

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



"Goin' up to Camelback for the June Contest. C U there & on the air!"

CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

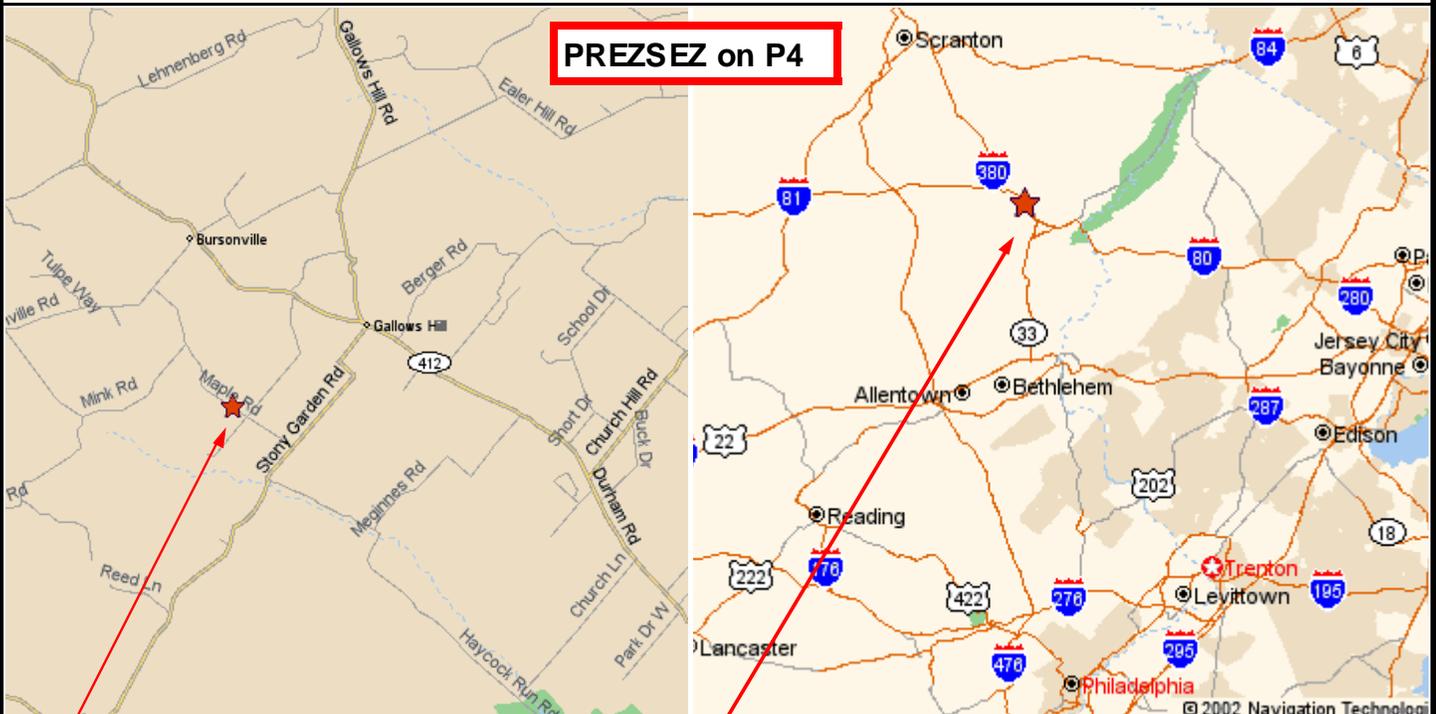
ARRL
Affiliated
Club



Volume XLV

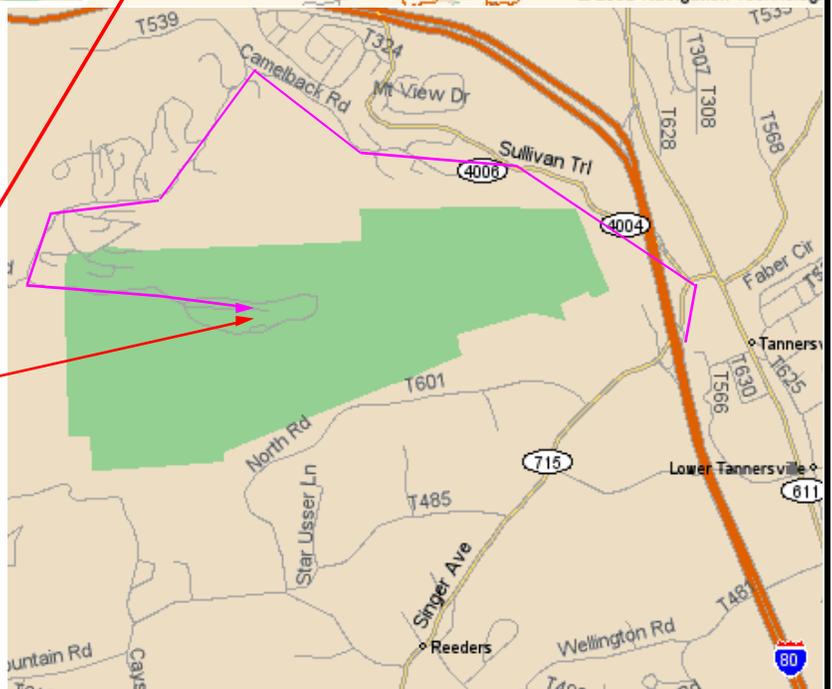
June 2003

Number 6



How to Have Fun in June

- Step 1: Load Gear Fri AM, Jun 13
8:30AM at QTH of
ROBERT G FOX, W3GXB
1449 MAPLE RD
KINTNEVILLE PA 18930
Bring Work Gloves & your laser rig
- Step 2: Drive to Camelback Mountain, near Tannersville, PA
- Step 3: Help erect antennas and set up stations
- Step 4: Help operate the entire contest, log, assist the cooking crew, explain the operation to visitors
- Step 5: Help break down the stations Monday AM and return the gear to W3GXB's QTH



Pack Rats **CHEESE BITS** is a monthly publication of the
Mt. AIRY VHF RADIO CLUB, INC. -Southampton, PA.
SUBSCRIPTION RATE: \$16.00 PER YEAR (USA)
\$20.00 PER YEAR (CANADA)
\$10 PDF only \$24.00 PER YEAR (ELSEWHERE)

We operate on a .PDF exchange basis with other non-commercial publica-
tions. Anything that is printed in CHEESEBITS may be reprinted in a not
for profit publication, unless stated otherwise, 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
(856) 665-8488 bobw2sj@prodi.gy.net

EDITOR:

Rick Rosen, K1DS 206 Kimberton Drive Blue Bell, PA 19422
(610)-270-8884 rick1ds@hotmail.com

Editor's Column

The VHF Contesting Reflector has been full of the yin and yang of roving, adventurous and captive; shoestring and polished, basic and sophisticated, casual and scheduled, sit-and-shoot and run-and-gun, newbies and crusty old salts. The following is from the website <http://www.mgef.org/history.htm>:

In the late 1970s, as W2SZ/1 was rebuilding the team, W1DC (sometimes W1FC) dominated VHF contesting. W1DC operated from Pack Monadnock near Peterborough, NH with many members employed by Microwave Associates. They introduced the idea of microwave portable stations, and sent those microwave stations to many nearby sections. (In those days, the contest used ARRL sections, not grids. Also, you could work a station from only 1 QTH (grid)... there was no provision for moving from QTH (grid) to QTH (grid) as rovers do now.) With that approach, they just killed THE COMPETITION (everyone) with sections no one else could work. In the early 1980s, W2SZ/1 began building our own set of microwave portable stations to counter W1DC. When completed around June of 1981, W2SZ/1 shifted the balance of power and once again began winning contests. The introduction of microwave portable stations is considered by many to be the groundwork for the modern day Rover operation. With the large size of the two groups and the ability to make many microwave portable stations, it seemed nearly impossible for other stations to compete and have an opportunity to beat W2SZ or W1DC based on the limited resources other stations had in comparison. In the following years, smaller stations began to lobby the League to create a class of station that could operate from more than one ARRL section (now grid square) with the same call. This competition between W2SZ and W1DC was one of the many factors considered by the League, which led to the creation of the modern Rover category.

The essence of most of the themes from the reflector is that in order to be competitive, a multi-multi has to have a fleet of rovers, and a lot of microwave gear. The rub is that there are plenty of stations out there that are modest, not out to make a million points, but liking to continue to keep active and busy during the contest, and they like to find and work these fleets of rovers that are generally active to help the mother-ship multi-multi make their score increase. This has been a revelation to the VHF ops outside of the northeast and mid-Atlantic regions, as they find it hard to understand what a captive rover is and why anyone would be motivated to participate in that fashion. This at the same time that Gene, W3ZZ has raised the issue of the future of VHF contesting. And today a drop of oil over the troubled waters, ala Rodney King, "can't we all just get along?"

Well, June is upon us, and I know there will be the usual power struggles for the prime spot calling frequencies, especially on 6 meters. And having operated in Texas and Missouri on 2 me-

ters in the past, I do appreciate the lonesomeness of the airwaves when the VHF operator density is diminished, and why folks do focus on 144.200 and 50.125.

But I saw the best advice, especially for the smaller gun—who makes an occasional call on those freqs and then goes off several KHz to make his runs after folks are alerted to their presence. And yes, you'll never really be heard in another major population area where the density around the calling frequency is intense. That was my experience when I lived and operated from RI. I could call many times on the calling frequencies and never be heard, but when I tried to move up 15KHz, I started to get callers, especially from FN20 and FM29.

This month I traveled out to San Bernardino on business. Knowing that the SBMS gang is out there, I contacted them and had a delightful evening and dinner with Dick, K6HIJ. We exchanged a few technical items for each other and spent the next three hours or so chatting about everything hams do, especially those with VHF and microwave interest, in addition to our careers and families and so on.....



And while I was out there, I got to the Chino Air Museum, Planes of Fame, and found their centerpiece B17 with these ARC-5's, bringing back old memories of my novice days.

The big rush is on to get my 24GHz gear completed before this summer's contest season. As one of the newbies to this band, I am ever so grateful to those who have helped me with ideas, sources, parts, and encouragement. Hopefully the club will get a 24GHz beacon operational and in a great location in the near future so that we can all stay frequency calibrated!

I had fun at the RACES meeting last month that NE3I, Griff, arranged for us. We were well represented in numbers and with pictures and demonstrations...including a live 5GHz QSO with AA3GN from my rover. Hopefully we will see a few more VHF contesters soon.

See you all on the mountain, doing your Packrat thing! 73, Rick, K1DS

Important Dates and Events

| | | |
|-------------------------------|---|-----------------------|
| Saturday, June 7 | Microwave Activity Day 432 & up, use 144.260 coord | 6 AM-1PM local |
| Monday, June 9 | Microwave Activity Evening | 7PM-11PM local |
| Mondays, June 2, 9,16, 23, 30 | Net Nights | Start @7:30PM, see p2 |
| Friday, June 13 | Board of Directors | 8PM On the Mountain |

Fri, Sat, Sun, Mon, Jun 13-16 **June VHF Contest**

Contest starts 1800Z Sat Camelback Mountain Ends 0300Z Mon
Help Load, set-up, operate, cook, operate, pack and return

Thurs, June 19th —ELECTIONS MEETING—7:30PM
Food and Drink — Dutch Treat — Come Early — Stay Late
OTTO's BRAUHAUS 765 Second Street Pike. Southampton, PA

Saturday, Oct 11 Columbus Day Weekend Mark your calendars
Mid-Atlantic States VHF Conference
Sponsored by the Packrats
Please submit White Paper Presentations to John Sortor johnkb3xg@aol.com
Radisson, North East 2400 Old Lincoln Hwy. @ US Rt. 1 Tre vose, PA 19503-6894 **Hotel Reservations 215-638-8300**

Followed by the
32nd Annual Pack Rat Flea Market
HAMARAMA 2003
Sunday October 12, 2003

Rain or Shine
Gates Open: Buyers at 0700 Sellers at 0600
Middletown Grange Fair Grounds
Penns Park Road, WRIGHTSTOWN, PA
WRIGHTSTOWN, PA

For More Information via email: packrats_w3ccx@yahoo.com
Or: www.ij.net/packrats

Prezsez

29th ANNUAL EASTERN VHF/UHF CONFERENCE

It is time to elect new officers for the club. If you have not volunteered for any club duties you may want to consider a post such as board of directors or the easiest job of them all Club President, no matter which job it is they all need to be done but they don't require a lot of time. And remember you have fellow members to help you along. Without volunteers we would not have successful club like we have. You may ask "Brian why don't you run again"? It is a good question, I believe that new people in new roles can bring new ideas to the club. The past two years as president have gone by so fast and I have enjoyed every minute. Never the less it is time to pass the gavel to a new president. If you volunteer for a position I guarantee you will enjoy it, one thing I found that you will get to know most of your fellow members. As past president I will serve on the board as required by the club constitution. I thank you for letting me serve as your president.

On Saturday May 10th, Rick K1DS, Bob NE3I, Paul WA3GFZ, JOE W3KJ, and myself attended the Montgomery County RACES meeting and we gave a talk on weak signal operating. Rick gave a demo of his rover setup and worked Joe AA3GN on 5.7 GHz. By the way the Montco RACES group have a really cool and top notch setup at the EOC. I missed the May meeting due to a conflict? Dayton Hamvention I had a good time and the club was well represented at Dayton. Thanks to Jim WA3EHD for conducting the club meeting, and thanks to Paul W2PED for his talk on 24 GHz. It is now time to check the list of required equipment for the mountain. First thing on my list as 432 co-captain is operators. Would you like to work a legal limit station on 432 on top of a mountain? If you have not been to Camelback and operated I guarantee you will enjoy working the weak ones and some not so weak. This is the one event that shows our teamwork off better than any other, be a part of it see you there. **73 Brian N3EXA**

Right—> The RACES group takes in the info on VHF contesting

Date: August 22, 23 & 24, 2003

Location: Radison Hotel

1 Brightmeadow Boulevard Enfield, CT 06082

Phone: (860) 741-2211

This year's conference will kick off with a Friday evening Hospitality suite followed on Saturday with Technical Sessions, Band Rap Sessions, Lab Sessions, homebrew equipment displays and a small vendor display area. The evening will culminate with a banquet dinner, trivia quiz and door prize drawings. Sunday will begin bright and early with an outdoor flea market and antenna measuring session. A block of hotel rooms is reserved under the "NEWS GROUP" for Friday and Saturday nights, call (860) 741-2211 for room reservations. Double rooms rates are the same rate as a single room, non smoking rooms are available upon request. Conference registration is \$25 and includes a Conference Proceedings and flea market admission for either a buyer or seller. Banquet dinner is \$30. Flea market entrance for those not registered for the Conference is \$5 for buyers and \$10 for sellers. Bring your own tables if required, no electricity available. Registration forms will be mailed later in June and will be available available for downloading on the NEWS GROUP WEB site www.newsvhf.com. Articles are being solicited for the Conference Proceedings along with speakers. Volunteers are available to help with all aspects of the conference. See you there - Bruce Wood - N2LIV Conference Chairperson bdwood@eols.com for further info or special requests.



50 MHz Spring Sprint Results Opposite Ends of the Spectrum!

(from the VHF Contesting reflector)

Date: 10-11 May 2003

Call: K5TR Operator: WM5R Station: K5TR Class: SOHP
QTH: South Texas (STX)

Summary: Qs Grids
310 103

Claimed Score: 31,724

Comments: Station ----- Kenwood TS-690 Henry 3CX800 amplifier Seven-element yagi at 35' Six-element yagi at 65' Sony/Heil hybrid headset TR Log The propagation tonight was amazing. The band was open to somewhere the entire four hours of the contest. Early on, the band was open to Florida and then Georgia, the Carolinas, and into Virginia. That opening began to fade in the way it built, with Florida stations being the tail end of that opening around 0130 UTC. Around 0200, the band began to open up to Colorado and then Minnesota, and then *boom* all over W0, W8, W9, and VE3. The opening was going strong right up to the end.

Sprint! What sprint? I got on about 8:00 PM and was greeted by a wall of power line noise, which made receiving anything less than S5 impossible. The noise blanker helped abit, but conditions were just impossible. To add to the frustration, there was no propagation at all. I never turned on the big generator. It gulps 1.65 gallons of diesel per hour, so just ran 100 watts. I worked about 20 stations in 6 grids. Best DX was FN20. I almost missed my own grid, and only worked two grids out of the eight that connected to my grid! I did hear K5TR for a short time on CW around 02:30 Z. That and W3ZZ was the only non local signal heard here. I am looking for a new hobby.
73 Dave K1WHS

VUCC Fees Notice

I just got a letter from the Awards Branch Manager at ARRL announcing an increase in charges for VUCC Awards. As of 1 June, 2003, the initial VUCC Award fee will be \$10.00 Also additional certificates are \$10.00 and endorsements are \$10.00 I talked to Bernie Fuller, N3EFN, the Atlantic Division Director at the Waminster Hamfest about the increase and his response was that each activity has to pay it's way.

Well, I guess that's true but then an endorsement of 50 grids for the lower VHF bands amounts to \$0.20 per card and for the microwave bands an endorsement of 5 grids is \$2.00 per grid. Seems like it's a bit expensive to me since the volunteer card checkers do card checking and the rest is entering the call/grid data into the computer. Well, in any case those are the new rules. If you have cards ready for checking you should get them to your local VUCC card checkers so that they can get to ARRL headquarters by 1 June 2003.

Please let me know ahead of time that you have cards to check. Please have all forms ready as well as stamped envelopes for sending the application to the ARRL. 73, Harry, W3IIT VUCC Card Checker, PA-17

Microwave Transverter Sequencers

You may have seen my article in Feedpoint or the NEWSletter describing my "Simple, yet still fool-resistant, sequencer for microwave transverters." Some of you must be working on new gear for this summer, because I've recently gotten a bunch of inquiries about PC boards for this sequencer. Right now, I have commitments for almost enough to get a decent price -- about 20 more and the price will be \$6 per board. a bunch more would drop the price further. the parts needed run about \$7 if you can't find them in the junkbox. I recently did a version with an enhancement -- an LED driver for the power monitor output available from some of the microwave amps, with a pulse stretcher so it stays on long enough to see when running SSB. I just put this one on my web page:

http://www.w1ghz.org/small_proj/simplefool_LED.pdf

the earlier version is there also.

if you would like some PC boards, send mail to w1ghz@verizon.net

specify quantity desired, and which version you prefer (only one version will be ordered, whichever is more popular) price for those willing to commit in advance:

one board \$6

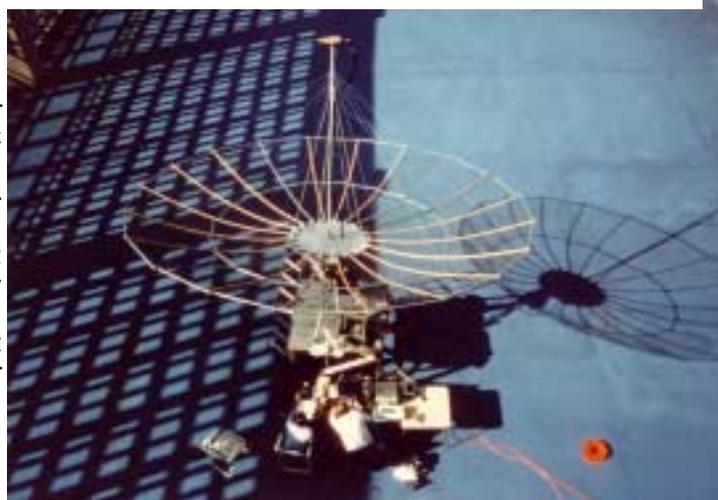
five boards \$25

plus \$1 per order for shipping.

money not needed until I actually order the boards

73 Paul W1GHZ

Have you ever worked 4U1UN off the moon on 1296? This picture was taken by Al, K2JYH, when they did a "Dxpediton" to the top of the UN building in New York. Considering the security systems now in place, it's doubtful that this could ever happen again. Pictured is the portable 1296 dish that Al showed off at the Microwave update 2 years ago



Robert A. Griffiths

Attorney at Law

KLETT ROONEY LIEBER & SCHORLING

A PROFESSIONAL CORPORATION

12th Floor, Two Logan Square

Philadelphia, Pennsylvania 19103-2736

(215) 567-7857

FAX: (215) 567-2737

e-mail: rgriffiths@klettrooney.com

Rover Inverter Noise Reduction

(from the web) Hi Guys....I would like to thank the following for their suggestions summarized...very briefly... below:

1. K1DS.....reroute and separate wiring from RF side/add ferrites.
2. W2DRZ.....try a 60 cps sine wave inverter.
3. K0CQ.....try diff inverters/use metal box/add specific caps
4. W3Y.....use true sine wave inverter/metal box w/ feedthru filters/try DC rotators/turn-off when quiet needed.
5. KB8VAO.....use separate battery for rotators
6. NE8L.....run off two 12.6 VDC batts in series.

What worked for me:

1. Added one ferrite bar to inverter DC lead.
2. Grounded inverter to van frame.
3. Grounded my DC bus/switching panel I assumed that my initial test would reveal some minor improvements and that more thorough measures as above would be needed.

FYI, last Sat AM noise was very bad. I added the above parts today then tested on 2 m where I had bad line noise. I switched off the inverter and saw no change in noise level. Then I turned the rotator while listening to 2 mNO NOISE from either inverter or rotators...then I listened on 432 and turned rotator again...NO NOISE...Wow...couldn't believe it! Many thanks to the gentlemen noted above for your ideas which got me to thinking. I am surprised it was this easy....hope your own case will go as well. 73 and many thanks, **John W3HMS**

L.B. Cebik W4RNL on Moxons

I put an article on the subject at the website:

<http://www.cebik.com/6m.html>

It covers horizontal Moxons for the low end (50.5 MHz design freq) and vertical Moxons for the FM band (53-MHz design freq), as well as crossed Moxons for both (separate feedlines) in both tube/rod and wire versions (low-end only due to confined bandwidth of thinner elements). There are dimension tables, because despite its ready availability, most folks do not go after one of the many automated design programs available.

Hope it helps the 6-meter gang.-73- **LB, W4RNL**

Az-El Controller Boards

At the recent ARRL Night Packrat meeting, Russ, K2TXB showed off one of the new controller boards for antenna steering. The full information on the board, availability, capability and pricing is at:

<http://mywebpages.comcast.net/russk2t/Drz/download.htm>

<http://mywebpages.comcast.net/russk2t/Drz/index.htm>

Check it out, even if you are not in need at this time, it stimulates the juices!

1-2GHz Synthesizer Boards

So, at long last, Richard Hosking (VK6BRO)'s and my synthesizer project is *finally* ready for prime time (we hope!) We're about to submit a comprehensive construction article on it to QEX, to see if there's any interest on their part. In the meantime, the basic schematics and specs are up on my page:

<http://www.qsl.net/ke5fx/synth.html>

I'd appreciate it if any interested parties would have a look at this page, just as a sanity check. It's rather disorganized, but if there are any obvious problems (e.g., with the latest round of schematic drafts from Richard, which I have not yet gone over 100%), I'd appreciate a heads-up before I merge the content into our article draft. -- John KE5FX



The new ARRL Award Certificates feature a large design as a background to the award. For me, this is about as good as it gets. Rick, K1DS, editor

Take a look at this site. They advertise low-cost cassegrain antennas, from 26.5 to 140 GHz, in Microwave Journal (May 2003, p.294. <http://www.gilland.com/elva.htm>)



Then go to Elva site at the bottom of the page. They also sell other parts, up to 1500 GHz, and have a bunch of application notes. 73, Rene Barbeau VE2UG

se (buy-sell)

Mosley Classic-33 (Tribander for 10-15-20) Disassembled into the three elements and boom and stored in garage. \$75 Contact Dick, N3AOG 215-443-9965

I am looking for the following items BC-348 receiver; Power Supply for tube type equipment. Preferably not real big. 250 volts DC and 500 to 575 volts DC Heathkit HP-23 may fit the bill. Thanks, Paul WA3GFZ

24 GHz Rigs Rolling

Randy, NR6CA, sends us this picture of his current rig for 24 GHz. He has been very successful on eBay with parts procurement, and whatever he had left over he sold to me! Hopefully, my rig will be on the air for June, as it is in the final assembly stage, looking much like Randy's on the right.

As we go to press, our Microwave gurus are working on an additional special project, which hopefully will be ready for the action in 2 weeks.

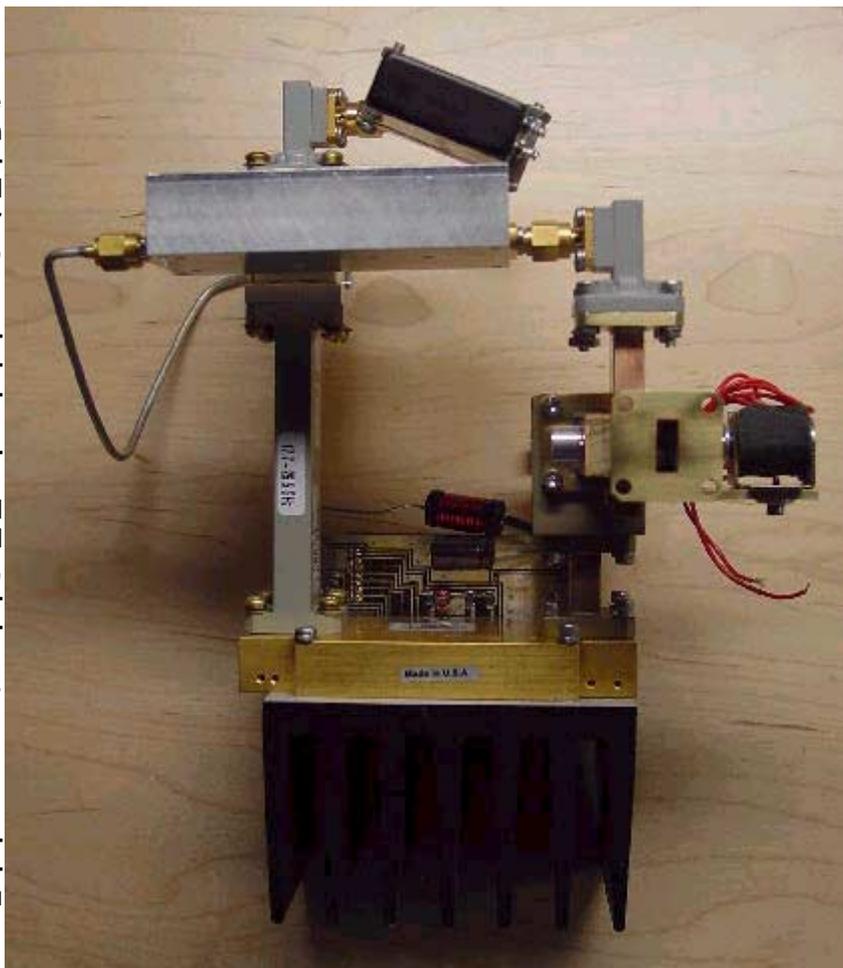
My 24GHz gear is being tested and finalized and hopefully will also be ready.

Several club members have added 100W 903 amps to their powerhouses and N3FTI was the first to have his operational, and will supply the rest of us with all the conversion details, which appear to be quite simple.

KB3HCL is adding a pair of 6155/54's to his arsenal for power on 144 and 222.

It's E_s Season!!

Hopefully everyone has had their radios on and catching some of the hot openings as reported on the various reflectors. Au also added excitement on 5/29.



C3i[®]

**Top Quality, Performance, Durability, Cost
Others make claims, C3i[®] Delivers**

Call, FAX, or E-mail or Order from our Web Site

**Our K1FO and K1JX VHF and UHF Antennas are proven
Performers in Contest after Contest @ K8GP / FM08fq**

GO WITH THE WINNERS

VISIT OUR HOME PAGE TODAY FOR MORE DETAILED INFORMATION
<http://www.c3iusa.com>

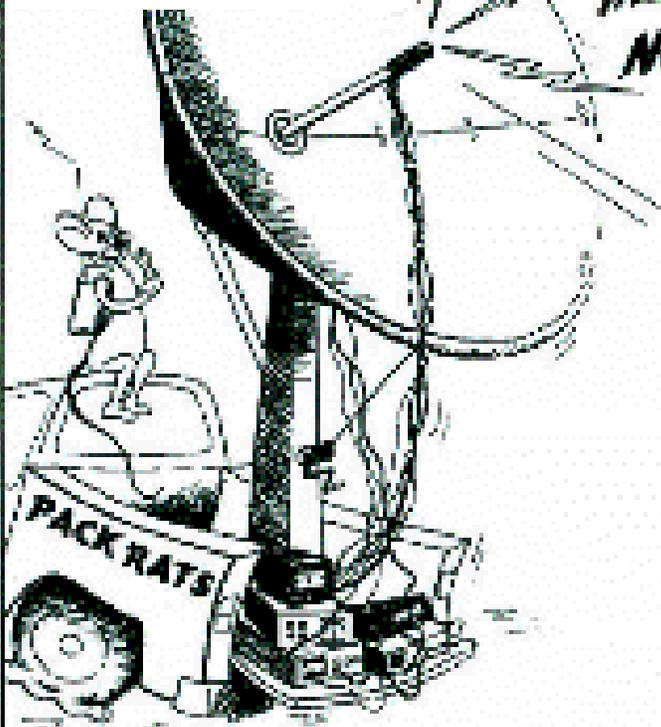
1-800-445-7747 Antennas

Owormser@c3iusa.com sruffin@c3iusa.com



CheeseBits
206 Kimberton Drive
Blue Bell, PA 19422

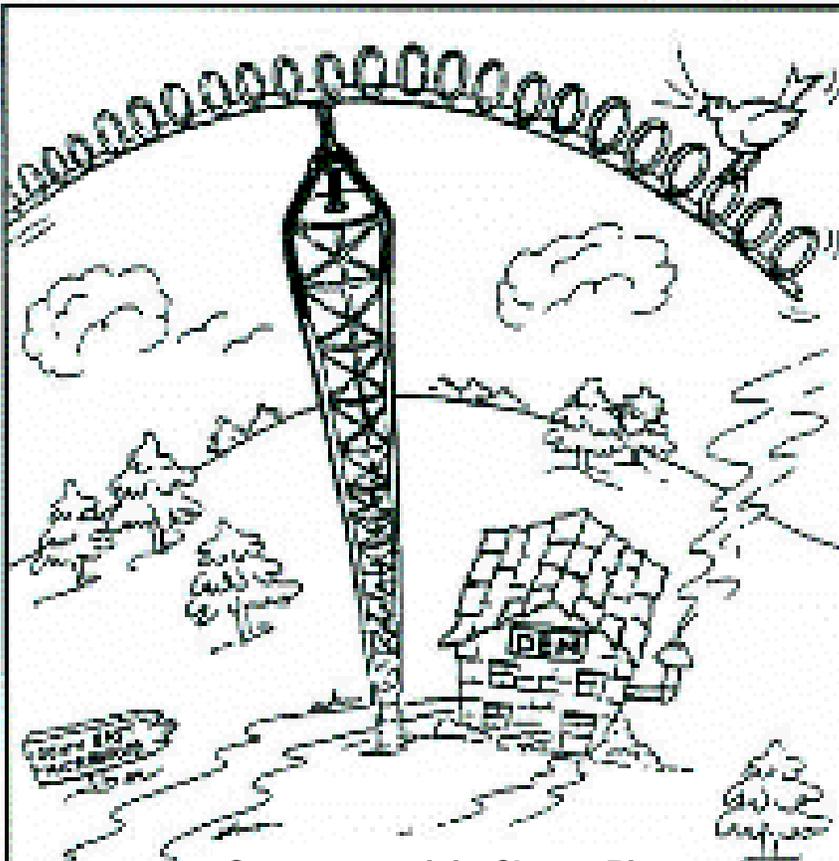
**MEETING
NOTICE**



- In This Issue:**
- P1- June VHF Contest Detail**
 - P2- Editor's Column**
 - P3- Activity Calendar**
 - P4- PrezSez, NEWS Eastern VHF Conference Announcement**
 - P5- VUCC Fees; Sequencers**
 - P6- More Cheesebits**
 - P7- More Bits**

FIRST CLASS

MT. AIRY VHF RADIO CLUB, INC.



Say you saw it in CheeseBits

DOWN EAST MICROWAVE

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

- Microwave Loop Yagis
- No-Tune Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Capacitors, MMICs, Transistors, RF Modules

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

<http://www.downeastmicrowave.com>