

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



How much am I bid for this white elephant? Bring ur stuff and \$ for the sale!

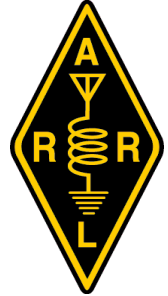
CHEESE BITS



W3CCX
CLUB MEMORIAL CALL



ARRL
Affiliated
Club



Volume XLVI

July 2004

Number 7

Prez Sez

Welcome to the newly elected officers and board members, and a farewell thanks to the outgoing officers. I want to thank the membership for their support and confidence in nominating and electing me, and I hope that I can continue the traditions of activity and camaraderie for the club members and the greater VHF/UHF and microwave operator, builder and developer community. I am also looking forward to working with Bob McGwier, N4HY, our new Vice-President, as well as all the re-elected and newly elected officers and board. We welcome Dave Fleming KB3HCL as a new member to the board.

Special thanks to Paul, WA3GFZ, who served ably for the past year, providing the ongoing energy for activity, meeting organization and spirit. Walt Zumbach, WA3AQA served in great capacity as our recording secretary for as long as I have been a member, and probably for many years before that. I'll miss his unique style, and we thank him for all the years of great service to the club in that role. Bill Shaw, K3EGE stepped into the role as acting secretary when Walt needed a break, and now has been elected into that position. He's done a great job, and is helping maintain our records. Dave Mascaro, W3KM has also served in the treasurer role for all the years that I've been a member, and although the role may seem a bit invisible to many, he has kept us fiscally functional, doing a great job of maintaining and collecting funds and making proper payments. Jim Antonacci, WA3EHD has continued to serve faithfully as the Corresponding sec'y, and many of the chairpersons have held their jobs and done super service. "Doc", W3GAD did not have an easy job this year when he took the responsibility of the chair of the nominating committee. He convinced me to accept the nomination by his own agreement to become the editor of Cheesebits. I trust that the pass of the baton of editorship will be smooth, and that the club's monthly publication will continue to be a vehicle for the club communication and to bring additional technical and operating information to our members and subscribers, in addition to other clubs with whom we have exchange subscriptions.



As I assume the office, I want to recognize also the broad membership talents and our annual program calendar, that make our club so exciting for me, and for you. We look forward to celebrating our 50th anniversary as a club in 2006, and we are today, grateful for the efforts of those who have been members and leaders of the club over the past decades to bring us to where we are today. In my short 7 years of Packrat membership, I have been the happy recipient of lots of stimulation and feedback, technical assistance, and "stuff." Admittedly, when I look at my shack and rover van, the workshop and garage, I can truly say I have become a pack rat. (**pack rat**: one who collects or hoards, esp unneeded items-*Websters New Collegiate Dictionary*)

We're celebrating the 'high' of a very successful June contest effort. There are so many factors that made this such a positive event, that I want to join in the chorus in mutual congratulations for an activity well done. There is not a detail or contribution that did not go unnoticed. Al Sheppard, N3ITT and his co-captain Steve Simons, KF6AJ led a great group, and anyone who has attempted this or previously participated knows how much it takes to get over a dozen stations assembled over a weekend on a mountaintop, set-up seven towers and their large antennas, power everything and provide computer support and networking, cook and feed the masses, do PR with the curious visitors, make all those thousands of QSOs, and then put everything back where it came from and return home. Improved rigs, antennas, feedlines, rotors, organization, logging, operators and operating skills, plus the desire to achieve results propelled us to new heights. To everyone who played a part in making this happen, thanks for keeping the Packrat spirit. I heard so many great things about everyone's contributions to keeping things going on the air, welcoming our guests, and a global sense of achievement and teamwork. Improvements and thoughts for next year were fresh on everyone's lips at our evening at Otto's. I could write everyone's name here, followed by, "we couldn't have done this without YOU!" I am always impressed at how Packrats seem to fill in where needed to maximize our group effort and results, and how Doc keeps the gang well fed.

There are a number of events this summer, listed on page 3, and I hope that you and I will continue to be active throughout the season, with good conditions. The first Board meeting of the newly elected leadership team will take place at my QTH, and I invite all of you to come between 6:30-8 for a get-together barbeque before the meeting at 8PM. This is an open meeting, so you don't have to be a board member or officer to come. We will try to lay out a plan for the upcoming year and a budget. I also hope to have some additional chairpersons for certain events, and begin to shape our plans for the 50th anniversary of the club for 2006.

As always, this takes a lot of time and energy, and I trust that you will be ready, willing and able as always to shoulder a task. I am looking forward to another super year for the Packrats.

73, Rick, K1DS

Editor's Column

Pack Rats **CHEESE BITS** is a monthly publication of the
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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

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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	WA3GFZ 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

Doc, W3GAD, did a super job keeping the team well fed!



It's always fun to start this column just after the previous edition has gone to press. It allows some anticipation and documentation of the preparation and activity of the coming month. And of course, by the time you're reading this in early July, the June ARRL VHF QSO Party, Packrat elections and ARRL Field Day 2004 will be history. So, let it be known that I have started some procrastination, doing some fertilizing of the flower beds, playing some golf, going to a retirement party and a traveling political satire show, while charging the batteries, seeking permits to rove in various locations along the NE coastline, and doing more procrastinating about putting that new 222 amp in the rover, aligning the 10G & 24G dishes, and getting a few more pieces of coax to connect everything. But I'm sure it will be ready...

While I have the thought fresh, what did you all think about teleconferencing, radio-conferencing or web-conferencing some board meetings? Send me an email or find me at one of the meetings and give me your ideas. Additionally, I am seeking a "cub" reporter and/or a production assistant for CheeseBits. Your contributions and help is needed to continue to keep these issues full of info, technical articles and printed and distributed in a timely fashion.

And who worked one of the W2SZ rovers in the June Contest?? We want to publish your June contest experience: send me some "bits" as I hear so often from Ernie, W3KKN. It is always great to see rovers publishing their itineraries, favorite frequencies and equipment, so you can increase your activity potential for the contest. Yes, many of us can't really keep on sched, we have traffic issues, permit and police issues, equipment issues, and nature calls...often our plans are grandiose, (see p8 for a sample from W3IY) but we try!! I do appreciate it when someone calls for me thru a pile-up and says, "QRZ the rover?"

I'm debating attending the White Elephant Sale this year, or getting a head start on a trip to Boston for a wedding that week-end. It has been the most productive equipment activity for many of us—for parts and working gear, at big prices and also at rock-bottom bargain prices! Where else can you get a 5el 6m beam for a buck? A 10G TWT and PS for under \$50? Working FM rigs for a Jefferson or so....I'm sure you'll bring the gear I wanted to add to my burgeoning basement, and will snatch the bargains that I otherwise would have. And maybe enjoy a brew or two. Gary is such a great host, and the auctioneers and helpers are super.

GOT ONE!! Yes, I worked one of the SZ rovers. On a lot of bands! Broke the ice! Tnx to Justin, KB1EKZ/R, and his unnamed partner who was busy in the front seat with headphones on, who arrived on Mt. Wachusset about an hour after we were there, and set up his impressive 4'x2' dish on a tripod with a number of feeds for 903-5G, while his partner worked stations on the lower 4 using their mag-mount whips and a 2m halo. We spent a few minutes chatting about roving, gear, showing off each other's vans, and the joys of being on the road.

Now that I have been elected as Packrat President, and Cheesebits transitions to Doc, W3GAD, I will say my farewells as editor, and thanks to the readership for putting up with my thoughts and ramblings over the past 4 or 5 years. I feel I have been drawn deeper into the VHF community, learned a lot and expect to learn more, and have made extensive contacts and friends throughout the ham community. I am participating in more activities and conferences, and enjoying every minute.

The crisis of BPL hasn't yet passed, and the airways are our precious playing field. Stay active, vigilant and communicative about our frequency allocations and communication capabilities. Check into the Monday night nets, take advantage of every operating event, and even call a few CQs when there's not a contest. Build up your operating ability and station bands, power and antenna gain. Add a mode, especially with the availability of WSJT-like I'm gonna...I promise, Joe.....73, Rick, K1DS

Important Dates and Events—Be Radio-Active!!

Saturday July 3 Microwave Activity Day 6AM-1PM
Monday July 5 Microwave Activity Evening 7PM-11PM
All bands 432 & Up, Coordinate on 144.260

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

Thurs, July 8—Board of Directors—8:00 PM

All Packrat members invited to this open board meeting

SPECIAL: Bar-B-Q starting 6:30-on the patio-

please RSVP for an approximate head count 610-270-8884

or email to rick1ds@hotmail.com

QTH of K1DS, Rick Rosen, 206 Kimberton Dr., Blue Bell, PA

Thurs, July 15— WHITE ELEPHANT SALE—8:00PM

A Brief Packrat meeting, followed by a great auction

Come early to inspect the items. Bring the goodies that you want to sell, bring cash for the stuff you want to buy. Be prepared to bid on this year's

WHITE ELEPHANT SURPRISE BOX.

QTH of Gary (Ben) Hitchner, WA2OMY, 39 W. Mt. Kirk Ave, Norristown, PA

Liquid refreshment available, bring a comfortable folding chair

Sat Aug 14: Annual Packrat Picnic—bring a covered dish—drinks supplied; QTH N3ITT

Sun Aug 15: Rain Date for Annual Picnic

Thu Sep 16: Monthly meeting at the Southampton Free Library 8PM

- Central States VHF Conference, July 22-25, Mississauga, Ontario, Canada www.csvhfs.org for info
- 11th International EME Conference August 6 - 8, 2004 Trenton, NJ 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

CQ World-Wide VHF Contest 6m & 2m

1800 UTC Saturday, July 17, - 2100 UTC Sunday, July 18, 2004

Rules: <http://www.cq-amateur-radio.com/VHF%20Contest%20Rules%20200432104.pdf>

ARRL UHF Contest 222 & up

1800 UTC Saturday, ends 1800 UTC Sunday (August 7-8, 2004)

Rules: <http://www2.arrl.org/contests/rules/2004/uhf.html>

ARRL 10 GHz & up Contest—First Weekend

6AM local Saturday, ends 12MN local Sunday-operate total 24 hrs (August 21-22, 2004)

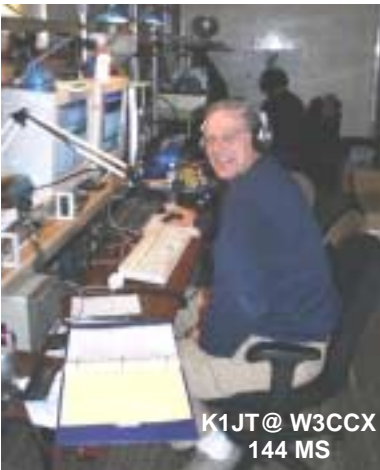
Rules: <http://www2.arrl.org/contests/rules/2004/10-GHz.html>

HAMARAMA: Sunday, October 10th

Pack Rat Web Site: <http://www.ij.net/packrats>

Contest Bits

The contest is over and the intrepid band of Packrat Mountaineers have returned, feeling like Millionaires!! As well they should! After many years W3CCX has finally broken the million point barrier in the June VHF QSO Party. Be proud Packrats, now we REALLY run with the Big Dogs!!!! Congratulations Team Packrats, this was not an easy accomplishment. And the operative word here is TEAM!! This is what made it happen. Within our ranks lies an enormous pool of talent and they all contributed to this success. In the weeks and months leading up to the contest many members were working on different projects. Checking or improving/replacing antennas and feedlines, rebuilding rotors, upgrading the electrical system, putting the stations together, organizing the rovers, planning the transport logistics, general organization, planning the menu and purchasing the food to feed this crew and of course the great computer network/logging system, that was huge. I guess if I HAD to name a MVP for the this years team it would be Phil, K3TUF. But we ALL made it happen, as AJ said we should all bask in the glory. There is plenty of it to go around. What for the future?? Let's build on the momentum. And let's build W3CCX bigger, stronger, faster. KF6AJ suggested 1.5 million next year. I second the motion. It is an ambitious goal but not out of reach. Remember the first million is the hardest. Long term? Why not set our goal high? The 50th anniversary of this esteemed organization occurs in 2006. What better way to honor the club than to be No.1 in 2006 and win it all? I have been told "nobody can do that". Well we're not nobody. We are THE PACK-



K1JT@ W3CCX
144 MS

RATS!! We CAN do it. We can beat W2SZ. AND DON'T FORGET THE CLUB PICNIC AUGUST 14 (15TH AS RAIN DATE)... THIS YEARS THEME WILL BE "THE MILLION POINT PARTY". THE PICNIC WILL AGAIN BE AT MY (N3ITT) QTH. COME ONE COME ALL, EAT DRINK AND BE MERRY!!!! GREAT JOB PACKRATS!! 73 AL N3ITT

on .200 after the contest but didn't post our effort. Our leader WA1HHN had not got back from a rove into FN20. Our score is very close to yours. It appears to be a bit over 1 meg. Our hub was down for part of the contest and the logs need to be merged together so a good number was not available at that time. Our class of entry is still unclear. We are constructing a new microwave system and did not complete it for this contest. There has been much talk about what class entry we were going to do. In any event, I wanted to be sure to tell you RATS what a great effort you all put in! 73, Stan, KA1ZE

On behalf of the extended Pack Rat Team, we say THANKS for your acknowledgement! The credit goes directly to each and every TEAM participant. This year's effort has shown a significant increase in our un-audited final score (as compared to recent campaigns) even though the conditions were relatively flat. The increase is based in part on the overall enthusiasm, 100% manned stations, quick response to equipment failures (as there were a few) and much behind the scenes planning. As you already know, our station is assembled and disassembled over the course of 4 days. (This year we had 100% of the towers assembled and erected before nightfall on Friday. I believe the only antenna work to be completed was on the 144MHz station - this was

to install 3 additional 5 el fixed direction yagis.) Most of the microwave station equipment is homebrew and was operational by the start of the test. The few equipment failures were met with enthusiastic "tech support" resulting in a quick turn around on repairs and minimal lost contacts. We even had one piece of already crippled hardware commit suicide to help quickly repair another station! The addition of a complete server based LAN and Writelog program enabled the ops to better log the contacts and communicate via the gab window resulting in a higher completion of the band passing. The score totalizer window became really exciting in the last hour as it automatically showed us the real-time score. After a brief break to get re-acquainted with our families and work load we plan to start the planning for 2005. This stuff is really fun 73 for now Steve KF6AJ Contest Co-Chair



NR6CA/R
10G
24G
47G
Light

Hi Steve and the entire W3CCX TEAM Great idea about having a story in the New York Times. I am sure you realize that the club will be celebrating it's 50th anniversary in 2006. With all the improvements made this year, and I am sure many more still to be made, maybe we just might blow the competition out of the water with more planning, more rovers, and improved equipment in 2006. Just my 2 1/2 cents worth. The 2004 W3CCX CONTEST TEAM should be very proud of an excellent JOB WELL DONE. 73 AI K3EOD

Excellent job this weekend! What a TEAM effort! I haven't seen this kind of team spirit and cooperation for the June contest for many years. We are ALL to be congratulated! Boy, it sure is nice to see the contest results, and how we compare with others, without waiting 6 MONTHS for the QST publication! 73, Paul W2PED

This being my first time on the mountain and being the 6 meter band captain in my first year presented quite a challenge. I was totally impressed by the group effort and co-operation on getting towers and antennas assembled and put up in the air and how everyone was there to help with any setup technical issues. I had operators available for the 6 meter station the entire contest - if an operator needed a break, someone was right there to take over. The 6 meter station was active every minute of the entire contest. Bob, N4HY, did a fantastic job with the WSJT contacts from midnight Saturday until 8 AM Sunday. Thanks to Joe, K1JT, for making WSJT available to the 6 meter station. I think WSJT should become a yearly operation on 6 meters. Congratulations to Phil K3TUF for the superb job on the LAN. It was a terrific asset especially in passing stations. Having the score available in real time was exciting at the very end as we approached the 1 Mil mark and then went over it. I look forward to coming up again next year. Congratulations to the entire W3CCX team in breaking the 1 Mil mark and in a job WELL DONE! 73,Bill- K3EGE

It was an interesting June contest this year. We got set up early in FM15vx, looking for stations to test with and to see if the previous night's monsoon had invaded the coax with water. The CCX 222 & 432 beacons were nice copy. Even the WA4PGI 5.7GHz beacon was solid copy on the 2ft dish. AA2UK seemed weaker than expected...maybe the coastal paths were attenuated in the unstable wx. There were 20kt winds, and the whitecaps were rolling in off the Albemarle Sound...this is usually not a good sign for tropo. As the contest began, we got busy quickly. We did better than usual from FM15, although there were few uwave QSOs above 1296. It's a long way from here to almost anywhere. We had to pry ourselves away, as we were already 13min behind schedule as the wheels went up, and the Intergalactic Battle Jit-

ney headed eastward. It was a good sign that we still were working guys as we left. We squeaked out 71 QSOs from here, but only 17 above 903MHz. It was fun running into AA4ZZ on 6m from here while mobile. The Es had not yet started. The 1-hr drive to FM25 was tough, as always, with 80-100ft pine trees lining both sides of the road. Some 6 and 2 meter action was possible, but without enhancement, it's hard to stay busy working VHF stations on this drive. There was more action, as we drove across the nice bridges of the Alligator River and the Intercoastal waterway, heading toward Nags Head. FM25 is always challenging, as it's even more out-in-the-boondocks where few VHFers aim their antennas, unless they are looking for us. Only 61 QSOs here, and even less on the uwaves...only 12 above 903, and nothing above 2.3GHz. We had the rare treat here of finally working our own grid, thanks to Tom, KA3TCC/R. Unfortunately, we couldn't find him on bands other than 2m. (One of these days, we need to find some activity down here!!). A few miles up the highway, somebody threw the Es switch, and a few 6m multipliers started rolling in. Signals were not particularly strong, and being a weak-antenna-limited rover, we had to work hard for the 6m grids here. Even a 2el antenna 12ft above the road doesn't compete well with the base stations. We mostly heard ETX stations on 6m, and it took lots of time to bust the pileups. Once we got parked, we concentrated on the higher bands. Even though we were right on the water, with a fantastic view to the NE, we only worked 61 QSOs total, none above 1296. It seemed that the higher bands were having ups and downs, and uwaves seemed to be down in FM26 for us. It's a fair drive to the Bay Bridge Tunnel from FM26ai, so we hit the road agn, in hopes of a better location, and more dx. Wx was still windy here in the middle of the Chesapeake Bay, but we marvelled at how much better it felt than back in January! We got set up in FM16wx and got to work. The bands were lively from this fantastic location shooting across the water in all directions. Activity was good, and we were really busy filling the log. All of a sudden, we ran into K1GX in FN31, and he was pinning the meter on all bands up through 10GHz! This was a big thrill, and one of the main reasons we love the Eastern Shore for roving. The opening seemed to come out of nowhere, as non-coastal signals weren't nearly as strong. 6 QSOs on 2304, 3 on 3456, 1 on 5.7G, and 3 on 10G, made this an exciting stop. 87 QSOs total from this grid. Just up the bridge a few miles, we were anxious to give out FM17xa from the next island. Conditions were still good, and we were able to run K1TEO on all bands from here, but signals were going down as time went on. K1GX was still in there, but we only made it up to 1296 with Paul before the short opening seemed to die out. We proceeded to add lots of guys on all bands, as the lower 6 were pretty active. We managed to QSO N3OC, K1RZ, and K1TEO from here on 10GHz...Awesome!! The total from FM17xa was 92 QSOs. Running Steve, W4SHG, from here on his new 3.4G gear was a special treat! (We got him on 3.4G from all 3 grids on the bridge!). A few more miles north (on the bridge), and were were sitting in FM27ac. It was getting late, but still many of our grid-hungry friends were waiting to work us. It's a special treat to be busy from a new grid at 1AM in the morning! Loads of QSOs on the lower 4 were being made, and many of these also lead to more points on 903/1296. These latter 2 bands are really becoming BIG point-makers for us. The new yagi stack was doing a good job on 903, generating nearly 40KW Eirp, along with better hearing ability compared to the previous single 32el yagi. We lucked into N2PA from here for a new grid on 2m thru 1296...schweet!

Next was the loooong drive up to the MD state line, where we hoped to stop and try to recharge the rover-operator batteries. They don't last as long anymore at oh-dark-thirty! More trees lining both sides of the road make it hard to work stations on this drive, especially in the middle on the nite. As we were driving up Rt13, suddenly K2TXB appeared (for the 1st time) on 2m. We worked Russ on 2, 432, & 1296 while mobile. Then we were able to pull over and find him on 10G for a new grid...Tnx!! This is a

rare experience at 3AM, and it helped keep us awake. After an all-too-short sleep in the MD Rest Area near Pocomoke City, MD, we set out for FM28be, the mosquito capital of North America. Fortunately, the cold front brought low temps and wind, which kept the nasty beasts at bay. A few skeeters and deer flies still leaked into the rover, but it was nothing like the swarm we got into last year at this site. Tnx, Mother Nature! Early morning condx in hot weather are usually good, and this site was no exception. We managed to run W3CCX, K3EAR, & K1TEO on all bands thru 10G (TNX!!). Other fruits of this site were W2SZ thru 2304, and a mess of 903/1296 QSOs...awesome! The next stop is always a challenge in Cambridge, MD, FM18xn. We use a site close to the Choptank River, but the hospital blocks the view to the SW from here. Better sites are about 30min farther, and being behind schedule (as usual), we opted for the easy spot. Lots of cell phone noise on 903 along with loads of man-made noise make this site difficult, but the uwaves are still possible in most directions. We managed a total of 102 QSOs from here including lots of mobile ops driving around Washington DC. To the chagrin of several unhappy campers, we decided to blow off the planned stop in FM09. We were within striking distance of 1000 QSOs, and we didn't want to burn a lot of time trying uwaves from the compromised site along the Rt.81 inside the Shenandoah Valley (we prefer mountains). FM08 is always exciting, as it's amazing what 3365ft ASL will do for your ability to work stations. We made a brief stop at the Hogwallow Flat overlook, and quickly worked a mess of stations on the lower bands. Another brief stop at Little Devil Stairs was an ill-fated attempt to work south. We did luck into several uwave stations from here that we couldn't have seen too well from the top of the mountain. We got buried in a cloud at the top, but visibility was good enough to climb up on the roof to set up the big guns one last time (man those yagis for 2,222,432 really start getting heavy near the end of a contest!). Signals were loud, and the intermod from K8GP, W3IY, and K3EAR was fierce. A better receiver on the lower 4 bands would probably be a good idea from up here! We were able to sneak between the spuri, and work a bunch of new grids up here, including WW8M (EN72) thru 1296, WA8RJF, and even a couple FN43 stations who had been elusive all weekend. It was also really a blast to work N2PA thru 1296 up here. 3.4G was sounding a bit deaf, as we apparently sucked in some water, and it was starting to become more noticeable. We still squeaked a few QSOs on 3.4 with K1RZ and K3EAR, all nearly LOS from this high-altitude, awesome QTH. At the end, we were happy to have busted the 1000 QSO mark, which was our unofficial goal for the rove. The primary goal remains passing out lots of grids, and just seeing who we can work on all the bands. Maybe we got toasted by the pack-roving grid circlers again, but no matter...we really had fun sneaking some RF into lots of distant receivers. Many TNX to all for the awesome activity. Keep up the great spirit, and stay active on the bands!! Illegitimae Non-Carborundum!! Carpe Diem!! yadayadayada...The number 1 ingredient for a good score is a good rover partner. I really want to thank my friend Christophe, ON4IY, for coming over to join me once agn from across the pond. He did an incredible job working the bands, and keeping the uwave queue from the lower bands well organized. A sincere tnx to all...

Band	QSOs	QSO pts.	Mults.
50	171	171	34
144	263	263	24
222	143	286	20
432	168	336	23
903	96	288	11
1296	94	282	16
2304	44	176	7
3456	14	56	4
5760	11	44	4
10368	27	108	6

TOTALS	1031	2010	149 + 11 = 160 Claimed score = 321,600

BPL: Already Obsolete?
 (reprinted from *The WashRag*, June 2004
www.washarc.org)

Is the entire Broadband Over PowerLine brou-ha-hah going to end up being a big deal over... nothing? It may turn out to be that way, as technology appears to be passing over BPL as obsolete before it is ever implemented. Just pick up the June 7th issue of *Newsweek*. The cover story is on "The Next Frontiers" and includes a discussion of the "10 Hot Wireless Cities." That's right — wireless, as in Wi-Fi, or for those who prefer the technical terms, 802.11b and 802.11g systems.

The promise of BPL is that (if it actually works) the end user can just plug their computer into a wall outlet for broadband access, rather than look for a phone plug. But the next obvious step is that instead of a BPL router located on the utility pole, it will be a Wi-Fi router... and that means that you don't have to plug the computer in anywhere, just turn it on and let it's Wi-Fi antenna make the connection!

And more and more areas are being hooked up for Wi-Fi, either by utilities, or just by people hooking up their own wireless routers and leaving them open for the public (which is a whole 'nother story for another time). So if this is the case... why the big push for BPL? Money. Pure and simple. The people who have invested in BPL want to make their money back, even if they now know they've backed a bad investment. So they're hoping to get BPL implemented, the systems sold, and then can walk away and leave others to take the loss when the system is finally mothballed... not them.

Oh wait, isn't BPL supposed to be more cost effective than Wi-Fi for rural areas? Isn't that one of the original premises of BPL? Problem is, none of the testing is actually taking place in those remote areas, and it's starting to come out that the BPL providers aren't actually interested in providing Broadband to those areas because they can't make any money at it! It's all a con game to get the systems in place, whatever it takes.

So why is the FCC pushing BPL? Why is President Bush behind it? Have they too been sold a bill of goods? Or is this a political pay off in an election year? (And the real cynic will wonder if there's any other kind of pay off, but without proof, that's just speculation...) Still, never forget that they're politicians, not technicians, so the technical problems and difficulties can be explained away (to them) on paper. After all, they don't have to actually make the systems work, just believe that they can (and will) work. The bottom line remains that BPL systems as proposed will cause massive RFI problems to current spectrum users, who will be left to deal with the mess when the utilities involved wash their hands of it.

Getting more access to Broadband is a noble and worthy goal. But BPL is already obsolete — and I think it's backers know it. Greater Wi-Fi access is state of the art and makes better sense, and that is what the FCC should be supporting.— *Ron Notarius WN3VAW, Editor*

K1WHS June Contest Woes

I pretty much hit bottom with the June contest. We did not have a big operation planned, but had hoped to spend a nice weekend playing with some new setups and logging program. I had 50 thru 10 GHz up and running pretty well. All that went out the window when my 30 KW diesel power source started overheating at about 5 PM Saturday afternoon. We could never fix the problem. No matter what we did, the thing still would overheat and shut down. We tried to get running on Sunday morning at about 10 AM, but after an hour, it was in the red again, so we bagged it and threw in the towel. I spent Sunday afternoon soaking diesel grease off my arms and face. Commercial power is sure looking good about now! Making your own electricity can be difficult. 73 Dave K1WHS

More Contest Bits

25 Q's 15 Grids on 50 and 87 Q's 87 Grids on 144. Total was 4816. Six meters was dead most of the time except for a coastal opening on Sunday, I did expect more on six but I guess we will have to wait for a couple of years for the sun spots. On two meters the signals were going up and down some from the noise to solid S9. Made working stations on the fringe a challenge. Now to get 432 antennas and feed line up and work on 5.7 GHz station. Ed WA3BZT ~~~~~

Truck alternator failed Friday evening during pre-contest check-out. Part unavailable locally; ordered it for Sunday delivery, and it was not quite right...am machining it to be ready for FD. Got on from driveway, made a little over 100 Qs in an hour and a half, just working big guns. Yes, the first 2-3 hours for me are almost always a "bust"...very slow, CQing doesn't work, etc...best hours are just after midnight and the last 3 or 4 of the test! If 6 is open, no one wants to play on microwaves. good show on 24G...I had 1/1 from the driveway...it is becoming a good band! 73! ND3F, Brian the immobile rover. ~~~~~

CAN'T SAY MUCH ABOUT THE CONTEST, WE STARTED WITH 2 OTHER OPERATORS ON SATURDAY BRUCE WA3WUL AND MATT KC2JPN, MATT TOOK SICK SATURDAY NIGHT AND THAT LEFT BRUCE AND ME TO RUN THE STATION ON SUNDAY. WITH THE 2 OPENINGS ON 6 METERS ON BOTH SATURDAY AND SUNDAY AND HAVING THE 6 METER BEAM ON THE SAME TOWER AS ALL THE OTHER ANTENNAS EXCEPT THE 2 METER ANTENNA WHICH WAS ON THE SMALLER TOWER, WE WERE NOT ABLE TO WORK THE UPPER BANDS THAT MUCH. SO IT LOOKS LIKE A NEW TOWER FOR 6 METERS IS IN THE PLANNING STAGE. ALSO WE WERE NOT ABLE TO WORK MANY OF THE ROVERS LIKE WE DID IN THE PREVIOUS TWO CONTESTS AND I HATE TO SAY OUR SCORE SHOWS IT. LOOKS LIKE THERE ARE MANY IMPROVEMENTS THAT MUST BE MADE AT THE K3EOD STATION BEFORE THE SEPTEMBER AND DEFINITELY THE JANUARY CONTESTS. 73, AI, K3EOD~~~~~

W3CCX June Contest Results

Band	QSOs	Points	Mults
50	679	679	89
144	499	499	66
222	156	312	39
432	269	538	42
903	60	180	23
1296	78	237	28
2304	42	168	14
3456	28	112	12
5760	24	96	12
10.3	27	108	10
24.1	4	16	2
47	2	8	1
Light	13	52	1
Total	1882	3005	X 339 = 1,018,695 final score



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VHF Scene (in New Zealand) May 2004



Microwave

Scott, ZL1KB, Auckland is just about to smoke test his home-brewed 1296 MHz transverter. This will further increase microwave activity in the Auckland area. Colin, ZL2TFK, Hamilton is also collecting bits to start building a 1296 MHz transverter. He has completed a Minikits EME65 local oscillator kit. ZL1AKW is operational on 1296 MHz from the Tauranga area and another station also in the Tauranga area is also looking at building equipment for 1296 MHz.

ZL1QF has completed his 2.4GHz transverter and is ready for testing, ZL2ALW is waiting on parts from Australia for completion of his unit. Andrew ZL2ALW, has bought an old Yaesu Museen FT-220 (144-146) Multimode rig and has removed the 10Watt PA strip and 230V PSU. In the space left by the removal of these components, units from Minikits will be fitted, including a 2.4 GHz transverter, EME65 oscillator, multiplier chain and control board. This will give the FT-220 a new lease on life as a 2.4 GHz Transceiver. Andrew has also ordered a 2watt 2.4GHz PA unit and ancillary parts from Mini-Kits to complete the transceiver.

ATV

The Auckland ATV repeater is getting busier. In the past few months, Friday evenings has been the time when local Auckland stations have been seen on CH39 (615MHz). Up to five different stations have been putting good to excellent signals into the repeater. Grant ZL1WTT's new transmitter boards have all sold, and being populated by various enthusiasts.

In order to update the ATV repeater station we (the ATV Group) intend to put a DVD player up at the repeater. We invite video and still input for this DVD, any Ham or electronics related material most welcome. Contact Andrew Barnett ZL2ALW for further information. (09 8168008) or zl2alw@post.com

DX

From Nick ZL1IU:- Chris ZL2DX and I had a couple of nice 600+ km 2m qso's on SSB on the 17th of April. We tried 70cm but to no avail. Hepburns Tropo forecast looks interesting at times for me up to and around FK8 area but so far nothing heard. I hear the Taranaki 2m beacon very frequently up here and also the Wellington 2m beacon comes in at times very well. If anybody would like to make a sked with me particularly from the South island I can be contacted at zl1iu@xtra.co.nz. At the moment I am qrv on 2m, 70 and 1296. This winter I plan on making improvements to the feedline setup on my 70 cm antenna and also to the 23cm antenna. From Bob ZL3TY:- I had a series of meteor scatter skeds on 2m with Rex VK7MO from 4th to 18th April. Our skeds were at 2020z (0820 AM NZ time) and using FSK441B we can complete a

QSO in about 10minutes, usually less. The path is about 1850km. Six metres has been quiet with brief openings to JA on 14/3 and 28/3, one QSO each opening. Brief VK openings on 15/3 and 17/3.

VK3UM Software Upgrade

The following programs have been up-graded and are now available from the following web sites.

www.qsl.net/sm2cew/download <http://www.ve1alq.com/downloads/software/vk3um.htm>

www.qsl.net/vk3bez/VK3BEZ.htm

EME Calculator EMECal.exe (840kb) Version 2:01 A significant upgrade that has now added Moon noise calculation, object/aperture correction factor, apogee/perigee path variation, variable ground temperature, and improved Noise Y factor calculations commensurate with current noise flux densities. Site and Radiation Calculator RF4_7.exe (645kb) Version 4:7 Several additions have been added reflecting changes to the EMECalc. RFGraph.exe (610kb) Version 2:01 Transmission Line Calculator (New) ZCalc.exe (412kb) Version 1:01 This software allows you to select the size of the inner or outer conductor or required impedance and calculate one of the parameters after selecting two of the others! Variable dielectric constant and Metric/Imperial conversion included as well as multiple wave length calculations. Four Pole Interdigital Filter (New) InterDigitalFilter.exe (468kb) Version 1:01 for Windows. Design criteria based on an article from the article by Ian White (G3SEK) in Radio Communications February 1984. Allows the design of a 4 pole interdigital filter from box depth, rod size, centre frequency, 3dB point and 40dB point. Most suitable for frequencies above 300 MHz. Below 300 MHz the size becomes some what impractical. Graphical display of all dimensions.

Acknowledgements to Peter (G3LTF) and Sergei (RW3BP), Graham (F5VHX) and Peter (SM2CEW) who assisted with EMECalc software upgrade. Also a very special mention to K5GW, PA3CSG, VE4MA, G3LQR, G3LTF, G3IRQ, F5VHX, and SM2CEW who provided their measurement data from 144MHz – 48GHz.(Bob, ZL3TY)

Antennas

Doug, ZL2TAR, reports on the antenna test session held by Wellington VHF Group, Branch 74 at its March meeting, in the park adjacent to the usual meeting place. It was not intended to be an antenna gain contest, but more a demonstration of how antenna gain can be accurately measured at home with simple equipment. At the 70 cm band, the requirement is two identical antennas having reasonable gain, two photographic tripods, a clear space of about 20 metres by 20 metres, together with an accurate method of measuring 20 dB to 30 dB of loss, with a resolution of 1 dB.

The test method demonstrated how to avoid the problems of using dipoles as the gain reference.

The best antenna was supplied by John, ZL2HD. It was a 6-element stainless steel yagi, manufactured in Australia, which was found to have a peak gain of 9.5 dBi. This was about 1.5 dB less than the theoretical gain. A gain of more than 9.0 dBi was achieved over a bandwidth of more than 8 MHz, indicating that the antenna was of a "maximum bandwidth", rather than a "maximum gain", design.

The gain of other antennas was measured by substitution with one of the stainless steel antennas. The tests also demonstrated that the frequency of maximum gain does not correspond with the frequency of best SWR. The test method is described in detail in the April 2004 issue of Q-Bit, Branch 74's monthly newsletter. A copy is available from Branch 74 for \$5, post paid.

TNX to Kevin Murphy, ZL1UJG Co-editor of NZART Magazine VHF Column, for sending this to us in exchange for CheeseBits. Which Packrats have a ZL in their log on 6m or higher via EME? Share your experience working stations in the Pacific.



RainScatter!

by Andrew Flowers, K0SM

Latest Version: 0.50 (1 June 2004)

RainScatter! is a program designed to aid Radio Amateurs in making rain-scatter contacts on the microwave bands. It automatically downloads the latest NWS radar images to calculate beam headings and distances to storms for two stations. It is hoped that this program will eliminate some of the guesswork in identifying potential scattering regions and in pointing antennas with very narrow beam-widths.

I've been working on a program to calculate rain-scatter paths using the latest NOAA weather images. I'm still working on it, but there is a functional version at <http://mail.rochester.edu/~af006m/RainScatter.html>, along with some rudimentary docs to get you started. I don't have all of the radars programmed in yet, but quite a bit of the country is represented. It's written in java, so you should be able to run it on whatever platform your little heart desires. In the ham spirit, of course, it's freeware. I'd like to hear what folks think and what I could do to make it better in the next version. **Andy K0SM/2** flowers@frontiernet.net

W3IY/R Pre-contest Plan (fyi for the fun of it)

Now, coming to u **LIVE**, with the power of 10 billion cicada wing flappings... it's the East Coast Grid Grinders in the Intergalactic Battle Jitney Rovermobile. 391 elements of beam focusing electromagnetic transducers will attempt, once again, to direct some major wireless waves into to your capture area on all bands. New **BIG JUICE** on 5.7GHz should produce nearly 40 KW EIRP, to help u zero in on our grid, so we can give u lots of VHF/microwave points from the outback of NC, VA. & MD. More antenna gain on 432/903! Keep a lookout on 144.247, and we'll be listening/squawking for u. We have 2 full-time, experienced operators who will be cruising the bands for u. Other planned hangout freqs include 50.187, 222.122, & 432.122 motorcycles. What's not to like? View it at:

<http://users.adelphia.net/~w3iy/Jun04.htm>

Check your logs—how many times do you see W3IY/R? Bill and Christophe, ON4IY are great rovers and we appreciate them illuminating so many grids on so many bands for everyone's contact.

Letters to the Editor

Having been responsible for "spectrum policy" during my tenure at DoD as a political appointee over the past 3 years, I find it astounding W2SZ leadership would advocate modifying an FCC type accepted radio for the Amateur Radio Service to operate outside authorized ARS spectrum limits. Whether or not power limits are their consideration (i.e. its only for IF) what they are advocating is in direct violation of CFR 47, Part 97 and is a clear violation that would result in severe penalties were transmissions discovered to be out of the "band" so to speak. This is not an "example" I would expect K8GP to follow nor is this a good example for anyone with an Amateur Radio license and type accepted equipment to follow. I note the term "mentoring" being used by the Op Ed piece, I do not consider what is being proposed as appropriate mentoring. My emphasis is on the mentoring aspect. I think its wrong to mentor a potential microwave enthusiast by telling them its OK to modify an FCC type accepted radio to operate outside the ham bands. My thoughts for what they are worth. Owen Wormser, K3CB

MAD-JUNE 5 (Microwave Activity Day)

Got out there and set-up, heard the 10G beacon, no-one else but K3EGE on 144.260, then it started pouring. Perhaps we can try again Mon eve. **Rick, K1DS/R**

Hi, Rick, Sorry we missed you... I was up and running, expecting Steve, before 8 am...called cq on 144.200 briefly, as well as 144.250; didn't hear anything except WZ1V and some ragchewers down at .125. I did eventually hear W2KV calling CQ on .260 and we ragchewed on 10G.100 for about 30 minutes. Then we both worked W3HMS on cw at 10G.100 via rainscatter. The scatter was such that I could at that point hear Dave no matter where I pointed the dish. I didn't hear a direct tone from W3HMS, just the rain-scatter buzz, so I don't think we had a direct path today... I quit at shortly after 11 am as I had prior arrangements for the afternoon. I hadn't done rainscatter before, so it was quite a treat...sounds like aurora to me **73, Roger W3SZ**

Hi, listened on 144.260 and called a few times between 10 & 11 AM for skeds on 432 & 1296, but only woked one station on Mt. Greylock on 2M. Will try to be on Mon night and see if I can get 903 up & running. **Bruce N2LIV**

Got up early to the sound of rain, my XYL has been putting up with many hours of building to get ready for next weekend so I took her to breakfast instead of going to Mt. Penn. **73 Steve, N3FTI**

Robert A. Griffiths

Attorney at Law

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Tid Bits

Just wanted to say that this past month's (June) letter is jam packed! Also, My wife Jennifer just got her call letters: KB1LIJ CU soon, Steve KF6AJ ~~~~~

On May 31, Bob, KF6KVG and I made a contact of 11.7 km on 122.4 GHz. We used our old 80/120 GHz rigs with new 'bricks'. freq lineup is 10Mhz/100/13.6 GHz to a tripler to 40.8 GHz. the receive mixer used a 13.55 GHz 'brick' then x3 thru a diode multiplier. 12 in dishes were used on each end. weather was mild, dew point about 50 deg, and signal margins were about 10 db on each end. We hope to get to about 30 km, our old 120 GHz distance. lineup was on 81.6 GHz, about 20 db stronger. Will Jency, W0OEM~~~~~

The 2005 Microwave Update appears to be hosted by the San Bernardino Microwave Society in California, with Dick Kolbly, K6HIJ in charge, More details to follow. ~~~~~

The NEWS Group is working on (in preliminary planning stages) a monthly cumulative activity contest for VHF weak signal work. More on this will follow. In the meantime, to support the contest, I was asked to develop and host an online scheduler page much like Chris Cox's (N0UK) PingJockey scheduler page. It is now completed and ready for use. I am announcing it to the NEWS Group reflector first so we can see how the traffic to the server is. I'm utilizing my commercial server and want to see how this effects my customers. Shortly, if all goes well, I will announce it to other reflectors so please do not make the announcement on my behalf. Rather than take up too much bandwidth, Please see <http://www.aa1yn.com/schedule/> for more information. ~~~~~

Next Month: Rover experiences by N3FTI, K1DS & N1XKT; More contest pictures; **Make sure you save the dates for the White Elephant Sale, the Club Picnic, and the EME Conference, all on p3.**~



MS-DATABASE 2.05 of DL8EBW,

The new issue of my MS-DATABASE (issue 2.05 05/2004) is now ready to spread around as normal just in advance the ms-season starts. You will find a link to the MS-DATABASE files (as well ms205.zip as also

ms205_wsjt.zip) for a free of charge to download at:
<http://www.dl8ebw.de/Actual/actual.html>

A lot of fun with the new issue of the MS-DATABASE 2.05 05/2004! Wupertal 20.05.2004 73 de DL8EBW, Guy, c/o VHF-DX-Group DL-West Like every year its only an extract of my big VHF-DATABASE and these MS-DATABASE files are not to use in EA6VQ-Log, OH6HFX Logbook or DX-Cluster!! The big VHF-DATABASE with over 45000 calls (vhf200_user.zip) for use with above named programs or with any spreadsheet (eg. Excel) will be still available if you send in 5 EURO or 5 Dollar together with your Email address to: DL8EBW, Guido Juenkersfeld, c/o VHF-DX-Group DL-West (address on request - use mailing systems) via PR-BBS-System: DL8EBW@DB0LJ.#RPL.DEU.EU via Cluster-System: DB0SUE-7 via e-mail: DATABASE@dl8ebw.de The file will be send out after receiving your payment. 73 de Guy * 73 de D L 8 E B W Guido (Guy) DL66a/ JQ31NF VHF-DX-Group DL-West qrv Meteorscatter: SSB,HSCW (3500lpm) and FSK441 VHF I DX * Editor of the "MS-SHOWER-LIST" & "VHF[MS]-DX-DATABASE" *
<http://www.dl8ebw.de/DATABASE-Project/DATABASE-Project.html>

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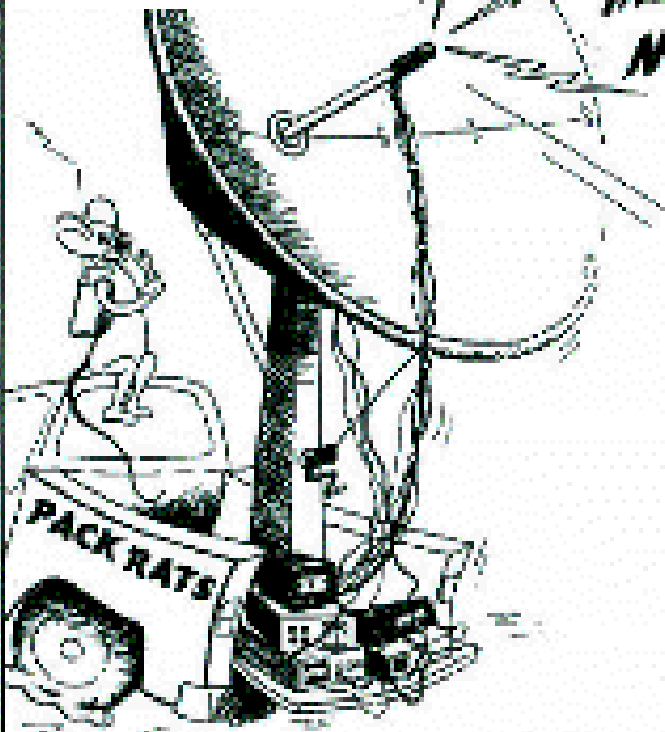
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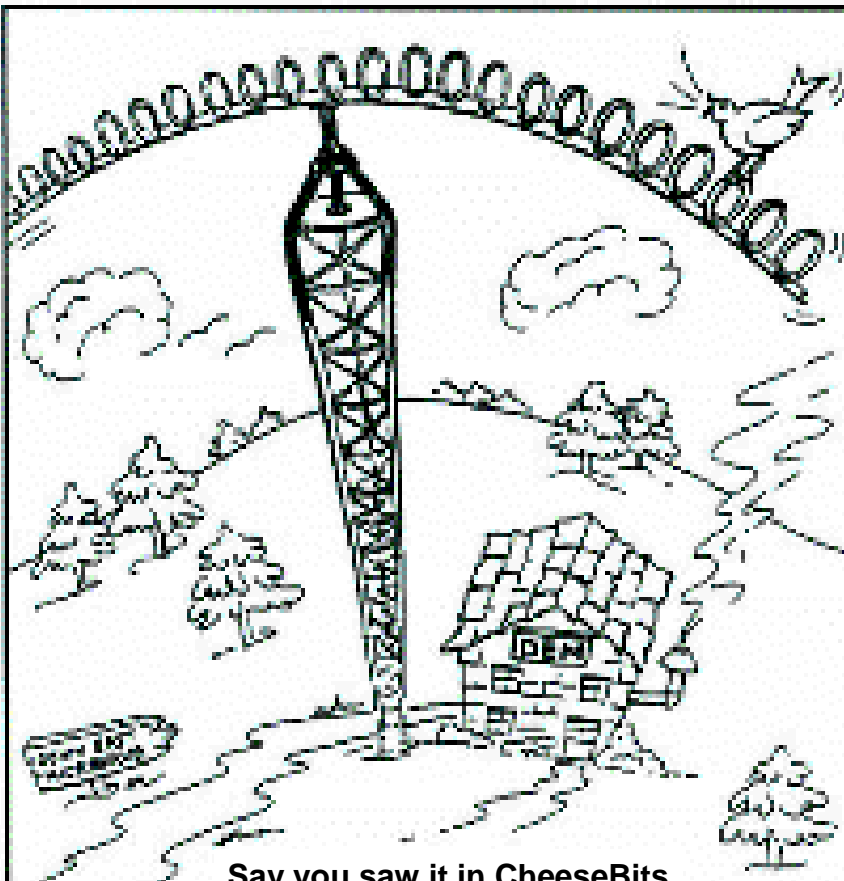


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Let's welcome our new Editor
starting with the upcoming
August Issue;
"Doc" W3GAD.

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