



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume XLIV

October 2002

Number 10

PREZ SEZ

HAMARAMA is upon us. Ed Finn, WA3DRC has done a great job in putting together the plan for this year's bash. We need each and every Packrat to be an active participant in making this event an ongoing success. Make sure that you give your time and energy to assist with security, ticket sales, parking, clean-up, club table and signage. This is an "all hands on deck" call, with expectations that all Packrats will be there to serve.

Paul is getting off to a great start with the programs for this year. Your attendance at the meetings is appreciated, and a sign to the speakers of the member interest. Keep the third Thursday of every month marked for our meeting at 8PM at the Southampton Free Library off of Street Road.

I heard many of the 'rats on-the-air for the September VHF QSO party. Although conditions were rather flat, many of the rovers kept the contact rates up. Please remember to submit your Cabrillo formatted logs in a timely fashion to: SeptemberVHF@ARRL.org I am looking forward to seeing you at the Board meeting at K1JT's and then HAMARAMA

Listen for the weak ones....**73, Brian, N3EXA**

Extreme Northeast Roving—KB3XG/R

KB3XG/R and Celeste spent the September Contest as a rover for the K1WHS contest station in FN43. The long weekend started Friday when we hooked up with Warren, WB2ONA and Pat, N2CQM in Nyack, NY who installed an APRS system in my truck. K1WHS would now be able to see me en route and on site in real time. The system did not work perfectly but I thought this might be a good addition for K1DS/R for next June.

We arrived at FN56 about 3pm on Saturday. The site is located on a now defunct Ski Lodge about 25 miles SW of Houlton, ME where I-95 ends. The access road is kind of rough without a 4WD. We worked up through 1296 with no problem. This was a good spot to check out the equipment.

There was a weather system scheduled to make an appearance starting Saturday at midnight. We raced to the next mountain 25



KB3XG/R in FN67

miles south of Caribou, but it was pitch black when we arrived at FN66. I couldn't find the access road even with the GPS. We decided to find a place to eat and sleep and to be on the mountain early in the morning. We were set up and ready to go by 10am the next morning. It was foggy and raining really hard with 30 knot gusts. I felt like I was on an IFR flight plan without an airplane. This is the site with a TV transmitter just 50 yards away. You could hear the corona sizzle on the TV antennas. I could not hear anything but 20 over 9 noise on 50 - 222. Working the hill on 432 - 1296 was not a problem and the hill was hearing me @ S9 on the lower bands. We gave up, tore down, and started down the mountain. On the way down we found a power line break in the trees that wasn't a perfect heading but probably OK. The contacts were weak but we made it. We were on our way to FN67 (20 miles north of Caribou) by 1pm. Usually bad weather follows pilots, but in this case we drove out of the weather system into blue skies and dry ground. We were getting faster at setup. It only took 30 mins. This site is located in the middle of a potato field in Van Buren. (See attached picture) Dave, K1WHS has never worked anybody from this grid even on 6M. If you look at the grid map there is only a sliver of ground in the United States. This is a 300 mile path with 3000 foot mountains to the south. We were hoping that we might squeak out a 6M & 2M contact. To our surprise the signals were really loud on all bands except 6M. We quickly ran through the bands on SSB.

We packed up and drove 20 minutes south to FN57. Bill, K1DY mentioned in his directions that he could not find the access road to the cell site that looked like the best shot to the SW. After a brief search of the surrounding roads we stopped a farmer and asked how to get to the site. He told us that there is no access, but to knock on George's back door and ask if we could drive through his back yard. George was not home but his son-in-law drove by and asked if we needed help. He showed us the best spot to setup to facing the SW. The signals were just as strong from this site as they were from FN67. What a great site!

With the exception of the wet weather the weekend was great. I started out with a little scratch in my throat and ended with a mature head cold. Thank God for non-drowsy cold pills. We spent Saturday night in Presque Isle. This is a pretty <cont'd on page 4>

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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	W3RJW FN20le
9:30 PM	1296.100 MHz	WA3NUF FN20le
10:00 PM	903.100 MHz	AA3GN FN20ig

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



East Meets West: K1DS/R (L) and N6NB/R meet atop Camel-
back for the September VHF contest

Editor's Column

It's the VHF contest rules that's got everyone in a tizzy this past month, with a long and strong thread on the VHF Contesting reflector. In this issue, I've printed a few abstracts (not complete messages) from some of the members and others who make significant points. There appear to be several different camps here—smaller stations in less populated areas, big guns in the Northeast corridor, rovers, multi-ops and general VHF ops, along with a handful of selective tech stations doing the specialty stuff. I must admit, it reminded me a bit of the discussions I had with my adolescent son, who asked for a bigger boom box, fancier sneakers, and label clothing so that he could be “among the best.” I explained to him that we were a family of modest means, and that considering who we were and where others were, that there would always be someone else who had a bigger and better <insert item or score of your preference here>!

So he went on to prove to me that he could get recognition through other achievement, like special honors at school for taking on special assignments, and going out of his way to take extra classes and prepare extra reports. He did set out to achieve recognition from his parents and self satisfaction of a job well done. He said to me when he told us that he was going away to school when he was 15, that he was taking charge of his future and he'd always make us proud of his path in life. As a young married man, and now father of three, with a full-time job and pursuit of an MBA, he is setting new goals for himself, ones that are realistic and within reach, requiring hard work and dedication, some assistance from family and friends, and a lot of juggling of time and responsibilities. Sorta like his mom and dad? Perhaps.

As most of you know, living in an antenna restricted community, there is the rover thing for me. I don't really wish to set any records, just accomplish my self-appointed tasks and have some fun, supporting the club group score. If by some quirk of fate, guys like ND3F, W3HMS, KA1ZE, W3IY, N2JMH and others decide not to operate a contest, I may have a shot at a high place certificate. Right now, that task is to have a balanced life—family, work, community and hobbies. I am enjoying myself, and publishing Cheese Bits and getting positive feedback has been a plus. Probably most don't recognize the time that goes into putting this together, but I'll take another opportunity to thank Harry, W3ITT for the years of labor he put into this—and others who came before him.

At any rate, I didn't want to get too polarized or controversial in this editorial column...but let me say a few things...we need to maintain a centrality of community activity to keep everyone moving along the technical capability spectrum and participation. The more room we make for all varieties of stations and operators, and recognize all unique accomplishments, including band growth, station communication distance achievement, and the reward for “chair time” the better off we all will be. This is not who gets the gold ring.....most will have a hard time topping K1TEO (although Stan, KA1ZE made a close run last year) and topping W2SZ may only be possible in the present if they have a power failure on Greylock (and they probably have back-up for that). Although many of us can easily get on 10-12 bands with purchased gear, these stations have been built with lots of dollars, technical expertise and years of experience. FM and digital are welcome in the contest. Let's all respect the genesis of the rules, send comments and suggestions supported by fact and experience to the Contest Advisory Committees, and let's continue to live with the evolution, albeit slow.

For the past two years, the club gave color frame-able participation certificates to all club members who submitted a January Score for club aggregate. The awards also changed a bit this year and reflected “Most Improved” in addition to other standard categories. “The Crying Towel” also rewards those whose mission may have not achieved a top place, but is preserved in the annals of club history for all to enjoy. Hope you all had a chance to get on for some of the multitude of September VHF events. See you at HAMARAMA. 73, Rick, K1DS

HAMARAMA - 2002

Sunday October 13, 2002

Rain or Shine

Gates Open: Buyers at 0700 Sellers at 0600

Middletown Grange Fair Grounds
Penns Park Road, WRIGHTSTOWN, PA

Food, Beverages & Facilities on Site

No Overnight Parking

Talk In on 146.52 MHz Simplex

**General Admission \$6.00 Outdoor Seller 's Add: \$10.00/Car
Space**

Non-Ham XYL 's and Children under 13 Free Also,

Indoor Space: First Come, First Serve

Indoor Sellers Add: \$10.00 per 10 ' Table

Bring Your Own Table

Grande Door Prize \$300.00 Cash

Special Vendor Only \$100.00 Cash Prize

Plus Buyer Prize Drawings

No Advanced Reservation

For More Information via E-Mail: packrats_w3ccx@yahoo.com
or www.ij.net/packrats

Grande Door Prize \$300.00 Cash - Special Vendor Prize Only \$100.00 Cash -Buyer Prize

From Points South :Take I-95 north to exit 49 Newtown/Yardley -Route 332 West. At top of Ramp turn left. Go west until 332 joins with 413 north. NOW follow 413 north until it becomes a two lane road. Go 3.2 miles and turn left on to Penns Park Road - Wrightstown Friends Meeting and cemetery on left just before turn. Sign for Middletown Grange is on Right. Follow Penns Park Road 0.2 miles to Hamfest on the left (approx.8.2 miles from I-95). NOTE: If coming from the Burlington Bristol Bridge follow 413 north to I-95 North then follow the directions above (saves a lot of time).

From PA Turnpike: Use Exit 28 keeping to left out of toll booths to US 1 North. Go to I-95 North and follow directions 'from points south '.

From Central New Jersey/Trenton: Take I-95 South from New Jersey. After crossing the Delaware River to Exit 49, take the **Route 332 West** (Newtown) Exit. **West on 332** and follow direction 'from points south '.

Entering PA on US 202 South :Follow US 202 to Buckingham Route 413 South. Turn Left. **South on 413** 7.0 miles to traffic light at Route 232 (2 gas stations). Stay on 413 and go exactly 1 mile past traffic light, passing CAROUSEL AT INDIAN WALK, and turn right on to Penns Park Road. Follow Penns Park Road 0.2 mile to Hamfest on the left. There is a Big "ICE " Box on Corner of Penns Park Road

From Montgomery County South and West: Follow Route 132 East to Route 232 (2nd Street Pike) in Southampton, PA. Hess Station on corner Go North on Rt. 232 (Right-hand turn). Stay on Rt.232 North for **7.1 Miles** to **Penns Park Rd** (Salvatore 's Tavern on corner). Make a right turn on Penns Park Road. Hamfest is **0.6 Miles** on right.

High Performance Portable Contest Yagi For 6 Meters

After the 2000 June ARRL VHF Contest I set out to design a new six meter antenna to replace my existing five element NBS Yagi that I had been using for years. Prior to 2000 I had only operated on three bands, 50, 144 & 432 MHz, but now I had to erect antennas for all bands to 3456 MHz. For most stations this would not be a problem, but I operate in the Single Operator Portable Class (old QRP Portable Class) where the rules dictate that all equipment be set up at a portable location by a single person. I had built the old five element 12' long NBS Yagi using a 1 1/2" boom, 1/2" elements along with a heavy duty boom to mast plate. The antenna had fair performance, but boy was it heavy!

What I needed was an antenna with better gain and front to back ratio but with less weight. During my quest for the perfect 6 meter portable contest Yagi I found an article on the Pack Rats web page by Gary Dallas WA1YHO describing the 6 meter Yagi designed for use at the W3CCX contest site. Although the numbers looked good, this antenna would be even heavier because of its longer boom length (21'3"). Having a basic design, I entered the antenna into the Yagi design software "Quick Yagi" then modified the element and boom diameters to yield a lighter antenna.

The antenna I came up with is as follows:

Boom Diameter	1.000"
Boom Length	22.31'
Driven Element Diameter	.375"
Forward Gain	11.33dBi
Parasitic Element Diameter	.250"
F/B	30.18dB
Design Frequency	50.125
3dB Beamwidth	50.4deg.
Reflector Length	9.753'
Ref to DE Spacing	4.55'
Driven Element	9.500'
DE to Dir 1 Spacing	3.86'
Director #1	9.050'
Dir1 to Dir2 Spacing	8.13'
Director #2	8.960'
Dir2 to Dir3 Spacing	5.75'
Director #3	8.730'

Gamma Match = 3/8" Tubing 12" Tubing Length (Gamma Arm)
 10.5" Connection to the Driven Element (From Center of Element)
 2" Spacing (Element Center to Gamma Arm Center)



Because this antenna is designed as a contest antenna, I was not worried

about an ultra wide bandwidth as some commercial designs. The main concern was high front to back ratio along with a clean major lobe while operating within the lower 200 KHz of the band. The dimensions listed above fill that need.

Another problem that has always plagued me was the time required to assemble the antenna during set up. The elements were attached to the boom with U bolts and it took considerable time to position the elements, tighten the U bolts, and align all the elements so they were in the same plane, not to mention assembly of the feed point gamma match. Since I had already decided that 1/4" parasitic elements would be used I opted to mount the elements through the boom on delrin insulators like the 3/16" elements on my M2 144 & 432 yagis. I did not like the idea of cutting off one of the stainless steel retainers to remove the parasitic



element every time the antenna was torn down for storage, so I devised an "element keeper" using standard hardware from MSC. I purchased 1/4 x 20 aluminum nuts, next I drilled the threads out of them to clear the 1/4" tubing. Then I drilled and tapped a hole to accept a 4x40 screw perpendicular to the 1/4" hole. This will allow the element keeper to be clamped in place after it is put on the element. A locking nut (4x40) assures that the 4x40 screw does not vibrate loose.

The driven element is mounted directly through the boom (not insulated) and held in place by a 6x32 screw. Although many criticize the use of a gamma match, I utilized one in this design because of the ability to assemble and disassemble the driven element quickly. The N-Female connector and center conductor of the gamma match (made from the center conductor of RG-8) are mounted on a L-bracket to the main boom. Once the gamma arm is adjusted to resonate the antenna, the outer conductor of the gamma match is permanently attached to the driven element. When reassembling the antenna, you now have a quick no tune assembly by inserting the center conductor of the gamma match into the outer conductor of the gamma match as the driven element is slid into the main boom.

The first test of the antenna was during the June 2001 ARRL VHF Contest. Assembly took less than half the time the old NBS took and the weight was considerably less considering the boom length was nearly twice the old antenna. Although the antenna is not as rugged as its predecessor, it fits the bill as a lightweight antenna for portable use. On the air tests verified its excellent performance. The high front to back ratio of the antenna proved invaluable when operating contests from a mountain top location in the center of FN20 (between the likes of W3CCX, K3YTL, W8GP etc.). I also saw a noticeable narrowing of the beam width over the NBS Yagi, but as with any antenna this is the price you pay for higher forward gain.

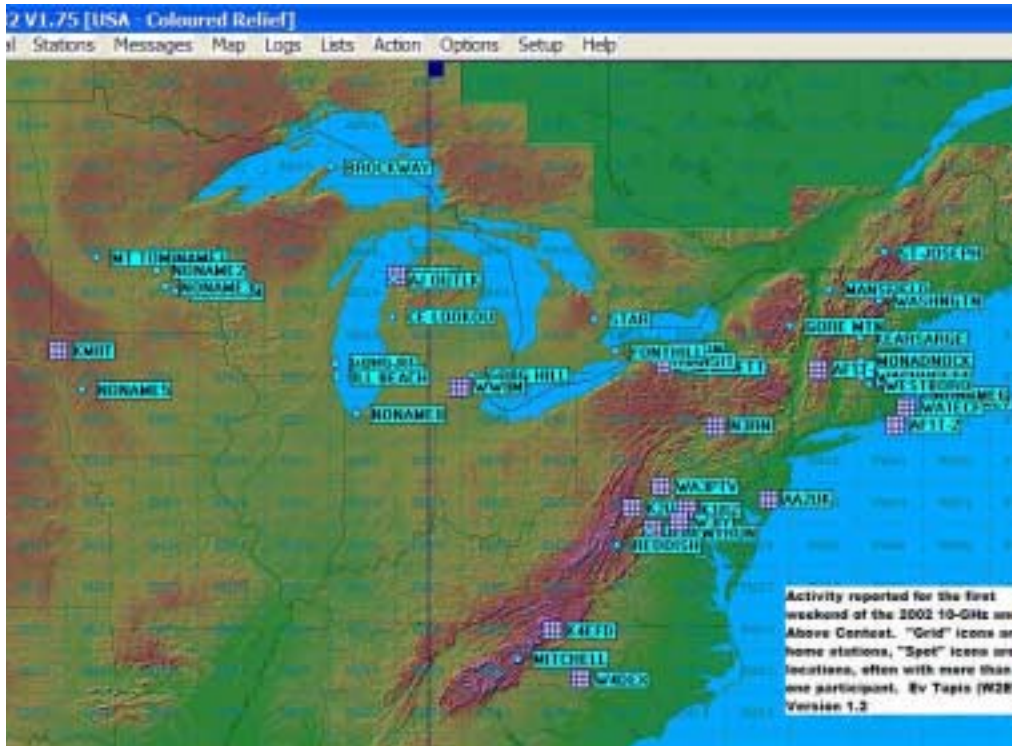
The delrin element insulators and stainless steel element keepers used on the antenna are available from Down East Microwave. Aluminum tubing can be purchased through a number of distributors including Texas Towers. I will provide drilled and tapped aluminum element keepers for any Pack Rat needing them for this project.

Questions, comments and corrections are welcome
 n3fti@yahoo.com. 73 **Steven Kerns, N3FTI**

<from p1> happening college town. We met two KC135 (DC-10) pilots from McGuire AFB in the bar. They were up there for the weekend working on their civilian ATP (Air Transport Pilot) rating. We shared stories and beers. We stopped at LL Bean on the way home and bought 2 sets of heavy duty rain gear for next year.

We drove a total of 1530 miles. The truck was in motion for 30 hours and 10 minutes and stopped for 17 hours and 40 minutes. Stopped includes traffic jams and time spent at each site. Saturday night I was tuning around the AM broadcast band looking for a local weather report. I could not find a single AM station on the band. The same was true for the ham bands at each of the northern sites. Usually you hear other stations on the bands during a contest weekend. The only station we could find on any band was K1WHS.

It was fun running medium power with big antennas as a rover. I had 200W on each band except 1296 which was only 100W. Having four 17 foot Yagi's on the roof did hurt either. Next year I plan on bringing 2.3 and 3.4 along with me. 73 **John, KB3XG**



←This map of Eastern stations active on 1st weekend of 10G & Up Cumulative Contest courtesy of the Rochester VHF website, W2EV and W3HMS

A VHFer's Promised Land

Sometimes I think east coast VHF-UHF enthusiasts don't always appreciate what they have. The combination of population, propagation, geography, and groups like the Mt. Airy VHF Radio Club make the northeast something of a promised land, a mecca for weak-signal operators. I've felt this way for 45 years now, and my recent visit for the September, 2002 VHF contest—when Rick Rosen, K1DS, introduced me to a new era of northeastern VHF contesting—only confirmed that feeling.

Rick heard that I had packed a modest five-band VHF station, including antennas, into two suitcases so I could rove in a rent-a-car. He invited me to tag along with him. We went to Camelback Mountain (FN21) and on to lesser sites in FN10 and FN11. (Thanks for the wonderful introduction to 21st century eastern VHFing, Rick!) After Rick headed home to keep family commitments on Sunday, I ventured back to Camelback and on to FN20 and FN30. By the time I flew home to California on Monday, I knew that the northeast is still the promised land of North American VHFing. I want to come back again and again.

The technology of VHF contesting has changed enormously in recent years. Nowadays no serious operator would want to compete in the northeast without a logging computer and equipment to cover every band up to 10 GHz, but the *feel* of a contest in the northeast is still unlike anything in the rest of the country, just as it was 40 years ago. The activity levels are incredible compared to what we have in the west. The number of stations active on bands above 432 is simply beyond belief to a westerner. So is the ease with which northeastern stations work across three or four call areas. That's unheard of in the west.

I think it's always been like that. As a new ham in California in the 1950s, I was amazed by the VHF contest scores posted in the northeast. I read with amazement of what could be done at places like Mt. Greylock, Mass. And I read about a new group that was dominating the club competition in the January VHF SS, the Mt. Airy Pack Rats.

In the 1970s, I wanted to find out firsthand about VHF contesting in the northeast. In 1977, when I was chairman of the ARRL Contest Advisory Committee, I asked if I could meet with some of the Pack Rats to learn more about what they were doing and how. Harry Stein, W3CL, hosted a meeting on a Sunday afternoon. Among the people there were Harry Brown, W3IIT; Joe Kilgore, W2EIF; Dave Mascaro, WA3JUF; Bill Olson, W3HQT; and Ron Whitsel, WA3AXV. Or maybe I met some of them at the Pack Rats picnic a few months later. It's been a long time! At the picnic I ordered a Pack Rats T-shirt with my call on the back. It's old and faded now... It's 25 years old.

In 1978 I flew east with seven trunks full of VHF gear and operated the September contest on Mt. Equinox, Vermont. That was a humbling experience: I had a lot to learn. I went home and built a VHF station in a van, complete with kilowatt amplifiers and a tower trailer. Then I

drove east. After some false starts I got lucky on Mt. Equinox and won the September, 1979 contest, setting a scoring record that was never broken in the pre-grid-square era (the multipliers were ARRL sections then). After a few more contests in the east, I realized I was neglecting my career and my family, so I sold the van and the tower trailer and disappeared into the western sunset. But I never forgot what VHF contesting was like in the northeast. And I kept reading Cheese Bits.

Thanks to Rick's hospitality, I've now experienced northeastern VHF contesting again in a new era, and I know I can't stay away. I miss the whole ambience of VHFing in the northeast. And I miss the Pack Rats. We're blessed with some outstanding VHF groups in this country. There are marvelous regional organizations like the Central States VHF Society. There are all-out mountaintop contesting groups like the Mt. Greylock Expeditionary Force. But I don't know of another ARRL-affiliated

local club that holds regular meetings in the same place month after month, year after year, and also has the focus and spirit of the Mt. Airy Pack Rats. I've never lived in the northeast full time, and I probably never will. I can probably never be a Mt. Airy member, but, if I may paraphrase one of John F. Kennedy's most famous speeches, *Ich bin ein Pack Rat!*

73-Wayne Overbeck, N6NB www.n6nb.com

Activity Calendar

Thursday, October 10: Packrat BOD: 8P
All officers and other club members invited— at the QTH of K1JT.

Sunday, Oct 13: HAMARAMA.

****ALL** Packrats are expected to attend and assist at this event. Ticket sales start at 6AM. Parking help, vendor sales, general support, club table, talk-in and clean-up. Contact WA3DRC, HAMARAMA chairperson phone: (215)322-2105 cell: (215)500-8722 edfinn1@comcast.net**

Thursday, Oct 17: Packrat Club Meeting
8P Southampton Free Library
K2TXB featured speaker on EME

Thu-Sun, Oct 24-27: MUD 2002
This is the biggest East Coast Microwave conference of the year, this year being sponsored by the N.E.W.S. group. Contact N2LIV, meeting chairperson

Thursday, November 21: Packrat Club Meeting—8P Southampton Free Library
EVERY PACKRAT MEMBER NEEDS TO ATTEND THIS IMPORTANT BUSINESS MEETING—Please Mark your calendars. Special Mail notice to follow.
W2PED featured speaker on K1WHS

Microwave Activity in France

(Translated by John Jaminet, W3HMS, via the web)

Dear Editors and friends..... Microwave Activity Day is enjoyed in the Eastern US and also in France. There are so many ways to do it and here is one from France. When Jean-Pierre, F1DBE, sent me some photos, I knew I had to ask for more along with text for translating as American microwaveers would surely like to see how it is done in another land. So he sent the pix, abt 14, and an OK for the translation for US Microwave magazines. The mounting time is about 45 minutes by one OM. The longest part is the stabilizing and leveling the trailer. The mast is 7.6 meters tall with more than 2 meters in the support pipe. The antennas mount on the mast horizontally and can be made level and parallel one to the other. Everything is positioned properly with the aid of a hydraulic jack. The mast is raised with the aid of a 12 VDC air compressor feed from a socket



on the trailer via the car. At the time of 24 hour + contest activity, there is a rotator for turning the antennas . The rest of the time, they are turned by hand this being more rapid but unpleasant in rain. Do you work AO-40? No, I said, not yet (beyond two QSOs) but we are also working towards it. For me it is a winter project requested by Santa Claus.

For the trailer, here are some photos of the Band of 4: F1PYR, F1PHJ, F1FEM, and F1DBE at the time of the French National VHF Contest in March 2002 where the temperature was 2 degrees C (about 35 F) with rain and wind.

Happily the Chef was there for fixing some good hot plates to eat, HI! The call changes each year for the person who will do the cooking. Installing everything per the photos requires 3 hours for each expedition and the same amount of time for dismantling the equipment by 4 guys. For a little (mouthwatering) history, the menu served at contest time was:

Saturday noon....they call what follows "Auberge Espagnole" literally Spanish roadhouse which is to say that everyone arrives with his hands full of foodstuffs, kicks open the door and dumps his food items on the table. Everyone then serves themselves informallywithout forgetting

that the mounting of antennas, etc is not finished though the tent is in place. Saturday evening . . .I served my recipe very hot to warm the body. It was a beans and meat stew of my own creation with Toulouse sausage, slices of country lard, preserved duck accompanied with three kinds of vegetables, all topped with melted cheese and bread crumbs and a fine Bordeaux wine aged in oaken barrels. (Note...and I translated this right before supper...UGH!) . . .

Sunday noon.....some Tagliatelles , that is, fresh pates with filet of salmon in a cream cheese sauce, a fresh fruit soaked in dry white wine (we must drive home) , without forgetting the cheeses, desserts, and real coffee....and all of this worthy of a 4 star rating in the Michelin guide...!!!(and 10 stars in the USA...HMS!) We make 2 contests in this group, the UHF in March and the IARU UHF in October.

We are QRV in en general with :

- 144 MHz 100w/
- ANT 2 X 9 elem
- 432 MHz 100w/
- ANT 2 X 21 elem
- 23 cm / 100 W
- (or 10 W if close)
- 13 cm / 10 W

The 23 and 13cm in parabolas of 1.42 meters. The feed is dual on 23 / 13 of the type OE1PMJ 5,7 GHz / 4 W offset

antenna of 85cm used on 4 MSW bands: 10 GHz / 8 W, 24 GHz / 500 mW, 47 GHz / some mW. The tent has an area of 9 square meters.

73 from Jean-Pierre, F1DBE.



(Is there a Ben & Jerry's container and a glass of cognac? Ed)



Contest Rules Abstracts from the Web

(these are selected abstracts and not complete copies, but seemed to capture the spirit of the ideas and info posted on the VHF Contesting Reflector/Ed)

Here are some numbers. First, the number of logs submitted for the three ARRL VHF/UHF contests since 1975 from QST write-ups (note a few of these numbers are estimates or interpolations, but the overall trends should be correct):

	Jan	June	Sept
1975	590	340	285
1976	630	410	230
1977	780	490	340
1978	840	480	330
1979	890	510	410
1980	995	500	380
1981	970	540	390
1982	940	590	448
1983	950	510	436
1984	800	590	450
1985	880	530	434
1986	890	630	460
1987	840	691	386
1988	845	650	400
1989	930	650	425
1990	910	600	439
1991	912	480	415
1992	958	610	591
1993	1036	818	621
1994	1200	820	714
1995	1150	837	720
1996	1150	921	710
1997	1020	837	752
1998	1010	800	700
1999	900	701	606
2000	820	710	582
2001	799	680	553

Whereas it is true that the numbers are down over the last few years, the current levels are comparable to (or better than) most of the 1980s and clearly higher than the mid-1970s. Now, let's look at the highest national QSO totals on 6 and 2 in June and Sept (since 1987):

	June Hi Qs 6mtrs	Sept Hi Qs 6mtrs	June Hi Qs 2mtrs	Sept Hi Qs 2mtrs
1987	985	281	615	555
1988	688	338	673	573
1989	366	380	574	672
1990	527	359	656	699
1991	630	396	599	510
1992	976	418	641	870
1993	732	373	778	697
1994	472	417	752	883
1995	558	343	833	702
1996	1161	404	786	643
1997	674	493	864	762
1998	1358	562	770	671
1999	1077	607	725	736
2000	1104	668	655	700
2001	909	957	607	963

Over the last few years, six meter qso totals have been higher than EVER, and two meter totals as high as ever. These data are only for the single highest total each year, but they reflect the overall trends for many stations and many regions over the years. The increase on six (and perhaps also on two) is partly due to the incorporation of that band into main-line HF rigs. QSO totals have generally gone up on other bands as well, as we have more rovers and others using more and more bands, and almost every year several records are broken in various categories in various regions. (I have similar data for Grid totals, which vary quite a bit more from year to year with changing band conditions.) In summary, activity is up, but log submissions are down somewhat. We don't need to change the rules, we need to send in our logs. (I

have plenty of opinions about proposed rules changes that I may put into another message. My overall feeling is that we have plenty of categories and distance scoring is not a good idea -- because better stations and operators already are rewarded with distance worked because they get more grids. That is the beauty of the grid system; more distance, more grids.) 73, Curt Roseman k9aks

One of the worst things that has happened to the VHF contests recently is the limited multi-op category. Stations that used to be on 1296 are no longer there. They think their chances of winning are better with the limited category. And they are right. But I, for one, could care less who wins the limited category - I don't even bother to look at their scores. Why is it that it is so important for these people to win that they are willing to stop doing something that is fun; work the contest to see what they can accomplish? I can tell you that it is very frustrating to work one mountain top station after another and keep hearing "Sorry we aren't on 1296 (or 10 Ghz, or whatever) anymore. We are limited multi now." We used to encourage microwave activity, now we discourage it! BAH! 73, Russ K2TXB

It's supposed to be fun, guys...more bands is more fun... Why worry about winning a lesser category... Give us the QSOs, and we'll all be happier, and more likely to go out and put forth an effort again. A wise man once said..."it ain't whether you win or loose, it's how you play the game"...or how many new grids you gave out to others... "he who has the most fun...wins"...and hopefully there will be lots of winners! 73, Bill W3IY/R

It is good to see this topic come up on the reflector again and to have a civilized discussion about something we all apparently feel strongly about. As Yogi would say: "it is like deja-vu all over again". In March of 1999 I posted a long message on the vhf reflector about my support for a distance scoring scheme in vhf+ contests that was based on my excitement generated by an article in CQ-Contest (March 1999 issue) written by W3ZZ; Distance Scoring: Time to Change the Rules? A reprint of my post appeared in the Pack Rats newsletter; Cheesebits sometime in the spring of that year and it is probably hiding in an archive somewhere online.....

I also feel there are other rules enhancements needed. Most notably, as others have stated, the need to change the Limited-Multi category to encourage microwave activity. Adding club competition to the June contest (it is already in place in September and January) may increase activity in that contest and add an incentive to send in a log for that contest. I too, am concerned about adding too many new categories/classes - we must be careful about what we ask for because we might get it! Fix whatever rover rules that need fixing to encourage more rover activity (personally, I think rovers have been the best thing for vhf+ contesting, and my score, since sliced bread)! We have the attention of the present chairman of the Contest Advisory Committee (Ned - AA7A) and it appears the time is right to suggest what changes we want (see part of AA7A's post below). If we really want changes lets not let this opportunity slip away! 73, Ed K3DNE

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Correspondence

Was outside putting finishing touches on our bigger ants for 903 and 1296. Have big loopers going up. Also have two 4 footers going back up for 2304 and 3456. Power levels now at 150 on 903, 1296 still about 90 watts. 2304 is 75 watts and 3456 now at 45 watts. Hope all is back running for Sept contest See you then.. **73, Herb, WA2FGK**

Thanks for letting me know that the CD's play OK. Dan cut them in OK land as getting them from here to there was looking like it would be very difficult. So I just sent him 4 in an envelope and he used those as masters. I am very glad everything turned out OK! Thanks again for the reply, and for a wonderful CheeseBits. They are always quite good these days, thanks to you ;) **73, Roger Rehr W3SZ FN20ah**

Thanks again for a great electronic " Cheese Bits ". **73, Sam Neal N5AF**

Steve Simons, KF6AJ reports: Some "health & welfare" news... Jennifer & I will marry on October 6th!!!!!! **Congratulations and best wishes to you both on behalf of all the Packrats.**

September VHF Packrat Notes

I operated about 50% of the contest. Got started a bit late. Had to go to work for a while in the evening, so missed much of prime time between 7 and 10 pm on Saturday. Got a full night's sleep. Took most of Sunday afternoon off as well. I suffered one incident of equipment failure on Saturday night as well, but luckily the repair took less than an hour. Conditions and activity both seemed to be influenced by thunderstorms and rain showers moving around the region during the weekend. As such, both were variable, and neither were above average from my vantage point. Interestingly, when the heavy rains showed up on Sunday night, so did the operators. A real catch 22 scenario with lots of stations to work combined with terrible propagation, oh well. **N3NGE** scoring as follows: 391 QSO x 125 Grids = 81,625

Short version - Some disappointment, but a good debugging session. Found some serious weaknesses, 2M rotor loop went South, 1296 still flaky. Better finding them now than in Jan. Pluses: 6M works, 5760 works. Also, I can actually reach the 2M rotor loop without disassembling the stack. **73 Joe AA3GN**

I was only on for 8 hours Saturday before coming down with a stomach virus. Came back Sunday night for 3 hours here are the highlights, W3IY/R worked Bill in FM15,25,26,16 AND FM08 through 3456 in all those grids and through 10ghz in FM08. I also worked K1WHS 6 through 2304 and on 10ghz rain scatter, K8GP through 10ghz, N3EMF through 10ghz, also N2PA and W2FU through 2304. I thought conditions were well below normal and all my equipment worked flawlessly. Now if I can just stay healthy for the January contest. W2UR and I are in the process of building a rover for the January contest it will have all 10 bands operational. The rover will do FM28,29, FN20 and 30. **73 Bill AA2UK**

Although band conditions were poor to lousy, I thought activity was fairly good overall. It was good to work so many old friends, as well as a number of stations I had not worked before. I got loopers for 903 and 1296 up on my tower just in time for the contest, and although their feedlines were not great (100+ ft of 9913 on each band) the systems worked well and helped my score. I hope to get some hardline in place and add 2304 in time for January. **73, Joe, K1JT**

Hi, Rick. After you headed home Saturday night, I took Oli down to our room at the local Comfort Inn and then went back up the hill. I was there for maybe an hour and had a lot of fun. Then on Sunday we went back to Camelback in a driving rain. I was on the air up there for maybe two hours, with marginal conditions. At

least the rain was WARM, not cold! After a stop on an overlook along I-80 in FN20, we headed for the Jersey Shore, but we never found a very good spot in FN30. We found a place with a decent shot out to sea and up the New England coast, but it had a terrible shot south, west and even due north. Nonetheless, it was exciting to operate on the east coast again, and I really appreciate your help and encouragement. I'll plan to return with my amplifiers (I don't know why I left them all at home--that was a bad decision). Here are some photos. I'll write something about this for Cheese Bits. **73, Wayne, N6NB**

New 24G Record

On September 7, 2002 at 1235UTC, WW2R/5 and W5LUA made a record breaking contact on 24192 MHz. Dave was operating portable in EM41HC near Natchez, Miss and W5LUA was operating from his home in EM13QC, Allen, Texas. CW signals of 549 were exchanged. DX based on 6 digit to 6 digit grid square is 337.3 miles or 542.8 km

The equipment at WW2R/5 consisted of a 2 ft dish fed through 2' of flexible waveguide by a retuned Hughes 12-18GHz TWT running 11W output. The 1.8dB HEMT preamplifier was mounted directly on the waveguide switch. The homemade transverter fed an IC402 at 435MHz. Frequency calibration was achieved by a frequency counter locked to GPS by an HP Z3801A time/frequency standard. Signals on 10GHz were consistently around 10dB above the noise. After the QSY to 24GHz, and overcoming the surprise of hearing anything, initial signals were estimated at around 6dB above the noise but by the end of the QSO were barely audible above the noise.

The equipment at W5LUA consisted of a 2 ft MACOM dish with azimuth and elevation control at 65ft. LNA noise figure at the dish measured 3 dB. I was using an Aleco TWT producing 50 watts in the shack. The actual power getting to the dish was considerably less. I had two 1.5 dB loss WR-42 flexible pieces of waveguide in the shack feeding about 60 ft of EW-180 waveguide with about 4 dB loss and another 1.5 dB loss WR-42 flexible jumper at the antenna. The transmit losses add up to 8.5 dB giving me about 7 watts at the feed. My azimuth rotator is an Orion 2800 which allows me to get to within tenths of a degree. I use a small actuator to give me about -1 to +16 degrees elevation control. This worked OK for horizon shots for AO-40.

We first tried 10 GHz where signals were 5 to 10 dB over the noise. We made an easy contact and then QSYed to 24 GHz where I was much surprised to hear Dave about 10 to 15 dB over the noise on a nice peak. The initial peak may have been due to airplane scatter but afterwards the signals became more constant, they settled in about 10 dB over the noise for several minutes and an easy QSO resulted. Based on 6 digit grid square to 6 digit grid square EM13QC to EM41HC DX = 337.3 miles or 542.8km. Based on actual latitude/longitude locations, the DX calculates to be 338.2 miles or 544.3 km establishing a new world record on 24192 MHz. W5LUA 33 deg 6 min 53 sec north by 96 deg 36 min 54 sec west WW2R/5 (from map) 31 deg 7 min 22 sec north by 91 deg 20 min 33 sec west .

Weather at EM41HC was 75 degrees F and 88% relative humidity with relatively clear skies with some high clouds. Weather at EM13QC was 72 degrees F and 70% relative humidity with skies partly cloudy. Attempts to repeat the contact over the same path 12 hours after the initial QSO resulted in no signals being identifiable either way on 10GHz, suggesting the morning QSO was under enhanced tropo conditions. No signals were heard on 2 meters or 70 cm at the time of the contact. The sked was setup earlier in the week via email with no liaison on any band including cellular! Numerous attempts over a slightly shorter TX-MS path on 10GHz in July also resulted in no signals being identified. Submitted by W5LUA and WW2R on September 9, 2002 via the web.

Hi Rick...I appreciate the kind words abt activity in ur Editors Comment's of #8 for Aug-Sep 2002.es yes, sign me up for EMAIL in PDF, HI! There are two people that I know who have done much to cause activity. Joe, WA3PTV is my partner in Activity Days since Dec 01 and in contests and Bernie W4SW can be counted on to be at the other end of the circuit. I am quite happy that you mentioned Bill W3IY as he is the sparkplug behind Activity Days. I am now outfitting a van as a Rover. it has a rotator and is 11 ft tall from ground. 73, John W3HMS 2 Aug 02



New 10G Beacon on Mt. Greylock FN32

The K1FFK 10368.240 beacon was installed Wednesday 7/24/02 inside the attic of the lodge on Mt Greylock FN32JP. Soon it will be on top of the 88 FT monopole, well above the trees. It runs 150

mw to a 10 dbd waveguide slot antenna. Where it is now located it is blocked by trees from East thru North to Southwest. Signal reports before and after would be appreciated. Tom, I am enjoying your reflector immensely, thanks! Jud K2CBA (518) 279-3640, 449.425 -5 MHz. (K1FFK fm rpt) or this reflector. Saturday 7/27/02 the beacon was moved to the top of the pole. Came up about 30 db in Grafton, NY. It is now clear of the building and trees in this direction. Jud K2CBAA

Long Haul VHF-UHF-Microwave QSOs From Ron Whitsel, W3RJW

Here's my log for September 8, 2002. North/South duct lasted for several hours in the AM. Many other stations from Fla to NC on two meters, 220 and 432. Understand there was also an East/West duct the evening before that lasted for many hours. Just another case of being in the right place at the right time with equipment that is always ready to go and TURNED "ON".

1219	W4VVH	559	559	1296	EM95	472 mi
1221	"	559	559	2304	"	"
1224	W4DEX	579	579	2304	"	447 mi
1231	"	539	539	3456	"	"
1236	"	529	539	10368	"	"
1350	KE8FD	559	559	1296	EM84	
1352	"	559	559	903	"	
1358	"	59	59	432	"	
1400	"	59	59	222	"	

W3RJW Microwave Standings:

Band	Call	State	S'WKD	DXCC	GRids	DX(mi)
903	W3RJW	PA	15	1	33	576mi
1296	W3RJW	PA	19	2	52	698mi
2304	W3RJW	PA	14	1	26	671mi
3456	W3RJW	PA	08	1	12	447mi
5760	W3RJW	PA	03	1	07	228mi
10368	W3RJW	PA	11	1	15	447mi

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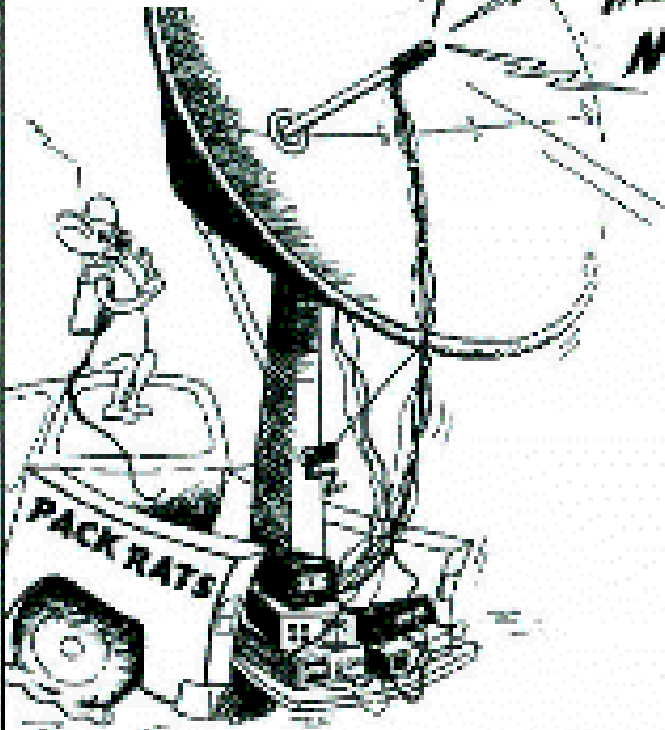
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**MEETING
NOTICE**



Activity Calendar

**Thursday, October 10: Packrat BOD:
8P**

All officers and other club members invited—
at the QTH of K1JT.

Sunday, Oct 13: HAMARAMA.

All Packrats are expected to attend and assist
at this event. Ticket sales start at 6AM. Park-
ing help, vendor sales, general support, club
table, talk-in and clean-up. Contact WA3DRC,
HAMARAMA chairperson

**Thursday, Oct 17: Packrat Club Meet-
ing**

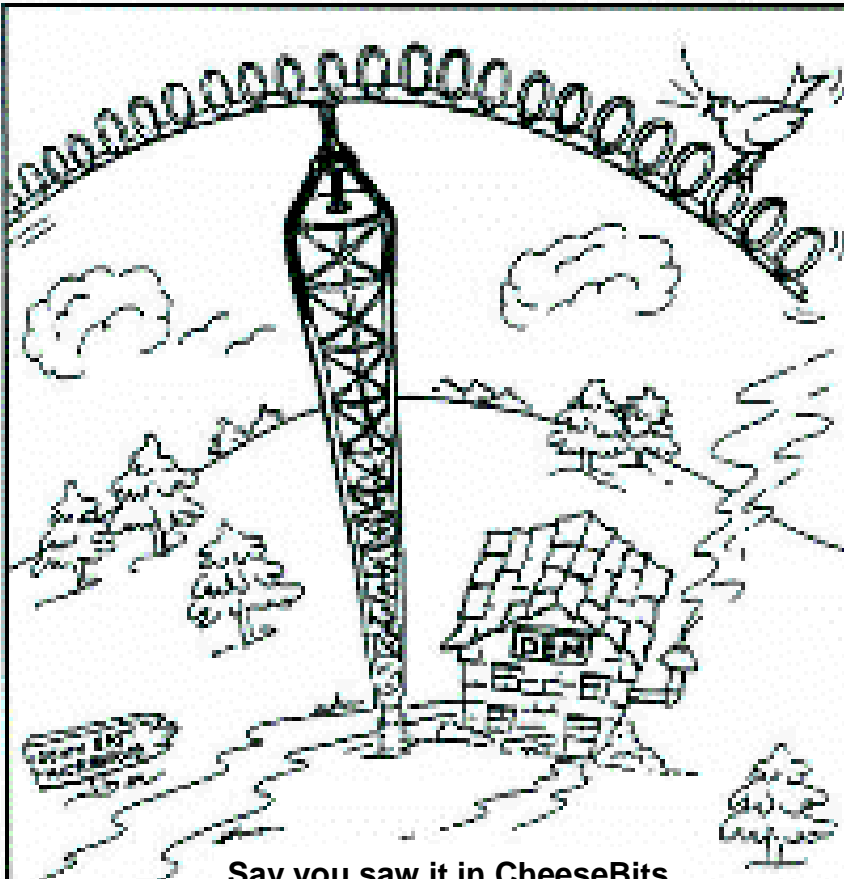
8P Southampton Free Library
K2TXB featured speaker on EME

Thu-Sun, Oct 24-27: MUD 2002

This is the biggest East Coast Microwave
conference of the year, this year being spon-
sored by the N.E.W.S. group. Contact N2LIV,
meeting chairperson

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