

CHEESEBITS



W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume XLIII

October 2001

Number 10

PREZ SEZ

With all that has happened in the last month, the thing that sticks in the mind of course, is the terrorist attack on America. It seems to make everything else trivial, thinking of the families that lost loved ones, the fireman and rescue workers and the country going to war. I get the feeling that what we do doesn't have must impact. But all it took to get me cheered up again was turning on my FM box and listening to the Red Cross net on 2m. BAM! Ham radio comes through again. I have listened everyday to these volunteers working 12 hour shifts for over a week now, they are manning shelters and Red Cross headquarters. They have been passing traffic continuously. They are doing a great job. Another example of the benefits of Ham Radio.

We can't let what happened stop us from getting on with things here. First, thanks to Ed, WA3DRC, for hosting the lick and stick work party. Over 1100 Ham fest/conference flyers got put together in record time, thanks to Dick, N3AOG, for sharing printing duties and checking the post office box.

I hope you guys that worked the September contest did well. I operated Sunday night and conditions seemed better than I can remember in quite a while, activity was up too.

Bill, AA2UK, has converted his rover truck back to work duty. He has set up a super contest station in South Jersey. The station has extremely high antennas and will be running contests in the low power category. We wish him well with this new station and hope he has pictures for the October meeting.

The conference and Hamfest is our next big event, I hope to see all hands on deck for these events. Don't forget we have a laser communicator build session coming up. (See details here in Cheesebits on p5).

See you on the air, at the conference and at Hamarama. 73's Brian N3EXA.

The next BOD meeting on Thu, Oct 11th, at 8PM at the QTH of Ernie Kenas, W3KKN, 2823 Old Welsh Road, Willow Grove, PA

**Next Regular Club meeting at 8PM, Thu October 18th, at the Southampton Free Library
947 E. Street Road, Southampton, PA 18966 —Guests and Visitors welcome!—Speaker: AA2UK**

**MID-ATLANTIC STATES VHF CONFERENCE
SATURDAY, OCTOBER 13
HAMARAMA 2001- SUNDAY, OCTOBER 14TH
Check pages 3 & 5 and visit the Packrat website
www.ij.net/packrats for details**

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

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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

<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

We share the loss with the entire world—the events of September 11th not only killed thousands in New York, Pennsylvania and DC, but created an international situation which will have wide ramifications for the entire global community. Our sympathies are with those who have lost loved ones, and we pray for world peace and the rapid recovery of the injured.

In the shadow of the tragic and dastardly events, life goes on. Radio communications events took place the weekend before with great enhancement on the east coast for the September VHF QSO Party. The 10GHz and Up cumulative contest on the following week yielded spectacular scores for participants. The ARRL web bulletin proclaimed the loss of many hams in the attack, and also alluded to the role that hams played in the rescue and recovery “traffic” operations. I am seeking to bring some balance of editorial comment to both the good and bad events of the past month.

On a very positive note, we have had many folks join us for the color PDF version of CheeseBits. This saves not only dollars and cents of printing and postage, but also a whole lot of time and energy in getting this to and from the printer, stapled and folded, addressed and stamped, and mailed. I foresee the day when a mere handful of folks get this by postal service, and virtually all receive it in color, via the internet and PDF file. Thanks again for all who sent in your email addresses. Many clubs have made the switch, and as technology advances, we are sure to take advantage!

Due to the changing costs of publication and printing, you will notice that this issue carries the new subscription rates for CheeseBits in the adjoining column. The Board of Directors considered many factors, and had an audit conducted, before making those decisions.

I was stuck in Seattle for a few extra days when the air system was restricted, so I was unable to make it back to participate in the 10GHz fray—and what a time most folks had—the postings on the various reflectors made me quite jealous of the activity level and apparent conditions. I did get to see Mt. Baker and Mt. Ranier, two spectacular peaks on the west coast, but considering their snow-covering year-round, and the trek to get up there, I'm sure they will remain as spots that few would venture to take 10GHz gear.

A new addition to the technical support here—a color scanner-copier-printer, and for about \$100 bucks! It's a Xerox WorkCentre M940. When I first saw them at the local Staples store, they were \$400. Then one day I noticed an ad for the reduced price of \$200, quickly followed by a holiday sale—instant rebate for \$170. I hemmed and hawed, thinking of other things to purchase, when I get a 15% discount coupon for Staples purchases, and walk in on a day when there is a super sale on it for \$130 with the instant rebate. To top it off, a set of ink cartridges are included, and a USB cable! I hope to put it to good use in adding to this publication.

With the Packrats Eastern States VHF Conference around the corner, and open invitation on Friday to DEM, and the Hamarama to round out the weekend of October 12-13-14, I am looking forward to being able to spend more time eyeballing with many of you, sharing personal stories, operating hints, and hopefully learning a bunch. I am hopeful; that the sellers of all that wonderful microwave parts stuff will also help me “up my gear.” 73's and hope for speedy healing. Rick, K1DS

Hamarama - 2001

30th Annual Pack Rat Flea Market

Sunday, October 14, 2001 — 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

Admission \$6.00 Non-Ham XYL's & Children under 13 Free

Sellers Add: \$10.00 per Car Space Outdoor

or \$15.00 per Indoor 8 Foot Table

Advanced Reservation Available for Indoor Tables ONLY

For More Information or Indoor Table Reservation:

Joe Keer, W3KJ packrats_w3ccx@yahoo.com

Or Packrats website: <http://www.ij.net/packrats>

Grande Gift Certificate Door Prize Special Vendor Only Cash Prize Buyer Prize Drawings

Talk In on 146.52 Mhz Simplex and 224.58 Mhz Pack Rat Repeater-see next page for directions

Radio Action October 2001

SUN	MON	TUE	WED	THU	FRI	SAT
	1 Monday night nets- check page 2 for freq and times	2	3 432 Fall Sprint 7-11PM	4 Microwave nets- see p2 for schedule	5	Oct 13-Microwave Fall Sprints 5hr, 6am-1pm
7	8 Monday night nets- check page 2 for freq and times	9	10	11 BOD 8p mtg at QTH of W3KKN	<div style="border: 2px solid black; padding: 5px; text-align: center;"> Eastern States VHF Conference Sat-Oct 13 </div>	
<div style="border: 2px solid black; padding: 5px; text-align: center;"> HAMARAMA SUN-OCT 14 </div>		16	<div style="border: 2px solid black; padding: 5px; text-align: center;"> Thu-Oct 18 8PM Club Meeting Southampton Library Speaker: AA2UK "VHF-UHF Superstations" </div>			
		23			Oct 20-6m Fall Sprint any 5 hrs from 12-1900Z	
	22 Monday nets					
28	29 Monday night nets- check page 2 for freq and times	30	31		Oct 25-Microwave nets-see p2 for sched- ule	

WSJT Feedback

Editor's note: There was a flurry of activity on the reflectors regarding the use of contest computer aided communication, such as that used in high-speed meteor scatter. Below is the program's designer's response:

Shoot, if I had thought a mode like WSJT might not be allowed in VHF/UHF contests, I might not have put all the work into developing it! Contests are one of my biggest thrills in ham radio, from the SS to the 160 and 10 meter Tests to the DX Tests, and especially the VHF QSO parties and SS. Yes, Tree, I use your TR software in all CW contests, and I love it! I don't run a big station, on any band, but I've collected my share of ARRL wallpaper for all of the above events.

VHF/UHF contests are inherently weak-signal oriented, and I fail to see how using PSK31, WSJT, PUA43, or whatever mode might fit the available propagation conditions in any way compromises the spirit of the competition. Anyone who has tried the WSJT mode for doing VHF meteor scatter, or watched it being used, knows that making a 1000 mile QSO on a dead 2-meter band is still anything but "automatic". This is definitely *not* a set-it-and-forget-it, computers-talking-to-computers mode. You do keep the headphones on, for sure; you do listen for the pings. When you get a weak one, and the computer fails to decode it on the first try, you click on it and use several other options designed to extract the most from the available signal. And you surely *do* get that adrenaline rush when you catch a "blue whizzer" (and maybe even finish the QSO on SSB, if you can find the mike in time!).

I would not even have a problem with longer-duration "integration" modes of operation in the VHF/UHF contests. After all, the thing is self-regulating to a large extent. If QSOs take a half hour each, and you concentrate on them alone, your grid total might look pretty good but your score will be lousy. A few of us have been doing HSCW meteor scatter in VHF contests for a few years now. No questions have been asked about its "legality", as far as I know, nor should they have been. What the operator does during a WSJT-driven HSMS QSO is very nearly identical to what he/she does during an HSCW QSO, right down to the very last step -- either using the computer to play back the recorded HSCW ping so can copy it by ear at 25-35 WPM, or letting the computer play some weak-signal DSP tricks with the recorded signal. Same goes for PSK31 -- it's a good weak-signal mode, and why shouldn't it be an allowable mode for VHF/UHF contests?

Alas, my time in the September VHF QSO party will be very limited this year. Hope to work you in the hours I have available, though, whatever the mode! -- **73, Joe, K1JT**

~~~~~  
*(via email)* We have been asked to comment on several questions related to ARRL VHF/UHF contests. Nothing in our rules prohibits any specific mode or modes in VHF/UHF contests. We allow all modes in VHF/UHF contests. Also there is nothing that prohibits use of a decoding-type device. The one limitation is that any QSO claimed for contest credit must be completed during the contest. Both parties in a QSO must send and acknowledge the required contest exchange during the contest period. Taping or similar means of storing information for decoding after the contest period would not be permissible. There is nothing to prohibit setting up schedules by any means before the

start of the contest period. However, any schedules made during the contest period must be made by amateur means only. Internet chatrooms, email, telephone calls and other non-amateur mediums are not permissible for scheduling contacts during the contest period. Also, remember that any QSO claimed for contest credit must include the sending and acknowledgement of the required contest exchange during the contest period. Have a good contest this weekend.

**73 Dan Henderson, N1ND ARRL Contest Branch Manager**

## "User's Guide and Reference Manual" for WSJT

I am pleased to announce the availability of an all new "User's Guide and Reference Manual" for WSJT. Written with the extremely able assistance of Andy Flowers, KOSM, the manual is fully up-to-date and consistent with Version 1.0 of the WSJT program.

If you are hoping to become active with this new and highly effective mode for VHF meteor-scatter communication, the Manual will help you to get on the air and use the program effectively. Even if you are already an experienced user, the Manual almost certainly contains useful information you did not already know.

Go to <http://pulsar.princeton.edu/~joe/K1JT> and download the file MANUAL.ZIP. This file will unzip to yield WSJT.PDF, which can be viewed (or preferably printed) with the help of Adobe Acrobat, as well as files WSJT100.JPG and WSJT100A.JPG. The latter two files and the two screen-capture images shown on the WSJT home page. They may be viewed and printed with Microsoft Paint, and will be useful to bind together with your printed copy on the manual. As always, comments and suggestions about WSJT or the Manual will be welcome. Please send them to [k1jt@arrl.net](mailto:k1jt@arrl.net). -- **73, Joe, K1JT**

## He Does HF Also!

The current issue of WORLDRADIO has a nice article about Field Day and one of our Board members, Joe Taylor at the key of the solar powered-station. Credit to WorldRadio for the photo and article and for sharing in our newsletter exchange.



Hams fortunate enough to make contact with the solar-powered CW station, W2AA during the recent Field Day were actually talking to Dr. Joseph H. Taylor, Jr., K1JT — Winner of a Nobel Peace Prize in Physics.

## 2001 Mid-Atlantic VHF Conference

The plans for the Pack Rat conference are coming along nicely. There is a lineup up speakers that should interest all VHFers. Arrangements for test equipment for the "Tech Room" is being finalized. The hotel is working closely with me and is eager to make the Pack Rat event a success.

[www.ij.net/packrats](http://www.ij.net/packrats) for details

### HOTEL

Make your reservations NOW. (215) 638-8300 The deadline for hotel reservations is this Friday, September 21st. Mention the Pack Rats or Hamarama to get the \$89 rate. I am presently trying to get the deadline extended by an extra week.

Remember the location of the conference has moved (again). The Conference will be held at the Radisson North East which is located near the intersection of US1, exit 28 of the PA turnpike, and Rt. 132 (Street Rd). From the Turnpike exit, take US1 south to the 1st traffic light. Turn right onto Old Lincoln Highway. The Radisson will be on the left.

### FRIDAY HOSPITALITY SUITE

The Pack Rats will be hosting a complimentary hospitality suite Friday night (October 12th) from 7pm until 11pm. Ask for the room number at the front desk

### CONFERENCE SCHEDULE

**7am:** The Radisson will offer breakfast in the restaurant for \$10

**8:00am: K6LEW & W3ZZ "The K8GP Contest Group"**

Owen and Gene will talk about the stellar effort their group of guys put forth to put a very competitive contest station on the air from FM08fq.

**9:15am: W3EP "Grid Locators are NOT Squares"**

Emil will talk about the history, size, and shape of grid locators. There will be lots of graphics and surprising things you will learn about grids.

10:30am: Morning break

**10:45am: K1JT "WSJT Software"**

Joe has been our resident HSMS expert for the past few years and has recently released some software that makes this mode of operation faster. WSJT allows you to quickly and accurately decode weak signal HSMS data bursts from a ping as short as 20ms.

12:00pm: The Radisson will offer lunch in the restaurant for \$15

1:30pm: The "Tech Room" (next to the conference room) opens for business

**1:30pm: K2SMN "NEWS Style Band Session"**

The NEWS Group Conference in Connecticut runs an interactive talk session concurrent with the technical talks. These "bull" sessions are very popular and gives everyone a chance to voice opinions and concerns. Roger will give us a taste of what the band sessions are like.

3:00pm: Afternoon break

**3:15pm: KB3XG "50 Watt 2304 MHz PA"**

We talked about power at 1296 last year up Microwave Update. This year the design of a 2.3 GHz power amplifier will be discussed.

5:30pm Hospitality Suite hosted by the Pack Rats

7:00pm Evening Banquette (\$30) Reservations are required.

Evening Speaker has been scheduled.

Please make your reservation as soon as possible. Thanks to KB3XG, John Sortor (and Celeste) for the tireless efforts they make to create such a successful conference.

## Open House at Down East Microwave

**Friday, October 12th (Friday of Hamarama Weekend)  
1- 6pm 780 Frenchtown RD Milford, NJ 08848**

Last year's Down East Microwave Tour during Microwave Update 2000 was so much fun, we decided to do it again. Well almost! This year we decided to have an Open House of Down East Microwave's new manufacturing facility at the above address. We're not normally open to the public but we would like to take this opportunity to allow the local Hams to visit the facility. If you are planning to attend Hamarama weekend (the Mid-Atlantic Conference sponsored by the Packrats, Mt Airy VHF Society) stop in for a visit. We will not have any outside vendors like last year. It will just be Down East Microwave. There is plenty of parking. The Down East Microwave Staff will be available for technical questions and sales of standard products and surplus. Refreshments will be provided. No need to RSVP, just stop by! (From the DEM: <http://www.downeastmicrowave.com>)

## 10 GHz & Up Packrat Activity

Tnx to all the Pack Rats with 10GHz capability for the points over the weekend. It was really great to see that all that equipment gets used other than in January. There are so many opportunities to make 10 GHz contacts throughout the year, I don't know how everyone could find the time. 73, Ron Whitsel W3RJW

| Call  | Dist | Km | Grid   |
|-------|------|----|--------|
| K2UYH | 37   |    | FN20qg |
| W1VT  | 243  |    | FN31rg |
| W3KJ  | 30   |    | FN20hg |
| K1TEO | 199  |    | FN31jh |
| K1UHF | 178  |    | FN31fh |
| W1GHZ | 314  |    | FN32jp |
| AA2UK | 75   |    | FM29pn |
| W1AIM | 310  |    | FN41ee |
| AF1T  | 400  |    | FN41ql |
| NS1O  | 400  |    | FN41ql |
| K4EFD | 407  |    | FM08jl |
| W3KJ  | 101  |    | FN21hb |
| AF1T  | 382  |    | FN41oi |
| ND3F  | 202  |    | FM19lf |

I was impressed with the turn out as well. Not from the club but from the activity considering the events of this past week. I worked the following:

| Call  | Grid             |
|-------|------------------|
| W1GHZ | FN32JP,          |
| W3RJW | FN20LE,          |
| W3KJ  | FN20HG,          |
| W3KJ  | FN21HB,          |
| W3IY  | FM08US,          |
| K4EFD | FM08JL,          |
| K2UYH | FN20QG,          |
| W1VT  | FN31RG,          |
| AF1T  | FN41OI,          |
| K1TEO | FN31JH,          |
| K1UHF | FN31,            |
| ND3F  | FM19LB. de AA2UK |

## LASER Communicator Project

Several members have signed up and paid for the laser communicator assembly project which will be the main activity at the November 15th club meeting. The price is \$50, and this includes all transmitter and receiver parts, batteries included. Checks go to treasurer, Dave Mascaro, W3KM. Make sure you are counted in before we place our final parts order at the next club meeting on Thu. October 18th. There appear to be 12 interested members at this time. Please send an email to me to confirm your interest. [rick1ds@hotmail.com](mailto:rick1ds@hotmail.com)

## September VHF Contest Reports

A few months ago I was invited to participate with the K1WHS superstation as a rover. This turned out to be a lot of work and a lot of fun. We arrived at K1WHS's place (FN43) on Saturday around 10:00am for a frequency check. It was just like pre-contest time at the Pack Rat Mountain; Lots of people doing lots of things with cables and rigs. There were problems as expected so we did not depart FN43 until 1:30pm. I figured it would only take an hour or so to get to Larry's (K1CA) QTH in FN42 however, the GPS told us it would take 2.5 hours since the traffic was moving slowly. After being on the road for about 1 hour Celeste decided to do some GPS calculations and realized that even if we immediately turned to the North and headed for Mt. Washington, we would not make it to FN44 before the mountain closed. At 2:30pm we decided to skip FN42 and navigate to FN44 ASAP since a QSO on 24 gigs from FN44 would be a sure thing. We arrived at Mt. Washington at 6:30 but the gates were locked. We grabbed a quick bite to eat in Gorham, NH and took Rt. 2 east to Bangor, ME. Rt. 2 was a tough, windy road to travel on after being behind the wheel all day. We arrived in Bangor at midnight.

We were on the road at 8:00am and arrived at FN56 at 11:30am. It took us 1 hour to set up 4 long Yagis and the 5 foot dish. We worked K1WHS up through 903 with lots of QSB on all bands above 222. This was a great site overlooking I95 that K1DY found for us. It was 2:30pm by the time we were on the road again. We arrived at FN66 at 3:30pm. As we approached the top of the hill we found that workers had removed a cell tower and temporarily placed it across the road. We had to hand carry the equipment to the top of the hill. This added another 40 minutes to our setup time. We worked K1WHS up through 432 with terrible broadband interference on 222 from a TV transmitter that was 20 yards from our setup spot. It was 7:30 and almost dark when we got off the mountain. Bill really wanted us to try to make it to FN57 and FN67 but we were exhausted and decided if we did not get something to eat and find a place to sleep we would have to go hungry and spend the night in the truck.

### THINGS LEARNED:

- 1) This was the 1st time I tried roving below 903. The thing that was most evident was that VHF antennas are a lot bigger. I think I will need to bring the long Yagis with me again next year to make the contacts from the far northern grids.
- 2) I need to speed up my setup and tear down time to make VHF roving a little more enjoyable. I heard that WB2ONA made it to 10 grids. I don't how he does it. I'm still thinking about how to permanently mount 17 foot Yagis on my truck. I visited Lenny N3NGE last weekend who had some good suggestions.
- 3) If I'm invited back next year I plan on bringing more power on VHF and less microwave bands. Bill said I was maybe a S2 on 222 from a great location in FN66. It's not likely that a contact above 1296 would be possible without some propagation enhancement since there are 3000 foot mountains between FN43 and FN67.
- 4) I need to be at the 1st site at the beginning of the contest. This means that I may have to skip stopping at Dave's house as I'm passing through. It's probably an 8 hour drive between the New Hampshire border and FN67 not including rest stops.
- 5) We did manage to activate 2 grids. The northern part of Maine has never been worked by Dave's station even on 6 meters. I'm sure if we had time, we would have made the contacts from FN57 and 67 at least on 6 and 2 meters. This would have really helped the station score.

As a side note, Paul and I worked like dogs to make improvements on the 24 gig rigs before the contest. Commercial PA's and LNA's with W2PED homebrew WR-42 filters were installed. The crystals were removed from the brick oscillators and placed in Vectron ovens. The brick oscillators were converted to accept an external reference. The rover rig IF control box was completely rebuilt and we checked out the performance of both rigs at Paul's work place. K1WHS, W2PED, K1DY, and WA8WZG spent a lot of time and effort mounting the transverter at the 80 foot level of the microwave tower. The result of all this

work was zero contacts. Warren WB2ONA, Steve N2CEI, and Ken K1RIL are all working on 24 gig rigs that will certainly be ready for next year. Maybe next year I'll loan my 24 gig transverter to one of the "professional" rovers who are more likely to make 24 gig Q's from the closer in grids.

The weekend turned out to be more driving than operating but we learned some things and had some fun to boot. The weather was great all weekend and the views of Maine from the top of FN56 and 66 were breathtaking. The cast of characters that make up the K1WHS station are a lot of fun to be with and I'm ready and willing to try it again next year. **73xg KB3XG/R**

How do I start, Bob W2SJ and Ralph WR3P and myself made up the K3EOD September Contest Team. I thought the contest was one, if not the best September Contests that I have ever participated in. Although there were no band openings, there was fantastic enhancement especially to the north. And I thought activity was high, but would have liked to see more rats on the bands. I'd like to thank everyone who gave us a contact and especially the rovers for their multiple contacts.

### OSO's POINTS GRIDS

463 647 125 TOTAL SCORE 80,876 **73, AL, K3EOD**

Operation from this station was very limited given available time and other family and work priorities. During the weekend I built a new 6 meter antenna and continued construction on my tower project. The #3 tower is now at the final height of 102' with all guy cables installed and mast in place, awaiting feed line, antenna, and grounding. During my several hours of disrupted operations on Saturday evening, propagation conditions to some areas were simply smashing, and very good in general. K8GP actually complained of my signals so strong as to overload the AGC circuits especially on 2.3, 3.4, and 5.7 GHz. Theirs were the strongest I have ever heard on these bands as well, with S meter nearly at Max deflection. BTW, my resting S meter is low, even nil on these bands. W2SZ/1 was phone all the way. Got lost at 1.2 with our friends in Maine, no time to try again later. I spent a few hours operating sporadically on Sunday also. On a whim I worked 9 easy Q's in 6 grids on 6 Meters with the new antenna on the assembly test mast in the driveway, only 8 feet above

ground, blocked by buildings, and power reduced to <50 watts.

Ended up with 123 QSO's in 72 Grids with a score of 17,280.

Wish I had more time and energy, as a good score would have been possible. **73, Len, N3NGE**

Sept contest results for W3IIT:

6M 7 QSO's 4 grids 2M 1 QSO 1 grid **73, Harry, W3IIT**

I operated from the K3EOD multi-op station and had a great time. Al was on 6 meters, Ralph, WR3P on 2 meters, and I was minding 222, 432, 903 & 1296. This combination worked out great with the best score ever of 73K!. I left Al's late Sunday afternoon and ran the W2SJ home station from 6 to 11pm for a score of about 23K. We're all fired up and ready the January competition. **73, Bob W2SJ**

These were the best conditions I have seen although QSOs seemed to be down. I worked 125 Qs in 43 grids using indoor antennas and no more than 25 watts on any band. EM 96 was a new grid on 2 meters and 220 for me. I may need some help getting the log out of the laptop. Thanks to all who pulled my signal out of the noise. ...**Griff NE3I**

Activity and conditions were great! Worked over 600 stations with my low power category. The raw score is around 200K. It was a 7 band lowpower operation from my new site. The thrill was working 18 grids on 2304 with 10 watts. **73, Bill AA2UK**

Not much excitement here - got to operate about 2 hours Saturday night. Conditions were good but I wasn't; recovering from cold and feedline and antenna problems took most of the fun away. The cold is better and the station improvements are in progress. Hopefully January will be a much different story. 40Q's and 2117 pts. Good to hear several stations in FN00 right off the bat, for a change. **73 Joe, AA3GN**

### September Contest Continued:

A quick note on the contest from the West Coast. Going into the contest I expected light activity and time to do a lot of other things during the weekend. What I found was tremendous (for the West Coast anyway) activity. There were lots of rovers running around in some of the more sought after grid squares.

Conditions on 144 and 432 were just bizarre. At times it was like trying to work a station 200 miles away with the up and down tropo signals while some of them were only 50 miles or so away. At first I thought this might be multipath given all the mountains around. My first inkling that something strange was going on was when I heard the KH6HME beacon on 144.170 coming in from Hawaii. At first signals were weak and a little up and down. When Paul finally reached the site and got on with SSB he was just above the noise level. I was one of the many lucky people to work him with my 100 watts and a single 13 element yagi at 430 ASL. Between the beacon and Paul's SSB signal, he was in for hours. I think at least 10-12 hours. It was real exciting to work BK29 from CM97. Six opened once in a while but we sit at 400 feet on the western slopes of a mountain range that peaks at around 1600 feet. I have no visibility to the east so minor openings are of no help to me. I did hear people working the Mid West and into Canada. Overall, my 5 band effort netted almost 8800 points, a respectable entry from out west. My next contest (June 02) will be a 7 band effort. I am adding 222 SSB in addition to the FM rig along with 903 and 2304. In fact, it might be a mountain top expedition. Regards to all.

**73, Randy Bynum, NR6CA (Pack Rat retired)**

I got everything set and done in a timely fashion to be on the air in my first rover grid at the start of the contest. The folks down in Ruthsburg, MD were hospitable and I found suitable spots in the FM28, 18 and 19 corner to operate for about 90 minutes each and work the strongest and quickest stations. Made a few QSOs on 3456, but few who had higher gear were willing to commit the time on higher frequencies on the first day. Spent the balance of the evening driving back to FM29hx, and filled another few log pages until about 1AM, then headed for home, battery recharge and sleep. Sunday morning I started the long drive to FN21hb, Camelback, and arrived there and set-up quickly on the highest spot, but again, stations were slow to QSY up, and I didn't log a single QSO on 5 or 10 GHz. I have decided that I need to improve my antenna aiming capability from the rover, as things become more critical at the higher frequencies. The inverter that runs the rotor has some voltage sag when turning the array, so it never seems to give an accurate reading in motion, and then there appears to be a 10 degree meter shift when stopped. I'm sure some Packrat will help me solve my problem. Mid afternoon I decided to get going, as time would run out before I could get some QSOs in my last 3 grids, FN10, 11 and home in FN20. The security guard at Penn State Extension in Hazelton was very polite in letting me operate from a great site there—too bad the north direction is blocked by a building, so I struggled to make QSOs with VE3AX from there, but there were many who had tracked me to most all of my grids, including K3EOD, AA2UK, K1TEO, K1FO, K1UHF and the multis, K8GP, K3YTL, NC1I among others. I still find it exceedingly difficult to get W2SZ's attention for QSO's above 432, despite having all the right gear to easily run the bands thru 10GHz. I finished with over 500 QSOs, , and probably almost 1000 miles, and only 1 visit from local police in FN29, a record for my roving. I did *not* however, get exhausted, even doing this solo, as the rover has been continually upgraded for ease of management of the gear and antennas. Score~112K **73, Rick, K1DS/R**

This September contest was a BLAST! I operated the September VHF qso from Dave Olean's, K1WHS (FN43) in Maine. 50 MHz thru 24 GHz. Multi-op consisted of myself, K1WHS, K1DY, N2CEI, WA8WZG, W1MRQ, K1BX, K7KX, K1TOL, WA1T, N1LBI, and Sandra, not to mention the rovers. We had a GREAT time operating at Dave's place with a great bunch of guys. It certainly was a change of pace for me, as I've always operated from my home station in the September contests. Dave is located in the southwestern part of Maine, just over the New Hampshire boarder. He's got a terrific shot down the coast and toward Pack Rat land to the southwest. Dave's "shack" is actually

about a 1/2 mile behind his house, up the hill. Accessible by foot or with a REAL 4-WD vehicle. Dave uses generator power on the hill. Over the past year he acquired and rebuilt a Vietnam era 30KW Diesel generator, appropriately nicknamed Generator-O-Death. This thing's a real beast, and didn't even wince at having all the kilowatt amplifiers simultaneously keyed down. We had better AC power regulation on the hill than I used to have at my home stations! Conditions on the hill were nothing short of awesome. We started to notice the North-South tropo conditions early Saturday evening, and it seemed to just hang in there for the duration of the contest, continuing into mid day and afternoon on Sunday, and then into Sunday evening. In 19 years of operating the September contests, I've never experienced a tropo duct that hung in there for the entire weekend! If you weren't on, you missed a real treat. Grid counts were quite high on all the bands, except for 50 MHz. We had very little Es over the course of the weekend. Perhaps the best DX was working W3IY/R on 10 GHz from FM26! Equipment on all the bands played REALLY well thanks to a lot of preparations by K1WHS, K1DY, and N2CEI. We had several rovers working with us too, including K2GE/R (WB2ONA), K1OR/R, and KB3XG/R. Our rovers did a bang up job on all the bands thru 10 GHz and deserve quite a bit of credit for their efforts. John and Celeste drove 800+ miles thru northern Maine potato farms and supplied us with qso's from grids that Dave's never even worked before! Final score was just over a Million points! I had a great time operating at Dave's with a great group of people. QRZd from K1-Whiskey-Hotel-Sugar. **73, Paul W2PED**

Hi All! Had fun in the contest! Activity SEEMED to be somewhat low, but still heard a lot of stations plugging away as always from my roost here in in FM19OF. About 290 Q's, totaled out just under 45,000 pts. I noticed that 902, 3456 and 5760 went begging as always. Use 'em or lose 'em fellows, the Telecom industry is greedily eying all our "unused" spectrum. My score would have been much bigger, but we cant HEAR a lot of guys because of a ridge line to the immediate north-east of us that is 10 m taller than my antennas! (very frustrating when you hear a local like K1RZ working someone that YOU cant even hear!!!) Some tower will fix that, hopefully for Jan. 432 activity SEEMED lower here than in June ( had the old log laying there to compare), but that is probably conditions and the tower would help. I treat this like a golf game: the only guy to beat is yourself, and I try to improve my station and operating ability a little each time to do better. I'm relatively new to this but its a blast, hope a lot of guys read this and remember the fun they had and get on the air for January. Thanks to all the guys who were so patient and repeated their calls/grids a million times, the line noise on 2 m was a KILLER here (oh, for a quiet country estate on a mountain top....).

**73 Jeff Kruth WA3ZKR**

Many thanks to all who agreed to my requests for HSMS skeds in last weekend's VHF QSO Party! I had a ton of fun with them -- and with the rest of the contest, too, as much as I was able to be on for it. The 17 grids worked by HSMS certainly helped my score. Here are some interesting statistics and observations from this first attempt at using WSJT during a VHF contest. I scheduled half-hour slots (or in one case, a planned tail-ending on another sked) with 17 different stations. Six of the arrangements called for a QSY to 2m after completing on 6m, or vice-versa. Eleven 2m QSOs and seven 6m QSOs were completed. One station tail-ended into a QSO with me, I did likewise with another, and I successfully answered an HSMS CQ. Other obligations and equipment problems prevented two skeds from being kept, and in two cases my sked partner and I were hearing each other but failed to complete in the time available. I don't yet know the reason for hearing nothing in the remaining two attempts. The median time to complete a QSO was 5 minutes on 6m , and 13 minutes on 2m. In several cases these times include the QSY time from the other band. I had my amps on 6m and 2m throttled back to < 200 W out for the weekend, as I wanted to compete in the low power category. Tropo conditions were fairly good to excellent up and down the eastern seaboard for much of the weekend so scores should be high, at least in the east. My raw score appears to be 384 Qs in 119 grids on 50 through 432 MHz, for about 60k points. **73, Joe K1JT**

## AMATEUR RADIO RESPONDS IN FORCE IN WAKE OF TERRORIST ATTACKS

(from ARRL web bulletin) Some already are calling it "Amateur Radio's Finest Hour," as volunteers answer the call to assist in ongoing relief and recovery operations in New York City, Washington, DC, and western Pennsylvania in the wake of terrorist attacks on the US September 11. The need continues for operators to assist over the long haul, however. Current estimates suggest hams may be needed for a month or longer in the New York City area, and for at least the next two weeks in Washington, DC. New York City-Long Island Section Emergency Coordinator Tom Carrubba, KA2D, reports that hams have been supporting emergency officials and the American Red Cross relief and recovery effort. Amateurs have been staffing several Red Cross shelters in addition to a staging/National Disaster Medical System center, various Red Cross units, and the Greater New York City American Red Cross Headquarters as well as the New York City Office of Emergency Management. Carrubba says the telephone system in lower Manhattan continues to be problematic because of the high call volume. "American Red Cross communications are overloaded, and traffic from the shelters is coming into the New York City net at a rapid pace," he said. "The Amateur Radio ops are doing a great job under very difficult and strange conditions, but this is what they have trained for; they are getting it done well."

Red Cross Communications Officer Jay Ferron, N4GAA, agreed. "The Amateur Radio community has come out very big and very strong," he said, adding that local clubs and repeater groups have volunteered gear, frequencies and operators.

New York City District Emergency Coordinator Charles Hargrove, N2NOV, has expressed his appreciation to the amateur community. "Thank you for all the support and well wishes," he said. "This is a difficult time for all of us. We appreciate all the amateurs who have volunteered their time and equipment."

At the so-called "fourth" plane crash site in rural Somerset County western Pennsylvania, Kevin Custer, W3KKC, reports a busy scene as the investigation continues. Custer arranged preliminary repeater communication into and out of the crash site on Tuesday to help the Red Cross, Salvation Army, Pennsylvania State Police, the FBI and other state and federal agencies on

the scene. Custer said the investigation could continue for several weeks. "At this time we are preparing for the possibility of family members coming to the crash site--or close by," he said.

Montgomery County, Maryland, Deputy RACES Officer John Creel, WB3GXW, observed that while the enormity of the attacks is bound to touch the amateur community directly or indirectly, he has seen nothing but professionalism among the responding operators in his area. Creel advised amateurs to "just be prepared," and he echoed the sentiment of many that the events of September 11 "will be with us for the rest of our lives. More detailed and updated information on Amateur Radio's involvement in the disaster relief and recovery efforts is available on the ARRL Web site <<http://www.arrl.org>>.

### ARRL PRESIDENT PRAISES AMATEURS' RESPONSE

ARRL President Jim Haynie, W5JBP, has expressed his deep appreciation to amateurs throughout the world who have

sent messages of condolence and support. Haynie also praised the actions of Amateur Radio volunteers. "The shock and horror of yesterday morning's events are still fresh in our minds," Haynie said the day after the September 11 terrorist attacks. "Radio amateurs in New York City and elsewhere around the country are doing everything they can to support the authorities in locating and assisting victims. We know that there are many among us who have been touched personally by these tragedies, but there is comfort in knowing that we are not alone in our grief. Never have I felt more strongly about what a great privilege it is to be a part of the extraordinary global community of Amateur Radio," Haynie concluded.

Messages of support arrived throughout the week at ARRL Headquarters from International Amateur Radio Union member societies and from individual amateurs around the world. Japan Amateur Radio League President Shozo Hara, JA1AN, expressed "great shock and dismay" at the attacks in New York and Washington and offered "heartfelt condolences to the victims and families of the victims" as well as any assistance JARL could offer. Deutscher Amateur-Radio Club Managing Director Bernd Haefner, DB4DL, relayed similar sentiments. "At this horrible time, we all are Americans," he wrote.

ARRL Vice President Kay Craigie, WT3P, noted that, on a day when many Americans were rushing home to be with their families, many radio amateurs were assisting in the emergency response. "Compared to the sacrifices by emergency responders in New York City and at the Pentagon, it was a small thing, yet a thing that should not go without notice."

## AMATEURS AMONG THE MISSING IN WORLD TRADE CENTER ATTACK

At least four Amateur Radio operators are among the many still missing in the aftermath of the September 11 attack on the World Trade Center in New York City. The attack also destroyed the major TV and radio transmitting site atop one of the twin towers. The hams reported missing so far include:

\* Steven A. "Steve" Jacobson, N2SJ, 53, of New York City, a transmitter engineer for WPIX TV, and an ARRL member.

\* William V. "Bill" Steckman, WA2ACW, of W Hempstead, New York, a transmitter engineer for WNBC TV. He was well known in the NYC area and ran a number of repeaters from the World Trade Center, most notably the 434 MHz ATV repeater.

\* Robert D. "Bob" Cirri Sr, KA2OTD, 39, an ARRL member from Nutley, New Jersey and the ARRL District Emergency Coordinator for Hudson County. A Port Authority police officer, Cirri was on the job helping to evacuate workers from the building when it collapsed.

\* Michael G. Jacobs, AA1GO, 54, an ARRL member from Danbury, Connecticut. Jacobs worked at Fiduciary Trust Company International, which had offices in the World Trade Center.

There was cause for rejoicing in the case of another amateur who worked in the World Trade Center. Rob Nall, WV0S, reports that his friend, Herman Belderok, Jr, KB0EEB, managed to get out of the building just minutes before the structure collapsed.

\*\*\*\*\*

## IN MEMORY OF THE THOUSANDS WHO PERISHED IN THE SEPTEMBER 11, 2001 TERRORIST ATTACKS

## Rover and Microwaver Resource

If you're looking for some new hilltops or places to rove from, check out the N2MH Rove Site Locator, <http://www.intac.com/~mherson/rovesite.htm>. This growing Web Page lists a number of sites that show promise for roving or microwaving. In addition to the list of operating locations, there are links to a number of map-making engines on the Net that will draw a map for a selected site. There is also a link to generate an aerial photo of the selected site. Finally, there are also several download files for input into pc-based map-making programs (Street Atlas, Topo! and all versions of APRS). Future plans call for individual pages for an operating site which will have a description of the site and beam headings to other sites. If you have any sites that you would like to publicize, please send them along and I'll incorporate them. If you have any ideas to make the site more useful, please send them along also. 73 and Good LOS Mark, N2MH The Lighthouse Rover Also check out the N2MH Information for Rover page, <http://www.intac.com/~mherson/rover.htm>

## Movin' Your Cheese (buy-sell)

>**Wanted:** 6 meter module for Yeasu FT-736. AA2UK (below)

>**For Sale:** I have decided to run the station in the low power category so I am selling my 1296 tube amplifier and 2304 amps together with high voltage supply, the 1296 amp has relays and the 2304 does not. Both are on 19" rack panels and come with the water pump and working 7289 tubes with spare water jackets. \$300.00 takes all. I am also selling my K2RIW for 432 complete with high voltage supply and a companion 6 meter deck that is a single 4cx250B. \$300.00 takes all, the amps have relays 28 volt. I also have a pair of 8874's in an old Tempo 6 and 2 that was converted to 2 meters the tubes are weak the amp barely puts out 600 watts now, it used to do over 1KW. \$300.00 for the 2 meter amp. I have a TWTA that is old and puts out about 8 to 10 watts on 2304 and 5 watts on 3456. That is free to anyone willing to pick it up and use it. I will be going through my stuff and will list anything else I will not be using. 73 Bill AA2UK aa2uk@bellatlantic.net

>**Wanted:** I'm looking for an oscillator and multiplier to build a 903 transverter. Or, if you have an old transverter, that would be fine too. The output frequency would be 759 Mhz. for a 2 meter IF. Thanks, Paul WA3GFZ 215-884-3116

>**Wanted:** 2 meter amp, at least 500 watts output or more. Please only complete packages and not one missing the power supply or needs to be built. Send description, photo is possible, and price shipped to 23901 or will pick up or meet within 150 miles of Farmville, VA. Thanks, Kyle Chavis wa4pgm@hovac.com 804.392.4806

>**For Sale:** New Toshiba UM2683A 40W Linear Microwave Amplifier for use at 3.4 to 3.6GHz range in original manufacturer's packaging. This amplifier differs from the "2683B" "20W" version on my other auctions because here is a TMD0305-2 MMIC instead of the discrete circuitry in the front end. The TMD305-2 part is a 3.4-5.1GHz amp with 2 watt output and 22dB Power Gain. Turning the two pot's at the far left on the lower board in the photo full clockwise (shutting down the attenuator) and peaking the power with the third pot (2nd and 3rd stage bias) yielded 46dBm, 40 watts @ 3.456GHz using 12.0 -12.6vdc (as measured at the connector) and about 0dBm input power. Power supply requirement is 12.3VDC @ 15amps after readjusting gain and bias. Heat sinking is required. Size on these units is 5 x 8 x 1 inch and weight is almost 2 pounds. Input power required for full output is about 0dBm. DC power and control connector is a DB-15 male. Pinout is as follows: Ground are pins 3,7,10,11; +12VDC are pins 1,2,12,13; All vcc and ground pins need to be connected to handle the 15 amps. Pin 9 is the enable pin (TTL) which must be tied low to ground to switch the internal supply on. when it is tied or floats high, the 12v supply draws only milliamps and the amp is in a stand-by mode. Since this is a linear amp, it will draw

about 14 amps even without signal input. Pins 4,5,8,15 are assorted alarm output pins low true. I have opened one of these units for the photos, but will ship only new ones. Total for one amp will be 160.00 + 6.00 Priority S&H. Additional units are 150.00 + 2.00 additional S&H. To: Joe Ruggieri 1961 Lk. Emma Rd. Longwood, FL 32750 USA I also accept PayPal payments using pyrojo@prodigy.net (NOT .com) The input power required is 0dBm. 40W amp information: Pinout is as follows: Ground are pins 3,7,10,11; +12VDC are pins 1,2,12,13; All vcc and ground pins need to be connected to handle the 15 amps. Pin 9 is the enable pin (TTL) which must be tied low to ground to switch the internal supply on. when it is tied or floats high, the 12v supply draws only milliamps and the amp is in a stand-by mode. Making the required adjustment to these 40W units is very easy after removing the cover and making a power cable assembly. I have tried several methods and this is what seems to work best. There are 4 pot's you will want to adjust, R217, R210, R136, (these are the first 3 counting from the left), and finally R150 located directly to the right of the regulator. The first step is to turn R217 and R210 full clockwise (this turns off the Leveling attenuator). The next step is to power up the amp with 12.6VDC measured on the inside 4 pin connector P6 to ground. Once powered up, monitor the supply current and adjust R138 for 15.0 amps supply current. If you have problems reaching 15A and a RF output of 46dBm, check the voltage on the right pins of P3 for 10.30vdc (output of the regulator for the Power device) and if it is low, adjust R150 for 10.3v. Please also note the supply current can be brought up higher than 15A by adjusting R138 further C.W., but this does very little to increase RF power and if set to high, will cause RF power fold back. 15A seems to be ideal with 12.6Vin.

*(despite the semi-commercial nature of this ad, I recently purchased one, and thought the availability of these units would be a service to the microwave community, see picture of unit on p10 Rick, K1DS, editor)*

>**For Sale:** Kenwood TS-830 (HF) with matching VFO (VFO-230) & Mike \$400; Realistic HTX-100 (10m, 25w \$50; Kenwood TM331A (220FM) \$80; ICOM IC-551D (5m, 80w, needs work-main tuning knob locks up) \$100; DEM AOS-28 T-R switch with 25w attenuator \$25; Mirage B3016 2m amp 25w in 160w out \$150; All have mikes and manuals. Pick-up preferred in Hatboro Call Jim K3EBZ 215-672-5487 or jyeag@erols.com

>**For Sale:** Have at least one, up to three, 19" rack cabinets. Front and rear doors (removable), about 5.5' tall. Nice and deep. Pickup in Valley Forge. Also, an RF Concepts 100 watt brick for 70cm (30 in/100 out). This was in my truck and one day it started smoking. Has a couple of burned traces (but not the RF striplines). Don't have time to deal with it - somebody else might be able to resurrect it. Email direct. Thanks. Jeff DePolo WN3A Broadcast & Communications Consultant v:610.917.3000 p:888.433.4123 Jeff@DePolo.net

>**For Sale:** 79 foot length of ANDREW LDF6-50 Heliac(1-1/4") New, recent date, stored inside, make offer. 4218XL Cushcraft (2 Meters)/K1FO modification in usable condition, make offer. 18XXX M2 (2 Meters)- center section of boom broken, repairable item, make offer Len, N3NGE 610-286-9743

>**For Sale:** Yaesu FT-920 HF thru 6 Meter Transceiver 160 thru 6 Meters, 100 Watts all Bands, Separate 6m Antenna Jack, Can set power level to 10 watts from menu. Front Panel further adjusts power. Requires External Power Supply. Installed Options: Total Value over \$500.00 High Stability TCXO - TCXO-7 International Radio #701-A 400 Hz CW Filter International Radio #710-A 6 kHz AM Filter International Radio Filter Switch Board with second SSB filter IR #709 2.1 Khz. Used in cascade with factory 2.4 Khz filter. Switchable in or out. FM-1 FM Unit Pristine Condition, Purchased New March 2000 Reason for Selling: Great Radio but moving up. Price: \$990.00 US Will Ship CONUS UPS Ground for Free. If you really, really want this radio suggest you call. Ron Whitsel W3RJW w3rjw@arrl.net rwhitsel@totalrfcom.com 215-633-1000 Work 215-355-5730 Home





<This is "Buttercup", the pride and joy of Robin Midgett, KB4IDC, one half of the NT4L Rover team. You should notice antennas covering 50 through 1296 MHz as well as a droopy dipole for HF. As shown, the antennas are in their full upright position. When lowered, the mast telescopes together leaving about 6 inches spacing between antennas and providing enough clearance to go under overpasses, trees (mostly), etc. (from N2MH website)

## HDTV at September Meeting

**Peter H. Putman**  
President

### **ROAM CONSULTING, INC.**

200-D North Street, Doylestown, PA 18901  
215-345-8004 voice, 215-345-8007 fax  
pputman@projectorexper.com

Pete gave a fantastic talk and demonstration of High Definition (digital) TV as the featured speaker at the September regular club business meeting. He is clearly an expert in the field, relating his experiences in home theater systems, and the availability of HDTV over the past 10 years, and its history before that. I think I speak for all who attended, that the clips that we viewed as support to his talk were outstanding in their clarity and definition. Pete made it clear to all of us why HDTV will be the mode of the future. His editorial comment was that with only about 100,000 HDTV sets in use, that he wouldn't expect to see conventional NTSC disappear for about another decade. RR/editor

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## MEETING NOTICE

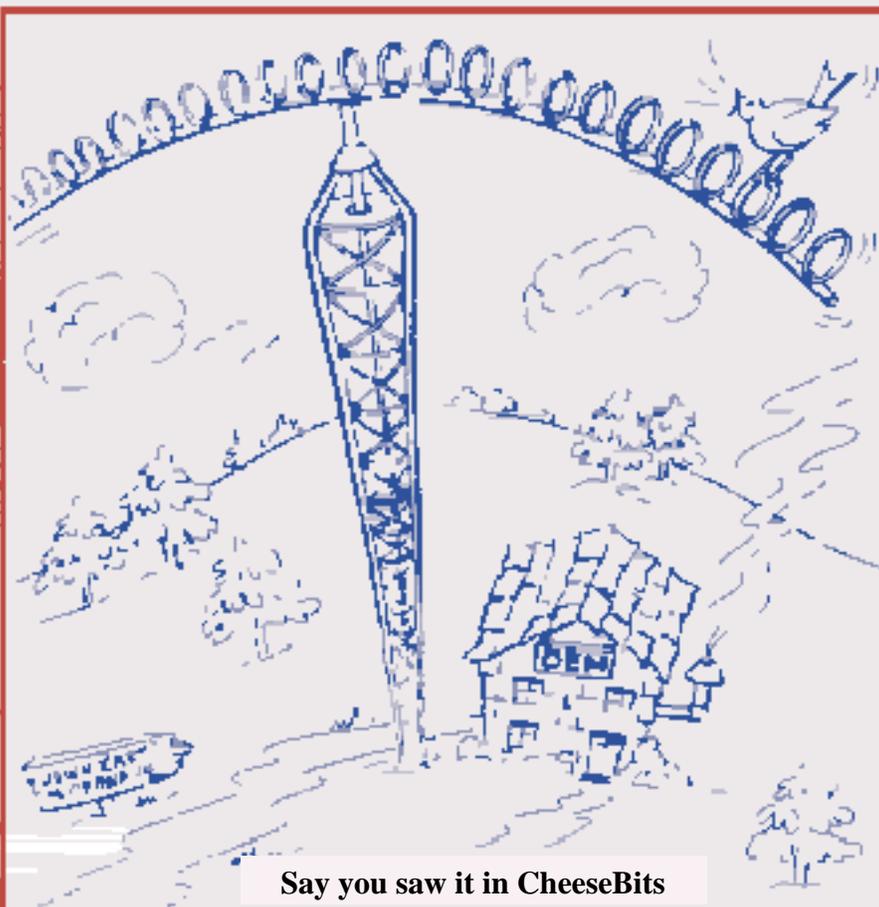
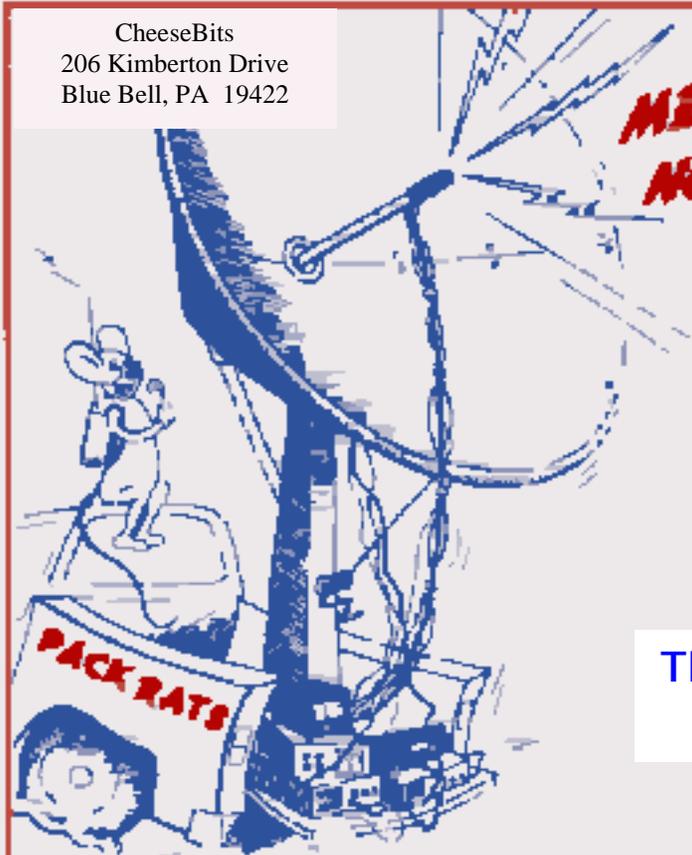
**Next Club Board of Directors Meeting**  
Thursday, October 11th 8PM  
at QTH of W3KKN

**Next Regular Club Meeting**  
Thursday, October 18th 8PM  
at Southampton Free Library

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