

# CHEESE BITS



**W3CCX**

CLUB MEMORIAL CALL

SCANNED TO PDF BY BERT, K3IUV, 2013



ARRL  
Affiliated  
Club

VOLUME XXXIX

January 1997

Number 1

## THE PREZ SEZ

1996 was a pretty good year for the Packrats. The January and June contest efforts were big and resulted in impressive scores and outstanding member turnout. Ladies Night, the 40th Anniversary celebration, the Conference, and Hamarama were all great successes. The list could go on and on. But the most important achievement this past year in my opinion has been the renewed enthusiasm and participation by you, our club members. The Packrat spirit is alive and well and ready tackle the new year ahead. To all of our members, families, and friends I wish you a very Happy and Healthy New Year!

The bands have been buzzing for the past several weeks as everyone gets ready for the upcoming January VHF Sweepstakes. At the contest strategy meeting extra chairs had to be brought out to seat the packed house. The meeting was lively and informative and hopefully everyone came away with some good ideas for operating their station in the contest. K3GNC presented his fearless forecast and declared that 3 million points is within our reach this year. I have to admit with all of the new bands and improvements that many of our members have added this year 3 million points looks very attainable. To make it happen we need everyone giving their best effort. Whether you're a big gun or a little gun your score could make the difference. The other goal for 1997 is to reclaim the Unlimited Club Competition category. Last year we fell short of the required 51 logs even though we outscored the competition. Help the club reach the top of the standings by participating in the January contest and submitting a log!

Since Cheese-Bits has a much wider circulation than just club members I would like to point out two items for our non Packrat friends. First is where to find the Packrats in the contest. Printed in this issue of Cheese-Bits is the Packrat Contest Clock which shows the times and bands that our members activate to work each other. I have heard from several top contest operators that they religiously follow our contest clock as a means to work all those Packrats. With (hopefully) 51 or more stations showing up at the same time and place that's a sizeable run in anyone's contest log. The second item is our reward for the station that works all those Packrats. The club will again sponsor an award for the non member single-op station that works the most Packrats (number of stations X bands worked). The award has been on display at the Conference and Hamarama and has received a lot of interest. Last years winner was WZ1V who received the award with honored guest status at our April regular club meeting. It could happen to you. For full details contact Bob, WB2YEH or any of the club Officers.

(Continued on page 3)

## 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 publication of the Mt. AIRY VHF RADIO CLUB, INC. Southampton, PA. and is published monthly.

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.**

**SUBSCRIPTION/ADVERTISING MANAGER:**

Bob Fischer, WB2YEH  
7258 Walnut Avenue  
Pennsauken, NJ 08110  
(609) 665-8488

**EDITOR:**

Harry Brown, W3IIT  
3012 Potshop Road  
Norristown, PA 19403  
(610) 584-4846  
hbrown@vf.lnms.lmco.com  
hbrown@newtech.net

**CLUB TREASURER:**

Dave Mascaro, WA3JUF  
1603 Mink Road  
Ottsville, PA 18942  
(215) 795-2648  
dmascaro@gic.gi.com

**AWARDS CHAIRMAN:**

Bob Fox, W3GXB  
(610) 346-8698

**TRUSTEE OF CLUB CALL - W3CCX**

Ron Whitsel, WA3AXV  
rwhitsel@aol.com  
(215) 355-5730

**PACKRAT 222 MHz REPEATER - W3CCX/R**

222.98/224.58 MHz, Churchville, PA FN20LE

**OFFICERS: 1995-1996**

PRESIDENT: WA3NUF Phil Miguelez, pmiguelez@gic.gi.com  
VICE PRES: N3AOG Dick Comly  
REC. SECR: WA3AQA Walter Zumbach  
TREASURER: WA3JUF Dave Mascaro, dmascaro@gic.gi.com  
COR. SECR: KB3XG John Sorter, JohnKB3XG@aol.com  
DIRECTORS: N3DQZ Jack Kanker (2 YRs)  
WA3AXV Ron Whitsel (2 YRs)  
N3OZO Don Schwartzkopf (1 YR)  
WB3KRW Steve Dallas (1 YR)

**MONDAY NIGHT NETS**

<u>TIME</u>	<u>FREQ.</u>	<u>NET CONTROL</u>
7:30 PM	50.150 MHz	K3EOD
8:00 PM	144.150 MHz	AA2UK
8:30 PM	222.125 MHz	WB2YRH
8:30 PM	224.58R MHz	N3ITT
9:00 PM	432.110 MHz	WA3AXV
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

**COMMITTEE CHAIRMEN**

LADIES' NIGHT: N3AOG 215-443-9965  
JUNE CONTEST: WA3AXV 215-355-5730  
HAMARAMA: WB3JYO 609-538-1687  
VHF CONFERENCE: KB3XG 610-584-2489

**PACKRAT BEACONS - W3CCX/B FM29JW**

432.298 MHz 903.071 MHz  
1296.262 MHz 2304.034 MHz



THE AMERICAN RADIO RELAY LEAGUE

**KAY C. CRAIGIE, WT3P**  
DIRECTOR, ATLANTIC DIVISION

5 Faggs Manor Lane  
Paoli, PA 19301-1905  
(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

n3efn@arrl.org

**STEVEN N. WHITE**  
Attorney at Law

2217 PALOMINO DRIVE  
WARRINGTON, PA 18976

TEL: (215) 343-6902  
FAX: (215) 343-6903

## Dec. 96 Prez Continued

Our next meeting falls just days before the contest. To help those who don't normally have access to state of the art measuring equipment the club is making arrangements to bring in an HP8970 noise figure test set and everything necessary to test your 50 MHz to 3456 MHz preamps and modules. Find out how good (or bad) your LNA really is. Technical advice and second opinions will be available at no extra charge. CU at the meeting.

73 and GOOD LUCK in the Contest!

Phil, WA3NUF

## Calendar of Coming Events - January 1997

### New Years Day.

- 3 Predicted peak of the Quadrantids meteor shower at 1311 UTC.
- 9 Board of directors meeting at the QTH of Ernie, W3KKN. All interested parties welcome. For directions call 215-695-3485. Meeting starts at 8:00 P.M.
- 15 Martin Luther King Jr. Day.
- 16 Regular meeting of the Mt. Airy VHF Radio Club at the Southampton Free Library on Street Rd. in Southampton, Pa. All VHFers and would be VHFers and friends are welcome.
- 18-20 THE CONTEST. Everyone's help in getting at least 51 logs submitted this year is necessary to qualify the club for the Unlimited Class in the club competition. See this issue of Cheesebits or consult your contest package for the rules. See the notice on the Pack Rats 3rd Annual January Contest Award in the Dec. issue of Cheesebits.
- 23 LEAP INTO THE MICROWAVES 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 Maryland Mobilcers ARC Post Holiday Swapfest and Flea at Odenton Vol. Fire Dept. Hall in Odenton, Md. VE Exams. TI on 146.205/.805

## 1997 January Contest - Final Update

by Al Sheppard, N3ITT

Yes, it's down to the final days - THE JANUARY CONTEST is upon us. I hope everyone had a nice holiday season. I know many of us (including myself) have been very busy with things related to that! Now with that behind us, it's time to make final preparations for the first real big event of the year!

It's really been great to see the efforts made by many club members to help others make improvements and repairs to their stations. During the past couple of months many Pack Rats have redone entire antenna systems, added bands, etc.

By now everyone should have received their contest package. If you're missing anything, please contact me or your team captain - better yet come to the January meeting. The club will be setup to spec. out preamps, so bring any you have doubt's about to see if the NF and Gain are what they ought to be. I hope everyone who attended the December meeting enjoyed the program. "TOP GUNS" AA2UK and WA3NUF presented some tips on operating, ranging from Bill's program of caffeine and sleep deprivation to Phil's more conservative (but equally effective) approach. The important thing is to stick to operating habits that we're comfortable with and have FUN!

I'm happy to say that with the addition of some new members, 51 logs are within our grasp! However, we are "on-the-edge" so please, even if your time is limited, or some of your equipment is down, make every effort to get on the air sometime, work some PACK RATS and submit a log! Any member who is multioping, but has a station capable of working a dozen or more members or 2 or more bands. Try to activate your own station for 6 or 8 hours.

Now is the time to get on the air and make checks with other club members for contacts on the higher bands. Knowing where to look for people before the contest saves time during the contest that can be better spent. Make sure to get familiar with the new calls (lot's of those!).

OK, that's about it for now. Remember, only with your help can we make 1997 another "Year of the RAT".

CU on the bands, Al, N3ITT

## Membership News

Mark, WB2JHG is now W2UR.

At the Dec. meeting, Russ, Pillsbury, K2TXB was voted into membership. Russ lives at 237 Oakshade Rd., Vincentown, NJ 08088 His phone is 609-268-9586 and his e-mail address is russk2@cybernet.net. Russ's grid square per Buckmaster is FM29PU.

W3SYN, Ted Sowirka, was also voted to membership at the December meeting. Ted's address is 517 Baeder Rd., Jenkintown, PA 19406. His grid square according to Buckmaster is FN20KC.

Steve, WB3KRW, has a new e-mail address ,sdallas@erols.com.,as of 31 Jan. 1997. His new work number is dallas\_steve@si.com

## TID BITS

We will have a Noise Figure Test Set at the January meeting so everyone can get their preamps checked out before the contest. We will be able to measure all VHF/UHF bands from 50 to 3456 MHz.

The January 1997 issue of CQ-VHF has an article on the Packrats on page 81. Also, there is an article by friend of the Rats, Wayne, N6NB, on the new FCC Safety Rules (temporarily put off until Jan. 1, 1998) on page 30. Wayne includes a basic computer program for making the necessary calculations to evaluate your RF situation. The program is downloadable at the new CQ Contest magazine site at <http://www.affcom.com/cqcontest> or via ftp at <ftp://members.aol.com/cqvhf/97issues/rfsafety.bas>.

The January 1997 issue of CQ, in Joe Lynch's VHF PLUS column, has a write-up of the Mid Atlantic States VHF Conference.

The Jan 97 issue of QST lists Microwave standings on 903 MHz up. Ron, WA3AXV is listed on all bands thru 10 GHz. Where are the rest of the Rats? You can update the standings now via e-mail. Send them to [standongs@arrl.org](mailto:standongs@arrl.org). The same issue lists the September VHF QSO Party results. Packrats WB2YEH and WB3JYO were 1st and 2nd in SNJ, KB3PD, W3OR, and WA3U took the first 3 spots in Delaware and N3NGE, WA3JUF, K3GNC, N3EXA, KB3IB, and WA3AXV were 1st thru 6th in EPA.

Mick, K1HKN reports a new 6 meter beacon: I have just put a new 6 meter beacon on the air. It is on 50.061MHz and runs 5 watts into a 5 element beam pointed wsw. It is located in West Greenwich R.I. at lat. 41-37-19 long 71-33-31 ground elevation is 460 ft. I will keep the beacon on for a couple of weeks and would appreciate any reception reports and comments both pos. and neg. I would like to know if you think this beacon would be a help in checking the band for tropo, Es or in a few years F2. If I decide to keep the beacon on the air it will run 20 watts into a omni ant.

The Yankee Single Side Band net (YSSB) which meets each Sunday Morning at 9:30 local time on 50.175 MHz will shift frequency starting in 1997. The new net frequency will be 50.275 MHz. This New England net has been active for several decades and is open to all who wish to check in and just say Hello or pass along other ham information. K1MUC (Wayne), W1VAB (Peter) and I, K1DAT (Ken) usually pull NCS duty.

Friend of the Rats, Herb, W3TWU is now W3BO.

The Southeastern VHF Society web page has a NEW URL. It is: [www.akorn.net/~ae6e/svhfs](http://www.akorn.net/~ae6e/svhfs)

## CHEESEBITS SUBSCRIPTIONS

Cheesebits subscriptions are available to everyone interested in activities and information from the VHF through the microwave frequencies. Subscriptions 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)

January 1997

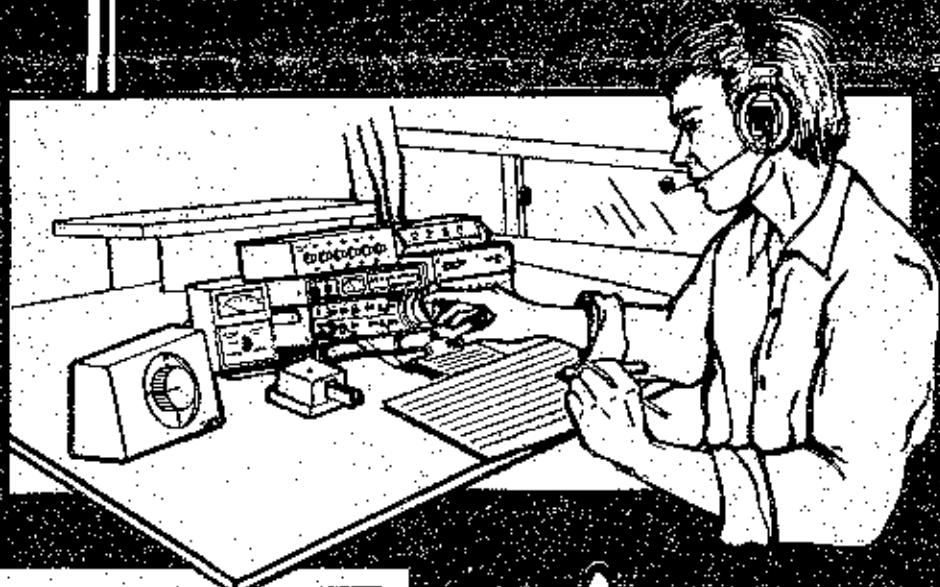
Send to: SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, WB2YEH

7258 Walnut Avenue

Pennsauken, NJ 08110

# VHF QSO PARTY



W3CCX  
FOURTH PLACE  
MULTIOPERATOR

1996



DONOR: ROCHESTER VHF GROUP



## ARRL ATLANTIC DIVISION DISTINGUISHED SERVICE AWARD

Kay Cragie, WT3P, Atlantic Division Director has announced that the ARRL ATLANTIC DIVISION DISTINGUISHED AWARD has been awarded to the Mt. Airy VHF Radio Club to commemorate the club's 40th anniversary. Kay reported that the Pack Rat's distinguished history of achievement on the bands above 30 MHz has gained the organization nationwide fame and respect. See a copy of the certificate elsewhere in this issue of Cheesebits.

### FCC Delays New RF-Exposure Rules

QST de W1AW, ARRL Bulletin 102 ARLB102

Just in time for Christmas, the FCC has postponed the date for hams to comply with the new RF-exposure regulations from January 1, 1997, to January 1, 1998. The ARRL was among those requesting the delay. The League said that the additional time was needed for the FCC to draft implementation guidelines and for amateurs to use them to comply with the regulations (released on August 1, 1996 as ET Docket 93-62). FCC Report No. DC 96-112 announced the amendment of the rules to extend the transition period for licensees to determine compliance with the new bioeffects requirements for RF transmitters. The League obtained a copy of the report just before noon on Christmas Eve.

The time extension to January 1, 1998, will allow changes to Amateur Radio operator examinations to be made along with routine revisions between now and July 1, 1998, rather than requiring hurried special revisions. Among the reasons for requesting the extension was the desire to permit licensees to make a more orderly entrance into this new area, to allow time for information to be promulgated to hams to ensure that they have the information at their disposal to comply with the new rules, and to allow time for appropriate questions to be inserted into the question pools for the various amateur license exams.

In Report No. DC 96-112, the FCC said it disagreed with those petitioners who suggested that the time extension "will have significant adverse effects on public health." The entire text of Report DC 96-112 may be found on the ARRLWeb at <http://www.arrl.org/fcc/dc96-112.html> (or click on What's New or RF Safety News).

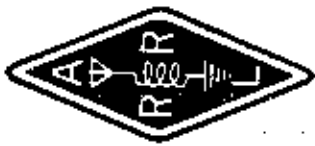
And, to all, a good night.

## FEARLESS PREDICTION - JANUARY 1997 VHF CONTEST TOP 25

BY JEROME BYRD - K3GNC

<u>RANK</u>	<u>CALL</u>	<u>PREDICTED</u>	
		<u>SCORE</u>	<u>* = NEW FROM LAST YEAR</u>
		<u>1997</u>	<u>1996 - TOP 25</u>
1	WA8WZG	395,000	WA8WZG 391,658
2	AA2UK	325,000	WA2TEO 265,860
3	WA2TEO	300,000	AA2UK 232,256
4	N2CEI	275,000*	WA3AXV 185,546
5	WA3AXV	245,000	WZ1V 174,440
6	K1RZ	240,000	WA3NUF 173,106
7	WA3NUF	190,000	KE8FD 157,874
8	WZ1V	180,000	KD1DU 130,806
9	W3OR	175,000	WB2DNE 126,387
10	WA2FGK	170,000*	WB3JYO 120,870
11	KE8FD	165,000	WB2YEH 117,630
12	WB3JYO	160,000	N1DPM 111,386
13	KD1DU	155,000	K1TR 106,338
14	WC2K	150,000	N2SB 103,416
15	W2LR	138,000	K1FO 94,874
16	W0UC	135,000*	W3OR(KB3QM) 94,278
17	WB2YEH	133,000	N3EXA 93,744
18	N2SB	132,000	W1GCI 88,884
19	WB2DNE	130,000	N2QDK 87,296
20	K3GNC	125,000*	K2UOP/8 86,660
21	N3EXA	115,000	WB2ELB 86,268
22	N1DPM	112,000	WB2VVV 82,908
23	K1TR	110,000	WC2K 79,744
24	VE3KDH	105,000*	W2SK(WB3DNI)76,812
25	W8ULC	101,000*	W2UR(WB2JHG)75,530

# ARRL ATLANTIC DIVISION



## Distinguished Service Award

IS AWARDED  
TO  
Mount Airy VHF Radio Club

in recognition of significant contributions to the  
Atlantic Division  
and the  
Amateur Radio community



given this 5 day of December 1996

Register Nr. 5

*Kay Craigie*  
KAY C. CRAIGIE, WT3P  
Director, Atlantic Division

## VHF+ NEWS & ACTIVITY

By Jerome Byrd, K3GNC

### "THE CONTEST RAVEN"

ONCE UPON A CONTEST DREARY, WHILE I PLODDED WEAK AND WEARY, OVER A MANY QUAIN T FN20 CONTACT THAT BEGINS TO BORE. WHILE I NODDED, NEARLY NAPPING, SUDDENLY THERE CAME A TAPPING. AS OF SOME DX 'S CW TAPPING. TAPPING THROUGH MY HEADPHONE CORE- 'TIS IGNITION NOISE", I MUTTERED, "CRACKLING THROUGH MY HEADPHONE CORE---- ONLY THIS AND NOTHING MORE".

TO BE CONTINUED... HAPPY NEW YEAR!!

#### ON THE BANDS:

Six meters has opened on a few occasions. The rest of the bands have been rather dead! (This is a repeat from my last column - The more things change the more they stay the same) The Geminids meteor shower was very productive for me. I worked AA9AO in EN64 (WI) in 11 minutes, and NOHJZ in EN34 (MN) in 3 minutes. I had two more scheds request, but they were after the peak, and were unsuccessful. The 144.200 frequency was relatively quiet, with little random activity. There are more rocks and much more 144.200 activity during the Persids, but many stations appear to have a better success rate during the Geminids, if they make schedules. Try it next time. You may like it!

#### STATION WATCH:

A new station in EN90: Dave, KCSAGW is quite active and ALWAYS is quite workable on 144 MHz from our area. He also has 6 meters, but I have not listened for him on that band. Bob, NO3I is now a 'powerhouse' on 432 MHz, from EN90. If only we can get him to QRV on 222 MHz! WA4GPM, Buzz, is settled and active from FN11. He will be on 144, 432, and 126 for the contest.; 6 meters and 222 will come later.

I heard Clay - former WA4TNV, now W4TNV on 432 cw, Christmas evening. Good to see that FM05 will probably be represented on 50...432 MHz. Ben, N4BG - EM97 has been heard almost every night on 144.200. He will probably be active in the contest. He runs low power and mainly uses CW!

With the January Contest Approaching, its time to Slip Havoc and

#### LET LOOSE THE DOGS OF WAR:

Herb, WA2FGK(K2LNS) - FN21 - is making progress re-assembling his contest station. He will probably be at least QRV through 1296. Will that be enough? Our own Ron, W3OR (FM28) towers are all up! There is a lot of trimming to do, but he should be QRV 50...3456 MHz! Bill, AA2UK is now on 10 GHz!! He is a man on a mission. Mark, W2UR (formally WB2JHG) is now on 9 bands! Paul, WB3JYO is now using 4 x 12 element K1FOs to radiate his 8877's power! Other PACKRATS are working on 'new projects'?!

The PACKRATS are arming and becoming extremely dangerous. Thanks to the 'one-of-kind' technical and physical help for all needy members provided by the PACKRATS - stations like: AA2UK, W2UR, WB3JYO, WA3AXV, N3JTT, WB2YEH, KB3IB, W3GXB, W3KM and many more, make it possible for stations like myself to come out of certain competitive oblivion, station like K3EOD to go from pussycat to 'wildcat', stations like WA3EHD, W3KKN to receive much needed attention.

There are other great VHF+ clubs. There are other great stations and operators throughout the country. There are technical Gurus abound. No VHF+ group has EVER been able to put it all together like the PACKRATS! The Challenge is once again upon us - **TO THE VICTOR GOES THE GAVEL.**

GOOD LUCK EVERYONE!!

#### SWAP SHOP

(send all ads to the editor)

**WANTED:** Hams looking for a job as an Associate RF Engineer, RF Technician, Field Service Engineer or Field Service Technician. Candidates must have experience in RF/microwave hardware design or testing. Contact num-Tech, Inc., 20 Meridian Road, Eatontown, NJ 07724.



## Subject: New Specs for ERA series MMIC Amplifiers

By: Phil, WA3NUF

I have just received notice of a spec change for the new ERA MMIC amplifiers sold by Mini-Circuits. The change affects all devices in the series (ERA 1 to 6). The design of the MMICs has not changed but the specified current, DC bias voltage, P1dB, and IP3 will be lowered in order to reduce the amplifiers junction temperatures and increase their reliability and expected lifetimes. The spec changes are effective immediately.

The ERA series MMICs use new HBT semiconductor technology and there is limited data on the mean-time-to-failure in class A biased service. The data that exists shows significantly shorter device lifetime with higher current. The new recommended currents for the ERA 1 and ERA 2 is 40 ma. instead of 50 ma. For the ERA 4 and ERA 5 the spec current has changed to 65 ma. instead of 80 ma.

If you use the higher currents you will not upset the biosphere or world peace. Your ERA MMIC may die after 20,000 hrs instead of 100,000 hrs but isn't squeezing out that last tenth of a dB of signal worth a little sacrifice?

### NEW Logging Software Available

By: Ron WZ1V via the VHF Reflector

Dave Mascaro, W3KM's (ex-WA3JUF), latest shareware versions of LOGBOOK v2.2 for HF-VHF-SHF everyday Logging and VUCC tracking, plus VHF\_LOG v6.3 VHF-UHF-SHF Contest Logger (which now outputs ARRL format) are now available from my VHF SOFTWARE Web-servers at: <http://www.connix.com/~wz1v/vhf-soft.html> AND <http://uhavax.harford.edu/~news/vhf/vhf-soft.html>. -Just in time for the January Contest! -Thanks, Dave!

## K3GNC'S FEARLESS FORECAST FOR JANUARY 1997 VHF CONTEST

### CLUB COMPETITION TOP 25

	<u>PREDICTION</u>	<u>NEED A GOAL?</u>
1	AA2UK 325,000	375,000
2	WA3AXV 245,000	275,000
3	WA3NUF 190,000	225,000
4	W3OR 170,000	200,000
5	WB3JYO 160,000	200,000
6	WC2K 150,000	300,000
7	W2UR 138,000	150,000
8	WA2OMY ** 135,000	180,000
9	WB2YEH 133,000	160,000
10	N2SB 132,000	160,000
11	K3GNC [1] 125,000	140,000
12	W0RSJ ** 120,000	190,000
13	N3EXA 115,000	160,000
14	WB3KRW 98,000	140,000
15	W3SK 96,000	160,000
16	W3KM 95,000	160,000
17	N3DQZ 90,000	140,000
18	N3NGE 80,000	200,000
19	K3EOD ** 70,000	100,000
20	N3ITT 60,000	75,000
21	N3AOG 58,000	150,000
22	KB3IB 55,000	75,000
23	WA3U ** 50,000	50,000
24	W3GAD 45,000	45,000
25	NK8Q 43,000	50,000

TOTAL: 2,978,000

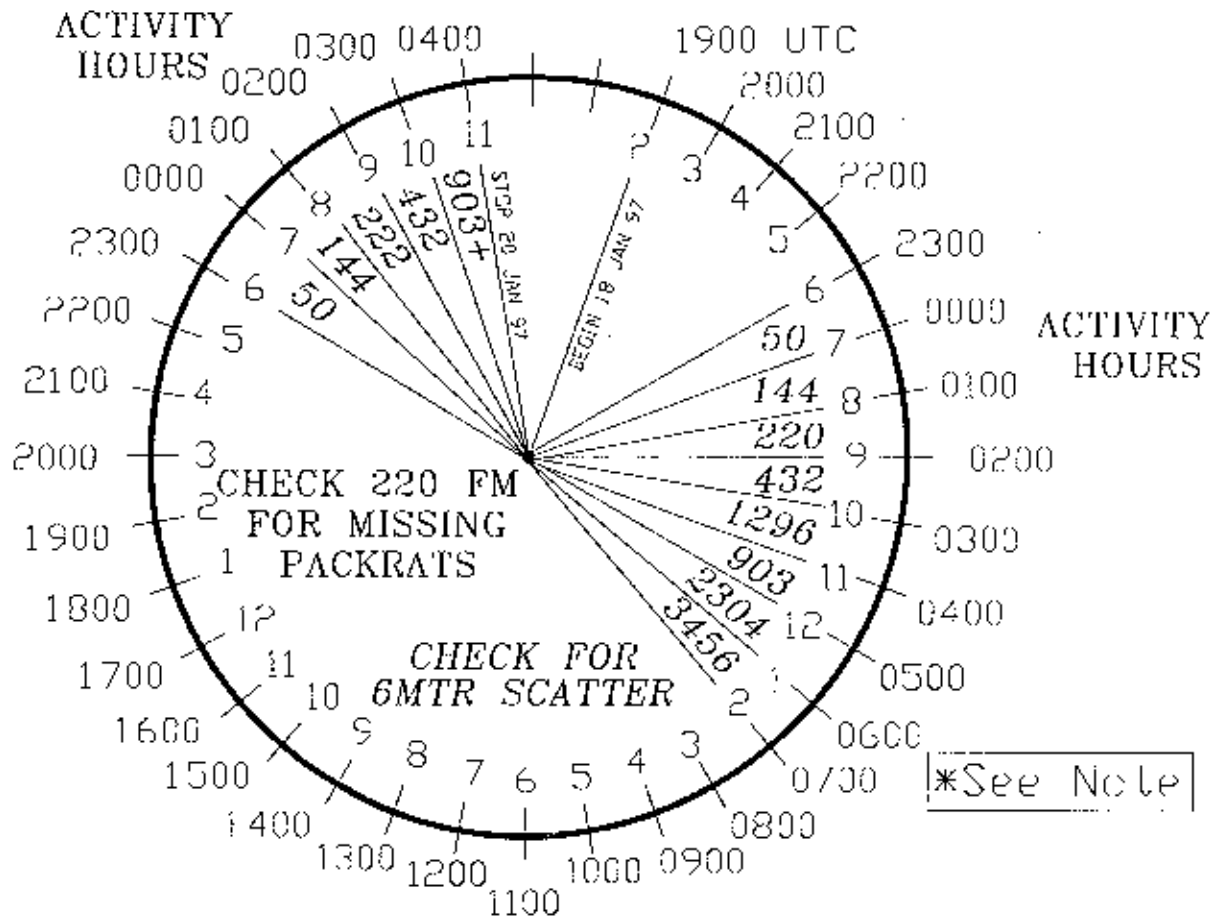
CLUB WILL BREAK 3 MILLION POINTS!!

\*\* = MULTI-OP

[1] = TAKE THE K3GNC CHALLENGE, IF YOU LET ME BEAT YOU WELL....

CLUB ASSESSMENT: EVERYONE SHOULD BE WORKING MORE GRIDS ON 2, 222, 432 !!

# 1997 CONTEST CLOCK



*WORK ALL PACKRATS ON ALL POSSIBLE BANDS*

*EAT AND DRINK RIGHT*

*GET SOME SLEEP!*

*CHECK 6 AND 2 AT SUNRISE, NOON, AND SUNSET FOR DX*

*FM FREQUENCIES*

146.49 223.50

.55 223.52

.58 223.60

*EVERY SCORE HELPS THE CLUB AND YOUR TEAM*

147.45

.48 446.0

.51 446.1

.54

*\* USE 147.48 OR 147.51 FOR COORDINATION FREQ.*

*HAVE FUN!!*

(302) 478-2757

Since 1977

### AMATEUR & ADVANCED COMMUNICATIONS

Amateur and Shortwave  
Closed Sunday & Monday

GISELE  
K3WAJ

3208 Concord Pike Rte. 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.  
CAMDEN, N. J. 08105



### HARRIET SOLTOFF TRAVEL CONSULTANT

616 SOUTH THIRD STREET  
PHILADELPHIA, PA 19147

(215)  
RES. 947-4483

### THE R. F. CONNECTION

*"Specialist in  
RF Connectors and Coax"*

Joel Knoblock  
301/840-5477  
Fax 301/869-3680

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

RICHARD E. COMLY



TOOL, DIE & MACHINE CO., INC.  
2065 BENNETT RD. PHILA., PA 19116



(215) 876-1300  
FAX 934-5237

(215) 745-6173  
(609) 266-3668  
(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  
RONN 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

# W3HK

GEORGE S. VanDYKE, JR. P.E.

1737 Scattergood Street  
Philadelphia, PA 19124

(609) 266-0736

RICHARD CONNOR



### RECON Communications

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

Emergency Service

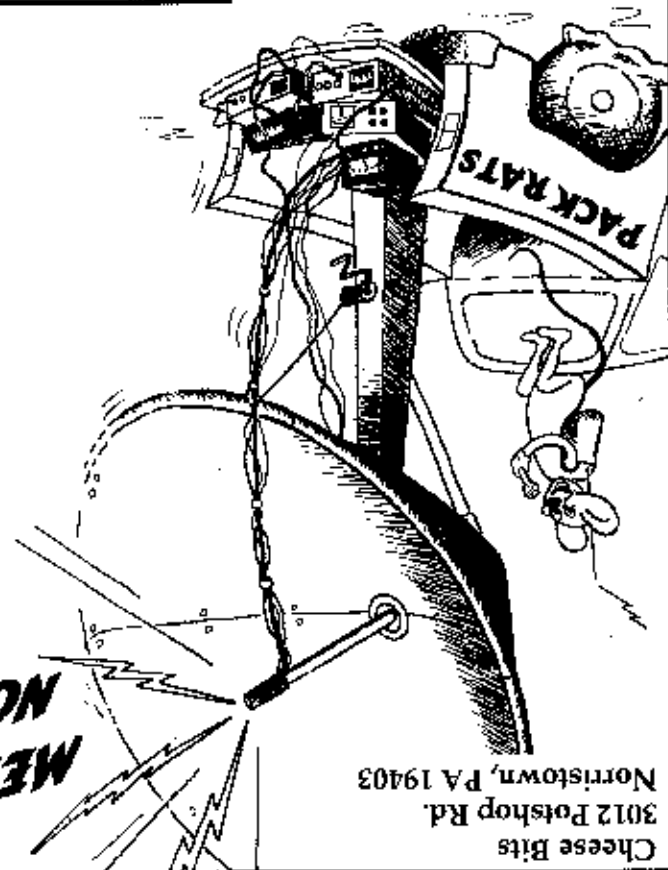
412 Catranza Road  
Tabernack, N.J. 08058

DICK HUNTZINGER  
W3FQD  
130 FAIRHILL RD.  
CHURCHVILLE, PA 18966

12/96

MEETING  
NOTICE

Cheese Bits  
3012 Potshop Rd.  
Norristown, PA 19403



## DOWN EAST MICROWAVE

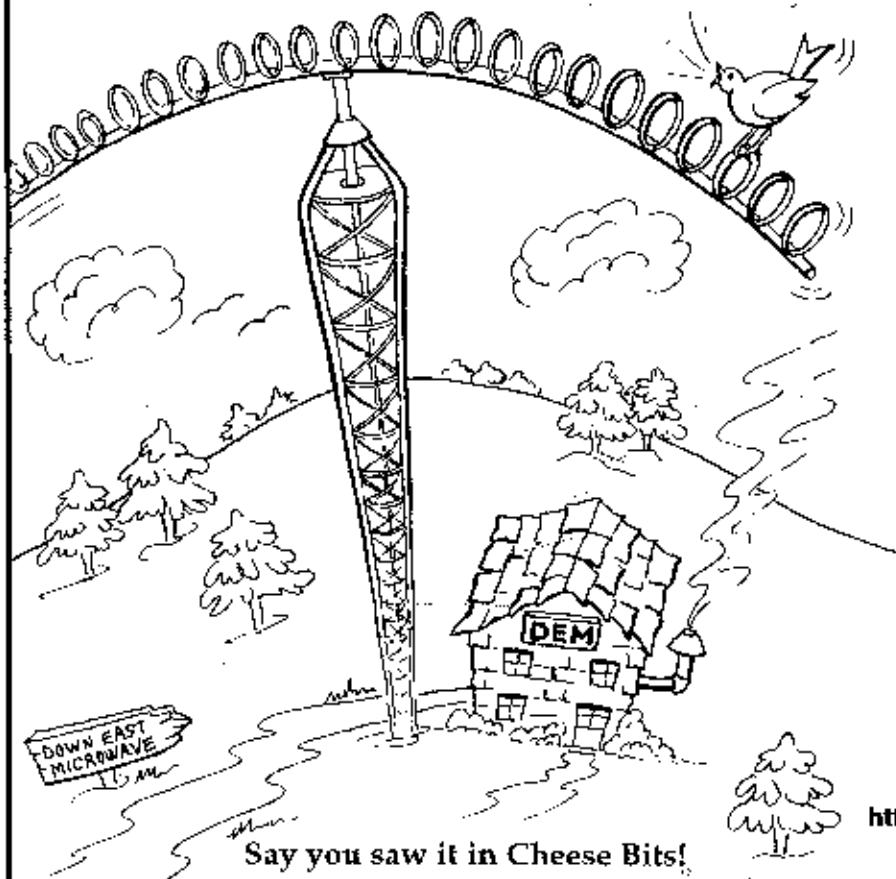
Manufacturers and Distributors  
of VHF/UHF/SHF Equipment and Parts  
50 to 10,368 MHz

- Microwave Loop Yagis
- VHF/UHF Yagis
- No-Tune 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>



Say you saw it in Cheese Bits!