE R. F. CONNECTION

"Specialist in R F Connectors and Coax*

Joel Knoblock 301/840-5477 Fax 301/869-3880

Order Line 800-783-2666 Suite 11, 213 N. Frederick Ave. Gaithersburg, MD 20877

Graphic Design Illustration Production



Lynne D. Whitsel

209 Frog Hollow Road Churchville, PA 18966 215 355-5730

MICHARD E. COMLY

TOOL, DIE & MACHINE CO., INC. 2065 BENNETT RD. PHILA., PA 1918



(215) 745-6173 (609) 256-3658 (800) 5-EASY-DO



COMPU-SIMPLE, INC. COMPUTER APPLICATIONS FOR SMALL BUSINESS

ELLIOTT T. WEISMAN Consultant

P.O. BOX 7161 WILMINGTON, DELAWARE 19803

AUTHORIZED DEALER **ROHN TOWERS**

TEL 908-776-2522 FAX 908-775-3635

TELEX-HY-GAIN ANTENNA SYSTEMS ROTATORS TOWERS

PILOT ELECTRIC CO., INC.

1300 HWY, #35 NEPTUNE, N.J. 07753

GENE PILOT



(215) 288-0325

GEORGE'S, VanDYKE, JR, P.E.

1737 Scattergood Street Philadelphia, PA 19124

(609) 268-0736

RICHARD CONNOR

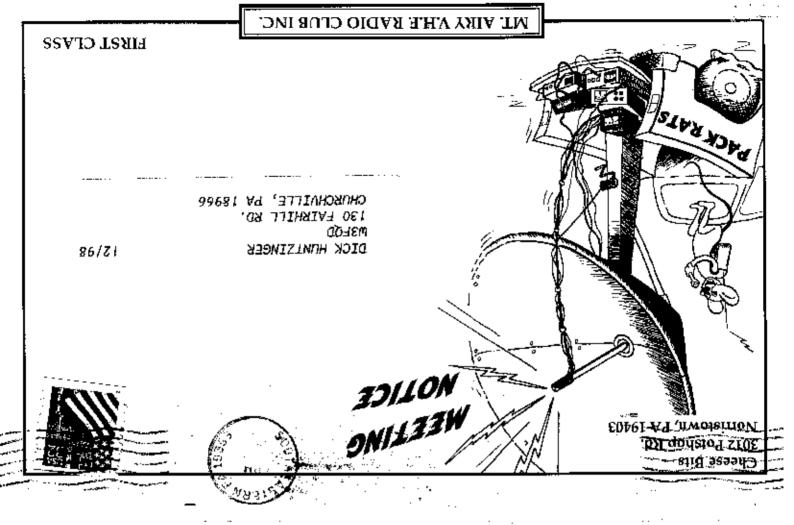


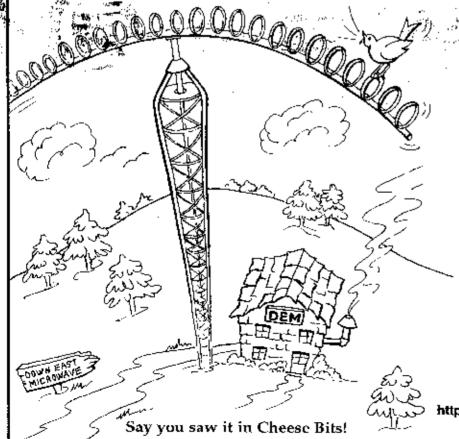
ZECONTOMMUNICATIONS

- · COMMUNICATIONS TOWER MAINTENANCE · ANTENNAS, FEEDLINES, TOWERS INSTALLED
- TOWER PAINTING, RE-LAMPING, RE-GUYING RF SYSTEM TROUBLESHOOTING
- . LIGHTNING PROTECTION, GROUND SYSTEMS

Emergency Service

412 Carranza Road Tabemacia, NJ 08088





DOWN EAST MICROWAVE

Manufacturers and Distributors of VHF/UHF/SHF Equipment and Parts 50 to 10,368 MHz

- Microwave Loop Yagis
- VHF/UHF Yagis
- No-Tunc Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Components, MMICs, Transistors, RF Modules

For All Equipment & Antennas: Steve Kostro, N2CEI 954 Rt. 519 Frenchtown, NJ 08825 Tel.. 908-996-3584 Fax. 908-996-3702

http://www.downeastmicrowave.com/index.html