

CHEESE BITS



W3CCX
CLUB MEMORIAL CALL

ARRL
 Affiliated
 Club



Volume XLIII

November 2001

Number 11

Prez Sez

With your help our Conference and Hamarama was a success. The turnout of members to work the weekend was very refreshing. I know we all have demands for our time and committing to the club for a weekend is a lot to ask. The board will be looking again at the financial situation and making any recommendations. I sent a THANKYOU out over the reflector and I will repeat myself and say thanks to all that attended and worked the events. I was unable to attend the October meeting but I'm told Bill AA2UK gave a nice program. Boy what I could do with a 300 foot tower. Bill good luck with the setup. It is not too late for antenna work. I visited Joe AA3GN and it looks like we will have a big gun in Hilltown. Joe has his tower up to the 100 foot level and he is in progress of populating it with antennas. It is now time to check out your station and tweak it up for January. Stay tuned for more on up coming events, The November meeting will be a LASER COMMUNICATOR BUILD SESSION bring your tools I can't wait. See you in November. **73 Brian N3EXA**



Hamarama Report

First, I'd like to thank Brian N3EXA for getting the list together of all those who helped at Hamarama 2001. I was a little tied up with a few other tasks on Sunday and had to ask him if he would compile the list. Brian (and his XYL) also went the "extra mile" literally to bring extra coolers from home for the food table, in addition to helping with filling them and coordinating some of the cooking. I can't tell you how much that meant to Peggy, Emily and I and hopefully the hamfest attendees. The Packrats are indeed fortunate to have Brian as president of the club.

Second, I want to express my sincere thanks to all the Packrats and friends who gave their time and effort for the hamfest. The overnight crew, W2SK, W3OR; the talk-in crew N3OZO and W3GAD, the guys at the club table, W3KKN, WA3EHD, KB3IB. And especially Ed, WA3DRC for all of the grueling effort to deal with the township officials and the Grange manager. The hamfest likely wouldn't have happened at all without your efforts, Ed. And of course, Chris N3PLM and the ticket/parking crews, you guys are phenomenal! Thanks too, to Phil NUF and Bruce YUE for collecting from all the vendors.

And lastly, but certainly not least, thank you to each and every Packrat and non-Packrat who came out to help. I added Wayne Campbell's call N3DRV to the list below. I work with Wayne and he was gracious enough to come out to help us even though he's not yet a club member. And once again this year, Mark WA3QVU installed and tested the Warminster PA system for our use. We definitely appreciate all your hard work on our behalf. Let's hope the wiring remains in place! I know that it wasn't easy for you guys to be involved with the conference on Saturday and also come out on Sunday for the hamfest. Be assured that the club and I realize the value of your contributions. In closing, I just want to say thank you again to one and all. The hamfest was only possible because of you. **73, Joe W3KJ**

**Board of Directors Meeting, Thursday, November 8th at QTH of WA3NUF, PHIL MIGUELEZ
 445 IVY ST WARMINSTER PA**

**Next Regular Club meeting at 8PM, Thursday November 15th, at the Southampton Free Library
 947 E. Street Road, Southampton, PA 18966 —Guests welcome!—LASER Communicator Project**

Pack Rats **CHEESE BITS** is a monthly publication of the **Mt. AIRY VHF RADIO CLUB, INC.** -Southampton, PA.

Mailed Subscription Rate: \$16.00 per year (USA)
\$20.00 per year (CANADA)
\$24.00 per year (ELSEWHERE)

E-mailed PDF Rate: \$10.00 per year (anywhere)

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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz, Churchville, PA

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VHF Conference: KB3XG 610-584-2489

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

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
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
9:30 PM	1296.100 MHz	WA3NUF
10:00 PM	903.100 MHz	N3AOG

THURSDAY NIGHT NETS (1st & 4th of the month)

9:30 PM 2304.100 MHz W3KJ, & go to 3.4G & up after

Editor's Column

I must admit it, I had the best weekend during the Eastern States VHF Conference and Hamarama. Perhaps it was the relaxation away from work, the fantastic fall weather, and the great camaraderie. Since my wife accompanied me on both Friday night and Saturday, it made the event feel even more family-like. There is no shortage to the work that needs to be done to pull these conferences together, and then run a hamfest on the following day. Not only did John Sortor, KB3XG do a great job with the conference, Joe Keer, W3KJ, ran a great crew and hamfest. I was glad to be able to participate fully, and took advantage of many of the great items that sellers had at the Hamarama, including a new rover computer, another 180 ah of gel-cells, and several components for the upcoming laser communicator construction project.

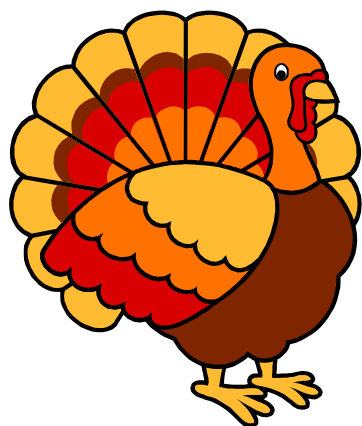
In another column in this issue, I report the highlights of the VHF Conference, so I won't review it further here, except to mention that several fellow rovers came with their vehicles, including Owen, K6LEW and Brian (the rover), ND3F. Stan, KA1ZE, Beau, N1MJD and Jeff (his roving partner) were there too, and we shared some good times and ideas. As a rover, I am fascinated by other's setups and experiences, and many have taken the time to post pictures of their vehicles and gear on the web, either on the rover website, maintained by N9RLA, or on their personal websites. What I have noted in the recent past, is that several ops have selected names for their rovers, including, "buttercup," "The Red Rover," "The Blue Whale," "The Psycho Rover," and "The Lighthouse Rover." Perhaps somewhat simple and direct names, but none-the-less, an opportunity has arisen for me to name my rover. Since my wife helped me select my call during incentive licensing, she saw the trends, and suggested that our rig be called, "Great White." It could use some kind of graphic or lettering on it, or perhaps just a magnetic sign. So now here's a chance for all rovers to get in on the name game. Be sure to drop me a line and a picture (jpeg preferred) for a posting in CheeseBits.

I was pleased to see almost a dozen folks sign up in advance for the laser communicator project. All the parts have been ordered and we'll have a nice building session at the November meeting. There may even be a few extra parts sets for transmitters, and the receive end is easily done at home. Several subscribers have also asked about getting the parts kits, and once the club members have had their needs fulfilled, we will try to accommodate others.

More discussion on the delivery of CheeseBits as a PDF via email: several folks do not have the ability to get email, and others cannot get attachments. We also realize that many folks have visual difficulties and have problems reading a PDF on screen. There is no reason that subscribers cannot print out a copy of the newsletter for "hard-copy" reading. Those that need to continue to receive the CheeseBits via mail will be able to, at a slightly higher rate that accounts for the printing and mailing costs. We have also had a request to return the business card ads, and at the next Board of Directors meeting, this topic will be pursued. We do appreciate the availability of advertiser information for the benefit of the readership and club members. We did, however, reach a period where the cost of placing and printing the ad, along with a mailed copy to the advertiser was more costly than the revenue. All of your candid feedback is received in a positive and constructive vein.

As we go to print this month, we are doing a complimentary newsletter exchange with approximately 22 other radio clubs, including one in England. Some of the VHF and Microwave groups have articles of interest, which may be reprinted with appropriate credit. Technical articles are few and far between, so we call upon each of you to put pen to paper, draw out your latest circuit, and send it in. Report of exciting radio communications, contest achievements, safety warnings, historical notes and technical developments are welcome. Photos (jpegs preferred) are also encouraged to show off your station, shack, antennas, or activities. We are also giving complimentary copies to our ARRL League officers, and hope that some of the club activity material will find its way into the Section Reports in QST for a wider audience.

Best wishes to all for a happy Thanksgiving holiday, and remember to be thankful for what we do have and can enjoy. 73, Rick



Happy
Thanksgiving
to all the
Packrats and
their families

VHF Conference and Hamarama Honor Roll

THE FOLLOWING FOLKS HELPED OUT IN ONE WAY OR ANOTHER WITH CONFERENCE AND OR HAMARAMA

**N3DRV WAYNE CAMBELL
EMILY KEER
PEGGY KEER
NE3I GRIFF
N3ITT AL
WA3EHD JIM
W3KM DAVE
WA3NUF PHIL
N3EVV WALT
W3IIT HARRY
K3IUV BERT
WA3GFZ PAUL
W3GAD DOC
W2PED PAUL
FINN FAMILY**

**W3KJ JOE
W3KKN ERNIE
N3OZO DON
W2SK PAT
KB3IB GENE
K3IB PHIL
KB3XG JOHN
WA3QVU MARK
N3YVH BURT
K3ESJ BILL
W3RJW RON
N3AOG DICK
K3ZMA BILL
N3EXA BRIAN
ALL OF OUR SPOUSES AND FAMILY**


**N3PLM CHRIS
W3DFM DAVE
K1DS RICK
WA2OMY GARY
WA3YUE BRUCE
W3OR RON
K1JT JOE
WA3DRC ED
K3MFI BILL
AA3GN JOE
W3GXB BOB
N3NGE LENNY
K3GNC JEROME
MY BOSS**

The winner of the 2001 Hamarama buyer's drawing for \$150 cash was: Michael Bartos, N3JUN of Philadelphia, PA.

The winner of the 2001 Hamarama vendor's drawing for \$100 cash was: Dave Funk, KA3BKG of Newtown, PA.

With almost 800 buyers and over 100 sellers, this year's Hamarama was a great success, despite some threatening forecasts, and the national safety agenda. The hottest sales appeared to be in the microwave parts, laptop computers (some Pentiums for under \$50) and a super deal on large amp-hour gel cells. There were many purveyors of high quality VHF-UHF and microwave gear, and someone found two great 10 GHz 4 watt amps at a great price! The food was an added treat, as there was plenty available at the right price throughout the day. Despite all the work to make this a success, it is a great event for area hams and the club. We all look forward to next year's event, and increasing attendance, with the addition of more high quality parts and gear sellers.

Radio Action November 2001

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3 ^{1st} UHF- μ wave event 8am-12 see page 4 mailbox
4	5 Nets-see p2 2nd UHF- μ -wave QSO event 7-11pm	6	7	8 BoD meeting at QTH of Phil, WA3NUF	9	10 Climb that tower and get ant fixed before winter
11	12 Nets-see p2 6m at 7:30pm, up a band each 30min	13	14	Monthly Meeting Thurs, Nov 15, 8PM, Laser Communicator Build Activity Southampton Free Library 947 E. Street Road Guests and Visitors welcome		17 Check feedlines and fittings for waterproofing
18	19 Nets-see p2 6m at 7:30pm, up a band each 30min	20	21			24 Family Holiday weekend after Thanksgiving
25	26 Nets-see p2 6m at 7:30pm, up a band each 30min	27	28	29	30	

2001 RVHFG ALL BAND FALL SPRINT Thursday November 8, 2001 7PM-12AM

A good chance to blow off some dust before the January VHF contest. Any format of log submission is acceptable. See the complete rules below.

OBJECT: To work as many stations as possible on vhf and above in a 5-hour period.

DATE: Thursday November 8, 2001

TIME: 7pm to Midnight local time. Stations within 50 miles of a time zone boundary may adjust their operating time to that of the adjacent time zone if they wish. You may operate all 5 hours of the event.

BANDS: All above 50 MHz, including laser.

CLASSES: Single-op, all band only. While there is no rover class per se, a station may change grids and submit a separate log from each grid operated from.

SCORING: 1 point for contacts on 6 and 2 meters. 2 points for contacts on 222 and 432 mhz. 4 points for contacts on 903 and 1296 mhz. 8 points for contacts on 2304 and above. Multipliers are 4 digit maidenhead grid squares. (January VHF Sweepstakes Scoring)

OTHER RULES: All other rules are standard ARRL VHF contest rules.

AWARDS: Certificates will be awarded for the top 5 finishers at the International level.

REPORTING: Logs are due 4 weeks after the contest date electronically to n2jmh@arrl.net or by mail to Rochester VHF Group, PO Box 92122, Rochester NY 14692

Questions, comments or complaints? Thanks, Jim n2jmh ps. Look for n2jmh/r in the rare grid of FN03 with 50mhz-5760mhz

January Contest Packets for Packrats

This year we will again be sending out January Contest Packets by E-mail in PDF format. Anyone who can not accept an e-mail Contest Packet, Please let me know your name, call sign, and mailing address, or if you can pick up your packet at the December meeting.. We want to be sure not to miss anyone this year.
73, Chris N3PLM

Mailbox

Rats and Friends,

I wanted to thank everyone who made this happen and participated, especially KB3XG and W3KJ and family. The facility and program were first rate and the nice door prizes and party favors were highly useful. I only wish that I could have spent more time at the sessions but helping at Hamarama and oversleeping Saturday after a late Friday night took their toll! The auctions were fun and helped in collecting parts for yet another band - 24GHz. Food was good and plentiful at Hamarama.

Lot's of goodies were found at Hamarama, and I have already put several to work in fixing up the 10GHz station. A nice little HeNe laser tube was found, with a keyed P/S that will be fun to play with. I've also come closer to finalizing and realizing plans for tower mount boxes for 3, 5 and 10GHz P/A's and LNA's. But most daylight hours over the next week or two will be spent getting the lower band antennas up and stations run-

ning now that the tower is up at 100'. I guess after that the next hardware project will be finishing up the 24GHz station. By January? Hmmmm A-J + L Maybe after January, when all of the hardware is done (at least for a while), I'll get a chance to start playing with WSJT. It looks like a really interesting and productive way to make some weak contacts, and a good way to spend some of those cold February evenings. 73 Joe AA3GN

Hello to all Microwavers.....I was pleased to send the following message to the Packrats yesterday and wanted to share it with you: Hi Dave and Paul.....I send to both of you as your addresses were in my online book. Please pass to all Packrats at the next occasion that I for one was quite delighted to be able to attend your first rate Session yesterday (13 Oct) which was under the most capable direction of John, KB3XG with Paul, W2PED as the MC.

The Radisson hotel was an ideal accommodation with high quality service and meals, the tech sessions were very professionally presented and the presenters took the time to make a really first class presentation. That "little extra" really made a very BIG difference to the attendees. The agenda timing gave people enough time to make contacts and renew old ones. I came away with a sense of renewed vigor in microwaving and contesting. It has always been apparent to me that the Packrats "do it better than most".....now I know why!!!!!! The banquet souvenir MMICs and 900 Mhz bricks amps were an added plus!!! What are the dates for 2002? 73 and many thanks, **John Jaminet W3HMS** Mechanicsburg, PA 17055

I have received about 20 responses to the "Request for Opinion" regarding microwave activity days. It is clear that lots of hams support this idea. The results are kinda split between Saturday/Sunday, and Monday/Thursday. For now, I think we should start out with only 2 days per week, one week per month. If activity is great enough, we can certainly add the other 2 days in there, hoping for the guys that couldn't make the other days in concert with the die-hards who want to operate uwaves 7 days per week. I am recommending the following:

Microwave activity days shall be Saturdays from 8AM until Noon..., and Monday evenings from 7 pm until 11pm.

Object: Work as many guys as you can on all bands 432 es up.

Activity Schedule: Start the first Saturday of each month (beginning 3 Nov, 2001), then operate the following Monday evening (5 Nov, 2001).

Scoring: The guy with the most QSOs, in the most grids, on the most bands, over the best dx wins. (we will all be winners if we can generate some activity!)

Reporting: All participants are encouraged to post your results to your favorite microwave reflector. (We will seek help from volunteers to make a central web page results summary available).

Philosophy: Make QSOs, and make your results available to others. Try to find some of the rovers and help them try out new spots. Rovers are encouraged to travel to places where they can make QSOs with new guys who need encouragement, and some signals. Expose our DC-band brethren to the excitement of working real dx on uwaves. Encourage the inactive UHF es above hams to GET ON THE BANDS! Put forth a good image for microwave amateur radio when folks stop and ask what the heck you are doing (explain why this is fun). Test your stuff out before the night before the next contest. Find-fix problems. Find a few extra dB in your system. (continued on next page)

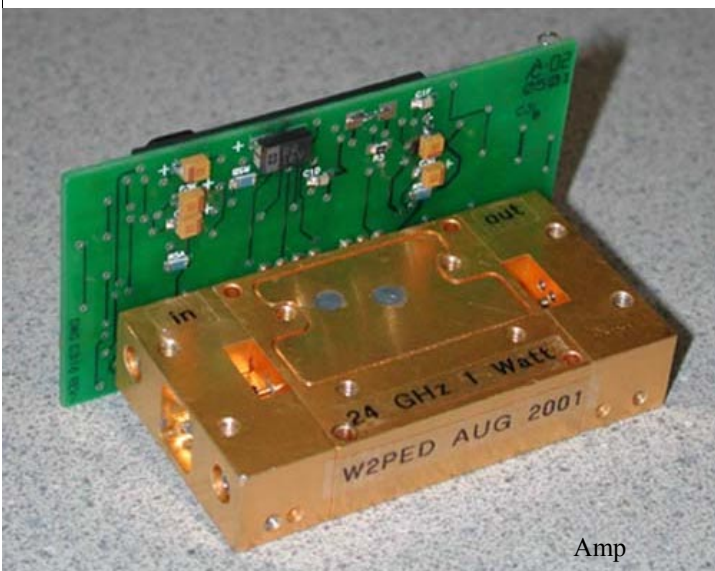
Packrat/Microwave Update 24 GHz Amplifier Project

First Amplifiers Built and Tested!

Paul Drexler, W2PED
Tom Whitted WA8WZG
19 Oct 2001

About two years ago, several of us among the Packrat and Update crowd organized an amplifier construction project for the 24 GHz band. (Wow, it's hard to believe we've been at this for two years now!) At 24 GHz, there are very few surplus amplifiers around, and it's not the kind of thing you can easily build in your basement, as bare "die" components and wirebonding are pretty much required to really make things work at these frequencies. The idea was to pool our talents and resources, and build some 1 W amplifiers for those that were actively getting on the 24 GHz amateur band.

This has truly been a group project with volunteer assistance by a lot of people, and cash donations from a few. The Update group received a generous sample of "die" MMIC components from Triquint... all that we had to do was figure out how to mount them and wirebond them to make a useful amplifier! Since I (Paul) am doing similar work during my day job, I stepped in and did what I could do to make this thing happen. An RF board, DC bias board, and a housing were designed for the project. For additional background on the project, check out the article on the Packrat web page:



Amp

http://www.ij.net/Packrats/24gc_Amp/24gc_amp.htm

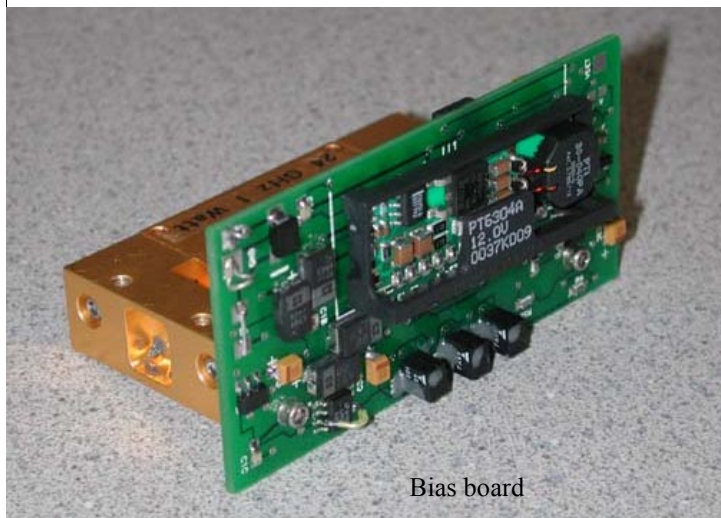
When we started this project over two years ago, the intent was to have amplifiers built and tested within 12 months. Over time, however, attrition in the ham community, volunteer coordination, material procurement, and life in general has caused this project to become somewhat of a monster, requiring many hours of work. Happily, though, we've made some real progress on the amplifiers recently. The first several amps have been built and tested! The unit draws about 600 mA at 12 VDC, includes its own bias board. Input/output is via a built-in WR-42 waveguide interface. The amp measures approximately 1.25 x 2.5" excluding the bias board.

Here's the specs on the first amplifier:

Gain = 52 dB

Psat = +29.8 dBm

Input / Output match > 15 dB



Bias board

At this point, Lloyd, NE8I and Tom, WA8WZG are producing the bias board assemblies, and I (Paul) am handling the RF assembly, integration, and testing. This project has only been possible thanks to the efforts, support, and donations of many. We thank all who have supported this project. I'd like to especially thank my employer, mm-Tech (www.mm-tech.com) for allowing me to mess around with this stuff after hours. Without the test equipment we'd never be able to make this happen! It's encouraging to see what we can accomplish when we pool our resources and roll up our sleeves...CU on 24.192!

73, Paul W2PED Tom WA8WZG

MAILBOX, cont'd

Try some new stuff out and compare results. Get your friends with IC-706s and FT-100s to connect something horizontal to their 432 spigot. This hobby is a lot more fun when we work together! Make some noise! Make some skeds! Publish your plans! CU on the bands! 73, Bill W3IY

K3EOD reports 432 Fall Sprint Results: 26 QSOs in 10 grids in 2.5 hours. 73, K3EOD, AI

I am pleased to announce that the W3HMS 10 GHz CW Beacon is on the air continuously since 4 October at the QTH of Fred, W3MMV, York, PA in FM19px. The frequency is 10.368.899 GHz using a DB6NT beacon at 240 mw out to a slot antenna. The CW keying is F1, NOT like HF keying. The ID includes the call W3HMS and the FM19 grid square plus other data. Reception reports appreciated by EMAIL to W3HMS@aol.com, to W3MMV as above, this List or phone to W3HMS at 717-697-3633. 73, John W3HMS

I was playing with Leif Asbrink's Linrad weak signal receiver program today. My EME array is currently down and aimed more or less permanently at Harrisburg, so I am more or less QRT for the moment. Nevertheless, I can still copy the W3CCX beacon quite well (cont'd on page 10)

Mid-Atlantic VHF Conference Notes

So you didn't make it? Too bad! This was one of the most enjoyable conferences of recent memory, with a wide span of technical and practical topics. Emil, W3EP, started us off with "Grid Locators are NOT Squares," educating us all on the sizes and shapes of the 2 X 1 degree grid system, and some unique grid trivia and current grid-contact activities. (Just for starters, how many 2 x 1 grids are there? See answer at end of column.) Several of the audience wanted to enable a rover to do the polar ring grids—just imagine being able to walk around a pole and traverse 180 grids in a few steps!

Owen, K6LEW followed with a very rousing talk on "The K8GP Contest Group," about 20 hams dedicated to VHF/UHF and microwave mountaineering, and beating the W2SZ/1 group in the process. With a powerful set of photos and accompanying sound effects, we were taken on a tour of their operation from FM08, and the rather professional refurbishing of their radio-loaded busses and vans, along with their power and tower trailers. There were several factors that were highlighted on the road to contesting success: Site; Hardware; Skinware (people); Integration; and unique factors such as WSJT, FM and rovers. Any of us who have been on a weekend contest with a dedicated VHF group begin to understand that this is a well planned, resource-laden undertaking, requiring lots of manpower and drive. It was interesting to hear Owen and Gene, W3ZZ, talk about their experiences, and how they developed a group that included driving force folks (who underwrite the operation, buy and store the vehicles, and bring the crew together), tekkies, HF contesters to run the 6m and 2m bands, and support folks for food, comfort and logistics.

Their plan is to work everyone on every band possible from the start of the contest, using a full staff for all the low bands and passing up to the microwaves from 432. They use both a run and 'search-and-pounce' stations for 6m and 2m, with lock-outs, to maximize their grid and contact tally, similar to those low-band two-radio strategies. When working on the microwaves, their preference is for the more powerful station to transmit first to make the signals easier to find. They also keep a running account of rover locations, preferences and band availability to maximize those opportunities. Their September score was quite impressive.

So did you get in on the auction during the break? 24 gHz amps and preamps were the specialty items, and they went for small change, compared to the costs of those items at any

other venue. A few 3.4 gHz 40w amps also found new homes, as did a 4 watt 10 gHz amp, and at bargain prices.

Joe Taylor, W1JT, gave a detailed description of the WSJT weak-signal meteor scatter program that he wrote this past year. There are hundreds of users around the world, and this is enabling many to up their grid counts on 6m and 2m, and others are off to try it on the higher bands, since it enables you to use smaller burns of weaker intensity to complete an exchange. Even I was able to understand some of the physics and math of the communications, and in expert style, Joe described the design of the program and the use of the FSK441 3 tone per character system that enables the coding of 15 characters in 0.1 second. Several audio clips of brief bursts were demonstrated and decoded. Many of the audience were convinced to download the free software program, and couple that up with a RigBlaster and give it a try.

Lunch on our own was a bargain at the hotel soup-and-sandwich bar, and gave folks a chance to eyeball QSO and relax. Others headed out to the parking lot to show off their rover vehicles, and see if there were a few more QSOs to be made for the Fall microwave sprint. The first afternoon session was an interactive discussion on the VHF bands and other hot issues, run by Roger, K2SMN. Aside from a few good suggestions, like returning to the last frequency that good contact was established when running the bands, and allowing for 1 minute sequencing, the best quote of the segment was made when discussing beacons and frequency calibration, "I can tell the temperature in Baltimore by the frequency of some of the beacons." This was advice to calibrate by some of the known beacons, and plan to meet a few kHz above or below a known marker.

Al Katz, K2UYH gave a lesson on construction and use of small portable stress dishes, and encouraged their use. He especially highlighted the lightweight nature and ease of construction with cheap and plentiful common materials. As a bonus, we got to see plenty of slides from the earlier days of EME. This was a perfect segue to an additional talk on EME polarization, and the main issues of geometry and Faraday rotation. It now seems easy to make the best of a simple rotatable feed system.

John, KB3XG, was the wrap-up speaker with his experiences in construction of a 50w 2304 amp using LDMOS devices. His frustrations with inadequate device technical info, matching, tuning and linearity were chronicled for us all. Now he is able to get 50w out for 3w in. He closed by reassuring us that "I should be able to hear you all a lot better now that I have 50w out!"

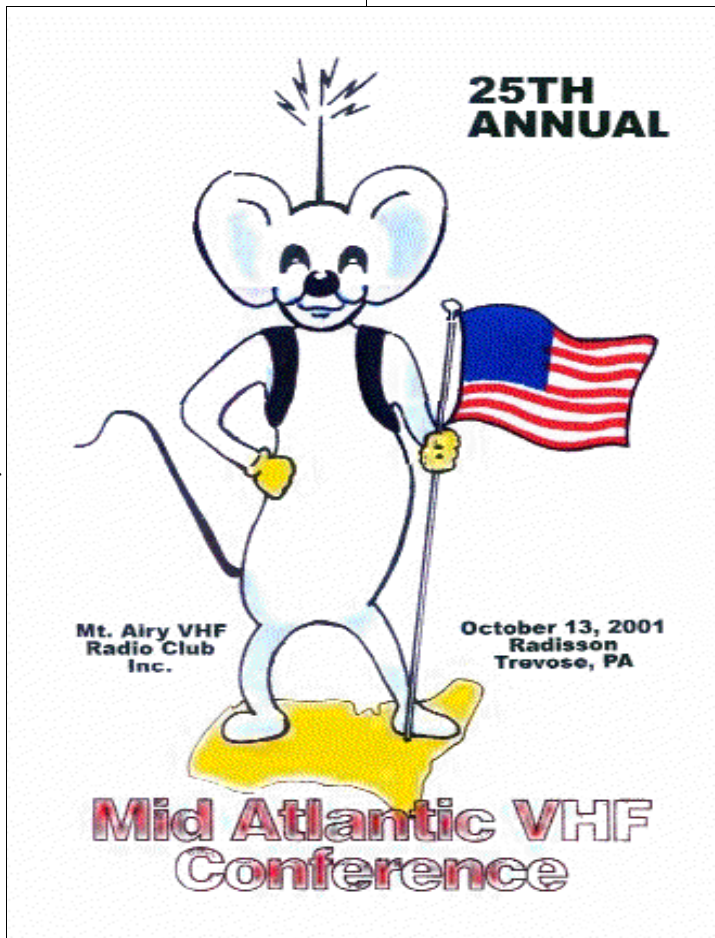


Photo Journal of the 2001
Mid-Atlantic States VHF Conference

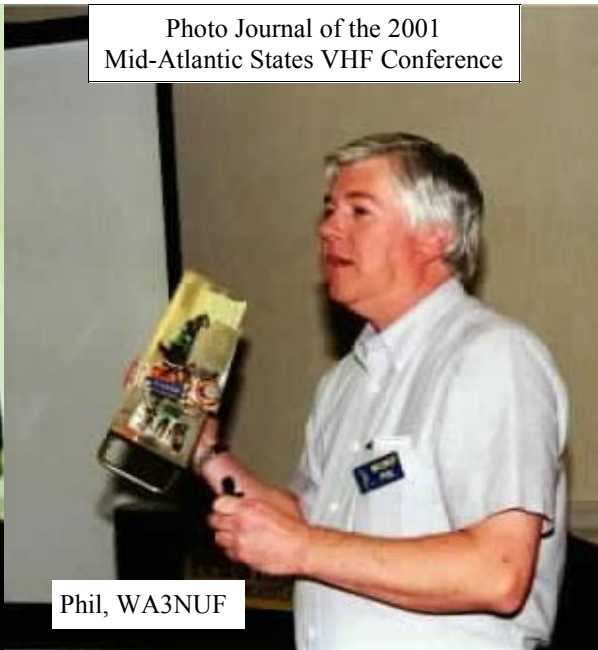
Paul, W2PED



Al,
K2UYH



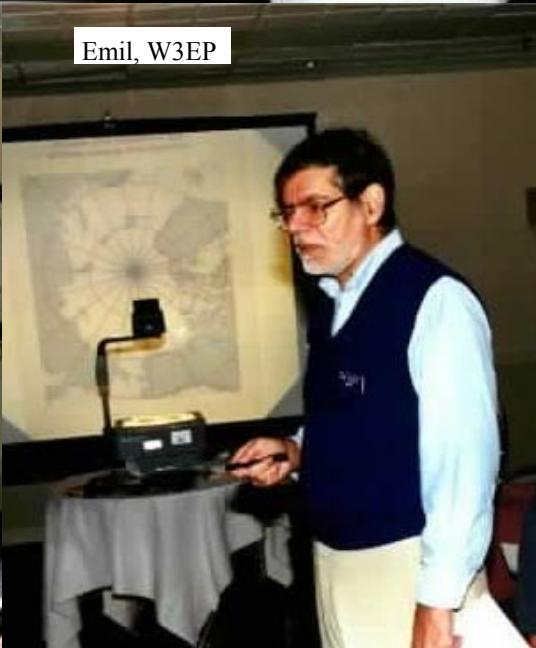
Phil, WA3NUF



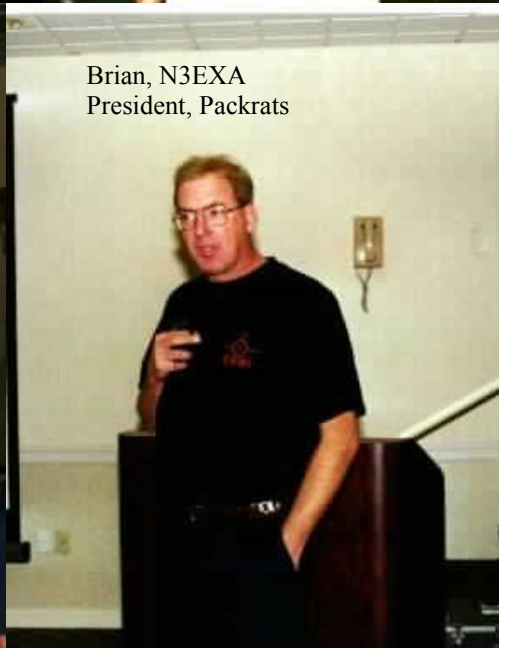
Joe, K1JT



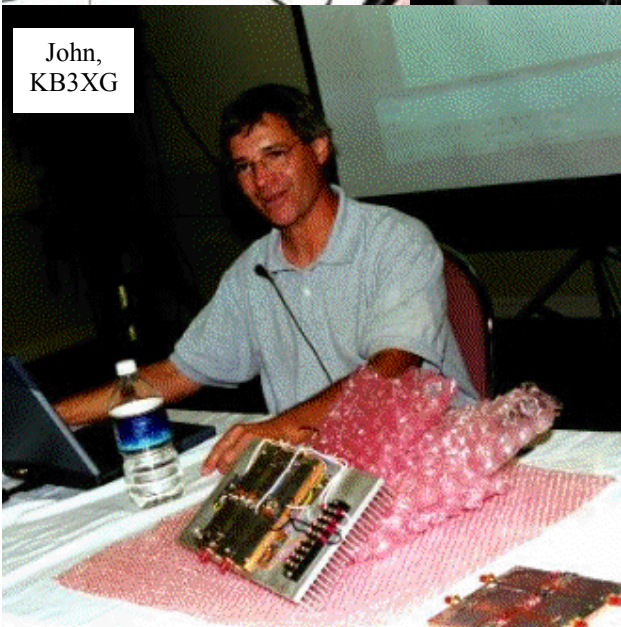
Emil, W3EP



Brian, N3EXA
President, Packrats



John,
KB3XG



Owen
K6LEW



Gene, W3ZZ



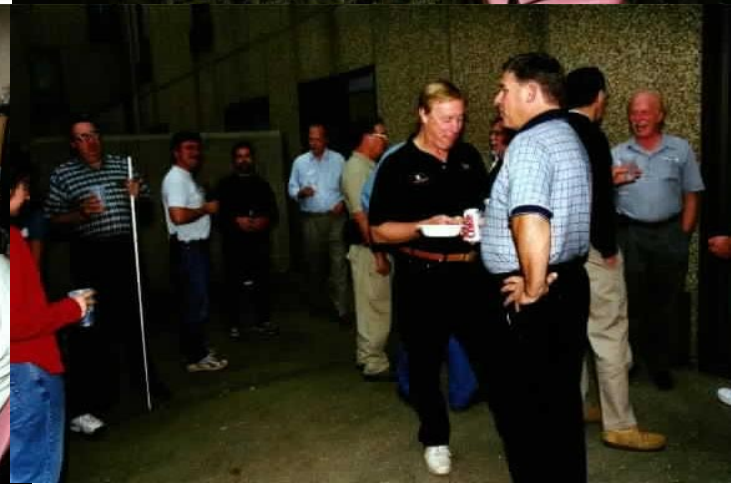
Rumored September VHF QSO Party Totals

Retrieved from the internet from individuals posting their scores. This is not a comprehensive or verified reflection of the scores or activity, and there are apparent errors in certain postings (eg VE3AX)

Call	Grid	NEWS	Class	Total	Band QSOs/ Grids												
					Club Score?	Points	6m	2m	222	432	903	1.2G	2.3G	3.4G	5.7G	10G	24G
AF1T	FN43	Y	S	139564		123/34	177/39	63/27	77/27	20/9	21/9	11/6	5/3	6/3	14/6	-	1/1
AK3E	FM19	N	H	74576		166/38	252/51	-	107/29	-	-	-	-	-	-	-	-
K1DS/R	ROVER	N	R	110548		72/16	154/24	101/19	107/18	29/10	44/10	17/7	6/4	-	-	-	-
K1GX	FN31	Y	H	262548		101/33	237/48	78/32	114/37	36/17	58/22	19/11	8/7	7/6	12/8	-	-
K1JT	FN20	N	S	59857		111/34	154/42	57/21	62/22	-	-	-	-	-	-	-	-
K1LPS	FN34	Y	S	18644		34/17	46/21	26/13	29/15	7/6	7/6	-	-	-	1/1	-	-
K1RZ	FM19	N	H	329156		193/45	301/56	91/35	135/41	38/22	55/26	21/14	-	-	10/5	-	-
K1TEO	FN31	Y	H	542984		224/53	399/61	123/43	188/50	49/24	68/29	30/19	13/11	-	12/9	-	-
K1TR	FN44	N	S	304861		252/47	244/49	86/30	146/42	45/21	60/24	7/7	-	-	10/7	-	-
K1UHF	FN31	Y	H	251049		134/33	422/63	103/36	117/33	-	51/17	15/10	-	-	10/9	-	-
K1WHS	FN43	Y	U	1091550		506/69	541/71	156/49	239/48	67/30	88/31	46/24	32/23	29/20	29/17	1/1	-
K2SMN	FN20	N	H	184894		69/23	280/51	77/35	108/41	21/13	44/21	11/9	-	-	-	-	-
K2UOP	FM09	N	H	32010		46/18	59/22	27/16	38/20	7/4	14/11	3/2	-	2/2	3/2	-	-
K3DNE	FM19	N	H	155660		146/36	200/41	71/27	108/35	26/14	41/19	-	-	-	-	-	-
K3MJW	FN00	N	L	30470		58/29	85/39	30/20	37/22	-	-	-	-	-	-	-	-
K8CC	EN82	N	L	50000		83/32	129/41	30/21	64/31	-	-	-	-	-	-	-	-
K8JWT	FM09	N	R	1740		50/22	4/3	-	2/2	-	-	-	-	-	-	-	-
K8MR	EN91	N	S	48688		81/37	93/40	46/31	46/28	-	-	-	-	-	-	-	-
K8TQK	EM89	N	H	153216		89/40	161/65	56/37	86/46	14/11	28/20	6/5	-	-	-	-	-
KA1EKR	FN42	Y	S	20951		-	75/28	38/18	47/18	-	14/9	-	-	-	-	-	-
KA1OTP	FN41	Y	H	15478		13/8	62/23	27/18	31/16	-	9/6	-	-	-	-	-	-
KA1ZE	FN22	Y	H	452387		238/56	313/61	100/44	143/49	31/20	61/28	22/16	11/10	6/6	11/9	-	-
KB1EKZ	FN32	N	R	14178		35/10	47/13	22/5	28/9	6/1	6/1	6/1	5/1	4/1	-	-	-
KB8JVH	EN80	N	S	6156		37/22	37/23	-	17/12	-	-	-	-	-	-	-	-
KC6ZWT	CM98	N	S	19380		48/10	67/22	42/11	62/17	-	-	-	-	-	-	-	-
KF2XF	FN30	N	S	3724		-	133/28	-	-	-	-	-	-	-	-	-	-
KU4R	EM86	N	S	22250		36/18	65/30	28/17	36/19	-	7/5	-	-	-	-	-	-
N0JK/R	EM07	N	R	429		1/1	9/5	-	7/3	-	3/2	-	-	-	-	-	-
N0LL	EM09	N	S	15792		34/23	62/31	20/13	23/15	-	2/2	-	-	-	-	-	-
N1JEZ	FN34	N	R	12272		16/7	26/9	13/6	17/7	8/7	10/9	7/6	-	-	6/6	-	-
N1MU	FN13	N	R	14592		26/12	35/15	19/11	15/9	7/4	6/3	5/2	5/2	5/2	-	-	-
N1RZ	FN44	N	S	9164		46/19	42/21	-	35/18	-	-	-	-	-	-	-	-
N2FKF	FN30	N	H	12705		-	112/31	-	43/17	-	11/7	-	-	-	-	-	-
N2JMH	FN13	N	R	135042		104/22	175/35	115/26	116/25	10/4	32/13	11/5	3/2	-	-	-	7/3
N2YEV	FN34	N	S	6440		37/17	55/19	-	24/10	-	-	-	-	-	-	-	-
N6MU	DM05	N	S	34370		166/26	149/25	-	88/19	-	-	-	-	-	-	-	-
N6ZE	DM04	N	S	4160		20/7	40/12	13/5	19/6	-	2/2	-	-	-	-	-	-
N7IR	DM44	N	Q	1562		26/8	23/8	4/3	7/3	-	-	-	-	-	-	-	-
N8KOL	EN80	N	U	136315		117/43	240/67	63/39	84/39	-	10/10	1/1	-	-	-	-	-
N8KWX	EN62	N	R	10619		46/8	68/10	22/5	37/10	9/4	-	-	-	-	-	-	-
N9OU	EN52	N	Q	372		-	17/8	4/2	3/2	-	-	-	-	-	-	-	-
N9RLA/R	EM78	N	R	4332		37/13	77/17	-	-	-	-	-	-	-	-	-	-
NC1I	FN32	Y	L	723356		631/77	739/81	214/54	402/66	-	-	-	-	-	-	-	-
NJ2F	EL96	N	H	2808		27/8	31/9	9/3	16/6	-	-	-	-	-	-	-	-
NN5DX	DM80	N	S	12		4/3	-	-	-	-	-	-	-	-	-	-	-
VE2ZP	FN25	N	S	12040		44/22	58/25	11/9	24/14	-	-	-	-	-	-	-	-
VE3AX	FN02	N	H	1		1/1	-	-	-	-	-	-	-	-	-	-	-
W0ZQ	EN34	N	U	149625		135/45	186/43	58/24	100/30	20/13	34/13	8/5	-	-	4/1	-	2/1
W1AIM	FN34	Y	H	63574		65/25	111/37	45/23	63/26	3/3	19/14	3/3	-	-	2/2	-	-
W1PM	FN41	Y	S	76874		80/24	108/33	50/23	67/26	20/12	32/15	-	-	-	-	-	-
W1VHF	FN41	N	H	17850		350/51	-	-	-	-	-	-	-	-	-	-	-
W1XM	FN42	N	U	83578		116/25	255/50	46/22	69/24	1/1	10/8	-	-	-	1/1	-	-
W1XX	FN53	N	H	75048		119/31	209/36	63/23	91/28	-	-	-	-	-	-	-	-
W2SZ/1	FN32	N	U	3247860		881/87	960/88	355/66	596/76	148/40	177/43	128/38	87/31	73/26	72/14	26/8	2/1
W2WGL	FN23	N	S	6750		8/7	59/26	-	29/21	-	-	-	-	-	-	-	-
W3EP	FN31	Y	H	63612		164/38	160/44	-	69/32	-	17/10	-	-	-	-	-	-
W3IY/R	FM19	N	R	188748		79/20	181/25	107/20	122/21	40/11	50/14	29/10	18/8	12/4	14/4	1/1	-
W4/ON1CFX/R	FM18	N	R	15861		-	189/29	-	61/18	-	-	-	-	-	-	-	-
W4EUH	EM74	N	L	36050		106/29	124/43	21/14	39/17	-	-	-	-	-	-	-	-
W4IY	FM08	N	L	530448		482/65	610/77	181/58	305/57	-	-	-	-	-	-	-	-
WA2HFI	EN34	N	S	15732		34/11	59/15	17/7	40/13	8/4	15/7	-	-	-	-	-	-
WB2SIH	FN31	N	S	41322		34/12	119/30	53/25	67/24	-	11/6	-	-	-	-	-	-
WB2VVV	FN41	Y	S	23288		40/18	75/22	27/15	31/16	8/6	7/4	2/1	-	-	-	-	-
WO7GI	EM04	N	H	2883		14/6	39/17	8/5	12/3	-	-	-	-	-	-	-	-



More from the Conference: (clockwise) Brian (the rover) ND3F and his new rover ambulance, tilt tower and telescoping mast, below, in operating position, the banquet—at which Brian described his set-up with a digital video of the rapid deployment of his antennas. Two on bottom are the hospitality suite and patio, with K2SMN, Roger in the foreground, the bands discussion leader; center left is the test room, all set up to measure about anything you need done in the VHF-UHF-Microwave spectrum. There was a great menu selection for the banquet, and with the buffet style service, it was “all-you-can-eat.” Banquet attendees all got 30W 903 amp bricks and dozens of MMICs as favors, in addition to door prizes that included DEMI Gift Certificates, a DEMI 10GHz transverter, microwave dish, parts and books galore! Thanks again to KB3XG & all the donors of the prizes. There is a contest for the best idea on the use of the MMICs. Send you ideas and or circuits to the editor: rick1ds@hotmail.com



Roving Rochester Style



N2OPW/R



K2TER/R

Moving Your Cheese (Buy-Sell)

→ **For Sale:** the two antenna systems for 2304 and 3456 we have been using at K8GP for the past several contests. The 13 cm system consists of 4, 76 element loopers, power divider, phasing lines and H-frame; the 9 cm system consists of the same. New cost less shipping from Directive Systems was: \$868.75 and \$891.00 respectively. Also: Two FT-736R VHF/UHF Transceivers #1 has 2M, 1.25M, 70 cm and 23 cm with MUTEK kit (2M & 70 cm) installed and modified for use with 144 MHz IF vtr's. #2 has 6M, 2M, 1.25M, and 70 cm with MUTEK kit (2M & 70 cm) installed and modified for use with 144 MHz IF xvtr's. Both work great. I have all the manuals, and cables (DC and AC). I am asking \$1800.00, S&H not included, for either unit. I have hand mikes and the narrow CW filters installed for both as well as everything I listed earlier. Condition: 10+ operational, about an 8 in appearance with some top cover scratches, perfect front panels however. I will warranty both units for a period of 30 days and will agree to a "first 10 day" right of refusal. I can process credit cards if need be. I can ship UPS from here. No reasonable offer will be refused. I can not ship the antennas from D.C. but would be glad to meet someone part way or deliver direct within 200 mile radius of D.C..Funds raised will be plowed back into K8GP. Owen Wormser, K6LEW / FM181x 3201 Tennyson St, NW Washington, D.C. 20015 home: 202-362-8255 / office: 202-362-8294

→ **For Sale:** Hewlett Packard Spectrum Analyzer 0-1250 Mhz. Model 141T with 8554L and 8552 plug ins \$500. 60 Mhz. Dual Channel Oscilloscope Tektronix Model 2213 \$150. Both are in good working condition 215-884-3116



Mailbox, cont'd

(this means that I need a larger array, as W3CCX is at about 200 degrees AZ relative to the array) The purpose of this email is just to direct you to an amusing gif file I put on my webpage <http://www.qsl.net/w3sz/cwtestpackratsrotated.gif>. It's a screen capture of the 144 MHz w3ccx beacon as captured by Leif's program here. I put it in Paint Shop Pro and rotated it 90 degrees so you can read the code left to right. Look near 22000 Hz. You may have to scroll down a bit to see it; its near the bottom of the image. The original image is here:

<http://www.qsl.net/w3sz/cwtestpackrats.GIF>

This is not a big deal, as Leif is doing this off the moon on 144 MHz. I used the program with a homebrew receiver for the EME contest the weekend of the conference, and was VERY impressed. A starting place if you want to read more is at <http://www.qsl.net/w3sz/start.htm>

Have a great week! 73, Roger Rehr W3SZ ex AA3QK, WA3JYM

To: Users of WSJT

From: K1JT

Subject: WSJT Version 1.03

September 28, 2001: Version 1.03

This is a minor maintenance release. The program enhancements include:

1. Correction of problems in using the COM port to key the radio's PTT line when running Windows 2000. All Windows versions later than Win 95 are now believed to support WSJT properly.
2. By request, the "TX Mute" feature has been resurrected by adding it to the Setup menu. If this item is checked and Auto Period is On, you can monitor one side of another QSO and use the time you would be transmitting (if this were your QSO) for multiple attempts at decoding received pings. This feature can be especially helpful if your CPU is slow.
3. A bug was fixed that could (rarely) cause WSJT to crash if too many pings were detected in one received file. You can upgrade by downloading the file UPD103.ZIP from the WSJT home page, <http://pulsar.princeton.edu/~joe/K1JT/> and from the European mirror site <http://www.vhfdx.de/wsjt/>.

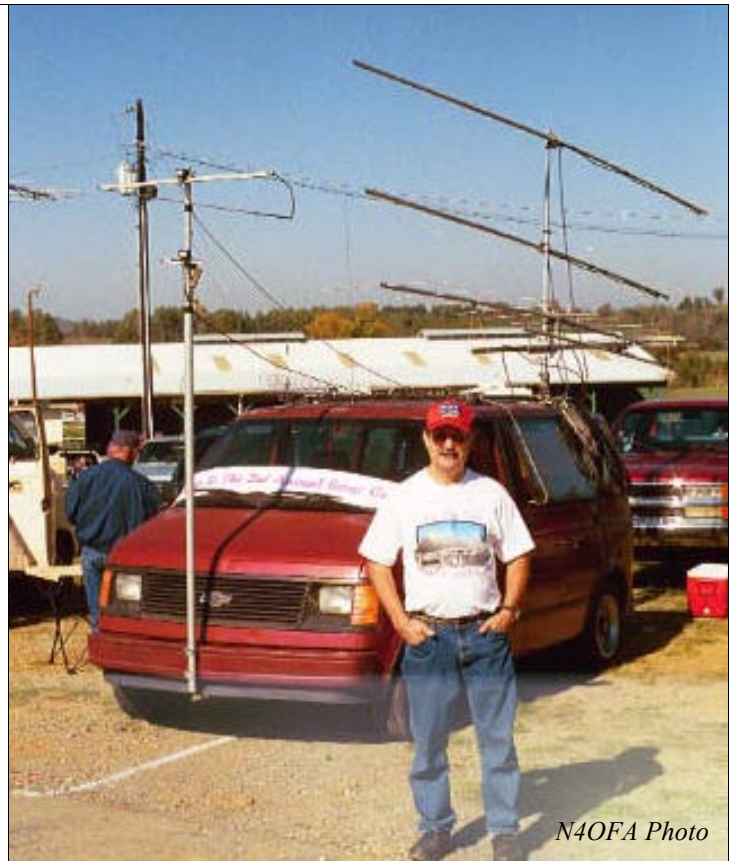
-- 73, Joe, K1JT

AA2UK Superstation Preview

Bill was going to tell us about his super rover, that van with the 50' telescoping tower and the array of antennas thru 10g, complete with all the gear and power...but an opportunity came by that was too good to pass up: a lease of a 300' tower and operating shack. He detailed this new acquisition at the October meeting, complete with a slide show of the before and after pictures. It is truly a labor of love, and quite a few bucks to go with it, but the results already look spectacular, with a very respectable score in the September QSO party on low power.

We learned about the FAA Red and FAA White paint that is needed to cover the tower, and the installation of the lights to warn off airplanes and helicopters. We heard about the neighbors who don't let visitors down the protected road to the access to the shack and tower. We got first-hand information on what it takes to protect the unoccupied site from intruders. And we saw some spectacular shots of the work progressing over the summer, and the completed installation of the top, high-middle, and low antenna arrays, complete with their side-arm mounts and rotators. With single yagis set up on a common mast for the lower 4 VHF bands at close to 200 feet, and the higher bands at about 135 feet, the rotation looks from the northeast to the south, since there is really nothing much to the east from Bill's new spot. Runs of mostly LMR-600 feed the antennas, except at the highest bands where loss becomes a more critical factor over the 150' it takes to get from the shack to the feed.

As an added bonus, the new QTH is at the end of the AC line, and is very quiet line noise-wise and RF-wise. In future editions we hope to have pictures of Bill's new shack and arrays, and especially look forward to his new score contributions!



Mike, N4OFA, in front of his "Red Rover". Red Rover covers 50 through 1296 MHz.
(N2MH/R Photo Scrapbook - Tri-Cities Hamfest, Gray, Tennessee, October, 1999)

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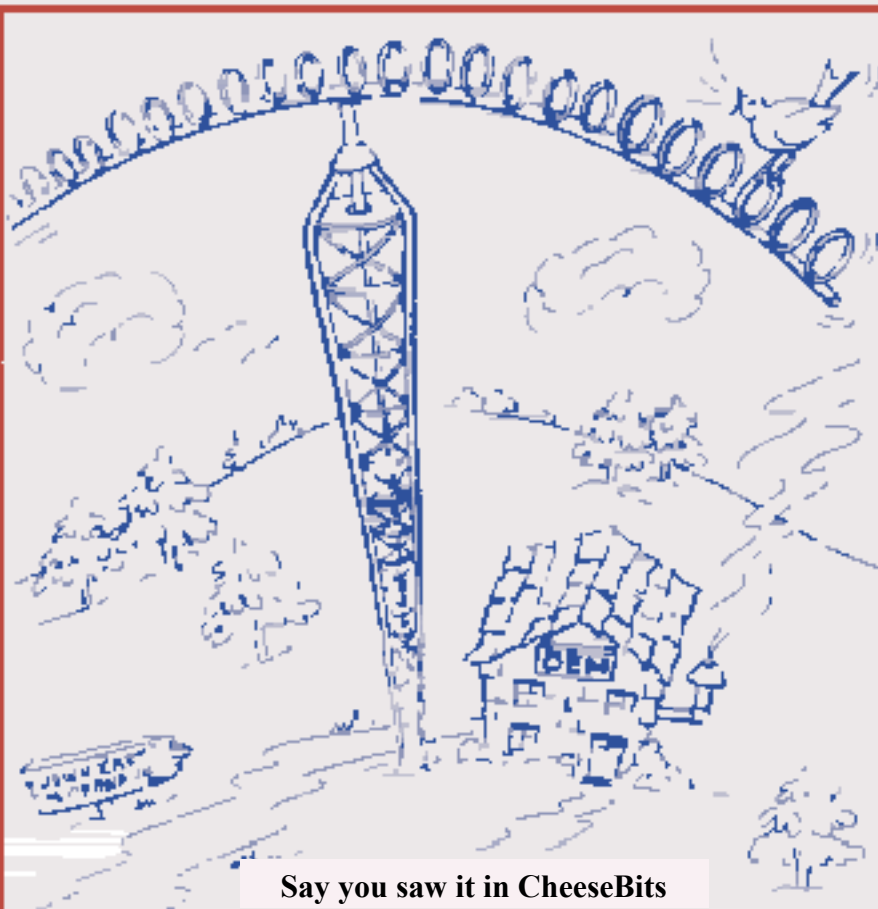
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