



The ORC Newsletter

Official publication of the Ozaukee Radio Club, Inc. Mail all contributions to the editor, Tom Ruhlmann, W9IPR, 465 Beechwood Dr., Cedarburg WI 53012 (phone 262 377-6945). Permission to reprint articles published in any issue is granted provided the author and the Ozaukee Radio Club Newsletter are credited.



ORC Repeaters on 146.97, 224.18 and 443.750 MHz - Callsign W9CQO

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Number 12

From the President

De Ken Boston (W9GA)



We are now in the Christmas season, and I hope you have gotten all your shopping done! Haha, I know, most of you probably have not even started, or have just done a little bit of their shopping. In my case, my wife and myself went up to the Appleton mall a few weeks ago, prior to the Thanksgiving weekend, and joined my brother and his wife, for a day of shopping in the relatively uncrowded mall. We still have a few things to go, and I am glad for Amazon, which makes life much easier.

With elections for the slate of officers to serve for 2014, we are still looking for willing volunteers to serve, either as vice presidents or other positions that you feel can best fit YOUR strengths. Again, an organization such as the ORC needs to have a turnover of people in these positions, both to give the members who have served a chance to step down or shift responsibilities, and to get fresh ideas and energy into the leadership.

Our program for this coming meeting will be by Gary K9DJT, who will share his experiences with getting antennas up and operating in order to take advantage of the current cycle 24 peak. He has put up a variety of HF antennas, for multiple bands, and has done this on a typical city lot without copious space available. This should be an interesting talk, and well worth catching.

See you at the Grafton Senior Center on Wednesday December 11, 2013; starting at 7:30 PM, although doors open at 7:00 PM for general assembly and chatter. Forget the cold, just come and join in with the folks!

73 Ken W9GA

DX'ing & Contesting

De Gary Sutcliffe (W9XT)



I hope you have been taking advantage of the great conditions on HF. During November the solar flux broke 180 for the first time in the current cycle. The higher HF bands were really great. We even got a short 6M F2 layer opening, possibly the first one this cycle.

Conditions dropped a bit for the CQWW CW DX Contest weekend, but they were still very good. I operated all band, low power. Even without the amplifier I managed to make 1284 contacts, including working over 100 countries on each of the 20, 15, and 10 meter bands. Forty meters was also very good. I could not believe all the stations I got first call on that band. I even started to work European stations at about 2:00 in the afternoon on 40 Meters. 40 is normally considered a night time DX band.

While the conditions have dropped a bit, they should still be really good for the ARRL 10M contest on December 14-15 (UTC). Local time, this starts at 6:00 PM on Friday night and lasts 48 hours. You send the signal report and state. DX stations send a signal report and serial number. Work anyone you hear.

If you have not tried contesting, the ARRL 10 Meter contest is a good one to get your feet wet. You can work phone, CW or both modes. When the band is open, you can work the world more easily with a small station than any other band. It is also a big band with plenty of room to spread out. During the CQWW Phone DX contest in October, there were stations from 28.300 to over 29.150 MHz during the morning European opening. That was 850 KHz of stations to work! I can see that happening again during the 10 Meter Contest. Also, 10 meters is the only HF band that Technician class licensees can operate phone.

The other big contest in December is the other ARRL single band contest, the ARRL 160 Meter Contest. It starts at 2200 UTC on Friday December 6 (4:00 PM local) and runs until 1600 Sunday (42 hours). Unlike the 10 Meter test, this is CW only.

This one is a bit more difficult to get on because of the wavelength for 160M. A dipole is about 260' long. It is difficult to get that to fit in many city lots. It is even tougher to get up to a reasonable height. If you get a 160 Meter dipole up 50', it is like using a 10M dipole at 3' in terms of wavelengths above ground.

Still, it is an interesting band, and some people use a tuner with random length wires and other antennas to give it a try. North American Signals are strong, and sometimes it is interesting to see what you can work. Check out the ARRL website for rules and other information on both the 10 and 160M contests.

Last month I mentioned that the K9W DXpedition to Wake Island was rescheduled. As you remember, it was put on hold at the last moment because of the federal government shutdown in October. They got there and managed to work just over 100,000 contacts. They were pretty easy to work towards the end of their 2 week stay.

December is usually not a big month for major DXpeditions. There are a number of small contest related DXpeditions for the ARRL 160 and 10 Meter contests. It often pays to look for them the week before and after the contests. Usually they will be on bands or modes they will not be using during the contest.

One of these is an operation to J6, St. Lucia, in the Caribbean. There are 8 operators for this, and they will be using their own calls preceded by the J6 prefix. One of them is a friend of mine from the Milwaukee area. Look for Jerry as J6/N9AW. I worked him on 80 Meter CW. He was pretty weak with his Buddy Pole antenna but hears really well. They will be there until Dec. 9.

Hopefully you will be able to make the December meeting where Gary, K9DJT, will be talking about working DX from a city lot. You don't have to have big antennas and amplifiers to be a successful DXer. An old high school buddy of mine, Dan, N9XX, has 5BDXCC and is on the DX Honor Roll. He runs a hidden trap vertical from New Berlin, and I don't think he has owned an amplified in his life. I'm sure Gary will give a lot of DXing tips that you can use in his program.

That wraps up the last installment for 2013. Stay tuned next month for information on the biggest DXpedition in many years and a special announcement regarding the ARRL Centennial celebration. Have a great holiday season!

The Computer Corner



No. 189: What's on the Horizon

Stan Kaplan, WB9RQR

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From time to time, I am amazed by one or another news story relating to science or computing. Here are a few.

A small company called Crossbar has developed a small, postage stamp-sized resistive RAM chip that holds 1 terabyte of data (that is, 1,000,000,000,000 bytes, also equal to 1,000 gigabytes). Since a byte is 8 bits, the chip will hold 8 terabits of data, or 8,000,000,000,000 "on or off" switches, and they stay toggled one way or the other even when the power is off. How would you like to have a terabyte of data in your smart phone? (That is around 50 times what current phones hold.) You could download and save thousands of movies and audio files, rather than having to stream them online.

One news flash I recently heard on National Public Radio concerns the flu virus inoculation you will be receiving or have already received this year. It was sent via the Internet! The story is that, when the current variant of the flu surfaced for the first time in China this year, Chinese scientists sequenced the DNA composition (blueprints) of the virus and sent those blueprints via email on the Internet to the U.S. Our scientists used the blueprints in that message to create an exact copy of the virus here, which they then used to prepare the millions of antivirus shots used to inoculate folks in our country. No need to send the actual virus by courier, as was always done in the past. Just the blueprints were sent so the virus could be reconstructed here, saving the courier time from China to the U.S. That made the antivirus available at least a couple of days early. As one of the recipients of this year's antivirus inoculation, it is fun to think that my shot was designed from data sent over the Internet!

Circuit Scribe is a brand new company that is developing ballpoint pens that allow you to draw circuits on ordinary paper. The conductivity of the drawn line is 50-100 milliohms per square per mil. The water-based conductive ink line will conduct current at about 175 ma on standard paper, higher on smooth paper such as the paper photos are printed on. That means you can draw circuits that actually are circuits! This seems to be a fantastic tool for simple circuit testing or unique applications. Watch for this one – they will be shipping stuff around late spring or early summer 2014. How about putting the ink in your inkjet printer? How about a simple crystal radio drawn on a sheet of paper? All kinds of stuff come to mind.

According to <http://majorgeeks.com>, Amazon.com is working on plans to deliver your orders via unmanned aerial vehicles (drones) that look much like toy helicopters. If approved by the FAA, deliveries could begin in 2015. Watch your doorstep for a mini-helicopter delivery!

Would you like to see a computer topic covered in the Computer Corner? I am always open to suggestions. Send it to me via email at the address above.

Happy Computing!

"The abdomen, the chest, and the brain will forever be shut from the intrusion of the wise and humane surgeon."

Sir John Eric Ericksen, British surgeon, appointed Surgeon-Extraordinary to Queen Victoria, 1873.

Tips, Tails & Tools

You know those plastic tabs that are used to close the plastic bag on the bread? They are useful otherwise as well. I use them to identify the different cables in the ham shack and all the cords of the different chargers in the kitchen. They are also useful on key rings to identify what the key is for. I also have read where others use them at the end of a roll of tape to keep the end available and not stuck to the roll.

Club Static

Be sure to keep Joyce Harvey (WB9IMA), Nels wife, in your thoughts and prayers as she recovers in rehab from an infection that kept her in Columbia – St. Mary's for several weeks.

It was great to see Leon (K9GCF) at the meeting as he is recovering from surgery and still undergoing chemotherapy.

Its dues time – dues are due. Remember you need to be a paid up member to vote for the 2014 officers.

Reward Offered by Leon Rediske

(W9GCF)

A reward of **500 Microfarads** is being offered for information leading to the arrest of **Hop-a-Long Capacity**. This **unrectified** criminal escaped from a **Weston Primary Cell** where he had been **clamped in ions** awaiting the **Gauss** Chamber.

He is charged with the induction of an 18 turn coil named **Milli Henry** who was found **choked** and robbed of valuable **joules**. He is armed with a **carbon rod** and is a **potential** killer. If encountered, he may offer a series of **resistance**.

Capacity is also charged with driving a **DC motor** over a **Wheatstone Bridge** and refusing to let the **band-pass**.

He was last seen riding a **kilocycle** with his friend **Eddy Current** and playing a **Harmonic**.

The **electromotive force** spent the night searching for him in a **magnetic field**, where he appeared to have gone **to earth**. They had no success and believe he has returned **Ohm via short circuit**.

Understanding Test Equipment

De Gary Drasch (K9DJT)



This month I would like to explain two convenience type features available on Digital Multimeters (DMM). One is the “Min-Max” and the other is “Auto-Hold”. Although most brand DMM’s have buttons labeled as such, they do not all function in the same manor. As in the past, I will be referencing the FLUKE brand with my examples.

The “Min-Max” button, when depressed while making a measurement will do as it implies, and that is retain the maximum and minimum values while the probes/leads are connect-



ed to your source or device you are measuring. In addition, it will also compute an *Average* value between the *minimum* and *maximum*. For example, if you would like to see how well your regulated 12VDC power supply is actually functioning, you would first turn the main switch of the DMM to measure DC Voltage, connect the test leads across the output terminals of your active supply and then press the “Min-Max” button on the DMM. At this point, you may press the “Min-Max” button, and each time you do, it will first display the *Maximum*, the next press will display the *Minimum* and the third press will display the *Average* measurement. (Holding the button down will turn off the Min-Max function.) Because you haven’t really drawn any current yet, the values should really be close to each other. Now, without changing anything with your test setup, draw some current, e.g., transmit for a couple of seconds, assuming you are also connected to a transceiver. You most likely will see a slight difference in the values when you toggle trough the Min-Max again, but nothing great. If the regulator is poor or not functioning properly, you will notice the *Minimum* value much lower than the *Maximum* value. Instead of monitoring voltage, you might want to measure current instead. Just make sure the meter can handle the current in question.

“Min-Max” will work within all the measurement functions of the DMM, e.g., Voltage, Current, Resistance, temperature and frequency. It is important though to remember the proper sequence in which you connect the DMM and turn on the “Min-Max”. Always connect the DMM and start measuring your parameter **prior to depressing the “Min-Max” button.** If you connect the DMM to the circuit with the “Min-Max” already turned on, your *“Min” value will equal Zero!* That is because that is what the *DMM was seeing prior to connection...zero!* Connected in such a manor will display the Max and compute an Average between the Max and Zero. The same thing will happen if you disconnect the test leads prior to toggling through the “Min-Max” values. As soon as you disconnect, the new minimum value is zero!

Use your imagination with this feature. I’ve monitored my line voltage over a period of time and even made remote continuity measurements by using the ohmmeter on a pair of wires, going to the far end, momentarily shorting the wires and returning to the meter to see if my new minimum resistance went to zero or not. It also works great when working on a trailer wiring harness. Connect the DMM, go and depress the brake pedal and then return to the DMM. Did you have a voltage on the correct lead? See, no need to bother the wife or kids to step on the brakes!!!

The other feature is the “Hold” and “Auto-Hold” button. While making a measurement, you might want to retain the reading on the DMM to record somewhere...especially if your short-term memory is starting to fail you. All you need to do, while the DMM is connected, is depress the “Hold” button. Now it is stored on the display so you’re able to disconnect the DMM and carry it over to your PC or desk to record it. To bring the display to normal, just press the hold button again. Now you should be asking, “what’s the dif-

ference between “Hold” and “Auto-Hold?” Have you ever worked around lethal voltages or currents? Like those inside a breaker-panel? How about an HV power supply for you amplifier? These are places where you need to be extra careful of what you are doing. One slip of a probe can damage components or worse yet be a “widow-maker”. This is where “Auto-Hold” or “Auto-Touch” saves the day. Set up the DMM for the proper parameter, in this case let’s say AC voltage. Press the “Hold” button twice, and *AutoHold* or *AutoTouch* should show up on the display. Now carefully go into your breaker panel while watching both hands, having no need to look at the DMM, and listen for a beep. Once heard, remove your probes and look at the DMM. The measured value was retained on the display!!! Now, without changing anything on the DMM, go back in and make a measurement at a different point, wait for the beep, remove the probes, and again look at the display of the DMM. The new value is now displayed!!! So as you can see, each time you touch a different test point, the DMM will **HOLD** the last measurement without ever having to reach over and do anything with the DMM or even look at it while making the measurement. It’s *Automatic!* To turn the function off, just press the *Hold* button one.

Next month I would like to discuss the use of the “Continuity” and “Diode.” functions. You are welcome to ask any questions on the “ORC Radio Chatter” forum board. I look forward to hearing from you.

Just Another Shack – Chuck Curran (W9POU)



Chuck is a man of the region having been born in Brown Deer and growing up in Thiensville. He earned his Novice license in 1962 while in 8th grade and his General Class License as a sophomore at Homestead High School in 1964. At that time you had to go downtown to the Federal Post Office building to take your exams before an FCC administrator. In 2008 Chuck completed his Extra Class License exam at AES.

His mentor during the early years was Fousten Prinz (WA9GEA) who was an ORC member during the era when the club met at the old school house in Port Washington. From Homestead High School Chuck went to University of Wisconsin Madison from which he graduated in 1972. Although his degree was in Industrial Engineering his real love was electronics and during college he belonged to an electrical engineering fraternity which continued to nurture his interest in amateur radio.

Over the years Chuck has worked at several different companies in the manufacturing environment. His first job was with Harley Davidson and then Sprague Electric who made capacitors and circuit boards in Grafton. Then he moved on to Dorr Electric (Leeson Electric) where he was the manufacturing manager and he recently retired from Spartech (PolyOne) in Sheboygan where he worked with extruders and variable frequency drives.

Chuck has been an ORC member for many years and has assembled an enviable station consisting of an FT-2000 with DMU, Alpha 1500 final amp, Heathkit HW101 transceiver and the Collins line 75-S3 receiver and 32-S3 transmitter. You may recall his recent meeting presentation on the 55’ tower he installed and his previous presentations on his home brew final amp using three 4-500 tubes and the rebuilding of a prop pitch motor to a beam rotor.

Yes Chuck is really into HAM radio and especially enjoys repairing and restoring older tube type HAM and broadcast equipment. Over the years his other hobbies included an interest in aircraft and bow hunting during deer season.

Minutes– November 11 th, 2013

Gary L. Drasch (K9DJT) - Secretary

November 13, 2013

President Ken Boston, W9GA, called the meeting to order at 7:30 p.m.

Stan Kaplan, WB9RQR, reported that Dave Barrow, N9UNR, had back surgery with complications. He has been moved to Cedar Crossings, Garden Level, Room 4, for rehab. Cedar Crossings is attached to St Joseph's Hospital which is just west of the Washington County Fairgrounds on Pleasant Valley Road. Stan said he was sure he would appreciate a call or visit. You may check with him first by calling 262.677.6843.

Stan was also looking for a home for an ORC PC to be used until FD next year. Naomi Berkowitz, KC9YES, took advantage of the opportunity.

Announcements/Show-and-Tell:

Tom Ruhlmann, W9IPR, said he had two people signed up for a General Class license course. He needs one more person in order to do it. He also commented that he a cash drawing and also a Digital Multimeter (DMM) at the Milwaukee Radio Club (MRC) swapfest. He also showed us an example of fine work he performed on refinishing a Viking Ranger cabinet using a "liquid masking" product and air brush. Super job Tom!!!

It was also mentioned that Bob Truscott's wife, Jean, was not doing very well.

Jim Albrinck, K9QLP, brought up the Saturday morning breakfast, which is not a club event but in which many attend, as possibly having a second meeting spot which is more centrally located. There will be a small group of people meeting at the [Flipside Cafe & Grill Restaurant](#) in Grafton at 7:30 this Saturday morning. He will report back as to the feelings of the attendee's.

Program:

Our own club president, Ken Boston, W9GA, provided all of us some tricks on how to successfully tune a Gamma Matched antenna. And he managed to do it without bringing in any math! Well, almost... Good job Ken. Thank you!!!

50/50 Drawing:

Kristian Moberg, KC9TFP, ran the drawing and Tom Ruhlmann, W9IPR, Mr. 50 Cents won it. Go figure...

Auction:

Stan Kaplan, WB9RQR, acted as our lively auctioneer. As usual, it was entertaining while at the same time generated some money towards the ORC Scholarship Fund.

Business Meeting:

Ken Boston, W9GA, reminded everyone that elections will be taking place next month. Again, he asked members to consider serving the club in some capacity this coming year.

Committee Reports:

1st VP Report: Art Davidson, AC9CD, reported that after reviewing the results of the survey, it was decided to change the name of the Post Everything Party (PEP) to the ORC Annual Awards Banquet and Raffle. (Survey results are available to anyone interested.) He extended his appreciation to Kristian Moberg, KC9TFP, who will be coordinating this coming year's event. Thank you Kristian!

2nd VP Report: Brian Skrentny, N9LOO, didn't have anything to report.

Repeater VP Report: Tom Trethewey, KC9ONY, reported that the 2 meter and 440 machines were working fine. He referred to Jim Albrinck, K9QLP, as to the status of the 220 machine. Jim said he had placed an order for a replacement antenna made by Hustler called the Spirit, a commercial type, along with 135 feet of hard-line. It will be mounted on the side of the tower and should be emitting approximately 60 watts when completed. He also said that Ralph Doll, N9LAD, of Oak Creek will be doing the testing.

Secretary's Report/Minutes: Nancy Stecker, KC9FZK, motioned to accept last month's meeting minutes and Bill Howe, KA9WRL, seconded the motion. The motion passed.

Treasurer's Report: Report was deferred because of the treasurer's absence.

Fall Swapfest:

Tom Ruhlmann, W9IPR, didn't have anything new to report on the Fall Swapfest. Bill Howe, KA9WRL, said the fliers are already out for the May swapfest.

Old Business:

Bill Howe, KA9WRL, quickly commented on a nice article in the Milwaukee Journal Newspaper relating to ham radio. Our own Tom Ruhlmann, W9IPR, was mentioned in it.

New Business:

There was none.

Adjournment:

Stan Kaplan, WB9RQR, moved to adjourn and Art Davidson, AC9CD, seconded the motion. Passed. The meeting adjourned at 9:15 PM.

Member Attendance:

There were 31 members present along with 3 guests.

Actual attendance sheet is available upon request in a PDF format. Please contact Gary via email at: k9djt@sbcglobal.net

Respectfully submitted,

Gary Drasch, K9DJT
Secretary

AGENDA

Dec 11th, 2013

1. 7:00 – 7:30 PM – Network & Rag Chew
 2. Call to order: Ken Boston (W9GA)
 3. Introductions.
 4. Announcements, Bragging Rights, Show & Tell, Upcoming events, Etc.,
 5. Program:
 6. 50/50 – Kristian Moberg (KC9TFP)
 7. Fellowship Break
 8. Auction – Stan Kaplan (WB9RQR)
 9. Presidents Report – Ken Boston (W9GA)
10. 1st VP Report – Art Davidson (AC9CD)
 11. 2nd VP Report – Bryan Skrentny (N9LOO)
 12. Repeater VP report – Tom Trethewey (KC9ONY)
 13. Acceptance of Minutes Gary L. Drasch, K9DJT
 14. Treasurer's report – Dave Barrow (N9UNR)
 15. Committee reports.
Other:
 16. OLD BUSINESS
 17. NEW BUSINESS
 18. Adjournment to ?

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The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton
Wednesday, Dec. 11th

7:00 PM – doors open

7:30 – Membership Meeting