#### Mt. AIRY V.H.F. RADIO CLUB, INC.



## W3CCX CLUB MEMORIAL CALL

Affiliated Club



Volume LIV July 2013 Number



It's been a year since you've asked me to write these little editorials and the year has SFZ. gone fast. I hear from the election results that you want me to do it again, thank you for

that honor.

We'd like to thank Joe Seibel, WA3SRU and Nick **Fedirko.** N3YMS for their service on the Board of Directors for the past two years and look forward to their continued service to the club in their respective ongoing roles. We also welcome again two new Board members; Michael Davis, KB1JEY and Rick Rosen, K1DS. Looks like 'one land' is pervading us again, but then that's only a number now.

New technology is always fun to me, and currently the latest Flex radio creation gives opportunities to explore the convergence of **RF** and **Data**, two of my most exciting interests. The 6700 is a powerful example of an analog to digital converter right at the antenna with the resulting gift of powerful dynamic range attributes. As the software progresses it will be great to see what it can contribute to the VHF and Microwave contesting environment.

Some of you are coming on board with the 1500 and I know more members have acquired the HPSDR products. Recently I added an HPSDR to my Microwave bands to take advantage of the noise floor sensitivity enhancements initially made available by W3SZ and now widely available in the HPSDR implementation of PowerSDR.

By processing the RF spectrum with many more FFT (Fast Fourier Transform) calculations per unit of display you can observe weak signals in the waterfall display well before they are visible in the panadapter display. Awesome!

This fall's Conference will be a good one again but since I'm talking about Software Defined Radio, let me announce that we will have a presentation by Steve Hicks, N5AC, who is VP of Engineering at Flex Radio. He will bring us the latest on the Software Defined plans for our higher frequencies.

This month is our regular annual White Elephant **Auction**, come enjoy the company and excitement while bidding on fascinating and necessary radio gear; some may even be a surprise in a box.

Next month enjoy the company of fellow members and friends in a social environment at the Packrat Picnic at N3ITT's qth in Ottsville, PA.

The Mid Atlantic VHF Conference brochure is published in this issue of Cheese Bits. Be sure to get the details transferred to your calendar and 'be there', it will be a good one.

This year I'd like to talk about the bands we use to generate points during the contest. Starting at the top bands, for me, brings us to 47,088 MHz. My first exposure to this band was in the basement of KB3XG where he experiences significant frequency drift just due to human movement; I'm not sure what's behind that, but I now have two 47 GHz

July 2013 1 Cheese Bits

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

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222.98/224.58 MHz (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 NIGHT NETS** 

www.w3ccx.com

TIME	<b>FREQUENCY</b>		NET CONTROL
7:30 PM	50.145	MHz	K3EOD FM29II
			WA3QPX FM29di
8:00 PM	144.150	MHz	N3ITT FN20kl
8:30 PM	222.125	MHz	KB1JEY FN20je
8:30 PM	224.58R	MHz	W3GXB FN20jm
9:00 PM	432.110	MHz	WB2RVX FM29mt
9:30 PM	1296.100	MHz	K3TUF FN10we
10:00 PM	903.100	MHz	WA3SRU FN20le
Visit the M	t Airv VHF	Radio	Club at: www.packratvhf.com

systems, through a recent acquisition and will soon have a third from NR6CA, so I am anxious to get my basement experiments going real soon.

John (XG) long ago said you need to have more than one system to make sure you are operating. My hope is to have a decent path from my station



to the four grid corner just to my south for added points in upcoming contests.

Next month I'll talk about another band and some of the exciting contacts that come from weather conditions.

We look forward to seeing many of you at the QTH of WA2OMY this month on July 18, come a little early to go over the goods that will be auctioned off.

Lets work on lots of bands,

#### Phil K3TUF

Cheese Bits July 2013 2

# **Dayton 2013: My Experience**

By Roger Rehr W3SZ

I went to Dayton this year as usual with two other hams from Reading, Hal Messer K3ATO and Roger Schropp N3IVY. Hal was a math teacher at my High School back in the 1960s, and we founded the High School Radio Club together. Roger is also a math teacher.

Temperatures at Dayton ranged from a low of 56.3 on Friday to a high of 81.1, also on Friday. There was intermittent rain on Friday amounting to 0.27 inches, and a smattering of rain Saturday, amounting to 0.03 inches. There was no rain Sunday. There was early morning fog all 3 days.

The crowd size was moderate. DARA folks said that attendance was about the same as last year, which would put it at just under 25,000. It was easy to move around both inside and outside.

I arrived at the ARRL VUCC/DXCC booth first thing Friday morning, and was extremely lucky to get Sean Kutzko, KX9X as my card checker. Sean was very patient with me: I had a lot of cards, and so it took more than an hour to complete the VUCC certificate and endorsement checks, even though everything was all ready to go and appropriately documented. DXCC is a lot easier to card check; for the VUCC, the multiple pages required [one for each two-letter grid prefix] takes a lot of time. It was fun chatting with Sean as he worked, and he was as always extremely pleasant, helpful, and complimentary. I can't imagine doing that card checking for hours on end. It is brain-frying work, but Sean did it quickly, expertly, and cheerfully!

The VHF Dinner Friday night was well attended, and K1TEO Jeff Klein gave an excellent after dinner talk. Jeff's talk detailed his progress in the VHF and up world as he optimized his station and operating techniques over the years. It was my pleasure to sit with PackRats Phil Theis K3TUF and Steve Simons W1SMS at the dinner, and there was plenty of time for good conversation. Sean KX9X was not there, as he was performing in the band "Spurious Emissions" along with Ward N0AX at the Contest Super Suite which took place at the same time. I haven't found this year's performances on the net yet, but if you go to YouTube you can see some 2011 videos:

https://www.youtube.com/watch?v=FhGy6vUZbME That URL should lead you to 7 of their songs...all great fun! Make sure that you listen to "The Sound of DX"

https://www.youtube.com/watch?v=EfKzFJDP2pc and of course, "Rovin", which needs NO apologies to The Grateful Dead <a href="https://www.youtube.com/watch?v=ziepNkIPH-Y">https://www.youtube.com/watch?v=ziepNkIPH-Y</a>

I didn't "need" to buy anything this year, so there were no big purchases, but I did get 6 NOS 7289s at a great price, and a 6.1 GHz waveguide filter that I plan to walk down to 5.7 GHz, as well as some books from the ARRL: "The Secret Wireless War" and "Inside Enigma".

The Elecraft booth was extremely busy throughout the Hamvention, with lots of interest in the K3, the KX3, the new KPA500 Solid State Amplifier, the KAT500 Antenna Tuner, and the K3 Remote setup that uses the RemoteRig internet control system and a K3/0 remote control user interface. They featured a new K3/0 that is closer to the size of a KX3 than to a K3, which should be available in a few months.

The Flex-Radio booth was also busy, displaying the new Flex-6000 Signature Series radios as well as the Flex-3000 and the Flex-1500. I had a nice chat with Bob McGwier, who is doing great things as always. It was a real pleasure to see Bob again.

...Dayton cont'd

While I was roaming the Hamvention with Phil, K3TUF, he gave me what was the most important technical tip of the trip. He told me of a Microsoft Garage Program called Mouse Without Borders that lets you use the same mouse and keyboard for up to 4 computers without the need for a KVM switch. As you move the mouse and it crosses a screen boundary, it continues on the screen of the "next" computer, and takes keyboard control with it. No more need for multiple keyboards cluttering up the desktop! You can Google it, or go to: http://www.microsoft.com/en-us/download/details.aspx?id=35460.

At my Hilltop contest station, I use an Apple Mac Pro as my main machine, but the other computers are all running Windows. So I needed something like Mouse Without Borders that works when you have multiple operating systems running on your network. It turns out that there is such a beast, and it is free, called Synergy. It works with Windows, Mac OS X, and Linux. I have installed it at Hilltop and with it I need only 1 keyboard and mouse for everything while operating. You can check out Synergy at: <a href="http://synergy-foss.org/">http://synergy-foss.org/</a>

While at Dayton Phil also told me about another nice piece of software. It is actually a suite of programs, called DXLab. You can find it at: http://www.dxlabsuite.com/

I like it because it is easy to load my N1MM logs into it, and it keeps track of VUCC, WAS, DXCC, etc. But the thing I like most about it is that it will keep my LOTW and eQSL contacts up to date without my having to sign on to those services manually, and it will update my QSL status as regards both LOTW and eQSL without my having to do that manually.

DXKeeper is the logging program. DXLab also contains a rig control program called Commander, and other modules called DXView, Pathfinder, PropView, SpotCollector, and WinWarbler. All of these are explained at the DXLab website.

I have installed DXLab and am using DXKeeper, and have transferred all of my logs to it. No more having to manually upload files to LOTW and eQSL!

73, Roger Rehr W3SZ

#### **MORSE**

Interested in polishing your Morse speed, or just want to brush up on it? Take a look at the Chuck Adams, K7QO web site. (<a href="WWW.K7QO.net">WWW.K7QO.net</a>). He has created a number of CDs which contain full books converted to Morse, available at different code speeds. He also has some excellent guides to learning CW, on his web site.

If you care to investigate, visit his site. Look for the link: "K7QO's Code course". Click it and see links to 4 items. Try the "course manual" (54 pgs) for insight into his suggestions.

Another interesting link on his home page is: "K7QO's CW presentation". It is a copy of a talk he recently gave, on communications. (Check the humor on pg 2).

Enjoy, \_ \_ ... ...\_, K3IUV, Bert

# K1DS/R Report June 2013

Jim, WA3EHD volunteered to be my logger in the rover for Saturday and Sunday. I took my logging computer to his QTH and we loaded Window Eye onto it so that he could have the computer talk to him as he entered calls and grids and also could talk to him to give me bearings and reported dupes. It worked very well for the weekend and his logging was excellent.

We left his QTH at 10AM on Saturday and drove to Ruthsburg MD in about 3 hrs and searched for a spot to pull off the back roads to operate. We found a decent spot in FM28ax and within minutes were visited by the land owner who was alerted from a passerby that we had stopped at one of his field's gates. He was very understanding of our mission and was only concerned because there had been some vandalism in the past week of some of his farming equipment. We got on the air promptly at 2PM. We had already found the WA1ZMS 2m beacon from FM07 to calibrate the rotor settings.

K8GP was very loud dominating 144.200 from FM19, and they were generally the first station in our log from almost every grid we visited. We found W3CCX on 2m within 2 minutes, but the higher bands were not ready until a bit later in the hour. Considering the rain of the previous days and the low elevation, conditions were problematic on the microwaves, but we were able to work the mountain on bands through 1296. Made only 26 contacts from this grid in 90 minutes before moving on to FM18xx. The first contact we made was 45 minutes after the last QSO from FM28. We were able to work the mountain through 2GHz. We made 37 QSOs from this spot and were just about to leave when the local sheriff pulled up and asked about what we were doing.

As I explained, he asked for ID, car registration and reported them into HQ. He told us that someone had tried to see what we were up to, but we didn't respond to them. Apparently I was operating the rig, and Jim saw nothing! We apologized...and he understood. By that time a second sheriff drove up and asked the usual question, "Are you talking to China?" We again gave the detail, and after HQ cleared us, sheriff #1 said, "I don't see anything illegal going on here." So we headed off to our next grid, only to encounter sheriff #3 at the next intersection, who followed us until we were on the highway north.

Jim suggested that since conditions were flat that we head further north in grids FM29 and 19 to be closer to the mountain. As we drove toward Gap, PA, we found a very nice high spot in FM29at, but the pickings were mighty slim as we worked the mountain on 3 bands only and had 19 total QSOs from that spot.

On to Gap where we decided to use the parking lot of the Mennonite Church. I was certain that there was activity in the church as there were lines of cars parked behind it, but as it turned out, we did not disturb anything and it is likely that the cars were parked there for the weekend and the drivers were all away on a trip or retreat. We managed 24 contacts, including 5 with the mountain from this spot before heading home for the night.

We got an early start on Sunday morning and we were at my favorite spot in Seabright NJ FN30ai at 10 AM and started with a few QSOs with K8GP again. Found the mountain gang and we were able to QSO through 10GHz, although the mountain could not hear us on 3G or 5G. Another 24 QSOs in the log, as we were there for only an hour. We stopped at the local Dunkin' Donuts for refreshment and then drove off to Alamuchy, NJ. The scenic overlook on Rte 80E at

...K1DS/r cont'd

FN20ow is one of the best spots and is line-of-sight to the mountain, about 40 miles away. We stayed only long enough to run ALL the bands with W3CCX and a few more with K1TEO. We were there for only 30 minutes and then zipped along Rte 80 up to Camelback. We were able to add another 50 QSOs from the mountain and check out the entire CCX operation. The big screen logger in the dining area was fascinating to watch. We were also able to work our fellow rover, NN3Q as they were in the proximity.

With the decision to likely break down the mountain station early, we hustled off to FN11wa in Conygham, PA, just right off the exit after the intersection of Rte 81. We added another 22 QSOs here including another 5 with the mountain in the 45 minutes we spent there. Since it was still daylight, and another grid was beckoning, we drove over to Penn State Hazelton in FN10xx and the band was hopping from there. Only worked CCX on 50MHz as the other stations had shut down. But we filled the log with an additional 46 QSOs and many new grid multipliers in the 75 minutes we were there.

Totals look like a score in the 44K range. Mileage was over 600 for 9 grids, and gas bill close to \$250. It was a fun weekend and everything appeared to work reasonably and the

van ran well. Conditions were relatively flat and we had nothing exciting for DX, except perhaps working W1XX in FN41 a few times on 2m.

Perhaps I will increase the power on both 2G and 3G for the future, and consider additional operating spots in the nearby grids. I think that Jim got a good idea of the pace and capabilities of roving as we spent the 2 days together. I hope others will continue to try and be rovers in the future. The club does have loaner rigs for those willing to go out and add a band or two. **73**, **Rick**, **K1DS/R** 



## NN3Q/r Report June 2013

Good weather, and pleasant temperatures made for a wonderful Rover weekend. NN3Q and I had a productive weekend. We had two memorable highlights:

- Meeting up the Pack Rat crew atop Mount Pocono, and having the opportunity to marvel at, and share insight into the difficulty of getting so many stations on the air!! **YIKES** We also enjoyed dinner. **Thank you Doc!** Doc has the best portable, well equipped, restaurant around. Any past experience with this?? City food vendor?? And of course the Laser communicator contacts: nice very nice.
- The thrill of making a 10 Ghz QSO from FN10xx (near Hazleton) to FN32, NW MA (between 185 and 200 miles) with the rover van, a 2 foot dish that is 14' off the ground, and 2 watts (I believe that is our personal best in any of the contests we have entered)

Lots of good operating was had. 73 AI K3WGR (1/2 NN3Q/r)

## **Audio Isolator**

The advent of PC to Radio interconnections has

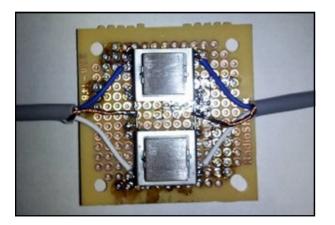
always been fraught with a nasty side effect of

"ground loops" developing and injecting hum into the equation. The solution has always been to isolate the circuits so as to eliminate the ground connection from one piece of equipment to the other. Along came the bevy of rig to computer interface devices starting with the **Rig Blaster**; these devices provide independent sound level control along with other benefits. Often the additional features of these interfaces are not needed, but isolation is still a critical requirement. Products like **Hum Eliminator** and **Iso-Max** will do the trick, but cost in the 100 dollar range. I used many of the **Ground Loop Isolator** devices from Radio Shack, and they're not bad at \$20, but one day I saw some surface mount 600:600 transformers on ebay for 2 dollars each and bought several for testing.

These work great and I recommend a pair of these for every stereo audio path in your station, including all I/Q lines. If you use wire and connectors (as needed) and a generic PCB from Radio Shack your cost is only \$5, a far cry from any other options. To make it work, do not connect input and output grounds; make audio connections only to the transformer input and output circuits. Isolate audio jacks from the chassis with plastic or fiber washers if using a metal enclosure. The fellow on ebay selling the transformers has a large quantity. If we join with an order, I'm sure we can drive the cost below 2 dollars each.

#### Phil K3TUF

PCB RadioShack 276-148 Transformer Ebay number: 360309342280



## 77.5 GHz Attempts

Reported to Cheese Bits by Al, K2UYH

This month we tried to do one more step to EME QSO on 4mm band. Al W5LUA and Barry VE4MA tried to receive my signal off the Moon. I am happy that AI received it in test June 12. Signal level was about -20 dB and it was simple letters "E" series. I received my own echo before this test (28 deg elevation) on -17 dB level. It is about 3 dB worse then in February. More atmosphere attenuation. Additional noise from warm atmosphere. Worse NF of LNA at summer temperature. It is clear that we must to do improvement in tracking accuracy to get this result with a reliable repeatability. For 0.12 deg beam width our mutual pointing accuracy must be 0.01...0.02 deg!

73, Sergei RW3BP

### Packrats Donate to ARRL

Al Zimmerman K3WGR and Randy Bynum NR6CA are major donors to ARRL as noted in this month's QST. See the front pages in QST.

## 3.7mm Band Record

I proudly announce that today 6/13/2013 at 23:42GMT Bob Johnson KF6KVG and AD6IW return world distance record at E band 3.7mm back to US!

Previous record was at 228km from DL2AM and DL2GWZ We achieved distance of 252.49km from Mt Hamilton CM97DI to Kings Canyon National Park DM06MS We made two way contact on FM and SSB with strong signals at both ends.

Unfortunately, Ron Smith K6GZA who was with Bob at Mt. Hamilton got my signal but his transmitter failed.

Goran AD6IW

# Using Digital Voltmeters and Ammeters in Your Homebrew Projects

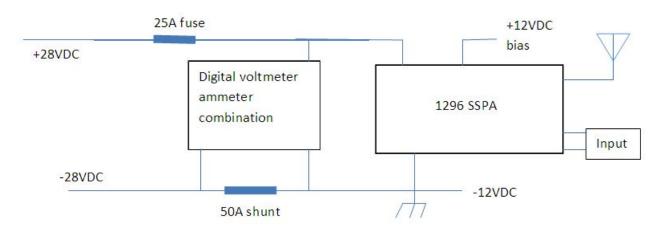
Rick Rosen, K1DS

I wanted to share my experience with obtaining and using the inexpensive digital volt and ammeters in my 300 watt 1296 amplifier.

I purchased a PE1RKI amplifier and tested it out and found it easily generated 275 watts output for 4 watts input using 28VDC power. The amplifier comes with two voltage test points that allow you to monitor the relative output and the relative temperature of the heat sink. I used my analog and digital meters to make the measurements while the amplifier was being tested. In consideration of the need to monitor these values during active operation, I sought some analog meters that I thought I could mount onto a chassis with the amplifier. I wanted to measure the DC supply voltage at the amplifier as well as the current, in addition to monitoring the previously described test points. As I solicited some advice, I was led to eBay to order some of the readily available and inexpensive panel mount digital meters. I also had on hand a DEMI LED Bar power meter kit that would fill the bill for the relative output indication.

Following a suggestion from Jim, WA3EHD, I decided to mount the amplifier with the business side of the electronics and connectors into the aluminum chassis, maintaining the cooling fins and pusher-puller fans above the main chassis surface. It was easy enough to cut some rectangular holes in the chassis for the digital meters and the LED Bar display and snap the meters into place. I started wiring the components and then had some second thoughts when I realized that the way that the dual digital volt-ammeter was configured to measure current in the negative lead. I checked the circuit design with several other Packrats, and although it was feasible, it has potential hazards. The problem was that the amplifier chassis was at ground, and although I could design a circuit for use of the ammeter, there was the danger of developing ground loops and creating a problem with the associated power supply for bias, fans, driver rig and power supply.

### Original hazardous design

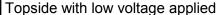


The solution was to use the meters to monitor the voltages, but to use separate metering for measuring current from the power supply. The shunt supplied with the ammeter could easily be incorporated into the +28VDC line and a small meter set across it with a series resistor to make it read 30A full scale.

## Redesigned and safer ammeter 25A fuse 50A shunt +12VDC bias +28VDC Digital 1296 SSPA voltmeter Input -28VDC -12VDC Thermal digital DEMI bar graph voltmeter output meter

#### Here are a couple of pictures of the packaged amp





Each step in mounting the amplifier into the chassis took a bit of thought and design to fit all the components. The circulator was mounted so that it could be cooled if there was significant SWR. A power connector supplies 12 and 28 VDC and PTT bias control. The fans and fins on the topside have a push-pull arrangement for excellent cooling.



Inside shows main amp box with circulator. Small chassis fan cools dropping resistors for low fan speed.

Top: Output bar LED board and digital voltmeters .

Right: PTT relay.



# A Jury Rigged Heading Readout for HyGain Rotators .... Cheap

By Lenny W2BVH

This note was prompted by a problem a friend of mine has with his Ham-IV rotator.

As you may know, the heading information for HyGain rotators is read as a voltage. There is a 500 ohm pot in the rotor housing. The controller box makes 13 volts dc which is sent up to the rotator on 2 wires and is applied to the ends of the pot in the rotator housing. The pot's wiper contact comes down from the rotator on a third wire into the control box. The control box voltmeter measures the voltage between the "+" end of the pot and the pot's wiper. The voltage that the meter displays is proportional to the position of the wiper and that, in turn is proportional to the rotators position. The voltage is shown on the controller box's meter which is marked in compass headings and degrees.

Well, on my friends rotator the wire going to one end of the pot broke; 120 feet up the tower. The broken wire means no position readout (there's no voltage getting to the pot, so there's no voltage to be measured by the control box meter). My friend is still waiting for a shoulder injury to heal before he can make the 120 foot trip up the tower to fix this one broken connection.

As an expedient, to still use the rotator, even with a broken wire, he tried disconnecting the 2 good wires from the control box and connecting them to his trusty Simpson 260 VOM. He set the VOM for OHMS. Sounds like a great idea, no? 0 ohms is one end of the rotation, 250 ohms is half a turn, 500 ohms is a full turn and values in between represent various intermediate headings. And, indeed, it works .... BUT! The ohms scale on the VOM is VERY non-linear. The first 125 ohms (1/4 turn of the rotator) occupies about 80-90% of the ohmmeter scale. This leaves about 10% of the meter scale ( about 1/2 inch) to represent the remaining 3/4 of a rotation. Needless to say that makes reading position-as-ohms something between difficult and impossible.

I did a little head scratching and came up with another way to measure the rotator position using the 2 good pot wires. And it turned out to be easy and cheap. We can connect a constant current source to the 2 pot wires and then measure the voltage across the pot, with the same Simpson VOM. It boils down to Ohms Law: V=IR. If the current is constant, as the resistance changes, the voltage across the resistor will change proportionally.

I picked the 2.5V scale on the VOM as the one to use. How many amps have to be forced through the pot at full resistance to give us 2.5 volts (full deflection on the VOM)? I = V/R. Or I = 2.5V / 500 ohms. So I = .005 (5mA). Since we've got a linear equation, all other resistance values on the pot will give proportionally scaled voltages. For instance when the pot (rotator) turns half way around to 250 ohms the voltage will be V=.005\*250 = 1.25V or half scale on the VOM. Similarly at one full turn (0 ohms) we have V=.005\*0.05\*0.05 volts.

So all that needs to be done is to make a 5 mA current source, apply it to the 2 pot terminals and measure the voltage across those same 2 terminals with our VOM. So how do we make a 5 mA current source?

But first, what is a current source? Its simply a circuit that automatically adjusts its output voltage

up or down so no matter what load is connected to it, the same current will flow between its terminals. For instance, an ideal 1 amp current source with 10,000 ohms on its output terminals would raise its output voltage to 10KV so 1 amp would flow through the resistor. Fortunately we don't need an ideal current source, just one that will automatically adjust its output voltage up or down to make .005 amps when any resistance between 0 and 500 ohms is connected to it. The 2.5 volt swing of the current source is called its "compliance".

The circuit that does this is shown in Fig 1. It uses one of the most common regulator IC's (LM317) which is typically used as a voltage regulator. Wired as shown, it makes a regulated constant current. As shown, to get .005 A., R1 is 250 ohms.

My friend wired this circuit up and connected it to the 2 good wires leading to the rotator's pot and it's been working great for over a month. The glass of the VOM has 8 compass points written on it with a sharpie (easily erased with a little alcohol once a permanent fix is done up on tower). He used 2 series resistors for R1: one fixed and one trimpot to allow for calibration. So for about \$1 worth of parts (assuming you already have a VOM and a wall wart), rotator direction can be read using only 2 rotator position pot connections.

Some further notes: The LM317's manufacturer specifies a Worst Case Minimum load for the LM317 of 10 mA, which this design violates (since we're running it at 5 mA). But they also spec a "Typical Minimum" load at 3.5 mA, which this design satisfies. I guess we lucked out and our particular LM317 is "typical". If you have a similar problem with your rotator and want to replicate this, you might want to use the 10 volt scale on your VOM. That would require a constant current of 10 V/500 ohms = 20 mA, which meets the Worst Case Minimum load spec for the LM317. (In this case, the wall wart output would need to be 13V or more instead of 5.5 V or more. And R1 would be 1.25V / .020 = 62.5 ohms).

Keep this idea in mind if the same thing happens to you.

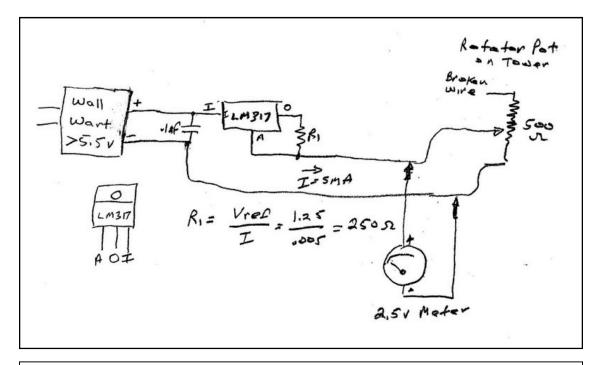


Fig 1. Sketch of substitute Rotator Heading Display Circuit

### Note to the Editor

Dear Lenny...

In your Cheese Bits Article of May 2013, page 9, you wrote that 3 Italian stations in the same small town in Italy are on 23 cm EME.

I wish to report that I have worked all 3 as follows in JT65C with fine signals:

IK5QLO, Andrea, on 23 Dec 12 IK5EHI, lessandro, on 20 Apr 13 IK5VLS, Gabrielle, on 14 June 13

For 1-2 of the above, we have multiple QSOs.

Please send my certificate, suitable for framing, to me at my Packrat and QRZ address.

Vy 73, John, W3HMS, FN10mf.....EME QSOs 476...initials 116...DX 29

PLEASE SEE BELOW —W2BVH

## Letter to the Editor

Dear Lenny,

Just a short note to tell you how much I enjoyed the June issue of Cheese Bits. I think it was one of your best issues to date. I am not a member of the Pack Rats (living outside of your area.) But as a long time former resident of Philadelphia area, many of my radio friends still reside there. My old pal KA3FQS often forwards me a copy of your newsletter. In particular, I'd like to congratulate Bert Soltoff, K3IUV on the fine article regarding stamp collecting appearing in your June, 2013 issue. While not a philatelist myself, I found the background on the telegraphy stamps along with all the pictures to be very interesting and it made for enjoyable reading. If you would, could you please pass along my appreciation to him. I'm sure it was hard work to compile all that information.

> vy 73, Tom Hybiske, K3GM Fiskdale, MA (FN32WD)

# **Cheese Bits Recognition Award**

Presented To John A. Jaminet W3HAS

In Recognition of His 23 cm Moonbounce Prowess Worked All Lucca (Italy)

Great job John !!



Super Gianni !!

In Testament Whereof We Convey Our Congratulations And Apply Our Signature

Lenny, W2BVH Editor

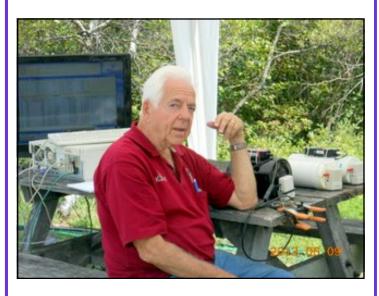
Seriously John, nice work —W2BVH

Clip along dotted line

# **More Camelback Pix**







Tnx Doc for Pix

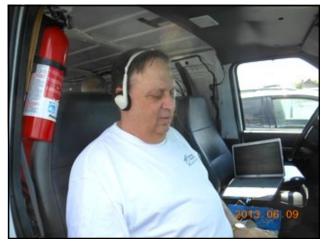
# **K3EOD June**



Here's Al "slaving over a hot stove" for the June K3EOD Multi-op effort. Pic by W2SJ

# K1DS/R June





Tnx Doc for Pix

# MID-ATLANTIC STATES VHF CONFERENCE

Hosted by The Mt. Airy VHF Radio Club (Pack Rats)

InnPlace Hotel 3327 Street Road Bensalem, PA 19020 215-639-9100

Friday, Saturday, Sunday September 27,28,29 2013

All Conference Info, Registration and Payment Available at www.packratvhf.com

Speakers:

Rick K1DS Love to Rove Phil K3TUF Tower Safety

Roger W3SZ Aircraft Scatter: New Software (ISCAT) and New Horizons

Steve W1SMS Amplifiers: Tubes or Solid State

John KB3XG Solid State 2KW Amplifiers for 6m & 2m

Steve N5AC SDR for VHF, UHF & Microwaves

Group Panel 10GHz and Up contesting (AF1T, W1AIM, K2TXB, W1GHZ)\*

Paul K4MSG Early Navy EME

El K3JJZ Multi-op Contest Log Networking

Kent KA2LIM The K2LIM Contest Station

Paul WA3GFZ Unique Antenna Mounting Solution

Ray N3RG\* Antenna Homebrew Workshop

\*(unconfirmed)

Remember: Special hotel rate \$79/night room + tax, mention "VHF Conference"

#### **AGENDA**

- Hospitality Room Fri eve 7P-11P
- Auctions
- Registration includes Saturday Coffee, Pizza Lunch, Proceedings Disc
- You must be registered and paid for the Conference and Banquet to be eligible for Door Prizes
- Greg Bonaguide from Rohde & Schwarz with full testing bench
- Outdoor Mini-Hamfest Sunday morning 8AM-11AM
- Auction and Door Prize Donations Appreciated
- Papers for the Proceedings still being accepted--email to rick1ds@hotmail.com

## The Wayback Machine

Gleaned from the pages of Cheese Bits, July 1963 (Vol. VI Nr. 4) (Authors comments in *italics*)

- Helen's caricature cover admonishes "Remember your heritage! Unfurl the flag for July 4<sup>th</sup>".
- ZIP IT. Helen notes that the Post Office starts a new mailing system on July 1, 1963. Known as your **Zip Code**, it is expected to speed delivery and reduce lost mail. Members are asked to provide their Zip codes to her, for Cheese Bits mailings. (*In* case you were wondering when it started).
- June contest report. In his usual inimitable humorous style, EI (K3JJZ) reports at length on the antenna raising faux pas at the Brad Algeo contest site. Here's an abstract: "The next set of antennas to be attempted were 220 and 432. Mind you, these were brand new jobs, and K3IUV had taken many precautions. He even had them wrapped with rags in the trunk of his car. Well, the antennas were mounted and the boys started manning the guy lines. Bert decided we should have a pole to support most of the weight while they were going up. He went to get a pole; somebody hollered 'pull' and guess what happened? The men on the lower guys were stronger than the ones on the upper ones, and about ½

- way up the pole snapped, the antennas came crashing down and Bert had just come back with his support pole. He was speechless!" Read the full story for a few more laughs, in the copy of this issue at W3CCX.COM.
- Packrat Picnic and family day announcement. Fort Washington State Park, \$2.00 per family. (This was the early version of our Hamarama, but the turnout for the picnic part was overwhelming each year. El ran the games, Ernie provided peanuts, and a good time was had by all. How about a better turnout for our current picnic at Al's?)
- New members: W3OR, K3KTY and K3DUW.
- ARRL moves on June 28, from West Hartford to the new building in Newington, CT.
- White Elephant Sale. Another packrat tradition, to be held July 17 at the QTH of John Houser (W3JSD, SK). Tag your equipment if you want to keep the money, or donate to the club. (Same as today, 50-yrs later).
- Quotes from the Evening Bulletin, and the Philadelphia Inquirer details how a couple of "Hams" were able to track down the person that stole \$600 worth of radio equipment from a W. Philadelphia store. Helen investigated and found that they were really CBers. She contacted

both papers and attempted to get them to correct or clarify their stories.
Unsuccessful!

- From the Swap Shoppe column.
   Wanted: Receiver for 6-meters, or general coverage. Contact K3EOD, Al. (Did you ever get it, Al?)
- Another nice letter published from SIRAN (South India Amateur Radio News), describing their activities. We exchanged papers with them, and supported their efforts to improve amateur operations in India. (When I'm there in September, I'll try to look them up).
- W3OR (Alan) reported that he now has over 2600 mobile contacts from his home station (Was 2300 last month. Alan intentionally looked for the mobiles, weak or strong,)
- ARRL Official Bulletin #897. The FCC announced that license application fees in all radio services would become effective January 1, 1964. Regular Ham license fee, \$4.00. Special call sign fee \$20. Novice license to be no fee. (If you were wondering when it started).

(As in previous editions, many "folksy" comments about members, their families, and activities were included in this Cheese Bits. If interested, visit www.W3CCX.COM and read the full issue posted there).



thirty, de K3IUV

#### **Events**

For inclusion, please direct event notices to the editor.

Eastern Pa. Section Convention (Electronics Expo and Firecracker Hamfest) - Hamfest (etc) July 6, 2013. Harrisburg, PA. Sponsored by Harrisburg Radio Amateurs Club. See http:// www.w3uu.org for details.

Valley Forge Hamfest - Hamfest July 7, 2013. 742 Pike Springs Road (Kimberton Fire Company grounds). Kimberton, PA. See http://www.marc-radio.org/hamfest.htm for details

Packrat White Elephant Sale - Auction Sale Watch Packrat reflector and http://packratvhf.com/agenda.htm for details.

Packrat Annual Picnic BBQ, etc. - Watch the Packrat reflector and http://packratvhf.com/agenda.htm for details.

CQWW VHF Contest - Contest Begins: 1800 UTC Saturday, July 20, 2013 Ends: 2100 UTC Sunday, July 21, 2013. See http://www.cqww-vhf.com/ for details.

**ARRL August UHF Contest -** August 3-4, 2013. Details to follow.

**10 GHz and Up (round 1) Contest -** August 17-18, 2013. Details to follow.

**September VHF QSO Party - Contest** September 14-16, 2013. Details to follow.

**10 GHz and Up (round 2) Contest -** September 21-22, 2013. Details to follow.

**EME 50-1296 MHz Contest**—September 28-29, 2013, 2.3 GHz & up; October 26-27, 2013, 50-1296 MHz round 1; November 16-17, 2013, 50-1296 MHz round 2.

## From the VHF Contesting reflector:

Hi folks-

Today is my last day as ARRL Contest Branch Manager. I will begin my duties as ARRL Media and Public Relations Manager on Monday, June 17.

It has been a pleasure to help promote Radiosport and assist you with your contest questions. I hope I have helped make ARRL contests more enjoyable for you.

Mike DeChristopher, N1TA, will take over the Contest Branch beginning Monday. Please direct your contest-related questions to him. You can reach him at N1TA@arrl.org.

See you in the pileups.

73, Sean Kutzko, KX9X Ex Contest Branch Manager

Reported to Cheese Bits by K1DS



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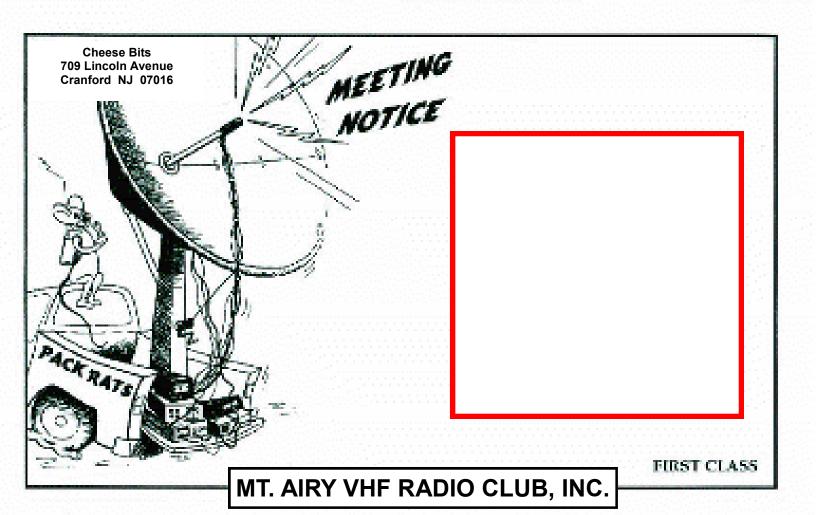
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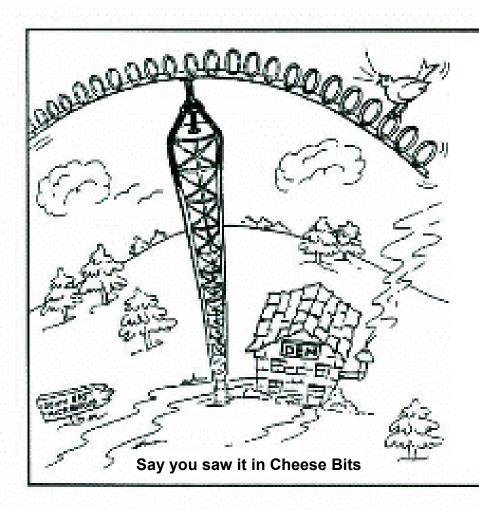
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