



# CHEESE BITS

W3CCX  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume LVI

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Number 10

## PREZ SEZ:

We ended up with six heat waves this summer and now with October rolling around, I believe we can count on them being over for the year.

It's time for the conference, a great time of year; time to gather with fellow enthusiasts and share what is going on from a technical and operational perspective. I always come away with some new information that helps me shape what goes on at the K3TUF station.

Back to the conference a little later, but it's also some great antenna weather. Modest weather temperatures make it the best time to be out exerting energy on your tower or antenna system. My plans include adding some more 144MHz antennas to assist in getting more contacts on all of the bands, because 2 meters is where you find stations and move them up through the rest of the VHF+ bands. What are your plans?

The ARRL September VHF Contest came and went and I had 24 Packrats in my log! Thanks for getting on this year. This contest is a club score event and we need to get as many logs submitted as possible. Many are saying that this year the conditions were the worst in recent years. This could account for **missing even some local grid squares**. I was prepared with everything ready and tested when at 17:50z, only ten minutes before the start, power died at my house. Since my engineered power backup was never designed to handle power amps, I was unable to start until electric was restored two hours

later.

**Spotting was allowed for this contest**, and we need to use it more and more as we all get it installed and become more familiar with its operation. One thing that is beneficial is **whenever you find a Packrat (or any station) calling CQ, spot them**. Make a point of issuing spots whenever you find someone calling CQ, it will only help the overall activity level. I find that when I know that someone is on the air that I need, I will tend to point the antennas in their direction and eventually that new grid is in the log. **With activity at an all time low**, we need to do whatever we can to promote working stations by any means possible.

Then along come the Fall Sprints; another time to use and practice assistance. The first three are now under our belt with 432 coming up next Wednesday. I want to work as many packrats on the 432 Sprint as I worked in the September VHF Contest. Use the spotting network.

We have two Sprints in October, first 432 on October 7<sup>th</sup> and the Microwave Sprint is the following Saturday, October 10. Microwave starts at 6AM and runs through at least lunch time.

While we're talking contests in October, I can't help but mention the CQ WW DX contest that runs from Friday evening until Sunday evening October 23 – 25. This one is SSB, so those of you who shy away from CW should take this opportunity to work some new countries on the low bands.

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222.98/224.58 MHz (PL 136.5) Hilltown, PA

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**PACKRAT BEACONS - W3CCX/B**

FM29jw Philadelphia, PA  
50.080 144.284 222.064 432.286 903.072 1296.245 MHz  
2304.043 3456.207 5763.196 10,368.062 MHz (as of 1/08)

**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, WA3QPX FM29di
8:00 PM	144.150 MHz	N3ITT FN20ki
8:30 PM	222.125 MHz	KB1JEY FN20je
8:30 PM	224.58R MHz	W3GXB FN20jm
9:00 PM	432.110 MHz	WB2RVX FM29mt

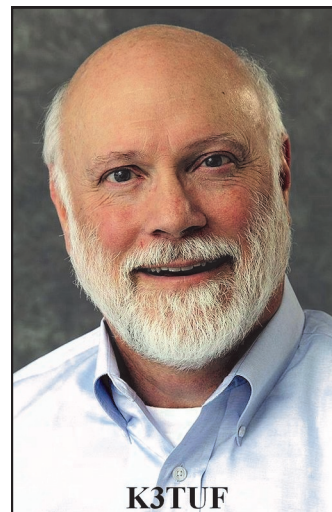
**Microwave Tuesday:**

7:30—8:30PM Coordinate QSO's on 144.260 with net controllers, for all Microwave bands you'd like to work. Also setup Q's at [w4dex.com/uhfqso](http://w4dex.com/uhfqso)

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

The meeting this month is listed as Tech night, but we might still have a surprise speaker. If you have tech needs, please let us know.

Next month's regular Packrat meeting with feature one of our own members, Phil, WA3NUF who will bring us up to date on the technological state of the art in broadband and content delivery mechanisms, a presentation sure to satisfy the most inquiring mind.



Like I said at the beginning, it's conference time and this weekend will be an especially fun time to learn, enjoy some fellowship and socialize with fellow members, and other amateurs that are interested in our style of operating and contesting. Make a point to show up and enjoy each other.

The Conference is also a good time to sell and buy equipment. We will have selling time inside on Friday evening and outside on Sunday morning. Come to the parking lot on Sunday starting at 8:00 AM. **You don't have to be registered** for the conference to buy and sell at the flea market in the lot of the Bensalem Holiday Inn on Street Road.

We're starting to work on the line-up for the 2016 Super Conference. Make sure it's on your calendar so nothing will interfere next April from the 15<sup>th</sup> to the 17<sup>th</sup> (and maybe even the 14<sup>th</sup>).

See you this weekend and lets work on lots of bands,  
Phil K3TUF

**Phil, K3TUF**

# September Contest Results

## From Tom KA3FQS

I had fun with the contest but missed many of the locals. I had a few malfunctions such as the 902 and 1296 transverters not keying due to a mis-seated connector but got it all working by Sunday night.

### SINGLE-OP ALL LOW EPA Section

Band	Q's	pt	QSOpts.	Grids	Points
50	51	1	51	18	918
144	51	1	51	16	816
222	26	2	52	14	728
432	27	2	54	13	702
903	3	3	9	2	18
1296	3	3	9	2	18
-----					
TOTAL	161		226	65	14690
Claimed score = 14690					

## From Mike N2DEQ

Conditions down here in South Jersey were not the best and it did not seem like a lot of operators were participating. Early in the contest there was a short opening on 6 meters. Worked NJ2F in EL96. Still had a lot of fun regardless of conditions and participation.

### SINGLE-OP ALL LOW SNJ Section

Band	Q's	pt	QSOpts.	Grids	Points
50	21	1	21	9	189
144	33	1	33	13	429
222	5	2	10	4	40
432	9	2	18	5	90
-----					
TOTAL	68		82	31	2542
Claimed score = 2542					

## From Walt K3BPP

I got on and made 18 Q's and 13 grids on 144 and 5 Q's and 3 grids on 50

From FM18 Cambridge MD

I tried 222 but had a relay sequencing issue so I did not make any contacts on that band.

### From Wayde K3MF

I am not in a good location being 70 feet **BELOW** average terrain so I pointed my EME array at the moon 4 x 2mxp20 1 KW on **2 meters. 21 QSO's off the moon.**

On **6 meters I was using an 80 meter dipole** 100W. 432 using my EME array 8 x 25 K1FO's 1.2 KW . On 432 QSO's are possible but the other stations have to be pointed right at me because my array is very narrow. 432 EME was out of the question, moon and sun were lined up and I had 12 dB sun noise.

I had 55 QSO's total. Score 2501.

50 Mhz. 6 QSO's 4 grids.

144 Mhz. 43 QSO's 32 grids.

432 Mhz. 6 QSO's 5 grids.

### From Griff NE3I

In an attempt to overcome the limitations and frustrations of deed restricted VHF/UHF operations, I have reorganized my shack, eliminated a tangle of switches, cables and, for at least the time being, the 222 transverter. Adopting a minimalist strategy all VHF and UHF antennas are now indoor in the garage and house attics. During the contest, I operated a total of 3 hours using Low Power and 2 Meter and 6 Meter dipoles at 16 feet and a Horizontal Full Wave Loop for 432 at 20 feet. I hope soon to have a new Cushcraft R8 vertical on 6 meters, to be erected over my rear deck. During my short contest stints, I heard nothing on the FM frequencies including, 223.5 MHz. None the less, in the short time and with the simple indoor antennas, (the dipoles were oriented Northeast/Southwest), I worked grids FN 01, FN30, FN31, FN43 and FM18 on 2 and, on 6, inter alia ( lawyer speak for "among others"), FN 31 and EL 97. CW facility continues to be an asset for weak signal operations especially, when you have a setup like mine. In addition to eliminating all of the various switches, rotors and tangle, such a minimalist approach makes the VHF contests a lot less stressful, eliminating pile ups and the disappointment of being left behind unanswered, while the more intense competitors QSY to the cosmic bands. My Three Band Qs/Grids were as follows:

6 Meters	12	5
2 Meters	21	9
432.	3	2
Total	36	16
Score	628 Points	

### From Herb, op at WA2FGK

Band	Dig
-----	
2	43
70	15
-----	
Total	58
Total Points = 2,555	
QSO's in USA, Canada, France & Ukraine	

### From Al K2UYH

I only made a few contacts off the moon on 70 and 23 cm. I was surprised by the low activity.

### From Jerome K3GNC

I found the conditions to be flat. I had company all Saturday afternoon so I missed the 6 meter opening. I had to work all my 6 meter grids via brute force. Bottom-line is I did better than last year.

Band	Q's Grids	
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6	50	18
2	73	23
222	26	17
432	40	18
1296	14	9

Total: 25,245

### From Michelle KB3MTW

After comparing last years results to this year the difference is amazing. I can't tell you what changed other than the weather and some e-skip. Let's hope this keeps going on for the next contest. (See Michelle's write-up later in this issue)

	QSO's	Grids	Score
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Last year 2014:	61	10	850
This year 2015:	97	22	2,904

### From Rick K1DS

With the ARRL September VHF Contest bracketed between the weekends of the ARRL uwave EME contest and the second weekend of the ARRL 10GHz and Up Contest, it was a lot of time to invest in September contesting. Added to that, the Rosh Hashanah holiday started on Sunday evening at sundown, limiting time that I could contest. What to do? Pete K0BAK was already headed to Camelback for Saturday---perhaps I could rove locally and then do a quick ride to Camelback on Sunday morning. As well known, the best laid plans of mice and men often go astray.

The Saturday weather forecast and weather radar **looked ugly** for roving. I was concerned about the W2EA group on a mountaintop in the northeastern part of the state. I wanted to give them some contacts on the higher bands, but Mother Nature had a different plan for me. I decided that **operating from home was the best call**, and as conditions were iffy, weather was lousy, and participation seemed down, I made the right choice.

My score of 2,000+ points reflected my limited antennas (a 40m dipole used on 6m and a log periodic for the other three bands, both antennas in the attic), and the band and power situation of the home station. I worked a number of Packrats, a few grids in the periphery, and caught a bit of 6m Es with EL and EM grids on both sideband and CW. Only 1 QSO on 223.5MHz FM and 1 on 1296MHz CW. Thanks to all who got on the air for the contest and helped pull my signals through.



**From Pete K0BAK**

I drove the rover as far as Quakertown and turned around seeing the WX predictions. Came home and cleared out the minivan. But I have no home capability. My only hope is simplex FM from the top of the Stratosphere in Vegas tomorrow. Bummed at home.

**From Ken K2WB for the W2EA crew**

Band	Mode	QSO's	Pts	Grid
50	CW	7	7	6
50	USB	255	255	37
144	CW	4	4	3
144	FM	2	2	0
144	USB	146	146	29
222	CW	7	14	4
222	USB	40	80	15
432	CW	2	4	0
432	USB	56	112	18
902	CW	4	12	2
902	USB	11	33	8
1296	CW	8	24	3
1296	USB	11	33	7
2300	USB	10	40	8
3300	USB	10	40	7
5650	USB	3	12	3
10000	USB	3	12	3
Light	CW	9	36	1
<b>Total</b>		<b>588</b>	<b>866</b>	<b>154</b>



Ken K2WB, Craig NC2H, Joe KC2TN, Jon W2MC, Ray N3RG, Bob N2SCJ, Mike KB1JEY, Bob W2SJ, Bob KE2D, Ted W2TAG and Murphy W0FFF

**Score : 133,364**

**From Lenny W2BVH**

On Saturday, I connected the antennas, flipped the power switches to "on" and started operating around 2:30 or so. By 6 pm, the wx started looking very nasty. Knowing of K3SZ's recent sad experience with lightning, I pulled the plug with 56 Q's and 29 grids for the day (including a 902 SSB Q with K1TEO -- for me this was something exciting). On Sunday, at the crack of noon (not really, but late in the morning), I re-connected the antennas and turned on the power, all set for the second day of operation. First thing I noticed was no power led on the 6 Meter (Harris KW) amp. What's going on? Everything worked perfectly yesterday. A quick VOM check of the 110-220 isolation transformer showed normal voltage, so now I was in for some serious detective work in the middle of the contest. I dragged the 2 meter amp (two 4CX250B's in a 3 foot rack) out of the way to gain access to the 6 Meter amp. After plenty of poking around (carefully - there's 220 VAC in there with the amp leaned on its side) I found that it was only(!) the front panel power switch. I fabricated a couple of jumpers with spade lugs, put them in, powered up the amp and was rewarded with a red power light. Pushed the 6M amp back where it goes, pushed the 2 m amp back in place and I was in business --- for about 5 minutes. After 2 Q's on 6 meters (amp working perfectly) I return a CQ from K2SMN on 2M who barely hears me! **Now** the **2 meter** amp is on the fritz. The plate currents sit at idle value even when keyed. Check the sequencer -- ok, check rf power out of the IF rig -- ok, check rf power out of the transverter -- ok. So the problem is really in the 2 meter amp which was working perfectly yesterday. So I pulled the rack cabinet out far

enough to open the back (carefully -- there's 2.2KV DC in there). Are the rf input and output relays switching? Yes. Is rf making it from the input relay to the rf deck? Yes. Is rf coming out of the amp to the antenna relay? 14 watts -- should be around 450. Next I check biases on the back of the RF deck: screen 296V -- ok, grid switching from cutoff to -33V when keyed -- ok. The front panel meter shows 2.2 KV plate voltage, but is it making it to the RF deck? After carefully setting up a safe measurement, the answer is yes. It can't be the tubes: they are driven in parallel. No chance they both would have gone at once. And I'd get much more than the measured 14 watts with 1 good tube. So everything's good, except its not amplifying. Now I'm faced with pulling out the RF deck for internal testing; and the way this amp is constructed that's probably the rest of the day (rest of the contest). Certainly not a job I look forward to. Desperate, not to have to do this, I try to think what else I can try. It looks like I've tried everything. Maybe the amp is misadjusted? But I never touched the tuning. Well, what the heck, I put a Bird 43 in the output line, key the amp and start turning knobs. A few degrees of deflection on the input tuning knob gets me 400+ watts and full plate current. DUH! Well I put everything back together, push the amp back in place and re-test (all ok). And I'm finally back on the air in the contest (at around 5 PM!). The only thing I can think of, is when I moved the 2M amp to get at the 6M amp, I must have bumped the 2M amps input tuning knob with my knee. You live and learn. Now that this sad (?) long(!) story is over here is my contest report: Some Es to the south and midwest on 6M, otherwise a typical contest. And the contesting part (as contrasted with the fixing part -- especially the fixing what's not broken part) was lots of fun. I'm finally getting the hang of running bands smoothly. The only real disappointment during the contest was not completing a 902 Q with WA2VNV or making one with W2SZ.

SINGLE-OP ALL HIGH NNJ Section

Band	Qs	pt	QSOpts.	Grids	Points
50	36	1	36	13	468
144	48	1	48	14	672
222	14	2	28	6	168
432	16	2	32	7	224
903	1	3	3	1	3
TOTAL 115			147	41	6027
Claimed score = 6027					

## Make Your Own Noise Figure Meter

Here is an interesting little project using an RTL-SDR dongle: <http://www.canfi.eu/index.html> AND <http://www.rtl-sdr.com/making-cheap-noise-figure-indicator-rtl-sdr/>

Estimated to cost less than 100-200 Eu [currently 112.45 - 224.90 USD] to build, the device of course has some limitations, but is nevertheless most interesting and would be useful for example for tracking pre-amp performance from 60 MHz through 1700 MHz.

73, Roger W3SZ

## A Very Dangerous Clock (NOT)

<http://www.cnn.com/2015/09/16/us/texas-student-ahmed-muslim-clock-bomb/>

If this degree of paranoia had been in force in the 1950s when I brought various gadgets to school, I'd just be getting out of the slammer now!

There must be something in the water down there in Irving, Texas :-)

OPINION by Brad AA1IP on the internet  
 "Glowbugs" (vacuum tube enthusiasts) reflector

# KB3MTW's September Contest Experience

Wow! What an exciting Sept. 2015 VHF contest. As usual I start off the beginning of the week with anticipation. 4 hours of overtime was offered Saturday morning so I took it knowing I would be home by 11:45. Thought to myself I have 2 hours to play around so I decided to look into downloading the latest VHF log from Dave Mascaro's website. It is me and I have a hard time figuring out his page so after calling Dave's house and it going to voice mail I tried my next choice Doc. Sorry Doc, but you were available. He talked me through a later version. After that he asked if I hooked up the better coax for the 903 antenna.

We had 9913 connected temporarily and I was supposed to connect the LMR-600, but was lazy and never installed it. So with 2 hours to go Neil and I disconnected the 9913 which had a lot of electrical tape wrapped around the outside connectors. We pulled in the 9913 and tried to unravel the LMR-600. That stuff is a bear. We pushed and shoved the large connector through the hole in the MFJ through the window pass board and connected it to the 903 antenna where we used 1/4 roll of the 3M #33 electrical tape to waterproof it while it rained slightly on our heads. This cable is so unwieldy that it knocked over a large potted plant which - of course - **landed upside down on a (formerly) white rug.**

After a lot of shouting, and panic setting in, the 2:00 pm hour quickly approached. There is no space through the wall where 4 other pieces of coax are already run, so the LMR-600 is laying out running through several rooms instead of along the walls and into the office where the shack is located. We are gonna need someone to cut the plastic plate away so we can try and shove the very thick piece of coax through 2 holes in the wall to get to the shack. This will require moving furniture and squeezing behind sofas. I don't know how you guys do it, but there are some turns that the coax must make in order to get to the shack.

I'd like to put an offer out. We only need about 70' of LMR-600 so 35' extra feet are sitting curled behind our sofa. If someone wants the extra feet you can have it for free. All I ask is that you bring tools to cut the extra coax and reconnect the N-connector.

2:00 came and with Dave's program running I put my call out for several minutes and nothing. Dead air. I searched the bands looking for life only to hear the hiss of no activity only K1TEO putting out his call in the distance. For 10 minutes I tried and tried, but he never heard me. Dejected **I finally found humans out there** and got about 9 contacts 35 mins. into the contest. It was great. Then dead air again.

So after several hours and a numb butt I got up and walked away. Of course, then, a flurry of activity sprung out over the speakers. I came back and worked some more guys. There was a husband and wife team out of Cherry Hill NJ who gave me a pair of contacts on 3 different bands. So when the boredom and dejection set in I'd step away for a few hours and then come back to silence. Then I'd get a phone call and all the speakers would start humming with hungry contesters putting out their call signs. It came in ebbs and flows.

Now with the relaxed rules we can put the word out on social media to alert others to our activities and bands. With that I was **contacted by some and called others** to get on the air and give me some points.

There was even a ham - who shall remain nameless - whose wife was miffed that he ran out to the grocery store when he should have been home and on the radio. Sheesh. You know it's bad out there when the spouse has to push her husband to get on the air.



All in all we did very well this year. Here is last years score compared to this year:

	QSOs	Grids	Score
Sept. 2014:	61	10	850
Sept. 2015:	<b>92</b>	<b>22</b>	<b>2,904</b>

**It had to be e-skip that sealed the deal.** Within the first couple of hours there were 2 stations out of Florida. I began to make contact with one of the guys. As soon as he got my call sign corrected he faded away. Owwww. That was so painful. Luckily he came back and so did another from Florida. Wow this little lady with her fixed antennas below the roof line and blocked on the North and West is used to only FM29 and FN20, but I heard EL89? Wow. I had to check the Icom U.S. Grid square map to see where EL was located. Later in the contest we got West Virginia and Virginia. Then at 10:58 pm Sunday night I got a guy out of Maryland.

We cannot raise the antennas and can swing only the 903/1296 antennas all around, but to the North and West are blocked by my building so my next improvement will be getting on 222 SSB. So many contacts are lost due to the fact I only have a 223 fm radio. We don't know when the improvement will happen. It may be by the January contest where I will have to replace the small 223 mag mount with something horizontal that has a low profile.

I'm already looking forward to the next contest as the weather gets colder. Hoping more people get on the air instead of vacationing or playing outdoors. A good cold spell to force people in and on their neglected radios is what we are looking for. Sorry, but just thinking about those pile ups get me excited.



73 Michelle London  
KB3MTW

## 10 GHz and UP Contest, Second Weekend Report

After so much activity this month, I was not anxious to spend more time on 10GHz, but somehow I felt the need to try and get on the air again, at least for the sake of the other hams who were traveling so far to make some excitement on the air. I had other engagements, so my time and travel would be limited. I tried to pick some local spots that might yield a few QSOs and at least evidence that I was making an attempt to be "in the game." I had the afternoons free of both Saturday and Sunday, so I stuck the 2m beam and mast on the rover and headed to the local Nike site on Potshop road near my home.

There was a bit of humidity in the air on Saturday, the sun was hot, and I made it easily onto the crest of the hill, only to find that the trees had grown further yet, and with their full foliage, finding a slot in which to radiate and receive 10GHz signals was going to be a trick. I tried to position the van to get a window to the north and northeast, but it was rather fruitless. I aligned the dish to the current sun

azimuth with the shadow of the upper center strut falling right across the middle of the dish. As soon as I gave out a CQ, K1WHS returned to me and we tried to hear each other's dashes on 10GHz. **No joy.** I tried with K1TEO, K1IIG, K3TUF, K1RZ, WA3GFZ and W1GHZ **without success.** **Time to move** and find a better spot. I headed to another local spot by the driving range of Center Square Golf but it **wouldn't yield** any QSO's, I tried an overpass to the NE Extension, but that was **treed in.** I came back close to my home on a rise of Morris Road, but that was **a bust also.** At least I was hearing the Packrat beacon and could calibrate my frequency. From the time I turn on my rig until it finally settles down, it drifts downward about 8KHz. I have to remember to tune up to find it when I first set-up, and then after about 15 minutes it stays pretty much set. I returned home and pulled the van into the driveway, parking my SUV behind it. I wasn't sure what Sunday would bring, but on the chance that I felt that I could add some excitement to others scanning for QSOs, I kept it ready.

Sunday had a gorgeous afternoon and as I debated whether to attempt to get on the air, the **XYL said, "You've got nothing to lose."** I pulled out and headed to another one of my favorite spots, the bank parking lot on Rte 309 at Stump Rd in Montgomeryville. I tried with WA3GFZ again, and despite the short hop of 40Km, we couldn't hear each other. Phil saw a weak trace, and we **scratched out a QSO with K3TUF.** I was really running out of options, but I thought about a spot near the 309 quarry that I had used years ago with a fair view to the north and east. There is a used car dealer and mechanic with a small parking lot right on the crest of the road. He's closed on Sundays and there is enough room for me to pull my van onto the lot. There is still a lot of road noise and breeze as the cars whiz by, but I was determined to make some more contacts. Each time I move the van, I recalibrate the dish azimuth with the sun. The sun was at about 235 degrees by that time in the afternoon, and the gang on Block Island, RI and Martha's Vineyard, MA were looking for me in their logs as I hadn't been able to contact them on the first weekend. I carefully aligned the dish to 69 degrees and put on dashes, while W1GHZ, W1AIM and KB1VC pointed their dishes my way. As we initiated this QSO using the cellphone, I heard Paul say, "There's his trace.." immediately as I started the dasher sending. I listened for their signals too, and each of them was **clear copy** on this end, although **just above the noise.** We all exchanged our calls and 6-digit grids. **It was worth the effort.** With this success under my belt, I called Mickie and Dale, W1MKY and AF1T who were now at a new spot on Martha's Vineyard. I dare not touch the dish setting, as it was the exact same bearing as the group on Block Island. Dale was completing the set-up, and trying to calibrate his azimuth using one of the 10GHz beacons in New England. Once we were both aimed at each other, we tried to find the signals. I heard some changes in the noise as I tuned, and the **signals came up just enough for us to complete contacts.** It left me wondering if use of the JT4 program would have been more useful in this situation. Something to think about for next year.

For my finale, I tried to get in touch with W1EX and W1FKF on Mt. Wachusett, but by the time we got in touch by phone, they were taking their gear down. I gave a last valiant try with K1RZ, using the Home Depot parking lot in Montgomeryville, but there is just no path from him in FM19. **It was fun to be out and play with the gear.** I was elated to have been able to get into the logs of others who made such an effort for these weekends. I hope that others in the club will try this band and ARRL event next year.

73, Rick, K1DS

# Mid Atlantic States VHF Conference

The Mid-Atlantic States VHF Conference will be held on the weekend of October 2-4, 2015 at the Holiday Inn Bensalem / Philadelphia 3327 Street Road, Bensalem, PA

Registration now open on-line and by mail. Go to the Packrat Website [PACKRATVHF.COM](http://PACKRATVHF.COM) and click on the VHF Conference link for all information. **Make hotel reservations** at 215-639-9100 for USE: [http://dataandwireless.com/packrat/2015\\_vhf\\_registration.php](http://dataandwireless.com/packrat/2015_vhf_registration.php)

**Fri eve: Hospitality and table-top indoor selling**

**Saturday: Conference 8a-5p registration includes pizza lunch and snacks and proceedings disc**

**Saturday: 10a-4p Technical test bench with Greg Bonaguide of Rohde & Schwarz**

**Saturday eve: Banquet, speaker, door-prizes\***

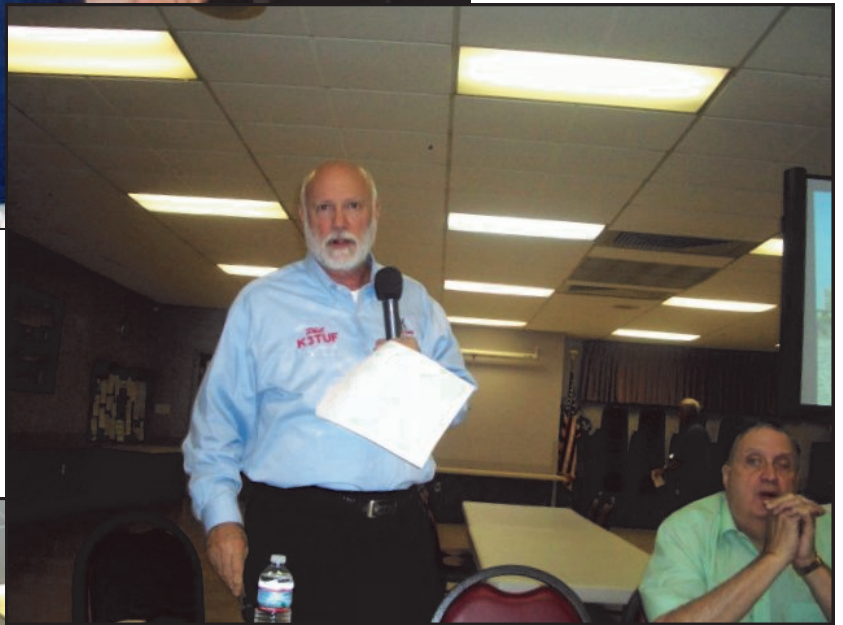
**Sunday AM: limited outdoor flea-market free to all.**

\*You must be registered and paid for conference and banquet to be eligible for door prizes

## Tentative Speakers and topics:

Joe Taylor	K1JT	New VHF & Up Features of WSJT-X
Roger Rehr	W3SZ	Open HPSDR for VHF/UHF/uW Operating
Phil Theis	K3TUF	Radio Server for VHF/UHF/uW Contesting
Chris Wilson	N0CSW	Yaesu Fusion System Innovations
Rob Renaud	K3RWR	SDR and Noise Reduction
John Jaminet	W3HMS	Roving in the Pennsylvania Boondocks
Mario Filippi	N2HUN	uWave Satellites
Al Katz	K2UYH	Devilish Doppler
Joe Horanzy	AA3JH	Talking to the Astronauts
Michael Davis	KB1JEY	Painful Tower Lessons
Al Waller	K3TKJ	Six Meter Magnificence
George Heron	N2APB	Scalar Network Analyzer
Gary Hitchner	WA2OMY	New Packrat Beacons (Can You Hear Me Now?)
Steve Simons	W1SMS	RF Safety for Radio Amateurs

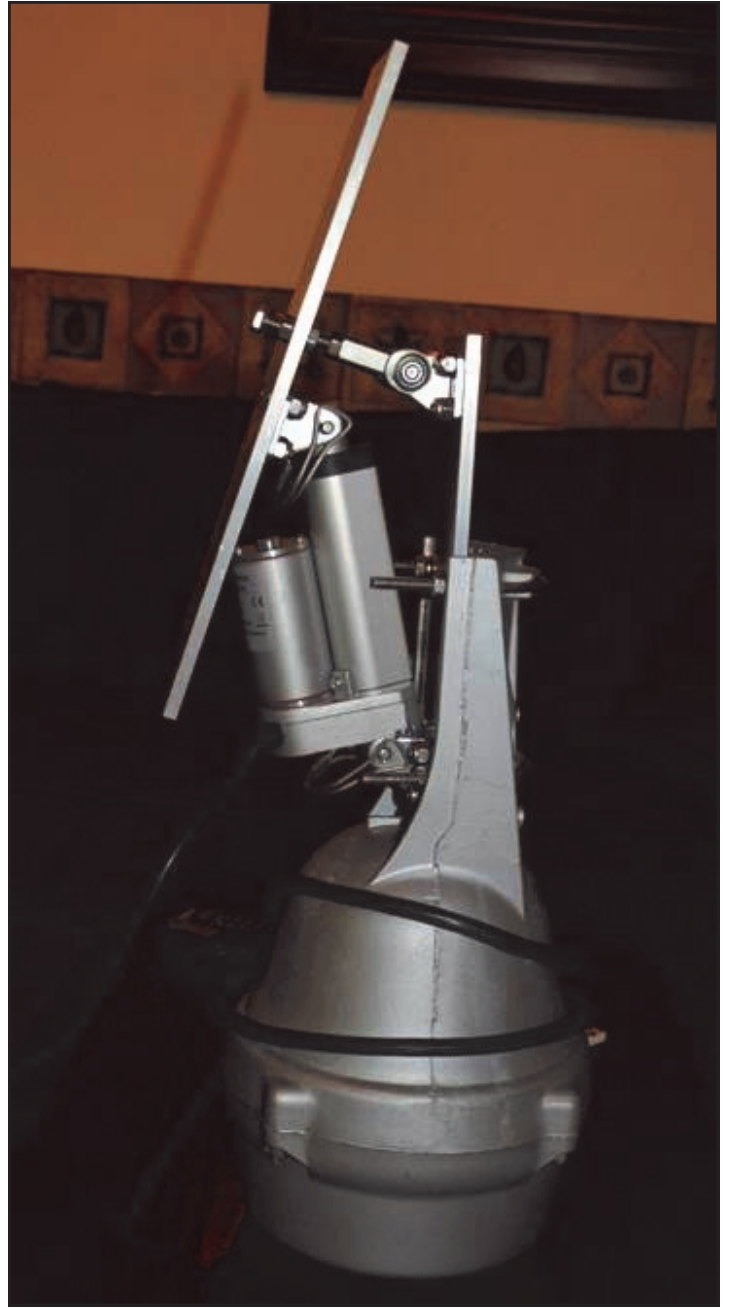
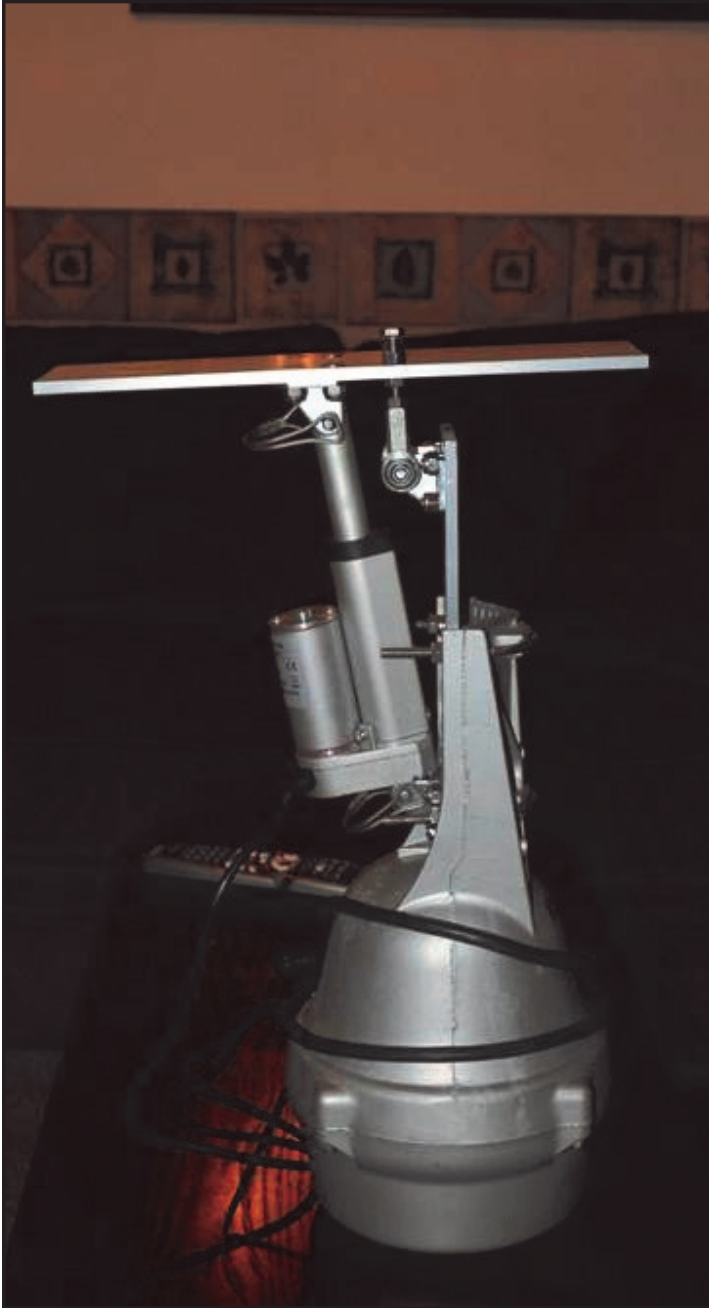
# *September Meeting Pix*





## AZ-EL Mod for HAM-IV

Ken K2WB is working on an AZ-EL enhancement to a HAM-IV rotor. Testing in the field at the W2EA September contest setup showed a few weaknesses that are currently being addressed. Watch Cheese Bits for further developments. Ken promises a full description of the final design soon.



We now have limited antenna elevation. Up to 71° from horizontal and all angles in between. All this for less than \$100 in parts. The pivots need to be strengthened, but that should not take long to engineer. -- K2WB

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

(Nibbles from October 1965. Vol. VIII  
# 8)

de Bert, K3IUUV (*author's comments in italics*)

- **“Our Prez Sez”**. Prez K3GAS, Doc reported: 1. January contest plans are well underway, and coordinators are working with individuals to ensure their participation; 2. Grab bags (electronic goodies) will be available at each meeting; 3. Ladies night planned for April at the Buck Hotel (*still there and operating!*). Plans include good food, dancing to an excellent band, awards, door prizes, and more. (*Too bad we have lost support for this once popular activity*).
- **United Nations week**. October 25-30, the Delaware Valley Council of Radio Clubs will operate K3UN in Gimbels Cheltenham (*another store that “isn’t there anymore”!*).
- **Philmont Radio Club Banquet**. Announced for Nov 23. Price \$7.50. Meal options Prime Roast Beef, or **Lobster Tail** (*emphasis mine*).
- **Helen’s typewriter**. Helen apologized for omitting some submitted articles this month. Her typewriter developed “swollen rollers”! This made it tough for her to advance the line, or to go back and edit corrections. She stopped editing until it gets repaired (*maybe at Bundy’s on Chestnut St?*). (*A problem Lenny doesn’t have, thanks to modern technology!*) (*Oh there are a few negative things to say about even the*

*current technology! --Ed.*). She promised “Articles submitted, but unpublished will be in the next issue”.

- **December meeting announcement**. Topic will be Teletype operation on the Ham Bands (*How many of you, like me, used to have a Teletype machine always monitoring 146.52, set for autostart?*). **ryryryry. The quick brown fox jumps over the lazy dog’s back.**
- **ARRL Bulletin Nr.23**. 9/2/65. Peru and Sierra Leone added to the growing list of reciprocal operating privileges countries.
- **Technical Article**. Featured this month was a schematic and construction article for a **two-tube screen modulator**. An easy and inexpensive way to generate AM using one of the ubiquitous RCA or LINK “Car Phone” radios that were available surplus from Taxicab service. Many of us converted them for 220 or 432 use. Built as FM units using a 5894 or 829B output amplifier, this design provided a 100 watt AM transmitter from modified units. (*For many years, I ran the 432 net on FM, using one. A perennial caller-in was K1PXE, Pete, still checking in to today’s nets. (If anyone wants one, I still have a couple in the basement!)*)
- **Note from K3GAS, Doc**. “My thanks to K3IUUV for finding the oscillation in my 432 converter. It now works very well”. (*Doc had a reputation for winning the “most miserable failure Award at homebrew night. But he also built many neat pieces of gear, including a Theremin [look it up] and amateur TV equipment*).

- **ARRL Safety CODE.** A copy of the two-page League guide was included. Every one of the items listed is still pertinent. *(Lots of emphasis on proper grounding. If you don't have one, get a current copy or print the one in this issue found at W3CCX.com.)*
- **Band reports.** None published this month.
- **Swap & Shoppe.** The monthly column by W3ZRR, Ray (SK) listed a Collins KWM-2, for \$850. (Collins gear was considered the "Cadillac" in those days).

*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 K3IUU**

## 8+ PORT Switch Board Available

John Ackermann has created an 8-port RF Switching Board that will be very useful for switching transverters and many other tasks in the shack of a VHF/UHF/Microwave operator and experimenter.

There is an excellent introductory video which he has placed on YouTube at the URL he gives below, which I would rate as a "must see".

There is further information available on the TAPR webpage whose URL is given below.

There is additional information available in the assembly and operation manual available at:

[http://tapr.org/%7En8ur/TASS/TASS\\_Manual.pdf](http://tapr.org/%7En8ur/TASS/TASS_Manual.pdf)

Tnx Roger W3SZ for this info

## The 2015 Microwave Update (MUD)

Our list of speakers and back-up speakers is full, and the topics are fascinating.

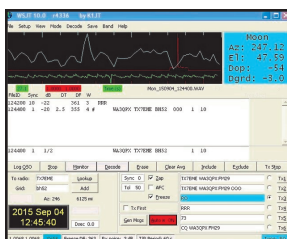
**Speaker Schedule:** The speaker schedule is posted at [http://www.ham-radio.com/sbms/mud2015/speaker\\_schedule.html](http://www.ham-radio.com/sbms/mud2015/speaker_schedule.html)

**Hotel Information** – Crowne Plaza San Diego  
2270 Hotel Circle North San Diego, CA 92108  
USAPhone: 1-888-233-9527

For more information and the latest updates on MUD 2015, go to: <http://www.ham-radio.com/sbms/mud2015/>

See you there! **73, Wayne Yoshida, KH6WZ**

## WA3QPX Tahiti/French Polynesia EME



4 Sept 2015  
12:45 Z

**CONGRATS!!!**



## Events

For inclusion, please direct event notices to the editor.

**Mid-Atlantic States VHF Conference** - October 2-4, 2015. Currently soliciting papers. Details to follow.

**432 MHz VHF Fall Sprint Contest** - October 7, 2015 7-11pm local.

**Microwave 902+ VHF Fall Sprint Contest** - October 10, 2015 7-11pm local.

**RF Hill ARC Hamfest** - October 18, 2015. Sellersville PA. Details at <http://www.arrl.org/hamfests/39th-annual-rf-hill-arc-hamfest>

**ARRL EME 50MHz - 1296 MHz Contest - Round 1** October 31 - November 1, 2015. **Round 2** November 28 - 29, 2015. Details at <http://www.arrl.org/eme-contest>

**January VHF SS - Contest** - January 30-February 1, 2016. Details to follow.

**ARRL UHF Contest** - August 5-6 2016. Details to follow



Sent to Cheese Bits by WB2ONA and W3GAD

## Missile Guidance Explained

NOW YOU KNOW HOW IT WORKS

After listening to and watching this video I think you will conclude that it could not be explained any clearer than this..... I know that, after experiencing this instructional video, you'll be just as smart about missile guidance as I am.

SEE [liveleak.com/view?i=f95\\_1422455171](http://liveleak.com/view?i=f95_1422455171)

URL and info above forwarded to Cheese Bits by Paul WA3QPX

## 2016 East Coast Super VHF Conference Plans / Status

Will be on April 15<sup>th</sup> and 16<sup>th</sup> 2016. It looks to be a large one! More and more people are talking about attending.

There will be an Indoor vendor area.

Rooms will be \$79 plus tax for King and \$89 plus tax for Double.

The conference needs 230 room-nights – looks good.

So far the Conference fee looks to be just under \$100 per person. Many meals are included in this.

The cost of the Saturday night Banquet dinner is still to be decided.

The Packrats will not hold a Conference during 2016. Any profits made from the East Coast Super VHF Conference will be split amongst the 3 clubs involved. The Packrats have a hand in planning and manning the Super Conference.

## 2016 EME Conf Web Page

No real info yet, but there is a page where you can enter your name and call to get info when it is available.

<http://www.eme2016.org/>

--Rick, K1DS



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## Packrat Microwave Nets

The microwave nets on Tuesday nights are working out well for the people that take advantage. Use the web chat page or 144.260 to help find where people are and contacts.

(From the July BOD Meeting Minutes)

## Rover Equipment Offer

It seems certain that I will be out of the country during the Jan 2016 contest weekend. Thus, I will be unable to operate my usual Rover station to give out and receive uwave points. [ First contest I will miss in over 50-years ].

Is there a club member that would like to plan to Rove during the contest. The equipment will be made available, and advice will be given.

Bert, K3IUUV. ( \_ \_ \_ \_ \_ )  
[Bsoltoff@comcast.net](mailto:Bsoltoff@comcast.net)

A nice article on identifying salvaged transformers can be found on page 88 of the September 1956 Popular Electronics. See <http://www.americanradiohistory.com/Archive-Poptronics/50s/56/Pop-1956-09.pdf>

Tnx to Graham KL7CC for this info

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## Joel Knoblock W3RFC

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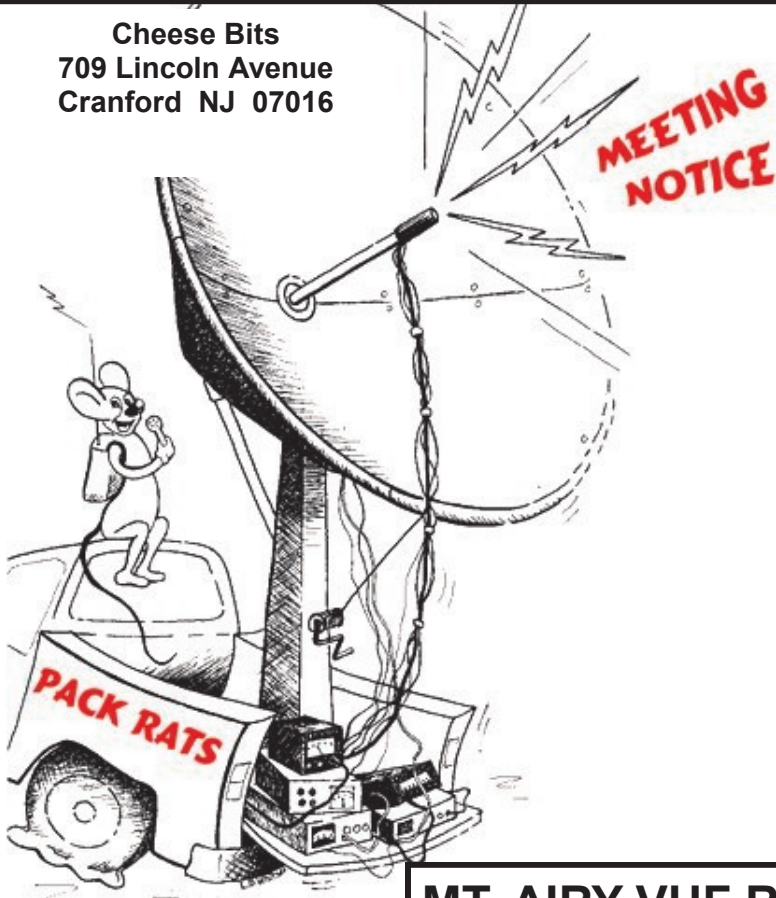
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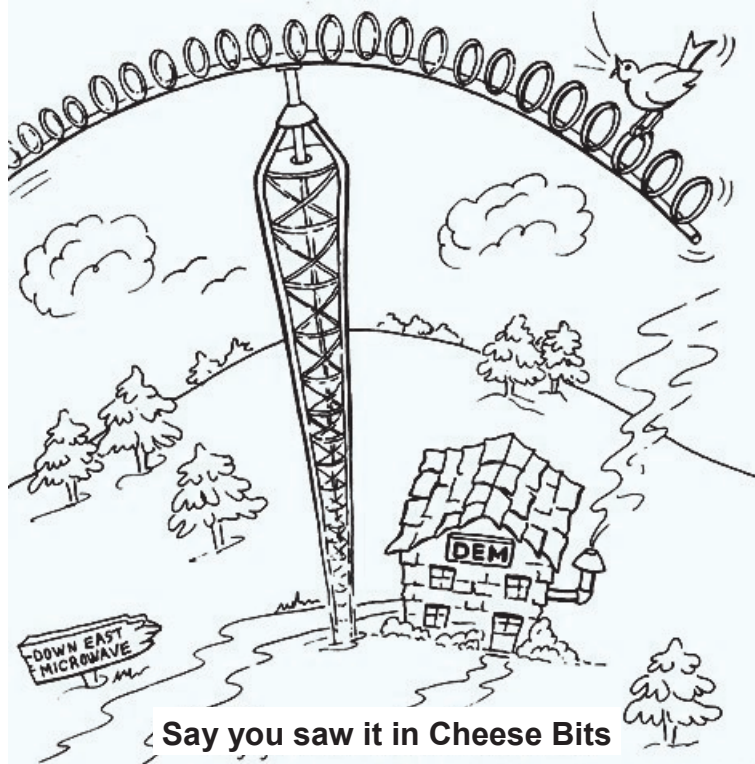
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