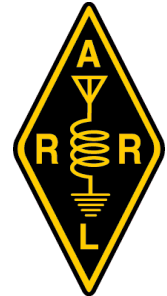




CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume XLV

May 2003

Number 5

Prezsez

WOW! What a busy time! At the April club meeting Gene W3ZZ gave us a terrific talk on the future of VHF contests. One item I forgot to mention to Gene, is that the January contest date should be moved to the weekend after the Super Bowl. This may help with TVI complaints HI HI. Thanks to the ARRL officials that made it to the meeting, your work is important and very much appreciated. Those of us who made the meeting got to salute the members that received awards. Congrats if you won an award. Paul WA3GFZ did a terrific job preparing the awards they really look super.

It is time to focus on the June contest, I have the following list of band captains:

6m WA1YHO,W2SJ-?;

2m KF6AJ-yes;

222 WA3DRC/AA3GN-yes;

432 N3EXA-yes W0RSJ-?;

MICRO KB3XG-yes;

Food W3GAD-yes;

POWER WA3YUE-?

?= not confirmed at this time, yes=confirmed.

We still need folks to commit to driving the trucks, loading, set-up, operating, taking down and unloading. This June event needs everyone's help. Make sure you let us know how you are contributing.

I will be at Dayton for the May meeting. I am sure Paul will do a terrific job in my stead. Don't forget elections will be in June: IT IS OK TO VOLUNTEER, IT'S FUN and YOU GET TO KNOW THE OTHERS IN THE CLUB!!!! When the nominating committee calls, SAY YES!!!!!!

73 all, Brian N3EXA FN20IJ



I want to express my thanks to the Rats for their hospitality and inviting me to speak at ARRL night. It was a very enjoyable evening, I got to see a lot of old friends and I got a lot of useful feedback. I hope to see some of you again at Dayton and at the conference in the fall.

73 Gene W3ZZ

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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

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COMMITTEE CHAIRMEN

January Contest AA2UK
 June Contest **YOUR CALL CAN BE HERE-VOLUNTEER!**
 HAMARAMA: WA3DRC
 VHF Conference: KB3XG 610-584-2489
 Awards Chairman WA3GFZ 215-884-3116

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FM29w Philadelphia, PA
 50.080 144.284 222.065 432.295 903.071 1296.251 MHz
 2304.037 3456.220 5763.190 10,368.140 MHz (as of 3/1/01)

MONDAY NIGHT NETS

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.150 MHz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW FN20le
9:30 PM	1296.100 MHz	WA3NUF FN20le
10:00 PM	903.125 MHz	AA3GN FN20ig
10:30 PM	2304.085 MHz	W3KJ, & go to 3.4G & up after FN20hg

Editor's Column

Anticipation is 90% of the enjoyment. And so it was for Timonium...thinking about all those bargains and microwave surplus, and special show deals from the commercial vendors. I enjoyed my 91%. Upon arrival, the fairgrounds were wet, the tailgaters were few, and the rains came quickly, forcing everyone indoors. Well, I did manage to get a couple of small 24GHz dishes with feeds, a heavy duty tripod and another laser-spotting scope. A few other odds and ends, and it was done. Has eBay caused the dwindles, or is this just a natural seasonal dip? Perhaps the Dayton attendance will be the true bellwether for the future of Hamfests. Now to do some more work on the stuff to get ready for the summer roving activities.

The SBMS activity was light, as predicted, but thankfully many Packrats did get on for a period of time to exercise the microwave spectrum. My highlight was a 194Km 5.7G QSO with AA2UK, despite somewhat of a marginal spot for me in FN10xx, and the inability to use a beacon as reference. It will be interesting to see the total participation, and the modification of the activity for next year. Since 903 and 1296 are considered to be in the microwave spectrum, at least for ham purposes, including them might bring more players to the table, at least in an entry level, as far more folks have those bands than have 2.3G and up.

The VHF Contesting reflector has been hopping with commentary from many about how to increase VHF participation, especially log submission, the supposed barometer of activity. Many have suggested that we examine top gun logs to see the actual number of participants, as opposed to log submitters, and try to discern why some folks don't submit logs. I have to agree with almost all the comments made: no QST listing of results except for top scores, need for Cabrillo submissions (or paper if you are still not in the 21st century —I've got my flameproof outfit on), low activity outside of population dense areas, limited and/or expensive gear for bands above 432, lack of mountain-top competitive QTH, competing events, family life and so on. Several have already started local club publicity campaigns, rover handouts, web-pages, and just like on election day, calling around to get out the operators. What will your contribution be? Get on and get active first and then invite a friend.....

Ebay again...searching for some nice WR42 stuff—egads—look at the prices that things are going for—6 pieces of flange without waveguide already bid up over \$50. But look, tonight, a "buy it now" 24" flexi piece for \$30. If I'm not buying, at least it has been fun to watch the bidding frenzy when the right pieces come along.

I included a clip from the RSGB Microwave news on a new laser communication record claimed there. I now have a pair of set-up similar to what they used, although no verniers for az/el, despite what you might have read in last month's column about motorized X-Y-Z axis controllers. But one can dream...actually there was such a tripod at Timonium, but it was about \$275. Let's try the 10Km challenge first. Anyone interested in helping? Call me or drop me an email.

I do appreciate the help from technical contributors, photographers, and those who pass on bits to me through email and via articles from other club newsletters. The content of this journal reflects the club activity, your individual activities, and hopefully, the broader VHF-UHF-microwave amateur radio community.

Congrats to our award winners. I'm sorry to have missed the Awards Night and Gene's talk, but the inevitable meeting schedule occasionally bumps into unalterable commitments. And speaking about meeting scheds, I have a business trip to San Bernardino in May, but I miss their meeting cycle by a week!

I'm thinking about the microwave sprint, fun on the mountain and roving in June, and then the August events in UHF and 10G and Up Cumulative contests, and also the September event. You gotta be there!!
 73, Rick, K1DS



ARRL Officials Bob, WA3PZD and Eric, WB3FPL at the meeting

Important Dates and Events

Saturday, May 3 **Microwave Sprint***** **6AM-1PM local**

903 & up, use 144.260 coord

Microwave Sprint scoring is cumulative, total # of grids worked from each band activated multiplied by total # of stations worked in each band activated

***E-mail logs to : springsprints@etdxa.org Paper Logs to: ETDXA / WU4O Jeff J Baker 8218 Foxworth Trail Powell , TN 37849

Monday, May 5 **Microwave Activity Evening** **7PM-11PM local**

Mondays, May 5,12,19, 26 **Net Nights** **Start @7:30PM, see p2**

Thursday, May 8 **Board of Directors** **8PM QTH of WA3EHD**

Saturday, May 10 **6 Meter Sprint ***** **2300Z-0300Z**

Thursday, May 15, 8PM **Club Meeting** **Southampton Free Library**

Visitors Welcome-Program TBD-Will definitely review June Contest plans

Fri, Sat, Sun, Mon, **June VHF Contest** **Camelback Mountain**
Jun 13-16 **Help Load, set-up, operate, cook, operate, pack and return**

Saturday, Oct 11 **Columbus Day Weekend** **Mark your calendars**

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WRIGHTSTOWN, PA

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or, www.ij.net/packrats

ARRL and AWARDS NIGHT

This special evening started off with a dinner and over a dozen attendees at **Pippos Fantastico**, with the Packrats hosting our ARRL Night Speaker, Gene Zimmerman, W3ZZ. With out ARRL Section leaders there also, the group enjoyed a friendly dinner, and lots of discussion about VHF-UHF-Microwave activity promotion and contesting.

Dinner adjourned to the monthly dub meeting a few blocks away at the library, and after the business meeting there were some words of greetings from Eric Olena, WB3FPL, ARRL Section Manager for Eastern PA, and Bob



Above: Awards Chairperson and Vice-President Paul Sokoloff, WA3GFZ presents Bill Lentz, AA2UK with one of the two plaques he won. The first was for top Single-op High Power score, and the other for Best Design in the Homebrew night, with his 24GHz project. Bill has invested a considerable amount of time, effort and dollars toward making a VHF super-station and his efforts are paying off big in contest scores. See p7

Below: Award recipient of the second place Single-op High Power score in the January contest, WA3NUF, Phil Miguez . Phil is a regular activity participant with a well engineered station which he masterfully operates.



Above: Paul, WA3GFZ accepts his plaque from club president Brian Taylor, N3EXA for achieving first place in the Low Power Single-op division.

Below: Joe Landis, AA3GN gets his Homebrew Night Award for the Most Ambitious project, another 24GHz station that is near completion, built onto a splash-fed dish segment and a waveguide switch.



Josuweit, WA3PZO, ARRL Public Relations Committee member.

The next part of the meeting was ably captured in the accompanying pictures by Doc, W3GAD, and I'd like to thank him here, not only for taking the pictures, but for delivering them personally to my home.

Awards were given out to the dub high scorers in the single and multi-op categories of the January VHF Sweepstakes, and also to the most improved score. There were several contributors to the awards, and their names will be listed in subsequent issues. After the score awards

were completed, there were several plaques and certificates given to the winners of the Homebrew Night competition, held last month. Finally, there were some very special honors distributed to deserving individuals.

Below: Homebrew Award presented for the Most Unique project to Jim WA3EHD for his "Tone Tuner," an S-meter aide to help point his beams



Above: Ernie Kenas, W3KKN and Paul Sokoloff, Awards chairman present a Special Service Award to Bob Fox, W3GXB For extraordinary service to our organization. Ernie had great praise for all the years of service that Bob has provided to the club with special thanks for being the awards chair for so many years, and storing the club gear among others contributions.

Below: Mario Fontana Award: is presented to Joe Taylor, K1JT for WSJT software, now in its 3.0 Version. In his relatively new status as a Packrat, Joe has made an extraordinary strong contribution to the club and VHF radio communication for all hams. Too bad he's missing this year's mountain expedition to head down to Arecibo!

**Other Winners: SINGLE OPERATOR LOW POWER
 SECOND PLACE: W3KJ, JOE KEER
 MULTI OPERATOR FIRST PLACE: N3NGE, LEN
 MARTIN WITH W2PED, W2UR, N3EVV, K3AX,
 K3TUF
 SECOND PLACE: W0RSJ, BILL MURPHY
 WITH W3DFM, W2IX, WB2ONA, WD5BRP,
 KB3CBO
 MOST IMPROVED SCORE: W2SJ, BOB FISCHER**

GOTTA GET TO THE MOUNTAIN IN JUNE

All new club members, and first time June participants should plan to help the club in their effort in June. For newbies, here's the way to help: Come to W3GXB's to help load the trucks with gear on Friday AM, June 13. Travel to Camelback in the Poconos and help unload after lunch. Enjoy setting up antennas, towers and radios til dusk, Enjoy dinner with the Packrats at sunset. Bring warm gear for the mountain night. Road is closed at 8PM, so plan to sleep in your vehicle or a truck. Saturday morning start with a hot breakfast and finish station readiness. Contest starts at 2PM and goes til Sunday night at 11PM EDT. Get a chance to operate and log on 6m through Laser. Continuous liquid refreshment and all-you-can-eat meals and snacks. Monday at dawn help break down and reload the equipment into the trucks and then back home. Bring your cameras and be prepared to have a great club bonding experience. Come for the whole shebang or at least a half-day. Check out the Packrat website at <http://www.ij.net/packrats> for pictures of the site and previous year's activities. Yes, this IS the big dub event of the year. E-mail Brian and let him know that you will be there!
 n3exa@enter.net



W3KM's Logging Software

Can I use GenLog to log as a rover in the VHF/UHF Sprints sponsored by the East Tennessee DX Association? The answer is yes. If interested, read the portion of GenLog's HELP file below. Or read/print it from a recent version of GenLog. www.qsl.net/w3km/gen_log.htm **73, Dave, W3KM**

ROVER Category

If you want to operate in one of the ARRL 'Big 4' contests as a ROVER, use my free KM ROVER software. GenLog does not directly support the rover category for log submissions. But, when operating in one of the VHF/UHF Sprints, you can enter in the ROVER category very easily. The following example is for the VHF/UHF Sprints sponsored by the East Tennessee DX Association. Partial rules:

4.2. Multiplier: The total number of different grid squares worked. Each 2 degrees by 1 degree grid square counts as one multiplier.
4.3. Final score: Multiply QSO points by multipliers. Each Sprint is scored separately.

4.4. Rovers score same, but please segregate logs by grid. Scoring for Rovers is cumulative, total # of grids worked from each grid activated multiplied by total # of stations worked in each grid activated. Per the rules, the contest sponsor wants the logs separated by grids activated. The multiplier total is the sum of the different grid locators worked in each grid activated. So, using a separate log file for each grid activated and merging them post contest works perfectly. Basically you operate the contest using a new GenLog file for each grid activated and merge the files by doing 'Copy' + 'Paste' in NOTEPAD, ignoring the headers in all files but the first file #1. Important Notes: Do any required editing of the individual logs before merging them. If you edit a grid locator in the merged file (for example), GenLog will renumber the new grids column and your multiplier total will be wrong (reducing the score displayed). Using a log filename that indicates the grid and band for each roving location is most helpful. ex: fn20_144.log fn21_144.log (8 characters max + the extension).

How to: Start GenLog and enter your first grid square locator into the setup form. Select the 'Generic VHF Sprint' contest. Enter the band when prompted for a band designator. Alternately, your current grid locator can be <Entered> into the 'TX Exchange' field while in the logging screen. Log stations as usual until you are ready to move. After setting up in grid #2, repeat the above sequence for that grid square. And so on till the end of the contest. Post contest, merge your log files into one file for log submission and to get a total score.

1. Open file #1 in NOTEPAD (for example). Do SAVE AS and save the file as a new name - 2k3_144s.log (for example).
2. Open file #2. Highlight the QSO data only, by dragging the mouse starting at line 3 and going down to the end of the last line. Do <Ctrl> + <C> to copy the QSO data. This log data (minus the log header) can be merged into the new file #1.
3. Click the mouse at column 1 on the next line after the last QSO in file #1. Do <Ctrl> + <V> to paste the QSO data. Make sure there aren't any blank lines below the last QSO line. The cursor should flash in the first column of the line directly below the last QSO, nothing below that. Save file #1.
4. Do #2 and #3 with the other file(s) as necessary, saving file #1 each time. When done merging files, file #1 will contain all the QSO data from all grids activated. Load file #1 into GenLog. The correct score is displayed. Write the ASCII log output file [urCall.log] to be submitted to the contest sponsor. Write the ASCII summary output file [urCall.sum] to be submitted to the contest sponsor. Be sure to edit the summary file header, changing your category to ROVER and adding the locators activated, etc. Re-save the file. Whew! Actually it's simple. Try it on 2 dummy Sprint files like I did.

2003 144 MHz Sprint 04/03/03 W3KM 106

144 PH	04/03/03	1604	W1AW	FN20	FN31	1-144	1
144 PH	04/03/03	1605	W3RJW	FN20	FN20	2-144	1
144 PH	04/03/03	1607	WA3DRC	FN20	FN20		1
144 PH	04/03/03	1700	W1AW	FN21	FN31	1-144	1
144 PH	04/03/03	1702	W3RJW	FN21	FN20	2-144	1
144 PH	04/03/03	1703	WA3DRC	FN21	FN20		1
144 PH	04/03/03	1711	AA2DR	FN21	FN30	3-144	1

The above log shows 7 QSOs, 2 grids activated and 5 multipliers total. The first 2 header lines are used by GenLog to setup the logger in the 144 MHz Sprint mode. The '106' on line 2 is the contest number, which is all GenLog needs to know to log in that activity, so you don't have to make a config file for each contest.

CQ all Packrats

I am looking for a few good souls to assist with the construction of a new 144MHz contest station for the mountain. I plan to put together a top notch station consisting of full legal power, multi antenna steerable array and current radio/transverter/preamp technology. It's never too early to start and I will be looking for help here in Connecticut to build and pre-test the antennas and feedlines. The KF6AJ bed & breakfast will be available. I put my trusty 5CX1500 amplifier on the bench this morning and will commence with the upgrades and rework. Those who have an interest please advise as I plan to schedule a work session. I can be reached at the contact info listed below:

73, 144MHz band captain KF6AJ Steven M. Simons
Manitou Systems Inc. 12 South Street Danbury, CT 06810
Tel: 203.792.8797 Ext. 302 Fax: 203.792.7097
Mobile: 203.733.2110 Email: ssimons@manitousys.com



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Sprint Bits 144

I got on for the 2-meter Spring Sprint, and worked 63 Qs in 15 grids for 945 points. Activity seemed pretty good through the first hour, then tailed off. I spent some time trying to scare up some QSOs by meteor scatter, but had no luck except for VE1RG. Otherwise all of the 15 grids I worked were the usual up and down the NE corridor, from FN43 down to FM06. No FN00, FN02, FN12-13. Not even FN11 or FN21! April is the low point annually for meteors, which did not help. It was good to hear many of the usual stations on the air. -- **73, Joe, K1JT**

Although Fri eve is not the best time for me to get on the air, managed to find a few of the gang at 10PM for 10 QSOs in 6 grids, mainly CW, as I was only using a mag mount whip antenna off the end of the van while still parked in the garage. **K1DS**

222

I thought activity was pretty good in the 222 MHz sprint. Worked 45 stations in 18 grids. Some readily workable grids were not heard, at least by me: FM18, FM28, FN02, FN12, FN32, FN33. Best DX was W8PAT in EN81, using JT44. There was lots of CW activity, which is good to hear. -- **73, Joe, K1JT**

I was out most of the evening, got home at about 10:15 PM. Turned on the rig and worked 30 Qs in 13 grids during the last 42 minutes of the 432 Sprint. Conditions were flat but activity was pretty good, even in the last hour. Thanks for the fun, guys! **73, Joe, K1JT**

432

Had a lot of fun and worked some rare DX in FN54. I did about the first 2 1/2 hours and worked 32 stations in 10 grids. Looking forward to the microwave sprint. **73s, Paul WA3GFZ**

Things were pretty active here in the Mid-Atlantic. Worked 51 stations in 18 grids--north to FN54, west to FN 11,12,13, south to FM06 and east to FN30. Heard K4QI from FM06 virtually all 4 hrs no matter what direction my beam was in. Also see several calls in log that are new to me. Many of the big-guns seemed to be running stations throughout the sprint. I was out in the van at FN20jg running 100W w/14 el yagi. **73, Rick, K1DS**

NEW UK LASER COMMUNICATION RECORD

Reprinted from the April RSGB Microwave News

G3PHO Editor's comment: Lightwaves are a valid part of our communications spectrum. Although there are no amateur allocations up there in the THz region one is allowed to communicate without the need for a licence. Thus lightwaves provide a fascinating area for the experimenter. In my book it is radio just as much as the stuff we others who haven't "seen the light" get up to. Make no mistake, it is a lot harder than you might think. The account below details a superb achievement by two very experienced UK microwavers and some VLF addicts as well! Congratulations to all involved in this new record..

David Bowman **G0MRF** and myself (Allan Wyatt **G8LSD**) have conducted tests over the last four months with Derek **Ater G3GRO** and Lech Laszkiewicz **G3KAU**. The distances have developed from a few tens of metres to 20 km, then 40km and finally on **Saturday 05/04/2003 to 49.3km**. The path being from Fairlight east of Hastings to Capel le Ferne east of Folkestone. The dis-

tance was verified by using the G4JNT software.

Semiconductor lasers operating at 670nm were used at both ends ... 3mW to a beam expander at the G8LSD end, and 10mW barefoot at the G0MRF end. Both receivers were designed independently and operated at audio baseband without a carrier. 488 Hz tones were generated in the transmitters for modulating the lasers by the dividing down of a crystal oscillator. Keying of the tone providing the CW. Both receivers featured audio filters to reduce bandwidth. I used a TimeWave DSP filter and David used a home brew op-amp based filter peaking on 488 Hz. With the 40 km path showing very significant scintillation of the signal, we had also taken laptop computers so that very slow CW could be sent and received to overcome any scintillation. In the event the audio was clear enough to read without additional aids. Each station had separate RX and TX equipment. G0MRF used a purpose built telescope around a 100 mm lens to gather light on receive and I used a Russian 4.5 inch reflector telescope and swapped the eyepiece for the detector head. Both transmitters used tripod bases with vernier adjustments mounted above. Finally the transmitter mounted on the vernier mechanism. Aiming of the laser was by rifle sight secured to the TX housing. Strong and very cold winds worked against long term holding of the beam position, but even when the laser dimmed from the brightest light in the sky to only just visible with binoculars, the signal remained audible.

We arrived on site at 18:30 UTC and saw a good sunset but no view, it was quite misty. The power station at Dungeness some 30 km away disappeared completely by 19:00 UTC. By 21:25 we had a sighting of the powerful white lights used for aiming as a dim yellow disc. The laser was aimed at the disk and at 21:30 the laser was switched on. G0MRF received the signal immediately and within a few minutes we had both systems aligned. Reports of 559 and 579 as well as both call signs and additional characters were exchanged by 21:45. In spite of wearing fleece lined trousers, a sweatshirt, two fleeces and a cagoule, as well as walking boots, it took me several hours to warm up after the event. My wife, the long suffering daughter of G3JMB, and I celebrated 29 years of marriage on Sunday. On the way home on Saturday, at just after midnight, she expressed that she had been engaged in some daft radio expeditions in her life but nothing so stupid as standing on a cliff top in a biting cold wind, in the pitch dark, for three hours! **73 from Allan, G8LSD**



Home-brew Night Best Design: Bill Lentz, AA2UK

Robert A. Griffiths
Attorney at Law

KLETT ROONEY LIEBER & SCHORLING
A PROFESSIONAL CORPORATION (215) 567-7857
12th Floor, Two Logan Square FAX: (215) 567-2737
Philadelphia, Pennsylvania 19103-2736 e-mail: ragriffits@klettrooney.com

IEEE/MTT International Microwave Symposium

I have arranged for the first "Ham Social" at this year's IEEE/MTT International Microwave Symposium, which will be in Philadelphia this year. The reception is scheduled for Sunday June 8th from 7:30 to 9:30 pm in the Conference Center, room 307 AB. This location is in the same building and not far from the RFIC Reception also scheduled for Sunday evening. The corporate sponsors for the social are Linearizer Technology, Inc., Sonnet Software, Synergy Microwave Corp., Paradise Datacom, Analog Devices and High Frequency Electronics Publishing. We just picked up a 7th sponsor. Thales. I am hoping to add a few more before the event. This should be of interest to many Pack Rats. Free tickets to the exhibits (huge and worth seeing by any VHF/microwave ham) can be obtained from many local firms - talk to John Sorter, KB3XG. MTT stands for the IEEE Microwave Theory and Techniques Society. IMS is the International Microwave Symposium. RFIC is RF Integrated Circuits. The IMS is actually several conferences in one. RFIC is a sub conference that is part of the overall symposium. **73, AI, K2UYH**

Trenton Computer Festival

Also if you could put a plug in for the Trenton Computer Festival on May 3/4 (see tcf-nj.org), it would be appreciated. I am still program chair and co-director. We have a number of ham related talks on wireless networking and the HINTERNET. **73, AI - K2UYH** -- Dr. Allen Katz, President Linearizer Technology, Inc. <http://www.lintech.com>

Microwave Update 2003 "White Papers" Sought

White papers are currently being solicited from potential authors and speakers for publication in the Microwave Update 2003 conference proceedings. Topics specifically of interest to Microwave Update 2003 attendees, as well as those on VHF and UHF subjects usually associated with the annual Pacific Northwest VHF Conference are solicited. Papers will be accepted until July 1, 2003. White papers should be sent directly to Jim Christiansen, K7ND, via e-mail at k7nd@att.net. MS Word format is preferred.

If you are interested in making a session presentation at one of the Microwave Update 2003 sessions, please respond to [NU7Z \(nu7z@aol.com\)](mailto:NU7Z@nu7z@aol.com); for presentations at the Pacific Northwest VHF Conference sessions, contact [N7CFO \(n7cfo@ix.netcom.com\)](mailto:n7cfo@ix.netcom.com). LCD projection equipment will be available for those using PowerPoint presentations (which are strongly encouraged). Slides and video presentations can also be accommodated with advance notice.

Microwave Update 2003 and the Pacific Northwest VHF Society respectively will be the sole judges of whether presentation requests and white papers are accepted.



The gang at Pippos

120 GHz DX RECORD

The record for the 120 GHz band has changed hands several times already this year. Accepting the challenge by Brian, WA1ZMS, and his team, Bob, KF6KVG and I went over our rigs. Bob managed to tweak some more power out of his xmtr, and I found that one of my harmonic mixers was the best xmtr I have for 120 GHz. I modify these by removing the back short and installing an adaptor to take a x4 multiplier with 40.000 GHz output, about +15 dbm. The receive mixer is driven the same way at 39.900 GHz, all locked to 10MHz.

Friday, Mar. 29 was a clear day with low humidity, so Bob went to the west side of the Santa Clara valley at CM87WJ. I was on the east side at CM97CJ, about 1000 ft elevation. Distance apart was about 24.8 km. We located each other by flashing mirrors, and had signals in about 10 minutes. The S-meter did not move, but CW copy was easy. After exchanging info, Bob immediately moved to another location about 30 km apart. I was able to detect him, but he could not hear me. All in all, a successful day. Will W0EOM (as posted by W0EOM on the Microwave Reflector)

REFLOCK SUCCESS

Just wanted to let everyone know I got my initial Reflock board up and running and locking my DEMI 10GHz transverter. Seeing <10hz drift over a three hour period (I am using a TCXO as the 10MHz reference, don't have a GPS 10MHz receiver system yet!). The reflock board was not plug and play, I had to do some toying with the VCXO (DC to the varactor) line values to get it to work properly. But thanks to some help from some of the NTMS guys it is now locked solid. I am going to rebuild my /8 prescaler using a different (simpler) design before I get everything off the bench and installed into the DEMI enclosure. Still more work to do, but I think the hard part is done! More to come as I make progress... **73 Steve, N3FTI**

CT FREEWARE

As of today, I'm making CT freeware. That doesn't mean I'm stopping work on CT, just that I don't want money for it anymore. I have changed the permissions on ctvault to let anyone download. The manual is being converted to PDF format, and I'll be updating it over the next few months. - Ken K1EA

Palm Rover Software

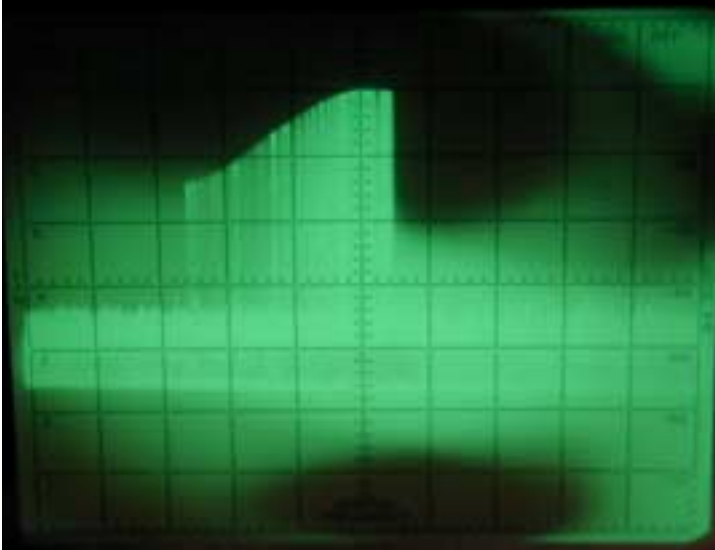
From the VHF Contesting Reflector: "Dave Wendling" kb1eaa@berkshire.rr.com To: VHFcontesting@contesting.com

I have written rover contest scoring software for the Palm Pilot. It still needs to be tested hard during the upcoming June VHF contest so use it cautiously. I used it during the January contest and found a few bugs/program errors which have been fixed. I'm sure there will be more. My partner always seems to have trouble using a laptop while moving from area to area, the palm pilot seems to be our answer. The program will add and update your score, it will even print out a Cabrillo style file to send the ARRL. You can find it at <http://home.nycap.rr.com/nugidoors/> REMEMBER this software is still in it's beta testing phase. **KB1EAA**

BITS

I spent some time playing with harmonic mixers and a 24 GHz Gunn source I got at the Mario raffle. I had a problem with the HP 141T which I was able to repair. I put a triangle wave into the modulating input of the Gunn and put the analyzer in the high persistence mode. Presto, a sweep generator (sort of). I was able to tell where 24.192 was, +/- 10 MHz., by comparing my curve to the filter curves for my bandpass filter. The attenuator was necessary to keep from overloading the mixer. Here are some pictures.

Paul WA3GFZ



Movin' Your Cheese (for sale)

Andrews 0.6m 24 GHz dish Model VHLP-220 which was sold for 22 GHz applications using R-320 (round pipe waveguide with an ID of .320") being modified to accept WR-42. Price \$120, plus shipping contact nr6ca@sbcglobal.net

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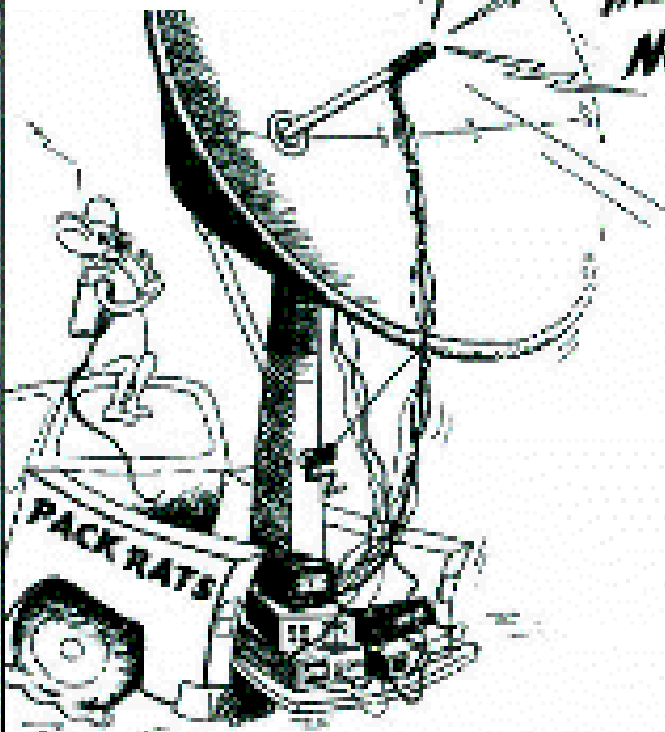
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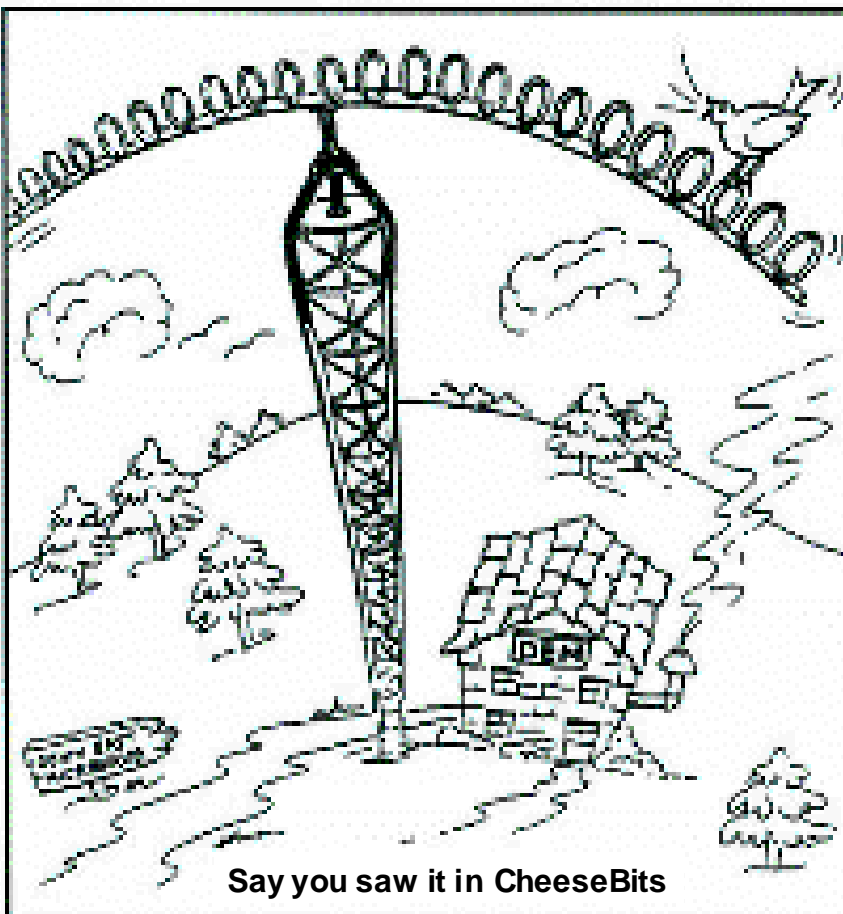
**MEETING
NOTICE**



- ARRL and Awards Night
- More on the Mountain
- Microwave and 6m Sprints
- IEEE/MTT International Microwave Symposium
- Trenton Computer Festival
- Announcing the Mid-Atlantic States VHF Conference and **HAMARAMA**

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