



# CHEESE BITS

**W3CCX**  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume LVII

September 2016

Number 8

## PREZ SEZ:

Right on the heels of the August UHF contest we are now ready for the ARRL September VHF Contest. I hope you are ready for this preparation contest and a fun time working all of our friends in the VHF/UHF community. We want to have a great showing toward the club competition, so make sure you get on the air and submit your log.

Just like in June, when a good group of Packrats go to the mountain in Tannersville, September is when a great group of Packrats go to the mountain in High Knob. This year is no different; led by the team of Ken, K3WB and Bob, W2SJ we will have representation in the Multi Operator category. Be sure to point their way and work W2EA on as many bands as possible.

August was a busy month that started off with the UHF contest, we then had a marvelous Picnic, a 6m Sprint, 10 gig contest and finally a trip to the beach. The UHF contest was great fun with plenty of time to run bands and use assistance to find the next long contact or find a rover. Logs must be in by the 6<sup>th</sup> of this month; please get your log submitted.

A nice crowd enjoyed the beautiful weather and friends at the annual picnic hosted this year by KB1JEY. The food was fabulous as usual and the pool was in use for a good portion of the afternoon. Plan on making that event next year, it was fun and there was enough time after the meal to get home and make some noise on 6 meters. We even had some good propagation to enjoy.

Many members who have 10 gig made their way on the air during the third weekend of August including Paul, WA3GFZ who fabricated a new tower trailer and went out to several locations to make many contacts on 10 GHz.

We heard from across the ocean of the fantastic EME conference held in Venice Italy. I had the pleasure of following along in pictures as Roger, W3SZ, sweet talked (in Italian, of course) his way across the country for the weeks to follow. We are all looking forward to hearing of the event at our next meeting this month on September 15 at our regular meeting at the Ben Wilson Senior center. What a great way to kick off our fall meeting season! Don't forget to join us at Giuseppe's Pizza before the meeting at 6 PM.

Now back to the upcoming ARRL September VHF Contest, I sure hope all active members will make it a point to get on the air and submit a log. Get used to the assistance that will help propel our scores up to a new level. Give the chat page a try, and use spotting to let everyone know when you are calling CQ or have found a new grid or far station. We can help everyone and make more contacts for the club and yourself all at the same time. Take the time to get your station integrated and automated to make things easier for every contact. Then when things get slow, and there isn't a new one on the chat page, go to CW and call CQ. If you are fearful of the mode, run at a low speed and the stations will slow down to accommodate you. The only way to get started is to get on the air.

Right after the VHF Contest on the following weekend is the second leg of the 10 gig and up

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**PACKRAT BEACONS - W3CCX/B**

FM29jw Philadelphia, PA  
50.080 144.284 222.062 432.290 903.072 1296.264 2304.043  
3456.200-5760:195 10,368.034 MHz (as of 1/16)

**MONDAY / TUESDAY NIGHT NETS**

**VHF/UHF Monday:**

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.145 MHz	N3RG FM29ki Ray
8:00 PM	144.150 MHz	K3GNC FN20ja Jerome
8:30 PM	222.125 MHz	KB1JEY FN20je Michael
8:30 PM	224.58R MHz	W3GXB FN20jm Bob
9:00 PM	432.110 MHz	WB2RVX FM29mt Mike

**Microwave Tuesday:**

7:30 Coordinate QSO's on 144.260 for all Microwave bands you'd like to work. Also setup Q's at [w4dex.com/uhfqso](http://w4dex.com/uhfqso) or **Packrat Chat Page W3SZ.COM**

Visit the Mt Airy VHF Radio Club at: [www.packratvhf.com](http://www.packratvhf.com) or [www.w3ccx.com](http://www.w3ccx.com)

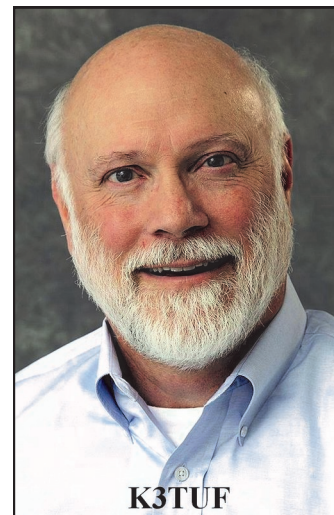
ARRL contest. If you have that band, you should see who you can work.

Next we have the second and third Sprints for the fall season on September 19<sup>th</sup> and 27<sup>th</sup> respectively for 144 MHz and 222 MHz. Another great time to spend an evening exercising the gear.

This is our 60th year in action as a club, yes it was 1956 when the Mt Airy VHF Radio Club got it's start. We plan to dedicate the December meeting to a celebration of that event. It would be nice for past members to attend that informal meeting where fun, food, fellowship and great times will be enjoyed. Put December 15 on your calendar and be sure to attend.

Now get your radio on this weekend and lets work on lots of bands,

**Phil, K3TUF**



# Packrat Picnic 2016 (Hot Hot Hot)

Judging by the comments via email and in person, I think that everyone that was able to join us on Saturday had a good time at the picnic. By my count, 33 Packrats and their guests were in attendance. Due to the hot weather, the pool received more use than it typically gets during a Packrat picnic. Being a one-person (and one cat) household, I brought the extra food to my adjoining neighbors. As far as they (and I) are concerned, the Packrats may return in 2017.

Special thanks go out to George KA3WXV, Sir Guy WA3JZN, Bruce WA3YUE (who lets us borrow his nifty canopy), and to Ken K2WB and Tom KA3FQS who lent me some needed items even though they could not attend themselves.

In answer to the folks who thanked me for making my QTH available for the picnic, I do so in part to honor the late **Lovely Mrs. Davis**, who reveled in hosting guests and making sure that they had more than enough to eat and drink. I am certain that she is smiling on all of us this morning in honoring her spirit.

73, Michael KB1JEY







It was a great picnic; and the pool was the place to be. Thoroughly enjoyed the fun, food and fellowship.

73, Phil K3TUF

A fantastic picnic. Well planned and thought out. Even had the great idea of setting up fans in the yard that cool the temperature down a bit. The pool looked inviting, but I was not ready to SQUEEZE myself into a suit.

Michelle KB3MTW



Sally and I want to thank you for the great party. We know the work involved in making something like this work. Despite the heat, we had a wonderful time.

Thanks & 73, Sal & AI (K2UYH)





Thanks for a great picnic, Michael!

I had a great time! The food and the camaraderie were terrific!

73, Roger W3SZ

Barbara and I also want to thank you, Michael, for the great picnic and the hospitality. We look forward to it each year and you always do a great job as host.

Thanks again, 73, Russ (K2TXB) and Barbara



2016.08.13 15:11



Tnx, W3GAD for pix!!

# 2016 UHF Contest Reports

## From Michelle KB3MTW:

Sorry for those who tried to get a hold of me for the last hour. After I posted the email a friend stopped by and like the dutiful host I abandoned my post.

Even though I only was able to contest for the last 3.5 hours, I didn't do too badly. As for Neil he worked his heart out putting out his call on the lower 4 bands. It's a shame there weren't more people on. Then again using social media including Roger's text messaging program did help me a lot.

Our biggest problems are the small compromised/stealth antennas and the fact that they have to be below the height of our roof. This is something we have to look for ways around. There's always room for improvement.

Band	QSOs	pt	QSO	pts	Grids	Points
222	2	3	6	2	12	
432	5	3	15	3	45	
903	3	6	18	3	54	
1296	1	6	6	1	6	
<b>TOTAL</b>	<b>11</b>		<b>45</b>	<b>9</b>	<b>405</b>	

Claimed score = 405

## From George WB3IGR:

Hi guys...Here is my log summary for the UHF contest. I ran 10 watts on 222 with a 3 element beam fixed facing southeast; 50 Watts on 432 with a dual band halo; 2 CW laser transceivers (club versions) with WB3LTH (wife)

I think I did rather well for just getting set up in a hurry. Planned soon: 2/432 beam, rotor, and a new 222 beam. I'll see you all in the September contest

Band	QSOs
222	11
432	13
Light	1
<b>Total</b>	<b>25</b>

WB3IGR  
UHF  
Antennas



## From Dave K1RZ:

Enjoyed it very much. Lots of activity. Many Rovers. No real long distance enhancement in my area. But locally some good signals late evening Saturday. This is a nice paced contest. Able to take time to renew old acquaintances, and to make new ones. Great to work AF1T thru 1296, W4DEX thru 1296, WZ1V on 1296, and K1GX thru 3456. Thanks everybody for getting on. Great contest.

Perfect time of the year for The UHF Contest.

Band	QSOs	Mults
222:	62	25
432:	72	30
903:	37	20
1.2:	42	19
2.3:	24	11
3.4:	14	9
5.7:	6	6
10G:	11	7
24G:		
<b>Total:</b>	<b>268</b>	<b>127</b>
<b>Total Score</b>	<b>195,072</b>	

## From Bob W2SJ:

Had a great time in the August UHF Contest. This is one of my favorite contests where you can sit back and really enjoy operating without any pressure. I operated about 10 hrs total between other family commitments and finally had a chance to check out my newly installed antenna improvements. ON4KST and Pack Rats Members Chat Pages kept things going during slow times. Here are the results submitted for the club:



...UHF Cont'd

(W2SJ Cont'd)

Band	QSOs	pt	QSO pts.	Grids	Points
222	29	3	87	12	1044
432	33	3	99	11	1089
903	14	6	84	7	588
1296	15	6	90	7	630
2304	11	12	132	6	792
3456	10	12	120	5	600
<hr/>					
TOTAL	112		612	48	29376

Claimed score = 29376

**From Jim WA3EHD:**

Band	QSOs	pt	QSO pts.	Grids	Points
222	16	3	48	9	432
432	16	3	48	6	288
903	7	6	42	5	210
1296	8	6	48	5	240
2304	7	12	84	5	420
3456	5	12	60	4	240
<hr/>					
TOTAL	59		330	34	11220

Claimed score = 11220

**From Pete K0BAK:**

After just getting back from a 2000+ mile drive to Tuscaloosa and back, including some HF activations of NPOTA parks, I was reluctant to participate in the August UHF contest. My only other effort in 2014 from Camelback was a very big disappointment netting only 1 confirmed contact in 2.5 hours, so i wasn't anxious about trying again. However, with encouragement from Packrats on the reflector, and understanding the push to get in as many logs as possible, I decided to at least try for a couple hours near the end of the contest. I was operating portable at Mt. Penn in Reading, (in effect a one-stop rove), with just 222 and 432 in his minivan rover, and with 10' beams about 30' high on a walk-up mast, and 60w and 180w respectively. When I got to Mt. Penn, NN3Q/R was already set up and getting ready to leave. I contacted mostly Packrats in my short operation around noon to 2pm. I made 16 contacts in 2 hours at the end of the contest. The results far exceeded my pessimistic expectations.

222 9 Qs 432 7 Qs

9 grids total

claimed score = 432



**From Dave W3KM:**

Band Q's Mults

222:	7	6		
432:	19	10		
1.2:	3	3		
Total:	29	19	Total Score	1,824

**From Phil K3TUF:**

This is a great contest; I love the duration; it's perfect. Had a great time getting the operating station back on the air after a flood. All operating is new as I am exclusively using SDR now without a 'hard' radio. All worked pretty well. I have a list of improvements to still do. I was told there was some enhancement on Saturday night, unfortunately I went to bed and missed it :-). I had some slow time, but with the chat page it wasn't ever long before had another opportunity to work a new station.

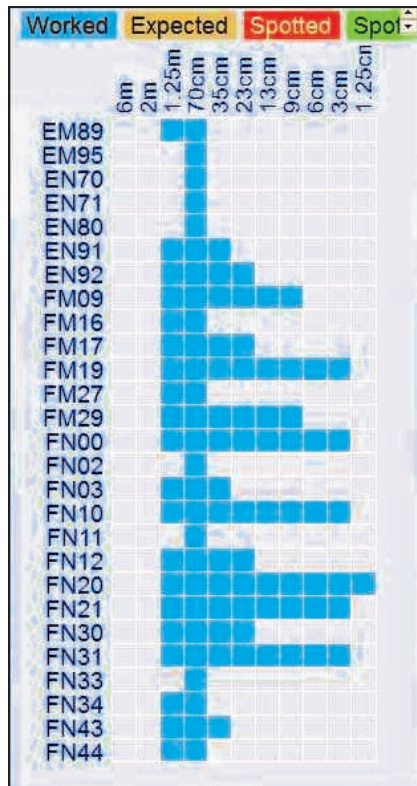
Farthest contact has to be nearly 500 miles down to EM95 and up to FN44. Did work out west to the EN70 and EN71 mark. As usual, there is a hole in FN01 and all of the FMx8 grids (FM08,

...UHF Cont'd

K3TUF Cont'd

FM18, FM28). Thanks to everyone who got on and operated.

**K3TUF** Grids vs Bands in last month's UHF contest.



Band QSOs Mults

222:	43	20
432:	63	27
903:	29	15
1.2:	32	12
2.3:	16	8
3.4:	15	8
5.7:	8	6
10G:	9	6
24G:	1	1
Total:	216	103
Total Score	131,016	

### From Lenny W2BVH:

I was only able to get on for an hour this year because of commitments getting my (disabled) son situated in his new condo. I always enjoy this contest and the one operating hour was a welcome break. Next year more hours & more points!

Band Q's Grids

222	9	5
432	9	5
Total	18	10
Score	540	

# 2016 6M Fall Sprint Reports

### From George NE2I:

I was in the low power category and ended up in the middle of the pack of score submitters. Most openings were to the midwest and at the very beginning to the Maritime Provinces. Openings literally came in waves with long periods of silence followed heavy activity. Heard and worked Bill AA2UK as well on CW.

	QSOs	Grids	Score
All Modes	29	19	551
CW	22		
SSB	7		

### From Bob W2SJ:

Had fun in the 6M Sprint. Lots of activity from West, Midwest, & Southwest. Very sporadic in & out. Had to leave for the shore at 9:30. Bill, AA2UK said it really opened and kept him busy to the end. By that time I was in West Creek near Tuckerton!! Here's the score:

Band	QSOs pt	QSO pts.	Grids	Points	
50	45	1	45	23	1035
TOTAL	45		45	23	1035

Claimed score = 1035

...UHF cont'd

### From Roger W3SZ:

I just played around while doing other things, but still had a great time. Highlights for me were working rovers NN3Q and N2XRE, and completing with K3TUF on 24 GHz. I jury-rigged things together to get on for the contest, microwave portion of the station is again offline pending finishing the lightning mitigation. Score 18573.



# W2EA High Knob, FN21KH September Contest Operation!

What are you doing the weekend of September 10th & 11th? Several Pack Rats along with some members of the South Jersey Mountain Toppers will combine their efforts again to set up and operate a multi op station under the call W2EA from High Knob in the Poconos in grid FN21KH for the September contest. We will be at 2047 feet ASL on bands 50 MHz thru 10G. W2EA will submit its log on behalf of the Mt Airy VHF Radio Club as it has for the last 4 years. The following members of the W2EA team this year you already know very well as Pack Rats and South Jersey Mountain



Toppers: K2WB, W2TAG, N3RG, KC2TN, KB1JEY, KA3WXV, W2SJ, & K3EGE. Other members of the SJMT team include: N2SCJ, N3AVT, KE2D, NC2H, KD2JPW, KD2AWE, & N2UNI.

Whether you are anticipating putting in as much time as possible or just getting on for a short period time in September, we encourage as many Packrats as possible to get on the air and work us at W2EA. We know that some of you may only be on for a short time, so we will be monitoring the Pack Rats Members Chat Page for any Pack Rats that want to work W2EA as well as the ON4KST chat page. In addition any other acceptable assistance methods are available to alert us of your availability during the contest.

Those of you who come up to the mountain in June know it takes quite an effort to plan, set up, operate, and disassemble a mountain top station. Please help support the W2EA group going up to High Knob by working us on as



many bands as possible in this contest. Let's make our score this year an all time high for the September Contest in the ARRL club competition!



We look forward to working many of you! **Tnx es 73, Bill, K3EGE & Bob, W2SJ For the W2EA team**

# The Ankle-Biter Guide to EME

## Part Three - EME Conditions, Antennas (general and personal)

By Jerome Byrd – K3GNC

**“If you have a small station, you can’t run with the big dogs but you can nip at their ankles.”**

I will not be giving any significant technical analysis (I will simplify to the maximum often leaving out important considerations) just some truths learned from the trenches.

**EME conditions: First:** The main factor in determining whether conditions are good for EME communications is the distance of the moon from earth. Perigee – it is closest to earth, Apogee – it is furthest from the earth. **Second:** On 144 MHz, and with less but still significant importance at 432 MHz, is sky noise in the form of the Milky Way. The Moon’s distance and sky noise are the main components used to determine “degradation” of eme signals. Degradation is calculated and displayed in the WSJT EME related programs. The lower the degradation the better the “conditions”. The **third** significant hindrance to reliable EME communications is Faraday rotation. Signals leaving in one linear polarization (H/V) tend to come down in the opposite polarization at the receiving end. (The moon is a passive reflector so the polarization reverses). Faraday rotation may change the polarization one or more times before it reaches receiving party. This leads to polarization mismatches. What makes matters worse is these polarization changes can vary over the course of an hour. The best way to cope with Faraday is to have an antenna with polarization changing ability, or the use of “circular polarization”, which is the dominant scheme at 1.3 GHz and above.

**EME Antennas: The more gain the better.** On the 144 MHz and 432 MHz bands the ability to switch between H/V polarization is worth at least 3 db, or like doubling one’s array size. Linear switching antennas have elements at 90 degrees to each other and require two sets of phasing lines and power dividers for H/V respectively. The so called “XPOL” antennas have elements at 45+/- degree angles like an “x”. A fairly complex switching arrangement is used, where the lengths of the various phasing lines are changed, to produce H/V/RHCP (right-hand-circular polarization) capability. Note that there is a 3 db loss between linear H/V and R/LHCP. This is why yagis, loop type or otherwise, are not widely used at 1.3 GHz and above. The ideal system for 144 MHz and 432 MHz is to be able to rotate polarity continually 180 degrees. There would be no angle of linearly polarized signals that could not be matched. Practically speaking, however, manually switching dual polarity systems can react faster to Faraday than RPOL (rear mounted, rotatable polarity) systems. RPOL systems are the best possible solution for stations which can’t put up large antennas. I have gone to a RPOL system copied from Jimmy – KK6FAH (see his QRZ page for a link). If a station calls CQ long enough I have a good chance of finding a polarity angle that allows for a successful qso, “assuming” moving Faraday is not at play. Before I went to RPOL and was strictly horizontally polarized, out of fifty 144 MHz qsos since January only about 12 were unique and eight of the 12 had arrays larger than 4 yagis, (and the other stations had 4x 5w/ yagis. For these qso’s my power was 300+ watts. The last six days using RPOL under moderate conditions, I worked 5 new stations, four of which were running four yagi arrays, one as small as 4 x 8xpol. And for these qso’s my power was



...Ankle Biter cont'd

200 watts. As a minimal setup, to work some of the 144 MHz super stations you need a 12 ft or more yagi and a brick (100w or more).

Up until I switched to RPOL on 144 MHz I had greater EME success on 432 MHz with 2 x 18el yagis horizontally polarized and 300w. The 432 MHz band is quieter from a man-made and cosmic noise point of view. There are also many super stations there. My first 432 MHz contact was with a single 18 el yagi (G4CQM design) and 100 watts! I have made only one CW contact and that was on 432 with 2 x 18el and 300w.

On 1296 I made four EME qso's with my smallest setup of a single 5 ½ ft m2 yagi and 170 watts in the shack! I now have 2 x 36 el yagis for 1296, with plans to move the SSPA up near the antenna. However, since I start off 3 db down to all the dishes used there, my chance of many more "initials" won't improve that much.

You can work stations at moon-rise and moon-set with no elevation, but your play time will be limited to the European and Asia-Pacific windows. An example would be when moon-rise is 2000 utc. That would be 1-3 am local in Europe so no one would be on (contest and super conditions notwithstanding).

A couple of final antenna tips from the trenches:

1. Put up something for EME separate from your tropo setup if possible.
2. If your setup will be 1-2 yagis linearly polarized, make it vertical. Europe comes in V more often than not.
3. If at all possible have V/H switchable capability (separate v/h, cross-pol, xpol).
4. one long boom yagi will outperform two short boom yagis of the same total boom length due to stacking losses.

Next time the conclusion of the series: (Power, Operating techniques, EME and Contest)

--K3GNC

## 10 GHz Contest Reports

### From Phil K3TUF:

When you are not on a mountaintop you can't work as many stations as the brave souls who go out and spend time and money to get the lofty positions that are becoming more and more scarce. Some locations that are ideal are near a large body of water, but you still have to travel to get there. My 10 gig weekend consisted of hanging around the house for the cell phone call stating that someone was ready to try and work on 10 gig. Worked fourteen stations and even got KA3TUF to make a few contacts as well. There were no new grids, and nothing exotic, but all good fun. There was a bit of rain around for Sunday, and I know many worked it with scatter, but I was not one of them. Several attempts, but no success. It's nice to know that the 10 GHz equipment is working.

### From John W3HMS:

My highlights were 2.5 QSOs with WA3PTV abt 63 miles and one with K1RZ at abt 64 miles. My rig is 16 inch round dish and 260 mw. on my tower at QTH abt 45 ft up. The .5 was K3TUF...he had no rain so did not hear me but I heard him!!

### From Ray N3RG:

I operated in the 10ghz contest last weekend and haven't calculated a score but it was a lot of fun and quite a learning experience for me. I'm running a little under 3 watts to a 2' dish at 65' with the transverter, amp, etc mounted up at the dish. My 144mhz IF setup consists of a rebuilt DEMI 144/28 transverter and a Flex1500. I got everything running a few days before the contest and tested it with K1RZ on Friday night. Dave was my first contact on Saturday and we did it on SSB... not bad considering he is 111 miles away! I worked a few other stations before finally finding Paul, WA3GFZ in FN21hb and worked him easily on CW. My hat's off to Paul who also traveled to FM28 and FM29 over the weekend and put two more grids in my log. I made several contacts over 250 miles with the best DX being AF1T and NS1O from Mt Kearsarge, NH FN43BJ - 326 miles. My station worked flawlessly and I only had a few operator failures. I made a total of 17 contacts in 8 grids... It was a great weekend!

# The Pack Rats Members' Chat Room

The Packrats have a tradition of having a weekend debriefing session after the January ARRL VHF Contest. They also have a tradition of constant improvement based on their unparalleled inquisitiveness, creativity, and innovation.

The new ARRL 50 MHz and Up contest rules have given plenty of opportunity for innovation and improvement, and so the Packrats' debriefing and brainstorming session after this year's January contest, hosted by George, KA3WXV, was particularly lively. A number of innovations arose from that session, and some have previously been discussed in these pages.

One innovation born at that unforgettable session at George's home was the Pack Rats Members' Chat Room. At the February gathering at George's it was noted by several Pack Rats that while the ON4KST VHF and Up chat pages were extremely useful for finding and working non-Pack Rats, those web pages were far too busy to provide an optimal platform for intra-club communications whereby Pack Rats could arrange contacts among themselves, communicate reports of DX stations and Rovers not to be missed, etc.

The Packrats make excellent use of 223.5 MHz FM for intra-club communications during contests, but the FM link has the disadvantage of spotty connectivity for those removed geographically from the "Packrat Bowl" centered on Philadelphia. It also suffers from the fact that its audio-only messages may be missed during the heat of a contest, as the messages disappear as soon as their sender stops speaking. So if a Packrat doesn't hear a message sent on the 223.5 MHz at the moment it is transmitted, he / she never will know it was sent.

So, at the February meeting at KA3WXV's the idea of a Packrats Members' Chat Room was born, and it was quickly put into practice. The plan was for a Packrats-Only chat room where Packrats could communicate among themselves with no outside interference or noise. ON4KST would still be available and used for web-based communications between members of the Packrats and the outside world.

The Packrats Members' Chat Room came to life on February 22, 2016. All Packrats should already know the URL, which will not be reported here. If you are a Packrat and don't know the link, ask any one of your fellow Packrats; if you remain stumped, asked W3SZ and he will come through with the answer for you.

The Members' Chat Room is based on the free "Blab! Chat Room" software, the same platform that is used by W4DEX for his chat rooms (Thanks Dex!).

The Packrats Members' Chat Room provides convenient inter Packrat communications during contests, during our weekly nets on Mondays and Tuesdays, during equipment testing, and any other time a Packrat needs to find and communicate with another Packrat. I've used it to find and communicate with another Packrat when I just needed someone to get on the air for a bit to check out a piece of gear.

The mechanics of the members' chat room are as follows: First of all, the purpose of the members' chat room as noted above is for intra-club communications only. So it is open only to members of the Mt. Airy VHF Radio Club. **There are no exceptions.** Second, the members' chat room is password-protected.

To enroll in the members' chat room initially, you need to go to the members' chat room URL. The first window that you see will look like this:



Login Page

You need left-click on "Register" in the upper right hand corner. This will show you a window that looks like this

On this screen (above) you make an entry in the boxes labeled, "NAME" and "PASSWORD", then reenter the password in the box labeled "RETYPE", and finally enter your email address in the box labeled "E-MAIL". Note that CASE is important for BOTH the user name and the password.

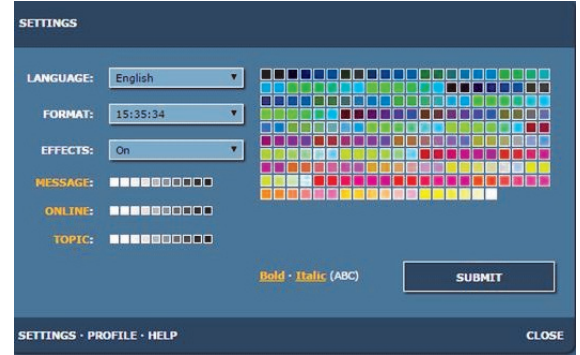
The desired format of the user name is [1] your call, all in CAPS, then [2] a single space, then [3] your grid in the format of two CAPITAL letters followed by two numeric digits, followed by two lower case letters, e.g. FN20ag. So a complete user name would look like: **W3SZ FN20ag**.

Once you have entered all of that information, you need to left-click on "SUBMIT", and then **send an email to W3SZ** telling me that you have set up an account, as I need to activate your account before you can use it and I won't know that you've signed up unless you tell me. Once your account has been activated, you can log into the chat page by going to the chat page URL and entering your user name and your password into the appropriate boxes and then left-clicking on "SUBMIT".

If you enter your user name or password incorrectly [again, CASE is important] then you will get the message, "You have submitted incorrect data!". If that happens, click "CONTINUE" and then on the next screen click "FORGOTTEN PASSWORD". This will show you a screen that looks like this

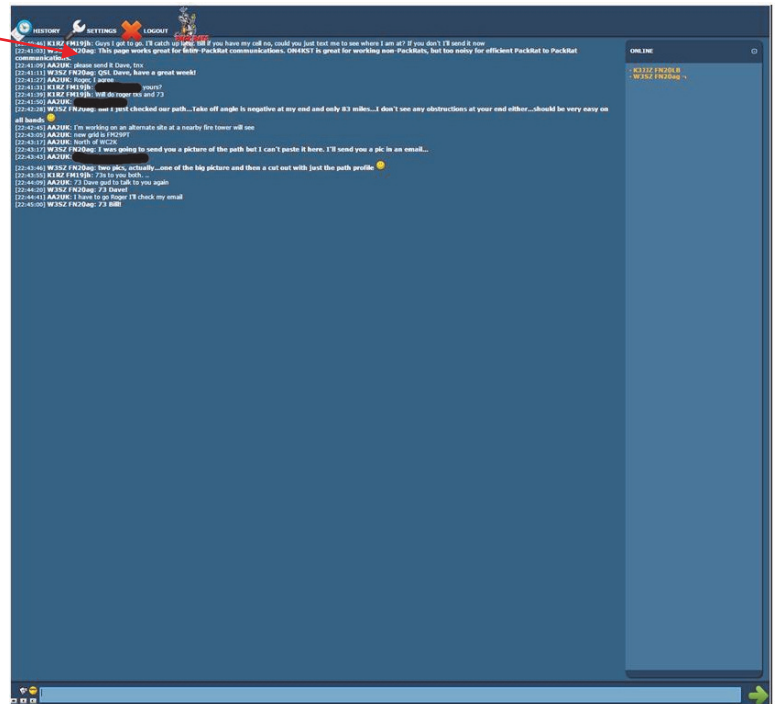
On this screen fill in the boxes labeled "NAME" and "E-MAIL" and click "SUBMIT". You will be sent an email that contains a temporary password that you can use to sign on to the chat page. Then, in order to change your password, you need to log on using your user name and the temporary password contained in the email just received. Once you have logged in, click on "SETTINGS" and then "PROFILE". This will show you a page like this

On this page (bottom p.13) enter into the box labeled "OLD PASSWORD" the password that you just received in the email, and then enter what you want your new password to be [twice] in the boxes labeled "NEW PASSWORD", and then click "SUBMIT" and finally click "CLOSE". Its a good idea to then log out and attempt to log in again just to make sure that you did everything correctly and your new password is working OK. Also, please record your user name and password somewhere safe, so that you can recall them later.



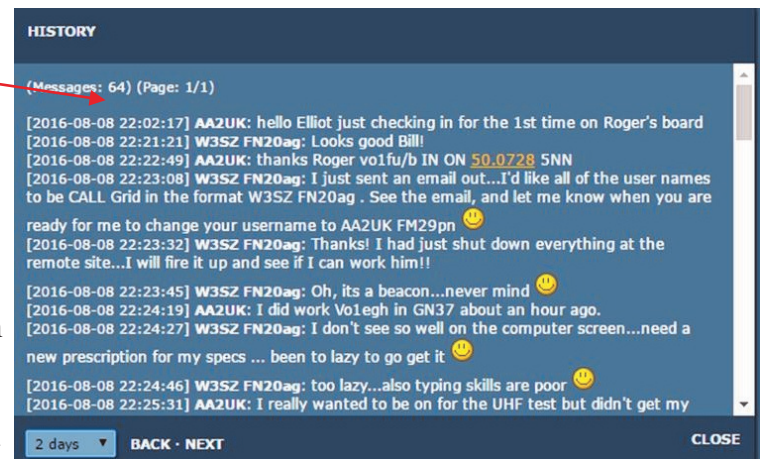
You can customize your chat window in terms of time format, font, color, etc. by going to the settings window and clicking on "SETTINGS" in the upper left corner of the members' chat room screen. You can also turn sound effects [played when someone sends a message or enters or leaves the members' chat room] using the same SETTINGS window. The SETTINGS window looks like this

A typical members' chat room window looks like this



You can see a larger image of this page at: <http://www.nitehawk.com/w3sz/PackRatsChatRoom.png> For reasons of security, I blacked out email addresses and phone numbers in the illustration. On the right edge of the main screen is a list of stations currently online. You can see that K3JJZ and W3SZ were the only stations online when this image was made. Needing to block out the phone numbers and emails on this image reminds me of another advantage of the members' chat room over our 223.500 MHz FM channel; the members' chat room provides a secure means of transferring such private information while chatting, which the FM channel does not.

There are a couple of other features to the chat room software. If you click on "HISTORY" in the upper left corner of the chat window, you can review old conversations no longer visible on the screen. This history window looks like this



You can select the total duration of the history using the pull-down menu at the bottom left corner of this window. "Back" and "Next" take you from page to page of the history, and within a page you can scroll up or down to see all of the chatter. On the right edge of the main screen is a list of stations currently online. You can see that K3JJZ and W3SZ were the only stations online when this image was made.

I hope that the above gives you all of the information you need regarding the Packrats Members' Chat Room. If you need further information, just send me an email. --Roger Rehr, W3SZ



# THE 17TH INTERNATIONAL EME CONFERENCE REPORT

AUGUST 19-21, 2016 TREVISO, ITALY

Arranging an international radio conference is no simple task. Kudos to IW3HVB Giulio Pico and his fabulous team for making this conference a huge success. Four Packrats attended the biennial conference, held this year in Treviso, Italy, 30 minutes' drive from Venice. Three of us were speakers at the meeting. Al K2UYH gave a further detailed presentation on making and using stressed dishes for EME antenna reflectors. Joe K1JT discussed the newest digital communications tools in the WSJT-X folder and gave us an understanding of the newest QRA64 advantages over previous programs. Rick K1DS gave a summary of the issues involved with the ARRL EME Contest rules, results and survey, taking back with him several comments and suggestions for the future. Roger W3SZ attended and was cited by other presenters for his contributions to EME signal processing.

The meeting started on Friday with half-day tours of Venice—it was unbelievably crowded there in the peak of tourist season. The history, architecture and gondolas in the canals are fascinating. Many of us enjoyed Friday evening dinner together at the hotel—they had a special menu for us for EU20 per person, which is quite reasonable in Italy. Meeting registrants received a bottle of red wine, a small backpack and a shirt, all with the EME logo on them. Ladies received a small floral corsage and a necklace made with the logo of the EME meeting also.

The presentations started on Saturday morning, and there was a substantial focus on digital signals with exploration of improved decoding and some improved techniques. We had a few presentations on large dish construction, azimuth and elevation control mechanisms, and a unique approach to making a dish and feed recline in a stealth position when not in use. The results of an experiment using preamplifiers was interesting, trying to answer the question of whether it is better to leave a preamp powered or unpowered during transmit. Most current advice seems to be to keep the device powered, but the experiment seemed to show that there was very little difference in preamp survival in either case



once the input RF exceeded 20dB. The best advice seemed to be that the preamp should be grounded through a load and not exposed to much transmit RF, along with the use of a sequencer. There were two talks about the polarization of signals and the effects of the spatial and geomagnetic forces. The recent growth of 10GHz EME capability has also led to concerns whether linear or circular polarization is warranted. Although there may be a theoretical advantage for circular polarization at 10GHz, the results of testing was somewhat mixed, and most who use this for EME continue to use linear polarization. There were long coffee breaks, complete with an espresso bar and refreshments, while the lunch break was a delightful buffet with many choices of hot and cold

items plus wines and bottled waters.

I found the most fascinating talk was by Jan PA3FXB of the Netherlands, who operates the restored 25 meter Dwingeloo dish EME station. He considered the possibilities of satellite-bounce communication, using existing low-orbit space objects including some Russian satellites and the International Space Station. The results of their testing and success were demonstrated with audio files played through the PA system. The biggest trick was designing software to be able to move the dishes quickly as the satellites passed by and tracking the rapid Doppler as these objects fly by at about 17,000mph.

The spouses were also on tours of Treviso and Padua during the conference. On Saturday evening we were bussed to an estate for dinner, dancing, drinking, discussion and door prizes. Over 200 folks attended. The wine flowed freely, there were excellent buffets of all sorts of great Italian delicacies, and a modern quartet and singer entertained for most of the evening. There was a covered portico and multiple large café-type umbrellas that kept us dry during the drizzle. Toward the end of the evening they cut a celebratory cake, honored the organizational committee, and called ticket numbers for the door prizes.



The remainder of the program speakers continued on Sunday morning, again with breaks and lunch. I had the honor of being the final speaker, with my title of “Please Don’t Throw Tomatoes—the ARRL EME Contest.” I know that many have been concerned about the contest rule changes and many had suggestions on potential improvements. Jan gave a short look at the potential for the next EME meeting in August of 2018 to be held in the Netherlands and the group approved. Following the close of the conference, many of us took advantage of another optional excursion, visiting several mountain-top castles built several hundred years ago, historic churches that have been restored, and finally ending at a winery for tasting and dinner. We entered the cave where the méthode champenoise is employed to make a sparkling white wine. We got the winemaker’s explanations and then proceeded to a tasting and appetizers. Following that we were seated at three large tables in a rustic mountainside restaurant with a nice fire burning that took the chill and dampness out of our cave tour and the rainy weather. We were served a fabulous multicourse dinner with wines and a great home-made ice cream dessert. It was one of the highlights of the meeting and a great culmination to the day.



On Monday, the four Packrat attendees parted ways, with Joe and Marietta and Al and Sally heading to Marios’ for a few days and an extended visit in Italy. Roger began his extended visit to many of the sights and cities in Italy, practicing his newly learned Italian on the way. Jani and I had already spent 10 days in Switzerland prior to the conference, so we flew home that day. I’m sure that the advances in digital programs will continue to yield more EME QSOs and hams using the moon as a reflector. Get on board! All of the presentations are available for viewing or download from the website [www.eme2016.org](http://www.eme2016.org)

73, Rick, K1DS



# LAKE ERIE 10 GHZ ROVER

By Ken KA2LIM

On 19 August 2016, Warren-WB2ONA and his son Steve-KC2QBC along with Ken-KA2LIM, left for Vermillion, OH to operate in the 10G contest along the shore of Lake Erie. We arrived at our hotel around 6PM, got registered and set out to find our first operating location for Saturday morning, the start of the 10G contest.

Our first location was Showse Park in Vermillion, OH. EN81uk, right on the shore of Lake Erie with a good view to the west, and east.

From this location, we made contacts with WB8TGY, W2RMA in EN91kt, VE3SMA, VA3ELE in FN02at, K8JA in EN82In, WW8M in EN82xf and VE3ZV in EN92op.

From here we moved to the East 55th Street marina in Cleveland, OH. Only 1 contact with KE8U in EN81hu. We then went to Township Park in Perry, OH – EN91kt. This was a great location with a wide open view west, north and east but with 8 stations already setup there, we decided just to say hello to everyone, look over the different equipment and move on to our next stop which was Walnut Beach Park, in Ashtabula, OH. EN91ov. From here we worked VE3FHM and VE3ZV in FN02at and VE3SMA, VA3ELE and VE3WJ in EN92op.

The last contact going into the log at 2347 UTC we made the decision to start operating the next morning from Presque Isle in Erie, PA, on the west end of the lake, before it got crowded with people. So we started the long drive to Erie, PA where we got a room thanks to Sue – N2CYM, Warren's wife, who got on the computer back home and found a place to stay and reserved it for us. It is always good to have a logistics manager in backup!! Thanks Sue.

We were up at 0630 on Sunday morning, had breakfast at a Bob Evans restaurant and then headed for our first stop on Presque Isle EN92we. The wind was blowing and the water was rough. A good view to the west and N-NE. Could not work K2DH, 100 miles to the north. But, we did work VE3ZV in FN02hu and VE3MSC in EN92lp who were farther away. So we dismantled and headed to our next stop which turned out to be the last location that we operated from on this adventure, that being Point Gratiot Park in Dunkirk, NY FN02hl. At Gratiot Park, the wind was really blowing hard off the lake. Where I set up on the shore, I had 75 pounds of barbell weights tied to my tri-pod to keep it stable.

This turned out to be a pretty good spot to operate from. We worked the following stations in FN02hu – VE3SMA, VA3ELE, VE3NYZ and VE3ZV. EN92ip - VE3MSC, EN92fn - VE3WJ and VE3MSC, WB8TGY in EN91uk. Warren also worked WB8VPD in EN91uk, I missed Bob. And the last one in the log for both of us was VE3FHM in FN03au.



KA2LIM 10 GHz Station



WB2ONA 10 GHz Rover with antenna pointing east



Windy!!!

...Lake Erie cont'd

It was getting late and we had an almost 4 hour drive home so we packed up and headed for Pine Valley - FN12nf for a good night's sleep.

Some observations on my part, this being my first 10G contest.

1. Too many stations trying to talk on 144.260 (the coordinating frequency) at one time. Contact who you want to work on 10G and move 20 or 30 KC's away, to do your coordinating.
2. Too many stations trying to make a contact on 10368.100 at the same time. Come on, spread it out.
3. Lots of stations setup at one location with no coordination between each other.
4. Provide your cell phone or home phone on the list that K1RZ publishes for everyone, to assist in setting up 10G skeds.

Over all, I had a great time. Don't know why I waited so long to get on 10G. Already have plans for improving my portable setup. Thanks to all who went out and made contacts with us on this adventure. Looking forward to more contacts, with all of you on 10G. And a special thanks, to Warren-WB2ONA for all his help and taking me along on this adventure.

Ken KA2LIM



KA2LIM station on the beach and WB2ONA/R closer to the parking lot, away from the soft sand, so as not to get stuck.

Tnx KC2QBC for pix



Lenny,

Here's a scan of another certificate that may be of interest.

The induction ceremony was held at the Packrat run Bicentennial conference. The conference was held in downtown Philadelphia, in 1976 (40 years ago!!).

I wonder how many other club members are members of the Royal Order? A poll may be in order?

Bert, K3IUUV



# 10 GHz ROVING PROJECT

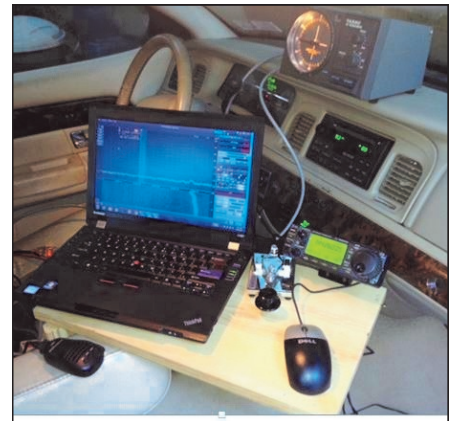
By Paul WA3GFZ

When I roved in 2015 for the 10GHz cumulative contest, I used a tripod and a computer with my Flex 1500. The computer screen was hard to see as I was outside of the vehicle. Tripod aiming also took a second person and was difficult to coordinate. I decided a change was needed. A tower trailer always seemed to be very appealing to me. The operating position would have to be inside the vehicle for computer visibility and weather.



My lightweight trailer was rusty and the deck was rotting so an overhaul was needed. The 2 week project involved taking it completely apart, grinding the rust away, and priming and painting. I also replaced the deck. The result was quite an improvement. It was then time to mount the tilt base, tower and tower saddle. At the suggestion of Russ, NN3Q, I used a cantilever with the winch. The jacks on the front sides were needed for leveling and stabilization as well as the one on the back. Again Russ's idea. I was very excited as I was well on my way to a functioning rover. Rick, K1DS, gave me the idea of using a longer mast for additional height.

The operating position was next on the design list. The Icom 706 MK2 was already installed in the car, so I used it for liaison on 2 meters. The Flex 6300 was the radio of choice for 10 GHz. I was able to borrow a laptop from Pete, K0BAK, and Bruce, WA3YUE, to use with the Flex. I determined that the front seat made a good position so I started designing and came up with this. The 6300 is hidden on the seat just left of the computer. The setup was tested for IF noise and power output in my driveway. I did not take it out for a W3CCX beacon test. At that point I packed everything and hoped for the best.



A spreadsheet of all participants, their locations, and phone numbers has been put together by Dave, K1RZ, for the past several years. It has proved to be a necessity for planning and operations. **Thanks Dave!** I decided that Saturday would be best for Camelback Mountain in FN21hb. The two hour drive produced beautiful weather and good propagation conditions. I was very happy that my setup worked great. It yielded 19 contacts with my farthest being AF1T and the Mt. Kearsarge gang FN43bj at 388km. As this was my first deployment, it took about an hour for setup. Breakdown was 35 minutes. It was longer than I wanted so I have come up with future improvements.



...cont'd next pg

...Roving Project cont'd

I chose Cape May as stop one for Sunday. FM28mx. I chose the west side, south of the ferry inlet at Higbee Beach. It had a good shot over water up the Delaware Bay. I was able to work K1RZ, K3TUF, KA3TUF, N3OC, N3RG, K3EJJ, K1GX, and K1IIG. The New England contacts were not expected since there is blockage in that direction, but you never know if you don't try.

I then headed for north Atlantic City, as it looked good on Google Maps. It did not pan out, so I headed for the Wildlife Refuge. That location had a great look in all directions. Aside from the green flies making a meal of me, it was a great location with another 13 stations added to the log including Mount Kearsarge.

It was quite a workout, but very satisfying as I ended with 40 contacts for the weekend. This is a fun activity and I encourage everyone to try it. Unless you have a great home location for 10 GHz, this is the way to do it. It doesn't have to be this complex as a radio on a tripod works just fine. You also make the contest more enjoyable for the other participants.

73's Paul WA3GFZ

## Engineering Jokes

Understanding Engineers #1:

Normal people believe that if it ain't broke, don't fix it. Engineers believe that if it ain't broke, it doesn't have enough features yet.

Understanding Engineers #2:

A chemical, mechanical and a computer engineer go out together to eat lunch. They get back to the car and it will not start. They grind away on that starter and it will not start. The chemical engineer says that he thinks the gas is contaminated with water. The mechanical engineer say she thinks that the starter just does not have enough torque to turn the starter fast enough. The computer engineer says why don't we just turn everything off for two minutes and try restarting.

Understanding Engineers #3

Two engineers were standing at the base of a flagpole, looking at its top. A woman walked by and asked what they were doing.

"We're supposed to find the height of this flagpole," said Sven, "but we don't have a ladder."

The woman took a wrench from her purse, loosened a couple of bolts, and laid the pole down on the ground. Then she took a tape measure from her pocketbook, took a measurement, announced, "Twenty one feet, six inches," and walked away.

One engineer shook his head and laughed, "A lot of good that does us. We ask for the height and she gives us the length!"

Both engineers have since quit their engineering jobs and are currently serving as elected members of Congress.

--Tnx Paul WA3QPX

Possibly from the same great folks who brought you antenna wax.....

I stumbled across the following dissection of a "lower your electric bill" scam that's possibly already on the shelves of a Store Near You:

<https://www.eevblog.com/2016/04/19/eevblog-870-shonky-z-energeia-energy-saving-wipes/>

...The first few minutes are the most informative.

Now if you'll excuse me, I must empty a couple of grid-leak drip pans before they overflow....

73--

Brad AA1IP



# ***The Wayback Machine*** **In CHEESE BITS, 50 Years Ago**

Nibbles from September 1966. Vol. IX Nr. 6  
de Bert, K3IUV

*(author's comments in italics)*

- **“Our Prez Sez”**. New Prez W2EIF, Jo wrote his initial article with a summary of good things planned for in the coming year. He mentioned the next month's auction at the QTH of W3ZD (ex W3LHF) with an admonishment to “Don't bring junk”. *(Still worth repeating for our current auctions!)*.
- **ARPSC**. The SEC W3ELI (*George, club member*) bemoaned the lack of interest and support by local hams. He pointed out a newspaper article that the Police were seeking a “Citizens Band” radio group to aid them. George then challenged our group with “Do you want the CBers to take over your responsibilities?” (Stay tuned to see what happened as a result).
- **ARRL Bulletin Nr 75**, 8/25/66. The FCC denied a petition by WA2VAF. He had suggested a staged reduction of Amateur input power, down to 125 watts. His reasoning was that it would reduce interference. The FCC concluded it would not make a significant difference!
- **Packrats in the News**. An interesting article in the Evening Bulletin (*another of the “things that aren't there anymore”*) detailed how Packrat member K3IFH, Ed (SK) managed to reunite two wartime buddies that had lost touch for 20 years. A chance contact by Ed with one of them highlighted the fact that Ed lived in Mayfair. This triggered a recollection that the friend was from there. Some detective work by Ed quickly located the “lost” friend and they were reunited. *(A human interest story by a Packrat member, which made newspaper headlines)*.
- **June VHF QSO Party Results**. Congratulations made to #1 for single operator, to our own K3IPM, Stan. *(Still going strong, 50 years later)*. And also to #1 club W3CCX (*us*).
- **Picnic Report**. Chairman Frankie. W3SAO (assisted by Mother Rat) reported that attendance was over 500 people. 128 “goody” bags were distributed to kids 12 and under. Prizes were donated by over 28 companies and Individuals. Lots of eyeball QSOs helped make it a great event.
- **Silent Key**. Just before publication, Helen received word that member W3SXO, Wilbur Stites had died. She posted a small memorial in the paper. No other details available.
- **Hidden Xmtr Hunt**. Chairman W3CJU, Don, reported on the club's 4<sup>th</sup> xmtr hunt. Don and K3BPP, Walt were the “hidiers”. Two members tracked it down before the time limit (WA3CAG, Dave,

and W2AXU, Jack). Shortly after the time limit, WA3BIV, Carl, and K3DLS, “little” Carl found it. Others (*at least 11*) showed up after directions were broadcast! [**Note to Directors. Why not try this again?**]

- **Swap & Shoppe.** The monthly column by W3ZRR. For sale by K3HSS, Charlie was an R-48 220 Mc receiver, fully converted. Price “cheap”. (*The R-48 was the “must have” unit for the club’s 221.4 intercom frequency.*)

*As in previous editions, many “folksy” comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more detail on the above items, visit [www.W3CCX.COM](http://www.W3CCX.COM) and read the full issue posted there by our Webmaster, Ron, W3RJW).*



*thirty, de K3IUV*

Here is some “wallpaper” that just arrived at my QTH from ARRL. It is for 1st Place SOHP 2015 Sept VHF on 222, 432 & 903 in NNJ.

If you have some of your own that you’d like to show to fellow ‘Rats, just send a scan (hi res jpg preferred but most other formats are also ok) to your editor at [lennyw@comcast.net](mailto:lennyw@comcast.net)

73, Lenny W2BVH



## ANTENNAS FOR SALE

I have two antennas that have been in dry storage in very good condx Both are F9FT's  
902 MHz is 23 elements  
1296 is 43 elements  
Looking for 50 each  
Thanks Herb K2LNS  
570 829-2695

## WANTED

**I am looking for a 1296/144(if) transverter that puts out 10 watts for a project. Does anyone have one that they would be willing to part with? Please contact direct.**

**Ken KA2LIM**

K3TUF's  
10GHz  
feed under  
test.  
Currently at  
the 140'  
level on the  
tower.





# HAM RADIO FRIENDS

UR INVITED



# CRABS



## SATURDAY, SEPTEMBER 24

12:00 - 5:00 p.m.

Rain or Shine

*(in barn/picnic tables also outside)*

**Crabs, hamburgers, and sodas provided**

**Paul & Judy Domanski's Home  
987 Dexter Corner Road, Townsend, DE**

**Bring:** A covered dish  
Your favorite beverage to share  
A chair

**Wear:** Your callsign - badge, hat, etc.

### **RSVP Not Necessary**

Directions: South on Rt. 1. As you come over the Rt. 1 bridge, near the bottom, take the right exit (to take old Rt. 13) (before toll). Follow south on Rt. 13. Approx. 5 mi. south of Odessa, turn right on Rt. 71, (at Valero gas station). Go to next road, Ratledge Road, and turn left. Go to the end of Ratledge Road and turn left on Dexter Corner Rd. We are approx. 1/4 mile on left—split rail fence, pond in front. Look for the aerials. Paul's cell 302-388-2679

73

WA3QPX

Paul



## Events

**For inclusion, please direct event notices to the editor.**

**September VHF - Contest** - September 10-12, 2016. Rules available at <http://www.arrl.org/september-vhf>

**10 GHz and Up (Round 2)- Contest** - September 17-19, 2016. Rules available at <http://www.arrl.org/10-ghz-up>

**Fall Sprints 2M - Contest** - 7 to 11 pm local Monday September 19, 2016. Full rules available at [http://svhfs.org/2016\\_Fall\\_Sprint\\_Rules.pdf](http://svhfs.org/2016_Fall_Sprint_Rules.pdf)

**EME - 2.3 GHz & Up - Contest** - September 24-25, 2016. See <http://www.arrl.org/eme-contest-1> for details

**Fall Sprints 222MHz - Contest** - 7 to 11 pm local Tuesday September 27, 2016. Full rules available at [http://svhfs.org/2016\\_Fall\\_Sprint\\_Rules.pdf](http://svhfs.org/2016_Fall_Sprint_Rules.pdf)

**Fall Sprints 432MHz - Contest** - 7 to 11 pm local Wednesday October 5, 2016. Full rules available at [http://svhfs.org/2016\\_Fall\\_Sprint\\_Rules.pdf](http://svhfs.org/2016_Fall_Sprint_Rules.pdf)

**Fall Sprints Microwave (902+) - Contest** - 8am - 2pm local Saturday October 8, 2016. Full rules available at [http://vhfs.org/2016\\_Fall\\_Sprint\\_Rules.pdf](http://vhfs.org/2016_Fall_Sprint_Rules.pdf)

**MUD 2016 - Conference** - October 13-15, 2016. St. Louis, MO. <http://www.ullmann.us/MUD2016/index.htm>. Details to follow.

**EME - 50 MHz to 1296 MHz - Contest** - October 22-23, 2016. See <http://www.arrl.org/eme-contest-1> for details

## RTL-SDR Has New SDR USB Receiver

For hams interested in experimenting with SDR receivers with very little risk (cost) this is worth checking out.

[rtl-sdr.com](http://rtl-sdr.com) just announced v3 of their USB stick.

This one has built in direct sampling so you get direct 500khz-1.7ghz coverage with no extra upconverters or boxes. Complete coverage right out of the stick!

Also it has a software switchable bias voltage out the antenna port if you want to put a preamp down the line.

[https://www.amazon.com/dp/B0129EBDS2/ref=as\\_li\\_ss\\_tl?ie=UTF8&linkCode=sl1&tag=rsv0f-20&linkId=9806dfa291f74f7cdb49e2cfbe3d34eb](https://www.amazon.com/dp/B0129EBDS2/ref=as_li_ss_tl?ie=UTF8&linkCode=sl1&tag=rsv0f-20&linkId=9806dfa291f74f7cdb49e2cfbe3d34eb)

Tnx Paul WA3QPX for the heads up on this.



Another picture from the Lake Erie Rove by Warren-WB2ONA and his son Steve-KC2QBC along with Ken-KA2LIM



# Lunar-Link International

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Ron Small (WB2OOB) in connection with the **Glen Gartner School of Amateur Radio** announce a quick two day class to be held at the Falls Township Building the weekend following Labor Day. Class time is 8am to 5pm Saturday and 8am to exam time on Sunday -- should wrap up before 5pm. As usual, the exam fee is \$15 if you choose to take the test.

Ron teaches an abbreviated Gordon West system typically designed for the fire fighter, rescue or volunteer worker, and **anyone who needs to know how to pick up a radio and talk on the ham bands**. It is not a long drawn out class that explains all aspects of amateur radio, rather a fast moving class that covers the basics to get your Technician class license.

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Any questions please call or e-mail Ron; 215-968-0967 or [wb2oob@arrl.net](mailto:wb2oob@arrl.net)

Mark WA3QVU

Ham Radio Class flyer is here;  
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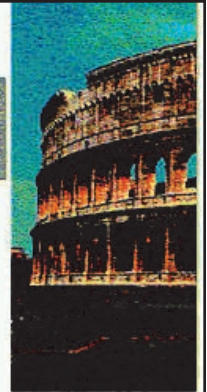
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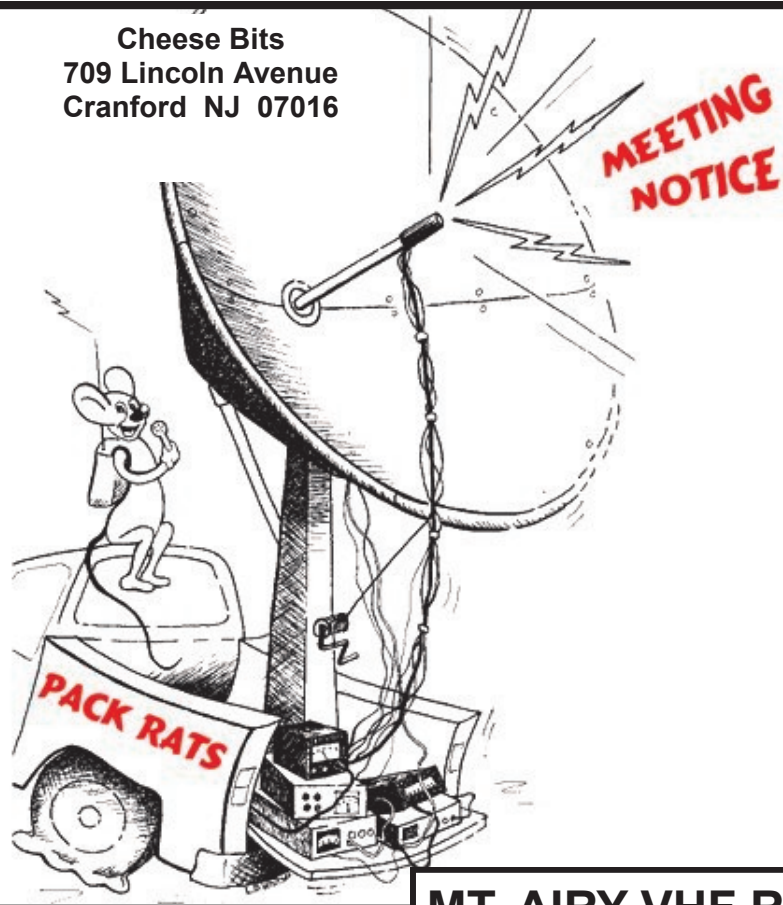
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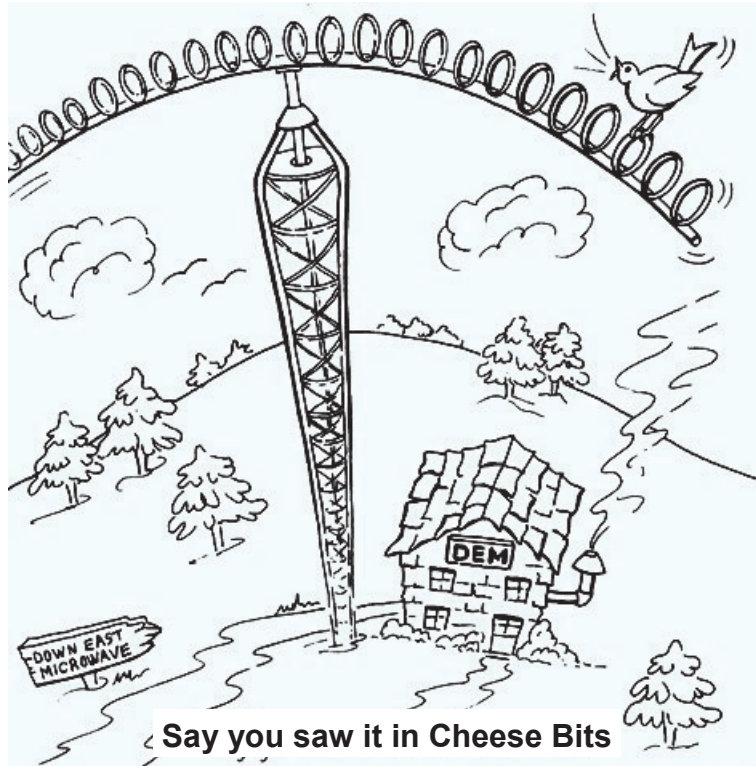
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