



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL



ARRL
Affiliated
Club



Volume XLV

July 2003

Number 7

Prez Sez

Almost four years ago I joined the Packrats. I wanted to attend meetings to enjoy the company of other radio amateurs and learn more about the technically advanced aspects of the hobby. Soon after that I served as a board member, awards chairman, and then Vice President. Along with these responsibilities came personal growth and fun. The strength of a club lies in its membership. I invite our new members, as well as our seasoned members, to join in. Whether it's finding a speaker or making a suggestion for a meeting's topic, all ideas and participation are welcome.

Brian N3EXA and the board did an exceptional job during the last two years. The accomplishments included changing the constitution to welcome women into our membership, and restructuring the financial workings of the club to avoid bankruptcy. These were difficult tasks.

When I accepted the nomination to run for Vice President last year, I had no idea I was being groomed for the big job. If I had, I would have paid a little closer attention. I am honored to be the new President and welcome comments, suggestions and ideas from the membership for enhancing our club. All members are welcome to attend monthly board meetings. Bob W2SJ is our new Vice President. It surprised the heck out of me! Bob has served on three other occasions as VP and we are lucky to have him in this office. The other officers have agreed to stay on. Rick K1DS was re-elected as a board member and Doc W3GAD joins the board as a relative newcomer.



1296 and 903 arrays going up



Sunrise at Camelback

The White Elephant sale is coming up in July and the picnic in August. I'll be providing the chocolate cake so bring your appetite and your bottle opener. We need items for auction in July so search the basement for goodies.

This year's effort at the mountain was great. All the band captains really delivered. There were plenty of operators and, as usual, the food was great. Thank you Don and Doc for your hard work. We did have some bad pieces of hard line, so there is going to be a coax party at Len's to make some new stuff for next year. Stay tuned.

I am looking forward, in the next year, to working with the new board to keep things running well, and to add some new ideas too. See you at the White Elephant sale.

73s Paul Sokoloff WA3GFZ

KB3BBR, W2PED & KB3GJT with 1296 loopers



WA3DRC & AA3GN with 222 array



WA3DRC on 222



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PACKRAT 222 MHZ REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

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 W3GAD (2 Yr) "Doc" Whitticar
 WA3DRC (1 Yr) Ed Finn,
 AA3GN (1 Yr) Joe Landis

COMMITTEE CHAIRMEN

January Contest AA2UK
 June Contest: KB3XG & W2PED
 HAMARAMA: WA3DRC
 VHF Conference: KB3XG 610-584-2489
 Awards Chairman WA3GFZ 215-884-3116

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

Editor's Column

A week before the contest and all we have seen for days is RAIN. Hopefully, it will balance with perfect contest weather. Some E's and Au have made their debut, and we're all hoping it will happen for those 33 hrs of the contest. As the club was drifting into contest mode, it was interesting to watch various greenhouses sprout efforts, without a clearly declared contest chairperson. I'm anxiously awaiting the culmination of this year's efforts. To quote Phil, "It's how you cook a frog...if the water's too hot it'll jump right out, so you start it cold and gradually raise the heat..." The June weekend usually brings some great quotes. Be sure to send me an email if one caught your ear. The first one I heard after Brian suggested we spray paint each band's tower and mast sections to color code them was, "Do we also spray paint the band captains that color?" The old standby, when the elements for the stacked 6m beams were not exactly aligned, nor were the booms parallel was heard again, "Well, it's only 6 meters!"

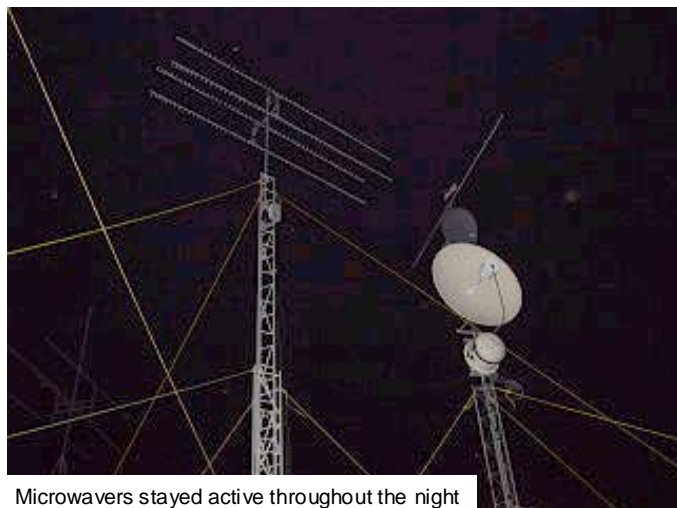
Everyone has some comment about the contest weekend, I'm sure. Six meters was open for quite a while, but the other bands were generally flat, and participation appeared to be way down, perhaps due to the competition with Fathers' Day. On the other hand, a look at the unofficial contest results reporting page sponsored by NEWS shows that many worked almost 1K 6m QSOs and grid counts in the mid-200's on that band alone. Checking the weather map, there appeared to be a front that made a tough curtain to penetrate on VHF between New England and the Mid-Atlantic. At any rate, a hearty crew rallied to the task and we had some additional milestones for the club with our first 47GHz QSO in the log, and additional 24GHz QSOs from those suitably equipped. Our rover adventure was quiet, and I am thankful we arrived home safely at 10:30 PM Sunday night with a scant log, but operational on 12 bands, and a safe and uneventful 700 mile trip through 8 grids.

Europe has been hopping with Es for the entire month of June. Are you seeing any of that same action at your QTH? Take a look at the note from Shelby, W8WN on p10 about a potential alerting service for Es in the US.

This month's edition also has a reprint of some information from WW2R on the conversion of the Toshiba 40w amps on 3456 (see p6-7). The LED bar-graph power output indicator looks like it will have application for many microwave amplifiers, and it appears that Steve at DEMI will be making these boards and kits available soon.

Check the left hand column of this page—we have new officers. Let's thank those who have faithfully served the club for the past year, and all pledge to help those newly elected. And to the unofficial chairperson(s) of this year's event on the mountain for June, a round of applause. And if there are half a dozen of you taking a bow, it is well deserved, as so many contributed to the success of the weekend. Don't forget the complexity of this all, from equipment maintenance, storage and loading, to permits, truck rentals, power hookups and distribution, phone links and computer links, antenna and tower erection, station set-up, operating, computer program design, logging, MS scheduling and operating through the night, shopping, cooking, serving, schlepping, public relations, roving, breaking down, packing up, unloading, returning the rentals, log collation and submission, not to mention those who operated their stations from home to help everyone have an enjoyable action-packed weekend and a decent score.

A lot of great stuff exchanges hands at the White Elephant Sale, so be sure to bring your dollars for another great auction, and clean out your shack, attic and garage to bring things to sell. Even if you don't need stuff, there'll be sure to be an item or two that will catch your eye. Last year there was a bonanza of memorabilia from an estate cleanout of an original Packrat. W2PED was the lucky taker, with many old prints and Cheesebits from the early years. C U there—73, Rick, K1DS



Microwavers stayed active throughout the night

Important Dates and Events

Saturday, July 5	Microwave Activity Day 432 & up, use 144.260 coord	6AM-1PM local
Monday, July 7	Microwave Activity Evening	7PM-11PM local
Mondays, July 7, 14, 21, 28	Net Nights	Start @7:30PM, see p2

Thurs, July 10th — BOD MEETING—8:00PM

At the QTH of WA3GFZ—508 Gen Patterson Dr—Glenside, PA

Thurs, July 17th — MEETING — 8:00PM

WHITE ELEPHANT SALE

At the QTH of WA2OMY—39 W Mt Kirk Ave, Norristown, PA

Bring a chair & your stuff to sell and cash to buy-bargains galore-refreshments

Sat, Aug 9th — Packrat Picnic — 12:00 noon

At the QTH of N3ITT—77 Foellner Ln—Ottsville, PA

Rain Date

Bring the whole family, swim suits & covered dish-Eats @ 2PM

Sun Aug 10

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

Trevoise, 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

THE JUNE VHF CONTEST IN PICTURES

With thanks to all the contributing photographers including W3IIT, WA3NUF & KF6AJ



Mike, KB3GJT helping load--note the puddles and mud after all the rain



Brian, N3EXA and AI, N3ITT play loadmasters—they both were smiling then



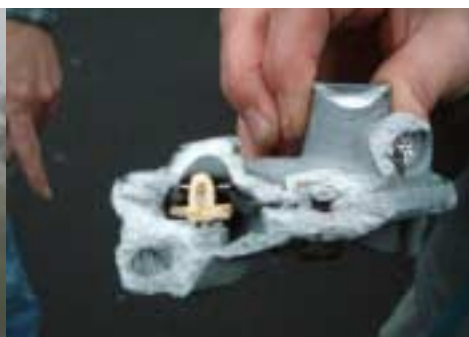
We arrive at the mountain Behold the beauty of 100% humidity



Despite the conditions, the show must go on — stacked fives for six



"Do these elements really have to be aligned? It's only 6 meters."



WA3GFZ's LP gas regulator enjoyed the ride to the mountain too



The crowd is building as we get the 432 array ready



Moving on to the microwaves, 1296 is prepared



KB3XG surprises everyone by arriving early with the microwave truck filled with gear for bands



KF6AJ pulls in from a long ride from CT with his 2m SUPERSTATION and antennas



KF6AJ brought a complete 2m KW station, antennas, computers & tables



K1UHF (guest opr) and KB3BBR hold down 6m for a while

"I'm Not the June Contest Chairman" Report

I think things went pretty smoothly this year without a contest chairman. The truck rentals were mysteriously reserved under the name of N3ITT. Enough people showed up to load the trucks at GXB's. By mere chance the OZO bus showed up with equipment, food, and cooks. A guy showed up that looked just like Bruce to hook up the power and telephones, and the different stations managed to arrive at the mountain at about the same time with all the required radio gear and radio operators. It's nice to see that we all know what needs to be done to pull off the W3CCX remote operation and we all pull together to make it happen.

Personally I felt like I was being more grouchy than usual and I apologize to everyone that I offended. I didn't mind generating a little excitement via emails prior to the contest but during the contest I am so busy trying to put 8 microwave stations on the air that I barely have time to say hi to anyone. Thanks to Phil for taking over the "Field Manager's" job. Phil roamed from truck to truck saying things like "It's time to get that tower up" or "What do you need to get your station on the air?" I think the towers would still be on the ground if Phil hadn't been persistent.

Also thanks to Murph who filled the "Administrative Site Manager's" job. Bill had a little office area set up in the 432 truck where he could monitor progress. Bill also let us borrow some of his computers that were used to run CT (Contest Logger). We only used the Gab Line network communications feature of the program. In past years we have had great difficulty getting calls and other important data passed up to the microwave truck. The network Gab Line had a positive impact on this problem. Next year I want to bring along some mahogany lined cubical partitions and a leather swivel chair to spruce up Murphy's office a little.

There seemed to be plenty of hard core people still on the mountain to tackle the tear down job on Monday. I think it took a little longer to get off the mountain this year because we were working at a more relaxed pace. Everyone got up at a reasonable hour (6 to 7am) and the work got done in a reasonable amount of time. (3 to 4 hours) The guys tearing down the microwave station took the time to tape up the feedlines and DC control lines. This makes my clean up job after the contest a lot easier. Lenny topped off the post contest effort by running over the bad pieces of W3CCX 1/2" hardline with his loaded 24 foot truck. **"W3CCX don't need no stinkin' bad pieces of hardline."** Good job Lenny.

I will send out a separate email to the band captains with more detailed information regarding problems that were encountered during the contest. I want to make sure that all the problems are addressed and fixes are planned prior to June contest 2004.

To sum it up, the food was great, the weather was great, the equipment worked great, and we had good overall participation. Thanks again for everyone's help.

73's from John "I'm not the contest chairman" Sortor



KB3XG & WA3RLT setting up microwaves



"I'm not the Contest Chairman"



KB3XG's field repairs to the Microwave rover



Executive meeting in the dining room



N3EXA's finger does the 432 auto CQ while KB3GJT logs



K3IUV, N3NGE & N3EXA with the 2m array



W2PED & KB3XG put 47G together



N3AOG is finding something we need



The 222 team gets their array ready to go up

Using the Toshiba UM2683A amplifier

Dave Robinson WW2R

(reproduced with permission from the author)

Introduction

Over 2 years ago I acquired one of these amplifiers from K5VH, but it has taken until June 2003 to get to do anything with it. They are still being offered on eBay. The following are some of my experiences trying to deploy it in readiness for the August 2003 contest.

Equipment Description

Toshiba was commissioned to design and build the amplifiers for a telecommunications project. The amplifiers are available in 2 versions. The UM2683A produces 40W and the UM2683B produces 20W when driven by 1mW. The only physical difference between the two units is that the 20W version has a right angled output connector, the 40W version has a swept right angled output connector. They need a supply of 12.6V at up to 18A.

Connections

Input and output are via SMA connectors. Power is connected to the unit through a DB-15 male socket mounted on the chassis. The matching connector is RS-276-1502. Pins 1,2,12,13 must all be connected to +12.6V. Pins 3,7,10,11 are all connected to the chassis. Pin 9 is grounded to enable the amplifier.

Power Supply

It was decided to dedicate a Power supply to the amplifier and transverter. Others have suggested running the amplifier off 13.8V by putting two beefy diodes in series with the positive supply lead to reach 12.6V. However the logistics of mounting and heatsinking the diodes seemed too complex. Surfing eBay one day I came across KE6F who was offering a 13.8V 20A PSU for \$20 plus shipping. It comprised three series connected 5V 20A switched mode units with the voltage on each unit turned down to 4.6V. They also had the bonus of working off 120 and 240V line voltage. Five units were ordered (2 spares) and arrived. One had severe damage, accrued before shipping, but Bob quickly shipped a replacement.

An attempt was made to set the output voltage of a PSUs to 4.2V using the voltage set potentiometer. Unfortunately it will not set the voltage below 4.5V. So a 47K resistor was soldered in parallel with the 10k resistor next to the output voltage set potentiometer in each PSU enabling the pot to set 4.2V. Three modified units were mounted in a recycled 12x7x3" aluminum chassis. The line inputs were connected in parallel and protected by a switch and fuse. The outputs were all connected in series with thick insulated wire to reduce the voltage drop. The -ve wire of the series was connected to ground.

The power connector for the Amplifier was an RS 274-236 six conductor female connector. An additional 3 pin female XLR connector was fitted to provide 12.6V to the 3456 MHz transverter.

Amplifier Housing

A suitable 10x7" heatsink with 1" fins was obtained new from Down East Microwave. However I could not obtain a suitable box to protect the amplifier. A visit to the local hardware store produced some 1.25x0.125" aluminum strip and some 0.75x0.25" aluminum angle from which a

1.25" high surround was constructed. A short length of semi-rigid cable with a chassis mounting 4 hole sma female socket on one end and an sma plug was connected to the amplifier input. For the output a 90 degree male to female sma adaptor followed by a 4 hole chassis mounting sma female to N type adaptor is used.

For the DC connections, an RS 274-226 male six conductor connector was mounted on the chassis. Pins 3&4 are connected to +12.6V Pins 1&6 are ground and are connected to the chassis. Two pins are paralleled to cope with the current needs of the amplifier. A cable using two red 12swg flexible wires and two black flexible 12 swg wires was made to interconnect the power supply and Amplifier chassis. A 3.5mm socket was mounted on the chassis for the PTT connection. A green LED for 12.6V indication and a red LED for TX was mounted on the chassis.

The power cable is 2' long and consists of two 12 gauge red flexible wires and two 12 gauge black flexible wires with an RS 274-226 connector on one end and an RS 274-236 on the other end.

Tuneup

R217 and R210 were turned fully anticlockwise to set the input attenuator to minimum attenuation. The Amp chassis was then hooked up to the PSU chassis through a 20A ammeter and power switched on. A 1mW source should be connected to the input (but not yet switched on) and a 50W dummy load connected to the output through a power meter. The Green LED should light. Initially very little current should be indicated. The PTT socket is then earthed. The Red LED should light and the current should increase to around 15A. Drive should now be applied and output power should be indicated. R138 and R150 were then adjusted to maximum output. In my case the output was 50W, a value seen by others. Off load the voltage measured on pin 1 of the amplifier is 12.6V, on load (18A) the voltage is 12.55V

Power Output Indicator

The 15 pin connector provides lots of alarm voltages but the one signal it does not provide is an indication of RF output. When I took the cover off the amplifier devices I noted that there was a rectifier circuit connected to the input to the isolator which produce a "forward power voltage". There was also a power detector connected to the terminated port that absorbs any power reflected from the antenna load. This provides a "reverse power voltage" These two voltages are fed to the alarm circuitry. The most accessible point for these voltages with the device cover attached is on the 6 pin connector at the output end of the amplifier board. The third pin from the left is the forward voltage, the third pin from the right is the reverse voltage. To get this voltage to the outside world one of the pins on the 15 pin connector would be used. Pin 5 seemed to be doing nothing special so this was chosen. The white wire from pin 5 to the pcb was released from its housing with a small screwdriver. The wire was extended and pushed into the back of the housing at the 3rd pin from the left as shown in the following picture. The existing protection circuitry continues unmolested. This pin produces around 6V when the amplifier is producing 50W. As an analog meter was considered too fragile an LED bargraph meter was employed as shown in the earlier pictures above.

The circuit shown in Fig 1 was devised. R1 sets the

current through each LED in the display and can be set for personal preferences. Layout Fig 3: Overlay

A small PCB was designed as shown in Fig 2; the component overlay is shown in Fig 3. VR1, C2, C3 are mounted on the track side of the board, both can be SMT types if available. IC1, BAR1 and R1 are mounted on the component side of the board.

Component	Value
IC1	LM3914
VR1	10k vertical mount preset
R1	3k3
BAR1	10 LED bar display
C1, C3	0.01u ceramic
C2	10uF 25V electrolytic

Down East Microwave will be making the meter available shortly as part RFP, which will also have provision to be driven by crystal detectors for other power measuring applications. The authors prototype board can be seen mounted through a hole filed just big enough to take the bar display in the top right hand corner of the photo at the website.

Conclusions

Hopefully this article will encourage people to actually use these amplifiers. A lot have been sold but activity does not seem to show many of them are in use.

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Thanks to Dave for allowing us to publish this in Cheesebits Please see this and other VHF-UHF construction articles and tips on his website at:

<http://users3.ev1.net/~g4fre/rfproj.htm>

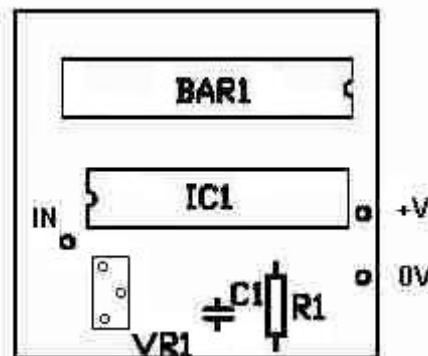
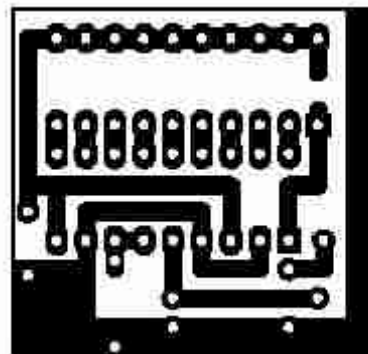
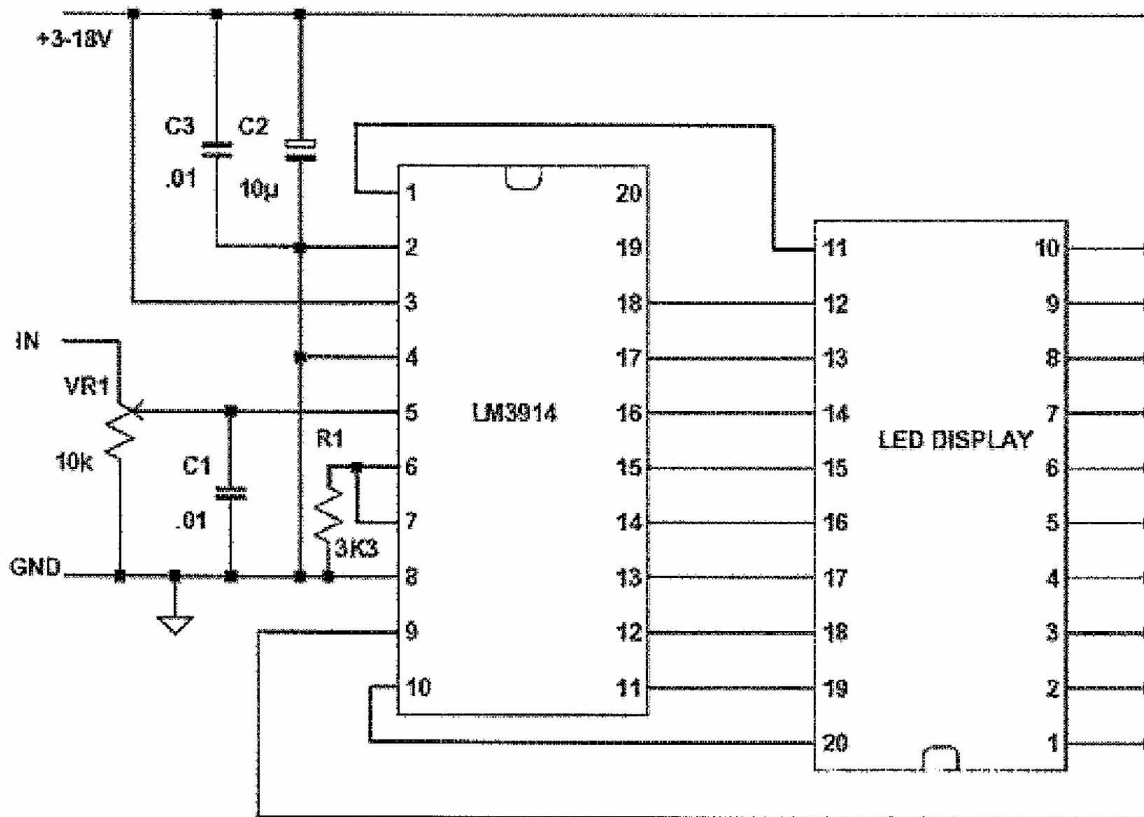


Fig 2: PCB Layout



BARGRAPH OUTPUT INDICATOR



June VHF 2002 Contest Analysis

(from the VHF Contesting Reflector)

Not sure why, but I decided to download the whole 2002 June VHF database and look at a couple of things. I was curious how many people were (or were not) active on various bands, which sections were most active and how much the microwave (2304 and up) bands contributed to various scores. I went ahead and recalculated the scores with the 2304 and up contribution removed. It did change the top ten in a couple of cases. I did not include any re-scoring methodology, but that would be pretty easy to do, especially on the complete worksheet. The value of the microwave bands is obvious from here and keeping them active is a very good thing, IMHO. Again, this was an exercise that I did for not apparent reason other than curiosity. You'd think I was really bored or something. Can't guarantee that I didn't do something goofy in the file either. One never knows! :-)

The Excel file is located at <http://k3lr.net/downloads/junevhf02.zip>
 Hope someone finds it interesting. **73, Scott - N3RA**

# stations with less than 100 points is	35 out of 672 total logs submitted - 5.2%
# stations with less than 1000 points is	144 out of 672 total logs submitted - 21.4%
# stations with less than 10000 points is	418 out of 672 total logs submitted - 62.2%
# stations with less than 100000 points is	629 out of 672 total logs submitted - 93.6%

Band	Total Q's	# stations making QSOs on band	# stations not making QSOs on band	% station activity	Category	# stations
50	48459	616	56	91.8%	A - SOLP	319
144	36219	623	49	92.8%	B - SOHP	157
222	8782	327	345	48.7%	Q - SOQRP	27
432	16077	509	163	75.9%	L - Limited Multi	49
902	1670	123	549	18.3%	M - Unlimited Multi	36
1296	3120	232	440	34.6%	R - Rover	84
2304	1081	97	575	14.5%		
3456	554	54	618	8.0%		
5760	352	38	634	5.7%		
10000	516	65	607	9.7%		
24000	66	9	663	1.3%		
47000	11	3	669	0.4%		
75000	2	1	671	0.1%		
119000	0	0	672	0.0%		
142000	2	1	671	0.1%		
241000	2	1	671	0.1%		
light	43	11	661	1.6%		
17 bands	116956					

Class B SOHP			Class L Limited Multi			Class M Unlimited Multi		
Original place	No Microwave (2304+) place		Original place	No Microwave (2304+) place		Original place	No Microwave (2304+) place	
K1TEO	K1TEO	1	K8GP	K8GP	1	W2SZ	W2SZ	
K1RZ	AA2UK	2	K3YTL	K3YTL	2	W3CCX	N3EMF	
AA2UK	K1RZ	3	W4IY	W4IY	3	N3EMF	W3CCX	
K3DNE	WB9Z	4	AA4ZZ	AA4ZZ	4	N2PA	N2PA	
W4RX	K3DNE	5	K2BAR	K2BAR	5	K1WHS	K1WHS	
WB9Z	W4RX	6	W3SO	W3SO	6	N0UK	W9ICE	
W2FU	K4QI	7	N2NK	N2NK	7	W9ICE	N0UK	
K2SMN	K2SMN	8	W4NH	W4NH	8	WW8M	WW8M	
K4QI	W2FU	9	N0QJM	N0QJM	9	N8KOL	N8KOL	
KM0T	K8MD	10	K8CC	K8CC	10	N7LQ	N7LQ	
K8MD	KM0T	11	W1QK	W1QK	11	K1ZE	K1ZE	
K1GX	K1GX	12	NI9E	NI9E	12	WA3ZKR	W1XM	
K2UOP	N7AU	13	N3JFM	N3JFM	13	W1XM	K3EOD	
KE8FD	KE8FD	14	K5TR	K5TR	14	K3EOD	WA3ZKR	
N7AU	K7RAT	15	KB1DFB	KB1DFB	15	N9JIM/6	K7CW	
K8TQK	K9EA	16	N8ZM	N8ZM	16	K9RN	N9JIM/6	
N3NGE	K2UOP	17	N2MO/MM	N2MO/MM	17	K7CW	NW5E	
K7RAT	K8TQK	18	VE6JW	VE6JW	18	NW5E	K9RN	
K9EA	W1XX	19	W3KWH	W3KWH	19	AD6IJ	AD6IJ	
NU7Z	K5AM	20	W2NNY	W2NNY	20	W9RVG	W9RVG	
W1XX	N3NGE	21	N1LDY	N1LDY	21	W0EEA	W0EEA	

(format adjusted for print copy and data abstracted and limited to one page, find more at the website listed above, ED)

More June Pix



A visit from Ranger Friendly to check our permit (You brought it AI?)



AA3GN and WA3DRC trying to break the 100 QSO barrier on 222



144 was active all night on MS adding another 10 new grids



AA3GN makes a rotor adjustment for 222



Extra towers this year for the microwaves with help



903 and 1296 positions manned



Homeward bound



W3GAD, W3OR, WA3RLT & companion



Unloading in the mud

Joel Knoblock W3RFC
www.therfc.com
The R.F.Connection
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 e-mail: ragriffiths@klettrooney.com

6 Meter Moxon Field Test (from the wsvhf reflector)

Several weeks ago we ordered a Par 50MHz Stressed Moxon. It was about 30 minutes from pulling the first staple out of the packing box to completion. It's an elegantly simple design that fits our use for roving very well. For the most part we "run and gun" on the bottom six bands using yagis from 144-903 and a looper on 1296. Six meters has been the problem. We have used a dipole made from mobile whips and a variety of loops. The current loop, a KB6KQ is about 9 feet off the ground. On a separate mast from the beams that get up to about 12.5 feet of the ground. It's the best of the bunch IMHO. A real plus for us rovers is that this antenna is smaller than a 2 element yagi. While the spacing of a 2 element is similar to the "spacing" of the 2 elements here, the antenna is 7 feet wide, which saves about 3 feet of width compared to a yagi. We have used a three element beam for longer stops and it's fine. It's just a little difficult to swing our army surplus mast up with the weight of the beam on the top. There is some put up and take down time involved as well. This is why the Moxon appealed to us. It only weighs three pounds and with the basic assembly done, reassembly and mounting to the mast is a less than a 5 minute operation.

The day it arrived, it went out on our balcony on about 12 feet of mast. The band was dead, but I checked the beacon in Kankakee, IL. It's about 70 miles distant. When I had the antenna pointing at it I could hear the beacon. It was gone off the side. I could not hear the beacon on an old style M2 loop. This was encouraging, but we had to wait until we could get the antenna up the way we would be using it. Memorial Day, we stopped at Nickoll Knoll in Arlington Heights, IL. It is located at the SW tip of EN62 and is one of our regular rover stops. It's a Mt. Trashmore park and golf course right next to a Motorola facility. From the top of the hill you get a great view of the Chicago skyline some twenty miles to the SE.

Back to the antenna. It's a very simple job to tune it up. It would take me longer to describe how to do it than to actually do it. After initial assembly it's a no tools effort to take it apart and put it back together in the field. I only had to make one adjustment after a look on the analyzer. I eyeballed the dimensions and it worked out perfectly. We were using the FT690R II. It's a 10 watt portable. A quick look down in beacon land gave me the Kankakee, IL beacon from about 80 miles in fine form. When I turned the antenna 90 degrees it was just above ESP. Same thing off the back. Next, I dialed up a beacon in EN74 -- maybe 150 miles distant. Strong signal looking at it, no signal off the side and a whisper off the back. At 50.125 a weak KE4 was calling CQ. I replied, but no dice. Just then, Gene N9TF called CQ. He is located about 10 miles north of our location and he was looking to try out a couple of new antennas. So, we got to test each other. He was running 25 watts and was peaking a bit over S9. He held up the AGC enough so that there wasn't a lot of fluctuation of the meter between words when I had the Moxon on him. Off the side his voice peaks were about S6, and the meter wasn't held up between words. You know what I mean. We mounted the Moxon on a 23 foot fiberglass painter's pole.

It was breezy enough for some kite flying, so I had to telescope the mast to about 15 feet. I don't think we'll use that mast with this antenna in contests. Back to the army surplus mast. Much sturdier, and the light weight of this antenna won't give us the problems the 3 element CC does. The moral of the story is that Par should sell a gazillion of these things. They are a natural for roving and lightweight portable ops. It's not my 6 element on 24 feet resting in our storage unit, but it sure beats the heck out of a loop if you want some forward gain and back and side rejection. Our quick little test certainly isn't definitive, but we're happy. The real test will come in the June contest. Hope to work you all from a bunch o' grids. **73, Tim K0PG/9**

Cheesebits

More Moxon

I use a Moxon on 6 meters at my home station. The strong front to back ratio helps contain a beastly noise problem I have to the northeast (I'm usually pointing west to southwest), and it's easy on the rotor when stacked on top of my larger 2 meter beam. They're easy to build. I used the following as a guide to throw mine together in one afternoon: <http://www.intac.com/~mherson/moxon.htm>

Dr. Cebik also has an article on Moxons for 6 meters: <http://www.cebik.com/6m.html> It's no 4+ element for gain, but works nicely for weight and ease of construction, and has great front to back ratio. Should be a nice solution for roving.

73, Joe KB1CJ

More Bits

The W2DRZ AZ/EL controller web page has moved to its permanent location. The new URL is:

<http://www.w2drz.ramcoinc.com> **73, Russ K2TXB**

The 2004 Trenton EME Conference has received its first official registration from HB9BBD. Although it may seem a little far off, it is really not too early to start making plans to attend the conference. If you have not done so already, please check the conference web site at: www.qsl.net/eme2004.

Tnx for another FB NL. I want to note that the dish picture shown in the NL was for 70 cm EME. Packrat K2TXB was a partner in that dxpedition which must have occurred about 15 years ago. The dish shown is still in operation and last used by W2WD for his EME dxpedition to NB last summer. To my knowledge 4U1UN has never been on 1296 EME. I have worked it on tropo on 1296. I am sure you could get Russ and I to give a historic talk on this dxpedition. I have plenty of pictures and tape. Today with JT44 moonbounce dxpeditions can be done much easier. I worked HB0/DL3OCH this week on 23 cm Bodo was using a single yagis from his car and 100 W. **73, AI - K2UYH**

Are you interested in a 144 MHz Es alerting system for North America, a system very similar to what the Europeans have been using? A test version has been running since the end of last week. So far only a couple of people have signed up for it. But it has worked for a couple of little Western Es openings (which may not have had more than 2 or 3 stations on the air, unfortunately).

You can subscribe/unsubscribe at <http://gooddx.xs4all.nl/cgi-bin/gooddxvisitors>. The list's name is: "eskip-na". (You can also subscribe to some of the European services if you're interesting in seeing what happens over there).

When you go to <http://gooddx.xs4all.nl/eskipNA>, then you can get a listing of the loggings that were filtered by the DXrobot. Each of them would have caused the DXrobot to generate an Es alert.

Please remember that the alerting system works ONLY as YOU report Es observations to the <http://dxworld.com/144prop.html> Propagation Page! Please report using Es, Es, es, e's, eskip, Eskip, or e-skip in the note, along with the grid of each end of the propagation (if known). Also include your call. I am gone all day every day and tied up all evening this week and next, so won't be able to immediately answer a lot of questions. Allard, PE1NWL, who was good enough to set up this service for us to test, said that he is very busy this week, also. But if you sign up for it (and, of course, IF we get any Es and it is reported), I think you'll like this service. Note - if you have E-mail available on your cell phone, you might want to consider this. At least you'd know what you were missing while you were gone....

Also try: <http://www.qsl.net/w8wn/hscw/papers/esalerts.html>
73, Shelby, W8WN vhw8wn@bbtel.com, w8wn@amsat.org
Web: <http://www.qsl.net/w8wn/>

July 2003

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IMS 2003 Ham Social

Thanks to Al, K2UYH for an invitation to the club members to a "ham social" at this year's International Microwave Symposium, held at the Philadelphia Convention Center. We carpooled to the event, and we chatted with hams from all over the world who took an hour or two to share some 807's and snacks while chatting about their experiences. We were even lucky enough to obtain free exhibitor passes from one of the attendees who had a pocket full of extras. Too bad I was unable to get a break from the office to use it! I was fortunate enough to run into Dave, 4Z4LH, and as we chatted, we realized that we had some additional common ground as we both went to the same high school (Bronx Science). Although separated by about a decade, we both well remembered W2MQQ, the school ham station. Paul, WA3GFZ, Harry, W3IIT and a guest enjoyed the event.

Beacons

Location: 43 deg 19' 48" N, 77 deg 45' 48" W Grid FN13ch.
QRG: 2304.150 MHz Mode: CW
Power: 10 W Antenna: Pair of Directive Systems Loopers.
QRG: 3456.150 MHz Mode: CW
Power; 5 W Antenna: Pair of Directive Systems Loopers
Height above ground: 75 feet
Direction: Presently S / SE. Can be changed on request
Times: 7/24. The beacons will run until shortly before start of ARRL June Contest. Reception reports and constructive suggestions are welcome. e-mail: NQ2O@arrl.net



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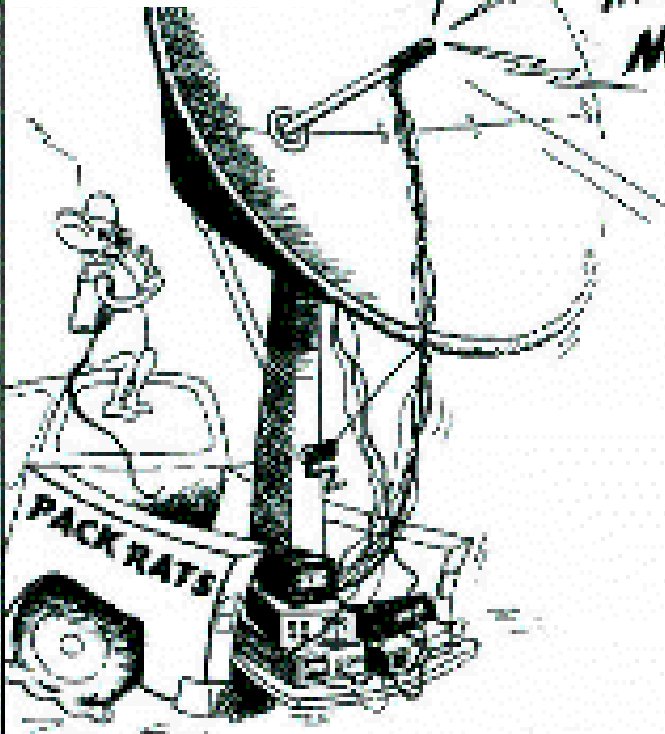
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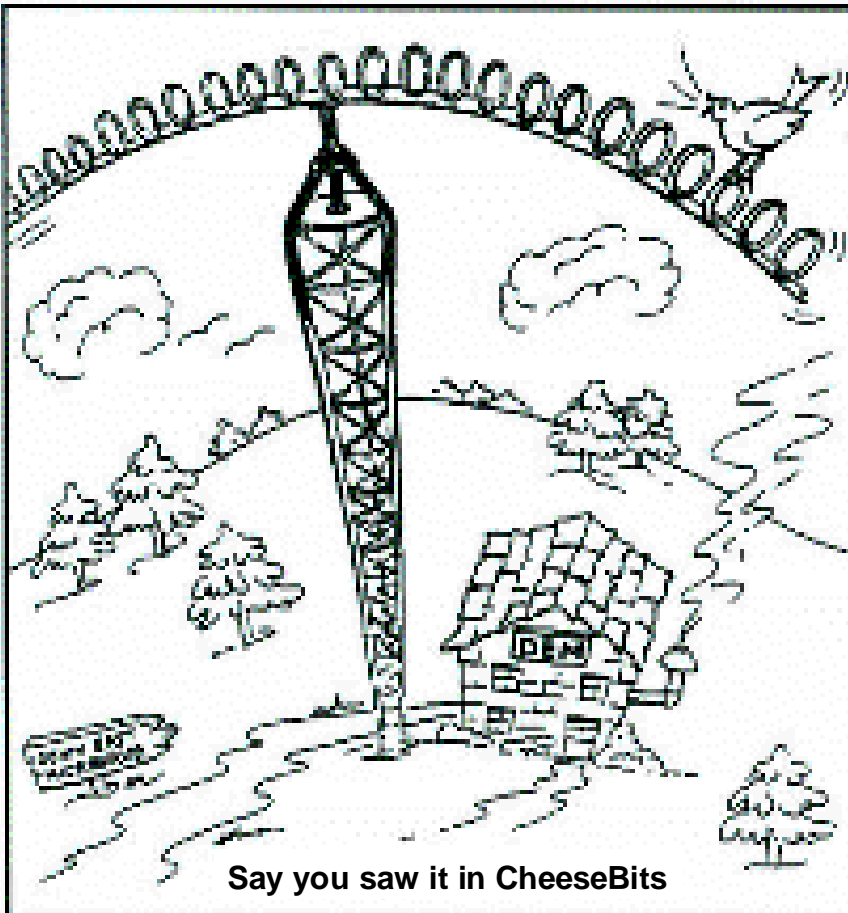
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