



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LVI

April 2015

Number 4

PREZ SEZ:

Prez Sez April 2015
Spring is here and the weather is finally being reasonable after an unusually cold winter. The occasional warm day has me

outside planning antenna projects both up in the air on the tower and out in the woods for the next low band wire antenna. I usually have a short time in April and November to get out in the woods without all of the undergrowth or cold weather, better make good use of it while I have it.

This is the month for our ARRL night, when we look forward to having the Contest Manager, Matt Wilhelm, W1MSW speak at our monthly meeting. Bring your contest related questions to the meeting, and be sure to dine with him at our “meet the speaker” dinner before the meeting. Lets have a great turnout! Be sure to invite your friends from other amateur venues, it's a great way to get others interested in VHF and above contesting.

It was good to see all of the projects that were demonstrated at our recent Homebrew night. After the meeting we received comments that it was good to see hams doing things. I know we have an active building core of folks; keep up the good work improving your stations. Awards for the night along with our annual awards will be handed out at the April meeting. You should come, you never know?

I'm sure you all saw the April fools day notice from the FCC on restoring code testing to the licensing

process. It was put out by the director of examinations, “Dotty Dasher”. Of course that won't ever happen, but several responded with a sincere desire to improve their cw skills. There is no better way to complete a microwave (or even a VHF) contact, when conditions are rough, than going to cw. We need ALL of our IF radios equipped with a key or paddle and keyer if there is none in the radio. You go to a new band and the copy is weak; the best way to complete the contact is to revert to cw. So two things are necessary for that to happen. First you need to be comfortable with code, and second, as mentioned above, the radio needs to be ready to send cw. Most modern, efficient stations have their logger integrated into the radio so that a simple push of a function key sends the code. I know some will entertain the notion of using a code reader, but nothing compares to being able to read the code when someone on the other end reverts to cw. The job is made simpler because you can anticipate what will be sent; you know it will be a call sign. Other normal exchanges are easy to recognize, like 73, RST and grid. You can surely recognize your own call sign. But this brings me, once again, to a program that your station needs, whether you are a seasoned cw op or a newcomer to code: Morserunner. Download the program at: <http://www.dxatlas.com/morserunner/> and for more information on the program, including a YouTube demonstration, just google morserunner and many direct responses will be there for your choosing. I strongly encourage you to have this tool in your station.

After you have a few practice sessions you will be

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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 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

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

Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

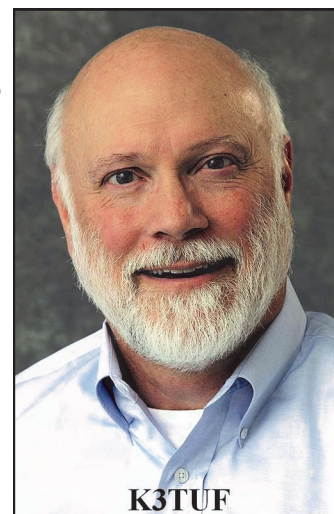
ready to confirm that each of your radios is ready to send code at a moments notice. There is no waiting for "I have to find my key" any more.

The Packrat Trailer Work Party is April 11 starting with food at 11:30, come and assist in organizing our June contest equipment.

The first three Spring Sprints are in April; we start with 144MHz on the 13th, 222MHz on the 21st and end up with 432MHz on the 29th. Be there!

The first two Conferences of the year are in April with the NEWS conference occurring April 17, 18 & 19 (it's looking to be great conference with over 70 signed up already) and the SVHFS conference on April 24, 25 in Morehead KY. So lets have a great spring time and I'll see you at the April meeting, and lets work on lots of bands,

Phil, K3TUF

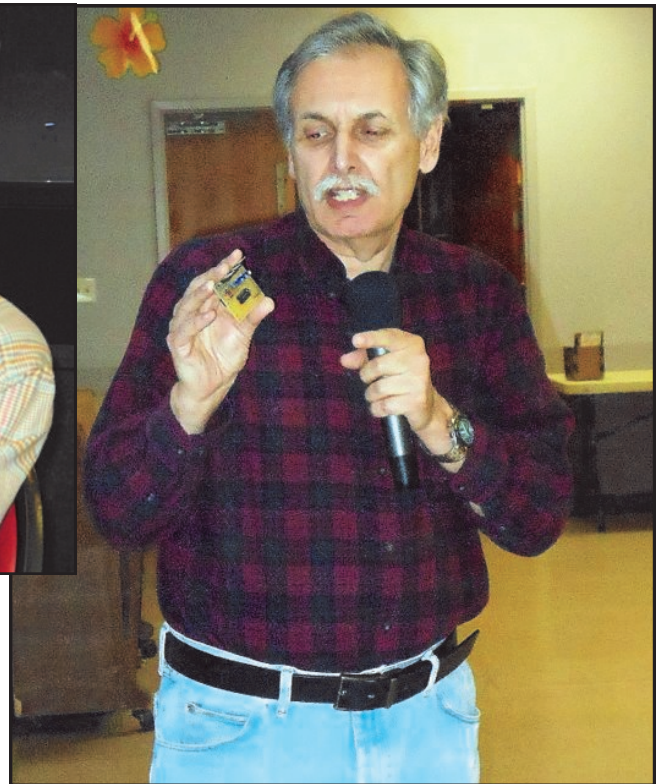


MARCH MEETING & HOMEBREW NIGHT

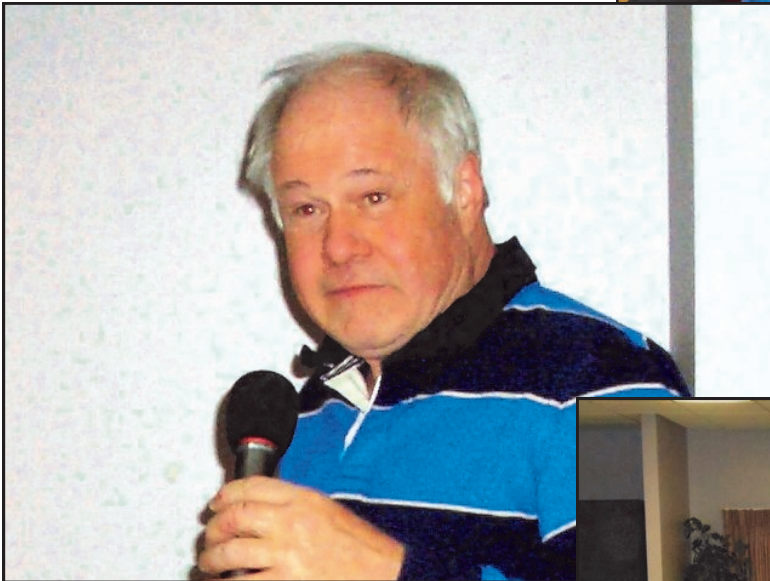
And The Winners Are

- Best use of Mario Table Parts – WB2RVX – Mike Gullo
- Best use of Software - Controlling 7 Radios -W3SZ - Roger Rehr
- Rookie of the Year - KC8HZM - Marten Beels
- Most Ambitious Project -KB1JEY—Michael Davis Mighty Manly Minivan Radio Installation
- Best Construction - 1296 MHz – Transverter Repackage WA3GFZ – Paul Sokoloff





... March Meeting & Homebrew Night cont'd



Tnx K3JJZ & W3GAD for Pictures

Simple VHF Beacon: the 'bity-beacon'

Like many good things in life, RF circuits can be simultaneously some of the most challenging and rewarding projects. For me, this becomes more true at VHF and higher. I especially enjoy distilling a project down to the essential elements (*radio bits?*) and keeping them as simple as possible. It's fun to try to do more with less, and I find I learn more that way.

With that approach in mind, I decided to see if could build a stable and clean beacon for 2 meters, at low cost, and using as many parts from my drawers as possible without ordering special or expensive items. I considered various frequency multiplying techniques to get to 144 MHz, but I wanted more flexibility in the final transmit frequency so I decided to go with a PLL based design. I also had **no experience** with VCOs and PLLs, so it was a chance to learn something new.

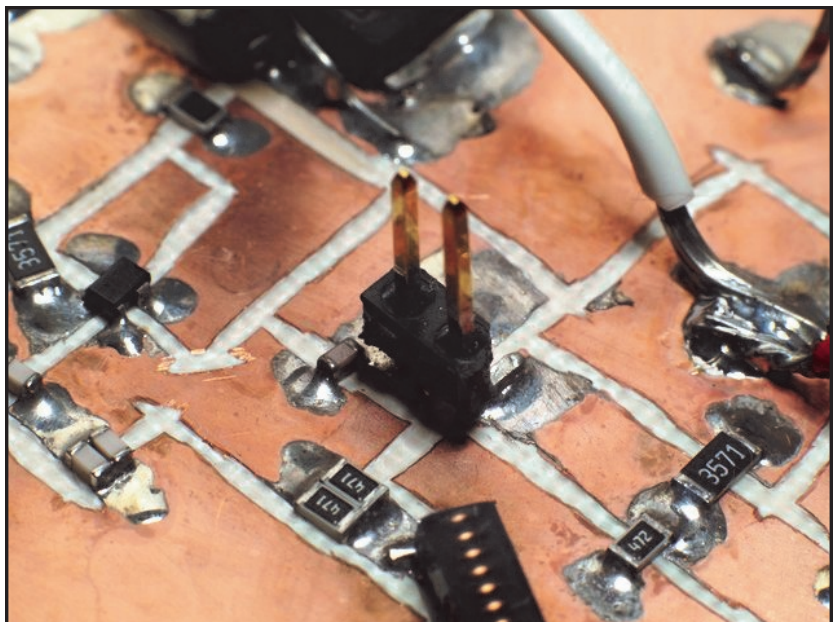
The first bit was to build a working VCO that covered 2 meters. For a good comparison of various VCO topologies, see the [qsl.net](#) page by Iulian Rosu, VA3IUL. There are many criteria to consider, and design options including Colpitts, Clapp, Hartley, Franklin, Goral, Cascode, Vackar, and others.

For a starting point, I went back to [Radio Frequency Design](#) by Wes Hayward, W7ZOI. In Chapter 7 he goes through the Colpitts oscillator in detail, the essential bit is that a capacitive voltage divider provides current multiplication, resulting in positive feedback. By choosing the right capacitor values (along with a suitable transistor with enough gain), the Colpitts can be made to work over a very wide frequency range. He has a good analysis so I decided to build a VCO based on the Colpitts oscillator.

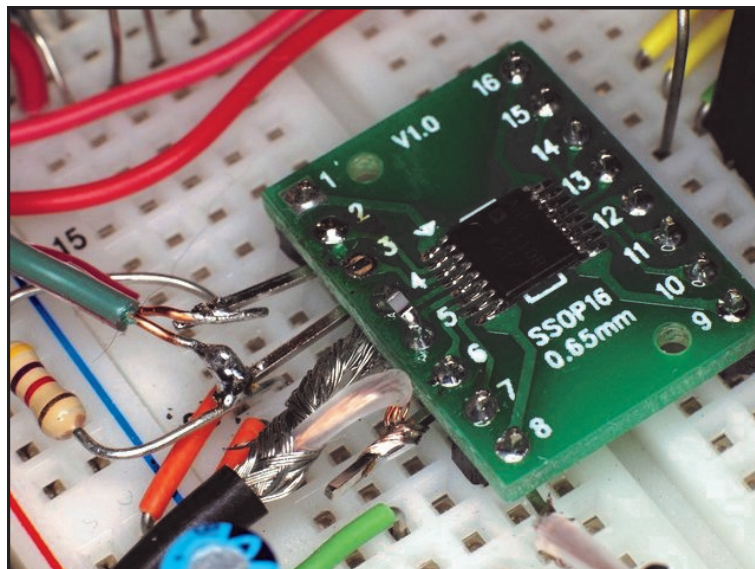
The oscillator transistor is a BFP196 which is usually used in low noise pre-amps, but has plenty of gain and is cheap enough for this purpose. I added a 1SV281 varactor diode to my next Digi-Key order and carved out some copper clad board to layout the VCO with a Dremel tool. I actually find that it is easier to prototype with SMD components because desoldering them and making changes is much easier than trying to wrestle through-hole parts out of their comfortable anchors.

I expected the VCO to be the more difficult part of this project, but I was quite surprised when it came up near 155 MHz on the first try, that never happens! **Usually oscillators like to amplify, and amplifiers like to**

oscillate. Bringing the tuning range down to 2m was a matter of paralleling a second capacitor in the right place. Now, I could tune the VCO from roughly 137 to 153 MHz with 0-8 volts of tuning.



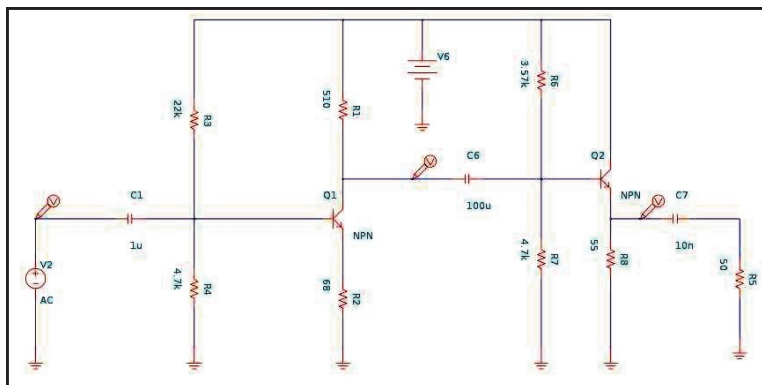
There are many choices in PLL (Phase-Locked Loop) ICs from many manufacturers, I chose an ADF4110 because it is a simpler Integer-N design (instead of Fractional-N) and would do what I needed without being overly complex. Essentially, you set three registers and the PLL IC will divide down the VCO frequency and stable reference frequency to a common comparison frequency. Then, any difference in phase generates an error signal as an output voltage which needs to be filtered and fed back to tune the VCO, correcting any tiny frequency changes. This forms a “loop” which locks the VCO frequency to a reference frequency. If the VCO is divided by “N”, and the reference frequency is divided by “R”, then the (VCO Frequency) = (N/R) * (Reference Frequency).



Because this particular PLL IC has a dual-modulus prescaler, it allows you to choose frequencies to within 500 Hz – 2 kHz anywhere within the 2m band, plenty of flexibility to park the beacon on a clear frequency in the beacon sub-band.

From another project, I had a 19.6608 MHz clock oscillator, so that became my reference. I expected the PLL loop filter to be an easier part of the project because the PLL IC should handle the phase comparison, **but I had the most trouble getting the PLL to lock!** In the end, I used some software from Analog Devices to generate the loop filter based on my PLL parameters. This worked, but only intermittently, which was very annoying! I realized that it would lock consistently with my fingers tightly grasping part of the circuit, so I suspected a loose coax connection, bad RG-316 cables, or my cheap SMA connectors, but it was none of those things. The answer is still an RF mystery to me, I only know that touching part of the circuit would make it lock, and if I removed my fingers, it would lose the lock. I improved the situation by coupling the oscillator more tightly to the buffer, but the circuit is still sensitive to the environment. I suspect that feedback is destabilizing the loop somehow, and my finger is dampening that feedback.

I added a basic broad band voltage amplifier and buffer stage to the output using the same BFP196 BJT transistors. My initial hope was that high-side switching the power to these two final stages would be enough to key the transmitter on and off. However, there is only about a 20 dB difference between “on” and “off”, so I need to try something else. The next bit is to implement a PIN diode switch and output filter, then maybe I can put this beacon on the air!



It has certainly been a learning experience and quite a thrill be able to walk around the neighborhood hearing CW on 2m transmitting from a hacked up copper board with a few transistors, resistors, capacitors, inductors, and 2 ICs. Just plain radio-bits!

Marten
KC8HZM

SSB, AM and CW, 80 through 6 Meters

By K3IUV, Bert.

At the March Homebrew night, I showed and described the transmitter that I had built many years ago.

Some background. In the late 50's and early 60's, SSB began to displace AM as the Ham's choice of operation. I wanted to be able to operate SSB on the VHF bands, as well as have the ability to operate on the HF bands. Commercial rigs were either scarce, or priced out of reach for the average HAM (including me). In June of 1961, CQ magazine published what appeared to be the solution to my quest. Namely, a SSB transmitter designed to operate from 80 through 6 meters.



Designed by K1AFT, John, the rig used a Collins mechanical filter, centered on 500-kHz to generate the SSB signal. A 500-kHz crystal oscillator fed a balanced modulator which also received the audio signal. The resultant output (double sideband – suppressed carrier) is then routed to the mechanical filter which has a bandpass of about 3.1 kHz and is used to remove the second sideband. The filter output was then routed to a second mixer which was fed with a selectable harmonic of the oscillator (3 or 4 MHz). This clever scheme (for it's time) allowed generation of upper or lower SSB at 3.5 MHz, without a carrier shift, **eliminating the need for two precision crystals.**

A VFO in the range of 5.5-6.0 MHz mixed with the SSB signal to move it to 9-9.5 MHz. After filtering of the 9-9.5 MHz SSB signal, it was mixed with a selectable crystal oscillator, to put the signal on the desired band. The resultant mixer output, now on the desired band, was amplified and fed to a 6146 (a **tube**, for those that don't remember). The plate of the 6146 included a band-switched (of course) LC circuit. The output power was about 25 watts. For AM operation (there were still some die-hards at the time), the balanced modulator was unbalanced to let the carrier through, and the 6146 screen was audio modulated. For CW, the AM mode audio was biased off and the mixers were keyed. A "Calibrate" mode permitted zero beat with the received signal (this was the days before transceivers became common). As an added bonus, a 2AP1 CRT, operated as an oscilloscope, was included. This allowed monitoring of carrier balance, two tone pattern for distortion checks, CW keying characteristics and the carrier level for the AM (screen) modulation.

I constructed my copy of this design in the fall of 1961. I paid particular attention to the mechanical construction (front panel symmetry, function markings, matched control knobs, etc.). Those present at

the meeting saw the results (or see the included photo).

How did it work? Well, initial results were excellent as I went through the tuning process. The 6146 required neutralization (**check with an old-timer** if you don't know what this means). I set it up for the HF bands and it functioned exactly as promised, giving me the ability to operate on the 80 - 10 meter bands in conjunction with my SX42 receiver.

However (and there is always a however), when I tried to operate on 6-meters, the HF neutralization was marginal and resulted in sporadic oscillation of the output stage. Try as I would, I could not get the 6146 tamed over both HF and VHF bands. I finally resorted to removing the bandswitched output coil and replaced it with a 6-meter only setup. **Voila.** It now worked perfectly on 6-meters. Those of you at the meeting saw the HF coil assembly lying beside the rig. I was reluctant to give up the HF capability, but since my primary interest was VHF, that's what I settled for.

I later used this rig as a SSB source to drive 144, 220 and 432 transmitters. It served me well, until I later graduated to some commercial gear. I never regretted the time and effort put into the construction and testing, but I probably never again attempted a project as difficult!



WX at KB3MTW

Just a few weeks ago the 6, 432 and 1296 antennas on Michelle's deck looked like this. Lets hope this is the last we see of winter for a good long while!



WHY "ROGER WILCO" IS BAD FORM

de NE3I

A recent contest group discussion regarding the annoying practice of some contest operators to repeatedly call "QRZ" without identifying after a contact recalled to mind **my Radio Procedure Class** at Field Artillery Officer Basic, Fort Sill, Oklahoma in 1975. With Armed Forces Day and Memorial Day just around the corner, I'll try to get this right.

"Roger" means, Received and Understood.

"Wilco" means, Received and Understood, Will Comply.

That is why it is bad form to say, "Roger, Wilco." It is redundant.

"Over" means, Ending My Transmission now, Listening for Your Transmission.

"Out" means, Ending My Transmission, No Longer Listening.

Consequently, (with due respect to the legendary World War II films and actors), never, "Over and Out." Essentially, this would convey, "I am finished transmitting, go ahead, it's your turn however, I am not listening." **How rude!**

So:

"Roger, Over" or "Roger, Out", good.

"Wilco, Over" or "Wilco Out, great!

Didn't copy your counterpart? Then, "Say Again, Over" is appropriate.

Not, "Repeat."

Repeat is a request, (or at least it was in the old days), for the Fire Direction Center to have the Battery or Battalion guns fire another salvo of artillery on the last target. At a minimum this could waste ammunition and, for the party now occupying that position, could be quite dangerous.

I hope that at least a few of you radio aficionados out there find the above interesting. For those of you who such pro-words recall days of duty with Uncle Sam, **Thank You For Your Service.** 73 Griff NE3I

Potential Conflict with our 1296 MHz Band

Our 1296 MHz band is allocated as a secondary service in the 1215.6 – 1350 MHz band allocated to Radio Location Services and Radio Navigation Satellite Systems (RNSS) on a primary basis. Until recently the primary navigation service in the RNSS allocation was GPS and Glonass. Our Amateur allocation runs from 1240 to 1300 MHz. The Glonass System has their G2 allocation running from 1239.6 to 1254 MHz. Other than that the range is open up to 1300 MHz. That is about to change. There is a new kid on the block. The Gallileo navigation service is launching several new satellites this year. Gallileo is occupying a large portion of our 1296 allocation: 1260 -1300 MHz. Since RNSS is primary we could find our worldwide Amateur Radio allocation in jeopardy as our operation would interfere with the Gallileo system.

Reported by Mike Suhar, W8RKO in "Anomalous Propagation" newsletter of the Midwest VHF/UHF Society

NEW PROGRAM FOR SSB: "PHONE SKIMMER"

Forwarded to Cheese Bits by Dave, W2KV

This press release below appeared in PY1NB's mailbox a few days ago. The original was written in Esperanto, presumably to disguise the national origin of those involved, but we have managed to get it translated, and believe that the news it transmits is too important not to pass it on.

73, Pete Smith N4ZR

FOR IMMEDIATE RELEASE:

April 1, 2015 Teresopolis, Brazil

Phone Skimmer in Alpha Test

Thanks to an anonymous NSA computer scientist who is presumed to be a radio amateur, working computer code for a Phone Skimmer has been made available to a clandestine development team, and will be released for beta test to the amateur radio community in coming months. It promises to bring to phone contesting and DXing the same incredible capabilities that VE3NEA's CW and RTTY Skimmers have brought to those modes.

It was long thought that the decoding problems posed by human speech, even with the limited vocabulary employed by radio amateurs, rendered a workable automated system beyond the reach of anyone but the NSA and their competitors in the shadowy world of signals intelligence. Fortunately, as predicted by Moore's Law, recent developments in microprocessor architecture such as Intel's new Skylake series have made it possible to move voice recognition and decoding from a massively-parallel-processor environment to a relatively straightforward 32-core CPU. The development team believes that within a few months PCs running these CPUs under Windows 10 will be able to begin serious beta testing.

Lest readers question whether the new Phone Skimmer is just more vaporware, the development team has been using alpha test versions of the software since last fall's CQWW SSB contest. While the testers are not yet ready to disclose their identities, the emergence of some new calls in the top ranks of phone contesting since then demonstrates the impact it can have.

At the same time, the developers wish to emphasize the challenges that remain before the phone Skimmer can reach full potential. Testing against phonetics in different languages, as well as English phonetics when pronounced by non-native speakers, has brought out some of the hardest issues. High accuracy in copying the International phonetics Juliet, Kilo, Lima, Romeo and Golf, for example, will probably depend on rapid lookup in Super Check Partial files and online licensing databases to help accuracy. Similarly, numbers like Five and Nine pose special challenges, and may lead to initiatives to do away with signal reports altogether in contests.

The development team has asked me to represent them in the media, to spare them the bombardment of e-mails from radio amateurs from Ireland to California to Thailand, so they can get the product ready for beta release as soon as possible. Please bear with us as, once again, technology moves forward!

73, Larson E. Rapp, WIOU Ludditeville, WV

CENTRAL STATES VHF CONFERENCE

Central States VHF Society is pleased to announce that our Annual Conference for 2015 will be held in the Denver Colorado Metro area between Thursday July 23rd and Sunday July 26th. Our convention site is the Denver Marriott Westminster; the venue is now available for booking. Please plan on booking your vacation around the conference .

The conference will feature the traditional activities, Banquet, Luncheons and hospitality suites, technical programs, noise figure measurement, antenna range, Rover vehicle show and tell. Our Saturday evening banquet speaker is Rick Roderick K5UR First Vice President of ARRL and an avid VHFer. We have a wide variety of activities available along the Front Range of Colorado and will be offering a choice of side trips designed to entertain the entire family. Operating opportunities under consideration include operating from the Rocky Mountain Ham Radio HF remote base station in Pueblo, microwave operating from local mountain tops and the chance to score a microwave VUCC in a weekend! WE will have introductory programs geared to newcomers to weak signal operation on the VHF+ bands that will be promoted locally and designed to encourage younger hams to get involved in DX'ing and contesting.

We are currently soliciting papers, presentations, and Poster displays for the 49th Annual CSVHFS Conference. Our deadline for receiving papers prior to getting them to ARRL for publishing is April 22, Contact program chairman John Maxwell W0VG (w0vg@arrl.net) for info.

Conference registration, as well as a link to the conference venue for bookings, is now available now at <http://2015.csvhfs.org/> Please visit the site if you need any other additional information

73 Doug K2AD Chairman,

Russ K4QI, SK

Sent to Cheese Bits by AI, K2UYH
Fellow Moonbouncers,

I sadly learned from Russ', Facebook page that he peacefully passed away at his home on Friday February 27, 2015.

I first worked Russ, as K4QIF from Virginia, via the moon on 23 cm in 1985. Russ had one of the big signals on 23 cm at that time as well as later from NC. He was also active on 70 cm EME. As colleagues in the same business and company we met 17 years ago at conferences. I also enjoyed Russ' great hospitality at his home when visiting in NC in September 2000. I never got the opportunity to work him via the moon from NC.

Our thoughts goes to his family.

Rest in peace Russ, your signals will travel among the stars for ever.

73 Ingolf, SM6FHZ

From Phil, WA3NUF

I just ran across this sad news while glancing through AI Katz's EME news letter.

Russ or Rusty as many of us knew him when he was K4QIF and more recently K4QI was an avid VHF operator with a great signal that helped put FM06 in many of our logs during the various VHF/UHF contests and sprints. It will be hard to break the habit learned after many years of operating in the VHF SS to automatically turn the beam S-SW around 4 PM in the afternoon and listen for Russ.

RIP,
Phil NUF

See also: <http://www.legacy.com/obituaries/salisburypost/obituary.aspx?pid=174296407>

1296 DXCC

Hi AI, Just to let you know I got the 1296 DXCC award dated Oct. 29th 2014... finally... good luck on your last 2 DXCC needed... hope you have them worked by 24th May 2015... Vy 73, Dan HB9Q

.... From AI, K2UYH

DEMI VISIT BY W3ICC

This February, my XYL and I took a rare vacation to Florida to visit friends and family.

For me, the trip would not be complete without a visit to Down East Microwave, so we stopped on our way home. We arrived shortly before the 160 meter contest was to begin.

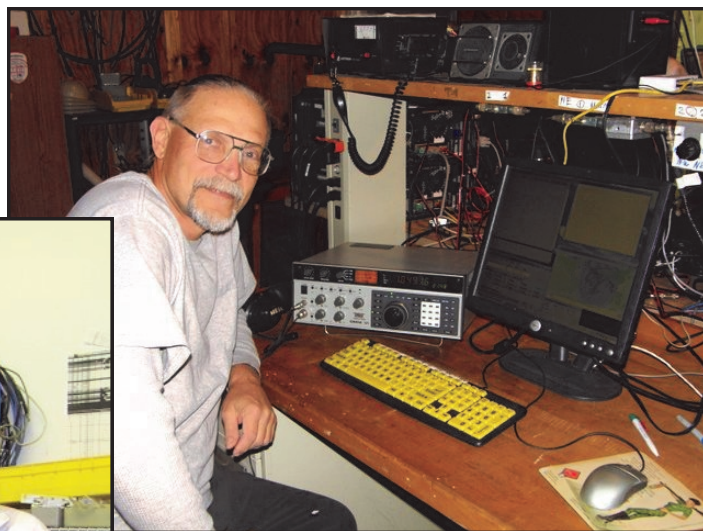
Steve and Sandra gave us a warm welcome and showed us around their spacious facility. The service benches are well equipped with test equipment, and there's evidence of much activity.

The impressive tower in the background, to the left of the picture on the right, is their 160 meter $\frac{1}{4}$ wave vertical transmit antenna.

Steve explained that the wire Beverage antennas strung close to the ground provided directional receiving with low noise pick up.

Notice the dual operating positions allowing Steve and Sandra to operate as a team. We took our leave as the 160 meter contest began.

Drex W3ICC



FCC to Reinstate Morse Code Test

Forwarded to Cheese Bits by Phil K3TUF

April 1, 2015

***Washington, D.C. – April 1, 2015 –** Today, the Federal Communications Commission (Commission or FCC) approved Report and Order 14-987af which reinstates the Morse Code test for General Class and Amateur Extra Class licensees. “It was a big mistake eliminating the Morse Code test,” admits Dotty Dasher, the FCC’s director of examinations. “We now realize that being able to send and receive Morse Code is an essential skill for radio amateurs. As they say, it really does get through when other modes can’t.” *Not only will new applicants have to take the test, but General Class licensees who have never passed a code test will have one year to pass a 5-wpm code test. Similarly, Amateur Extra class licensees that never passed a code test will have one year to pass a 13-wpm test. Those amateurs that fail to pass the test will face revocation of their operating privileges. Materials for administering the examinations will be distributed to Volunteer Examiner Coordinators by the end of April, so that they can begin the testing on May 1, 2015.

“This isn’t going to be one of those silly multiple-choice type tests,” noted Dasher. “We’re going to be sending five-character random code groups, just like we did in the old days. And, applicants will have to prove that they can send, too, using a poorly adjusted straight key.”

*Technician Class licensees will not be required to take a Morse Code test, nor will a test be required for new applicants. “We discussed it,” said Dasher, “but decided that since most Techs can’t even figure out how to program their HTs, requiring them to learn Morse Code seemed like cruel and unusual punishment.”

When asked what other actions we might see from the FCC, Dasher hinted that in the future applicants taking the written exam may be required to draw circuit diagrams, such as Colpitts oscillators and diode ring mixers, once again. “We’re beginning to think that if an applicant passes an amateur radio license exam it should mean that he or she actually knows something,” she said.

For further information, contact James X. Shorts, Assistant Liaison to the Deputy Chief of Public Relations for the FCC .

Forwarded to K3TUF by Larson E. Rapp

41st ANNUAL EASTERN VHF/UHF/MICROWAVE CONFERENCE

Fri./Sat./Sun. April 17-18-19, 2015
BAYMONT INN & SUITES,
20 Taylor St., Manchester, CT 06042
(just a few miles northeast of Hartford, CT
off I-84, at Exit 63)

Registration \$30 (includes Super Hospitality
Room, & Saturday Lunch)
Registration \$25 before April 1 makes the
Saturday Lunch Free.
Banquet \$28. Must order banquet before April 10.

Send presentation proposals to Paul
W1GHZ@arrl.net

Talks and papers, both long and short, are
needed. Please tell us about what you have
been working on. Operating, contesting,
construction, homebrewing, microwaves,
whatever. Please let me know if you are
considering something. A commitment by the
deadline of 18 March would be appreciated.

See <http://www.newsvhf.com/vhfconf.html>
for details

Mid Atlantic States VHF Conference

The Mid-Atlantic States VHF Conference will be
held on the weekend of October 2-3-4, 2015.

**It's not too early to get your thoughts in order
to make a presentation for Saturday, October
3.**

Papers are also welcomed for publication in the
conference proceedings disc.

Please contact rick1ds@hotmail.com with your
topic/presentation or paper title.

SBMS 2 GHZ & Up Contest in May

It's time for me to send solicitations about the San
Bernardino Microwave Society contest for
2015. Last year members of five different clubs
submitted logs for the club competition but, **alas,
no Packrats**. I would like to invite your members
to get on May 2-3 and send in logs. Consider it a
good tuneup for the adventures in June and later!

The 2015 San Bernardino Microwave Society
2 GHz and Up Contest and Club Challenge is May
2-3, 2015, starting at 6 a.m. local time on
Saturday, May 2, and ending at 11:59 p.m. on
Sunday, May 3. Work all bands above 2.3 GHz.
The exchange is the six-digit grid square. Count
100 QSO points for the first contact with a station
on each band plus 1 point per km. of distance (3
points per km. on 24 GHz, 6 points per km. on 47
GHz and up). After either station moves 16 km.
stations may work again for distance points. For
more information, log forms and last year's results
go to: www.n6nb.com/sbmsrules.htm

****73, Wayne, N6NB

FIRST HAM IN HISTORY

From Ron McConnell, W2IOL, NJQRP Club

1909, March 18,
Einar Dessau of Denmark uses a short-wave radio
transmitter, becoming the first radio broadcaster, ham radio
operator.

2009 March 18, 100th anniversary amateur radio
<[http://www.brainyhistory.com/events/1909/
march_18_1909_72760.html](http://www.brainyhistory.com/events/1909/march_18_1909_72760.html)>

A lot more at
<<http://forums.qrz.com/archive/index.php/t-197124.html>>

Also (in Danish) : <[http://da.wikipedia.org/wiki/
Einar_Dessau](http://da.wikipedia.org/wiki/Einar_Dessau)> right click on the window brings up a menu
with Translate to English]

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

(Nibbles from April 1965. Vol. VIII # 8)
de Bert, K3IUUV (*author's comments in italics*)

- “Our Prez Sez”. Prez K3GAS, Doc, says “It’s not too late to make a reservation for Ladies night”. April 4, Buck Hotel, \$6.00. He appointed alternate net control stations, including 220 – K3IUUV, and 432-K3UJD (*of the “Mario table” fame*).
- Special Bulletin. On April 23rd, W1HDQ, Ed Tilton (VHF editor for QST, and known as “Mr. VHF”) will give a talk at the Lancaster Radio Club. His topic will be Amateur radio communications using Moonbounce. The talk will be illustrated with slides and recordings of off-the-air contacts, and he will discuss the equipment, methods, and results obtained by amateurs.
- ARRL Bulletin Nr. 994, 2/25. The FCC has adopted reciprocal operating rules for foreign amateurs. Permit valid for 1 year. Full details will appear in the April (1965) QST
- ARRL Bulletin Nr. 995, 3/4. The Dominican Republic and the US have agreed to permit reciprocal licensing.
- ARRL Bulletin Nr. 996, 3/11. Oscar Three was successfully placed in a 502 mile circular orbit. Confirmed contacts were made between K9AAJ and K2IEJ on the 13th orbit. W1AW carried the latest information as received.
- ZIP Code saves the day (*or letter?*). Helen reports she mis-addressed a

letter, to the wrong state. However, the addressee received it, stamped “Correct address supplied by Post Office at Phila., PA”. She now urged everyone to “Use the new ZIP Code system. (*I just had the opposite experience. I posted a letter with the correct address, but wrong ZIP. It was returned, stamped “No such address”*).

- 2-meter report by W3LHF, Dave. Dave devoted most of his column to Oscar-3 activity, including stations heard (and the HI beacon) and stations worked through the 2-meter transponder. And he reminded all to stay off the satellite frequencies.
- TEK-NIC-KAL. The column this month discussed two topics. “Noise, and how to fight it”, detailed a large number of electrical noise sources with suggestions on finding and fixing them. “Some notes on SWR Meters”, by W3HKZ, Ed, described general operation and application of SWR meters in HAM use. (*Both have information still pertinent to our operations*).
- New Products of Interest, by W3NSI, Lynn. Low-cost mechanical filter now available from Collins Radio. The 455-kHz unit sold for \$12, and was intended for use at the receiver IF frequency in common use in 1964. (*The 75Ax Collins receivers used several of these with different bandwidths for CW, SSB and AM*). “Chemical Cutting Fluid” from the Winfield Brooks Co. promised that “a few drops will instantaneously break down metal-to-metal bonds” (*was this the forerunner of our “penetrating oil”?*)
-

- “The Pack’s Rat”. This periodic column detailed a biography of members, and this month featured the family, business, and HAM radio operations of W3OHY, Tom Jones. Including a few anecdotes, this made him more familiar to the other club members. *(Another idea to be “reincarnated?”).*
- K.U.I, by W3HKZ, Ed. “A CB Multiplexer” was an April Fools article describing a high power transmitter with all of the CB channels contained on sub carriers. Details can be read in the article on W3CCX.com. *(I wonder how many “fell” for the description.).*
- On May 8th, the U.S.S. Josephus Daniels *(named to honor the Secretary of the Navy from 1912 – 1920)* was to be commissioned, and would begin operation of an amateur station. Contacts on 14.3 MHz were solicited, with a “beautiful QSL card” for each contact.
- Armed Forces Day on May 15 will provide the opportunity to receive QSL cards from a number of military stations via Military to Amateur cross-band operation, or simply reception reports. Station frequencies and modes available (CW, SSB and RTTY) were listed. *(I have to check the basement to see if I still have my certificate.)*
- Packrat Picnic Announcement. Second Sunday in August. Prizes, games and flea market to be held as usual at the Ft. Washington State Park in Flouertown. Admission, \$1.00 per family. *(Hundreds typically showed up. Why can’t we have a similar turnout for today’s picnics?).*

- Oscar-3 additional information. Added to the last page was an article with additional details on the design, construction, and operation of this 3rd in the Oscar series. *(Remember this issue was before “word processors”, with Helen typing “Stencils”. Moving sections around was not practical because it meant redoing all the stencils.).*
- Nice note to Helen, our Cheese Bits editor, received from W8HHS, Doug Demaw, the former editor of The VHFer and then the Assistant Technical Editor for QST. “Have thoroughly enjoyed (and approved of) your newsletter. I hope you will continue with the righteous use of the press privileges.”
- Eight pages, double-sided, heavy stock, legal size. Postage still 4-cents.

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 and read the full issue posted there by our Webmaster, Ron, W3RJW).

thirty, de K3IUUV



N2EME: 10 GHz EME & Terrestrial Ops in April

Just a quick note that may be of interest to the 10 Ghz microwave guys particularly as we may be in 10 Ghz terrestrial range to many of the Packrats.

The EME Rovers, N4EME, are planning on being operational from FM25 North Carolina the week of the 18th April until the 26th April. 10 Ghz operation most likely starting the morning of the 20th or 21st due to QRL commitments. We will be mostly looking for EME contacts but terrestrial tries are more than welcome too.

We will be running WA3LBI's portable 2.4m dish and 250w TWTA. We hope that pretty much anyone will try to hear/work us by pointing their normally terrestrial set ups at the moon. During station tests Jim has already worked VK7MO who was using a 30cm (?) dish and 45w. It would be nice to see how much smaller we can get. It would also be a good time for people to try out their PA0EGH LNB RX, <http://www.pa0ehg.com/dl0shf2.htm>, described in the December 14 issue of 432 and up EME news.

W4AS has just started putting some information together on a webpage so that people may contact us for skeds as well as confirm details closer to the date. <http://www.emerovers.com>

The aim of the EME Rovers is to put different states on the moon with the aim of encouraging small stations to consider aiming their 10 Ghz gear skyward. After all wouldn't a 3cm WAS look better on your wall than a 160m award?

Please feel free to contact us at skeds@emerovers.com for more information or to discuss common moon times. We hope to publish a list of skeds on the EME Rovers web page so that people will know when to look lunar even if it is just to test their RX.

Paul
N2EME

WA3SRU ARRL DX 2015 Results

ARRL DX Contest, SSB

Call: WA3SRU, Operator(s): WA3SRU
Station: WA3SRU
Class: SOAB LP
QTH: EPA
Operating Time (hrs): 28:24

Summary:
Band QSOs Mults

160:
80: 22
40: 40
20: 135
15: 214
10: 289

700 234 Total Score = 490,698

Club: Frankford Radio Club

Comments:

Had a great time. Best score for me yet. Still have a lot to learn. Everything worked fine except no rig control. Had to keep on top of band switching. Put in 28 1/2 hrs and need some recovery time. My logging program, (N3FJP), didn't show multipliers by band, only the total multipliers.

Joe WA3SRU

Events, cont'd from P 19

Spring Sprints Microwave, 902 MHz and up:—Contest Saturday, May 2, 2015 from 8 AM - 1 PM local

Warminster Hamfest May 3, 2015. Middletown Grange Fairgrounds. 576 Penns Park Road, Newtown, PA 18940. Details: <http://www.k3dn.org/hamfest.htm>

Spring Sprints 6M—Contest Saturday, May 9 2015 from 2300Z until 0300Z Sunday

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Events

For inclusion, please direct event notices to the editor.

Spring Sprints 2M—Contest Monday, April 13, 2015 from 7 - 11 PM local. See <https://sites.google.com/site/springvhfupsprints/home/2015-information> for details

York Hamfest — Saturday, April 11, 2015. Elickers Grove Park, 511 Roth Church Rd, Spring Grove, PA. Details: <http://www.yorkhamfest.org/>

Eastern VHF/UHF/MICROWAVE Conference April 17 - 19, 2015. Manchester CT. Sponsor N.E.W.S. Chairmen W1GHZ, WZ1V, K1MAP. See p.15 and <http://www.newsvhf.com/vhfconf.html> for details.

Spring Sprints 222 MHz—Contest Tuesday, April 21, 2015 from 7 - 11 PM local

Spring Sprints 432 MHz—Contest Wednesday April 29, 2015 from 7 - 11 PM local

2 GHz & Up Contest — May 2-3, 2015. See article elsewhere in this issue

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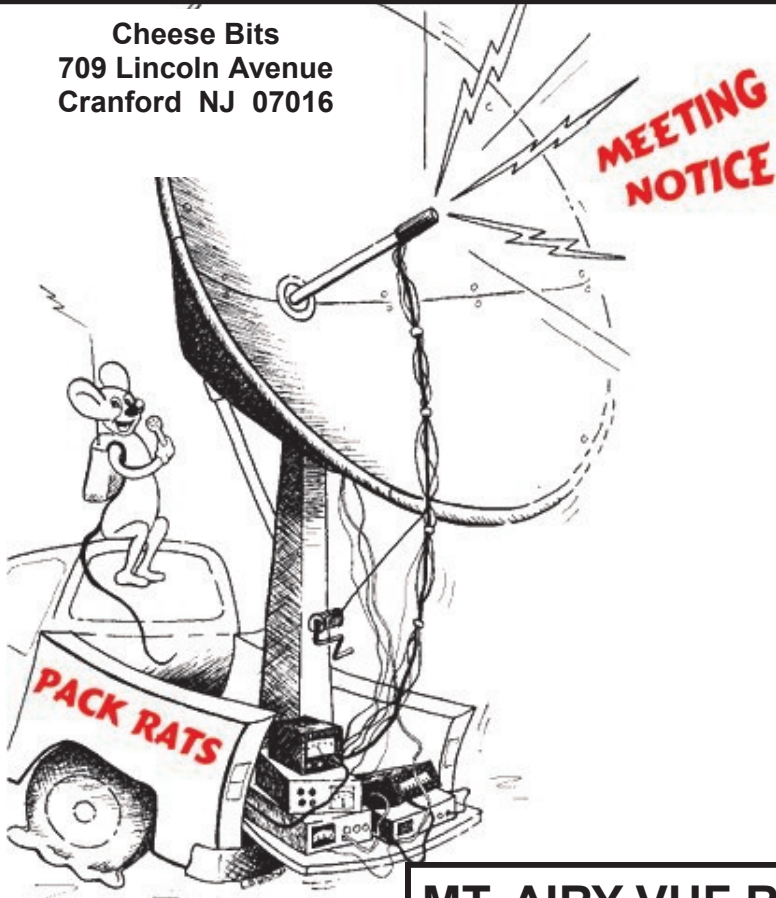
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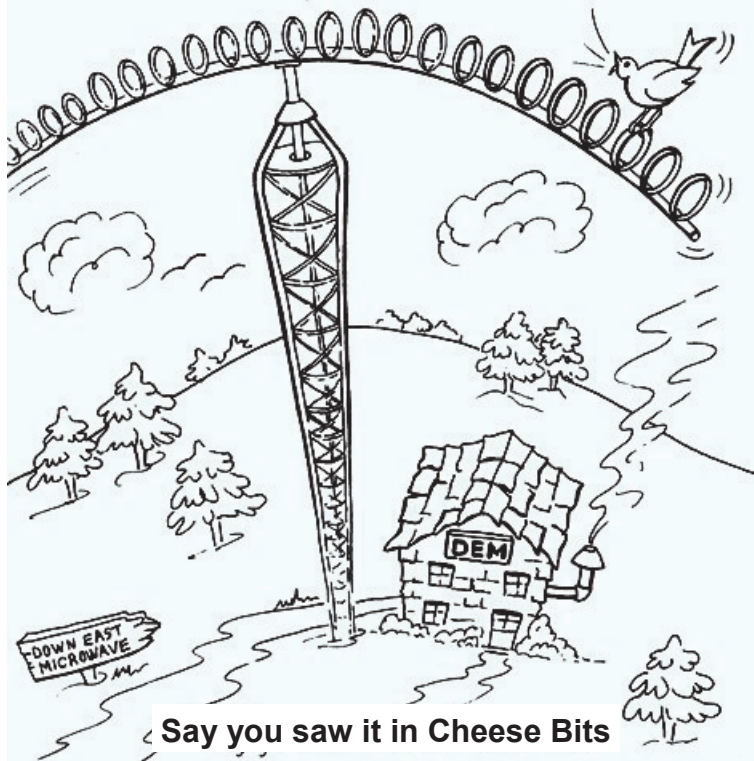
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