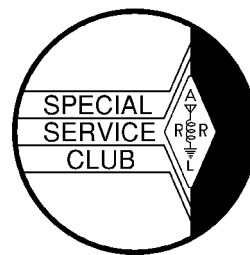




The ORC News -

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AMATEUR RADIO

ORC Repeaters on 146.97, 224.18 and 443.750 MHz -

Callsign W9CQO

Web site: <http://www.ozaukeeradioclub.org/>

Volume XXIII

November 2004

Number 11

The Prez Sez

By Vic Shier (KB9UKE)

Much of the club equipment has been moved from the barn to the shed. Some items remain that will need to be moved at a later time but it is not a significant amount. However, there is a lot of stuff that should be disposed of. Stan (WB9RQR) suggested we auction off what we can and the rest will have to go to a dumpster.

Nels (WA9JOB), with the help of a number of club members, has prepared one of the old TV racks to hold the repeater equipment. It has been striped, cleaned and modified, and it is in location at the Cedarburg Fire Department. The next step will be to install the antennas and feed line. Thanks to everyone for helping with this transition.

Nominations for next year's officers will be brought to the floor at the December meeting. Give some consideration to running for office. Clubs are healthier when there are new members on the board bringing in new ideas.

We had a great auction last month thanks to the generous donation from Fred Linn (W9NZF.) Many of the items were old, hard to find, components that only a ham radio operator could love. When it is time to clean out some of your radio clutter, consider bringing it in for the auction. There will likely be someone there who would be happy to have it while helping the club coffers at the same time.

73's and remember...It's a hobby!

Contesting

De Bob Truscott (W9LO)

For those of you who get the newsletter by e-mail this is the last call for the November CW Sweepstakes Contest. If you get it by "snail mail" you may miss it. It's one of the top CW contests of the year, and great practice for next Field Day. Jump in there for a few hours and have some fun. Nov. 6-8---Rules in Oct. QST, page 107.

The SSB Nov. Sweepstakes Contest weekend is Nov. 20-22---Rules in Oct. QST, page 107. I'm not very big on phone contests, but if I were, I'd have to say this one would be my favorite, even above Field Day. (I guess that's because I have never worked, and never will work, phone on FD---I prefer to stick with the "superior" mode.) Bad attitude, right? In spite of that, I plan to put in as many operating hours on that weekend as the Green Bay Packers and certain other NFL team's schedules allow. (I'll also probably have to take time out for the WI Badgers on Saturday; depending upon what time they play.) I'm a casual type of phone contester, and don't expect to make a respectable score--just want to have a little fun, and see how "the other half" lives. And, it's good practice for me in case all the CW rigs fail at the same time on some future Field Day. I hope to log a bunch of club members on both SS weekends.

Also, look for the CQ World Wide CW DX Contest on Nov. 27-28. That's another great one. Rules in Oct. QST, page 99.

Have fun contesting.

Upcoming Events

Nov. 6th - MRC Swapfest at Waukesha Expo.

Nov. 10th - Membership meeting

Jan. 8th - West Allis RAC Swapfest at Waukesha Expo. Center

April 16th – Ns9RC Swapfest at Grayslake fair-grounds
May 7th – ORC Swapfest at Circle B
July 9th – South Milwaukee Swapfest

Tips, Tails & Tools

(Will return next month, ran out of space)

November 10th – Membership meeting at the Grafton Senior Center. The program will be a presentation by Mark Tellier, titled: "FROM PERMIT TO FEEDLINE" or How to get approval to put up a 40-foot tower in Brown Deer.

Club Static

Gregg Lengling, W9DHI, notes that this year marks the 100th anniversary of the invention of the "Fleming Valve" also known as the "TUBE". In 1904 Sir Ambrose Fleming patented the Valve Diode and thus led us faster down the path of electronics. So Happy 100th Birthday for the VALVE!

Kenwood Getting out of High End HF Business? by KORS on September 7, 2004
<http://www.eham.net/forums/mailto/3?id=1577>

Yes, it's true. Kenwood hasn't built a "high-end" radio since the TS-950SDX. It's rumored that a representative from their marketing department recently told (strictly on the condition of anonymity) a US ham visitor to Japan that due to impending worldwide deployment of BPL that they feel amateur radio products are no longer a viable proposition. They intend to use the existing tooling for TS-2000's to build DVD players. ; ^)

I certainly hope they are wrong, but then if BPL takes off, HF hamming will be impossible.....
Leon.

If interested in receiving donated computer(s), please contact Mary Mezera at (608) 240-5254 or mary.mezera@doc.state.wi.us with any questions about the Computer Recycling Program.

Please also visit website at www.buybsi.com to gain more information on the Computer Recycling Program.

UK Amateurs Gain 7.1 - 7.2MHz

Ofcom and the Radio Society of Great Britain are pleased to announce that all necessary procedures required for early access to the 7.1 to 7.2MHz spectrum for all UK radio amateurs have been finalised and that access is allowed from 0100UTC on Sunday 31 October 2004. Early access is granted on a Secondary (non-interference) basis using a maximum of 26dBW (400 watts) PEP.

Notices of Variation for the Foundation, Intermediate and Full licences have been published on the Ofcom website.

Morse code modes are used between 7.1 and 7.2MHz. B

It is recommended that for the time being only voice and band planning issues on 7MHz will be kept under regular review and will be dependent on the number of administrations granting early access to this band prior to full Primary access on 29 March 2009.

The RSGB would like to offer its appreciation to all parties involved in the consultations, in particular the broadcasting industry, the UK Ministry of Defense, the Radio communications Agency and its successor Osco.

Please note that access to the extra 100 kHz is only allowed from 0100UTC, and not midnight UTC, on Sunday morning. Or, put another way, from 2.00am local time, at which time the clocks are put back by one hour. Local time will then be 1.00am, the same as GMT or UTC.

FIRST TRANSISTOR RADIO DEBUTED 50 YEARS AGO

Remember the first transistor radio? Last Monday, Oct. 18, marked the 50th anniversary of the Regency TR-1, the first transistor radio. The radio used four germanium transistors and operated on a 22.5-V bat-

tery. It cost \$49.95. For information on the Regency TR-1 and links to other Web sites with information on early transistor radios, see www.regencytr1.com. For commentary on the anniversary, a look at how technology has progressed and where it might be headed, see Rupert Goodwin's commentary We're fifty years into the future.

APRS – Is it for you?



Chris Jacobs, N9VKC, gave an excellent review of APRS at our Oct. Meeting. He explained what it is and what it can do for you. Contact him directly or www.geocities.com/n9vkc for more information and the source of related kits.

APRS in a nutshell

APRS which stands for AUTOMATIC PACKET/POSITION REPORTING SYSTEM was invented by Bob Bruninga, WB4APR for tracking of mobile stations and the exchange of data within large groups of hams. I originally became interested in APRS when it was first coming out in the early nineties. I had a 386sx 16 MHz computer with 2mb of ram which was fairly robust for the times and running some flavor of DOS. However those first versions of APRS required a GPS unit that cost as much if not more than my HF rig. Ouch, Needless to say I didn't get into GPS head over heels. Now days you can pick up a good GPS receiver for under \$50 (eBay) and that along with some simple electronics and a 2 meter rig you're set to join the APRS crowd.

What does APRS do? Why do you want to use it? Well the answers to these questions are simple. APRS as it is most often used is to track a mobile station. You don't need to have an APRS station to do the tracking either. There are sites on the internet that allow anyone (Ham or not) to type in your call and find your current location, heading, elevation, and speed. (Don't worry about the speed hi hi you can adjust the settings to show no more than say 65?) This is very handy when traveling out of your normal area so that loved ones can see where you are at. I've also run into the situation where I was in Chicago and did not know where I was going and another Ham on a local repeater was able to see me on his APRS map and give me directions to my intended destination. As long as an APRS station is not able to transmit via a mic or key or anything other than the digital GPS information then a Ham can put these in their car and non hams can drive about with the unit running and be found at any time. I can see a use for this during the winter when non ham loved ones are out on the road and it feels good to be able to find them in an instant. Another popular use for APRS and one I find especially interesting is weather reporting. There are many consumer weather stations available that dump the weather data collected to a serial interface. Many hams take that data and make it available on the APRS network. In fact so many do so that the weather service looks to these highly accurate readings often to gather data for their predictions. Some Weather stations are even mobile so that storm spotters can give very accurate data instantly. Many TNC's are setup to receive Wx data and it really is plug_and_play. Ares and RACES groups see the advantage to APRS as well. Stations on the APRS network have their location graphically represented on a map. This makes things a lot easier for those at net control dealing with a situation when you can see exactly where everyone is. Think of a search party for a missing boat or plane when all the searchers locations can be depicted in real time on a map. You can very effectively cover areas instead of having some groups double over another group's area. When the missing vehicle/person is found the

exact location is instantly known. Some K9 units carry APRS so that the dogs can be more effective. Even things as common and as mundane as parades can be more effectively watched and guided when you have APRS showing exact locations of stations.

If you can currently setup a packet station or have the pieces laying around your QTH for the assembly of a packet station then you have all you need hardware wise to get started with APRS. Essentially you need a TNC, 2meter radio, and a computer for a base station and for mobiles you need a GPS receiver, 2 meter radio, and a GPS enabled TNC. There are several really good APRS programs out there and one for every flavor of OS currently running on computes. DOS, JAVA, MAC, LINUX, UNIX, SUN, WINDOWS 3.11 TO XP. I currently use UI-View32 and have found it to be the easiest to configure and get running. I've made links to these software programs and hardware sites on my web page. www.geocities.com/n9vkc When setting up your base station you don't need a GPS (unless your house likes to go mobile once in a while). Have a fellow Ham with a GPS unit com over and give you your Coordinates and you can enter these manually. The national frequency for APRS is 144.390 MHz and I bet if you tune in right now you'll hear some activity. For mobile users I found this little gadget that is got to be just as nifty as these things get. The Tinytrack III is a self contained TNC that you program once from your computer and then plug in your radio and GPS unit. I had one of these units at the October meeting. They are inexpensive and even cheaper for those who like to put together kits. The Tinytrack III comes either assembled and tested or in Kit form. My mobile setup is small enough including my 2 meter HT to fit inside a shoe. Mounting applications are endless. I should mention at this point that Kenwood makes several very fine radios that have TNC's built in. Add your GPS and your set for APRS. Personal setup and application could go on for a long time here. If you're interested please look at my web page and or get hold of me and I'd be glad to help you out.

I'd like to cover one other item relating to APRS in this very short article and that is how the APRS network works. OH NO this could be boring and complicated, NOT SO!! The real beauty of the APRS network is that for the most part it is self sustaining and does not need you to know all the network paths and access codes to get from one station to another. APRS works much like the ORC's repeater. One station transmits and the repeater picks up that weak station and repeats it so that everyone in the coverage area can hear the original station. APRS works much the same only think of other repeaters hearing the ORC's repeater and then passing along your information to all of their coverage area. These are DIGIPEATERS. I urge anyone setting up a base station to turn on the DIGIPEATER function in their software. This allows low power mobiles passing through your area to stay on the network. Unlike repeaters which we want to have a huge coverage area the DIGIPEATER concept is much the same as cell phone towers. Having many small DIGIPEATERS covering smaller areas will increase the overall bandwidth within a single frequency. When you load your software you can see stations from all over the world!! Yes all over the world. Hmm doesn't all that traffic boggle the network? NO The other type of station is the IGATE (you can run both IGATE and a DIGIPEATER at the same time). The Igate is as it sounds a gateway to the internet. Most of the heavy networking is done over the internet. The RF networking is all local as I mentioned above. This allows a lot of bandwidth on a single frequency. If you have broadband internet at home you can be an IGATE. When the IGATE option is turned on your station will relay to the internet APRS servers all the traffic you hear and that in turn is available to anyone connected to the internet. That is how others can log onto the internet web sites and see your location from anywhere in the world. Another neat thing is to see areas that are troubled with heavy storms (Hurricanes n such) and to find WX APRS stations nearby and watch the WX data in real time.

I've covered a lot of material here in a short amount of time. In fact I think I covered this all in a nutshell. HI HI. The ARRL has a great little

book *APRS Moving Hams on the Radio and the Internet*. All of the information in there can be found on the internet but it is nice to have it at your fingertips. I've setup a page with a ton of links to APRS sites and locations to get hardware and software. Check out www.geocitites.com/n9vkc. I hope to see some of you on the network soon.

73's

Chris Jacobs N9VKC

Holes Barred Installation

De Tom Ruhlmann, W9IPR

Unintentionally we bought a new Buick LaSaber, which led to the discussion as to how the 2-meter Icom 207H radio would be installed. I finally agreed that it would be installed without any holes being drilled in the new car and the following pictures document the process.



The Buick has a metal trunk lid so a dual band magnetic mount antenna was used. The co-ax from the antenna is small so it was laid along the trunk lid gasket to enter the trunk area. I have used this approach before without damage to the co-ax.



The RG-58 co-ax from the antenna was then passed through a wiring harness passage behind the rear seat.

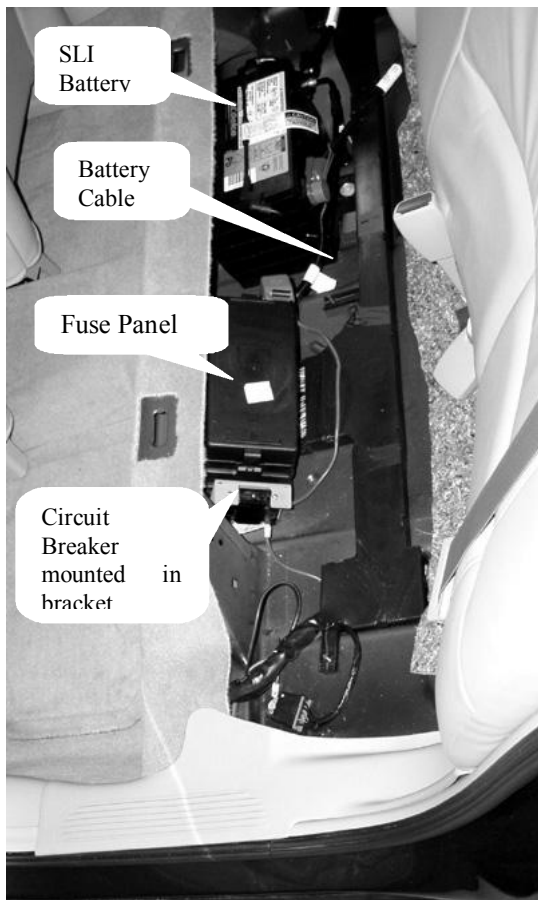


Since the cable passed along side a wiring harness there was no hole required in rear bulkhead.

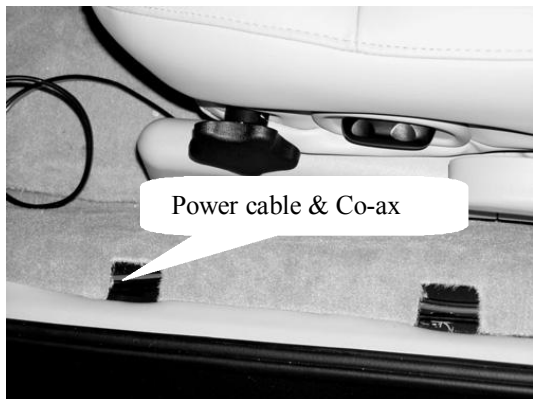
The Buick LaSaber has the starting, lighting & ignition (SLI) battery mounted below the rear seat so this made access quite convenient.

The battery directly supplies an adjacent master fuse panel. The fuse panel had an input bolted termination from the battery that I was able to also utilize to supply power to a 25 ampere DC circuit breaker which I mounted to the outside of the fuse panel. The circuit breaker could then be used to safely supply power to the 2 meter rig via an insulated #10 stranded wire cable. I used a #10 wire to minimize voltage drop during

the higher current draw while transmitting. It is worth noting that a 25 ampere AC circuit breaker is different from a DC breaker and as a general rule could only handle about 10 amperes DC (40% of the AC rating).



The #10 power cable from the circuit breaker and the RG-58 antenna co-ax were then slipped under the floor molding and fed in the direction of the driver's side door.



The molding was temporarily removed below the driver's seat to allow the wires to be fed forward and remain out of sight and protected by the replaced molding. These moldings are not screwed in but snap in and out.



The wires were then secured to the underside of the dash using tie-wraps with adhesive pads and routed to the area of the transceiver. The original fuses were retained at the transceiver and the 30 amp Anderson power pole connectors were used to make the power connections. I prefer these as the common power connectors since it allows the transceiver to be easily pulled from this car and used in the truck or as a base station both of which are also equipped with these "power pole" connectors.

And there you have it – an installation with no holes drilled and a happy wife.

Minutes – October 13, 2004

De Carol Szudrowitz, KC9CBC
(As recorded by Tom in Carol's absence)

Announcements: Vic KB9UKE reported that the Milwaukee club is requesting assistance from interested ORC members with the JOTA

(Jamboree on the Air) event coming up on Sunday October the 17th.

Program: Chris N9VKC presented an interesting program on APRS. APRS was developed by Bob Bruninga WB4APR for tracking and digital communications with mobile GPS equipped stations with two-way radio. In the 12 years since its introduction, it has grown to encompass just about every aspect of Amateur Radio. Chris was a pioneer BBS 'host'. His interest in Amateur Radio really took off after he learned from his 'Elmer' Walter Stasiowski WA9KFR, about the digital modes, such as packet radio that Amateurs were using. Chris explained that an APRS system could be quite simple. A TNC kit can be built for about \$39.00 and free software can be downloaded for the cost of a small donation. He promised to list some of the links to this information on the 70 cm website. The 70 cm website can be reached from OzaukeeRadioClub.org.

Auction: Stan WB9RQR conducted his October auction with good results. With assistance from Jon KB9RHZ and Ed AA9W money was raised to benefit the club's scholarship fund and the Ozaukee County ARES group – OZARES.

Due to enthusiasm from members for the program and the auction, the business segment of the meeting followed immediately without the usual break.

Treasurer's Report: Reports for August and September were presented and accepted without discussion.

Repeater Report: Nels WA9JOB ask for volunteers to help move equipment from the 'barn' on Saturday October 16th to the new storage site in the area of Hawthorne and "I" (near Lazy Days). Decisions will be made as necessary to dispose of unused club equipment. Due to an OZARES activity on Saturday, the move crew would not assemble until 1:00pm. The following weekend another work crew will be needed for setting up controller equipment and an antenna at the Grafton Police Station. Interested Volunteers should watch the re-mailer for details.

New Business:

Stan (WB9RQR) reported that ORC newsletters from 1996 to the present have been preserved in a fine-looking professionally bound book. Coincident with getting the binding work done Stan learned of an opportunity to acquire a 35' tower, beam antenna and rotator from Bob Hertzberg N9ICH in Milwaukee. Stan moved for the Club to make the acquisition and the motion was seconded by Leon (K9GCF). The cost would be \$50.00.

Ed AA9W mentioned that it is time to make the annual Club donation to the Foundation for Amateur Radio from the Club scholarship fund. Members concurred that the annual donation is automatic and no vote is needed.

The audit committee members were announced. They are Kent N9WH, Steve K9DXT and Ed AA9W. The committee working on a revision to the Club Bylaws consists of: Tom W9IPR, Ed AA9W, and Jim K9QLP.

Nels mentioned the need, discussed at a recent meeting, to rent club space. He said he would send the name and address of the owner of the space to the Treasurer to issue the \$200.00 payment.

Kent N9WH motioned for adjournment and seconded by Ed AA9GT.

Attendance:

Ed AA9GT, Jon KB9RHZ, Stan WB9RQR, Dave N9UNR, Ed AA9W, Gabe WI9GC, Kent N9WH, Don W9VSC, Nels WA9JOB, Mark AB9CD, Roger, W9UVV, Herb WA9UVK, Ron W9BCK, Nancy KC9FZK, Ray W9KHH, Bob W9LO, Paul KB9WCC, Mike KC9GDV, Steve K9DXT, Jim K9QLP, John KC9FJX, Tom W9IPR, Terry KA9RFM, Ed AA9W, Leon K9GCF, Vic KB9UKE, Paul KD9FM

For Sale, Trade or?

Garmin Street Pilot III Deluxe (lists new \$679.00) voice guided direction (color screen) 128 Meg (Garmin memory)

128 Meg Additional Garmin memory (\$98.00)
Garmin USB card reader
Garmin Map software version 4.15 and version
5.0 with unlock codes
Garmin (bean bag) dash mount
Additional Ram mount (suction cup) (\$49.95)
I will help install software and unlock codes and
set up if needed on your computer.
Will sell for 450.00
Patrick Murray W9PJM 262 -377-3410

AGENDA

November 10th, 2004

1. Call to order – Vic (KB9UKE)
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program:
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Tom (AA9XK).
9. Repeater report – Nels (WA9JOB)
10. OZARES report – Jon (KB9RHZ).
11. Committee reports.
12. OLD BUSINESS
13. NEW BUSINESS.
14. 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, Nov. 10th

7:30 PM