

ARRL
Affiliated
Club



W3CCX
CLUB MEMORIAL CALL



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1 lirpA rof



Volume XYZ

April 4002

Number 4

PREZ SEZ

I hear that the March meeting was really great. Illness prevented me from attending. With ten entries, the Home Brew competition sounded quite entertaining. The number of new members joining our club inspires me. We welcome Ed WA3BZT, George WA3NAY, Matt KB3JPN, and Bob N4HY. They are all great people and will make meetings, contests, and activities in general more fun. On top of that good news, we also have two additional applications. Unbelievable!

The contest committee is doing terrific work this year. They have already gotten started with inventories and organization. Al N3ITT is our contest chairman with Steve KF6AJ creating and maintaining an Excel spreadsheet of contest resources. Contact Al and sign up for the June contest party.

April's meeting will be ARRL night. We have Eric Olena WB3FPL, our section manager, giving an update on PRB-1. Kay Craigie, Vice President, N3KN will also be gracing us with her presence and will be giving us an update on what's going on at the League. We will have a video tour of the ARRL headquarters. Don't forget that AWARDS are given out at the April get together. Contest and Home Brew participants are honored for their hard work and creativity. CU there. **73s, Paul WA3GFZ**

VHF Contests Modified for 2005

Participation Down, Sheranigans Up, New Rules Announced

In a bold move announced yesterday, the VHF Advisory Commission of the ARRL had driven their final elements of recommendation to the Board of Directors and Reflectors, culminating in a radiation that put an end to the current contest controversies. Despite the presence of a band of pack-rovers, the commission was firm in their recommendations to clear the deck of dissenters by opening the doors to VHF contest activity, allowing a two year introductory period of revised scoring to be followed by a step-wise re-initiation of competitive activity after making an assessment of the availability for commercially made radios for the bands above 30 MHz, and the flexibility of computerized logging.

The scoring scheme will now reverse the values for QSO's allowing those contacts made on 50, 144 and 432 MHz to count as 4 points each, contacts on 222, 903 and 1296 at 2 points each, and any higher frequencies at 1 point each. The rationale given was to open the gates for hams who have now obtained easy access to the 50, 144 and 432 bands, and to give them a sense of competition and accomplishment, while still enabling those with big budgets, technical expertise, higher locations in densely populated areas, and microwave experience to enjoy some of the fruits of their labors and locations. In addition, much like the progression of bonus points for FD messages, alternate power sources, packet and satellite QSOs, and publicity, there will be 50 point bonuses for using each of the following modes: HSMS, EME, and 9600b Packet. A 100 point bonus will be given to each station who makes a QSO with another amateur who has not submitted a VHF contest log in the past 10 years. Distance scoring will remain with the current grid multiplier scheme. Finally, no restrictions will be placed on rover tactics, but reporting categories will change to Rover Unlimited and Rover Limited, to reflect those who show a log with a wide variety of other stations, versus those whose logs monotonously reflect the same limited number of calls from each grid activated. No changes will be made for the remainder of the 2004 contest calendar.

In an analysis of these developments, VHF contests gurus said that the new scoring scheme may add hundreds or thousands of new contest entrants, and that several would consider going multi-op to keep the three highest scoring bands active continuously. Although point totals would be lower, they still had the opportunity to increase multipliers with the use of their microwave bands, and multi-band rover, grid-circling and pack-roving scoring distortion would be minimized.

"As communications technology and the greater availability of commercial gear for the VHF bands has improved, the contest support from the ARRL will reflect the center of the bell curve of radio amateur operation, while maintaining an equitable challenge for those on both ends...the ham limited to an FM single-band rig and those with microwave capability," stated the chairperson. "We have embarked on what we consider to be an opening for more hams to be VHF-contest involved, and will reassess the results in 2008." Comments can continue to be filed at: vhf-contests@arll.org

SPRING SPRINTS 144, Mon Apr 5, p3



Pack Rats **CHEESE BITS** is a monthly publication of the
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TRUSTEE OF CLUB CALL - W3CCX
 Ron Whitsel, W3RJW
 (215) 355-5730 W3RJW@aol.com

PACKRAT 222 MHz REPEATER - W3CCX/R
 222.98/224.58 MHz, Churchville, PA

OFFICERS: 2001-02
 PRESIDENT: WA3GFZ Paul Sokoloff dogfaces@comcast.net
 VICE PRES: N3PLM Chris Getman
 CORRESP. SEC: WA3EHD Jim Antonacci, Antonacci@worldnet.att.net
 REC. SEC: WA3AQA Walt Zumbach, wzumbach@bellatlantic.net
 TREASURER: W3KM Dave Mascaro, dmascaro@motorola.com
 ACTING REC SEC K3EGE Bill Shaw
 DIRECTORS:

K1DS (2 Yr) Rick Rosen
 W3GAD (2 yr) "Doc" Whitticar
 WA3DRC (1 Yr) Ed Finn
 AA3GN (1 Yr) Joe Landis

COMMITTEE CHAIRMEN
 January Contest AA2UK
 June Contest: N3ITT
 HAMARAMA: WA3DRC
 VHF Conference: KB3XG 610-584-2489
 Awards Chairman WA3GFZ 215-884-3116
 QUARTERMASTER: K3IUUV, Bert Soltoff, soltoff@uscom.com

PACKRAT BEACONS - W3CCX/B
 FM29jw 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

SPRING SPRINTS 222, Tue Apr 13,

Joel Knoblock W3RFC
www.therfc.com
The R.F.Connection
213 N. Frederick Ave. #11WWW
Gaithersburg, MD 20877 USA
World wide shipping via FED-EX or US Post OFFICE
Tech Line 301/840-5477
Order Line 800/783-2666 All major credit cards taken
Fax Line 301/869-3680
Hours: Monday-Friday 9:30am-5:30pm Eastern

Editor's Column

OK, so what do you think the ARRL Contest Advisory Committee will do with all the feedback that they received about changing the VHF contests? I predict the following: some methodology to manage pack-roving and grid-circling, and another new or expanded VHF contest, and some additional entry categories for limited (by bands or time) participants. But don't expect any announcements soon, it will probably be December before we see the finalization of any rules which may impact the usual VHF SS in January. Oh, BTW, did they ask us here in the Mid-Atlantic or Northeast if a change in the VHF SS to a more reasonable month weather-wise was an option? No? That's because we're tough and LIKE to climb 100' towers at 5°F with 20MPH winds hauling up 1-7/8" hardline! And Rovers enjoy the challenges of ice and snow on the roads, gee, why make it easier? We'd have no "Cryin' Towel" stories.

I had been saving this for homebrew night, but just didn't have all the remote controls finished to get my drone rover to the meeting. This is the latest iteration in the competition, and the technical notes and construction details are being printed in a volume to be released later this year, hopefully with a serialized version for one of the current ham journals with a wider circulation than Cheesebits. With the ability to have a digitally controlled drone rover, and limiting it to a 10 band set-up, with simple horns for 5 & 10 GHz, The biggest challenge was getting the highway department to license the vehicle and allow special permits for its use. Getting a "spare" call for the station was not a problem. It will certainly add a layer of complexity to my rover operation, but with computerized pre-programming of the set-up, and voice keyers and voice-recognition software for logging, (kudos to K1DU for that addition), I'm pretty certain that we can keep up a decent QSO rate. I have yet to integrate the ICQ rover package, but that will be in the works if we get to operate in the grids close to the Grate Lakes where it is more popular. At any rate, be listening for the newly issued call, K1DIN, which I had licensed to my old residence in RI.

Truly amazing to see the planning energy that is being generated in the club. With our membership growth and new wave of volunteerism, there is a lot to keep us busy. I also want to point out that the sharing of technical skills, spare radios, antennas and various parts helped maximize capabilities for the January Contest. A hearty thanks to every participant, and a special thanks to each member who assisted someone else in getting their stations ready. Bill AA2UK, was a great leader and cheerleader for the club this year as Contest Chairman.

I am always seeking your contributions to Cheesebits. Share your technical expertise, operating activities and pictures. Our newest members appear to have great technical backgrounds, and we look forward to their active participation. Please make a point to welcome them and get them engaged. 73, Rick

WELCOME NEW PACKRATS



George Jewsevsky, WA3NAY



Ed White, WA3BZT



Bob McGwier, N4HY



Matt Baker, KC2JPN

MICROWAVE UPDATE 2004

The North Texas Microwave Society is the proud sponsor of Microwave Update 2004 being held in Dallas, Texas on October 15 and 16, 2004. The conference will be held at the beautiful Harvey Hotel DFW Airport, just minutes from the north end of DFW Airport. Microwave Update is the premier technical conference for the amateur radio operator interested in pursuing activities on the frequencies above 900 MHz. This year's event will host technical presentations on both Friday and Saturday from your friends and peers pursuing projects in the microwave bands. This will be an ideal event for you to meet with and talk to your fellow microwave hams from around the world. If you are interested in presenting a paper at the conference, please let one of us know. As usual, the ARRL will be publishing the conference proceedings. A tune-up clinic consisting of noise figure and network analysis equipment to 50 GHz will be conducted throughout the event. The usual surplus tour hosted by the ultimate junk hound, Kent Britain, WA5VJB, will be conducted on Thursday. A Friday night flea market for the microwaver will provide the opportunity to both buy and sell. The conference will end with a fabulous Saturday night banquet to wrap up the event. The prize table will offer both ham and non-ham prizes. Kent's world famous surplus and electronic store tour on Thursday will visit such places as TESCO, Texas Towers, AITex, Tanner Electronics, several small parts stores, Fry's Electronics just to name a few. Also, check out the NTMS website www.ntms.org and the Microwave Update website www.microwaveupdate.org for further information about MUD 2004. This conference will be the microwave event for 2004. Don't miss it! Come join the fun and camaraderie in Big-D. Al Ward W5LUA Bob Gormley WA5YWC Kent Britain WA5VJB

Important Dates and Events—Be Radio-Active!!

Thursday Apr 1	April Fools' Day (So you did get it!)	0001-2359UTC
Saturday Apr 3	Microwave Activity Morning	8AM-1PM
Monday Apr 5	Microwave Activity Evening	7PM-11PM
	All bands 432 & Up, Coordinate on 144.260	

Mondays, Apr 5,12,19,28 **Packrat Net Nights** **Start @7:30PM, see p2**

Thurs, Apr 8th PACKRATS BOD MEETING 8:00PM-Open to All Packrats
QTH: W3KKN, Ernie Kenas, 2823 Old Welsh Rd, Willow Grove, PA

Thurs, Apr 15th—PACKRATS MEETING—8:00PM

Southampton Free Library, 947 Street Road

ARRL-Eric Olena-SCM-EPA on PRB-1 and AWARDS NIGHT

ARRL Virtual Video Tour—This is an open meeting, bring a guest or friend!

May 20:	Speaker—N4HY Software Defined Radio, June Contest Prep
June 17:	Elections and "Festival Night"
July TBD:	White Elephant Sale—the best auction of "stuff" of the year
Aug TBD:	Annual Packrat Picnic

Also Upcoming: Spring Sprints: For more information including Spring Sprint times and rules please visit the ETDXA website at www.ETDXA.org

144 MHz April 5 (Monday 7-11PM local)

222 MHz April 13 (Tuesday 7-11PM local)

432 MHz April 21 (Wednesday 7-11PM local)

Microwave May 1 (Saturday AM)

50 MHz May 8 (Saturday PM)

****** SBMS Int'l Microwave Contest**

****** May 1-2 to coincide with MAD**

******* and Sprint!**

www.ham-radio.com/sbms/club_contest/2GHzUp.pdf

June ARRL VHF QSO PARTY: Sat-Sun June 12-13

- Eastern VHF/UHF Conference, April 16-18, Radisson Hotel, Enfield, CT www.newsvhf.com for info
- Central States VHF Conference, July 22-25, Mississauga, Ontario, Canada www.csvhfs.org for info, also p8
- 11th International EME Conference Trenton, NJ August 6 - 8, 2004 www.qsl.net/eme2004/
- **Microwave Update (MUD) 2004** will be hosted by the North Texas Microwave Society and will be held in Dallas near the DFW airport on October 14, 15, and 16. www.ntms.org and www.microwaveupdate.org

23cm GI-7B(T) PA by N2UO

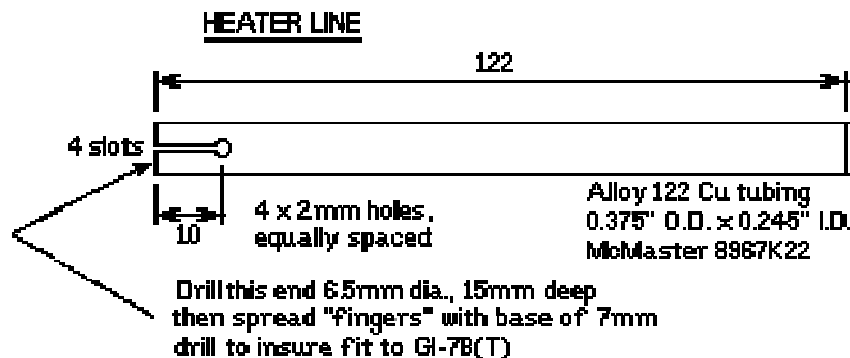
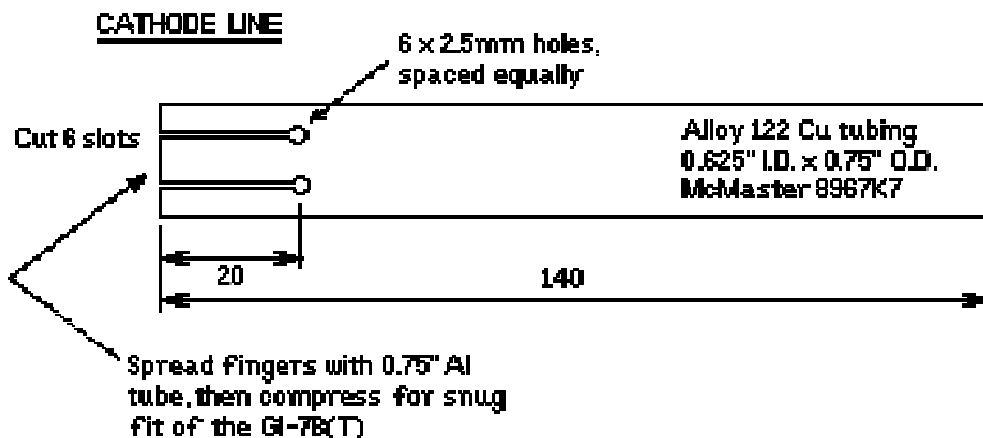
with special permission to print from
N2UO & Paul S. Goble, III, ND2X
<http://www.nd2x.net/index.html>

The individual PAs used here to achieve about 500W composite output are detailed below. Measurements are in mm unless otherwise indicated to be inches. Materials readily available in the west are used, making the purchase of components with which to construct these PAs somewhat easier to obtain than for some designs. This design has been successfully tested using both the GI-7B triode shown in the picture, and the somewhat more robust GI-7BT version of the tube.



Dimensions not specified are in mm unless indicated to be in inches

SPRING SPRINTS 222, Tue Apr 13, p3



During our last meeting, one of our newest Packrats, Bob, N4HY, reported that these brand-new Russian triodes are available for approximately \$25 each, and he is planning to put some on the air. With parts readily available from hardware departments of The Home Depot or from McMaster, a 500W-1296MHz amplifier could cost less than \$200 for the RF deck. Power supply not included. The power combiner is readily made from some copper sheet stock and a tin-snips.

Paul Goble, ND2X, has also published a comprehensive article on these power tubes in the recent CQ-VHF, and maintains a fantastic website on various VHF power amplifier designs. <http://www.nd2x.net/index.html>

K3LNZ/B 1296 MHz Beacon

Start of transmissions: March 19, 2004

Frequency: 1296.219 MHz

Power: 5 Watts ERP

Antenna: 4-bay little wheel

Elevation: 3200 feet amsl

Grid Square: FM09gg

Location: Far Southwestern corner of Maryland on Backbone Mountain Ham QTH: Mark, K3EE

ID: 5-second tone, then "K3LNZ/B FM09gg Backbone Mtn MD"

The signal is generated by a free-running oscillator, i.e., it will drift according to room temperature. The "average" frequency may also end up a bit lower as the unit is "burned in".

This beacon project was begun by Guy, W4PSJ (SK) and was to have been located at his West Virginia mountaintop QTH where K3LNZ/8 operated VHF contests for many years. K3DUA, W3NZL, W3IY and myself, WA3EOQ rescued the pieces,

completed the design and assembly, and finally got it on the air. Mark, K3EE, would love to get reception reports at k3ee@arrl.net or via snail mail. Mark has graciously provided his great location for the beacon QTH and assisted in installing the antenna and feedline. He mainly operates HF; however, he's now very interested in VHF weak signal operation.

Enjoy. 73, Howard WA3EOQ FM09jo

hreynolds@gcnetmail.net

~~~~~  
W2PED with his —> Homebrew Night 24GHz project, to be used by K1DS/R. Features an 18" dish, 2W output and 16db preamp, DEMI se-

quencer

~~~~~

Below

Right

K3TUF

brought

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newly

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50W

432

DEMI

trans-

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PLATE CAVITY

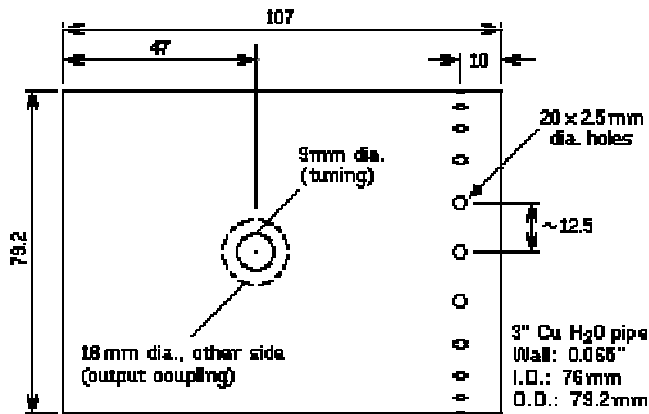
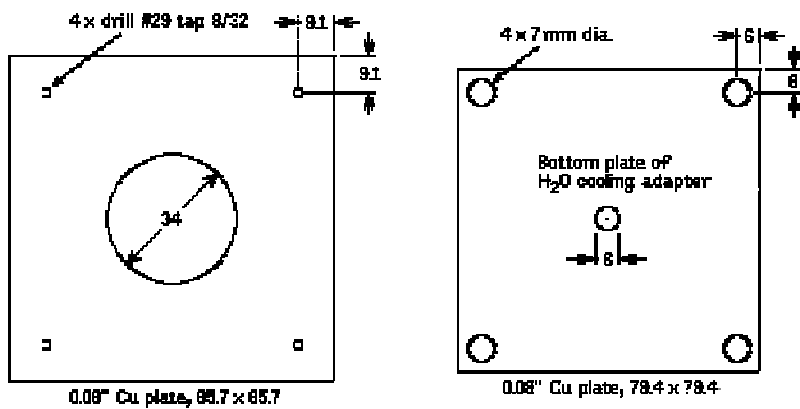
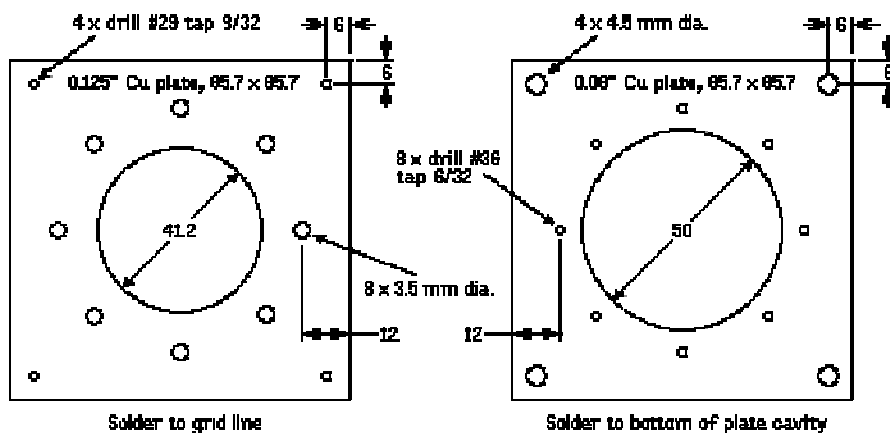


PLATE CAVITY TOP



CAVITY PLATE BOTTOM



Solder to grid line

Solder to bottom of plate cavity



←K1JT's tower-mounted microwave box complete with 12VDC supply was Joe's entry for Homebrew Night, and sure played well during the January contest.

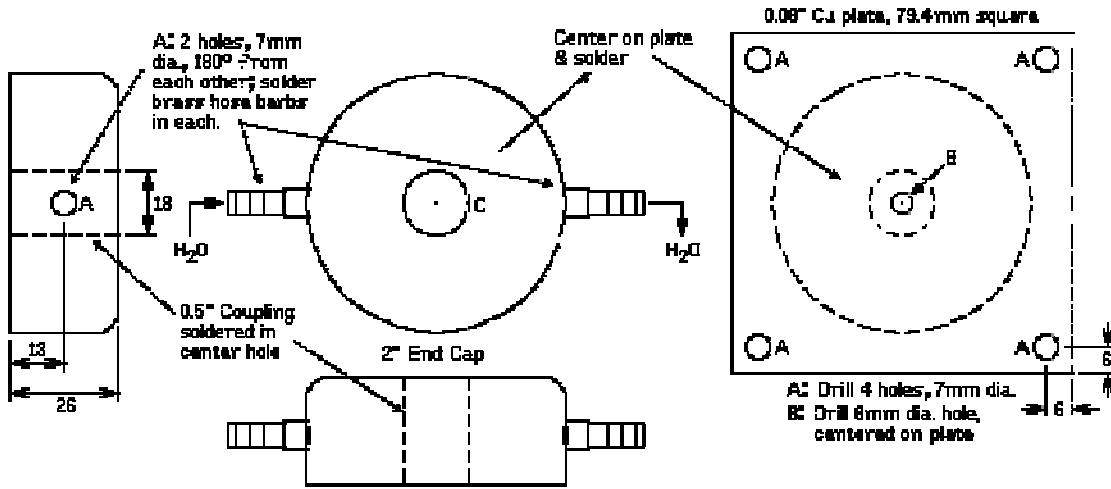
Robert A. Griffiths

Attorney at Law

KLETT ROONEY LIEBER & SCHORLING
A PROFESSIONAL CORPORATION
12th Floor, Two Logan Square
Philadelphia, Pennsylvania 19103-2736

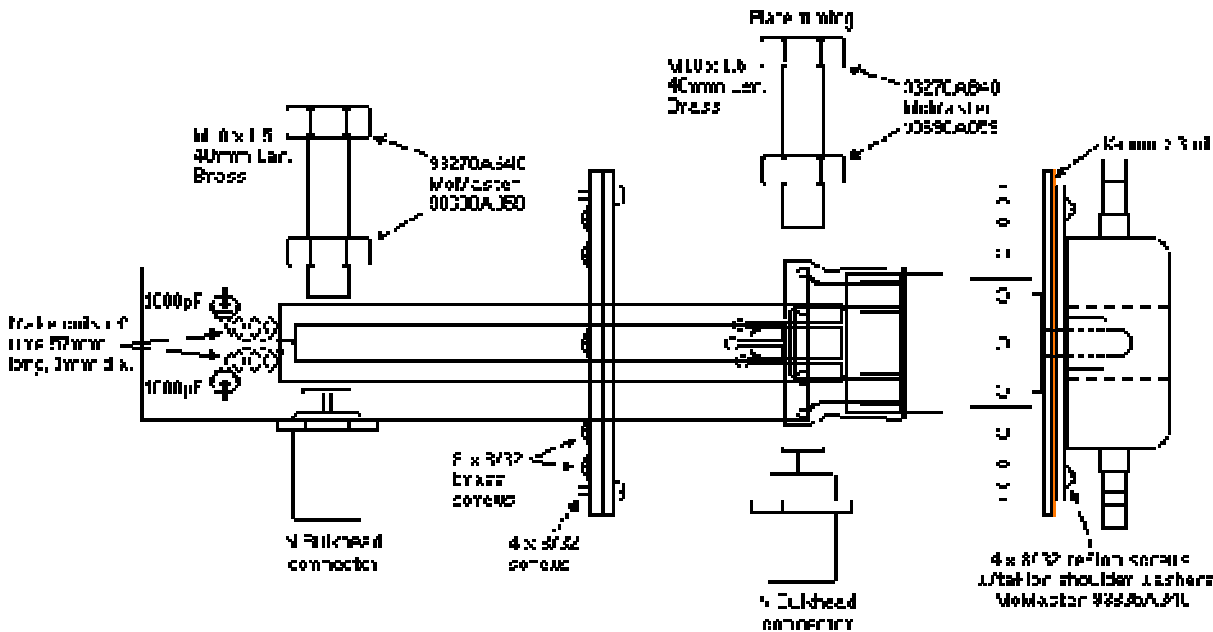
(215) 567-7857
FAX: (215) 567-2737
e-mail: ragriffiths@klettrooney.com

WATER COOLING ADAPTER



SPRING SPRINTS 144, Mon Apr 5, p3

SPRING SPRINTS 222, Tue Apr 13, p3



23cm CAVITY PA
Tested with 100W & 50W

Len, N3NGE was the first prize winner of Homebrew Night with his concentric independently rotated antenna array, with pictures and video shown at the meeting. W2PED 24GHz rig was 2nd, and W3KKN, presenting himself as a "homebrew" Placed third. Thanks to our judges.



CheeseBits

W0YMV demonstrates an L-C tester and other neat mini-board projects, available inexpensively as kits.

←Bob, N4HY gave us a sneak peek at Software Defined Radio and the newly designed gain line-up, which will be the topic for presentation at our May meeting.



April 4002



WSJT Version 4.5

I am pleased to announce that WSJT version 4.5.0 is available for free download at <http://pulsar.princeton.edu/~joe/K1JT>. Version 4.5 Features:

1. New and more sensitive decoder for the JT65 modes. If you are doing EME with WSJT, you need this upgrade!
2. New meteor scatter modes called FSK441B and FSK441C, with forward error correction (FEC) capabilities.
3. Many other improvements, and a few bug fixes. For details, <http://pulsar.princeton.edu/~joe/K1JT/UPD450.TXT>. As always, please let me know of your experiences with WSJT -- good or bad. You will notice that the WSJT home page has been re-designed. I'm a rank beginner in this area; comments on the web design would be appreciated, too. -- **73, Joe, K1JT**

BPL-Dave Sumner's Letter to WSJ

Friday, March 12, 2004 Letters To The Editor
Broadband Power Lines Pollute Radio Spectrum Any listing of the pros and cons of using power lines to deliver broadband services ("The Web's New Outlet," March 2) must mention its major disadvantage: it pollutes the radio spectrum, interfering with nearby radio receivers. What the FCC calls broadband over power lines, or BPL, amounts to sending a wideband radio signal over unshielded wires that weren't designed for that purpose. Power transmission lines are designed to carry alternating current at 60 Hz (cycles per second). They don't work at all well for the transmission of the higher frequencies, between 1.7 and 80 megahertz that are used in BPL systems. Instead, because they operate according to the laws of physics, they function much like antennas. Radio receivers in the vicinity pick up the BPL signal, which overrides and interferes with radio reception. The frequencies in question are used by public safety agencies, the military, aeronautical and maritime services, broadcasters, radio astronomers, radio amateurs and others. The frequency range includes the unique and very narrow portion of the radio spectrum in which the ionosphere supports worldwide communication. BPL system designers have tried to address the problem by notching certain frequencies, but with only limited success. Yet BPL implementation can't go forward without solving the problem, because for very good and obvious reasons it is a violation of FCC regulations for a BPL system to cause radio interference. If BPL causes interference - and it does - the BPL system must be shut down. The American Radio Relay League, the national association for amateur radio operators, has documented interference in all four of the BPL-marketing-trial areas we have visited. Information is available at our web site, www.arrl.org. David Sumner Chief Executive Officer The American Radio Relay League Newington, Conn.

Movin' Your Cheese (Buy-Sell)

Looking for a 220FM and a 222SSB antennas, the bigger the better Also looking for a 220/222 amplifier. Only have a transverter that is putting out about 1 watt. Please let me know what you have and what you want for it. Thanks MATT KC2JPN
Vineland, NJ prosoundguy@yahoo.com



Thirty-Eighth Annual Conference
38 Years of Leadership
July 22-25, 2004
Mississauga, Ontario
Delta Meadowvale Resort
and Conference Centre
Peter Shilton, VE3AX
President & Chairman
VE3AX@csvhfs.org
Conference registration form
should be available on both the
CSVHFS website at

www.csvhfs.org and at the Ontario VHF Association site at www.ovhfa.com The program looks interesting, and activities also include preamp and antenna measurements, family activities, shows and entertainment, a trip to Niagara Falls and visit to the CNN tower.

Dayton Weak Signal Banquet 2004

Tom WA8WZG, Tony WA8RJF, and the Weak Signal Group that meets Monday nights at 0200 UTC on 3.843 Mhz., would like to invite everyone that is coming to Dayton Hamvention to our 12th annual banquet. We have reserved a room that will seat 125 on Friday night May 14, 2004, at the Holiday Inn North, Waggoner Ford Rd. exit off I-75., from 6:00 PM until 11:00 PM.

There will be a cash bar starting at 6:00 PM. as well as plenty of room to mix and mingle with VHFers from all over the country and the world. There will be over 50 prizes drawn starting at 9:00 PM. Also, there will be the guest speaker that will talk on an exciting VHF topic.

The cost of a ticket to attend this function which includes a delicious 2 entree' sit down dinner, is only \$35 dollars per person, and they are limited to 125. Spouses are welcome to join us and are eligible for the prize drawings. You may order your tickets by sending \$35 dollars plus an SASE to Tom Whitted, WA8WZG, 4641 Port Clinton East Rd., Port Clinton, Ohio 43452. Please include the names and calls of all ticket purchasers as well as E-MAIL address. If you need more info you can contact me at WA8WZG@WA8WZG.COM. This is one of the largest gatherings of VHF Weak Signal enthusiasts in the US., so get your tickets early and join us for an enjoyable evening at the Dayton Hamvention!!!

Towers

As you have all probably learned by now, Rohn Industries ran into grave financial difficulties two years ago resulting in significant changes in production. Rohn was recently purchased by Radian in Canada and it is not known whether or not they will ever resume production of the amateur tower products. Most of the supply houses in the US, including the amateur retailers, have sold-out of Rohn 25G, 45G, and 55G tower sections and accessories. My company recently needed some 55G for an FAA project and we have discovered a new source. Valmont is a Salem, Oregon company which has long manufactured steel towers for utility and communications applications. Valmont recently started production of light towers designated 25V, 45V, and 55V. These tower sections are designed and manufactured to be exact replacements for the three Rohn models. Most of the accessories offered by Rohn for these towers are also available from Valmont. Cost per section is equivalent to Rohn's last prices. This will be good news to hams who prefer Rohn guyed towers. Contact Valmont at 888-880-9191 Oregon, 877-467-4763 Indiana, or www.valmont.com 73 de Rick WC2K

SPRING SPRINTS 144, Mon Apr 5, p3

I'd like to claim what should be a new World and North American DX record for the 241GHz band. W2SZ/4 worked WA1ZMS/4 on 241GHz at a distance of 79.6km using slow speed CW (QRSS). Details of the QSO: Date: Feb 17th, 2004 Time: 00:15z W2SZ/4 in FM07fm (37-31-00N 79-30-35W) WA1ZMS/4 in EM96wx (36-59-28N 80-07-17W) Distance: 79.6km The weather at the W2SZ/4 QTH was: Temp: -8C Dew Point: -26C Relative Humidity: 22% Station pressure: 884mb Atmospheric loss: 0.273dB/km The weather at the WA1ZMS/4 QTH was: Temp: -8C Dew Point: -16.1C Relative Humidity: 53% Station pressure: 932mb Atmospheric loss: 0.681dB/km Pete, W4WWQ was the CW op at W2SZ/4. WA1ZMS/4 was the op of his own station at the EM96 QTH. Both ends of the QSO used Spectran software to aid in receiving the slow speed CW at a rate of approximately 1 second per "dot", 3 seconds per "dash". The entire QSO took well over an hour to complete with both stations having to send the exchanges several times. Some portions of the CW were copied by ear, but the DSP software came through in the end to help make the QSO happen. Both stations used new Wenzel Ultra-Low-Noise 5MHz reference oscillators as the phase-locking frequency references. Short-term stability on the order of 4 x 10⁻¹³ is required to keep the signals within a 1Hz filter bandwidth of the demodulating software. The stations were keyed using Island Keyers with custom QRSS firmware from Charles Olsen, WB9KZY. This QSO is also the 5th grid needed for the ARRL VUCC award for the

241GHz band for W2SZ. This claim should be the very first VUCC for that band and has taken many months of hard work and many VERY cold-night DX-peditions to make it all happen. This latest DX record of 79.6km occurred on our fourth attempt, so we were not without our failures. More information with photos will be posted at www.mgef.org 73, Brian Justin, WA1ZMS



MOON NET BACK ON LINE

From W9IP: Users should review their subscriptions by visiting: <http://littlebox.davidv.net/mailman/listinfo/moon-net>.

There were a few requests from members to be kept informed of VK6BRO's and my pending article on our hybrid UHF/microwave synthesizer project, so I'll 'announce' it here. The article has been published in the March/April issue of QEX, and I've updated the page at <http://www.qsl.net/ke5fx/synth.html> to include a link to our final draft of the article text in .PDF form (by generous permission from the QEX editorial staff). -- **John KE5FX**

The following Packrats sent in comments on the proposed VHF contest rules changes: Paul - WA3GFZ , Joe - W3KJ , Bill - AA2UK , Griff - NE3I, Doc - W3GAD, Ron- W3RJW, Russ - K2TXB, Jim- WA3EHD, Paul - W2PED, Randy - NR6CA

Just a quick note to the reflector and to microwave enthusiasts I just worked grid #5 on 24ghz. I installed my 24ghz home station about prior to the January Contest (although I had -0- contacts in the contest) and just completed grid #5 this morning from my home station in FM29PN. The furthest contact was 189km to W3IY portable. I am available for anyone wanting to run schedules. The rig is a 2' P-Com dish at 190 feet with DB6NT transverter, DB6NT LO, DB6NT LNA, MM Tech 2 watt PA and an AST microwave antenna WG switch. The equipment is all housed in the original P-Com equipment enclosure on the rear of the dish. **73 Bill AA2UK**

SBMS International Microwave Contest
Sat & Sun, May 1-2,
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SPRING SPRINTS 432, Wed Apr 21, p3

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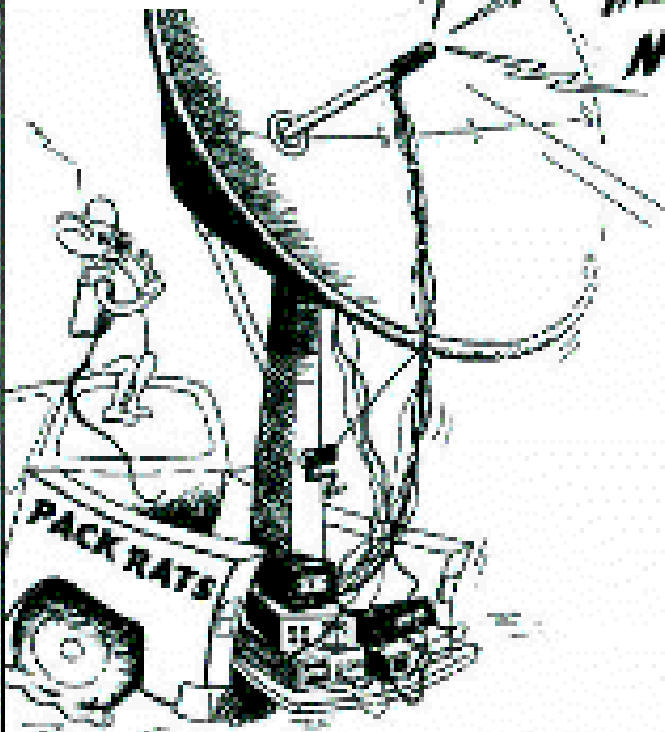
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**MEETING
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SPRINTS

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The BIG Microwave Weekend

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and

SBMS Int'l Microwave Contest

Sat & Sun, May 1-2

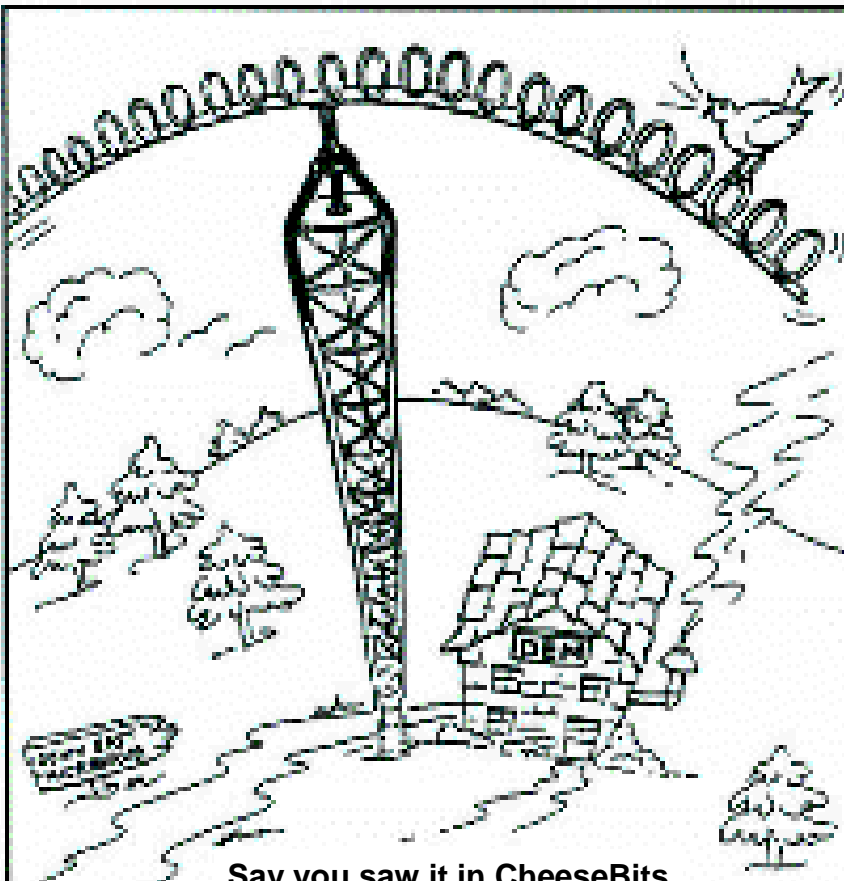
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