

CHEESE BITS



W3CCX

CLUB MEMORIAL CALL



ARRL
Affiliated
Club

SCANNED TO PDF BY BERT, K3RUV, 2013

VOLUME XXXIX

June 1997

Number 6

THE PREZ SEZ

With many of our members representing the Packrats at Dayton and yours truly called away to inspect the many beer gardens in Munich (it's a rough job but somebody has to do it) the regular club meeting in May was presided over by our able Treasurer W3KMM. Dave reports that the meeting attendance was understandably light but those that arrived were treated to an exceptional presentation on map making techniques by Bill Kunkle, WA3VFM. Many thanks to Bill and Dave for making the meeting another flawless event.

The month of May also saw the annual Packrat Ladies Night celebration take place in fine style at the Mill Race Inn. In addition to dinner and dancing, the club honors those members whose activities in the January contest, homebrewing, or service to the club warrant special recognition. Among the awards presented the highest honor was given to Paul Drexler, WB3JYO who was named Packrat of the Year. Congratulations to Paul and all of the other award winners.

The weekend of June 13 to 16 is the date of the VHF QSO Party better known to all serious VHF'ers as simply the June Contest. W3CCX will be heard again from our favorite spot in FN21 trying to better last years score and our place in the standings. I hope you will join us this upcoming weekend and help W3CCX set new records for member participation and reach the top of the multi-op standings. As anyone who has made the trip knows, it takes teamwork to assemble and operate a winning multi-op station. The Packrats have the talent and the equipment but it won't be enough if you decide to stay home and watch the grass grow. We need everyone's help to attain our goal. If you can spend a day or the full weekend with us on the mountain you will make a difference. If you can't make the trip, working W3CCX on all the bands can help put us over the top. But probably the most important reason I can think of to make the trip to Camelback is that you will get to see and operate one of the best VHF/UHF locations and stations on the east coast. The views from the Mt. top are fantastic, the contest cuisine has become legendary, and when the bands open up there is no greater thrill in amateur radio. Do yourself a favor and help the club at the same time! See you in FN21hb.

It's hard to believe but it is almost two years since I first accepted the nomination as President of this great organization. My two terms in office have been among the most rewarding experiences of my life. I have to admit that like many other able members of the club I shied away from running for office for many years. Any doubts or fears I may have had evaporated in the first few weeks. I learned firsthand how this club supports each other and rallies whenever the call for help arises. There is still a bit of arm twisting that occurs when required but my observation has been that everyone that

Continued on page 3

MEETINGS

Third Thursday each month at 8:00 PM
Southampton Free Library
947 E. Street Road
Southampton, PA 18966

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- **ME ATRY VHF RADIO CLUB, INC.** -

Southampton, PA

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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA FN20LE

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	N3OZO	Don Schwartzkopf (1 YR)
	WB3KRW	Steve Dallas (1 YR) sdallas@erols.com

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	N311T/AA2UK
8:30 PM	222.125 MHz	WB2YEH/N3EXA
8:30 PM	224.58R MHz	W3GXB
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

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PREZ SEZ continued

accepts responsibility accomplishes far more than they ever expected. I hope you will take that bold step and say yes when asked to run for office, you'll be glad you did.

After two years at the helm it is time once again for new ideas and fresh enthusiasm. I look forward to supporting the new slate of officers and directors. I know they will be as supportive and invaluable as those that assisted me for the past two years.

73 and CQ Contest!
Phil WA3NUF

Calendar of Coming Events - June 1997

- 7 **The Arietids Meteor Shower** predicted peak will be at 0911 UTC.
- 14-16 **June VHF QSO Party.** See May QST Page 111 for rules. W3CCX will be operating from Camelback Mountain, **FN21**, near Tannersville, Pa. on all bands thru 24 GHz.
- 14-16 Packrat **Board of Directors meeting** held on the mountain at the contest site..
- 19 **Packrat meeting** at the Southampton Free Library on Street Road in Southampton, Pa. **Annual election** of officers. All members and interested VHFers welcome. John, KB3XG and Paul, WB3JYO will give a presentation on the "No-Tune" 24 GHz transverters they has been working on. With any luck we may have some on the air reports from the W3CCX contest effort.
- 21-22 **1997 SMIRK Party** Contest. 0000-2400Z. See rules see <http://www.cswnet.com/~ka0nno>. Send entries by 15 July to Pat Rose, W5OZI at PO Box 393, Junction TX 76849-0393.
- 26 **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.
- 28-29 **Field Day**. See May QST page 109 for the rules. Look for lots of activity on 50 and 144 MHz.

TID BITS

January Contests results finally showed up in the June issue of QST. Surprise: The Packrats took 1st place in the Unlimited class again with 2,893,897 points. Four rats were in the top 10, single op category and one in multiop. Rats took top places in SNJ, EPA and the DE sections. The listings for QSO's and multipliers per band looked like the top Packrat roster especially when you looked at the microwave bands.

New E-Mail Addresses: Bill, AAUK: AA2UK@aol.com and Walt, WA3AQA: wzumbach@bellatlantic.net.

The 222-MHz standings have been posted on the ARRL Web site at: <http://www.arrl.org/announce/standings/222.html>. These standings are scheduled for publication in the August issue of QST. If you have any corrections or additions, please e-mail the information to me (sford@arrl.org) before 1600 UTC on June 9th.. 73 . Steve, WB8IMY, QST Managing Editor

Rats at Dayton: N3AOG, N3EXA, W3IIT, KB3XG, WB2ONA, KU3A and N3NGE. Also saw ex Rats Bruce, K2RTH/4 and Mark, K1RO (ex AA2Z).

Subject: Per Ben, WA3AXV: ARRL Bulletins. The league has a one-way (send only, the best kind) information service that automatically sends you ARRL Bulletins via e-mail as they are issued.

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Subject: subscribe yourusername@xyz.whatever

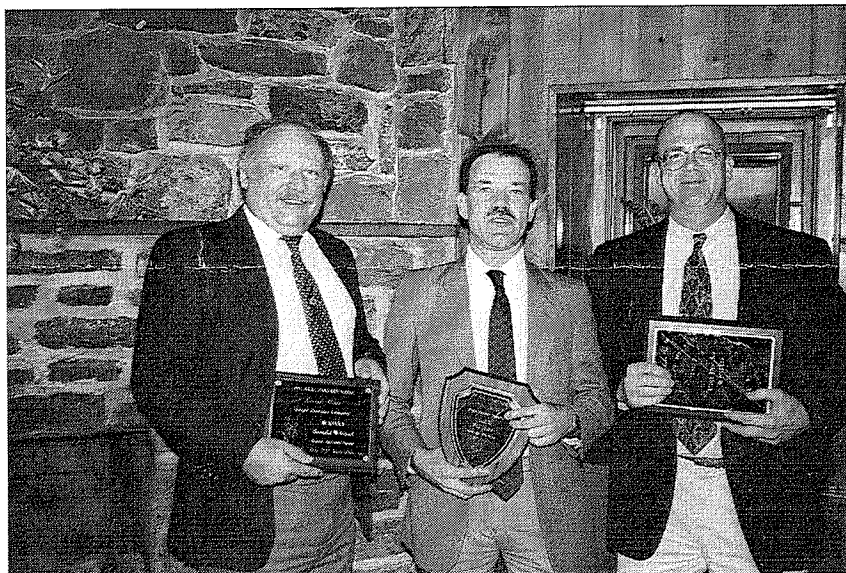
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1997 Ladies Night Awards

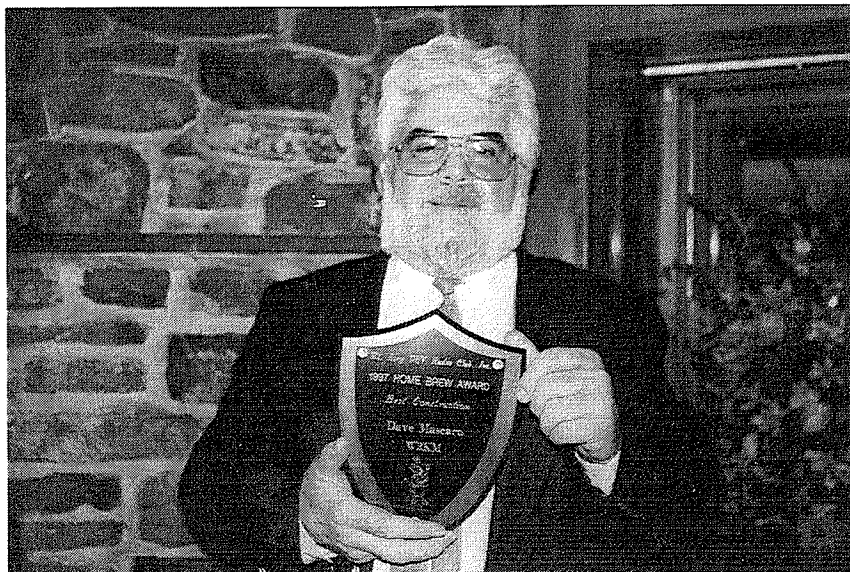
Paul Drexler, WB3JYO
Packrat of the Year



Top Single Ops in January
Ron, WA3AXV, 2nd Place
262 K Points
Bill, AA2UK, 3rd Place
231 K Points
Rick, WC2K, 1st Place
276 K Points



Home Brew Night
Best Construction
Dave, W3KM



JUNE CONTEST SCHEDULE

By: Ron, WA3AXV, June Contest Coordinator

Fellow Rats, Following is the schedule for the June 14-15 contest weekend:

Friday 6/13/97 0900 Meet at W3GXB's to load the main truck full of equipment. Much help needed!! At the same time another truck will be loading the microwave equipment from WA3NUF and W3KM. WB3JYO will bring the two meter station from Jersey in yet a third truck. The goal is to have all people and equipment on top of the mountain at high noon (1200 Local).

The more help there is, the easier and faster the work goes. Setup will begin as soon as the equipment arrives. Diner will be provided on Friday evening.

Saturday June 14, 1997 Breakfast, Lunch and Diner available. Continue to setup equipment. Contest begins at 1800 UTC (1400 Local) Operators Needed.

Sunday June 15, 1997

Breakfast, Lunch and Diner available. Contest Continues until 0300 June 16 (2300 Local June 15) Operators needed.

Monday June 16, 1997

Sunrise, Tear down begins. Usually off the mountain by 0900 to 1000 depending on the weather and when we get started. Lite breakfast will be provided for those that can't live off their body fat for a few hours. Unloading of the trucks is just as time consuming and twice as hard as loading. Don't poop out at this point and leave the work to others. The contest isn't over until the equipment is put in storage.

So how about some of you fellow club members who are lying low. You talking to me? You talking to me ???! Yeah, I'm talking to you! The very, very least you can do is work the club station on all bands available. Do it as soon as possible. Don't wait for Sunday evening. Sometimes due to weather or equipment break downs, Sunday evening never comes. Does anybody want to go to FM28 and put a few microwave bands on the air for the club? How about it Uncle Remus??

The next level is to help load or unload the trucks or just help operate. We really need some serious operators, particularly on two meters, which has to be on all the time. This is the band that shoots schedules to the other bands. A good liaison person can always be used in the two meter shack to free the operator of passing info to the other bands. You don't even have to be a crack operator, just keep times and frequencies straight.

The eagle scout level devotes the entire weekend to the contest. There is core group of about 12 people (Dirty Dozen) who show up every year for all four days and bust their butt to pull this club activity off. Who's going to be number 13?

W3CCX Contest Site Directions

By: Phil, WA3NUF

For those who have trouble reading Internet generated maps the following information will get you to the W3CCX contest site: Camelback at Big Pocono State Park

Directions:

PA Turnpike NE Extension to exit 35 (I-80)

I-80 east to Tannersville exit (exit 45 / RT-715)

At the end of the exit ramp, turn right for 1/4 mile then turn at first left. Look for signs to Camelback. Follow main road and signs for Camelback Lodge and Ski Resort. Go past the ski resort and follow the road to the top of the mountain. The road dead ends at the W3CCX site.

For the more adventurous, use the alternate directions:

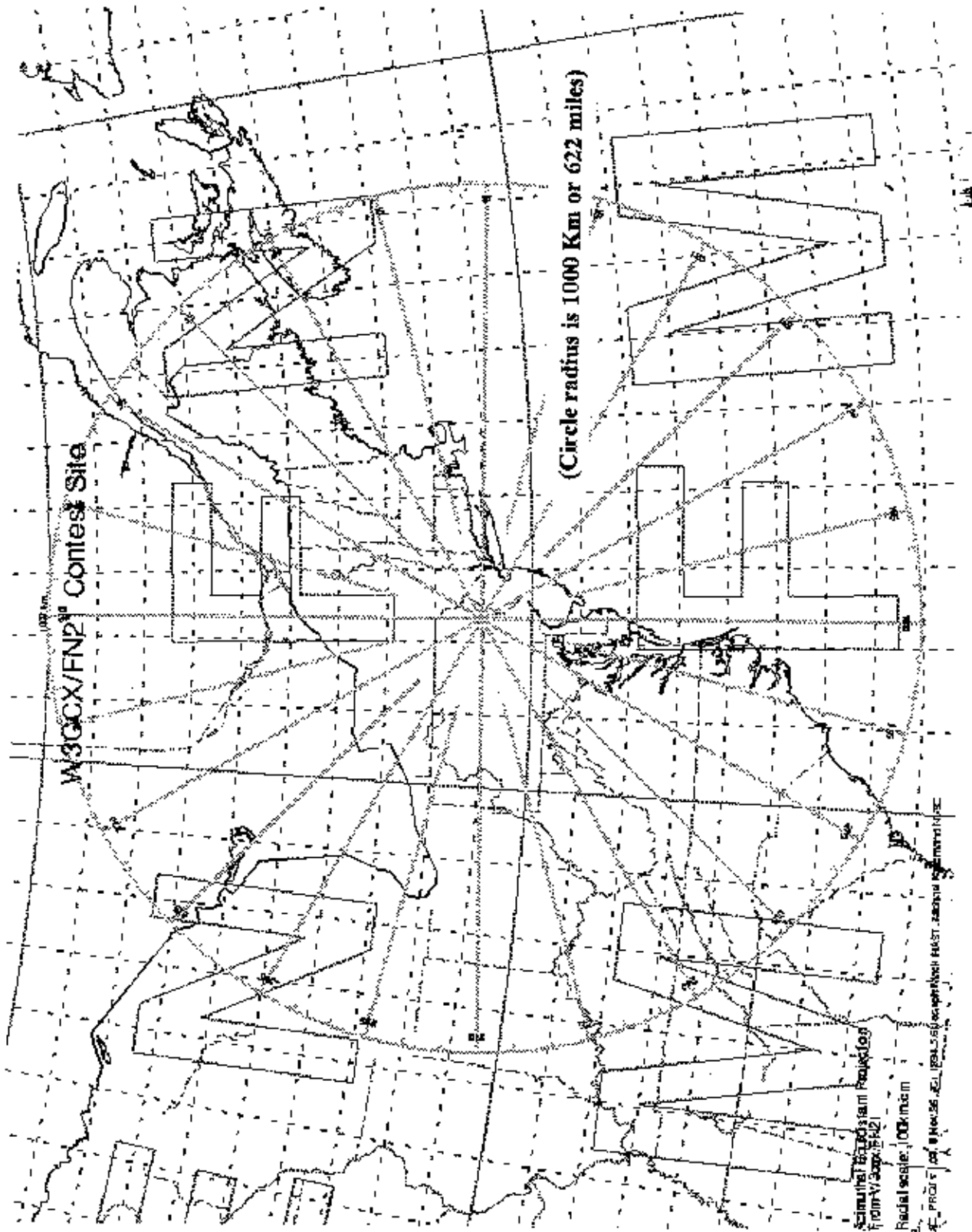
309-N to 22-E, 22-E to 33-N, 33-N to 80-W

Take 80-W for approx. 2 miles to Tannersville exit

Follow above directions from the end of the exit ramp.

Bring whatever you will need, the park is closed from sunset to 8 AM. Prepare for any kind of weather, conditions on top of the mountain are very different from the Philadelphia forecast. We monitor 223.50 and the club repeater.

See you on the hill at W3 Chaallie, Chaallie, X-Ray.



W3CCX/FN21hb

Packrats June Contest Site

NOMINATIONS FOR CLUB OFFICERS 1997-1998

President:

Vice President:

Treasurer: Dave, W3KM

Recording Secretary: Walt, WA3AQA

Corresponding Secretary: John, KB3XG

Director: Brian, N3EXA, Joe, AA3GN, Al, N3ITT and Bob, W2SJ

President, and Vice President have not been confirmed though nominations for all offices are still open until the June election.

VHF+ NEWS & ACTIVITY

By Jerome Byrd, K3GNC

"YESTERDAY"

YESTERDAY, ALL MY VHF+ TROUBLES SEEMED SO FAR AWAY NOW APARTMENT LIVING MAY BE HERE TO STAY, OH I BELIEVE IN YESTERDAY SUDDENLY, I NOT HALF THE VHF+er I USE TO BE. THERE ARE GREAT BUILDINGS TOWERING OVER ME, OH NORTHEAST BLOCKAGE CAME SUDDENLY.

ON THE BANDS: Other than the Aurora at the end of April - beginning of May, 144 MHz and up continues to be in the doldrums. Six meters has started to open fairly frequently. Point your six meters antennas EAST on occasion. Europe was coming in frequently this time of year last year..

STATION WATCH: In many cases one's only hope of making an random, non-contest, non-band opening contact on the VHF+ bands, rest with the following 'Activity Warriors':

144 MHz : K4QI (FM06), WA2FGK (FN21), WA3WUM (FN20), WA3DRC (FN20), NO3I (EN90), WA3LTU (EN92), KD1DU (FN31), WA4GPM (FN11), AA2UK (FM29), WZ1V (FN31), W4VHH (EM95), NB2T (FN30), WA2FZH (FN20), N2DKP (FN13), K3GNC (FN20).....?

222: Only The Shadow Knows

432: NO3I (EN90), WA2FGK (FN21), KO6U (FN42), K1FO (FN31), K4QI (FM06), W4VHH (EM95), AA2UK.....?

903: HHHHHHHHHH!!!

1296: WA2LTM (FN20), W3VSI (FN20, K2TXB (FM29), AA2UK (FM29), WZ1V (FN31), WA4VHF (FM19), WA3AXV (FN20), N3NGE (FN20), W3IP (FM19).....?

NOTE: NET CONTROL OPERATORS ARE ALWAYS HONORARY 'ACTIVITY WARRIORS'. TO BE A 'ACTIVITY WARRIOR' YOU MUST CALL CQ AT LEAST SEVERAL TIMES A WEEK (ON THE AVERAGE) IF YOU THINK YOU QUALIFY - LET ME KNOW!

LET LOOSE THE DOGS OF WAR: The June Contest is very near. Please support the Club Station - W3CCX (Fn21), by joining the team and participating, or, at least giving them as many contacts as possible.

A QUESTION WAS POSED: "HOW DO YOU TELL IF THE BAND IS OPEN IF NO ONE IS TALKING ON THE CALLING FREQUENCY?"

DE K0FF via the VHF Reflector

Answer: In the middle of your radio is a large knob. Grab it and turn it. This is called "tuning the band". As you turn it back and forth, you may hear other ham operators talking. Usually all they are saying is what grid square they are in. Once in a while someone will describe his antenna. It is usually a 3 element beam "on the flat side". He may also ask the other fellow what his "First Personal" is. They will be talking on the uppers, but maybe the lowers. One of them will no doubt have a "LEENEAR", this is a device to allow you to "kick up" more "mognulation". The purpose is to be loud everywhere to stations that you can't possibly hear. It is adjusted so that it will put out every last Watt, and be as wide as possible. It may even be better to drive your LEENEAR with a class C brick as this will give much more drive than actually needed. Also you may hear a few stations with a nice echo-box or at least a roger-beep. That's how you know the band is open.

"HOW TO TELL "SERIOUS VERSION

Unfortunately, version 1 is all true. However, just in case someone really doesn't know, here are a few of the methods that I use:

First thing I do is scan all the VHF TV channels with a good VHF only antenna and mast mounted preamp. Out of town stations coming in give a quick idea of what's going on what frequencies. A Data base in my computer gives me info as to any TV or FM station, by call letters. (This is very useful and freely available) While the TV is on, I watch the Weather channel on DSS satellite to monitor any stationary high pressure fronts. Other ops also use FM broadcast signals to alert of rising MUF.

Next to the rig. A great deal can be learned by listening below the 6M band. My choice for a main rig is the Kenwood TS690 because A) it tunes continuously between 30 and 60 MC. If you ever have doubts as to does the band open up from the bottom first try this. All sorts of business and public entitie use this VHF-Lo band for communications. I do not have the FCC database that tells every station, but a lot can be learned by listening to the content. When things get real interesting, listen for the buzz sound made by the sync signal on TV transmitters in Europe using channel 1. 48.250. And of course watch the beacon band. When we in the midwest hear beacons from way up in VO1 and VO2 land AND at the same time also hear the sync buzz, start listening for Europe in the CW band first, the in the SSB band. Never fails.

And reason B) is that you can set the RX to scan between any 2 freqs WITHOUT the rig being squelched. Just set it to SSB and set limits to 50.100/50.200 and it will scan back and forth. It does not stop on the station, but will alert you to the presence of even a weak one. Once the rig is set, I plug in the BABY MINDER transmitter in the shack, and then wherever I go around the property I can hear whats going on. Of course Packet Cluster, Internet Packet Cluster, and good ol' telephone networking also helps. Even went so far last cycle to carry a pocket pager so that I could be reached anywhere. Mainly you wind up listening to a lot of white noise for years. Decades.

MID ATLANTIC VHF CONFERENCE - CALL FOR PAPERS

The Mid Atlantic States VHF Conference will again be held at the Horsham Days Inn in Horsham, Pa., just north of Philadelphia. This years conference will be held on Saturday, October 4, 1997. Sponsored by the Mt. Airy VHF Radio Club, the conference continues to present a wide variety of technical papers covering all aspects of 50 MHz through light frequencies. Talks on operating, propagation, construction and theory are among those requested. Speakers are encouraged to contact the conference chairman early. The day after the conference, the largest hamfest in the area, Hamarama 96, also sponsored by the Mt. Airy VHF Radio Club will be held.

Contact: John Sorter, KB3XG, Conference Chairman
1214 N. Trooper Road
Norristown, PA 19403
610-999-7658
JohnKB3XG@aol.com

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June 1997

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BY ANDY TALBOT, G4JNT

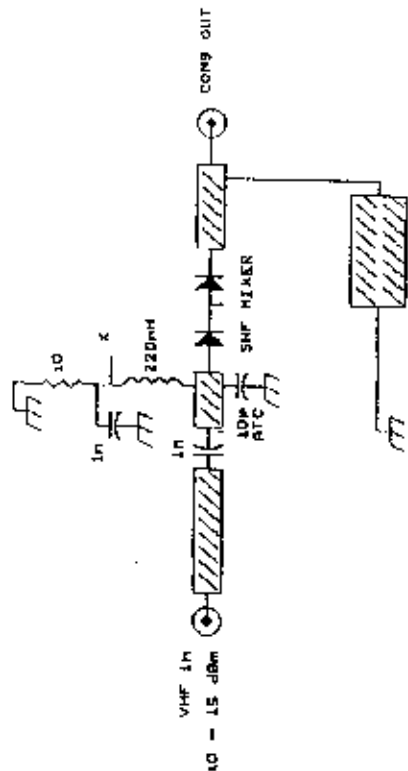
This is the modern equivalent of the 'diode in a piece of waveguide' used for providing a test signal to assist in tuning up receivers and generates a comb of frequencies based on harmonics of a VHF drive signal. This can be anywhere in the range of approximately 100 - 200 MHz although frequencies well away from this will also function adequately. Microstrip design is employed using all surface mount components to allow operation over all the middle bands and up to at least 10 GHz. It is possible that some output at 24 GHz may be available sufficient to hear, but this has not been tested; output at 10 GHz is at least 40 dB above noise in an SSB receiver and correspondingly higher at the middle-band frequencies.

Figure 1 shows the circuit diagram, and Figure 2 the PCB layout (on 0.8mm PTFE board) which should be self explanatory. VHF drive is applied to a microstrip mixer diode which is grounded on one side at SHF, the other port being the harmonic output. The use of two diodes in series allows a higher drive level to be used with a correspondingly higher generated harmonic level; also the PCB layout is easier when using the two diode package! To allow DC and VHF currents to flow, the circuit is completed on the input side by a VHF choke and on the output by a high pass filter in microstrip construction. SHF decoupling is formed by a 10pF ATC capacitor, operating at the lower end of the frequency response around 2 - 4 GHz, and by a printed capacitor above this. A 10 ohm resistor is provided to allow diode current to be monitored without having to make or break a wire link each time.

Exact dimensions are not critical and my version was made by simply using a PCB marker pen to draw the tracks onto the copper. The very thin tracks on the high pass filter are formed from strands of 0.2mm tinned copper wire as in the WDG 10 GHz modules. The four black dots on the PCB layout show positions of grounding pins through to the groundplane on the underside. The mixer diode pack is one of the type used commonly in mixers in satellite TV receivers. These can be purchased new from Cirkit etc, but the cheapest route is probably to salvage one carefully from a surplus Sat-TV LNB which can usually be picked up for a few pounds from the rallies and roundtables.

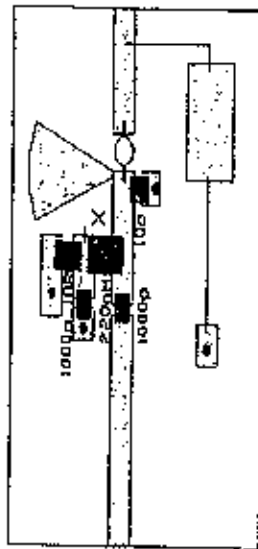
Drive level is not critical provided a few milliamps of current flow. Although the output level changes with drive level, this is not critical and sometimes more signal output is obtained from a lower level of drive. Output level also depends on the drive frequency; surprisingly on mine this was optimum around 100 - 120 MHz region, with the output falling by more than 10dB as the frequency was taken above 150 MHz.

From - R S G B MICROWAVE NEWSLETTER



SHF COMB GENERATOR G4 JNT

Feb 97



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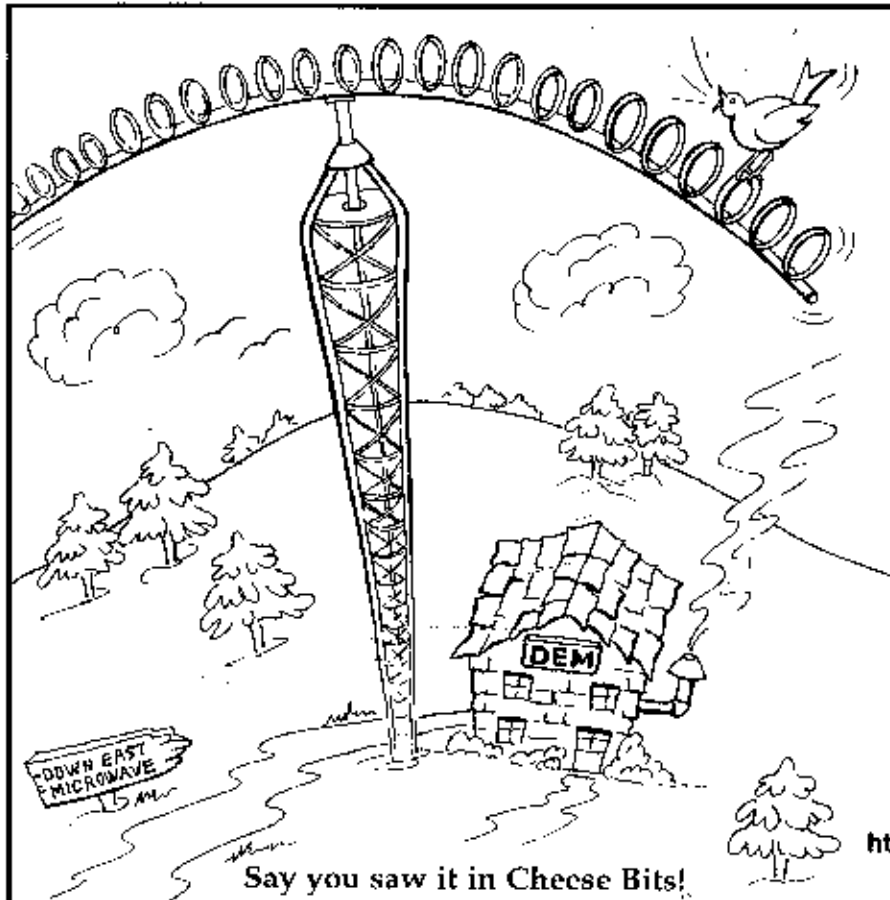
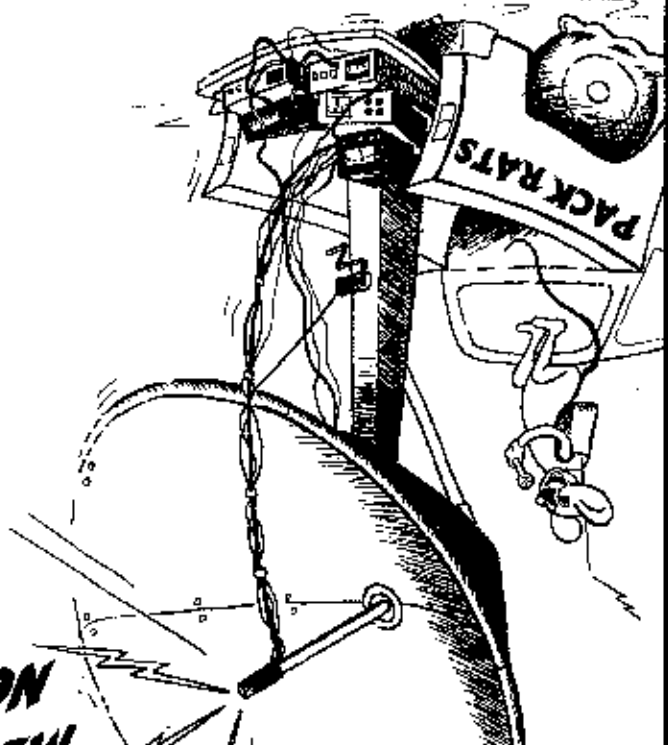
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12/96

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