



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.



AMATEUR RADIO

**ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: <http://www.qsl.net/orc/>**

Volume XXI

July 2002

Number 7

The Prez Sez

By Leon Rediske K9GCF

Wasn't our 2002 Field Day something fantastic? Everyone helped out, things went smoothly for the most part, even the weatherman helped, & a good time was had by all. Probably most stations set records. Bob W9LO, reported over 920 CW contacts, a new record for his crew. My station consisting of Vic KB9UKE, Jim KA4UPW, Don K9QEN, & Leon K9GCF, amassed 463 QSO's for a total of 1450 points. I'm writing this on Monday morning, and haven't any further reports on other stations at this time.

Jeff KB9QQE's server & software did a fine job, and it spurred a competition between 20 & 40 Phone stations. They were running neck and neck near the end, over 400 contacts each, and I never did find out who took the honors.

The GOTA station had about 190 Phone contacts and 23 PSK contacts.

The Satellite and 6 meter group found 6 Meters to be open and nearly tripled the number of contacts they made last year.

We had a fine crew to load at the site & unload at the barn, a real treat this year for many of us. Thanks to those that stayed & helped.

The food was excellent, plentiful, and the food committee did a super job keeping the rest of us "fueled up" to do our jobs. Skip KA9DDN, did a fine job with Safety Officer, the Food Committee Chairman Jane KB9SYI, had a great crew of Cindy KA9PZG, Rosie KB9PZK, and others I don't know at this moment. Of course, food cannot be mentioned without mentioning Stan,

WB9RQR, for his 4 (Turkey of the year?) fantastic dinner.

The ORC Electric Company did a fantastic job once again for keeping the juice flowing. Thanks go out once again to Terry KA9RFM, Bob N9NRK, and Ed AA9WW, for their efforts. I even have to mention Jake Remington, KB9ZOR, the 12-year-old ham that helped us immeasurably.

Gary WI9M, along with the Field Day Planning Committee, did another admirable job of planning and executing this years effort. Thanks to all.

The radio link did a fine job of allowing us to connect with the repeater with handy talkie power levels. Thanks for that effort go to Nels WA9JOB.

Tom AA9XK, did another fine job of his ham radio display & media contacts for our event. Jon KB9RHZ, tried in vain to get us on TV with channel 6. Thanks for the many efforts, & the pack-up help, Jon.

I know I've forgotten to thank the many, many, people that helped in various areas of this operation. Please excuse my omissions, and know that your efforts are noticed and appreciated.

73's for now, and see you all at the ORC meeting, 7:30 PM July 10th

Upcoming Events

- 7/06/02- So. Milwaukee Swapfest
- 7/20/02- Fish Day Parade at Port Washington – need volunteers – contact WI9M, WB9RQR or KB9RHZ to volunteer
- 7/26-28/02 VHF Conference - Milwaukee
- 8/10/02- Circus City Swapfest-Baraboo

09/21-22/02 – FM Club Swapfest-Grayslake IL
11/02/02-MRC Swapfest – Waukesha Expo
01/04/03 – WARAC Swapfest–Waukesha Expo

VHF Conference-Milwaukee

From the Badger State Smoke Signals

The Central States VHF Conference will be held **July 26-28, 2002** at the Sheraton Four Points near the airport in Milwaukee. This year's conference is hosted by the Badger Contesters, the Wisconsin and Northern Illinois VHF/UHF weak-signal group. They are working hard to create a conference rich with interesting presentations, fun activities, and great fellowship.

The CSVHFS Conference will feature a noise figure clinic, antenna range, dealers, flea market, and technical presentations on many aspects of VHF/UHF operation from contesting to moonbounce. ARRL President, Jim Haynie, W5JBP, is the banquet speaker. Complete info and registration forms are available at www.csvhfs.org.

Contesting

7/1/02 Canada Day Contest – CW/Phone
7/4/02 M1 QRP CW Sprint
7/6/02 Kentucky QSO Party
7/13/02 IARU HF World Championship
7/13/02 FISTS Summer Sprint – CW
7/20/02 Pacific 160 Meter Contest
7/20/02 North American RTTY QSO Party
7/20/02 CQ WW VHF Contest (6 & 2 Mtr.)
7/27/02 RSGB Islands on the Air HF Contest
8/17/02 ORC Corn Roast

We had two of our members make their mark in the ARRL November CW Sweepstakes. Listed in QST were Fred Helmstetter (N9FH), who was the featured "Shack" last month, with 1073 contacts in the unlimited class and Bob Truscott (W9LO) with 704 contacts in the low power class.

Field Day 2002

Congratulations to our Field Day Chairman, Gary Sharbuno (W19M), for organizing the greatest Field Day yet. Field Day was again at the Lazy Days Campground in West Bend with set up be-

ing Friday afternoon (June 21st). And what is the first thing you do following setup? Eat some of Stan Kaplan's (WB9RQR) famous turkey and have a drink of whatever you like. Many thanks to Jane Rediske (KB9SYI) our food chairman Stan our turkey chef and all those who helped prepare and serve the meals and refreshments.



And what's portable operations on field day without power? Here we have Ed Frac (AA9W) with his main portable 50 Kw generator and a 5 Kw backup.



Many thanks to Ed for bringing this unit back from Minneapolis where he had it on a job. Also, thanks to Terry Koller (KA9RFM) who made up the powered reels that were used to wind all the distribution cables reaching to the CW and 2/6, 15, 20/75 and 40 meter tents.

And what's a contest without computers to keep score? Believe it or not, our own Jeff Kane (KB9QQE) wrote original software for logging, which really worked great, and then he and his

wife Diana tied all the tents together to a central server.



Here Jeff and Diana are setting up the 40 meter tent PC to work with the cook tent central server. Many thanks Jeff, a really professional set up which made logging simple and accurate – even I could log.



Hard to believe but with all that power and all those computers available, Ed Rate (AA9W) preferred to operate QRP at 5 watts with his new FT817 and the solar panel power source he designed and constructed. The solar panel puts out 14 volts at up to 3 amperes and was built from parts in Ed's junk box and Dayton. He made the

obligatory 5 contacts and earned the club another 200 points.



The GOTA (Get On The Air) station was a big success. Here is Tom Ruhlmann (W9IPR) is guiding his grand daughter Abbe Schultz to her first contacts on 10 Meters. Thanks to the event Chairman Gary (WI9M) for donating his “camping” station as the GOTA station.



Really “out of this world” working AL40, SO41 and as well as the older satellites. This is the satellite operating tent being manned by Gary Bargholz (N9UUR) and Mike (N9WJV). The basic transceiver was an FT847 driving a variety of antennas mounted on a nearby flat bed trailer.

Jeananne Bargholz (N9VSV) did a really great job operating the 6-Meter station in the tent next door. Perhaps it was the sound of Jeananne’s voice that reeled in over 300 contacts.



For Sale, Trade or ?

ICOM 736 – Great HF rig with electronic keyer, mike, manual and original box - \$480 – Contact Harry Frank, AA9SF at (262) 675-6056.

WB2MSV is now a silent key and his son is settling his estate. This includes an **FT657GX**, **ICOM EC-251A** and an **Ameritron ALS-500M**. These and other items may be seen at www.mattmilw.com.

Contact Matt Phillips at 414-352-6087

Kenwood TS520 station – Don Belstner (W9VSC) @ 262-377-0426

ICOM 745 transceiver – Ben (K9UZ) @ 262-242-6000

HT202X – 2 Mtr. HT – Leon (K9GCF) @ 262-377-1080

Wanted

Three associate editors – one each for the “Contesting”, “Projects” and “Just Another Shack” columns. Another area of interest would be an associate editor for an “equipment and software review” column.

XMLog Software Review

By Vic Shier KB9UKE

XMLog is windows based logging program written and supported by Michael McAmis, W1ECT. It is

full-featured program that is easy to use and it is free.

It supports call book look-ups such as Buckmaster and QRZ, prints labels, and keeps track of progress towards many awards. The on-screen help is thorough and there is a users group which can help with specific problems that an operator may have. But the features I like best are the radio interface and the comment line.

Hooking up the computer to a rig with a serial port is an easy process. With the right cable and the concise on-screen help the radio interface will be ready in short order. The radio can then send data to the program which means that a double click of the mouse and the frequency and mode will be filled in. Double click on the date and time fields and the basic statistics are logged. Now you can concentrate on the personal information such as the call sign, name, qth, and the comment line.

The comment line is a great feature for rag chewing. I like to record some interesting point about a previous QSO; the other ham's shack, family or hobbies. When I hear someone calling CQ, I search the log. If I find the call, I can quickly page through the previous contacts and note any comments. This is valuable stuff for us rag chewers. After the initial exchange, I can refer to something from the comment line. Asking how the fishing has been, or if the new tower is up yet can get the QSO off to a quick and smooth start.

The program can be downloaded from the web site at xmlog.com. It comes in a zip file so you will need to open it with something like Winzip (which can also be downloaded from the net as a free trial version). Make sure you back up your log often. I have not had any crashes but it would be risky to not have a back up of a computer log. You may even want to print your log occasionally.

XMLog is a good program with more features that most hams will ever use and it's free!

NEW BAND PROPOSALS

From the ARRL Newsletter

Public comments on FCC proposals to create two new amateur bands and to upgrade an Amateur Service allocation at 2.4 GHz to primary are due July 29, and reply comments are due by August 12.

In response to an ARRL petition, the FCC last month released a Notice of Proposed Rule Making (ET Docket 02-98) that proposed to create a new 5-MHz HF allocation and a new low-frequency band in the vicinity of 136 kHz in addition to elevating amateurs from secondary to primary at 2400 to 2402 MHz.

Tips and Tails

For those of you who like to tinker and build various accessories for your station there is always the problem of how do you make the panel labels look professional. I am aware of four different approaches although finding 1/8" and 3/16" black and white lettering may be difficult.

1. Adhesive backed letters and numbers that can be individually applied. They can be purchased with several sets of the alphabet and numbers on a single sheet. Check the local office or art supply stores. While these are the least professionals, it's better than a magic marker.
2. Avery clear labels (#8667 1/2 x 1 3/4) can be used in the computer printer. Using the Windows "Tools"; "Envelopes and Labels" function you can create some pretty nice labels that can then be applied to the panel. Note that to change the color to be printed on the label you must change the "Font" default color. While these are a step up, they must be on a truly flat surface to be totally transparent. Again, check the local office supply store – a package of 2000 or so runs \$23.00.
3. "Rub On" transfer letters are also supplied with several alphabets on a sheet and you transfer them to the panel individually by rubbing then onto the surface with a smooth rounded probe or pencil. These look very professional when carefully done however; it takes a certain skill. They are available at some office and art supply stores. Also check the hobby shops.

One manufacturer is: Duro Art Industries Inc. at 1832 Juneway Terrace in Chicago Ill. 60626 – (312)743-3430

4. Electronic Label Making Machines – these are made by Brothers, Cascio and Duro. These offer a range of letter sizes and styles and print the label onto an adhesive backed tape. The tapes come in a couple of different widths and in a variety of colors depending on the machine selected. The label making machines range from \$20 to \$350 with the transparent tape with black lettering available in the machines starting at about \$49. The transparent tape with white lettering is available for machines at about \$100 and up. For professional looking panel labels you will want to use the transparent tape. The tapes are about 25' in length and run about \$20 to \$25. These are also available at office supply stores such as Office Depot and Office Max.

Windows 98 is Watching

- by Stan Kaplan, WB9RQR

Well, here we go with #101 in the series! If someone had told me back in 1993 when the column was started that I would write over 100, I would never had believed it. Anyway, we are still working with Windows 98. Why? Windows XP will turn out to be the biggest security leak in software history, and it should not be supported. My opinion. But, it will be yours, too, in the future. More on that will be forthcoming in the future.

Your copy of Windows 98 watches what you do. However, don't be upset by that statement, for those observations are to your benefit, and it does not report its findings to Microsoft. Therefore, this process is a Good Thing, not a Bad Thing. I am speaking of a program generically called Applog, specifically, CVTAPLOG.EXE, a 76kb program in your Windows folder. At least I think that is the heart of Applog, because there is precious little information on this program, or even the workings of Applog itself. Most of my information comes from a discussion of how Norton Speed Disk works with Applog, which can be found on the Symantec web site.

This “Chapter 101” is copied from and continued in the “Badger State Smoke Signals”.

Turkey-on-the-Grill

by Stan Kaplan, WB9RQR

The turkeys turn out to be a major hit during the Friday night “pass a dish” feast at our ORC Field Day, and I am often asked what the secret is to preparing them. There is nothing magic about it. Indeed, it is fairly simple process. Witness that we had four birds this year, which I managed to cook, carve and serve by myself. Here it is – everything you need to know to do one, or several, by yourself.

WHAT GRILL TO USE: Only a 22½inch Weber charcoal kettle will do. I cannot guarantee good results if you use a gas grill or a non-Weber charcoal grill. The size and geometry of the Weber kettle yield results that are just not reproducible with any other setup. When properly fired, the kettle contains a reducing atmosphere. That is, the air that comes in the vents is quickly depleted of oxygen by the burning briquettes, so that virtually no free oxygen is present in the kettle during cooking. This imparts a rose color to the white meat just under the skin, about 5mm deep, as well as a delicious light smoke flavor. It also controls the burning of the briquettes so they don't get too hot. All three vents in the kettle bottom should be wide open, as well as the vent in the lid. Just open every vent fully when you set up the grill and keep them that way during the cooking process.

PREPARE THE TURKEY: Get a fresh 12 to 14 pound bird. Shuck it out of its wrap in your sink. Remove the giblets and freeze them for some other cooking project. Rinse the bird thoroughly, inside and out with *cold* water. Free the legs by removing the wire holder, and cut off the “tush” and any loose skin and fat near the rear opening to the body cavity. Next, remove any loose skin at the front of the bird, and make sure the front hole leading into the body cavity is open so that heat can freely circulate into the cavity. For those of you with a penchant for anatomy, that front hole is where the esophagus entered the body

cavity to connect to the stomach. Now season the bird, outside and also inside on the roof, sides and bottom of the body cavity. Only three seasonings are needed. Dust heavily first with prepared “poultry seasoning”, then garlic powder (not garlic salt), and finally with plain salt. You cannot over-season the bird! When done, it should be a pungent, ugly, gritty greenish mess. Wrap tightly in heavy-duty foil if you are not going to put it on the grill immediately, and refrigerate. Do NOT leave it without refrigeration for even 20 minutes! Bacteria have their own Field Day with warm poultry, and a single bacterium can become two in less than 20 minutes. Multiply that by several million and ... well, you get the idea. By the way, do not stuff the bird. Make your stuffing separately in the household oven. Stuffing a bird is a health hazard and has been recommended against by the US Department of Agriculture for a number of years.

SET UP AND START THE FIRE: Remove the top grate from the grill and build two piles of briquettes on the bottom grate, on opposite sides. Build the piles high enough so that they come up to the metal tabs that support the upper grate. Take your time and make a substantial pile. If it collapses, build it up again until stable. Leave the center of the bottom grate free of briquettes. Put a drip pan in there later, when the coals are ready, if you want to catch drippings for gravy, or just want to keep your grill's bottom clean. Obviously, the free space on the bottom grill should be large enough to accommodate the drip pan (even if you don't use one). Douse the briquettes with starter fluid, and light each pile independently. Cover off, of course, until the charcoal is ready (white ash over ALL briquettes).

START COOKING: When the briquettes are ready, put in your drip pan if you desire, and put on the top grate. Put the turkey on a poultry holder (a V-shaped wire grate that keeps the bird from flopping over, that is also handy for lifting the bird), or you can put the bird directly on the top grate if you wish. Insert an armored meat thermometer (Taylor makes the best) into the space between the leg and body cavity, with the point of the thermometer heading down at a 45° angle, toward the front of the bird. DO NOT LEAVE

OUT THIS STEP. The thermometer is the only fail-safe way to tell when the bird is done. Those pop-up thingies are not to be trusted; I pull them out and throw them away before cooking. Center the bird on the grill and add the cover (vents wide open).

WHEN TO CHECK: Regardless of the wonderful smell and your desire to check the bird, suppress your impulse to look at the thermometer until 2 hours have passed. After 2 hours, quickly remove the cover and peek at the thermometer scale. It is not done until it has reached POULTRY on the scale. If you can see the dark column in the glass, take heart. It only takes a short time for it to go from, let's say, beef rare to poultry. Put the cover back on quickly (so as to keep as much heat inside as is possible), and check it in another 20 minutes. Typically, during the summer months, it takes 2½ hours to do a 12 to 14 pound bird, unless it is an unusually cold day or high winds pull the heat out of the kettle. Unless you did not put enough briquettes in initially, you should not have to add any during the cooking process. When the thermometer reaches the POULTRY setting, remove the bird and cut the drumstick off. There should be no pink or blood red visible in the joint if the bird is done. Again, do not be concerned if the breast meat is rose colored close to the skin. That is a normal result of grilling this way. Deeper, the flesh should be completely white.

DON'T:

1. Baste. A completely unnecessary step. Trust me, it will be moist and tender without basting.
2. Tent. No foil tenting or other such step is needed, ever. Keep the bird bare.

Yes, you can apply this method to a chicken, or a Cornish game hen, or a duck, or a goose. Do everything the same, but check the thermometer sooner with smaller birds. Be sure to use an armored meat thermometer – it will never lie about the bird being done. Yes, you can use this method for a roast, too. But don't let the thermometer get up to poultry, unless you like shoe leather!

This method of cooking, which employs indirect heat, is fail-safe. Furthermore, the flavor and juiciness of the bird just cannot be matched in an ordinary household oven. It is terrific for your Thanksgiving bird – far superior to inside cooking and it also leaves your oven free for pies, stuffing and other delicious side dishes. I have done a Thanksgiving turkey on the grill every year for at least 30. You'll love it!

Sniffing?

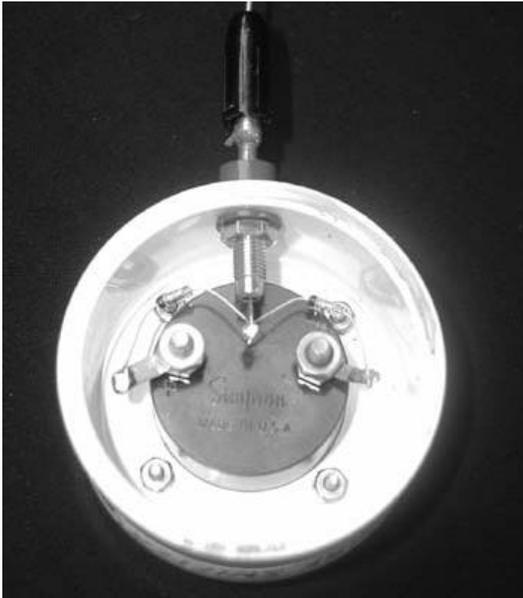
Have you occasionally wondered if there really was any RF being radiated from your antenna or if you had RF in the shack? How do you know if the shielding on your transmitter or coax is leaking? You need to build a simple RF SNIFFER for just a couple of bucks and answer these questions.

This RF SNIFFER is simply a 100-microampere meter from the flea market, a couple of 1N34 diodes from Radio Shack and a length of wire for a sniffing antenna. It was mounted in a PVC pipe end cap for simplicity and economy as shown below.

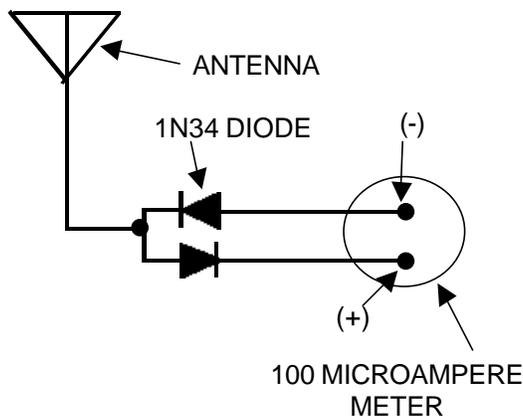


Naturally, any container can be used but the round cap was cheap, easy to cut and easy to hold.

Looking at the back of the "SNIFFER" you can see just how simple the device is. The sensitivity will vary with the meter utilized. For example, if a 1-milliampere meter were used, it would work but would only be 1/10th as sensitive to RF fields. It is important to use the 1N34 germanium diodes. They are signal diodes with very little voltage drop.



Now for the schematic – it's from the ARRL Handbook but actually you could wire it from the picture above.



THE SNIFFER

Does it work? You bet. I have one on my operating desk and suddenly I noticed it deflecting as I transmitted. It turned out that the shroud on my antenna coax was loose and I was leaking RF

into the shack. I also used it at Field Day to assure that the HF antenna was radiating and not just the tuner. It also works great responding to my ICOM 207H 2 meter and 440MHz RF signals.

Snuffing can be a good thing, try it.

Next Meeting – July 10th

Jack Hughes, K9JAC, will present a program on IRLP (Internet Radio Linking Program). As I understand it, the Internet replaces a repeaters 440 MHz link with 4 touchtones from your HT or mobile. Those 4 touchtones select which remote repeater site. Then U can talk through repeaters.....using your HT.... to repeaters anywhere in the world. In other words, U can talk through the repeater on the island of Maui, or to Canada, England, or wherever. Sure makes it easy, talking to the home hams when you're on vacationand U don't have to carry an HF station, big antennas, etc. Come listen to the presentation & demonstration. The future is here, NOW!

Minutes of the June 13, 2002 Meeting

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions: The meeting was called to order at 7:30PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

Jack Heil, KG9IN, sent a letter thanking us for the \$100.00 prize he won at our Swapfest in May.

Leon, K9GCF, announced that Ron Yokes, W9BCK, has upgraded to Extra. The members gave him a round of applause.

Gary, WI9M, announced a special test session to be held Saturday, June 29, 2002, at 9:00 A.M. at the Justice Center. The ORC radio class will test there, as well as anyone else who wants to take an exam. Ed, AA9W, has a free Extra exam book if someone wants it for the test session. The question pool will change on July 1, and the book will be dated.

Ken Boston, W9GA, announced Central states VHF Society Technical Conference will be held in Milwaukee on July 26, and 27, 2002. A Flea

Market will be held on Friday night, and Jim Haynie, ARRL President, will speak at a banquet on Saturday night. Tickets for the two-day event are \$37.00 in advance, and \$42.00 at the door. The banquet will cost an additional \$28.00. Ticket price includes one-year membership in the Central States VHF Society.

Brian, N9LOO, has a nearly new VX5R handheld radio for sale. If you are interested, make him an offer.

Program:

Gary, WI9M, announced the assignments for this year's Field Day operation. Tent Captains, food and drink assignments, publicity and photography assignments, and other miscellaneous jobs were given out. The Club is going to operate 5A, with a 'GOTA' station in addition. Stan will once again do his mastery with four succulent turkeys!

After the break, Stan held his usual auction, and then the business meeting was held.

Minutes: ?

Treasurer's report: Stan, WB9RQR, moved to accept, subject to audit, and Jeananne, N9VSV, seconded. The report passed by voice vote.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that he had ordered replacement finals for the 146.97 repeater. There has been some noise heard on the system that needs to be researched.

OZARES Report: Jon, KB9RHZ, was not present. Tom, AA9XK, announced the next meeting on June 27, 2002. The portable 147.33 repeater will be set up at Field Day.

Old Business: There was no old business.

New Business: Tom, W9IPR, is looking for 3, or 4 people to become assistant editors for the Newsletter. He suggested possibly a Technical Editor, Social Editor, Contest Editor, and perhaps Human Interest Editor. There was no formal action on the positions.

The Corn Roast date has been set for August 17, 2002.

Adjournment: The business meeting was adjourned at 9:22 P.M.

Next Meeting: The next meeting will be held on July 10, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Bernie, AA9CI, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Brian, N9LOO, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Vic, KB9UKE, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gary, WI9M, Jeff, KB9QQE, Gabe, WI9GC, Ted, KB9RLI, Ed, AA9W, Ted, KA9UCD, Jake, KB9ZOR, Jane, KB9SYI, Tom, AA9XK, Bob, N9NRK, Stan, WB9RQR, Peter, KB9URH, Gary, N9UUR, Jeananne, N9VSV, Dick, K9CAN, Charlie, WA9CPE, Leon, K9GCF, Ben, K9UZ, Skip, KA9DDN, Cindy, KA9PZG, Jim, N9WIU, Ken, N9DKM, Tom, W9LNL, Bill, W9VLL, Ken, W9GA, Ted, KB9PQZ, Ron, W9BCK, and Bob, WQ9N.

AGENDA

July 10th, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program: Internet/Radio Linking by K9JAC
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Dave (N9QA)
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, July 10th

7:30 PM



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The Prez Sez

By Leon Rediske K9GCF

This month the ORC event is the Corn Roast at Waubedonia Park beginning around 11 AM. That's west of Saukville on Hwy. 33, about midway to county "1" going west. The date is Saturday the 17th. The food committee is planning a fine picnic, so bring a dish to pass; a couple of chairs, your wife/significant other, and come out for all the fun. The club provides liquid refreshments, and some finger foods, but most especially the CORN. I'm thinking of all that corn with butter dripping off, golly that's good!

Wasn't that program on Internet linking something interesting? I hope you all have had a chance to listen to it, and have seen what it can do. Have you tried it yet? 146.850 is the frequency.....

The new modes keep coming along like PSK, Internet Linking, Clover, and a zillion more. They are surely fun, and keep us on our toes learning what's new. What's your favorite new mode?

73's for now, and see you all at the ORC meeting, 7:30 PM August 14th

Upcoming Events

8/10/02- Circus City Swapfest-Baraboo
8/17/02 ORC Corn Roast - Waubedonia Park - 11 AM. That's west of Saukville on Hwy. 33 – For a good time, be there.
9/21-22/02 – FM Club Swapfest-Grayslake IL
11/02/02-MRC Swapfest – Waukesha Expo
01/04/03 – WARAC Swapfest–Waukesha Expo

So who's the handsome guy in the parade?



Did you see Ozaukee Supervisor and ORC member Gerry Walker (KB9IMH) in the 4th of July parade? He was in that beautiful '31 Model A Ford. Note the windshield air conditioning system.

Photo by Greg Lengling (W9DHI)

ORC Scholarship - \$1,000

By Dave Knaus N9QA

The Foundation for Amateur Radio's scholarship committee has recently completed the task of choosing the recipients of the fifty-seven scholarships to be awarded this year. Selected as this year's winner of the \$1,000 Ozaukee Radio Club scholarship was Andrew A. Knitt, KB9JOZ, from Rhinelander.

Andrew has been a straight A student for his first two years studying Electrical Engineering at the Michigan Technological University in Houghton, MI. He holds a General Class license and while at the university, he has been active on all bands. In addition, he is involved in search and rescue operations.

Congratulations Andrew!

Wanted

Associate editors – one each for the "Contesting", "Projects", "Equipment and Software Re-

view”, “Public Service” and “Just Another Shack” columns.

Next Meeting – Aug. 14th

We will have a short “show and tell” session on antenna tuners. If you have one you have assembled or refurbished, bring it along so the group can take a look at it.

Field Day 2002

By: Gary Sharbuno WI9M

Well another field day has come and gone. It was a huge, success again this year, and I thank one and all for the help and hard work that went into it. The planning committee did a great job, and we worked out lots of kinks prior to the weekend.

Thursday evening went well, and we had lots of help gathering all the tents and stuff, and got it out to the site in short order. We were done already at 7:45PM.

Friday came, and the weather was tolerable, tents went up, and most of the antenna supports. Special thanks to Bob (WQ9N) for getting the portable tower up for 20/80 phone.

Lunch was great, at the Greek restaurant, and we must have had at least 20 of us there. The Friday night party went very well, and lots of thanks to DR. Stan (WB9RQR) QR QR, for the great turkey roasting he did. The Electric guys really hung in there, so the Sheepshead players had lights til the wee hours.

Saturday came and all the rest of the tents and antennas went up with out a hitch. Leon (W9GCF) even got his new tower and antenna to work. At 1PM the contest started, and we were off and running. Jeff (KB9QQE) was a little panicked, but all was up and going soon after that. Great job Jeff!!!!!! The weather cooperated, and things went well through the night.

Sunday the breakfast folk did a swell job of feeding all the crew, Man! Omelets on field day WOW!! I operated at the CW2 tent, and was having a ball, as were all the other operators did. When the 1PM gun sounded, we pulled the plug, and we had lots of help tearing down all the tents and towers, and all was done and in the barn by 4:30PM.

I want to thank all of the club members for their help and participation to make it a great effort this year. The numbers are as follows:

Band	QSO'S	tent total
160Mcw	9	
15 Mph	201	
15 Mcw	252	(Leon's group) 263
40Mcw	879	
10Mcw	45	(Bob's group) 924
20Mcw	569	
80Mcw	150	CW2 group) 719
40Mph	516	(Teddy) 516
20Mph	529	(Brian) 529
6 Mph	322	
2 Mph	7	
1.25 M	1	(Jean Ann's bunch) 330
Solar	5	(AA9W) 5
Satellite	40	(N9UUR) 40
GOTA	182	
Digital	25	(GOTA) 207

Total CW was 1904 (x 2) 3808, total digital 25(x 2) 50, and total phone was 1803, for a grand total of 5661 total QSO points. Our total clamed score is 11,349, and 1200 more bonus points. Last year our total was only 9,044 QSO's, and in 2000, we had 6000, so we doubled there. So there you have it in a nutshell, good job one and all.

73's



Here visitors are reading about “Ham Radio”, the ARRL and the Ozaukee Radio Club thanks to the

Julia (KB9WBQ) and Tom (AA9XK) Nawrots display board.

In the background behind the display board is the 20-80 CW tent manned by Terry Berg (WA9WO). Terry and his wife Ann (KB9JHP) were active members until they moved to Joliet IL in the '80's. Terry was assisted at times by Gary (WI9M) and they turned in an impressive 719 contacts.



The 15 meter tent under the leadership of Leon (W9GCF) turned in an impressive 252 phone and CW contacts. After Paul (KA9RPP) put up a 160 meter antenna they added 9 more CW contacts. Other operators at the controls of Leon's new FT1000MP Field and beam were Jim Hilins (KA4UPW), Don Doss (K9QEN) and Vic Schier (KB9UKE).

As noted here and in the CW tent, some of our tents are quite small and stuffy and others are even of the WWII heavy canvas vintage. Thanks to Gabe who noticed a sale at "Sam's Club", we will have 3 new "airy" tents at next years outing.

Brian Skrentny (N9LOO) put together a very competitive team at the 20 & 80 meter phone tent using a Kenwood TS850 from Gary (WI9M) a beam and a dipole.



Here at the mic is Jake Schmeling (KB9ZOR) with Tom Nawrott (AA9XK) as his "logger". Other operators at this productive tent registering 529 contacts were Jim Albrinck (K9QLP), Ed Rate (AA9W), Vince Morano (KB9ZOT), Bob Krubsack (WQ9N), Keith Shilhavy (KY9P) and Tom Ruhlmann (W9IPR).



A truly outstanding performance of 924 contacts was turned in by Bob Truscotts team in the 10 & 40 meter CW tent using his FT1000 Mark 5 and an inverted V antenna. This was done under the watchful eye of the ORC Turkey and with other operators as Paul (KA9RPP) and Ray (W9KHH). Bob gives credit to the high contact count to the "Ed Frac" Electric Power Company who supplied uninterrupted clean power for the full 24 hours.



And the envy of the 20-meter tent was the 40-meter tent organized by Ted Schweitzer (KB9RLI). Shown here is Gabe Chido (WI9GC) at the “mic” of the FT1000MP donated by Tom (W9IPR). The radiator was a double Zepp fed from a Dentron antenna tuner of Ted's. Other operators helping to turn in a very impressive 516 contacts during the 24 hours were Rosie Maybee (KB9PZK), Cindy Douglas (KA9PZG), Ann Berg (KB9JHP), Stan Kaplan (WB9RQR) and Jake Schmiling (KB9ZOR).

“RAILROAD” MOBILE

By Jim Albrinck K9QLP

The morning of Monday, July 8, 2002, dawned with heat, humidity, and anticipation of a “dream” becoming “reality”, a ride on the Great Circus Train. Being fortunate to become one of six operators honored by the West Allis Radio Amateur Club to operate from the Great Circus Train was a culmination of a wish to combine my love of “steam” railroading, Amateur Radio, and circus trains.

As a kid growing up in Cincinnati, the railroad “Gateway to the South”, I lived near three major railroads (Pennsylvania, New York Central, and the Baltimore and Ohio). In addition, I didn't have to travel far to watch the Chesapeake and Ohio, Louisville and Nashville, the Southern, Norfolk and Western, and the Cincinnati Union Terminal Railway move about the city with transfers, passenger trains, and work trains. Many still had steam until I was in my early teens and the various styles of locomotives and their distinct whistles, not only told me when a train was coming, but the railroad engine that was pulling it. Steamers had a unique personality. Unlike die-

sels, steamers breathed, snorted, belched smoke, soot, cinders, and were impressive to watch. The circus train on 7/8 was pulled by an “Iron Horse” as described above. She(*) came from the Kissell Car Museum in Hartford, having recently been refurbished after standing on display for many years in Superior, WI. Number 1003 worked the SOO LINE for many years until retirement, and was saved from the scrap yard by people who wanted to share the past with new generations. The first thing I did upon reaching Horicon was to check out #1003 as it awaited the “Highball” command from the dispatcher. This “lady”, built in 1913, is a beauty. With 8 tons of coal and 11,000 gallons of water in the tender, she was ready to go. The Engineer and Fireman told me that the engine consumes 170 pounds of coal and 125 gallons of water per mile. Two diesels rode behind her, but she was capable of pulling the 29 cars on her own, and did, even though the flatcars and stock car were 70 to 72 feet long instead of the 35 and 40 foot average length of other rail cars of the early 1900's. The reason for the “extra” length, I was told, was due to the fact that railroads billed by the car, not by weight. Circuses saw the opportunity and lengthened their cars.

Our operating accommodations were on the last passenger car on the train. It was a 1920's era observation coach reminiscent of the type used by politicians as they “whistle stopped” around their district. The signs posted above the lavatories read “DO NOT FLUSH WHILE TRAIN IS STANDING STILL”. You guessed it, passenger cars of this era did not have holding tanks and everything was deposited on the tracks. The Strong people and Circus World people provided everything: water, coffee, juice, soft drinks, sweet rolls, donuts, muffins, chips, and Usinger's hot dogs. Delicious! Unlike the Schlitz days of sponsorship, no beer. We used an Icom 706 on the HF bands and an Icom dual band mobile for 2 meters. Operating frequencies on HF were 7240 and 14240. 146.55 was our two-meter frequency. Antennas consisted of a vertical mounted on the flat car directly behind us and a 5/8 wave 2-meter mag mount on the roof of the coach. The atmosphere was a circus inside and out. Clowns, bands, circus buffs, and interesting passengers. The noise was deafening at times. Thanks to Dave Knaus, N9QA and his excellent preplanning, we were told to bring a set of earphones for HF work. Thank goodness we did. Band conditions were lousy, especially on

40 meters, but the "cans" helped us to dig out the hard to read stations. Since the operating position was very cramped, one of us walked and listened to train talk over 161MHz while the other operated and logged. By taking turns, both operators had a chance to enjoy the ride and wave at the thousands of spectators who lined the route through Hartford, Slinger, Germantown, and the north side of Milwaukee. I don't recall seeing a frown on anyone's face as the train rolled by at a leisurely pace of 10 to 20 mph. Many had tears in their eyes, either from the smoke and soot, allergies, or the beauty and nostalgia of it all. Probably all of the above. We used two meters primarily in towns because HF became very noisy from power-line noise and other QRM sources. Many unique QSO's were had while I was operating: the West Allis ham in Montana operating mobile; the Florida ham who is a circus buff and had been waiting for 3 days to QSO the train; the circus enthusiasts in Allentown, PA and Cape Cod, MA who all wished "they were here", and the ham outside Washington, DC, in Virginia, who wanted to know about the steam locomotive. As a railroad "nut", I was pleased to accommodate him.

Yes, it was a memorable experience. Thanks again to the West Allis Radio Amateur Club, Dave, N9QA, Strong, and the Circus World Museum for the privilege. (*) Steam engine enthusiasts refer to the engines in the female gender. Wonder why?

Contesting

W9LO was again in the rankings. This time as third in the State with 704 contacts in the ARRL CW Sweepstakes this last November. Other ORC members listed were Ray Totzke (W9KHH) as ninth with 170 contacts and John (W9ISC) as fourteenth with 64 contacts.

Also, N9UUR (Gary Barqholz) was ninth in the state with his 72 contacts in the January VHF Contest.

- 8/10-11 Work All Europe DX Contest (CW)
MD-DC QSO contest (CW & SSB)
- 8/17-18 WW RTTY Contest
- 8/24-25 Ohio QSO Party (CW & SSB)
HW QSO Party (CW & SSB)
- 8/31-9/1 YO DX Contest (CW & SSB)

"SECTION NEWS," Contest Line Scores Moving From QST To WEB

From the ARRL Newsletter

Starting next January, "Section News" and contest line score results will appear on the ARRL Web site rather than in QST. The "Section News" Web sites--already in place--will provide the officials of each ARRL section "the capability of an up-to-date information resource that can be tailored to the needs of their section," the resolution said. The space freed up by relocating "Section News" will allow more in-depth coverage of general news, public service activities and "how-to" articles. Members unable to use the Web can request their section's reports in hard-copy format.

ARRL Receives Homeland Security Training Grant

From the ARRL Newsletter

The ARRL will receive a \$181,900 homeland security grant from the US government to train Amateur Radio operators in emergency communication. The League was among several dozen nonprofit organizations designated to receive some \$10.3 million in federal money to boost homeland defense volunteer programs. The grant, from the Corporation for National and Community Service special volunteer program, will provide free ARRL Amateur Radio Emergency Communications Course training to 5200 volunteers nationwide, starting in 2003. "ARRL is the national association for Amateur Radio and is the national leader in emergency communications by volunteers who operate their own equipment on their time at no cost to any government, organization, or corporation," said the July 19 announcement from Homeland Security Director Tom Ridge. The ARRL plans to revise and update the emergency communications curriculum to incorporate additional elements of emergency preparedness and homeland security. ARRL President Jim Haynie, W5JBP, said he was extremely pleased by the news. "This adds legitimacy to the public service work Amateur Radio has been doing for years," he said.

For Sale, Trade or ?

ICOM 736 – Great HF rig with electronic keyer, mike, manual and original box - \$480 – Contact Harry Frank, AA9SF at (262) 675-6056.

WB2MSV is now a silent key and his son is settling his estate. This includes an **FT657GX**, **ICOM EC-251A** and an **Ameritron ALS-500M**. These and other items may be seen at www.mattmilw.com.

Contact Matt Phillips at 414-352-6087

Kenwood TS520 station – Don Belstner (W9VSC) @ 262-377-0426

ICOM 745 transceiver – Ben (K9UZ) @ 262-242-6000

HT202X – 2 Mtr. HT – Leon (K9GCF) @ 262-377-1080

An N9UNR “Swiss Army Knife”. **Hewlett-Packard OfficeJet Model 610, Color Printer, Copier, Scanner, Fax machine** all in one. Small and compact, it works just fine. Color cartridge replaced late July. Includes docs, original drivers and also latest drivers on CD. Reason for selling: replaced with a later model (these are just great machines). \$150 or will consider a trade of some sort. Stan, WB9RQR, 262-284-9346.

Equipment Review

By Tom Ruhlmann (W9IPR)

I am trying to get my new ICOM 706 mobile on HF and really didn't want to cut a hole in the body of the 96 Buick to mount the antenna. First I tried a universal bumper strap mount for a ball/spring system. Forget it. The plastic bumper is not secure enough making the “strap mount” is useless. Then I reluctantly purchased a “Diamond” trunk lid lip mount at AES for \$69 – WOW. It seemed quite pricey and I was concerned that it was not robust enough to carry the Hustler antenna system. However, I have to admit that it was easy to install (complete with miniature co-ax) and seems quite secure with the 20 meter Hustler. I suggest you use a spring mount at the ball and mount it toward the top of the trunk lid but not so far forward that the antenna will strike the car roof when the trunk is opened. Also, adjust the antenna to lean toward the centerline of the car so it does not blow out into on-coming traffic. I also suggest use of the “quick disconnect” at the base since it makes it easy to remove the an-

tenna and place it in the trunk when entering parking garages or taking your spouse out to eat.

Tips and Tails

Need a small spring? Don't forget about the one in your ballpoint pen.

Can't find your car in the parking lot? Place a “clip-on flag” on that HF antenna for quick locating.

Need a “_” coil form? Try the barrel of a “High Lighter” – works great.

Upgrading to “General”

Following is a sample question now included in the General Class License question pool and copied from the ARRL Upgrade Manual.

G9C04

What is an advantage of downward sloping radials on a ground-plane antenna?

- A. It lowers the radiation angle.
- B. It brings the feed-point impedance closer to 300 ohms.
- C. It increases the radiation angle.
- D. It brings the feed-point impedance closer to 50 ohms.

Ans. D – Bending or sloping the radials downward to about a 45-degree angle will increase the impedance from approximately 35 ohms to approximately 50 ohms thus lowering the SWR.

G9C02

What is one advantage of using a random-wire antenna?

- A. It is more efficient than any other kind of antenna
- B. It will keep RF energy out of your station
- C. It doesn't need an impedance matching network
- D. It is a multiband antenna

Ans. D. A random-length wire antenna is often referred to as a random-wire antenna. It consists simply of a wire. A random-wire antenna can be of any length because an antenna tuner is used to match the impedances. It does not require a feed line because the single piece of wire serves as both a feed line and an antenna. It is

considered to be a multiband antenna, because the antenna tuner will match the impedances for several frequency bands. You may experience RF feedback in your station when using a random-length wire antenna.

All In a Mornings Work

By Cindy KA9PZG

I consider myself a "new kid on the block" when it comes to volunteering at the Annual Fish Day event in Port Washington. I can guarantee it takes a good group of hams to make that event run smoothly!

Each year our services as hams are needed to relay information between parade coordinators and participants. We help make sure floats and units are stationed in the right areas to assure their timely sendoff.

If units don't show up, the main coordinator needs to know this so other arrangements can be made to keep a good balance of entertainment in the parade line. Another critical area of need is the occasional communication between law enforcement and coordinators. We had an incident July 20th that required a police escort of a woman in her car from the parade staging area down to her husband (a doctor) at the piers downtown Port Washington. He was being paged for a medical emergency. We were able to quickly direct the officer to her location with little or no distraction to the event!

We also deal with holding back traffic from entering into the staging area, the most seemingly strenuous job that day. Since a number of streets are closed to through traffic during the parade, visitors don't know how to get around to avoid these problem areas. You can imagine how hard it is for us volunteer hams that aren't knowledgeable of the city's streets, either!

So, after a full, four hour work morning those weary operators hop in their vehicles and take **their spot** in the parade lineup! And then it's off to the Lakefront for a meal of Fish & Chips and drink, compliments of the Fish Day Committee!

(Thanks to all of you who volunteered this year for the 2002 Fish Day Parade!!)

Minutes of the July 10th, 2002 Meeting

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions: The meeting was called to order at 7:32PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

Cathy Pohl (FISH), made final arrangements for the Club's participation in Fish Day. Skip, KA9DDN, was voted to be in charge as Head of the ORC contingent.

Cindy, KA9PZG, told us about the ad she placed in the Ozaukee newspaper, expressing thanks for all the River Cleanup helpers. She thanked the ORC helpers present for their help, as well.

Terry, KA9RFM, announced that he had some raffle tickets benefiting the model airplane group he is involved with.

Program:

Jack Hughes, K9JAC, explained the concepts behind IRLP, the Internet Radio Linking Project. He operates two repeaters capable of connecting to sites around the world by way of the Internet. The costs are reasonable, but systems do require access to a high speed Internet connection.

After the break, Stan held his usual auction, and then the business meeting was held.

Minutes: The minutes of the last meeting were accepted.

Treasurer's report: Dave, N9UNR, moved to accept, subject to audit, and Gary, W19M, seconded. The report passed by voice vote.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that the link at Germantown had been off due to the power supply tripping out, possibly due to weather. Two new finals have been obtained, and will be placed in the 146.97 repeater's amplifier soon. The tubes were made in China.

Circus Train Report. Jim, K9QLP, had an opportunity to ride the Circus Train on July 8, 2002. He helped operate W9D, the Special Event call-sign for the train. They made 40 contacts on Monday. Vic, KB9UKE, took a shift on Sunday, July 7, 2002. The train was pulled by a stoker fed, coal fired 1913 Mikado class locomotive that recently was refurbished in Hartford, WI.

OZARES Report: None. Jon, KB9RHZ, was not present.

Newsletter Report: Tom, W9IPR, reports all listed Amateurs in the Cedarburg zip code area, were sent a mailing inviting them to our club meeting. So far, there haven't been any results from the effort. Tom is looking for a Special Events Editor for the Newsletter. He wants someone to report on events and contests in the Newsletter.

Old Business: There was no old business.

New Business:

The Corn Roast date has been set for August 17, 2002, starting before 11:00 A.M. The Club will supply the corn, and the meat to be cooked. Everyone is to bring the traditional dish to be passed.

Adjournment: The business meeting was adjourned at 9:18 P.M.

Next Meeting: The next meeting will be held on August 14, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Bernie, AA9CI, Tom, W9IPR, Gene, KB9VJP, Bob, W9LO, Brian, N9LOO, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gary, WI9M, Jeff, KB9QQE, Gabe, WI9GC, Ted, KB9RLI, Ed, AA9W, Ted, KA9UCD, Jane, KB9SYI, Bob, N9NRK, Stan, WB9RQR, Leon, K9GCF, Skip, KA9DDN, Cindy, KA9PZG, Jim, N9WIU, Ted, KB9PQZ, Dick, WA9MME, Carol, KC9CBC, Ed, AA9GT, Todd, KC9BQA, Keith, KY9P, Steve, N9SFE, Jack, K9JAC, Ray, WD9HOD, and Cathy, FISH.

AGENDA

Aug. 14th, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program: Antenna Tuner Show and Tell
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Dave (N9QA)
10. OZARES report – Jon (KB9RHZ).
11. Committee reports.
12. OLD BUSINESS
13. NEW BUSINESS.
14. Adjournment to ?

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, Aug. 14th

7:30 PM



The ORC News -

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.



AMATEUR RADIO

ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: <http://www.qsl.net/orc/>

Volume XXI

September 2002

Number 9

The Prez Sez

By Leon Rediske K9GCF

The '02 Corn Roast is now history and it was a grand gathering. The weatherman skunked us on Saturday, and we gained some folks and lost some folks due to our moving to Sunday. Our notification system missed one person, and he ate his beans at the Park, all alone, on Saturday. Sorry about that!! Maybe it is just as well that he ate his beans alone.....hah!

Anyway, in the future, I'll leave a message on my answering machine if the event has been called off. In that way, if I'm about town purchasing food, or getting equipment out of the barn, all that are interested in coming, can find out if the weather may be canceling the event. No cancellation message means the event is "on" as scheduled. Of course checking in on 146.97 may get you your answer as well, if you are capable on 2 meters.

It has been suggested we build 2 meter beams as a club project, buying the materials in quantity, and over the course of several meetings...or at several Saturday construction sessions, build our own personal antennas. Other folks added we should make it a 144/440 beam that would be Satellite capable. At a later meeting perhaps, we could coerce Gary N9UUR, to show us how to make a contact through the satellites using our new antennas. What do you folks think of the idea? Bring your ideas (& Gary) to our next meeting.

73's for now, and see you all at the September 11 ORC meeting, 7:30 PM, Grafton Senior Center Building, 1665 7th Ave., Grafton, WI.

ORC New "Hams"



Two of our most recent new members are Carol Ann Szudrowitz (KC9CBC), wife of Gene, KB9VJP and Todd Sprinkmann (KC9BQA).

Contesting

I noted that Bob Truscott, W9LO, scored again. This time he is listed as 2nd in the state for low power CW in the 2001 ARRL 10 meter contest. Congratulations Bob.

DXCC reminder: The ARRL DXCC Desk reminds all DXCC program participants that the September 30, 2002, deadline to submit items for the next DXCC Annual List is rapidly approaching. The DXCC Annual List will include all stations submitting an application to DXCC between October 1, 2001, and September 30, 2002. To appear in the Annual List, you must submit an application between those dates or be current on

the DXCC Honor Roll. No submission is necessary if you are now on the DXCC Honor Roll, but only those modes that are Honor Roll will be shown. Applications must be postmarked by September 30, 2002. For more information, contact the ARRL DXCC Desk <dxcc@arrl.org>; 860-594-0234.

Sept. 7 & 8 – All Asian DX Contest – Phone
Sept. 14 & 15 – ARRL VHF QSO Party
Sept. 28 & 29 – Worldwide RTTY DX Contest – 10 through 80 meters.

Just Another Shack?

Who earned his Technician+ ticket only 2 weeks after being asked the question “why don’t you get your “Ham” license”? That would be none other than Vic Shier, KB9UKE, of West Bend. Vic had learned a little of the code as a kid and continued to enjoy listening to the short wave and “Ham” bands. While at AES to buy a new Sony 2010 SW radio in 1999, Gary @ AES, (KA9YTB), asked Vic the critical question. Then Gary led him to the book section and prepared him with a study guide and the encouragement to give it a try. Two weeks later Vic had earned his Technician+ license and within the following year had earned his General, Advanced and Extra tickets. Currently Vic also serves as our ORC Vice President. Quite an accomplishment and all due to Gary, only 3 years ago, asking Vic “why don’t you get your Ham ticket?” and getting him a copy of “Look Whose Talking”. Have you “Elmered” anybody this year?



Here Vic is shown using his FT920 operating in his favorite mode, CW, while admiring his vintage HALlicrafters S53 receiver. On the wall behind Vic is the control head for his ICOM IC2800 that he uses to work cross band and to conduct the Tuesday night net. As a frequent check-in to the Morning Mobilers Vic has another IC2800 in the car.



Outside Vic is running a GAP Titan DX with the tuned counterpoise on HF and a Comet dual bander on VHF. He also enjoys going to their cabin near Crivitz where he uses an ICOM 706 to a G5RV on HF and his ICOM W32A HT to work their repeater.

So what does Vic like most about “hamming”? Learning new things, meeting new people on the air and new experiences – like being a part of the circus train “ham” crew.

Was Professor Ed's class a success?

Ed Rate again conducted an entry-level program to guide the "interested" into "ham" radio as a hobby. The program presents everything you need to know to be a "ham". Was it a success? The following six new "hams" thought so. Our congratulations to Ed and the following students of the 2002 ORC Hamclass that recently received their Technician Class Licenses.

KC9CBE Tim O'Connor
N50W6448 Western Road, Cedarburg WI 262-376-0729

KC9BTF Angie Skrentny
515 River View Place, West Bend 262-338-8586

KC9CBC Carol Szudrowitz
W55N865 Cedar Ridge Drive, Cedarburg 262-377-6792

KC9CBF Barb Patrick
N143W6175 Pioneer #1, Cedarburg 262-375-5527

KC9CBD Will Krainz
214 Roger Street, Port Washington 53074

KC9BQA Todd Sprinkmann
5188 Boettcher Drive, West Bend 53095 262-644-6094

No. 102. The System File Checker

By Stan Kaplan, WB9RQR

Did you know that Windows 98 has a built-in System File Checker? This handy tool will check all your critical operating system files for any that are corrupt. If any are found, it will give you a chance to restore fresh copies from the installation disk. Moreover, if set up correctly, it will also check for missing and updated files, and will keep its findings in its own little database so that it knows, next time, what it found this time. Not bad. A

good way to make sure your system is tuned up and working ----- (Extracted from and continued in the July issue of the Badger State Smoke Signals or at www.bsbs.org)

Upcoming Events

09/13,14 & 15 – Peoria Superfest– ARRL Central Division Convention and Flea Market @ Peoria IL. - <http://www.w9uvi.org>

09/21-22/02 – FM Club Swapfest-Grayslake IL

10/9/02 – South Milwaukee auction - American Legion Post (same as swapfest).

11/02/02-MRC Swapfest – Waukesha Expo

01/04/03 – WARAC Swapfest–Waukesha Expo

Cedarburg to Texas on 2?



At our June meeting, Jack Hughes (W9JAC) of Hubertus explained how to "work the world" on 2 meters via his node #755 and the Internet. Monitor his repeater on 146.85 and you too can witness the fun – better yet, get the \$130 dialup board with cables etc. and be a part of the action. To learn more, go to www.85Rrptr.com

For Sale, Trade or ?

ICOM 736 – Great HF rig with electronic keyer, mike, manual and original box - \$480 – Contact Harry Frank, AA9SF at (262) 675-6056.

WB2MSV is now a silent key and his son is settling his estate. This includes an **FT657GX**,

ICOM EC-251A and an Ameritron ALS-500M.
 These and other items may be seen at
www.mattmilw.com.

Contact Matt Phillips at 414-352-6087

Kenwood TS520 station – Don Belstner
 (W9VSC) @ 262-377-0426

ICOM 745 transceiver – Ben (K9UZ) @ 262-242-6000

HT202X – 2 Mtr. HT – \$75 - Leon (K9GCF) @ 262-377-1080

Web Sites of Interest

Site	Comments
http://dmoz.org/Recreation/Radio/Amateur/Boatanchors/Heath	Listing of Heathkit sites
http://www.robotics.com/cha-ir/	Robotics
http://wi-aresraces.org	OZARES

Wanted

Three associate editors – one each for the “Contesting”, “Projects” and “Just Another Shack” columns. Another area of interest would be an associate editor for an “equipment and software review” column.

Logging Software Review

By Tom Ruhlmann, W9IPR

When we moved from South Milwaukee in 1986, I sold all my old HF equipment (which I still regret) and tended to business rather than pleasure. It wasn't until in 1997 that I borrowed my mothers old Heathkit HW100 and started to get back on the air with dipole and a manual log. It wasn't long until I replaced the HW-100 with a Kenwood FS930 and started working DX and wishing the logging activity was more convenient. Then came the old Compaq 486 laptop and the FT1000MP. Now enters the need for computer logging software that interfaces with the transceiver to record frequency, mode, date and time.

After reading several ad's and a couple of reviews I downloaded a sample of “Log – EQF” logging software. Did I eventually buy the full-blown copy? You bet and here's why.

While it is capable of controlling the rig, TNC and PacketCluster operation and antenna switching and rotor control – I don't use those more sophisticated functions. What I like is that when I key in a call sign, it directly interfaces with the database on the SAM, HAMCALL, AMSOFT or QRZ CD's. It then gives me an immediate indication of who is the other operator and their license class, birth date, location, distance, direction to point the beam for short and long path and if we have had a previous QSO. It's really great. As you tune the band the frequency is continuously displayed on the PC screen and it notifies you if you tune out of the band.

If you are into awards, like DXCC, you can do a sort on that award and it can provide a print out of the contacts/countries etc. made vs. those countries remaining and then provide a print out of the status.

If you are into contesting, you can create a log per contest and have it automatically calculate the multipliers etc. to develop your score. It will then upon request provide an ASCII disk file for submitting of the contest log.

And when all the dust settles, this software can be used to print out labels with the confirmation of the contact by time, frequency, mode etc. and the QSL card labels for all the selected contacts. It even records that the QSL cards sent and which have been received and uses this information in the awards portion of the software.

I think it's great and well worth the \$59. So what does it take in terms of equipment? Make sure your rig has a data port to interface with the serial port of the PC. The computer needs to be PC compatible (needs a 286 processor or higher). The operating system needs to be DOS 3.0 or higher, Windows 3.1, 95 or 98 or OS/2. One floppy drive, hard drive and CD drive if you are going to use the “HamCall” or other database.

Go to www.eqf-software.com and download a freeware copy – give it a try – I am sure you will find it to be as truly excellent as I did.

Tips and Tails

Need an insulated ¼" shaft coupling? I just tried some ¼" plastic tubing and it works great. I didn't even need clamps.

Can't remember which cables go where when you go to reconnect? I just purchased 5 different colors of plastic tape in a single package for \$1. Color-coding works every time.

An Excellent Corn Roast!

by Jane Rediske KB9SYI

For those of you who did not make the Sunday corn roast, postponed from Saturday, we are sorry and apologize if you did not hear us announce the change on .97 early in the day. In the future we will work out a postponement process so we don't miss anyone.



Thanks to all who helped make the Sunday corn roast fun, delicious and safe, on one of our summer's most perfect weather day. Stan, WB9RQR staked out the picnic area at 6:30 am both days. Ed AA9WW and grandson Jake KB9ZOR met Jane KB9SYI at the barn to haul the ORC sup-

plies to the site, Cindy KA9PZG and Skip KA9DDN came to relieve Stan and set up the cooker, grills, tables and amenities...they've got this down to a science! Herb, WA9UVK, brought a whole trunk full of kindling even though he could not stay for the food and fun. What a guy! Ed AA9W worked wonders to get several bushels of good corn, and Skip waved his magic wand over the cooker to make it absolutely delicious! Dave N9UNR once again came through with a car full of soda, beer and ice....we can always count on him! Stan manned the grills for the hamburgers, brats and chicken, with assistance from Gary WI9M. Each family and/or individual is to be thanked for coming and bringing a dish to pass as well. Lots of relaxed visiting took place before the much appreciated clean up crew went into action, consisting of Cindy, Skip, Karen K9GOV, Gary WI9M, Leon, K9GCF, and Ed AA9W. They secured the area and tied the ribbons on a beautiful afternoon.

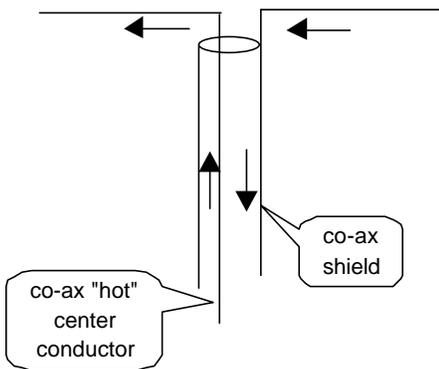
Baluns – Who needs them?

You may if:

1. you can detect RF on the shield of your co-ax feeding the antenna.
2. you measure different SWR's when using different lengths of co-axial feedline.
3. your co-ax feedline does not form a 90-degree angle with the antenna elements.
4. listeners note RF distortion of your audio
5. you get little shocks if you touch the transmitter case while transmitting
6. you just can't reduce the SWR to a reasonable level when loading the antenna.
7. Or you want to avoid stringing open wire or ladder line feeders from your Zepp or G5RV antenna through the house.

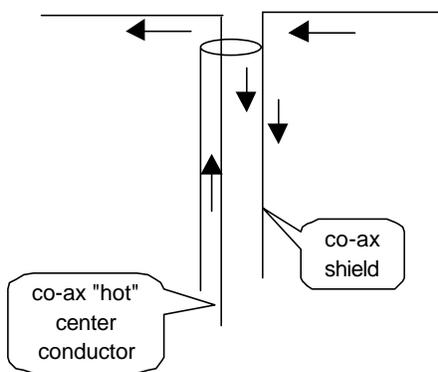
Most of today's transmitters have an "unbalanced" output. That is, there is the center "hot" conductor and it carries an RF voltage relative to ground and a grounded shield. When using co-ax to feed a "balanced" (electrical symmetrical) load like a dipole antenna, the RF current will flow up the center conductor to one side of the dipole. The return current, which is 180 degrees out of

phase, will flow from the other side of the dipole down the inside of the co-ax shield to ground.



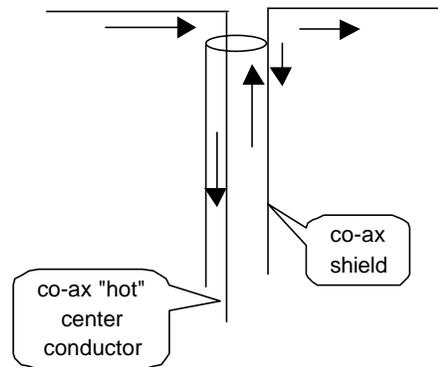
Under these perfect conditions the RF field created about the center conductor will be 180 degrees out of phase with that created by the return current along the inside of the shield and the two fields will cancel resulting in zero net radiation from the co-ax feedline.

However, in the real world, some of the return current will also flow down the outside of the coax shield and this will result in an RF field being radiated from the outside of the co-ax feedline.



The problem is further illustrated below where the RF current down the center conductor from the left-hand element is equal to the RF current flowing upward on the inside of the coax shield. However, where the coax shield ties to the right hand element of the dipole the current on the inside of the coax shield goes partially to the right hand element and partially to the outside of the shield back to ground. Others have measured the current in the right hand element to be as little as

60% of that which was flowing in the left-hand element. The other 40% of current is flowing down the outside of the shield resulting in a lesser vertically polarized radiated pattern.



If the co-ax feedline is perpendicular to the antenna elements, the shield will act as the vertical part of an inverted "L" and as you can see, the antenna is obviously unbalanced. That is, the two halves are not symmetrical with respect to ground. Although this radiation from the vertical shield may distort the actual net radiated pattern of the antenna, it may still load with an acceptable SWR when using a tuner. Let's face it, there are thousands of dipoles fed in this manner and while they may not be optimum, they seem to have been "getting out" just fine.

However, when the co-ax feedline forms an angle with the horizontal portion of the antenna elements it may receive and re-radiate some of the transmitted signal. While this would cause additional distortion of the antenna total radiation pattern, it can also create a high SWR and serious difficulties in loading the antenna. Additionally it can introduce RF into the shack, which can result in audio distortion problems and hot spots (burns) when touching the equipment during transmissions. This is further exacerbated in the presence of poor RF ground at the shack.

This problem does not exist with a balanced transmitter output, where both output lines are referenced to ground, and a "balanced" open wire (e.g. ladder line) feeder is utilized. In this case each of the parallel feed wires carries an RF current that is 180 degrees out of phase with the

other and the field about one wire is then canceled by the opposing field about the other wire.

A “balun” is a transmission line transformer that allows a balanced load, such as a dipole antenna or an inverted V, to be fed by an unbalanced source, such as the coax from the unbalanced output of most modern transceivers. The “balun” will present a high impedance and will “choke off” any RF current attempting to flow on the outside of the shield of the co-ax feed.

There are several forms of “balun’s.” For mono-band antenna, these range from a $\frac{1}{4}$ wavelength metal sleeve (bazooka) around the co-ax feed line to a $\frac{1}{4}$ wavelength section of co-ax in parallel with the feedline at the antenna. A $\frac{1}{2}$ wavelength section could also be used to perform the “balun” function and “phase” the two halves of the antenna. However, these techniques are seldom used because most HF enthusiasts use a multi-band antenna.

A multi-band antenna requires a “broadband” balun. This could be a set of air core coils as used to be sold by Heathkit. The model shown also provided a 4:1 impedance transformation. For example, it would transform the 300 ohm input impedance of a folded dipole to 75 ohms as seen by the transceiver output. However, this technology has been essentially replaced

by the smaller balun’s wound on ferrite cores or the use of ferrite beads (donuts) placed around the co-ax at the antenna. Again, the essential function of these balun’s is to present a high impedance to RF currents that might appear on the outside of the co-ax shield and choke them off before they enter the shack.



Heathkit Aircore 4:1 Balun

Perhaps the simplest of the broad band balun’s is just a several turn coil of co-ax in the feedline. We will discuss these simple 1:1 balun’s next month – stay tuned.

Next Meeting – Sept. 11

By Leon Rediske K9GCF

PROGRAM: Hear YE, HEAR YE.....All folks need to bring in their HT’s, Mobile rigs, IC-706’s, FT-100’s etc. For a frequency check, deviation check, PL deviation assessment, Power Output, etc. Nels, WA9JOB has volunteered to check everyone’s rig at our September Radio Clinic. So here is your golden opportunity to have your favorite rig checked.....for free...One rig per customer until everyone is served once.

Please have adapters to adapt your output to a BNC connector, if your rig uses a threaded, or odd connector. If your rig is not battery operated, bring your 12-Volt cable with ends to connect with a power supply. Bring your mike also.

Nels will also speak about what needs to be checked, and just what is a deviation check, PL deviation assessment, etc. So if you’re not knowledgeable about these parameters, come and learn to sling around these terms with the best of the hams! Did I mention it’s FREE?

Upgrade to General?

The following questions are extracted from the ARRL General Q&A handbook.

G9A02 Approximately how long is the driven element of a Yagi antenna for 14.0 MHz?

- A. 17 feet
- B. 33 feet
- C. 35 feet
- D. 66 feet

B. The driven element of the Yagi antenna should be $\frac{1}{2}$ wavelength. To find this length in feet, use the formula:

$$L \text{ ft.} = 468/f(\text{in MHz}) = 468 / 14.0 \text{ MHz} = 33.4 \text{ ft.}$$

G9D09 What standing wave ratio will result from the connection of a 50-ohm feedline to a resonant antenna having a 200 ohm feedpoint impedance?

- A. 4:1
- B. 1:4
- C. 2:1
- D. 1:2

A. If a load on a feed line is purely resistive, the SWR can be calculated by dividing the line characteristic impedance by the load resistance or vice versa, whichever gives a value greater than one. E.g. $200 / 50 = 4:1$ SWR

Club Static

By Leon Rediske K9GCF

Gregg Lengling, W9DHI, is recovering after back surgery. As of this writing, he's not yet allowed to drive, so his bride Deborah has been driving Gregg to work. Here's to wishing you relief of your pain, and a speedy and complete recovery, Gregg. (K9GCF)

The ARRL announced the time/date of our clubs broadcast of the ARRL audio news on its national distribution. Hey, gang, everyone in the nation knows of the Ozaukee Radio Club! Nice touch, ARRL!

(K9GCF)

Chub Osthelder "Chub", KG9MS, recently graduated as an Electrical Engineer and had a Pig Roast as a celebration. It was a well attended event; just "everyone" was there! Congratulations Chub!!

Aug. 14th Meeting Minutes

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions:

The meeting was called to order at 7:36 PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

The Fish Day Committee donated \$150.00 to the Club in appreciation of our assistance at the event. .

The ARRL has renewed the Ozaukee Radio Club as a Special Service Club for another two years.

Marty, WD9BCV, is looking for help for the Boy Scouts Jamboree On The Air (JOTA), September 14, 2002. Bob, W9RNA has volunteered to help. Leon, K9GCF, requested suggestions on how to repair a fiberglass antenna surface. Dave, N9QA, recommended marine epoxy paint.

Leon appointed the Corn Roast assignments. Cindy, KA9PZG, was to get the meat, Ed, AA9W, corn, Dave, N9UNR, beverages, Stan, WB9RQR, secure the site early, Herb, WA9UVK, firewood, and Ed, AA9WW, help with hauling equipment. The Corn Roast is scheduled for Saturday, August 17, with the rain date Sunday, August 18.

Program:

Stan, WB9RQR, and Tom, W9IPR, gave a program on antenna tuners. Tom demonstrated a project he had built last winter, and the project was very neatly contained in a salvaged metal box. Stan distributed a paper with different tuner circuits, and a brief explanation of how they worked. He showed some tuners that he had built, and some used by other members of the club.

After the break, Stan held his usual auction, and then the business meeting was held.

Minutes: The minutes of the last meeting were accepted.

Treasurer's report: Dave, N9UNR, moved to accept, subject to audit, and Cindy, KA9PZG, seconded. The report passed by voice vote.

Repeater Report: The Hwy. KK & LL link has been placed back on the air. The signal from the link frequency was heard in the Green Bay WI area, and the Frequency Coordinator questioned the operation. It was determined that the operation was as coordinated, and that the signal didn't pose interference. The proposed Ch. 10 tower link site is finally moving ahead, and a link can possibly be set up there this year yet. (Secretary's note: The 146.97 repeater has new final tubes installed. This wasn't mentioned at the meeting).

OZARES Report: None. Jon, KB9RHZ, announced a mission change in the organization. He wants to establish an exclusive response team to be involved at St. Mary's Hospital, Ozaukee (SMO). Team members will be trained specifically for that task. If desired, they will be separate from other OZARES preparedness measures. There will be a disaster drill at SMO on September 28.

Scholarship Report: Dave, N9QA, announced the latest recipient of the ORC Scholarship Award, through the Foundation of Amateur Radio (FAR). The winner is Andrew A. Knitt, KB9JOZ, of Rhinelander, WI. Congratulations, Andrew.

Old Business: There was no old business.

New Business:

Cindy, KA9PZG, moved, and Jane, KB9SYI, seconded a motion to give the Fish Day Committee donation to the Scholarship fund each year. Tom, W9IPR, moved, and Ernie, K9LO, seconded an amendment to be for this year only. The amendment passed by voice vote, as did the original motion as amended.

Adjournment: The business meeting was adjourned at 9:16 P.M.

Next Meeting: The next meeting will be held on September 11, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Bernie, AA9CI, Tom, W9IPR, Gene, KB9VJP, Bob, W9LO, Terry, KA9RFM, Ray, W9KHH, Don, W9VSC, Dave, N9QA, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gabe, WI9GC, Ted, KB9RLI, Ed, AA9W, Ted, KA9UCD, Jane, KB9SYI, Stan, WB9RQR, Leon, K9GCF, Cindy, KA9PZG, Jim, N9WIU, Carol, KC9CBC, Ed, AA9GT, Todd, KC9BQA, Keith, KY9P, Ernie, K9LO, Jake, KB9ZOR, Kent, N9WH, Jon, KB9RHZ, Peter, KB9URH, Joe, AA9HR, Vic, KB9UKE, Bob, W9RNA, Joe, KB9URC, James, KA4UPW, his wife, Pam, and son, Andrew.

AGENDA

September 11, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program: Nels' Radio Clinic by WA9JOB
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Dave (N9QA)
10. OZARES report – Jon (KB9RHZ).
11. Committee reports.
12. OLD BUSINESS
13. NEW BUSINESS.
14. Adjournment

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, Sept. 11th

7:30 PM



The ORC News -

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.



AMATEUR RADIO

ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: <http://www.qsl.net/orc/>

Volume XXI

October 2002

Number 10

The Prez Sez

By Leon Rediske K9GCF

Joyce Harvey (WB9IMA) is recovering from open-heart surgery; for that we are all grateful! The whole ORC wishes you a speedy recovery!

Thanks to Nels (WA9JOB) for the technical session and the Handie Talkie clinic at the last meeting. Great job, Nels.

Dave (N9UNR) and Marion Barrow have been doctoring at the Mayo Clinic, and we hope they find solutions to their problems. All of the ORC send our best wishes to you both.

Sure is great to have Kyle in town, all the way from Florida. Nice fella, that Kyle. (WA9USD).

Now is the time to erect those giant antennas that blow down in the winter storms. You know the saying about antennas....."If it stayed up last winter, it was too small."

73's for now, and see you all at the October 9th ORC meeting, 7:30 PM,

Upcoming Events

- 10/09/02 – ORC Meeting
- 11/02/02-MRC Swapfest – Waukesha Expo
- 01/04/03 – WARAC Swapfest–Waukesha Expo
- 03/16/-3 – Tricounty Hamfest – Jefferson County Fairgrounds

IMPORTANT NOTICE:

MOTION TO AMEND THE ORC BYLAWS

The Audit committee will present a motion to amend the by-laws of Ozaukee Radio Club, Inc.

at the next regular meeting on Oct. 9, 2002. The 7:30 P.M. meeting will be held at the Grafton Senior Center. The purpose of the amendment is to assure that the treasurer is responsible for the accounting of all club funds and thereby reducing the potential for abuse.

Amendments to the by-laws require a two-thirds majority of the membership at the meeting providing that 25% of the membership is in attendance. The copies of the by-laws are available on the club web site.

The audit committee recommends amending Section 3 of Article III by deleting the underscored wording:

The Repeater Vice President shall be responsible for all aspects of the care, maintenance, design and proper operation of any repeater project and in the regard to such a project, perform the functions of chief executive officer, secretary and treasurer, with duties analogous to those herein set forth for the corporation President, Secretary and Treasurer. The Repeater Vice President shall be responsible to the President of the corporation, and through the President of the corporation, to the members generally. The Repeater Vice President may appoint such assistants from Regular Members as he or she deems appropriate. The Repeater Vice President shall render periodic activity and financial reports at regular meetings, and upon completion of the term of office or resignation or removal, shall furnish a written account for any corporation money or other corporation property which may have come into his or her possession or control during the term.

The audit committee consists of: Vic KB9UKE, Ed AA9W, Gabe WI9GC, Tom W9IPR, Kent N9WH and Gary N9UUR.

Contesting

De W9LO – Bob Truscott

Hi! I'm your new contest editor. Not because I'm particularly qualified to do that job, but because Tom, W9IPR, is a very persuasive fellow. And when he explained the many benefits that I'd enjoy by doing it, how could I refuse? (Actually, he threatened me with great bodily harm if I did refuse, but immediately granted me a few more years on the planet if I accepted. I'm not sure by whose authority he made the grant, but I'm not going to take any chances just in case he knows something that I don't.) So, here we go.

Contesting is fun. You don't have to be a hotshot operator or have a super station. You don't have to work 24 hours in a row. You don't have to be a big scorer. You don't have to jeopardize your marriage by spending too much time at the key or mike. (The best way to handle that one is to buy a license manual for your spouse, and have a talk with Professor Rate.) The only things you do need are a modest rig, a simple antenna, and a desire to have a little fun. You'd be surprised how much satisfaction you can get out of just making a few contacts, particularly on CW if you are a phone op, and vice-versa. You'll also be surprised at how quickly your skills will increase if you spend a couple hours contesting each month. Don't wait till Field Day—give it a try now.

There are usually 10-20 contests each month, some of interest, and some not. They will include CW, SSB, QRP, VHF, RTTY, PSK-31, various state QSO Parties, etc. I'll list those that I think will be of interest to our particular group, but will surely miss the one contest that "you" especially like. So send me your "likes" via e-mail at tbsi@hnet.net, or by landline at 262-629-9685, along with your claimed score after each contest. We'll list the scores in the next newsletter, and again when the official results come out in QST or CQ a few months later. Those of us who file electronically will usually be embarrassed by the number of contacts that ARRL will delete because of various types of errors. More on that another day.

For contest rules, see QST, Oct. 2002, page 89, except as noted:

Oct. 5-TARA PSK-31 Rumble See QST, April. 2002 page 93.

Oct. 5-Oceania DX Contest-Phone.

Oct. 5- QCWA QSO Party-CW/Phone

Oct. 6-California QSO Party-CW/SSB.

Oct. 6-RSGB 21/28 MHz Contest-SSB

Oct. 9-YLRL Anniversary Party-CW

Oct. 12-Pennsylvania QSO Party CW/Phone

Oct. 12-Fists Fall Sprint-CW See QST, Feb 2002, page 109.

Oct. 13-North American Sprint-RTTY See QST, March 2002, page 114.

Oct. 16-YLRL Anniversary Party-SSB

Oct. 26-CQ World Wide DX Contest-SSB

Oct. 26-ARRL International EME Contest See QST, Sept 2002, page 103.

Nov. 2-3--ARRL November Sweepstakes-CW See QST, Oct. 2002, page 100. This is the granddaddy of all contests, second only to Field Day. (One man's opinion-mine) Let's have a big turnout for this one.

Have fun contesting.

Interesting Web Sites

<http://www.robotics.com/chair/>

<http://dmoz.org/Recreation/Radio/Amateur/Boatanchors/Heath/>

New Associate Editors

We now have two new associate editors. Bob Truscott, W9LO, an avid contester and charter member of the ORC will be the editor of our "Contesting" column. He can tell us not only what's happening but how you can also make it happen.

One of our newest members, Todd Sprinkmann, KC9BQA, will be heading up the "Just Another Shack" column. As a new graduate from Professor Ed's class he has an avid interest in "operating" and the various equipment used by our many members. You can expect a call from Todd with a request for an interview and a photo of the shack.

Field Day Logging Software

By Jeff Kane KB9QQE

I was asked, "why did I choose to write the field day logging software?"

I have to begin by saying mixing radios and computers is why I got my license. Even though that has not panned out, I still like to put them together whenever I can.

The first time I went to field day, I realized the efficiency of making contacts was directly related to the logging program. Many a pile up was brought to a halt because the person logging couldn't keep up. I have been looking ever since for a simple easy to use program that is intuitive and can be figured out by anyone within just a couple of minutes.

There are as many logging programs as there are usable frequencies. That's a lot! Some are much better than others. Like everything else, once you learn one, it will become your favorite above all others.

In a Field Day situation, familiarity with the program is most important. If you can't figure out how to use it, you won't be able to make quick contacts with it. With that in mind, I decided to ignore the CW tents because they have something that works for them. But the Phone tents are always trying something different. Each year people complain about some program or another.

Against the better judgment of everyone, I decided to take a stab at writing something new. Mostly, it was out of curiosity. I wanted to learn a new programming language, and figured this would be a good experiment. If it failed, I still had the experience.

I set up some requirements. First and foremost, it had to be easy to use. I wanted someone who never used a logging program before to be able to sit down and go without training. Second, I wanted it to just work. People are scared of installing stuff, so no install is a good thing. Third,

a central storage of the data would make end of day reporting easier. Fourth I wanted automatic backups of data in case of power failures. Finally, the ability to customize it to meet our clubs needs would make it better than any other tool.

With these in mind, I decided to do something different! I chose to make this a browser-based program. It would be just like connecting to the Internet and using a web page. That met the second requirement because computers come with IE or Netscape preinstalled. Second, the point and click graphics allow things to be formatted any way someone wants. This leads to solving the first requirement also. The very nature of using a browser connected to an Internet server allows for central storage of data. And once I have the data on a server, I can back it up by copying it every 15 minutes or whenever I want to.

So along comes field day. How do you get the Internet to the field? That was actually the easy part. I simply took an old computer and installed a web server on it. (It's easier than you think.) The hard part was finding 3 other computers that had Internet Explorer on them and a version of Windows that supported networking. Once we got past that point, the logging was so easy, even Gabe was able to figure it out. ;-)

The central server added a feature I had not thought about. It allowed the 2 phone tents to compete on an hour by hour basis. They could see what each other were doing, and work all that harder to beat the other tent.

There have been a couple of customization requests for next year. First is the ability to check a duplicate before entering all the data. I did not make this feature intuitive. Next year's version will just do it as soon as you hit tab or click outside the call entry block. I do not know how to do this yet, but that is part of the challenge. The second new feature will be a running total of the contacts made so far. I will add a little ticker on the screen to show how many you have made in that tent.

How about the CW tents? I don't want to ruin a good thing. Although the competition feature would be nice to have, it may not increase efficiency enough to make it worth it. The biggest problem is my requirement that no software be installed to make this work. Since they send via a keyboard, that makes this almost impossible. I am not that good at writing programs. So don't expect a version that supports keyboard CW send any time soon. They are welcome to log using it, but they will need a second program to send the code out the serial ports.

If you want to try the web page out, go to <http://www.kane1.com/ham>. I have a sample version of it available on the Internet. Test it out, and make any suggestions you would like to see for next year.

Tips and Tails

Need a dashboard hanger for that ICOM microphone? Try a plastic hanger with the adhesive backing for non-destructive mounting on the dash. Cost is only \$2.79 for 6 hooks.

Another approach is to use the "high temperature" hook & loop tape available at Radio Shack

The System File Checker

- by Stan Kaplan, WB9RQR

Did you know that Windows 98 has a built-in System File Checker? This handy tool will check all your critical operating system files for any that are corrupt. If any are found, it will give you a chance to restore fresh copies from the installation disk. Moreover, if set up correctly, it will also check for missing and updated files, and will keep its findings in its own little database so that it knows, next time, what it found this time. Not bad. A good way to make sure your system is tuned up and working to peak efficiency.

Before you start, make sure you have your Win98 installation CD-ROM handy, if needed to restore a file. It is also a good idea to close Norton System Doctor if you use it (don't just minimize it; close it), and to temporarily disable any virus scanner. If you use Norton Antivirus (You should! It's the best.), temporarily disable-----

(Extracted from and continued at [Http://www.bsss.org](http://www.bsss.org))

Club Static

Best wishes to Joyce Harvey (WB9IMA) on a speedy recovery from her bypass surgery.

Dave (N9UNR) and Marian Barrow both just had checkups at the Mayo Clinic and all's well that ends well.

Ed Rate (AA9W), Ed Frac (AA9WW), Leon Rediske (K9GCF) and Tom Ruhlmann (W9IPR) had a great time at the Grayslake Hamfest on Sept 22 but nobody returned with any broken stuff to fix – oh well. Grayslake is really quite close – only 67 miles – a short ride with good company and new stories.

My apology in that we simply ran out of space in this issue for the "Just Another Shack", "For Sale & Wanted" and the "Interesting Nets" columns and a couple of interesting articles. I try to hold the issue to 10 pages for mailing purposes and just ran out of space this issue - sorry.

Basic Repeater, 101:

By Nels Harvey WA9JOB

It has come to my attention that many of the members have questions regarding the three repeaters that the club operates. Things like what, how and why the repeaters operate like they do, seldom are answered in an easily understood manner. I am going to try to clear up some of these questions.

The basic parts to a repeater are a receiver, a transmitter, a controller to maintain the FCC requirements, and an antenna, or two.

It is possible to use a separate antenna for the receiver and the transmitter however; they should be separated by as much as possible to reduce receiver blocking due to the transmitter output.



**The ORC Link Repeater
Receiver (right), Transmitter (left), Controller
(middle) and power supply (top)**

Stronger signals will generally get through, but weaker, more distant, signals will need to overcome the blocking the transmitter does on the receiver.

An assembly that's called a duplexer is usually used to enable a repeater to use one antenna, and keep the receive signal separate from the transmitted signal. This permits higher power to be used, and increases the receive capabilities by letting weaker signals be heard.

A controller is used to satisfy the many FCC requirements. Without a controller, a control operator, with the ability to shut off the repeater, is expected to be on duty whenever the repeater is operational. The controller passes the received audio through to the transmitter, provides proper repeater identification, and turns off the repeater after three minutes in case something, or someone, holds the repeater open longer.

The controllers on the 224.18 MHz. and 443.75 MHz. Repeaters do little more than that. They were relatively inexpensive, but certainly do their job well. The Controller on the 146.97 MHz. Repeater is a full function unit, with telephone interface and autopatch capability.



The duplexer (4 pipes in upper part of picture) allows one antenna to receive on one frequency while it transmits simultaneously on a different frequency



The controller routes audio from the receiver to the transmitter for rebroadcast and adds the station identification.

Functionally, a repeater receiver picks up your signal, from which it develops a logic level change that is detected by the controller to cause the transmitter to transmit. The controller carries the audio from the receiver, along with any CW, or voice messages generated internally to the controller, and passes them along to the transmitter. The signal then goes to the transmitter's antenna, repeating the input signal on the output frequency with gusto.

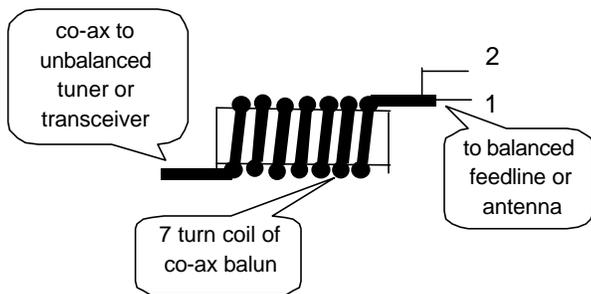
Next time, I will cover how a receive link works. If you have any questions regarding Basic Repeater 101, I certainly am willing to answer them as best I can.

A Simple, Cheap Balun

By: Tom Ruhlmann W9IPR

Perhaps the simplest of the broad band balun's is just a several turn coil of co-ax in the feedline.

For reasons of economics, reliability and simplicity, I prefer the coil of coax for a balun which provides a 1:1 impedance transformation. You can read about the others types of balun's using ferrite cores in the **ARRL Handbook** chapter on transmission lines or **"Building and Using Balun's and Unun's"** by Jerry Sevick (W2FMI).



The co-ax balun can be simply a several turn coil of co-ax at the antenna feed point or it can be uniform coil of coax as wound on a PVC pipe. My preference is the uniform coils of co-ax wound on or within a PVC pipe as shown below.

Below is pictured a 5 turn co-ax balun wound on a 4" diameter section of PVC pipe and secured to the mast of this 6 meter beam. The coil of the co-ax creates a high impedance on the outside of the shield and this will prevent RF current from flowing down the exterior of the co-ax. However, the coil has no affect on the interior of the co-ax and this simple coil allows the balance driven element of the beam to be driven by the RF currents carried by an unbalanced co-ax feed line.

This type of co-ax balun can also be used as a remote balun. That is, it can allow co-ax to be routed through the shack to the outside where the co-ax balun can be inserted in the line to convert to a balanced feedline as used with a multi-band center fed Zepp.



Balun of Coax Feeding a 6 Meter Beam Driven Element

Below is shown a ten-turn co-ax balun wound inside a 4" diameter PVC pipe and feeding the 450-ohm ladder line to the G5RV at the shack of W9IPR.



A ten-turn balun wound inside a length of PVC drainpipe.

Note that the less expensive PVC drain pipe with the holes was used for the housing. The holes allow for air circulation and draining of collected moisture. This is not to mention that the end caps

are also less expensive and are flat rather than domed.

So now that we know when and why we may need a co-ax balun, how many turns are required to attain the high impedance necessary on the outside of the shield.

Table 19.4 of the 1996 **ARRL Handbook** provides guidance on the length of co-ax and number of turns to be used to create effective single band and multi-band balun's and the following is based on that information.

MHz	Length	Turns	Diameter
3.5	22'	8	10"
7	22'	10	8"
10	12'	10	4.5"
14	10'	4	10"
21	8'	6	5"
28	6'	6	4"

MHz	Length	Turns	Diameter
3.5-30	10'	7	5"
3.5-10	18'	10	7"
14-30	8'	7	4"

So, if you are now feeding a balanced antenna with the unbalanced output of your transmitter, why not optimize the system? Build a simple, inexpensive, multi turn coaxial cable balun and avoid the potential RF and loading problems associated with the lack of symmetry – put some balance in your line.

Next Meeting – Oct. 9th

This is going to be a different kind of program. We will have a presentation by a ham couple that are from the Milwaukee area, and I (K9GCF) have fox hunted with them over several decades. Paul KB9ODQ, and Rebecca Gruettner KB9LFW, are both hams & electrical engineers. What is so worthy of our time is that Rebecca ("Becky").....as I have called her for many years) has written a novel about a murder that involves ham radio and fox hunting. She bases her book on real characters that are in the Milwaukee & California areas that Paul and Becky have lived

in. I haven't finished my copy of THE FOX, but from the people that have, they say it is fast paced and interesting. Look for 73 or CQ (I can't remember which) magazine to review the book for October. I trust Becky will have copies of her book ready for autographing..... Paul's pix appeared in 73 magazine this year in the HOMING IN column. Come and meet this super couple at our next meeting. Leon.

THE FOX: After her friend, Ted O'Neil, is brutally murdered for his multimillion dollar transmitter design, young QA executive Libby Lopez is determined to make the guilty pay. Armed with a forewarning from an old psychic, she embarks on an uncertain journey in search of the killers. Through a combination of shrewdness, persistence, and an uncommon sixth sense, Libby exposes the cold-blooded murderers. But can she stop them before Ted's design ends up in the hands of the foreign buyers?

Minutes - September 11, 2002 Meeting

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions:

The meeting was called to order at 7:30 PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

Leon asked for someone to update the computer-generated nametags that are placed on the counter at every meeting. Stan, WB9RQR, offered to print new nametags if someone provided him with a list of names that were needed.

Stan announced that Dave Barrow, N9UNR, was being tested for a heart irregularity at St. Mary's Hospital, adjacent to the Mayo Clinic in Rochester, MN. Dave had taken his wife, Marian, to the Clinic in an effort to diagnose a problem she has been experiencing for several months. (Update: Dave has been released with an adjustment in his medications a day later.)

Upcoming swapfests included a distant Minneapolis event this coming weekend, Gray's Lake September 21 & 22, and the MRC Friendly Fest, on November 2, 2002.

Program:

Nels Harvey, WA9JOB, discussed some repeater fundamentals, including a verbal description of the signal paths as they made their way from the user, to the repeater transmitter. Equipment was brought in for testing, and Nels invited anyone to bring their radios over to the test bench after the meeting was adjourned. Deviation and frequency tests were conducted on several radios at that time.

After the break, Stan held his usual auction, and then the business meeting was held.

Minutes: No mention of accepting the previous meeting's minutes was made.

Treasurer's report: Ed, AA9W, moved to accept, and Stan, WB9RQR, seconded. The report passed by voice vote.

Repeater Report: Dave, N9QA, reported the new finals had been installed in the 146.97 MHz. Repeater. The 224.18 MHz. Repeater is still without an amplifier, but it receives sparse use anyhow. The 146.97 MHz. remote receiver equipment has been installed in the 224.18 MHz. Rack panel.

OZARES Report: Jon, KB9RHZ, announced a disaster drill to be held at St. Mary's Hospital, Ozaukee (SMO) on Saturday, September 28. He reminded the group of the regular OZARES meeting Thursday, September 26.

Audit Committee: Vic, KB9UKE reported on the Audit Committee's meeting, held just before the regular meeting. It is the desire of the Audit Committee to request a change in part of Section 3 of the Club's Bylaws.

Section 3. The Repeater Vice President shall be responsible for all aspects of the care, maintenance, design and proper operation of any repeater project, and in regard to such a project, perform the functions of chief executive officer, secretary and treasurer, with duties analogous to those herein set forth for the corporation President, Secretary and Treasurer. The Repeater Vice President shall be responsible to the President of the corporation, and through the President of the corporation, to the members generally. The Repeater Vice President may appoint such assis-

tants from Regular Members as he or she deems appropriate. The Repeater Vice President shall render periodic activity and financial reports at regular meetings, and upon completion of the term of office or resignation or removal, shall furnish a written account for any corporation money or other corporation property which may have come into his or her possession or control during the term.

The Bylaw changes were not presented at this meeting in writing, as stated in the Bylaws, but the intent is to remand the responsibility of the repeater funds to the Club Treasurer.

Old Business: There was no old business.

New Business: There was no new business.

A general discussion then ensued, with Tom, W9IPR, suggesting the Club undergo a project. He suggested possibly building Two-Meter beams. Over mild objections from Gabe, WI9GC, Leon, K9GCF, appointed him as Committee Chairman, along with Ed, AA9W and Tom, W9IPR, to coordinate the Two-Meter beam project.

Stan, WB9RQR, offered to sponsor a construction project for a TV twin lead J-pole antenna project at a future meeting.

Adjournment: The business meeting was adjourned at 9:16 P.M.

Next Meeting: The next meeting will be held on October 9, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Bernie, AA9CI, Tom, W9IPR, Gene, KB9VJP, Bob, W9LO, Terry, KA9RFM, Ray, W9KHH, Don, W9VSC, Dave, N9QA, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gabe, WI9GC, Ed, AA9W, Jane, KB9SYI, Stan, WB9RQR, Leon, K9GCF, Jim, N9WIU, Carol, KC9CBC, Ed, AA9GT, Todd, KC9BQA, Ernie, K9LO, Jake, KB9ZOR, Kent, N9WH, Jon, KB9RHZ, Vic, KB9UKE, Bob, W9RNA, Joe, KB9URC, Ben, K9UZ, Ray, WD9HOD, Jim, K9QLP, Ron, WB7OFC, Jeff, KB9QQE, Bob, W5CFB, Jeananne, N9VSV, Gary, N9UUR, Ron, W9BCK, Brian, N9LOO, Gary, W9XT, Julia, KB9WBQ, Tom, AA9XK, Sky, N9XRU, Ted, KB9PQZ, Mike, WJ9O and former ORC President, Kyle, Jeske, WA9USD, visiting from Florida.

November 2002

“ORC BUILD IT CONTEST” – cash Prizes!

Know the difference between a hammer and a screwdriver? If so, you qualify to enter this contest! (If not, see W9IPR & he will commiserate with you!).

- 1. Build a HT (handitalkie) stand, either table Or mobile version (a stand to keep the HT from falling over on a table, or in place when mobiling).**
- 2. Fabricate your idea, however sophisticated (or crude!).**
- 3. Bring it to the (“show & tell”) November 13, 2002 ORC meeting!**

Entries will be judged on originality & usefulness – not necessarily on craftsmanship!

**At least Seven cash prizes to be awarded, not to mention all the honor & glory!!!
(cash prizes are donated & not from orc funds)**

Rules!!!

- 1. cannot cost over \$5.00 American (materials & labor whether you make or buy all or part – this is what junk boxes are for!)**
- 2. keep it simple stupid!**

Judges decisions are final! (K9GCF, W9IPR, KY9P)

AGENDA

Oct. 9th, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program: Paul, KB9ODQ, and Rebecca Gruettner, KB9LFW, Fox Hunters
5. Auction.
6. Acceptance of Minutes as printed.
7. Treasurer's report – Gabe (WI9GC).
8. Repeater report – Dave (N9QA)
9. OZARES report – Jon (KB9RHZ).
10. Committee reports.
11. OLD BUSINESS.
12. NEW BUSINESS.
13. Adjournment.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, Aug. 14th

7:30 PM



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.qsl.net/orc/>

Volume XXI

November 2002

Number 11

The Prez Sez

By Leon Rediske K9GCF

Thanks to Becky & Paul Gruettner for bringing us the October program about their new book, THE FOX. Hope many of you have finished reading your copy by now. Don't tell me how it comes out, as I haven't finished mine as yet.

ORC elections are coming up soon, so please be thinking of persons to fill the clubs positions.

Regarding the vote to change the bylaws taken at the October ORC meeting, there were 35 in favor and 2 opposed. Gabe told me that at that point in time, we had 99 members capable of casting a vote. Therefore the vote did have the minimum number of votes to legally change our bylaws.

Did anyone from the club attend the Central States VHF Society 3-day conference. If so, how about a report?

If any of you folks are doing cross banding to our repeaters, note the following:

1. Always monitor the repeater output into which you are cross banding. If cross banding causes problems, one can detect and fix it quickly.
2. Always shut off cross-banding equipment when leaving your house/office. No Unattended Cross-banding, please.
3. Always use PL squelch when cross-banding. Temperature/voltage changes & noise can create interference using carrier squelch.

Winter is coming, have you checked your antennas, greased your thrust bearing, etc. The one thing I hate to see is a beam element that came loose, & speared a hole in a roof. It's also worth

considering replacing that 25-year-old coax that is very lossy by now. (Leon, listen-up) Now is the time to accomplish the annual antenna inspections club members.....

CW sweepstakes contest is coming up 2 & 3 November. Gabe, (Mr. CW is my life, I'll see you on the air.)

73's for now, and see you all at the November 13, ORC meeting, 7:30 PM @ the Grafton Senior Center Building, 1665 7th Ave, Grafton, WI.

Upcoming Events

- 11/02/02-MRC Swapfest – Waukesha Expo
- 11/13/02 – ORC meeting and HT holder contest at the Grafton Senior Citizens Center.
- 11/28/02 – OZ ARES meeting at Justice Center
- 01/04/03 – WARAC Swapfest–Waukesha Expo

PROGRAM

Jim Hilins, KA4UPW, will tell us how to build a flagpole vertical, and how he did his. Antennas these days need be stealthy, for the Community, the Covenants, & the Wife. So you folks that thought you could not get on HF due to the size and visibility of the required antennas, listen up! Better purchase your 9913 direct burial coax from "Cable X-perts" now, so that your vertical can go up before the snow flies. Not all 9913 is direct burial, nor is all manufactured 9913 of the same specifications.

A Letter From Our Scholarship Winner

Dear ORC Members,

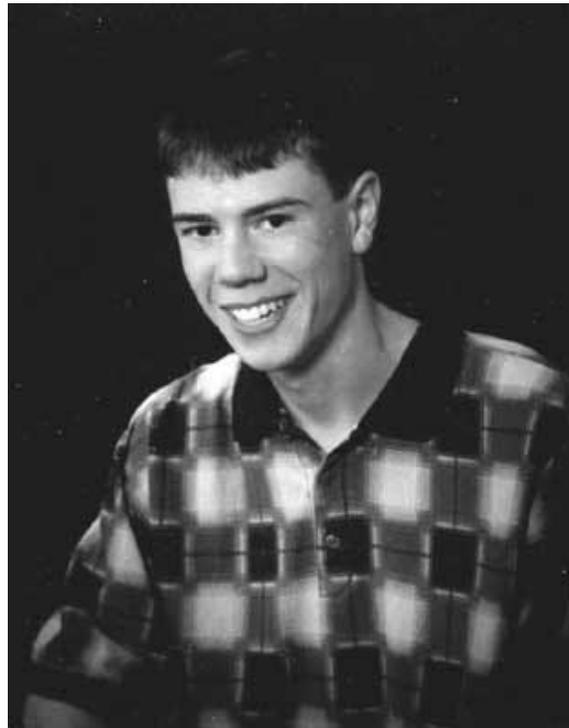
I just wanted to send you a note thanking the Ozaukee Radio Club for making a scholarship available to me this year. College expenses seem to increase every year, and your support is very much appreciated.

I'm going into my third year at Michigan Technological University in Houghton, Michigan, where I'm studying electrical engineering. When at school I'm involved in Inter Varsity Christian Fellowship, Superior Search and Rescue, and of course the Husky Amateur Radio Club. This coming year I'm also going to be a Resident Assistant in Mc Nair Hall, which will mean I'll be busier than ever and won't be able to work part-time as I did the last two years. This makes your scholarship even more appreciated.

I enjoy working all bands and modes from the HARC station W8YY, and also like to build equipment and station accessories. One of my most recent projects has been an APRS tracker for search and rescue applications. Superior Search and Rescue uses amateur radio exclusively for communications, which is a great advantage to our operations. Search and rescue and emergency communications have always been of great interest to me, and ham radio has played a big role in that interest.

I'm very excited about this coming year and I'm looking forward to going back to school in a few weeks. Again, thank you very much for your generosity and support. I know how much work goes into raising scholarship money, and I am humbled to be receiving it.

Andy Knitt KB9JOZ



Andy Knitt (KB9JOZ)

Contesting

De: W9L0 Bob Truscott

The results of the 2002 ARRL DX Phone Contest are in. As usual, K9CAN represented the club very well, with 471 SOS and 92 multipliers in the low power category, all on 10 meters. That's tops in the state for a single band operation. W9XT, in the all band- high power category, had 446 SOS and 186 multipliers.

At the last club meeting I heard several people talk about having worked the PSK-31 contest on Oct. 5, but where are the scores? You people missed an opportunity to see your names in print. Send me your scores so that you can have your moment of fame. That's a way to build interest in whatever your particular operating event happens to be. Tbsi@hnet.net-262-629-9685.

The CW November Sweepstakes will be history by the time you read this, and I hope to get scores from about a dozen members, along with comments on the contest.

I'm not much of a phone operator (the phone ops always talk faster than I can listen.), but if I had to choose a favorite phone contest, it would be the ARRL November Sweepstakes, coming up Nov.16 -17. (See Oct. QST for rules.) It really is a great contest (as phone contests go), and an opportunity for all you field day phone operators to polish your skills so that you can begin to compete with CW on field day. Does that sound like a challenge???? It is.

Another great weekend for CW people is Nov. 23-24. That's the CQ Worldwide CW DX Contest. See Oct. QST, page 90. And while that's going on, there is also the ARRL International EME Contest. See Sept. QST, page 103.

Have fun contesting.

For Sale, Trade or Free

HT202X – 2 Mtr. HT – Leon (K9GCF) @ 262-377-1080

Kenwood Desk Microphone **MC-50** - \$35 or? Tom W9IPR

Cushcraft A3S **beam antenna** with a **40 meter** kit and a BN-86 **Balun** - \$300

Universal 30 ft. free standing crank up **tower** with rotor mounting plate - \$300

Hustler G6-144B 2 meter ant. – **6 dB gain** - \$60

Yaesu antenna **rotor** model G800 SDX - \$200

Contact AA9GT (Ed Seigworth) at **377-8929**

Conceive It & Build It

Keith Shilhavy (KY9P) is pointing out some of the more subtle features of one of his "original" HT holders. The contest is on – and with cash

Prizes. Conceive and build an original holding fixture for your HT. It can be for use at home or in the car – just so it properly holds your HT and doesn't cost more than \$5 to build. You may be called upon to present some of the more unique features of your creation.



Cash prizes to be presented following the judging at the November 13th meeting. Judges will be Leon (K9GCF), Keith (KY9P) and Tom (W9IPR).

Note: Tom could be bribed.

Just Another Shack

This month's shack visit is with Ray Totzke, W9KHH. Ray has been a licensed ham since 1954. He got his license at the age of 16, but had been listening to short wave and broadcast band signals since he was a young boy. Ray fondly recalls BCB dx'ing, which led to a lot of experimentation with wire antennas.

This experimentation continued in the Boy Scouts, where Ray and a friend started learning Morse code. The two of them used code buzzers attached to a long wire. The wires grew longer and longer until they achieved a range of 2 miles! At this point, their milkman - a licensed ham - educated the boys about bootleg transmissions and steered them toward ham radio. With Hal Giese's help, (Hal's callsign is W9RXJ) Ray became a novice and built his first transmitter. It had an 807 final that put out 75 watts.

These days, as a retired school teacher, Ray uses either his Yaesu FT-757 or FT-847 for working the bands. A variety of wire antennas cover all HF bands from 160 through 10 meters. A 6-meter Hi-Par antenna is being retired. Ray also uses 9 element home-brew yagis on 2 m and 70 cm. When Ray operates portable, an Icom IC-706 comes with him.



Now this is more realistic. Finally a “shack” to which I can relate.

Ray enjoys a variety of ham radio bands and activities. He works all the frequencies from 1.8 MHz up to 432 MHz. He operates both phone and CW. He has worked in various contests and is a regular Field Day participant. Ray is a long-time ORC member and goes back with the Club to the 1960's. Many of us are probably aware that Ray also works at Amateur Electronic Supply. He has been at AES for 2 1/2 years.

I asked Ray if he had any memorable moments in the 48 years he's been hamming. His first QSO was with Hank Niesen, W9IQZ. W9IQZ only lived one block from Ray, but Ray didn't know this. The signal swamped Ray's Hallicrafters S-38c receiver and Ray was so nervous about this first QSO that he didn't copy him, even though his signal was S9 Infinity!

Ray also spent time in Greece, courtesy of the US Coast Guard/Voice of America. Ray was actually inside the VOA's 150,000-watt transmitter. (Perhaps that explains the curly hair??) He realized it was nothing more than a (very) big ham tube transmitter. On 1290 kHz, this transmitter used an FT243 crystal with a 6AG7 oscillator that drove an 807 that drove a 4-125 that drove two 4-125's that drove four 4-250's that drove a bunch of 4-1000's that drove several huge water cooled bottles putting out the 150 kW. Consider doing this for your next home-brew experiment, hihi.

Upgrade to General?

G4B01 What item of test equipment contains horizontal and vertical channel amplifiers?

- A. An ohmmeter
- B. A signal generator
- C. An ammeter
- D. An oscilloscope

(D) An oscilloscope has two channels. This allows two signals to be compared to each other by applying one signal to the vertical input and the other to the horizontal input, resulting in a characteristic pattern on the screen.

G4B03 How would a signal tracer normally be used?

- A. To identify the source of radio transmissions
- B. To make exact drawings of signal waveforms
- C. To show standing wave patterns on open wire feed lines
- D. To identify an inoperative stage in a receiver

(D) A signal tracer is any device that reacts to RF or AF energy and is used to trace the path of a signal through a circuit. A signal tracer can help identify an inoperative stage in a receiver.

Tips and Tails

Want to minimize the static crashes in your earphones? Put two signal diodes “back to back” across each individual earphone.

Want to protect your panel meter from burn out due to applied overvoltage? Put two signal diodes “back to back” across the meter terminal. They will limit the voltage across the meter to the diode junction drop (approximately 0.4 VDC)

Control Operators @ W9CQO

The following are listed as official control operators for our club repeater W9CQO. If you no longer want this responsibility please contact our repeater VP Dave Knaus @ 262-377-8874.

K9CAN (Dick Scarvaci), KA9DDN (James Douglas), AA9HR (Joe Holly), WA9JOB (Nels Harvey), KB9NH (Matt Singer), N9QA (Dave Knaus), K9QLP (Jim Albrinck), WB9RQR (Stan Kaplan), KB9UIE (Victor Shier) and AA9W (Ed Rate).

Playing the Audio News

De Vic Shier KB9UKE

The first time I heard the ARRL Audio News was during a trip to Maryland. A club in the Washington D.C. area played it prior to their weekly net. I thoroughly enjoyed the program; it is a convenient way to hear the latest ham radio news. A few months later, Leon, K9GCF, played the Audio News on the Ozaukee Radio Club's repeater as an experiment. The Audio News has been a popular feature of the club's Tuesday night net from that point forward. In the past 3 years, our club has been recognized twice on the News and several club members have been mentioned, including WA9JOB, WB9RQR, and N9UUR. This article will explain how to broadcast the audio news.



There are several different ways of playing the Audio News including via the telephone. However, the most popular method is by downloading

an MP3 file from the ARRL web site for use at a later time. By downloading the program ahead of time, several problematic variables can be eliminated such as a poor Internet connection.

Audio News Techniques

The equipment needed to do this is: a computer in the shack with an Internet connection, sound card and speakers; a rig to use as a base station; a second rig with an earplug to monitor the broadcast; and a software program that will play an MP3 file such as Windows Media Player, RealPlayer or MP3 Player.

The latest issue of the Audio News is usually posted on the web on Fridays and I try to download it sometime during the weekend. That way it is ready for the Tuesday evening net. The website is www.arrl.org. Once there, you will find a tool bar titled "News/Bulletins." Under that is "ARRL Audio News." Scroll down to the section titled "Downloadable MP3 file" and right click on it. Select "Save Target As," set your destination path or let your computer select it for you. In either case, note the location so you can find it without having to search for it later. I like to place mine in a temporary directory which would then read C:\temp\aan0823.mp3 for the August 23rd issue. Now download the file to your hard drive and it is ready for playing.

Prepare for the broadcast about one half-hour prior to the beginning of the net. Fire up the computer, the 2-meter base rig for transmitting, and the second rig with an earplug for monitoring. If you are using an HT, make sure the battery is charged. Start the MP3 program (I don't know how to explain this; if you are having trouble, ask the neighbor kid) and adjust the speaker volume. The length of time it will take to play the program will be displayed. The normal length of the news is between 15 and 18 minutes. Now you can determine when to start the news and have it complete just prior to the start of the net. Allow three extra minutes for identification and setting the repeater.

Before starting the Audio News, set the repeater for a 10-minute time-out period if possible. Generally there are several club members who have access to the codes and will be happy to set the repeater for you. Don't forget to ask them to return it to normal use when the net is finished.

Try to eliminate any QRM in the shack, get into a comfortable position and place one of the computer's speakers close enough to the rig so that you can reach it with the mic. Start transmitting, identify your station, place the mic directly on the face of the speaker, and click the start button on the MP3 program. When it is time to identify click on the pause button. Do not hit the stop button or the program will start over rather than pick up where you left off. Un-key the mic to allow the repeater to reset, identify your station and continue the broadcast.

There are two challenges when playing the audio news. The first is holding the transmit button for an extended period of time. The thumb can get quite tired and switching from one hand to the other is tricky without accidentally releasing the PTT button. In the past, Nels (WA9JOB) has recommended a collection to buy me a large rubber band to hold it down. My new rig has a feature that will allow continuous transmission with one push of the PTT button. This feature is very helpful and has made the need for another club fund-raiser unnecessary.

The second difficulty is to listen to the output of the repeater during the broadcast.

This is an important step. Timing Out the repeater is always embarrassing and repeating the message is not an option. Also, interference from various sources may be disrupting the transmission. The only way to know what the repeater is doing is by monitoring your transmission. I use a HT with an earplug to monitor the repeater. The problem is that by transmitting on a frequency only 60 Hz from the receive frequency, an HT is sometimes over powered by the base rig causing the reception to be poor or impossible. Although I have not eliminated this problem, there are two suggestions that will help. Transmit on the lowest possible power while still maintaining full qui-

eting and hold the HT horizontally to attenuate the received signal.

The easiest way to learn anything new in ham radio is to ask Elmer for some help. Go to the ham shack of someone who has done it and watch him. When the transmission is complete, you will have plenty of time to ask questions. Next time, Elmer can come to your shack and walk you through it step by step.

Playing the Audio News is a great way to contribute to ham radio and it can be done from the comfort of your own home.

Geratol Anyone?

De Ernie Swanson (K9LO)

Here is a net of interest to the extras in the group. It is the Geratol Net. It meets nightly from October to May on 3.768 MHz. The net meets at 0100 UTC. It is a worked all states (WAS) net and features 39 different awards. A lot of the awards are neat wallpaper to hang in the shack. The first one is "The Unbelievable Operating Achievement Award". This is accomplished by working all states on the 75-meter phone band. You will then get a Geratol number that gives you the privilege to work for the rest of the awards. It is a great bunch of hams and much fun can be derived on this net. Of course you will need "Geratol" to get the rest of the awards.

For more information go to :

<http://www.qsl.net/geratol/welcome.html>

Club Static

Stan 's (WB9RQR) daughter Lisa, who is an anchor at WLEX TV in Lexington KY, was married September 25th to Mr. Doctor. in Lexington.

Joyce Harvey (WB9IMA) is at home and continues to heal from the staph infection she acquired in the hospital.

Basic Repeater, 102:

De Nels Harvey , WA9JOB

This is an outline on how a remote receive site functions. While there are variations, I will describe how the 146.97 MHz. Repeater links work.

The receivers used on our system are built around Motorola Radius GM 300 transceivers. A VHF receiver is programmed to receive signals from the antenna on 146.37 MHz, the frequency your radio transmits on when accessing the repeater. The audio is sent to an S-com 5K controller, along with a COR logic signal, resulting from the reception of your signal. The 5K controller is programmed to either accept the incoming signal, or to only respond if the incoming signal has the proper sub-audible tone. This is a function a control operator can set. We normally require the sub-audible tone on the 146.97 MHz. repeater

The 5K controller then causes the UHF 440 MHz link transmitter to transmit, passing the audio through. When an incoming signal is received, a sub-audible tone generator installed in the 5K is also turned on, and sent to the link transmitter. The controller will provide proper transmitter ID's when needed. Unless someone is being repeated through that site, the ID tones aren't passed through to the voter system at the main site, because the ID's are sent without the sub-audible tone generator activated. Occasional parts of link ID beeps can be heard if the repeater is busy.

At the repeater's main site, three UHF 440 MHz Radius radios are set to receive each of the receive link transmitters. At this time, we have the three 440 MHz receivers, and a receiver on 146.37 MHz. This gives us four audio sources bringing your input audio to the repeater. Since only one signal can be passed to the transmitting system, a voting system is employed to choose the best signal.

A fellow named Doug Hall sold us his designed voting system, the Hall Voter. This unit receives the inputs from all four receivers at the main site.

The 440 MHz. receivers use a CommSpec decoder board to detect the sub-audible tone on the incoming audio. If the incoming audio contains the proper sub-audible tone frequency, the COR logic tells the voter to consider that link source. The VHF receiver uses it's own internal decoder to provide COR logic.

The voter determines which input signal has the best audio quality, and passes only that audio to the main controller, along with the COR logic. Up to four signals could have been selected from, especially if the user has a strong signal. As an incoming signal exhibits flutter, common with mobiles, the voter will instantaneously select the input from a better source. Front panel LED's indicate which input is selected. Sometimes these LED's dance back and forth between receivers, but the output to the controller is consistent. Any sub-audible audio on the output signal is filtered out.

The main site S-com Controller, an S-com 7K, receives the best signal the Hall Voter can put out, and controls the transmit function of the repeater. I will have more on what the controllers do in Basic Repeater, 103.

Can You Connect?

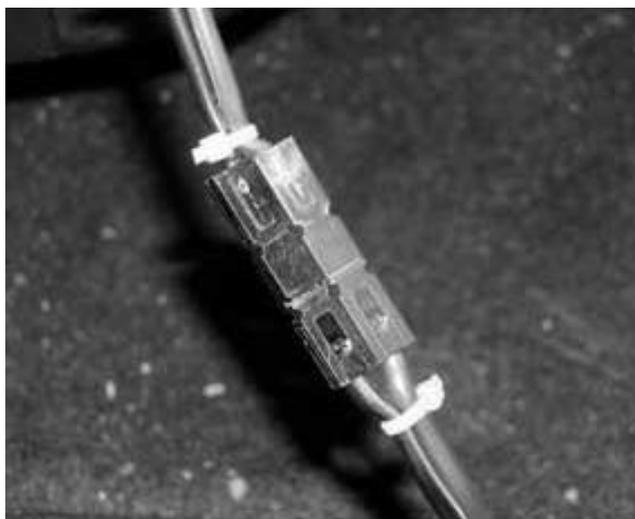
De W9IPR – Tom Ruhlmann

The most significant civic service we can offer as amateur radio operators is the provision of immediate emergency communications during emergencies such as natural or man made disasters. At a flood, fire or crash site is not the time to learn that the power or RF connectors on your equipment do not mate with that of the power source or antenna available at the site. Is it possible for your rig to be transferred to another "hams" or safety volunteers vehicle so as to supply communications from an alternate site?

The traditional connector for most mobile transceivers has been a Molex 1545 however; its contacts are limited to 10 amperes continuous service. Exceeding that design limit can result in connector heating, excessive voltage drop and

even a smoking failure. Since so many of the newer mobile transceivers are 50 to 100 watt units, their current draw exceeds the rating of the Molex connector and an alternative with higher current capability and that provides for standardization is required.

In July of this year, Stan Kaplan (WB9RQR), our State ARES/RACES Emergency Coordinator and Chief Radio Officer declared the Anderson Powerpole connector with either the 15 or 30 ampere contacts, to be the ARES standard.



The Powerpole connector is shown in Figure 1. Using the same housing, either 15 amp or 30 amp contacts can be utilized. The contacts will accommodate up to AWG16 and AWG12 respectively. One of the advantages is that the housings and connectors are genderless and one plug with for example 15 amp contacts can be plugged into another plug with 30 amp contacts. Naturally, the connection current should be limited to that of the lower rating but the point is – you have power. Most of the 100-watt mobile rigs have AWG #12 wire and should be using the 30 amp contacts.

The individual housings can be used for individual connections or they can be snapped together to form a variety of connector configurations. For standardization, use the configuration shown in Figure 1.

I changed my mobile rigs over to this Powerpole configuration and now feel I can transfer my rigs between my vehicles as well as use them in the vehicles of others. I soldered the wires into the contacts well and found the assembly of the connectors rather simple – once the technique was understood. I even made up a set of bench power supply leads using the Powerpole to make it more convenient to bench test equipment. If you don't change over your connectors, and do plan to be of service in emergencies, I suggest you at least make up a "Molex (or whatever) to Powerpole" conversion cable.

The relevant Anderson part numbers are shown below.

Connector	Complete	Housing	Contact Only
15 Amp			
Black	1395G1	1327G6	1332
Red	1395	1327	1332
30 Amp			
Black	1330G4	1327G6	1331
Red	1330	1327	1331

If you run a search on "Powerpole" you will be taken to a number of ARES/RACES web sites with this and a variety of other information. One to try is www.Ocraces.org/powerpole.html.

Oct. 9th, Meeting Minutes

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions:

The meeting was called to order at 7:31 PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

The Friendly Fest by the Milwaukee Repeater Club, will be held at the Waukesha Expo on November 2, 2002.

Stan, WB9RQR, announced he was considering doing another computer class. (Ed. Note: The class is already filled.)

Stan's daughter was married in Kentucky on September 28th. Stan displayed a photo of the bride.

The Club hasn't heard from the Grafton Christmas Parade people yet. The Cedarburg Emergency Government people have been requested to send their communications van. Leon will contact Mike Donahue regarding our participation.

Program:

Paul, KB9ODQ, and Rebecca Gruettner, KB9LFW, gave a presentation about the mechanics of researching, writing, and publishing Rebecca's first book, titled "The Fox". A tantalizing tale, including psychic forewarnings, a sixth sense, and a touch of Amateur Radio, make this murder mystery very interesting.

After the program, Stan held his usual auction.

After the break: The regular business meeting was convened.

Minutes: The minutes of the last meeting were accepted.

Treasurer's report: Gabe, WI9GC, was not present, and Nels, WA9JOB, passed out printed Treasurer reports. Because the Scholarship funds were not immediately available to be withdrawn, the general fund advanced payment to the ARRL Scholarship group, F.A.R. Jon, KB9RHZ, moved to accept, subject to clarification of the Scholarship funding withdrawal, and Bob, W9RNA, seconded. The report passed by voice vote.

Repeater Report: Dave, N9QA, deferred the report to Nels, WA9JOB. Nels announced the Mee-Quon Park tower site now has a receive link for the 146.97 MHz. repeater in operation. All else is status quo with the repeaters.

OZARES Report: Jon, KB9RHZ, announced a disaster drill was held at St. Mary's Hospital, Ozaukee (SMO) on Saturday, September 28. He told us there were many problems unearthed regarding communication. The drill functioned without regular telephones. Jon will set up an emergency response team to evaluate the results. Many dead spots were experienced, HT's and other equipment problems were experienced. He reminded the group of the regular OZARES meeting Thursday, October 24. There will be a HAZMAT training, and recap of the SMO exercise.

Old Business: Vic, KB9UKE moved the Audit Committee's effort to change part of Section 3 of the Club's Bylaws to:

Section 3. The Repeater Vice President shall be responsible for all aspects of the care, maintenance, design and proper operation of any repeater project. The Repeater Vice President shall be responsible to the President of the corporation, and through the President of the corporation, to the members generally.

The Repeater Vice President may appoint such assistants from Regular Members as he or she deems appropriate.

The Repeater Vice President shall render periodic activity reports at regular meetings, and upon completion of the term of office or resignation or removal, shall furnish a written account for any corporation property which may have come into his or her possession or control during the term.

After determining that there was a Quorum, the Bylaws change was passed by a 34 to 2 vote.

A request was made by Tom, W9IPR, for the Board to consider supporting the Club's website sponsor further, financially. No official action was taken.

New Business: Jon, KB9RHZ, presented a proposal to join the VOAD Emergency Management project. The project was referred to committee for consideration.

Vic, KB9UKE, demonstrated a computer CW interface that he built.

Keith, KY9P, discussed the contest to buy, or build an HT holder, for less than a \$5.00 investment. Keep the project as simple as possible, and some undisclosed cash prizes will be presented to the judge's favorites. Projects dressed up with beads, doilies, sequins, or any such, will be immediately disqualified.

Adjournment: The business meeting was adjourned at 9:16 P.M.

Next Meeting: The next meeting will be held on November 13, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Bernie, AA9CI, Tom, W9IPR, Gene, KB9VJP, Bob, W9LO, Terry, KA9RFM, Ray, W9KHH, Don, W9VSC, Dave, N9QA, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Ed, AA9W, Jane, KB9SYI, Stan, WB9RQR, Leon, K9GCF, Jim, N9WIU, Carol, KC9CBC, Ed, AA9GT, Ernie, K9LO, Jake, KB9ZOR, Kent, N9WH, Jon, KB9RHZ, Vic, KB9UKE, Bob, W9RNA, Joe, KB9URC, Ben, K9UZ, , Jim, K9QLP, Ron, WB7OFC, Jeff, KB9QQE, Gary, W9XT, Julia, KB9WBQ, Tom, AA9XK, Mike, WJ9O, Keith, KY9P, Chub, KG9MS, Mike, N9JIY, Gary, WI9M, Cindy, KA9PZG, Dave, N9UNR, and our program presenters, Rebecca, KB9LFW, and Paul, WB9ODQ.

Note: Did you enjoy reading this issue? If so, share a few paragraphs about something you enjoyed within the hobby with the rest of the membership. If not, submit a few paragraphs to improve the next issue.

AGENDA

Nov. 13th, 2002

1. Call to order.
2. Introductions.
3. Program – The Flagpole Vertical.
4. Auction.
5. Break
6. Call for acceptance of minutes.
7. Treasurer's report – Gabe Chido (WI9GC).
8. Repeater report – Dave Knaus (N9QA)
9. OZARES report – Jon Gilmore (KB9RHZ).
10. Committee reports – VOAD Report
11. OLD BUSINESS

- a.
 - b. Open to the floor.
12. NEW BUSINESS.
 - a.
 - b. Open to the floor.
 13. Adjournment.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, Nov. 13th

7:30 PM



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.qsl.net/orc/>

Volume XXI

December 2002

Number 12

The Prez Sez

By Leon Rediske K9GCF

Seasons Greetings ORC Members, & others:

Now is the time of the year to let those AES catalogues lay around with your dream radio circled boldly! Sometimes one must NOT be subtle about what we are wishing for!

I can emphasize with you all, for my mobile is working intermittently, and I need to fix it or toss it. Aren't those intermittents a devil of a time to find? Santa are you listening?

This time of year one needs to think of ORC officer material for next year, the up coming PEP (Post Everything Party) party Feb. 15, 2003, and making arrangements for Dayton 2003. Now the tradition of the PEP is that it is Post Everything.....after Christmas, New Years, Valentines day, post everything.....

Also tradition has it, that we bring wrapped gifts, of nearly anything radio imaginable. Some things are useable, some are not. For instance, last year I received a new shrink-wrapped version of DOS 5.0.....Many use the PEP as an early version of spring shack cleaning!! Sure is fun to wander around that night and see what gems everybody has received. It is also at the PEP where the awards go out to the ham of the year, turkey of the year, and several tongue in cheek awards as well. It is also a night where we treat our spouses to a wonderful dining meal, put on by the ladies of the local VFW.

Kudos to Jim KA4UPW, for his fine presentation at the November meeting on his newly constructed Flag Pole antenna. His antenna answers the question of outside antennas to those of us that have real estate covenants and regula-

tions. Jim's antenna shows his great skill in engineering a great antenna that meets the needs of the real estate covenants, and radiating a good signal as well.

As Jim has pointed out, a disguised antenna works as well as one that can be identified as an antenna. Years past, I have used the metal rain gutters on both sides of my house.....fed it with twin lead through a tuner.....like a wide spaced dipole.....and it worked remarkably well. For those with plastic rain gutters, lay your antenna wire in the gutters, or better yet, tie-wrap it to the gutter supports. Hmmm, maybe this is an answer to the ice back up over my gutters last winter. Anybody have a huge HF RF amplifier.....that I can use to melt the ice...? Rolly Hollingsworth.....I'm joking.....I'm joking.....

73's for now, and see you all at the December 11, ORC meeting, 7:30 PM,



Did Gabe really buy all that stuff or is he just sharing someone else's load?

Upcoming Events

01/04/03 – WARAC Swapfest–Waukesha Expo

02/15/03 – Post Everything Party

For Sale, Trade or Free

Kenwood Desk Microphone **MC-50 - SOLD**

Cushcraft A3S **beam antenna** with a **40 meter** kit and a BN-86 **Balun** - \$300

Universal 30 ft. free standing crank up **tower** with rotor mounting plate - \$300

Hustler G6-144B 2 meter ant. – **6 dB gain** - \$60

Yaesu antenna **rotor** model G800 SDX - \$200

Contact AA9GT (Ed Seigworth) at **377-8929**

Contesting

De: W9LO Bob Truscott

Last month's column reported that K9CAN had 471 "SOS" in the ARRL DX Phone Contest. In case anyone wondered about that, "SOS" is what the computer's spell checker, in its infinite wisdom, decided to call "QSO's". It must have been Tom's computer—mine's a lot smarter than that. (Can you imagine Dick sending SOS 471 times? With a 5 kW rig, once should have been sufficient..)

The Field Day results are in. Some people see FD as an emergency preparedness exercise, public service training event, and all those good sounding names, but I see it as the biggest "fun" event of the year, and the number one contest of the year. Regardless of how each of you perceive it, the results were great. We were first in the 5 TX category in Wisconsin and in the 9th call area, and 3rd in the country. Not bad, considering the great time we all had doing it. And, with a little contesting effort by each of us between now and next June, we can improve upon that. Wouldn't it be nice to be number 1 instead of

number 3 in the country. We'd have really big bragging rights then.

Reported Scores:

CQ WW DX Contest–W9XT 839 QSO's, 136 countries. All on 10 meters.

ARRL Nov. SS-CW:

W9LO -794 QSO's, 76 sections

WI9M-560 QSO's, 78 sections

W9XT-360 QSO's, ??sections

KB9UKE- 296 QSO's, 69 sections

W9KHH-250 QSO's, 71 sections

ARRL Nov. SS-SSB

W9LO- 160 QSO's, very few sections

No other scores reported.

Upcoming Contests:

Dec. 6-8 ARRL 160 Meter Contest–CW only.

See Nov. QST, page 114

Dec. 14-15 ARRL 10 Meter Contest-SSB, CW & AM. See Nov. QST, page 114.

Have fun contesting.

And the winner is



Julie Nawrot, KB9WBQ, shown here demonstrating her unique HT holder, made from a bookend and a napkin holder, and accepting her cash prize from President Leon .

And the nominations are:

Per our by-laws, we must elect our slate of officers at the January business meeting and that is about upon us. The nominating committee, comprised of chairman Jim Albrinck (K9QLP), Jon Gilmore (KB9RHZ), Dave Barrow III (N9UNR) and Tom Ruhlmann (W9IPR) have attempted to canvas the membership and present the following preliminary list of members for election at the January 8th, 2003 meeting.

President: Gary Sharbuno (WI9M)

Vic Shier (KB9UKE)

Vice President: Mike Matthies (WJ9O)

Repeater VP: Nels Harvey (WA9JOB)

Treasurer: Gabe Chido (WI9GC)

Tom Nawrot (AA9XK)

Secretary: Carol Szudrowitz (KC9CBC)

Nominations from the floor are also welcome at the January meeting.

Automatic members of the 2003 Board of Directors are the immediate Past President Leon Rediske (K9GCF) and Repeater Trustee Ed Rate (AA9W)

Just Another Shack

De Todd Sprinkelman KC9BQA

This month's shack visit is with Bob Truscott, W9LO. Bob is a Charter Member of ORC and he has kept his membership continuous, even though he lived for some years outside Wisconsin.

Bob was raised in Council Bluffs, Iowa. He got his ham license in 1947 and has held the call-signs W0EJA and W9NYJ in addition to his current call. An interesting thing about Bob is that he actually learned CW in the Civil Air Patrol, in high school, during WWII. This led to a stint in the Army Air Forces Radio School. There, Bob sat with others and received instruction in CW 8 hours a day. Yes... EIGHT hours a day. Bob told me he must have had an affinity for CW because many others simply washed out of the program. It was after Bob left the Army that he got his ham ticket in 1947.

Bob is a radio and TV broadcast engineer by trade. He obtained a 2-year degree when TV was in its infancy and this led to a variety of jobs. Bob moved to Wisconsin in 1954 and helped get Channel 12 on the air. Channel 12's original call-sign was WTVW. It was changed to WISN shortly after 1954.



Bob is shown here operating CW at his FT1000MP. Not shown are his trustworthy Drake transmitter and receiver

Bob became Channel 6's first Chief Engineer and he worked from 1956-1981 at WITI. Bob retired from full-time employment in 1992 but he continues to work as an engineering consultant for low-power TV stations.

As mentioned before, Bob has been a ham since 1947. His current rig is an FT-1000 Mark V. He works all HF bands from 160 through 10M, using a variety of wire dipoles. By far, Bob's favorite mode is CW and he especially enjoys contesting. Bob's favorite activities are Field Day and the November Sweepstakes.

Some of Bob's radio memories are that he used to do a lot of home-brew transmitter work in his

younger days. Apparently a few of his projects used to produce strange unexplained clicking noises when they were used near other transmitters at Field Day. Another memory of Bob's was operating CW mobile. His wife, whose father was a "ham", had some reservations about this, but Bob always did just fine driving and sending at the same time.

Bob also used to play checkers on CW with W9BCK. This was back in the 1950's. He explained that this worked by numbering each of the squares on the checkerboard and then simply sending two numbers to signify a move. The first number referred to the square where the piece was located and the second designated where to move the piece.

Nowadays, Bob can be found both in the ORC newsletter and as part of the ORC Field Day crew. Of course, we all appreciate Bob's contribution to the Contesting column in the newsletter. This summer, Bob was at Field Day operating 40M CW from a trusty canvas tent. His Mark V sat on a picnic table, next to a computer monitor. As did a dusty old stuffed turkey. Together, Bob and that turkey made hundreds of QSO's on CW.

Upgrade to General?

G9D01 Which of the following factors help determine the characteristic impedance of a parallel-conductor antenna feed-line?

- A. The distance between the centers of the conductors and the radius of the conductors.
- B. The distance between the centers of the conductors and the length of the line
- C. The radius of the conductors and the frequency of the signal.
- D. The frequency of the signal and the length of the line.

Ans. – A. The characteristic impedance of a parallel-conductor feed line depends on the distance between the conductor centers and the radius of the conductors.

G9D02 What is the typical characteristic impedance of coaxial cables used for antenna feedlines at amateur stations?

- A. 25 and 30 ohms
- B. 50 and 75 ohms
- C. 80 and 100 ohms
- D. 500 and 750 ohms

Ans. – B Common /coaxial cables used as antenna feed lines have characteristic impedance's of 50 or 75 ohms.

No. 103 - How Do You Get the Labels Off?

I have been asked this by many hams over the years, and thought the answer(s) would be worth sharing, even though it is a rather mundane topic. Basically, how do you get old labels off of floppy disks? The answer applies not only to floppies, but also to pill bottles, household cleaning containers and most any kind of plastic, glass or metal container that a ham might want to use. My approach comes from a lot of personal experimenting, but also from consultation with an engineer whose job it was to design the "sticky" in sticky labels. He and I were having dinner together after judging the state Science Fair, and when I found out what he did for a living, dinner conversation consisted of me pumping him about sticky stuff!

The best way, of course, is to simply peel off the label in one piece. Many times that will work straight away. However, the engineer gave me one useful tip. The secret is to

(Extracted from and continued in the Badger State State Smoke Signal at www.bsss.org).

Editors note: I encourage you to read the rest of the article. I have found that soaking the container in water for a few days' releases the paper label but the adhesive remains. However, a short squirt of "Gumout" carburetor and choke cleaner makes quick work of the adhesive.

Another Great Program

We had a great program at the November meeting with Jim (KA4UPW) describing how he converted a "Sams Club" flagpole into a tuned all band vertical. He even layed 128 radials on the ground and let the grass grow around them to make them "mower proof". Wish I had thought of that.



Jim Hilins tells how he constructed his "flagpole vertical" using the extra few feet from the "Sams Club flagpole"

WHY QRP?

By Mike Greenfield N9JIY

I tried to come up with the Top 10 reasons for operating QRP (Low Transmit Power), rather than QRO (High Transmit Power), but could think of only 4, but they're pretty good ones! HOWEVER, before we begin, you need to know that QRP is defined as 5W or less transmit power available at the transmitter antenna connection. I don't know why. It just is. There's also an informal subclass called QRPP, which means power under 1W out, the "milliwatters". That's not much juice, so be-

fore we go into the reasons for QRP, let me reveal the grand secret that makes QRP and even QRPP possible.

It's this. The S-meter on your rig, AND your own ears are not linear devices. You'd think they'd perceive half as much signal strength as half as loud. They don't! Instead they work as shown in the table below. It begins with 100W of power on the transmit end of a QSO yielding a reading of S-9 on the receiving end. IF that's the case, then... a signal of .1W yields an S-meter reading of S-4

100W	S-9
25W	S-8
6W	S-7
1.5W	S-6
0.4W	S-5
and 0.1W	S-4

So, unless QRN and QRM are pretty bad, an S-6 (1.5W!) signal is just as copiable as an S-9 (100W) signal. Your ear probably won't even hear the difference. Read and weep QRO ops, because if 100W out yields S-7 on the receiving end, you'll need full legal power just to get to S-9.

So, "Because it works" is the #4 reason for QRP. Now moving on...

REASON #3 - QRP keeps kit building and home-brewing simple and low-cost. Final amp stage of most QRP transmitters includes just 1 transistor. Tiny plastic TO-92s (like 2N2222) yield 0.25W out. Metal "top hat" TO-39s (like 2N3053) WITH heat sink give 1-2W out. And flat metal-tabbed TO-220s, again WITH heat sink are worth 4-5W out. Most kits and home-brew projects are CW monoband rigs, again for simplicity.

The simplest, complete, operating QRP station I ever built included just 3 transistors and a LM386 audio amp chip. It looked awful, but worked fine. You can really "get back to the basics" with QRP rigs.

REASON #2 - QRP keeps power supply size manageable. Do you really want to carry a 20A "boat anchor" when you go portable?? Receive draw on some QRP rigs is just 30mA. I don't

know of any "plain-vanilla" rigs that top 100mA on receive. Key down draw can range from just milliamps to about 1A at 12VDC. Wall-wart power is common. Milliwatt rigs will run off 9V transistor batteries. A clip of 8 AA cells will run a 1W rig all afternoon, and a string of D cells, will run a 5W rig for days of casual operating. Some QRP ops charge batteries only with solar power.

FYI: Alkaline AA cells are rated at about 2,000 milliamp hours (mAh) capacity; C cells at 6,000mAh; D cells at 12,000mAh. D cells give absolutely the most bang-for-the-buck.

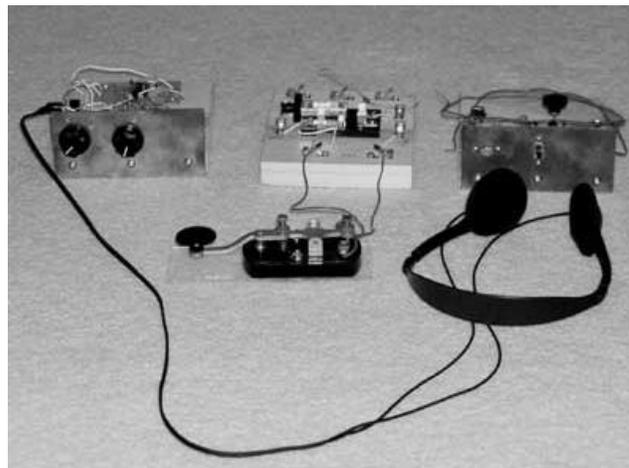
NOTE: A holder for 9 cells (made out of PVC pipe?) will give 13.5VDC like an AC power supply, instead of just 12VDC from 8 cells. Better!

Many commercial QRO rigs can be turned down to transmit at QRP levels, and this cuts transmit power required a lot. BUT displays, and micro-processors in these rigs put receive power draw over 1A on many of them. Still, compare the size/weight/cost of 20 vs. 5 Amp power supplies. A 5 Amp supply will run most rigs at 25W, and most receiving stations can't hear the difference between 100W and 25W anyway.

AND NOW.....

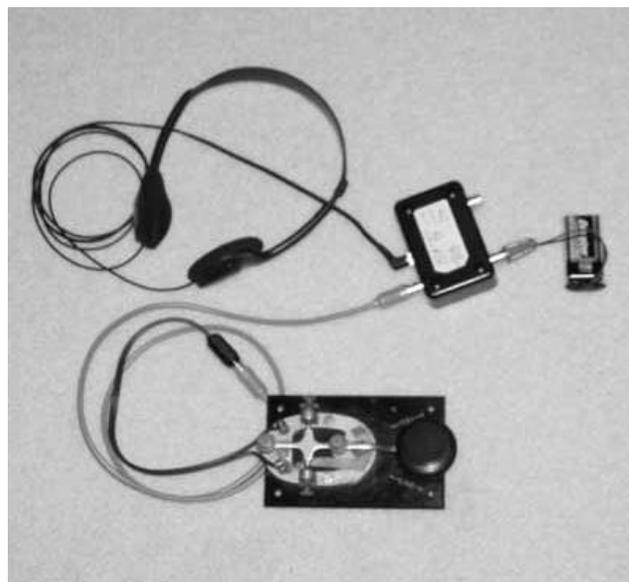
REASON #1 - QRP operation impresses chicks! It's like riding a bicycle no-hands, slam-dunking the round ball, or fishing with flies you tied yourself. You don't HAVE to do it, but you're GOOD enough too. Yes, friends, there's joy in the heart when you've gotten a 579 report from an op running 200W from his new mega-function "Yaeken EX3000 pro", and you "confess" you're running just 1W from some little thing you tossed together in an evening. Also, there are many awards available only to QRP and QRPP ops. Finally, many fine clubs are devoted to QRP rig design, construction and operation. Some of the best QRP rigs start as club projects, then "go commercial". Yes, among hams, QRP builders and operators are seen as "the most coolest".

QRP RIGS? "Real" ops build their own stuff.



N9JIY's home-brew CW RCVR on the left and transmitter on the right. The unit in the middle is a manual DPDT transmit-receive switch. Minimal investment of dollars and maximum output of thrilling contacts with only 1 watt.

Kits are fine, and there are many kits available,low-cost prize goes to the Pixie2 transceiver (yes transceiver) kit, WITH 80M crystal, under \$11. (see www.halted.com)



The Pixie 2 is shown here with a WWII J38 key, headset and 9 volt battery – only the antenna and operator are missing

My choice for nifty is the Elecraft K1 4-bander. Not cheap. (see www.elecraft.com) Several companies do make "plug 'n play" QRP rigs. And

we said, many-off-the-shelf 100W boxes can be cranked back to QRP transmit levels.



The TenTec 1340 is a single bander transceiver priced at about \$100 and produces 4 watts using a wall wart power supply

Want more info? The QRP world is hip-deep in good web sites. For starters see the QRP links at www.eham.net. A couple of the great "must see" sites are:

Northern Georgia QRP Club (NoGaQRP) at www.qsl.net/nogaqrp
Australian QRP Club at www.alphalink.com.au/~parkerp/qrp.htm

QRP Home Builders Page at www.qrp.pops.net
Northern California QRP Club at www.norcalqrp.com
QRP Amateur Radio Club Intl at www.qrparci.org
and a "private" site with loads of links at www.ac6v.com

Basic Repeater, 103:

De Nels Harvey , WA9JOB

This is the third part of my basic introduction to repeaters.

This is an outline on how a repeater controller functions. I will describe how the ORC repeater controllers function. All of the ORC repeaters use the S-com 5K controllers. In addition, the 146.97 MHz. Repeater uses an S-com 7K controller on its main output.

The 5K controllers accept the audio from the associated receiver, and a COR logic input. The

controller responds to touch tone commands from a received signal.



The 5K Controller, Receiver and Transmitter at Remote Sites

The touch-tones can be received on the main receive channel, or on a separate control receive channel if so equipped. We do not use any control receivers at this time.

The controller permits macros to be written, and programmed internally to itself based on touch-tone entries. There are a number of firmware functions that also can be modified by touch-tones. The transmitter ID is accepted by the firmware, with specific tone digits that determine the CW tone, speed, and callsign. The remote receiver controllers have macros that close a relay whenever it causes the link transmitter to transmit. This turns on a fan intended to cool the transmitter's heatsink. There are macros that permit the control operators to turn on and off the transmitter, and turn on and off sub-audible tone requirements.

The main site S-com Controller, an S-com 7K, has many many more macros programmed in it. The reset beep, weather beep (W), and Net (N), are examples of what is controlled by macros. All of the individual autopatch speedials are macros. One macro for each number. There are macros to control whether any of the four receivers feeding the Hall Voter are on, or off. On the 7K, a macro will cause a cooling fan to come on with any activity, whether it's a received signal, or an ID, and keep the fan on for four minutes after the activity ends and the transmitter is off.

Control functions are written as macros, so control operators can cause certain functions to occur without needing to know the secret password that is imbedded in the macro structure. The macro system employed in the S-com controllers make them the industry leader. The 7K will accept up to 200 macros. I haven't counted, but we are probably using around 150 macros on our system.



The 7K Controller at the Main Site

The 7K controller has the telephone interface module that permits telephone autopatches. The Club maintains a telephone line at the main site that interfaces with the controller so autopatches can be made. This same line is able to receive touch-tones over the phone and send them to the controller, to execute macros and do control functions. Sometimes, the reset beep disappears briefly on the repeater. When the telephone line is called, the controller re-directs the beeps and ID's to the phone line. What justice for those pesky telemarketers!

Next time, I will discuss just what deviation on an FM system really is! That's something W9IPR could use a little more of on these cold mornings.

The Great Parade

A really great time was had by twelve of our members supporting the Grafton Annual Christmas Parade with communications services in the parade assembly area. It was really interesting to learn how all the floats and groups are assembled and then blended into their respective assigned positions as the parade starts. The 1.5 hour parade was enjoyed by hundreds and hundreds, including my grand children, even though the weather was cold and windy.



Shown here are the ORC communicators enjoying a Pizza at Pizza John's after the parade. Clockwise from the left they are Gene (KV9VJP), Ed (AA9W), Nels (WA9JOB), Jim (K9QLP), Gabe (WI9GC), Gary (WI9M), Jon (KB9RHZ) and Carol Ann (KC9CBC). Not shown are Ted (N9LLT), Kevin (N9WCU) and Tom (W9IPR).

Minutes of the November 13, 2002 Ozaukee Radio Club Meeting

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions:

The meeting was called to order at 7:31 PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

Gary Sutcliffe, W9XT, showed off a CW and Voice recorder, suitable for use in on the air contesting. The model is the VK-64, and to contact him if you would like to get one.

Leon, K9GCF, had some W.A.R. repeater directories available.

Field Day results are in, and Leon reported that we took third place in our class, 5A, overall. We placed first in Wisconsin, and in the 9 calling area. He also heard from Abe, and Marie Galonski, who congratulate the Club on the excellent showing at Field Day.

Leon then encouraged Club members to participate in Phone sweepstakes on the next weekend, November 16 and 17.

Program: James Hilins, KA4UPW, gave an interesting talk on how, and why, he put up a stealth vertical antenna. Essentially, since he now lives in an antenna restricted area, he placed two aluminum flagpoles together, added a tuner at the base, installed an extensive groundplane of 120 radials, and documented the radiation pattern on 20 Meters. He explained some of the design problems that arose, and is generally pleased with the antenna's performance.

After the program, The HT holder contest was concluded. Julia, KB9WBQ, won first prize, Sky, N9XRU, was second, and Nels, WA9JOB, Vic, KB9UKE, Stan, WB9RQR and Bob, WQ9N took honorable mention.

After the contest, Stan held his usual auction.

After the break: The regular business meeting was convened.

Minutes: The minutes of the last meeting were accepted.

Treasurer's report: Gabe, WI9GC, explained why the general treasury advanced money for the Scholarship funding, and assured us the Scholarship fund repaid the general treasury after the CD became due. Dave, N9UNR moved to accept the Treasurer's subject to audit. It was seconded by Gary, WI9M, and passed by voice vote.

Repeater Report Nels, WA9JOB, reported that the Board of Directors voted to no longer pursue the link antenna project on the Channel 18 tower. They also voted to abandon the possible location of a link at the West Bend FM station, WBKV. It was then voted to go ahead with one additional link, to be placed on the County's Belgium tower. All the Club's repeaters are operating normally, except the 224.18 MHz. amplifier is still out of service.

OZARES Report: Jon, KB9RHZ, reminded everyone the November OZARES meeting would be on Thursday, November 21, the third Thursday, because of Thanksgiving. He announced a group was to help with the communications problems on Saturday, the 16th. Jon also has Anderson Power Poles available. These are being promoted as a universal cross-connector for 12 Volt radio equipment.

Stan, WB9RQR, told us of a State wide meeting of the ARES EC's, and he had 80 people attend.

Old Business: The Board of Directors reported it had voted to not affiliate with the VOAD Emergency Man-

agement project. Stan, WB9RQR, moved to send the issue back to the Board as a committee. Tom, W9IPR seconded the motion. The motion failed by hand vote.

After procedural questions from the floor, it was decided to place the decision before the Club as a whole. The motion to not affiliate with VOAD was placed by Nels, WA9JOB, on behalf of the Board. The motion passed, by hand vote.

New Business: There was no new business.

It was announced by Jim, K9QLP that the Grafton Christmas Parade group is in need of our services, on November 30.

Adjournment: The business meeting was adjourned at 9:49 P.M.

Next Meeting: The next meeting will be held on December 11, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Bernie, AA9CI, Gabe, WI9GC, Tom, W9IPR, Gene, KB9VJP, Bob, W9LO, Terry, KA9RFM, Ray, W9KHH, Don, W9VSC, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Ed, AA9W, Jane, KB9SYI, Stan, WB9RQR, Leon, K9GCF, Carol, KC9CBC, Ed, AA9GT, Jake, KB9ZOR, Kent, N9WH, Jon, KB9RHZ, Vic, KB9UKE, Joe, KB9URC, Ben, K9UZ, Jim, K9QLP, Ron, WB7OFC, Gary, W9XT, Julia, KB9WBQ, Tom, AA9XK, Keith, KY9P, Gary, WI9M, Cindy, KA9PZG, Dave, N9UNR, Bob, W5CFB, Jim, KA4UPW, Fred, N9FH, Joe, AA9HR, Brian, N9LOO, Paul, KA9RPR, Bob, WQ9N, Sky, N9XRU, Bob, N9NRK, Joe, KB9URC, and Ray, W9BUJ.

AGENDA

Dec. 11th, 2002

1. Call to order.
2. Introductions.
3. Announcements
4. Program – Using the Packet Cluster and Contesting with the N1MM Software
5. Break
6. Auction
7. Call for acceptance of minutes.
8. Treasurer's report – Gabe Chido (WI9GC).
9. Repeater report – Dave Knaus (N9QA)
10. OZARES report – Jon Gilmore (KB9RHZ).
11. Committee reports – Post Everything Party
- Nominating Committee

12. OLD BUSINESS
 - a.
 - b. Open to the floor.
13. NEW BUSINESS.
 - a.
 - b. Open to the floor.
14. Adjournment.

John's Pizza @ 1401 11th Ave. in Grafton

Return undeliverable copies to

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

7:30 PM



The *ORC* Newsletter

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**ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site:
<http://www.qsl.net/orc/>**

Volume XXI

January 2002

Number 1

The Prez Sez

By Leon Rediske, K9GCF

As I reflect on the accomplishments of this last year, I have come up with the following: We, as the good old ORC, have made OUR CLUB #1 in Field Day scoring (5A) in Wisconsin. It was a team effort, and all of you who participated should know you helped to make it happen!!

We have added staggering amounts (\$2000) to our scholarship fund, something we put a priority to last year. Thanks again to those that helped get donations, processed the equipment, and helped sell and deliver it so that others may improve their education via our efforts.

We have lost several noteworthy hams this last year: Among them are Jack Mc Leland, W9ATK, an ORC club member and staunch supporter. Jack's key went silent on Jan 2, 2001. Smoke Signals Editor Jim Romelfanger, K9ZZ, became a silent key on Saturday, December 22, 2001. He edited the Badger State Smoke Signals, a ham radio publication, which all hams should subscribe to, especially for the article that ORC's Stan Kaplan, WB9RQR, writes for every issue.

We got a major manufacturer, ICOM, to participate in our Field Day efforts by donating the state-of-the-art radios we used. Also, ICOM participated in our hamfest, adding credibility to our hamfest. Pretty impressive "never before" accomplishments for the ORC, and ICOM! We endeavor to continue this unique relationship for a long time to come. May it benefit both of us.

We have had a wonderful set of programs this year. Thank everyone that participated in each one. We are going to start 2002 with a "bang" of a program on Early Radio/TV. If it is well re-

ceived, this program will be one of a series, and can be "steered" by our questions.

Just a reminder: Elections are coming., January 9th. If there is someone you might like to nominate, be sure your nominee is willing to accept the position, and has the time available to do a great job for our club. As our Club moves forward into another year, we want officers who are willing to take on their positions wholeheartedly, and really wish to contribute to our club. Does your candidate have the "Right-Stuff?"

The VPs Corner

By Jim Albrinck, K9QLP

Many folks were wondering if this year's Grafton Christmas Parade would be a "washout" as the sky opened up on Downtown Grafton the morning of November 24. The hardy souls of the Ozaukee Radio Club were not deterred, however, and showed up in the grand tradition of Amateur Radio to do their part, if and when, the parade happened. At 10:45 the "GO" signal was given and the first units stepped off at 11:10 AM. The following members donated their time to assist the Grafton Chamber of Commerce in making the most out of a wet and uncomfortable situation:

Ed AA9W, Cindy WA9PZG, Gabe WI9GC, Dave N9UNR, Gene KB9VJP, Jim K9QLP, Bernie AA9CI, Rick N9PMR, Nels WA9JOB, Gary WI9M, Jon KB9RHZ, Ed AA9GT, Gary N9SQA Peter KB9URH and Skip KA9DDN.

As a final note, I have had some members wonder why the nominating committee did not nominate me for an office in 2002. The reason is

that due to my involvement with the Cedarburg Fire Department as the Treasurer and the extra meeting time that office requires, I need to cut back on my outside activities. I told Leon that I'll continue to help on the sidelines, but do not have the time to serve as a club officer at this time. In other words, please do not put my name into nomination at the January meeting.

Thanks again for the opportunity to serve as your Vice President during the past year.

Field day 2001

Gary Sharbuno WI9M

Well this year we had a good group, verses only me planning the Ozaukee radio club field day exercise. We had several meetings at Leon's, and all the little, and some big kinks were worked out. The Thursday evening group was well organized, and we got the essential equipment on the site. Thanks much for such a good turnout. Things went up Friday afternoon and evening, and the great culinary delights of Dr. Stan were tremendous. We had two tables of sheep's head players going while the beverages and munches, were flying all over the place. That evening tents and antenna supports were erected until sundown. It was nice to have lots of help. The weather for Saturday morning was just great, and the rest of the fine-tuning was accomplished. The start of field day went off very well, but I guess the PSK guys had a few last minute glitches to iron out.

The sound of (CQ field day) rang out on both phone and CW, and the pulse of generators singing was just great. Ed's portable power station worked flawlessly. The evening hours approached and contacts were rolling in, thanks to the wonderful rigs that were lent to us from ICOM. Thanks much to Rick (N9PMR). We had lots of operator and logging help. Even though there was some discussion about the operating and logging could have been better, we did an OK job. We may have to have a little mini class, on how to operate during a phone contest. Sunday morning we had a wonderful breakfast, and hats off to the chefs and the other help in the kitchen department. The 1PM finish deadline came fast, and all in all, things went well. There

was adequate help at strike time, and we had all the stuff stowed back at the barn in good time. I do not want to go into thanking individuals, for I do not want to leave anyone out, and hurt some feelings. It was a great effort on the club's part, and with being 6th in our transmitter group out of the seventy plus entered, We did (FANTASTIC)!!!! I am looking forward to next year, and if we have the same effort, WE WILL DEFINATLY BLOW THE REST OFF THE BAND. Thanks again one and all. Until next Field Day.

73's

Web Sites of Interest

http://www.sphere.bc.ca/test/nixies.html	Nixie tubes
http://www.radau5.ch/start/html	Vacuum tubes
http://www.aade.com/tubepedia/1collection/tubepedia2.htm	Vacuum tubes
http://www.QRZ.com	Links to Everything "ham"

Starting the Day

By: John R. Welty

If you can start the day without caffeine or pep pills,
 If you can be cheerful, ignoring aches and pains,
 If you can resist complaining and boring people with your troubles,
 If you can eat the same food everyday and be grateful for it,
 If you can understand when loved ones are too busy to give you time,
 If you can overlook when people take things out on you when, through no fault of yours, something goes wrong,
 If you can take criticism and blame without resentment,
 If you can face the world without lies and deceit,
 If you can conquer tension without medical help,
 If you can relax without liquor,
 If you can sleep without the aid of drugs,
 Then you are probably a cat or a dog.

The Post Everything Party

It is coming March 2, 2002! Mark your calendars, and plan to bring your significant other. The party is at the same American Legion Peter Wollner Post (Cedarburg) as in the past, known for their good food, service and nice facilities. See you there. Price and time to be announced. Begin stocking up on those "stocking stuffers" for the "gift" exchange. The heavier, the better! Hah!



6 Meters at 3 meters

Granted, it's only 10 feet high but it got me on 6, the "magic band". Glad I went this route before I invested in another tower etc. I am yet to discover the "magic" although I hear others talking of great openings – 40 states in 3 hours etc.

Quarter Century Club

By Ron Yokes, W9BCK

Considering the possibility that members of the ORC that were first licensed by the FCC twenty five years or more ago may be interested in becoming a QCWA member, I offer this brief explanation of how to get the job done.

The way it works is this: first, one must in to National QCWA an application for membership. Membership in the National outfit is a pre-requisite to joining local

Wisconsin Chapter 55 chaired by Vern Teske W9RYA, one of the founders of ORC. When National acknowledges your membership and issues a member number and date of enrollment, put this information on the local Wisconsin Chapter 55 application form and send it to the address indicated. Dues for the National are \$20 annually plus Initial Registration fee of \$3. Wisconsin Chapter 55 dues are \$5/year plus \$1 sign-up fee. The \$5 just covers the cost of Ch. 55 newsletters (4 or 5 per year). The National sends quarterly newsletters (50-60 page booklet) of interest to the National membership with local inserts of the various Chapters throughout the USA and O'Seas...a way to learn about long lost Ham buddies, etc....and keep up with our aging world of Ham radio "Greats".

Chapter 55 holds two dinner meetings a year on the first Saturdays of June and October. Our last meeting was at the Machine Shed Restaurant in Waukesha, WI. Fred Linn W9NFZ, author of the Vibroplex article in the August newsletter, brought 25 of his "automatic key" collection for a "Show and Tell" program...this to let you know a bit about our low-"key" activities. We move the semi-annual meetings around to accommodate the far-flung members. For example the last few meeting were held in Beaver Dam, Winnecone and Green Bay, and plans are in the works for a meet next June in Watertown. All hams are invited to our meetings, members or not...gives us a shot at twisting an arm or two for membership. Our oldest member is 96 and still whacking off 45 wpm regularly in CW QSO's with his buddies from the radio broadcast profession. Several members have been licensed since 1932 and earlier. Each has stories to tell that have not been heard before, a ritual that seems to take place during the cocktail period preceding our dinners.

Chapter 55 runs a more or less informal net each Sunday morning at 8:30 am on 3985 kilocycles. Some of us use "phonetics" not heard since WWII. The net control station assignment rotates among us and 15 to 20 of our sixty members check in before charging off for their weekly "Halo" straightening. Awards for "longevity" in the hobby are available from National.

Works for me, how about you? Contact me and I'll send you the necessary applications.

Best personal regards,
The "Cheery Curmudgeon,
Ron Yokes W9BCK,
Secretary Wisconsin Chapter 55 QCWA

Upcoming Events

January 5, 2002 Waukesha Swapfest
March 2, 2002 Post Everything Party
March 3, 2002 Waukesha SEWFARS - Swapfest
May 4, - ORC Hamfest @ Circle B
May 17, 18 & 19 – Dayton Hamfest

The Examiner

By: Gary Sharbuno wi9m

After the weekly "early group" breakfast, several club members helped me at the December 15th test session. They were: Nels WA9JOB, Tom W9LNL, Kent N9WH, and Ed AA9W.

We started at 9:30 am, and had 4 people upgrade, John Palesle Sr. (WB9JLF) from Milwaukee, got his General class after being a Technician class since 1984, and his son John Palese Jr., (WB9JPH) of Fox Point, upgraded to Extra class, passing Element 4. David Hendrickson, (KC9AOU) from Fox Point, came in to take the code test, which he passed. Then we talked him into taking the General exam, and he passed that also. So he walked out as a General class ham. Then young Eric Felland (KC9AGT) from Whitefish bay, came in with credit for the General written (Element 3) and passed the code exam so he upgraded to General class. So it was a successful exam session. Every one that came in got something.

Next session in on January 19th, 2002 at 9:30am at AES.

In the future applicants must have their social security number registered with the FCC. Go to the FCC website, WWW.FCC.org/uls and go the CORES register and follow the prompts. Then on all communication with the FCC you must use this FSN (Federal Registration Number) verses the SSN. Well that's all the poop on the last test session of 2001, see ya next time.

73, happy New Year

Sex, Lies, and PSK31

de John Welty, W9ISC

OK. Here we go PSK cowboys. The mean old newsletter editor said that I had to keep my titles RELEVANT to the Amateur Radio content of the articles. YOU get to decide how relevant this title is ..I thought it was just deceptive enough to get guys like N9PMR to actually READ it. One "heads up", cowboys: If, at any time, you read that a particular aspect of this technology is "beyond the scope of this discussion" You may assume two things:

#1: The answer is far beyond what an "OPERATOR" needs to know in order to enjoy the mode

AND

#2: I have no clue.

Last pass through this PSK morass, we talked about some of the "ancestor" modes. CW, RTTY, AMTOR, PACTOR, GTOR etc. al. in one way or another, all of them were able to take an RF carrier and manipulate it so that a receiving station could identify a character / numeral / prosign.

CW = ON/OFF

RTTY = 5 bits/HI or LO

AMTOR = 7 bits/HI or LO with HANDSHAKE

How does PSK-31 go about creating, coding, and decoding characters / numerals / prosigns? For WI9GC and any other "CW is my Life" types - no need to put on your cup, this isn't going to be that tough!

Varicode is what the originator, Peter Martinez, G3PLX, calls his coding structure. It is a simple (Binary) string of "1's" and "0's" - to achieve a unique pattern, which relates to a particular character

(to save me some keystrokes, you may read that as "character / numeral / prosign").

FFFFFrinstance:

Numeral 3 = "11111111" (eight - "1" bits),

Character o = "111" (three - "1" bits), and

the question Mark "?" = "1010101111". Your

PSK-31 software NEEDS to know this, the operator DOES NOT.

Remember that discussion we had a couple of articles ago about the "technology march" taking the "HEAD intensive" things and giving them to the "machines"? This is one of those.

In RTTY/AMTOR/PACTOR/GTOR....et.al., every character is the same length - 5 bits, 7 bits, whatever. You MIGHT have noticed (assuming that you are NOT WI9GC), that the "3", "o", and "?" are different LENGTHS !!! HOW, you might ask, does PSK-31 know where one Varicode string ends and the next one begins ? GREAT QUESTION !!

If you take a look at the Varicode character list, you will see that in NO CASE, NEVER, NAUGHT TIMES will you find two ZERO's in a row. Mr. Martinez uses "00" as the "end of word" symbol - neat huh ?? So, If I wanted to transmit the message: "3o?", PSK-31 would transmit: "111111110011100101010101111" Yes ??? Yes !!! Mr. Martinez set the Varicode up FOR the English language. As a result, vowels are short (3 bits in lower case) and Zs and Qs and everything else (depending on their frequency of use in the English language), are LONGER. Note also, that there are different Varicodes for upper and lower case letters. This is why you may hear some of the High-Priest-of-PSK-31 types sermonizing that you should be PARTICULARLY careful not to send PSK-31 with "Caps Lock" engaged because it will take LONGER ya, ya, ya, If you want to transmit faster try RTTY !!

Varicode is neat, but how do I get those "1" and "0" bits into and out of my "NEW / ALMOST NEW / WAS NEW WHEN W9LO WAS A KID" HF/SSB rig?? This is as "technical" as we are going to get, Cowboys, so hang on - close your eyes if you have to - it'll be over quick.

Sine Wave: bump - dip - bump - dip
Phase Reversed Sine Wave: dip - bump - dip - bump
2nd Reversal of Sine Wave: bump - dip - bump - dip

With me so far ?????? OK !! Pretty HIGH TECH, huh ???

Your PSK-31 software is sitting there listening to a signal coming in through the XCVR. It is getting a steady sine wave signal with NO phase reversals (bump - dip - bump - dip is just humming along). The RX software is getting in "SYNC" with the signal so that it knows how long a signal should be at one phase state before it MIGHT change. I don't know what Mr. Martinez calls this, but I call it a "TIME SLOT"

As a starting point, PSK-31 reads this as a series of "0"s. A string of "0" bits is the "idle" signal. During this "idle" string, the PSK-31 display is printing NOTHING.

WHOOOPS ! PHASE REVERSAL (now: dip - bump - dip - bump). Phase reversal = "1" and the character that is "1" is "SPACE". How do we know that "1" is the only bit in the "word"? We DON'T - until we get "00" - remember that end-of-word flag (which happens to be two consecutive time slots WITHOUT phase reversals).

Sooooo, we have something like this :

time slot 1 bump - dip - bump - dip ...} "Idle" sequence = "0"
time slot 2 bump - dip - bump - dip ...} "Idle" sequence = "0"
time slot 3 bump - dip - bump - dip ...} "Idle" sequence = "0"
time slot 4 bump - dip - bump - dip ...} "Idle" sequence = "0"
time slot 5 dip - bump - dip - bump ...} Phase Reversal = "1"
time slot 6 dip - bump - dip - bump ...} No Ph. Reversal = "0"
time slot 7 dip - bump - dip - bump ...} No Ph. Reversal = "0"

two sequential ZERO bits is the "end of word" flag- print the word - in this case: "SPACE" "0000100" - time slots 1-7

Duck Soup !!!!

In order to accomplish this little set of tricks, Mr. Martinez had to deal with the reality of harmonic generation from phase switching at a 31.25 Hz rate. This is where software filtering and the

DSP capabilities of a 16 bit sound card come into play. You might ask, How's that work? I might answer: GREAT QUESTION! But beyond the scope of this discussion !!

Contrary to the title of this article, I have NOT told you any lies in this article. We have gone well beyond the "technical understanding" point most PSK-31 operators ever reach. As fully fledged PSK-31 TECH COWBOYS, you can now walk around Dayton talking about the work you are doing developing Varicode for the Farsi language. See if THAT doesn't make some jaws drop!

Next time we will talk about the FUN STUFF -- PSK-31 OPERATING.

BE AMAZED - HAVE FUN - Try PSK-31

Nets of Interest

MHz	DAY	CDT	Net Control	Topic
3.985	Daily	0600	W9RCW	General
4.650	Daily	2100		ARES
1.895	Daily	1800		General
144.25	Tues.	2000	Badger	Con-testers
146.91	Thur.	2100		Com-puters

Announcement

The "late morning" breakfast group is now meeting at 8 AM at the Grafton Family Restrauent (Grafton Bowl) in Grafton. If you can't come early, come late.

Is the Floppy Dead?

By Stan Kaplan WB9RQR

Well, not quite, but it is on its way out. Floppies have some disadvantages. They hold limited amounts of data and today's common version holds only 1.44 Mb. Another disadvantage is that they are only temporary storage media. Anyone who trusts the integrity of a critical file on a floppy placed there more than a year ago is playing with fire. Oh, your files might be just fine after even three years, but don't bet on it. The

microscopic magnetic domains tend to weaken with age and even bleed into adjacent tracks, so it is not a way to store critical files unless you refresh them (write them again) every year or so. That will remagnetize the domains. However, the magnetic properties of a floppy can themselves be a pitfall. Stick one up on your refrigerator with a magnet and you are sure to instantly destroy the data. Place one too near an active wall wart (one of those little plug-in transformers that power everything these days) and the data will go poof. Place a floppy closer than 6 inches away from your computer monitor for any length of time and the data will go poof. On the other hand, they are quick and easy to use. Sneaker Net is the nickname for

Copied from and continued in the Badger Smoke Signals at <http://www.bsss.org>

Jim Romelfanger K9ZZ

Smoke Signals Editor Jim Romelfanger, K9ZZ, became a silent key on Saturday, December 22, 2001, according to his long time friend and *Smoke Signals* Publisher, Ken Ebnetter, K9EN. He suffered an apparent heart attack at his home. Jim was 60 years old.

Just Another Shack



Since we can't all visit each other's shack, I thought it might be fun and instructional to feature the stations of various members. Above is the operating station of Tom (W9IPR) who has been licensed since 1952 and enjoys chasing DX on 20 meters. The station consists of an FT1000MP, SB201 linear, FT847, FT201 & TNC along with various home brew antenna tuners and switching networks. PSK and logging are done on an older Compac "486" laptop. Notice also the fire extinguisher hanging on the wall in case 20 meters gets too hot. Antennas consist of a tri-bander at 40 ft., multi-band dipole, G5RV, 18AVT vertical and a discone for the scanner.

OK, so who is next? Let's take a look at that new mobil installation of Gabe's.(WI9GC) or how about that new FT100 in Nels's new car – they both have an auto tune antenna .

Elections

The next meeting is Wednesday, January 9th, at the Senior Citizens hall in Grafton. An important part of that meeting will be the election of officers for the CY 2002. The nominating committee has nominated the following:

Pres.	Leon Rediske	(K9GCF)
Vice President	Vic Shier	(KB9UKE)
Secretary	Nels Harvey	(WA9JOB)
Treasurer	Gabe Chido	(WI9GC)
Repeater VP	Rick _____	(W9PMR)

Remember, nominations will be open to the floor and if you would like to nominate someone for one of the above offices, you may do so at that time.

Minutes of the December 12, 2001 Ozaukee Radio Club Meeting

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions: President Leon Rediske, K9GCF, called The meeting to order at 7:31 PM at the Grafton Senior Center. Introduction of members and guests followed. Leon then reminded everyone that a meteor shower was due this coming Friday morning. He asked if anyone was interested in meteor scatter, and thought it might be a good topic for a future program.

Minutes: The minutes of the last meeting were accepted.

Treasurer's report: Gabe, WI9GC, distributed copies of the Treasurer's report, and noted there were some transfers of money in the Scholarship account from a CD that expired, to a different CD that provides for additions, and a check type service.

The Treasurer's report was moved to accept subject to audit by Jane, KB9SYI, and seconded by Stan, WB9RQR. It passed by voice vote.

Repeater Report: The repeater Vice President, Rick, N9PMR, was not present. Nels, WA9JOB, explained that the 146.97 MHz. Repeater had failed. The problem was in the amplifier. An apparent arc, or power surge, had disabled the repeater's controller. A burned trace in the controller was jumpered, and operation is now restored with the exciter radio, at 15 Watts, until the amplifier can be repaired.

OZARES Report: Jon, KB9RHZ, reported he, Stan, WB9RQR, and other EC's from around the state attended an Emergency Coordinator's meeting on December 1, 2001, at Plover, WI. In January's meeting, Dennis Rybicki, K9LGU, will discuss traffic handling. An emergency communication course will be starting next February at the Justice Center on the regular meeting night. The March OZARES meeting

will be held on the third Thursday, to avoid conflicts with the religious holidays.

Newsletter: Tom Ruhlmann, W9IPR, reminds everyone to send him more articles for the Newsletter. Send your articles to him at "teruhlmann@cs.com".

Old Business: Gene, KB9VJP, gave a report on the Swapfest, and has flyers for anyone going to a swapfest, to distribute. He asked for our help to cover the January 5, 2002 West Allis Radio Club Swapfest in Waukesha, and other upcoming swapfests.

New Business: Stan, WB9RQR, moved, and Kent, N9WH, seconded a motion for the Club President, with help from the Board of Directors, set up a schedule to regularly audit the Club's finances, in 2002, to continue into perpetuity. The motion passed by voice vote.

Communications: Letters to Heil Sound, Lazy Days Campground, and Icom Radio were read to the group. A Christmas card from the Maybe family was also read.

Comments: Gary, WI9M wants the computer guru's in the club to come up with a good, but easy to use logging program, to facilitate logging at Field Day, 2002. Leon, K9GCF, thanked the Field Day Committee and everyone who helped, to make the 2001 Field Day effort so successful.

The Club assisted once again in the Grafton Christmas Parade November 24. After heavy rain in the morning, the parade started almost on time, and dodged most of the raindrops. A Pizza Party at Ferrante's Restaurant helped warm and dry out the chilled communicators that assisted.

Ron, W9BCK, dropped off several magazines for distribution to anyone who wanted them.

One of the disbanded Club Library items is a Hammerlund HQ-170 Receiver. It is offered for sale to Club members and if there are no takers, it will be auctioned off on E-bay. It's estimated value is about \$200.00, but Club members will be offered a discounted price.

Adjournment: The business meeting was adjourned at 8:35 P.M.

Program: Jeff, KB9QQE, demonstrated wireless networking. Using a computer and modem setup to operate the link, he set up a full sized computer, and a laptop, with RF link cards employed, and demonstrated how they were able to access the Internet with no wires attached. He handed out another, very informative, information sheet, using information he had found on the Internet, and discussed the different protocols with us.

Auction: Stan, WB9RQR, then held his OZARES auction, to benefit OZARES finances.

Next Meeting: The next meeting will be held on January 9, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Jane, KB9SYI, Leon, K9GCF, Cindy, KA9PZG, Dave, N9UNR, Stan, WB9RQR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Paul, KB9ZNA, Ted, N9LLT, Ed, AA9W, Ted, KA9UCD, Bob, N9NRK, Brian, N9LOO, Ron, W9BCK, Joe, KB9URC, Joe, AA9HR, Tom, W9LNL, Gabe, WI9GC, Kent, N9WH, Gary, WI9M, Kevin, K9VIN, Terry, KA9RFM, Jeff, KB9QQE, Ray, W9KHH, and Don, W9VSC.

Dues are Due – Now.

Below is the dues form for the 2002 CY. Please complete the form and return with a check to our treasurer, Gabriel Chido, WI9GC @ W58 N985 Essex Drive, Cedarburg WI 53012-1439.

Ozaukee Radio Club, Inc
2002 Membership Application /Renewal Form
Call Sign _____

Novice No-Code Tech Tech Plus General Advanced .Extra

Name: _____ ARRL Member? Yes No

Address: _____

City: _____ State: _____ Zip: _____

Phone No. (day) _____ (evening) _____ Speed # _____

E-Mail _____ (if you want to be listed on ORC Web page)

Programs of interest:

HF UHF-VHF Construction Projects Antenna Computers satalites APS
CW SSB AM FM Digital Modes Portable Mobil Fixed Fox Hunt
Ground System Software Batteries QRP Contesting ARES
Community Service Frequency Co-ordination collections WAS & DXCC

Full Membership (supports club and repeaters) \$15.00 OR

Club Membership (supports club only) \$7.00

The newsletter is available at <http://www.qsl.net/orc/>

Do you also want a hard copy through the snail mail? Yes No

Spouce's Name: _____ & call sign: _____

Comments: _____

AGENDA

January 9, 2002

1. Call to order.
2. Introductions.
3. Call for acceptance of minutes.
4. Treasurer's report – Gabe (WI9GC).
5. Repeater report – Rick (N9PMR).
6. OZARES report – Jon (KB9RHZ).
7. Committee reports.
8. OLD BUSINESS
 - a.
 - b. Open to the floor.
9. NEW BUSINESS.
 - a. Elections
 - b. Open to the floor.
10. Auction.
11. Program – Radio and TV, as it was.
12. Adjournment.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Wednesday, 9 Jan.

7:30 PM



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 (W9CQO) on 146.97, 224.18 and 443.750 MHz
Web site: <http://www.qsl.net/orc/>

Volume XXI February 2002

Number 2

The Prez Sez

By Leon Rediske K9GCF

Well, last meeting was quite something. Election of officers and a program that created a lot of excitement about follow up programs like it.

For the election, I wish to thank those outgoing officers for their time of service. They have carried the ORC to 2002, wherein the new officers will carry on. But not without you.....WITH you, providing guidance, experience, and help to the club and the new officers. Feel free to help us with your advice and services at any time, please.

At the board meeting last night, Dave N9QA, unveiled his goals for the repeater committee, and a schedule. It looks like this: February: Install the new voter in parallel with the old one (switchable) to compare performance, install the satellite receiver/link at the North East site, and repair the 220 amplifier. More about the March and future plans in next months newsletter.

Gabe and others are going to send renewal notices to those hams that have not renewed in the last several years, to hopefully renew interest in those hams that may have fallen away from the ORC.

Judging from our first 3 months paying for the phone and electric at the 146.97 main site, we are paying approximately \$35/month for both combined.

We thought it would be a nice addition to the main site repeater room to add a workbench since we now have the room. This could hold equipment under repair, be a place to spread out manuals and schematics, etc. If anyone has any ideas where we may obtain a couple of storage shelves & or a workbench, or perhaps a desk or swivel chair, we surely could give it a fine home.



Our officers for 2002 are (left to right) Dave Knaus (N9QA), Repeater VP; Leon Rediske (K9GCF), President; Gabe Chido (WI9GC), Treasurer; Nels Harvey (WA9JOB), Secretary; and Vic Shier (KB9UKE), Vice President. Keep up the good work.

Dues are due –

You have another chance. If there was a red check on your mailing label it is because your dues are due. We are also sending this issue to all past members of 2000 and 2001 in hopes that they will rejoin us at the monthly meetings, Saturday morning breakfasts and periodic outings such as field day and various parades etc. A membership application/dues form is at the end of the newsletter – hope you use it and join us at the February 13 meeting.

Web Sites of Interest

www.qsl.net/orc/newsletter.htm	The ORC newsletter
www.homepcnetwork.com	Home networking
www.driverguide.com	Drivers
www.bulbdirect.com	Panel lamps
www.topbulb.com	Panel lamps

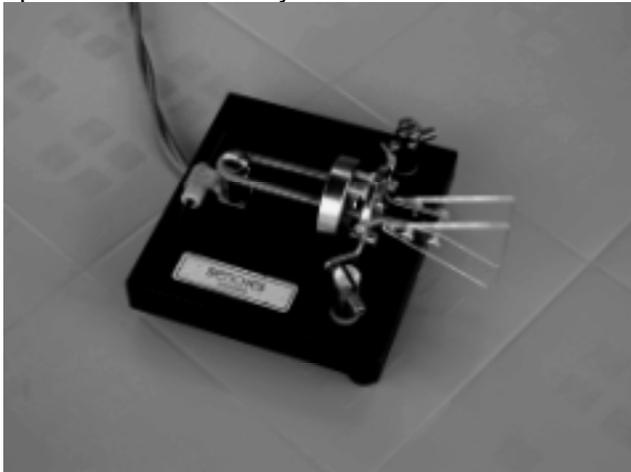
Squeeze it!

By Vic Schier KB9UKE

Congratulations, you passed the 5-wpm CW test. You proved to the examiners that you can copy

code, but can you send it? Here are some tips on how to get started.

People generally picture Morse code being sent with a straight key, like the radioman in a WWII movie. Although many hams still use a straight key it is not the easiest method of sending code. The bug, which was a significant improvement in both speed and accuracy over the straight key, works best at faster speeds. The easiest way to learn sending code is with a "paddle" hooked up to an electronic keyer.



The paddle/keyer combination can send dits and dah's in precise intervals and at any speed the operator is comfortable with. It is also the easiest for the person trying to copy the code being sent. The iambic paddle is appropriately named after a measure in poetry; two syllables, a short followed by a long, dit and dash.

Many rigs have a built-in keyer and the basic paddle has a retail price of \$50.00 with the top line paddles at 3 times that amount. I have found that the heavier paddles tend to stay where you want them but the differences are not significant. Hook the paddle up to a phone jack with some lightweight wire such as coiled cord from a discarded phone headset.

It doesn't matter which way you wire the paddle but most hams that have operated a bug set it up with dash on the right. That is, if you push the right side of the paddle towards the left, a dash will sound and if you push the left side of the paddle to the right, a dit will sound. If you press and hold one side or the other it will send a string of code such as dit, dit, dit... or dash, dash, dash... If you squeeze the paddle, it will alternate between the two, dit-dash, dit-dash, dit-dash until you let loose of the paddle. This is an

important step in improving speed. By squeezing the paddle it is possible to send letters and numbers with the fewest hand or finger movements. That is the basis for sending code at a fast pace while being relaxed. K7QO has a great web site at www.qsl.net/k7qo/qrqpart2.html for complete instructions on how to squeeze the paddle.

Good luck and remember-it's only a hobby.

Upcoming Events

March 2, 2002 Post Everything Party
March 3, 2002 Waukesha - Swapfest
May 4, - ORC Hamfest @ Circle B
May 17, 18 & 19 - Dayton Hamfest

PSK-31 Masters

By John R. Welty W9ISC

OK, PSK Cowboys, here comes the fun stuff. Let's get down to some OPERATING !!!

I have heard that there are people playing with PSK-31 on 2M SSB. That may or may not be the case, but here, we are talking about HF SSB, sooooooooooooo... HF privileges are (literally) your ticket to the mode.

It is my highest hope that the PSK-31 community continues to grow at the astonishing pace it has established over the past 3 years. Some of that population growth will come from "experienced" amateur radio folks, but MUCH of it will come from the "Technician" world. To you folks in the "Technician" world:

TRUST ME ON THIS ONE, FOLKS, THIS IS A BUCKET OF FUN, AND WORTH PASSING 5WPM CW TO GET THERE !!! Take a look at the RX ONLY configuration later in the article.

The mean old Newsletter editor told me that I had to keep this last PSK-31 piece FREE of any little "zingers" directed at ORC members. OK, but it's not going to be NEARLY as much fun! (mumble, mumble .. \$@*^*% #@\$..killjoy... mumble, mumble!!). He didn't say anything about NON-ORC members though

Down to business... we have talked about where PSK-31 came from (RTTY/AMTOR/CLOVER) and we have talked about how PSK-31 does the "communication"

function (Varicode, time slots, phase shifts)
What do we need to talk about to get this puppy
up and running?

Well, first off, we do NOT need the Milwaukee
County Executive's retirement payout to get going
on PSK-31. What we NEED to get started is :

1. PC (Macintosh works too) at probably 75
MHz or better clock speed with a 16 bit
sound card.
2. Freebie (or paid license) PSK-31
software for the platform in #1
3. SSB capable Transceiver -- Frequency
Stable -- tunable to the 10Hz level
(i.e. 14.07015Mhz, 7.07015Mhz.....)
For the most part, that means a rig with a
PLL frequency source.
4. Cables & Interfacing

FFFFrinstance:

1. An old Pentium 1 with a sound card
2. Logger, WinPSK, DigiPan (allFreebie) software
download
3. KWD TS-130 / IC-7XX / Ten Tec OMNI D (NOT
EXPENSIVE) HF rig
4. Homebrew, Signalink, Rig-Blaster, Rascal,....
etc. interface between the PC and rig

try: www.w5bbr.com/soundbd.html or
www.packetradio.com/psk31.htm
Shielded audio cables with stereo 3.5mm Male
phono plugs on each end.
try: www.allelectronics.com p/n CB-382 is
PERFECT

Shielded audio cable appropriate to your inter-
face on one end and appropriate to your XCVR
audio IN and OUT connections
try: www.allelectronics.com for these too

(MAYBE) Serial I/O cable (shielded) with DB9 or
DB25 on one end and Aux or Mic connector on
the other -- appropriate for your Computer and
XCVR (Try American Science Center on Okla-
homa St.)

MINIMUM CONFIGURATION

RX ONLY: Same Computer as above
Same software as above

Same XCVR as above
1 shielded cable (3.5mm stereo
male plug each end) and install cable from XCVR
Ext Spkr jack to Sound Card MIC or Line IN jack.

That's as far as we're going to go with hard-
ware/hook up stuff. You will find the
particulars in your XCVR Operations manual and
on the PSK-31 web pages (search on
PSK-31 and you will find a bunch).

Fire up that computer and PSK-31 software.
Tune the XCVR to 14.07015 MHz. You should
see on your monitor (depending on the software)
what is called a "waterfall" display. The display
will indicate RX signals from the XCVR frequency
(14.07015 MHz in this case) and up approxi-
mately 3Khz (which is presently the FULL rec-
ommended spectrum for PSK-31 operations). In
some fashion you should see what looks like little
railroad tracks running down the waterfall.
Those are PSK-31 signals. Want to tune in on
one of those signals ? Point and Click. You
should see some type of "squelch" display that
shows that an RX signal is processing and you
should (very shortly) see text printing in the RX
window on the computer display.

HOLY SHEEP DIP, LEVINIA, WE GOT PSK-31!!!
If you spend a little time with the software, you
will see a box labeled AFC (automatic
frequency control). If you point and click on that
box (check mark), the software will "TRACK" the
signal if it "DRIFTS" a wee scochie. This is Nifty!
You will also see that you can use the software
author's "canned" Macros i.e. <his call> de
<my call> or you can key in your own: i.e. <his
call> de <my call> tnx 599 in Wisconsin name is
Kevin. Do you know anything about automotive
paints ??? BTU <his call> de <my call> KN

A little more research / practice / fooling around
with the software and you should have your
own call sign and a variety of macros perma-
nently recorded for future use.

When you (with those HF privileges securely in
your pocket) point and click the "TX" button, the
software will (assuming all wires are in the right
places), Key your TRANSMITTER and do the
phase shift magic to send whatever characters
you type in the "TX" window or whatever
MACRO you select.

Note that you should tweak the MIC GAIN (down) to the point that you show NO ALC (or almost none) on your XCVR Meter. If the MIC GAIN is higher than that, you will get LOTSA LOTSA very picturesque, (but not very desirable) mixing products (harmonics) on your signal. The PSK-31 bunch (being a congenial group) will probably go to some great diplomatic lengths to gently let you know about this. The only indication that you will have is that ALC meter indication of a "healthy" bit of MIC GAIN.

Let's say Macro #4 looks like this : CQ CQ CQ
CQ CQ de KC1W KC1W KC1W
CQ CQ CQ CQ CQ de KC1W KC1W KC1W
CQ CQ CQ CQ CQ de KC1W KC1W KC1W pse
kkk

If one were to transmit that MACRO: The SOFTWARE would convert letters to Varicode, create the phase shift sequences, and send them to the sound card and to the computer CRT/Display. The XMIT text is displayed. The Sound Card and it's software create the tones and send the resultant audio signals out via the computer speaker / headphone jack (through the RigBlaster, homebrew interface, Rascal.) to the audio INPUT (microphone jack or Aux jack) on the SSB XCVR.

The audio signals (VOX) or DTR/RTS voltage from the Serial I/O channel (COM 1-4) key the XCVR. (The operator does not have to worry about any of this.) Net/Net: Out over 20 Meters goes the first PSK-31 QSO from KC1W !! AMAZING !!!

When Macro #4 (KC1W's CQ) complete: The SOFTWARE turns off the DTR/RTS voltage AND Stops sending Varicode sequences to the Sound Card Net / Net: the SSB XCVR goes to RX mode and PSK Display goes back to tracking RECEIVED signals.

With a little luck, the display at KC1W begins to print a signal (that came through HIS XCVR RX AUDIO, through his RigBlaster, to the Sound Card Microphone jack) that says:

HI ABE !!! de John W9ISC kkk

The QSO is on. As you may have noticed, aside from the whole bunch of SSB XCVR equipment that will run PSK-31, there are a whole bunch of software options, a whole bunch of computer

options, and a small bunch of interface options. The good news is that even with this variety of possibilities, they all work pretty much the same, and they are all EASY EASY EASY !!

OK, PSK Cowboys (and Cowgirls -- just to avoid litigation), The message I am hoping to convey here is that this PSK-31 mode is:

1: EASY, 2: FUN, and 3: NOT EXPENSIVE.

For a hobby thing, those are some pretty good characteristics. If I have piqued (like that one?) your interest, gets on one of those PSK-31 web pages and download one of the software sets. Nothing says you have to have anything more than your computer to "play" with the software. Most of the PSK-31 software sets even have a demonstration mode that will show you how they display signals and how you go about setting them up -- not bad!

Have fun!!!! Be AMAZED !!!!!

Contesting

Did you make the North American QSO party on the 21st of January? Sounded like a good time to work all states (WAS). If you did, lets hear about it.

Feb. 1 – 3 Intl. 10-10 (10m) Phone Contest

Feb. 8-11 Winter 6 Meter Contest

See "6mt.com/contest.htm"

Feb. 16 – 17 ARRL Intl. DX Contest

Feb. 23 – 25 CQ WW 160m SSB Contest

Nets of Interest

Day	Time (CST)	Freq. MHz	Organization
Thur.	2000	147.33/93	OZARES
Fri.	2115	147.045	MRAC
Sat.	1730	3.985	WI SSB Net
Mon.	1500	14.247	DX Net

Just Another Shack?

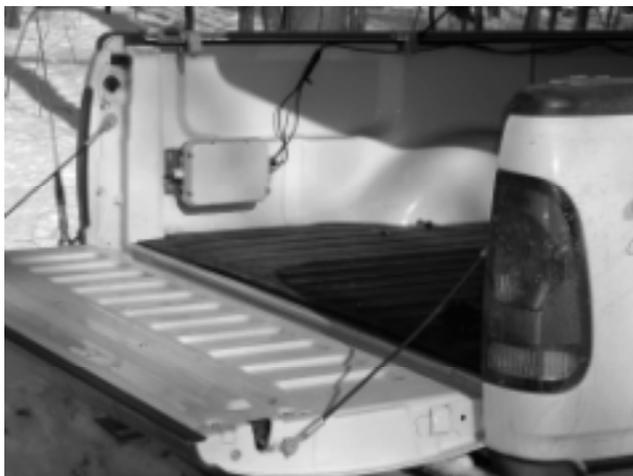
Gabe's (W19GC) Ford F150 hardly qualifies as a typical shack but it is his primary operating location. Note how the dash of his 4X4 dwarfs the ICOM 706 installation – you hardly notice it is there. The 706 is capable of 440MHz, 2Meters and HF of 6 through 160 meters. The ICOM AH-4 antenna tuner in the truck box tunes the 102" CB antenna from 6 through 40 meters with 10 meters being Gabe's favorite. From his cab he has

worked South America, Japan, England, Germany and France. DX will always give preference to a mobil station.

Gabe originally got his Novice license in 1970 and then let it lapse until 1990 when he earned his Technician + license. More recently he passed his General, Advanced and Extra Class in 1991. Not to be wondering what Gabe was up to, his wife Karen also earned her license (KB9MTV) and is also a club member.

Wanted

_” shaft insulated couplings - 3ea- and a split variable or two identical approx. 100 to 300 mmf variable cap with 1.5” X1.5” panel space – plug in coils (center link) for a 600 watt balanced tuner - Contact Tom, W9IPR



For Sale, Trade or ?

FOR SALE - ICOM IC-745 TRANSCEIVER. This all solid-state 100-watt unit transmits on all bands from 10 to 160 meters in all modes including SSB, RTTY and FM. Receiver covers 0.1 to 30 MHz. Built-in DC

power supply (DC power cord not included). Includes IC-HM12 hand mic. Loads of features, excellent condition. Op manual will be included (on order). For picture and specs, go to www.qsl.net/sm7vhs/radio/icom/ic745/ic745.htm. \$525. Call Ben Evans, K9UZ @ 262-242-6000 (office) or 262-242-5365 (home).

2M HT Leon K9GCF	\$75
Keyer Leon K9GCF	\$40

Computer Corner: First 100 on CD-ROM

Several years ago, Stan Kaplan (WB9RQR), author of the Computer Corner column in BSSS, released a compilation of the first 48 articles. A very strong response indicated that readers want a complete set of the articles. We now announce the release of the First 100, on CD-ROM.

All 100 articles are in Adobe Acrobat (.pdf) format, and there is an Index of Titles as well. Furthermore, the powerful search and link capabilities of the Acrobat Reader have been harnessed to make use of the CD-ROM a snap.

In the Index of Titles file on the CD-ROM, a click on any title will take you to the complete article, and you can switch back and forth between the articles and Index at will. Moreover, you can perform searches for individual words, and the search results will show all articles that contains those words. A click will take you to any article in the list of those found, and the search words in that article will appear as highlighted text. Clearly, these capabilities make the CD-ROM a valuable reference tool for quickly finding topics of interest.

If you don't have a copy of the Acrobat Reader, or if your copy is old, the latest version (5.0.5) is included on the CD-ROM, along with installation instructions.

The CD-ROM, including all the files and the Adobe Acrobat Reader, will be mailed to you for \$15.00 postpaid. Send your order with payment to the address below. Sorry, no credit card orders. Proceeds will benefit Wisconsin ARES/RACES.

Stan Kaplan, WB9RQR
105 Martin Drive

OZARES? What's it about?

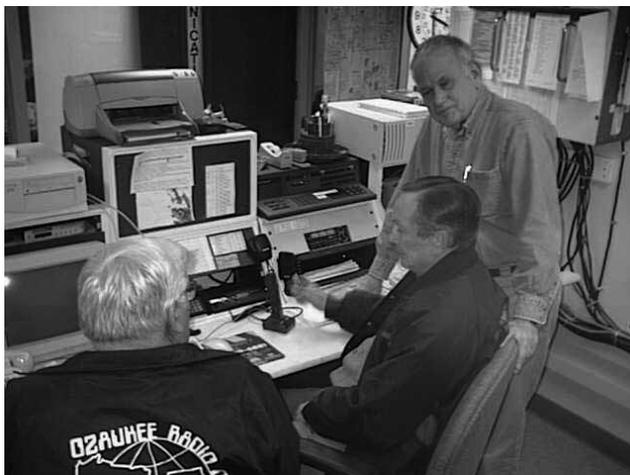
By Jon Gilmore KB9RHZ

At every meeting there is an OZARES report and Stan usually has an auction with some of the proceeds going to OZARES. So what's it all about?

OZARES is the local level of the ARRL ARES (amateur radio emergency service) and the RACES (radio amateur civil emergency service). When a disaster occurs the unit is activated by either the county Emergency Manager or by one of the OZARES staff. In case of a civil emergency, which may include fires, floods, earthquakes, or other natural disasters, the unit can function as a RACES group controlled by Emergency Management.

OZARES is thirty-four hams, many which belong to the ORC, who volunteer their time to provide help during emergencies. The unit may be activated to provide communications, severe weather spotting, or some other duty the unit is trained for. Most meetings involve training designed to improve communication skills. However, members have also received training on hazardous materials, incident command system, severe weather, and traffic control.

Starting in March there will be a class on emergency communications that was set up by the ARRL. It will be one of a few taught outside of the ARRL. Meetings are usually held at 7:00 p.m. on the fourth Thursday of every month at the Ozaukee County Justice Center. Hams are encouraged to become involved. Contact Jon, KB9RHZ, if you are interested.



OZARES Emergency Net Control Station

Leon (K9GCF), Gabe (W19GC) and Stan (WB9RQR) discuss the 2 meter emergency net station and net procedures used by OZARES at the Justice Center in Port Washington.

Minutes of the January, 2002 Ozaukee Radio Club Meeting

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions: The meeting was called to order at 7:32PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests followed. Leon wanted to begin the balloting for the Ham and Turkey Awards to be presented at the Post Everything Party, but it was decided to do the balloting while election ballots were counted.

Program: Ron Yokes, W9BCK, Bob Truscott, W9LO, Ben Evans, K9UZ, Nels Harvey, WA9JOB, and Bob Gornjance, W5CFB, all gave short descriptions of their roles in broadcasting over as much as the last 50 years.

Election of Officers: After the usual break, the Nominating Committee produced only the incumbent officers for a slate. Dave Knaus, N9QA, was nominated from the floor, for the Repeater Vice President position. Dave, N9UNR, motioned, and Tom, W9IPR, seconded casting a unanimous ballot for the four unopposed offices. Paper ballots were then distributed, and Dave, N9QA, was elected to the Repeater Vice President position. The ballots were then to be destroyed.

Auction: While ballots were being counted, Stan, WB9RQR, then held his OZARES auction, to benefit OZARES finances and ORC Scholarship funds. The ballots for Ham of the Year, and Turkey of the Year were distributed, then collected by Ted, KB9RLI. Results will be revealed at the Post Everything Party.

Minutes: The minutes of the previous meeting were accepted.

Treasurer's report: Gabe, W19GC, distributed copies of the Treasurer's report. Vic, KB9UKE, gave the audit committee's report, finding all in good order except for an inadvertant 44 cent error that was corrected. It was noted that the Repeater Vice President holds a repeater improvement fund, of which some expenditures still needed to be reconciled. The committee recommended the Treasurer use a two copy receipt book for cash transactions in order to have a good record. The committee also recommended the Repeater Improvement Fund ought to be under the control of the Treasurer. Vic, KB9UKE, then placed a motion on the floor to that effect. It was seconded by Greg, W9DHI. Tom, W9IPR, moved to refer the motion to committee, with a report due within 60 days. It was seconded by Ted, KB9RLI. The motion to refer passed by hand count, 27 to 9.

Dave, N9UNR, moved, and Ted, KB9RLI seconded to accept the Treasurer's report, subject to audit.

Swapfest Report: Gene, KB9VJP, reported we are back in the swapfest business because he has sold two tables already! Anyone going to a swapfest before ours is encouraged to take flyers promoting our swapfest along. He has plenty.

OZARES Report: Jon, KB9RHZ, reported a change in the OZARES schedule. In January's meeting, Dennis Rybicki, K9LGU, will discuss traffic handling. February 28, Rusty Capella, of the National Weather Service, will discuss severe weather spotting. The first emergency communication course slated to be starting next February is delayed to March 21, at the Justice Center. The March OZARES meeting will be held on the third Thursday, to avoid conflicts with the religious holidays. The second session of the course will be held at the April 25 meeting.

Old Business: Ted, KB9RLI passed out flyers with the PEP information.

New Business: There was no new business

Repeater Report: The repeater Vice President, Rick, N9PMR, told us the 10-Meter link is going up on the 220 MHz. repeater. The amplifier still needs to be placed back in service there. The link trays needed to be reworked before they could be installed at the Mequon and Belgium County sites, because of space restrictions. The .97 repeater will be placed temporarily on a 5K controller, while several improvements are made. Rick assured us that progress is being made, even though results aren't apparent.

Adjournment: The business meeting was adjourned at 9:45 P.M.

Next Meeting: The next meeting will be held on January 9, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Jane, KB9SYI, Leon, K9GCF, Cindy, KA9PZG, Dave, N9UNR, Stan, WB9RQR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Ed, AA9W, Bob, N9NRK, Brian, N9LOO, Ron, W9BCK, Joe, KB9URC, Joe, AA9HR, Tom, W9LNL, Gabe, WI9GC, Kent, N9WH, Gary, WI9M, Terry, KA9RFM, Jeff, KB9QQE, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Greg, W9DHI, Bill, AA9OS, Vic, KB9UKE, Bob, W5CFB, Bob, W9RNA, Julie, KC9AGU, Jim, N9WIU, Peter, KB9URH, Jeananne, N9VSV, Gary, N9UUR, Herb, WA9UVK, Paul, KA9RPR, Bryan, KB9ZTA, John, WA9KNY, Walter, WA9KFR, Bob, WQ9N, Ernie, K9LO, Ted, KB9RLI, Mike, WJ9O and his daughter, Mandy.

ORC Post Everything Party

Saturday
March 2nd, 2002

American Legion Clubhouse

Peter Wollner Post 228
W57 N481 Hilbert Ave.
Cedarburg, WI 53012

Cocktails

6:00 to 7:00 PM
Dinner at 7:00pm

Cost: \$18.00 per person - *includes meal, tip and other expenses*

Don't forget to bring an exchange gift
(some of your favorite "junk"???)

Reservations

Required
By February 25th

Reservations

Required
By February 25th

Buffet Menu

Includes

Hor D'Oevers

Turkey and Dressing

Swiss Steak with Potatoes and Gravy

2002 ORC Post Everything Party Reservation Form

Call sign _____ Number attending _____ X \$18.00 = _____

Names of those attending _____

Send this completed form with your check

Made out to **Ozaukee Radio Club** By February 25th to:
Ted Schweitzer (KB9RLI) 126 Lilac Lane, Belgium, WI 53004

Dues are Due – Now.

Below is the dues form for the 2002 CY. Please complete the form and return with a check to our treasurer, Gabriel Chido, WI9GC @ W58 N985 Essex Drive, Cedarburg WI 53012-1439.

Ozaukee Radio Club, Inc 2002 Membership Application /Renewal Form Call Sign _____

Novice No-Code Tech Tech Plus General Advanced .Extra

Name: _____ ARRL Member? Yes No

Address: _____

City: _____ State: _____ Zip: _____

Phone No. (day) _____ (evening) _____ Speed # _____

E-Mail _____ (if you want to be listed on ORC Web page)

Programs of interest:

HF UHF-VHF Construction Projects Antenna Computers satalites APS CW SSB
AM FM Digital Modes Portable Mobil Fixed Fox Hunt Ground System Software
Batteries QRP Contesting ARES

Community Service Frequency Co-ordination collections WAS & DXCC

Full Membership (supports club and repeaters) \$15.00 OR

Club Membership (supports club only) \$7.00

The newsletter is available at <http://www.gsl.net/orc/>.

Do you also want a hard copy through the snail mail? Yes No

Spouse's Name: _____ & call sign:

Comments: _____

AGENDA

February 13, 2002

1. Call to Order
1. Introduction Members & Visitors
2. Announcements, Upcoming events, Etc.,
3. Program: Early Radio/TV, Panel:WA9JOB, W5CFB
4. Fellowship Break
5. Program continues.....
6. Auction
7. Acceptance of Minutes as printed.
8. Reports: PEP, Hamfest, OZARES, Treasurer, Repeater
9. Outstanding Committees
10. Old Business - Open to floor
11. New Business - Open to floor
12. Adjournment
13. Continued Fellowship Gathering @ John's Pizza. Everyone's invited.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Wednesday, 13 Feb.

7:30 PM



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 Web site:
<http://www.qsl.net/orc/>

Volume XXI

March 2002

Number 3

The Prez Sez

By Leon Rediske K9GCF

While on my trip to Florida, I went to the Miami Hamfest and set up and operated W4LX in Ft. Myers, a special event station celebrating the Birthday of Thomas Alva Edison. We operated on the grounds of the Edison-Ford Estate (you've heard of Henry Ford). Edison and Ford were friends, and Ford wanted Edison to move from Michigan to Ft. Myers. Edison said he was only going to be on Michigan soil!! So Ford moved Edison's whole laboratory to Florida, soil and all! One of Edison's original light bulbs is still operating today for each tourist group walking through.

Anyway we had fun operating, and it was fun being the center of attention for all the tourists. The tour guides did a fine job describing what we were doing. A message center was set up also, and many messages were taken from the tourists and moved out of the area. Everyone had a great time.

While in Miami, I entered the FoxHunt Contest with only a handie-talkie, while others had electronic gizmos and fancy antennas to find the fox. I came in first...for the second year in a row! Won a nice stainless steel multifunction tool and a magnetic screwdriver for my efforts.

I understand there will be a ham station set up in the Milwaukee Museum's discovery section. If anyone is interested in helping set-up or operate, contact Don Doss, K9QEN. 414-281-9294.

World Radio Magazine is offering an operating certificate: "31 on 31," for contacting 31 stations on the mode PSK 31. Check it out at: WWW.WR6WR.COM Anybody want to set up a challenge between several club members? I'm game!

Gabe WI9GC & Tom W9IPR sent out club information to some of the folks that have not been club members recently. The results are that 10 of that group are now members of ORC again. Good work fellows! And welcome back to the ORC. What can we do for you, what do you want to do as an ORC member?

We all hope to see everyone, their wives & significant others, at the "Post Everything Party", March 2, and Hams for the club meeting on March 13th.

Post Everything Party

A really great time was again had by all at the "PEP" gathering at the "Legion Clubhouse" in Cedarburg. Ted Schweitzer (KB9RLI) again did a great job – great food and great friends - the attendance appeared higher and the smiles even broader than at past party's.



The cleansing of the shacks produced "gifts" ranging from 50's era government walkie talkies to crystal controlled scanners, Lotus Software and some really bulky heavy stuff – the "good

stuff" made yet another round. Here we see Vic Shier (KB9UKE) showing off his "new" Ballentine AC voltmeter from the 50's while Nels Harvey (WA9JOB) looks on approvingly.



Jane Rediske (KB9SYI) accepting the "ORC HAM OF THE YEAR" award from party chairman, Ted Schweitzer (KB9RLI)

The highlight of the evening was the naming of the "Ham" of the year, Jane Rediske (KB9SYI). Jane is the one who we thank for organizing the refreshments for the meetings and working the "feeding frenzy" at field day. You can usually find Jane on the "97" repeater in the morning on her way to work at the University – Congratulations Jane and thank you.

Web Sites of Interest

http://wi-aresraces.org	ARES Newsletter
www.emcommsupply.com	Emergency equipment
www.QRZ.com	Call sign lookup
www.aade.com/hampedia/prices.htm	Equipment prices
www.ncdxf.org/beacon/beaconschedule	Schedule of international beacons
Boatan-chors@listserv.tempe.gov	A boat anchor bulletin board

Welcome

Our new and returning members include:

Fred Helmstetter; N9FH; Mequon

Walter Stasiowski; WA9KFR; Port Washington
 Darrell Bretl; W9DB; Port Washington
 Andrew Bretl; W9ASB; Port Washington
 Richard Kimball; WA9MME; Menomonee Falls
 Fred Eltzsch; W9QMD; Belgium
 Paul Schleif; KB9ZNA; West Bend
 Bryan Seaman; KB9ZTA; Waukesha
 Herbert Roehner; WA9UVK; Grafton
 Paul Wiegert; KB9WCC; West Bend
 Jake Schmeling; KB9ZOR; West Bend
 Kristin Bohm; KB9RJL; Saukville
 Ted Nelson; KA9UCD; Mequon
 Vincent Morano; KB9ZOT; Port Washington

Upcoming Events

- March 13 – ORC Meeting @ Grafton Sr. Cntr.
- March 17 – Hamfest 2002 Jefferson Cnty Fairgrounds
- April 5 & 6 – Superfest @ AES
- April 13 – Hobby Electronics Show @ Concordia U. in St Paul MN
- May 4 – ORC Hamfest @ Circle B
- May 17 to 19 – Dayton Hamfest



Ed Rate, AA9W, finds yet another "treasure" at the Swapfest at Waukesha in January.

The SEWFARS swapfest at the Waukesha Expo Center on March 3rd was fun but sparsely attended due to the snow storm Saturday night. It appeared that only about 1/5th of the tables were occupied. However, I did still manage to find a few items that I finally realized that I needed and was able to negotiate some very reasonable prices. It was fun.

Contesting & Special Events

There is a friendly contest here in the State of Wisconsin I want you folks to try. It is the Wisconsin QSO Party. Here are the details:

Wisconsin QSO Party, Phone and CW, sponsored by the West Allis RAC, 1800Z **Mar 10-10100Z Mar 11**. Frequencies: CW--3550, 3705, 7050, 14050 kHz and 15/10/6/2 meters; Phone--3890, 7230, 14290, 21350, 28400 kHz and 6/2 meters. Work stations once per band/mode/county; no repeater QSO's. SO, MS, MM and mobile categories. Mobile operators may not sit on a county line to operate. Exchange SPC or WI county. QSO points: Phone--1 pt, CW--2 pts. Score: Pwr mult x QSO pts x WI counties (max 72); WI stations--QSO pts x WI counties + SPC. WI mobiles/portables add 500 bonus points for each county with 12 or more QSO's. Power multiplier: x2 (<5 W), x1.5 (<150 W), x1(>150 W). For more information, www.warac.org/. Logs must be postmarked within 30 days to WARAC, PO Box 1072, Milwaukee WI 53201.

By Leon Rediske K9GCF

Congratulations to **Mariann Littell (AA9TB)** – she just received her DXCC award – the certificate certifies that she has confirmed contacts with over 100 countries.

March 2-3 – ARRL International DX Phone Contest – This was your chance to work 100 countries in 48 hours – if not, you missed a really exciting time. With only occasional casual listening I had over 50 contacts with about 40 countries. This included Yemen, South Korea, Japan and the Philippines which were new countries for me.

March 16 – 18 – Russian DX Contest

March 16 – MARC Special Event Station – celebrates 85th anniversary as a radio club – 1917, wow - one of the oldest in the nation.

March 25 – Spring QRP Homebrew Sprint

For Sale, Trade or Free

*Microphone, Yaesu MH-31 B8 , new in the box \$20

*HP Audio Oscillator (tube type) Mdl. 200CD \$20

Tom W9IPR at 377-6945

*The First 100 by Stan Kaplan WB9RQR

A compilation of the first 100 PC hardware and software articles written by Stan (KB9RQR) as published in the Badger State Smoke Signals. On CD in pdf format for \$15.00. Contact Stan on the web at skaplan@mcw.edu

If you are cleaning out the shack, don't throw anything away. Waste not, want not. We can always auction it the meeting with the proceeds to go to the scholarship fund or you can save it until the May ORC Swapfest at Circle B and we can sell it at the Club Table for a nominal commission.

Wanted

Rotary inductor for antenna tuner – Stan KB9RQR

Dual gang variable capacitor, 250 mmf per section – small (1.5" X 1.5" panel space) for a 100 watt tuner. - Tom W9IPR

No. 97. Win 98's Built-in System Information

By Stan Kaplan WB9RQR

You may not know that Windows 98 has a wealth of information, plus quite good diagnostic tools, built right into the operating system. Lets explore this a bit this month so that you become familiar with these capabilities. It is not only interesting, but it can also help you to diagnose problems of all kinds. This can be a real time-saver when you install a new device and it will not work, or when a previously working device suddenly stops working.

(Copied from and continued in the Badger State Smoke Signals at www.bsss.org)

Tips and Tails

Need a panel bushing for a ¼" shaft? Disassemble an old volume control.

Need to mark a cable? Use the plastic clip from a loaf of bread.

PRB-1

Good news as reported by Jim Lackore, AD9X, our State Government Liaison:

On Tuesday, January 22, 2002, the Wisconsin State Senate passed, by a voice vote, AB 368 - our Amateur Radio PRB-1 legislation. There was no expressed opposition.

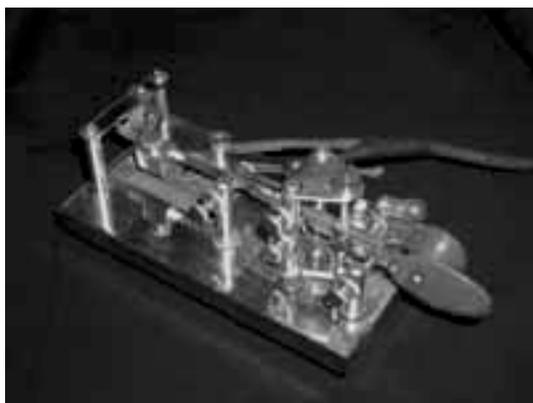
The bill now goes to the Governor for his signature. I have been told that he will sign it, but we ought not to leave anything to chance. I suggest that all Wisconsin Radio Amateur Operators contact Governor McCallum, urging him to sign the bill into law.

Email can be sent to the Governor by going to his website (www.wisgov.state.wi.us) and then to the "contact us" page. His fax number is 608-267-8983. Snail mail can be sent to The Office of the Governor, 115 East State Capitol, Madison, WI 53702.

A Historical Study of Vibroplex

By Fred Linn, W9NZF (from the Quarter Century Club Newsletter)

The history of the semi-automatic telegraph key goes quite far back and has included several well-known designers and manufacturers. As the past is hashed and rehashed, several designers and manufacturers surface. Probably the best known to telegraphers is the Vibroplex. Horace Martin was the moving force at the beginning of the commercially manufactured semi-automatic key, and his product name has come through to this day as probably the largest and best-known source of such keys (Vibroplex). Of the many manufacturers making semi-automatic keys, his "Red Bug" nameplate was the most familiar.



Vibroplex "BUG", circa 1950's, used by KOANA who is the mother of Tom Ruhlmann (W9IPR)

His product name was created in 1904 and survives to this day. His key created a picture of the classic and its history goes far back into landline telegraphy.

Vibroplex has made a wider variety of semi-automatics, and has produced a larger volume of keys than any other manufacturer. This company celebrated its 100th anniversary in 1990. (Actually, 1990 was the founding of the J.E. Albright & Co., which acquired Martin's company in the early days of Martin's production...the Vibroplex name was patented in 1904).

Many manufacturers have come and gone during the production of the vibrating contact instrument: Ted McElroy, E.F. Johnson Co., and Les Logan's Speedex, to name a few. Another imitator surfaced briefly (ATOZ, a toy maker) but didn't last long, as Albright successfully sued and removed him from contention ...incidentally making the ATOZ a desirable collector's item! (I discovered one at a church rummage sale).

Of the Vibroplex line, my favorite key is a small version of the bug, named the "Blue Racer", introduced in 1914. It featured a smaller base as a means of clearing a little room on the telegraphers crowded workplace! I have several versions of the Racer which was originally designated as "No. 4", following the "Original", the "two lever", & Model X. This key could be purchased in two finishes... standard black gloss or a nickel-plated base. Later, in the 1940's, the De Lux version was available with a chrome-plated base and jeweled bearings. The No. 4 was an "Original" model with a smaller base, and the damper was changed to a "U-shaped" bracket, forming the wheel support. In the 1950's, the Racer changed from a black base to gray and the U-shaped damper was changed to the "L-type" from the "Original" model.

It is of interest to note that base dimensions vary somewhat from the classic 2.50" x 6.375", but the thickness has remained at a nominal 0.50", varying only slightly with the type of fin-

ish...nickel-plate, black gloss, blue, black, or gray wrinkle paint. The plate edges vary from sharp to rounded corners, with the latest production using square corners and very little radius on the edges.

Fred will be at our March 13th meeting with samples from his collection of "bugs".

Another Shack

Here we find out President, Leon Rediske (K9GCF) doing the "Bencher" press. Leon first earned his Novice license in 1956 while a student at Greendale High School. His first "rig" was a Heathkit DX35 transmitter and a BC348 surplus receiver and that was followed by a Hallicrafters SX-71 (pretty up-scale if you ask me).



Eventually Leon progressed to the shack shown here which consists of an ICOM IC751A on HF feeding an Vectronics antenna tuner and either a TA33 beam or G5RV wire antenna for 160 through 10 meter operation. He runs an FT230 on 2 meter packet and an IC2000 on 146.97 etc. The FT730 in the background is monitoring the 443.75 repeater. Congratulations Leon, that's a real tidy shack.



The Old Time Radio Experts gave a really great discussion of the early days of radio and TV broadcasting in the Milwaukee area. These members were a part of the action of that time. Presenters shown are Ben Evans, K9UZ; Ron Yokes, W9BCK; Bob Truscott, W9LO; Nels Harvey, WA9JOB, and Bob Gorjance, W5CFB. Also presenting with "show and tell" transmitter tubes was Ernie Swanson, K9LO.

So What's New?

By Vic Shier KB9UKE

Getting an additional piece of gear has to be one of the high lights of the ham radio experience. Some hams like to find an old treasure at a swapfest or get a real bargain dumpster diving but I like looking at new rigs and ICOM is coming out with a new one that I just might need.

It is a 2-meter mobile that pushes 75 watts, which would be handy, when I'm on the banks of my favorite trout stream and want to hit a distant repeater. The 200 alphanumeric memories would let me program in all the repeaters for my trips up north, to see the kids and visit the in-laws. There are 10 scan banks and it even has a weather alert function that will scan for the nearest NOAA stations. Best of all it has a programmable multifunction microphone that would let me use these features without reaching for the rig.

The IC-V8000 should be out soon, maybe by Superfest or at least by Dayton. Yes, I think I need this rig... or maybe I should get a dual

bander. Yeah, one with cross band repeat and....What a hobby!

Measuring the Air!

By Nels Harvey WA9JOB

That's what my wife, Joyce, calls it! Most of you know that I am doing work for Evans Associates as an outside contractor since my retirement from Public TV in Milwaukee several years ago. One of the interesting things that I do is to measure the signal strength at various locations for broadcast stations. While we do measure FM and TV stations, this article will discuss the measurement of AM radio stations.

The FCC requires anyone putting up a tower of any consequence within 2 KM of a non-directional radio station, or 3 KM of a directional station to determine if there is any affect to the signal coverage due to the new tower. Directional AM stations have specific patterns that are designed to protect other radio stations. This enables their placement where a non-directional, single tower radio station would not be permitted, or need to operate at much lower power levels. Similar to a yagi beam, there are lobes and nulls of signal in a directional pattern. A new tower placed in close to such a radio station can have the effect of reflecting or re-radiating signals into the null areas, creating stronger fields there than permitted by the license parameters for the radio station.

When a new radio station is built, the FCC's standard pattern system is utilized to provide the best desired coverage while protecting other stations as needed. This new station produces a series of field strength measurements along specific radials to show their design is working, and non-interfering. The radials, probably 8 to 14 in number, usually plotted on USGS 7½ minute maps, extend from the station to about 20 to 30 miles. These documented readings become a part of the station and FCC records. It may take 2 to 9 towers to produce the needed design, and all are driven elements.

New cell towers have been keeping us busy recently. When a new tower is planned, in close proximity to such a station, it is necessary to

provide documentation that no effect was caused to the radio station. Since some stations have had signal coverage shift over the years, we try to go to a good sample of the points in the original documents, and measure the signal there as it is just before the new tower is built, with a calibrated signal strength meter. Then, after the new tower is in place, properly grounded, and supporting all, or most of the antennas desired, we re-check the points in our sample.

While the time-honored method of relying on a map works, I have found GPS equipment to be very useful in determining precise locations and distance. I have acquired a calibrated meter, and thoroughly enjoy traveling through the towns and countryside as I travel to the next point on the map. It is always interesting to discover what is around the next curve, or over the next hill. I am looking forward to the next project where I will be "measuring the air".

OZARES

The OZARES meeting of February 21 was one of the highlights of the year with "Rusty" Capella of the Sullivan NOAA weather station giving his presentation on "the tornado season".

The group learned about shelf clouds, beaver tails, wall clouds, funnels, updrafts, downdrafts, micro-bursts, identifying the storm direction of travel and a host of other characteristics associated with tornado's and storms expected this spring and summer. It was a real "stormy" education.



Rusty Capella trains “spotters” at the OZARES meeting at the Justice Center in Port Washington

Minutes of the February 13, 2002 Ozaukee Radio Club

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions: The meeting was called to order at 7:32PM at the Grafton Senior Center by Vice Vic Shier, WA9UKE. Introduction of members and guests was made.

Program: Nels Harvey, WA9JOB, Ernie Swanson, K9LO, and Bob Gorjance, W5CFB, all gave more information regarding their roles in broadcasting, and archival information from over as much as the last 70 years.

Auction: Stan, WB9RQR, then held his OZARES auction, to benefit OZARES finances and ORC Scholarship funds. After the auction, a brief break was called before the Business meeting.

Minutes: The minutes of the previous meeting were accepted.

Treasurer’s report: Gabe, WI9GC, distributed copies of the Treasurer’s report. Stan WB9RQR, moved, and Ernie, K9LO, seconded to accept the Treasurer’s report, subject to audit. Gabe reported that he had sent 20 newsletters to area Amateurs not in the Club in an effort to increase membership. 8 were returned. He is looking for some help to send out more newsletters. Gabe will print the roster and include everyone paid up as of his return from vacation before the next meeting.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that he still has made no pro-

gress in retrieving the equipment held by the former repeater Vice President.

Swapfest Report: Gene, KB9VJP, reported he has sold a few tables. Anyone going to a swapfest before ours is encouraged to take flyers promoting our swapfest along. He has plenty.

OZARES Report: Jon, KB9RHZ, reported that February 28, Rusty Capella, of the National Weather Service, will discuss severe weather spotting.

P.E.P Party: Ted, KB9RLI reported there have been 35 people signed up so far. He acknowledged that the price was up a little, after three years of no change. He then passed out flyers promoting the party.

Old Business: No old business, but Vic asked about logging programs for Field Day. Stan, WB9RQR, told us Jeff, KB9QQE, was writing a new logging program. Bob, W9LO, questioned the need for ‘re-inventing the software used at Field Day’.

New Business: There was no new business. Dave, N9UNR, announced that he is taking orders for new nameplates for Club members that need them

Adjournment: The business meeting was adjourned at 9:45 P.M.

Next Meeting: The next meeting will be held on March 13, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Stan, WB9RQR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Ed, AA9W, Bob, N9NRK, Brian, N9LOO, Gabe, WI9GC, Kent, N9WH, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Greg, W9DHI, Vic, KB9UKE, Bob, W5CFB, Jim, N9WIU, Jeananne, N9VSV, Gary, N9UUR, Paul, KA9RPR, Ernie, K9LO, Ted, KB9RLI, Mike, WJ9O, Herb, WA9UVK, Ben, K9UZ, Paul, KB9WCC, Gerry, KB9IMH, Jake, KB9ZOR, Ed, AA9WW, Sky, N9XRU, Carol, KB9PZP, and Kristin, KB9RJL.

Meeting Nets of Interest

CST	Freq.	Mode	Sponsor	Day
7 PM	7.233.5	LSB	Century Club	Sun.
8 PM	3.904.0	LSB	“	Mon.
11 PM	1.892.5	LSB	“	Tues.
8 PM	7.053.0	CW	“	Thur.
7 PM	7.070.0	PSK	“	Fri.

AGENDA

March 13, 2002

1. Call to order.
2. Introductions – Members and Visitors
3. Announcements, Upcoming events, Etc.,
4. BUGS, THE VIBROPLEX TYPE, by Fred Linn, W9NZF, collector
5. Fellowship Break
6. Auction
7. Call for acceptance of minutes.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Dave (N9QA).
10. OZARES report – Jon (KB9RHZ).
11. Committee reports.
12. Old Business
 - a. -
 - b. Open to the floor.
13. NEW BUSINESS.
 - a.
 - b. Open to the floor.
14. Auction.
15. Adjournment.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, 13 March

7:30 PM



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.



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Volume XXI

April 2002

Number 4

The Prez Sez

By Leon Rediske K9GCF

Soon the weather will be warm and Hams will turn their thoughts toward Field Day. This year we will try to do even better than we did at last years record setting event. Bob Truscott, W9LO, and I will be checking out the bandpass filters next week. We will hold several meetings regarding Field Day planning. If there are folks that have not attended previous planning meetings, and would like to attend and help us to plan for the biggest and best Field Day ever, contact Leon, K9GCF & we'll count you in.

The Scholarship Committee is to take up the idea of changing our club's requirements for applicants from a 4-year college to a 2-year associate degree. Or shall we keep our requirements as they are? Approximately half of the Radio Clubs sponsoring scholarships require 4-year colleges.....

Superfest is coming up at Amateur Electronic Supply, 60th and Good Hope road, April 5 & 6. That is an event not to miss. We still have a few openings to help man the tables at this event. If you can help us, give Jon, KB9RHZ a call. We'll see you there! Anyone know where the OZARES banner is? Let me know if you do.

Don't forget Dayton.....the Ham's Mecca. That is coming up May.....17 thru 19. If you've never been there, get there!

For last minute breaking news, check in to the ORC's informal net, 146.970Mhz, Southeast Wisconsin's PL of 127.3, Tuesdays at 7:45 PM

for the ARRL Audio News, 8:00 PM for the check-in portion of the net. See you there!

Just Another Shack

Here we see Kent Christiansen, N9WH, making his first PSK-31 contact with his new Rigblaster on 20 meters. Kent is getting out using his Kenwood 950SDX transceiver, NyeViking antenna tuner and a 500+ foot "loop" antenna strung "around" the back yard.



He is using Digipan 2 software on an older CITUS 100 (100MHz) computer with a sound card.

Kent first got interested in radio in the navy while commanding a small boat lost in the fog when all three radios on board failed. That would gain your interest. Many years later, in 1992 he earned his Technician + ticket at the urging of a fellow worker who was President of the MRC. In May of 2000 he then upgraded to an Extra class. Kent's daughter Enid, KB9TDC, also occasionally uses the rig.

So where did it all begin?

By Ron Yokes W9BCK

How did the Ozaukee Radio Club come into being?" I have been asked by Tom Ruhlmann W9IPR, ORC newsletter guy.. Well, as editor for the QCWA Wisconsin Chapter 55 letter, how could one such as I refuse to retell an oft-told ever-changing story of ORC origin? Ego and Vanity forbid me not to give it yet another try. So here goes.

In 1956 Bob Truscott, W9LO (then W9NYJ), asked me to come to Milwaukee to assist in the building of WITI-TV channel 6. Earlier, in 1953, Bob called me away from RCA to assist in the building of WREX-TV, Rockford, Illinois. That task accomplished, my move to Wisconsin tied an everlasting, enduring knot of friendship and professional relationship with Bob.

We both lived in Ozaukee County and both of us were hams. Naturally we looked for ways to promote amateur radio activity twixt' ourselves and other hams that came to work for channel 6: Dick Neary W9VBA (SK), Ray Brunette W9BUJ (founder, Lakeview Electronics at I-43 & Hwy C), Charles Balkwill K9MAU Grafton (the Mau-Mau-Man). Initially, by Bob's incentive, the Channel Six Radio Club was informally formed. Not long after, I became involved with Ozaukee County Civil Defense and became RACES Radio Officer for the County. Soon, other County hams were attracted to our informal group. Verne Teske W9RYA and Bill Vosburg W9VLL, Grafton; Hal Giese W9RYA, Bert Klopp W9OFM, Jeff Klopp WA9USA, Harvey Goldberg W9??? and Ed Bach W9BMA Port Washington (SK); Joe Collins W9PYM (SK) Mequon, and others my memory fails to recall. Somehow, this group received permission to use the "Hill School" located on the NE corner of Hwy's 32 and 33 in Port Washington as a meeting place...sometime after 1963 the school burned and no longer exists. A playground and park currently occupy the former school land parcel.

Faced with the problem of presenting the Ozaukee County Board of Supervisors with a credible roster of RACES participants dedicated to providing voluntary emergency radio communication in event of a Civil Defense emergency, I presented the situation to our Hill School radio group during a meeting and suggested that we form an outfit (that later became known as the ORC), to dig Ozaukee County hams out of the woodwork to join our group, form a radio club, and by the way, join RACES too. Verne reminds me that

W9PYM volunteered to scan his callbook for hams living in the area that we could contact. The scheme worked, guys came out to join us, and the County Board, apparently impressed that we meant business as a volunteer group to offer emergency radio services, awarded a few thousand dollars to purchase six-meter fixed and mobile radio gear...a first for Ozaukee County, well noted for it's frugality. Now, the club's movers and shakers took over, my job as catalyst in the process essentially complete. As is my style, I retired to the background and was eventually transferred to California in 1963 to help establish a budding cable systems operation there for Storer Broadcasting, then owner of channel 6.

After the loss of Hill School, meetings were eventually moved to Cedarburg to an underground Civil Defense facility located just south of the now defunct Cedarburg Electric generating plant on Cedar Creek near the dam and across Cedar creek from Barth's. Low, concrete ceilings made for a few unexpected headaches and egg-sized lumps on radio skulls. The place was stocked with military type emergency rations and water to sustain life during an atomic bomb attack that we all expected momentarily. We, the emergency radio gang, were expected to survive in our underground nest.

Sometime in 1963, (I think), Ed Bach W9BMA President and Attorney, presented a plan to incorporate the ORC. This was the beginning of a more formally structured ORC.

While away I tried to keep up as best I could with the ongoing affairs of the club through sporadic but continuing contact with Bob, now W9LO (I think). I returned to Grafton and ORC membership in 1976 after an absence of thirteen years and revived a dying if not already defunct newsletter after I opened an RCA broadcast systems sales office in the Grafton State Bank building, then the new Grafton Taj Mahal. A few years later, Stan WB9RQR called a meet at his PW home to collect, among other things, a historical file of the ORC. A canvass of members yielded an almost complete collection of past newsletters defining origins of events and member activities of the club. The "file" exists somewhere, maybe even in Ozaukee County, but just where is hard to know, since the ORC has become so completely organized it will take a Congressional investigating committee to unravel the trail to ORC origins.

So, when did ORC begin? When was the acorn planted? My own recollection, based upon goals I envisioned for a voluntary amateur radio emergency communications group placed the date between 1957 and 1959. I rely on the memory of others more reliable than my own to correct a likely mistaken chronological recollection.

Best regards to the ongoing crop of ORC EMCOMM bearers of the ever passing torch.

Ron, W9BCK...the "Cheery Curmudgeon"

Upcoming Events

- April 5 & 6 – AES Superfest
- April 10 – ORC Meeting
- April 11 – ARES class
- April 13 – Concordia U @ St. Paul
- April 14 – Madison Swapfest @ Stoughton
- April 25 – ARES class
- May 4 - ORC Swapfest @ Circle B**
- May 17,18&19 – Dayton Hamfest
- July 6 – South Milwaukee Swapfest
- Sept. 21,22 & 23 Peoria Superfest

Web Sites of Interest

http://www.qrparci.org/	QRP projects
http://www.dxzone.com/	Ham web sites
http://www.bambi.net/sara.html	Astronomers
http://www.amradiotrader.com/	Ham traders

Collections



Fred Linn (W9NZF) and Gary Sharbuno (WI9M) discussing some of Fred's collection of manual and semi automatic telegraph keys.

NS9RCfest - The Grayslake Hamfest on March 24th was really great. Two huge halls full of stuff you always wanted but could no longer find. The "lost" was finally found. It is only 78 miles door to door and an easy drive. I ended up finding a meter for the antenna rotor control box I originally bought at our own ORC Hamfest for \$10 – now it all works. **REMEMBER, the ORC 2002 Hamfest is at Circle B on May 4th** – see you there.

Nets of Interest

MHz	Mode	Day	Time	Org.
146.91	- FM	Sunday	9:00 PM	Swap Net
3.985	LSB	Daily	6:00 AM	Weather
7.284	LSB	Saturday	9:00 AM	EAA
28.365	USB	Wed-Sun	8:00 PM	10 - 10



Gene Szudrowitz (KB9VJP) is browsing the Tower Electronics components display at the North Shore Radio Club Swapfest in Grays Lake IL

IT'S HAM CLASS TIME

ORC will be holding its annual Technician Class License class beginning April 6. Each Saturday morning starting at 9:30 and running for about seven weeks. Several "learned" members of the club will be presenting the information needed to obtain the FCC license. The location is the Justice Center at the intersection of highway LL and S. Spring Street in Port Washington. All of the required topics will be covered with slide presentations and hardware demonstrations. The classes are free of charge but the purchase of a Radio Shack book is recommended. All ages and genders are welcome. Our youngest successful student was nine years old and the oldest was a very senior, senior citizen. The FCC license testing will be held at the conclusion of the class.

Contact Ed Rate, AA9W or Leon Rediske, K9GCF for details.

Upgrade anyone?

It appears that about 40% of our club has a "No Code Tech" or "Technician +" license. If 5 or more are interested in participating in an "upgrade" class let me know. I would be glad to establish a curriculum and a class schedule agreeable to all. We could also have a code session using the 146.97 repeater as well as participate in the current code sessions on 146.91.

While you may not feel you would enjoy operating CW, it is the key that can open the really interesting world of SSB on HF. There are so many exotic foreign countries yet to be contacted and so many really big antenna to be constructed.

I am sure there are others that would also enjoy leading some of the theory and code sessions – it is always more fun in a group. Feel free to contact me at 262-377-6945 or at teruhlmann@cs.com to see if we can get something going.

The Computer Corner – No. 98. Managing Your Hard Drive By Stan Kaplan WB9RQR

Today's new computers come with 20, 30 or 40 Gb hard drives or larger. If you purchased one with the operating system already installed, you may find several 8 Gb partitions (logical drive C:, D: could be 8 Gb with a 4 Gb drive left over as E:, in a 20 Gb physical drive). On the other hand, if you had a slightly older system and later upgraded to a 20 Gb hard drive, you might have as many as five logical drives (C:, D:, E:, F: and G:), each about 2 Gb in size. Worst of all, there may be unallocated space on your hard drive - wasted space that is not available for your use or for use by your operating system. So, what is this all about? How can you manage it all? What are the rules of the game? How can you change stuff to your advantage and preferences?

(Extracted from and continued in the Badger State Smoke Signals. www.bsss.com)

For Sale, Trade or ?

HF station: Kenwood TS520 transceiver with Koss headphones, desk microphone, Swan SWR meter and 10 through 80 trap dipole antenna complete for \$450 – contact W9VSC @ 262-377-0426.

Wanted

Your input to the newsletter. Have you something to sell or trade? Give the other members a chance to help you clear your basement.

Would you like to see articles continued in the newsletter? It requires that you also share some of your experiences and knowledge. One of the best ways to learn a subject is to write about it in such a way that others understand and are either entertained, gain new knowledge or are motivated to do something. Why not share the experience of your first "ham" exam or your first contact with the group? What about that last gadget or antenna you built? Why not share the details with the club? Who was your favorite "Elmer"? Why not share with us just what made them special? The newsletter will continue to have interesting articles as long as you realize that the rest of the club is interested in what you are doing and you are willing to share that experience with them occasionally via an article in ORC the newsletter.

Send your inputs to teruhlmann@cs.com.

From the ARRL Newsletter

==>ARRL ASKS FCC TO ELIMINATE, "REFARM" NOVICE CW BANDS

The ARRL has asked the FCC to eliminate the 80, 40 and 15-meter Novice/Technician Plus CW subbands as such and reuse that spectrum in part to expand the phone allocations on 80 and 40 meters. In a Petition for Rule Making filed March 22, the League requests that the FCC revise its Amateur Service rules in accordance with the modified Novice band "refarming" scheme the ARRL Board of Directors Okayed in January. The Petition has not yet been put on public notice for comment.

"The opportunity to eliminate the Novice and Technician-Plus telegraphy subbands and the reapportionment of those inefficiently deployed segments will allow alleviation of significant, sometimes critical, overcrowding in the popular Amateur HF allocations," the ARRL said in its Petition.

The ARRL also cited "substantial advancements in the use of digital techniques" in the HF bands--such as PSK31--to bolster its assertion that a refarming plan for the underutilized Novice HF subbands "cannot wait longer and must proceed now." The refarming plan adopted was based on the recommendations of the ARRL Novice Spectrum Study Committee following a survey of the amateur community last year. Under the proposal, no operator class would lose privileges, and most would gain.

If the FCC approves the plan, current Novice and Technician Plus (i.e., Technician with Element 1 credit) licensees would be permitted to operate on the 80, 40, 15 and 10-meter General-class CW allocations at up to 200-W output. For General and higher-class operators, the ARRL wants the FCC to implement changes in the 80, 40 and 15-meter "phone" bands.

On 80 meters (3500-4000 kHz), phone privileges would begin at 3725 kHz for Extra, at 3750 kHz for Advanced and at 3800 kHz for General--another 25 kHz for Extra and Advanced operators and another 50 kHz for Generals. On 40 meters (7000-7300 kHz), phone privileges would begin at 7125 kHz for Advanced and Extra and at 7175 kHz for General--25 kHz more for Extra and Advanced operators and another 50 kHz for Generals. On 15 meters (21,000-21,450 kHz), phone privileges would begin at 21,200 kHz for Extra, at 21,225 kHz for Advanced and at 21,275 kHz for General--no change for Extra and Advanced but 25 kHz more for General.

On 10 meters, the ARRL has recommended no changes other than to accommodate CW, RTTY and data by Novice and Tech Plus licensees at 28.0 to 28.3 MHz.

The ARRL suggested that its proposed configurations strike the right balance between the need for additional phone spectrum and the important goal of encouraging further development of narrowband data modes in the CW segments.

The ARRL's "omnibus" petition also asks the FCC to permit amateurs to use spread spectrum on the 222-225 MHz band; expand the pool of special event call signs beyond the 1x1 format to include identifiers for US territories and possessions that do not provide for mailing addresses; clarify its rules to indicate that modulated CW

(MCW) is permitted for repeater station identification; and to incorporate into its rules a 1990 FCC waiver authorizing amateurs in certain areas of Colorado and Wyoming to operate on certain segments of the 33-cm band.

The League invited the FCC to consolidate its omnibus petition with other pending Amateur Radio-related petitions now before the FCC.

A copy of the ARRL's complete Petition for Rule-making is available on the ARRL Web site <<http://www.arrl.org/announce/regulatory/refarm/>>.

Tips and Tails

Need a 1/2" insulated shaft coupling? Try a short length of 1/2" PVC tubing and a couple of hose clamps.

Save those tuna tins from Lent – they make great parts holders when dismantling stuff.

ORC SWAPFEST – May 4th

Circle B at Hwy. 60 and Hwy. I

Last year we sold all 95 tables and made \$1400. That's how we supported events such as our field day so it is important that we support this year's Swapfest with our volunteer efforts and attendance – plus it's a great time.

There will also be Amateur License Exams administered from 9AM to 12 Noon by the Badger Examiners c/o Gary (WI9M).

Gene (KB9VJP) needs 5 volunteers for setup on Friday evening at 6PM. He also needs 4 to handle ticket sales and 2 to establish and operate a "call in station" at the event on Saturday.

Tables are \$10 and admission is \$4. We plan to have a "Club Table" again this year where you can leave your stuff for sale at a 10% commission. This is the best way to go if you don't have more than \$40 of good stuff or you wish to roam the event rather than man your table. Also, if you wish to donate "good stuff" to the club, this is a way to do it.

Call Gene to volunteer at 377-6792. See you at the ORC Swapfest May 4th.

Minutes

March 13, 2002 Ozaukee Radio Club Meeting

By Nels Harvey, WA9JOB, Secretary.

Call to order and introductions: The meeting was called to order at 7:32PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements: Cindy Douglas, KA9PZG, passed around a sign-up sheet for help at the Saukville River cleanup June 1, 2002. So far, Don, W9VSC, Jane, KB9SYI, and Leon, K9GCF, are signed up, with Jon, KB9RHZ, and Tom, W9LNL, listed as tentative.

Don, W9VSC, has a Kenwood TS-520 transceiver for sale, with several accessories.

The 2002 Turkey of the Year did not yet receive his award, because Ted, KB9RLI, was ill, and unable to attend in order to present it.

The ORC Amateur Radio License Class is scheduled to begin on April 6, 2002, at the Justice Center Emergency Operations Center, for two hours, starting at 9:30 A.M.

A letter was received from Matt, KG9NH, pointing out the ORC Scholarship program limits applicants to those seeking a bachelor's degree. Mat felt the scholarship ought to be made available to those seeking associate's degrees as well. This was sent to the Board for evaluation.

Program: Fred Linn, W9NZF, brought only a part of his large collection of semi automatic Morse code keys known as "Bugs". Besides showing the individual items in his collection, Fred demonstrated what a "Sounder" was like, and told many interesting stories of contests, railroad tales, and the acquisition of some of his collection.

Auction: After the break, Stan, WB9RQR, held his OZARES auction, to benefit OZARES finances and ORC Scholarship funds, before the Business meeting.

Minutes: The minutes of the previous meeting were accepted.

Treasurer's report: The Treasurer's report was passed around due to the absence of Gabe, WI9GC, our Treasurer. Dave, N9UNR, moved to accept, subject to audit, and Gary, WI9M seconded. The report passed by voice vote.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that he still has made no progress in retrieving the equipment held by the former repeater Vice President. The 220-repeater amplifier is still out, but all three repeaters are otherwise working. Dave plans to put the KK & LL link back in service soon, with some borrowed equipment.

WA9MME, Ted, KB9PQZ, Ron, W9BCK, Paul, KB9WCC, and Fred, W9NZF.

Swapfest Report: Gene, KB9VJP, reported he has sold about 25 tables. Anyone going to a swapfest before ours is encouraged to take flyers promoting our swapfest along.

OZARES Report: Jon, KB9RHZ, reported that the next meeting was scheduled for March 21, due to the Easter Holy Day on the 28th, and will be the first session of the M-Com classes. The other M-Com class dates are April 11, and April 25, the next regular meeting night.

Old Business: No old business, but Tom, W9IPR, has sent newsletters and meeting invitations out to 12 area Hams, in an effort to supplement the ORC membership. Tom is looking for volunteers to reach out to others.

Tom, W9IPR, also wants to organize an upgrade class, to possibly bring the one third of the ORC members who are at the Technician level to a higher class of license.

New Business: Ernie, K9LO, moved to send the Website sponsor, Al Waller, W3TJK, \$1.00 per member, per year, for the services. Seconded by Tom, W9IPR, the motion was withdrawn by Ernie, and replaced with a motion to direct the Board to examine the issue. Seconded by Greg, W9DHI, the motion passed by voice vote.

Adjournment: The business meeting was adjourned at 9:35 P.M.

Next Meeting: The next meeting will be held on April 10, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Stan, WB9RQR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Brian, N9LOO, and his wife Angle, Kent, N9WH, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Greg, W9DHI, Vic, KB9UKE, Jim, N9WIU, Ernie, K9LO, Mike, WJ9O, Dale, N9NNE, Herb, WA9UVK, Ben, K9UZ, Paul, KB9WCC, Ed, AA9WW, Gary, WI9M, Skip, KA9DDN, Cindy, KA9PZG, Peter, KB9URH, Bill, AA9OS, Tom, W9LNL, Jeff, KB9QQE, Dick,

AGENDA

April 10th, 2002

1. Call to order.
 2. Introduction Members & Visitors
 2. Announcements, Upcoming events, Etc.,
 3. Program: To Be Announced.
 4. Fellowship Break
 5. Auction
 6. Acceptance of Minutes as printed.
 7. Reports:
 - a. Treasurer's report – Gabe (WI9GC)
 - b. Swapfest – Gene (KB9VJP)
 - c. OZARES report – Jon (KB9RHZ)
 - d. Repeater report – Dave (N9QA)
 8. Outstanding Committees
-
9. Old Business - Open to floor
 10. New Business - Open to floor
 11. Adjournment
 12. Continued Fellowship Gathering @ John's Pizza. Everyone's invited.

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, April 10th @ 7:30 PM

ORC Swapmeet

May 4th @ Circle B 8AM to Noon



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.



AMATEUR RADIO

**ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: <http://www.qsl.net/orc/>**

Volume XXI

May 2002

Number 5

The Prez Sez

By Leon Rediske K9GCF

The first big ham event of the month is OUR Swapfest, Saturday, May 4, 2002, at the Circle B, Cedarburg.. Gene Szudrowitz, KB9VJP, has been doing his usual incredible job of planning, advertising, and promoting this event. However, Gene needs your help on Friday evening, May 3, beginning at about 6 PM for set-up. Then we need help from 0600 to about 2 PM on Saturday, May 4.. Last year, we needed more help packing up and vacating the room. So if you cannot help us with the morning, please help with the afternoon. This event is our only money raising event, and if we don't sell it to the ham community, and make money, our dues will have to rise. So please help with making this event a success! Give Gene or me a call to indicate the time and area you will help. Gene (262) 377-6792 or Leon (262) 377-1080.

May 17-19 is the pilgrimage to ham Holy Land, Dayton Ohio, the biggest ham gathering in the world! If you are able, join in the fun and go there. You'll see every type of ham character in the world, including one fellow that walks around with a hard hat on, and a miniature tower on top of that. The tower even has lights. Every possible ham manufacturer is they're hawking their wares, and the biggest flea market you've ever imagined with anything electronic is also there. I've even seen equipment covered with mud, looking like it just had been recovered from a swamp, and that stuff is for sale also. Some of it at high prices no less. You've just "Gotta see it to believe it."

ORC FIELD DAY event, will be held June 21-23. Do you have some ideas as to how we can improve our operation over past years? The first of

several planning meetings was held April 23, but we are planning to hold more meetings. Bob, W9LO, has been doing some testing of bandpass filters and EMI/RFI filters, and will share his findings with the group. We invite each and every one of you to attend future planning meetings, so please contact Leon, K9GCF, or Gary WI9M, who will inform you of the date, time and location.

We also need help with all aspects of Field Day, so please help us when and where you can. The 2002 rules are in the May QST, page 108. Read them, as we may need to change some of our operation to conform with the new regs.

73's for now, and see you all at the ORC meeting, May 8, the second Wednesday.

Forever Learning



The ARRL "EMCOM" training sessions are well attended with 15 of the attendees being from the ORC. It is a program conducted over 3 evenings during which are presented the unique techniques of conducting emergency communications as members of the ARES and RACES amateur radio groups. The sessions were conducted by Bill Stolle (N9VBJ), Stan Kaplan (WB9RQR),

Jack Morrison (N9SFG) and the OZARES coordinator, Jon Gilmore (KB9RHZ).

Ed Rates (AA9W) "Ham Radio 101" class is very well attended with 10 participants – this is sure to lead to new members and ideas for our ORC.

06/02/02–Starved Rock Swapfest– Princeton, IL
 06/22-23/02 – Field Day
 07/06/02 – So. Milwaukee Swapfest
 08/10/02 – Circus City Swapfest - Baraboo
 09/21&22/02 –Chicago FM Club - Grayslake IL
 11/02 /02 – MRC - Swapfest – Waukesha Expo
 01/04/03- WARAC Swapfest – Waukesha Expo

Web Sites of Interest

Http://groups.yahoo.com/group/Hammarlund	Hammarlund collectors
www.qrparci.org/	Promotes QRP
www.dxzone.com/	Links to "ham" sites
www.shopstop.net/bats	ATV - Baraboo
www.cl.ais.net/farcir	FAR Circuits PCB's for QST etc. project articles
www.ncdzf.org/beacon/beaconSchedule.htm	Beacon transmission schedules

Riverfest River Cleanup

By Cindy KA9PZG

Just a quick reminder to all of you who might be interested in helping provide communications for the 7th Annual River Fest River/Park cleanup in Saukville on Saturday, June 1, 2002. Donuts and coffee will be provided for those helpers prior to the event at Grady Park, downtown Saukville. After the event, all participants are treated to lunch in the park and given a token gift for their help.

Please contact me via email/phone/radio if you have any questions or want to sign up. Your help will be greatly appreciated by all!!

Nets of Interest

MHz	Mode	Day	CDST	Org.
4.65	SSB		21:00	ARES
14.292	SSB	Sunday	14:30	Vintage
14.292	SSB	Sunday	15:30	Heathkit
7.284	SSB	Saturday	09:00	EAA
147.045	CW	Mon-Wed	18:00	Practice

Upcoming Events

04/23/02- Field Day Cmmt. @ Leon's
05/04/02 - ORC Swapfest - Circle B
 05/19-21/02 – Dayton Hamfest

Just Another Shack



When Nels Harvey isn't working on the repeater you might find him working HF on his Kenwood TS850S. For PSK-31 he uses his Rigblaster. On 6 meters he uses a "Regency" that he converted from the fire department frequency while his ICOM 3210 does a nice job on 2 meters and 70cm. His home base antennas consist of a Butternut vertical, extended G5RV and an 11 element Yagi on 2 with "Ringo's" on 220 and 440. Nels rounds out his operations with HT's, an ICOM in one vehicle and a Yaesu FT100 in the other. Nels earned his original Technicians ticket in 1963 followed by his General, Advanced and Extra tickets all in 1994. Over the years he has been an instrumental member of the Milwaukee Repeater Club and the "91" system as well as our ORC. Since retirement as a Radio Engineer from Channels 10/36 he consults with Evans Associates in Mequon.

Out of this world

This month's program will be about communicating via satellites. Gary and Jeananne Bargholz took their satellite communication equipment with

them vacationing, to an island in the Caribbean, and do they have a story to tell. Gary will also tell what frequencies and equipment to use and how to communicate through satellites.

For Sale, Trade or ?

Kenwood TS520 + speaker, headset, mic, antenna & SWR meter – complete HF station.

Winchester Md. 12 A Shotgun

Contact Don Belstner (W9VSC) – 262- 377-0426

ICOM745 Transceiver – all mode, all band and with power supply etc. - \$525 –

Contact Ben (K9UZ) @ 262-242-6000

HT202X- 2 Mtr. HT- Realistic - \$75 or ?

Contact Leon (K9GCF) at 262-377-1080

Computer Corner: The First 100 on CD-ROM

Several years ago, Stan Kaplan (WB9RQR), author of the Computer Corner column in BSSS, released a compilation of the first 48 articles. A very strong response indicated that readers want a complete set of the articles. We now announce the release of the First 100, on CD-ROM.

All 100 articles are in Adobe Acrobat (. pdf) format, and there is an Index of Titles as well. Furthermore, the powerful search and link capabilities of the Acrobat Reader have been harnessed to make use of the CD-ROM a snap.

In the Index of Titles file on the CD-ROM, a click on any title will take you to the complete article, and you can switch back and forth between the articles and Index at will. Moreover, you can perform searches for individual words, and the search results will show all articles that contains those words. A click will take you to any article in the list of those found, and the search words in that article will appear as highlighted text. Clearly, these capabilities make the CD-ROM a valuable reference tool for quickly finding topics of interest.

If you don't have a copy of the Acrobat Reader, or if your copy is old, the latest version (5.0.5) is included on the CD-ROM, along with installation instructions.

The CD-ROM, including all the files and the Adobe Acrobat Reader, will be mailed to you for \$15.00 postpaid. Send your order with payment to the address below. Sorry, no credit card orders. Proceeds will benefit Wisconsin ARES/RACES.

Stan Kaplan, WB9RQR
105 Martin Drive
Port Washington, Wisconsin 53074-9654

Wanted

Manuals to copy:

Tektronix Type 191 RF signal generator

Tektronix Type 321A portable oscilloscope

Dumont 1062 dual trace oscilloscope

Bearcat 300 Scanner

Silver Md. 906 Signal Generator

Knight RF Signal Generator

HP 209A sine/square wave generator

Contact Tom, W9IPR

No. 99. Win 98's Built-in System Information - Part II

By Stan Kaplan WB9RQR

A couple of months ago we explored Windows 98's diagnostic tools, which are built right into the operating system, albeit hard to find. This month, let us go a bit more in depth, which will expose you to some very powerful diagnostic tools that can help you to tune your system to peak performance as well as solve problems.

Again, click Start, then **Programs**, then **Accessories**, then **System Tools**, and then **System Information** to get to the basic screen. We saw

earlier that this presents you with a listing of a summary of basic information - how Win 98 was installed, the version of Internet Explorer in use, how long Windows has been up and running, the type of CPU in your machine, and so on. We went through the three major divisions shown in the left panel, **Hardware Resources**, **Components** and **Software Environment**.

This time, we will ignore those three major divisions in the left panel. Instead, click **Tools** at the top of the screen, then **Direct X Diagnostic Tool**, which will be present if your machine is multimedia ready. You will probably see eight or nine tabs (the number depends upon what is installed in your computer, so don't be upset if something I describe here is missing). Click **System**

Copied from and continued at www.bsss.org

Another Winner - Again

And who was it that won the grand prize of the Yaesu 817 at the AES Superfest? None other than our own AA9W, Ed Rate. As a follow-up, Ed, Nels (WA9JOB) and Tom (W9IPR) went to the Madison Swapfest at Stoughton and Ed won a new 2002 ARRL Handbook - Congratulations Ed, it's nice to associate with a winner.

Speaking of Stoughton, I picked up an old marine radio - now for the boat.

Meeting after the meeting



Some of our membership seem to think that our meetings are too short so they host another one

to continue the discussions over pizza and beer. This meeting was held at the restrant in the "old Grafton Hotel". All are welcome as this group is in need of some fresh openions.

Contesting

May 4-5

Indiana QSO Party - CW/SSB

ARI International DX Contest (Italy) - CW/SSB

New England QSO Party

May 11-12

Nevada QSO Party - CW/SSB/RTTY

Oregon WSO Party - CW/SSB

FISTS Spring Sprint - CW

CQ-M Intl. DX Contest - CW/SSB/SSTV

50 MHz Spring Sprint

May 18-19 - Anatolian RTTY Contest

May 25-26 QRP ARCI Hootowl Sprint - CW

AB-368 ANTENNA BILL SIGNED!

By Don, W9IXG, Section Mgr.

At 9:20 A.M. Tuesday, April 2, 2002, with the stroke of Governor Scott McCallum's pen, Wisconsin became the Fifteenth State to adopt PRB-1 legislation. AB368 was one of six pieces of legislation signed into law by the Governor today during a special ceremony held at the Oshkosh Senior Center in Oshkosh, Wisconsin. After summarizing the contents of the law, Governor McCallum made a special point of noting the important role that Wisconsin Hams play in providing emergency and public communication support throughout the State.

With the Governor, as he signed the law, were Jim Lackore (AD9X), Wisconsin Section State Government Liaison Officer; Dr. Stan Kaplan (WB9RQR), Wisconsin Section Emergency Communications Officer; Don Michalski (W9IXG),

Wisconsin Section Manager; Gus Wirth, Jr. (W9BTN), Ozaukee County Supervisor and Republican Party official; and the sponsor of AB368, former Wisconsin State Representative Joan Wade. Representative Wade, also, mentioned to the governor and audience that this bill was largely due to the efforts of [Jim Romelfanger, K9ZZ, S.K.](#) (long time Editor of *Badger State Smoke Signals*).

I would, again, like to thank Jim Lackore, AD9X, our Section Government Liaison. In addition to teaming with K9ZZ and the legislators these last 2 years, Jim was answering recent "make or break" questions from the governor's review panel. As was pointed out to me, only 10-15% of bills presented are passed. One of the reasons for the passage is that we were fortunate to have a strong team and large backing of Wisconsin amateur radio operators. In fact, Governor McCallum, in his comments to the audience, acknowledged that hundreds of amateurs were in support of this bill at every step in the process. Our deep appreciation to all of you who took the time to contact your legislators. The system works!

Copied from the Badger Smoke Signals

Tips and Tails

The Maybee's are now active members of the Yellow Thunder Amateur Radio Club.

The term "HAM" dates back to the first amateur radio station at Harvard University in 1908. The radio station was owned and operated by Albert Hymen, Bob Amy and Pogo Murray. They originally referred to the station as Hymen/Amy/Murray. This was quite a long ID in CW and it was eventually shortened to "HAM". They testified before congress in 1911 on behalf of all amateurs to protect frequencies from commercial interests and all amateurs were henceforth referred to as "Ham's".

(Thanks to WD8AAM for the information)

Letters to the Editor

Dear Nels,

I would like to thank you for all the time and effort you spent to analyze, repair, and modify the portable 147.33 repeater radio. It is people like you, who despite their busy schedules are more than willing to take valuable time and do things for just a simple "thank you". You have done a huge amount of work for the ORC and OZARES. On behalf of OZARES I want you to know it is greatly appreciated.

Jon Gilmore, KB9RHZ

OZARES EC

Minutes of the April 10, 2002 Meeting

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions: The meeting was called to order at 7:32PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements: The ORC swapfest is happening on May 4th. Gene, KB9VJP, wants anyone going to a swapfest to distribute flyers. He also has some posters, suitable for window, or other displays, if someone can get them deployed. Help is needed Friday night for setup, at 6:00 P.M, and we need volunteers to help take tickets at the doors Saturday morning. We need several people from 6:00 A.M. through 11:00 A.M, or so. See Nels, WA9JOB, to volunteer. The Club will have a table for you to place items on for sale. The Club will retain 15% of the selling price for the Scholarship fund.

Dave, N9UNR, asked the group if they wanted to try Ferrante's restaurant for the 'second meeting'. It was decided to give it a try

Lucky Ed, AA9W, won a door prize at Superfest. He then won the grand prize, a Yaesu 817 portable multiband radio. (Editor's note: Ed won an ARRL Handbook at the Madison Swapfest the following Sunday!)

Leon, K9GCF, has a Radio Shack RS202 available from a friend's estate.

Ed, AA9W, expects to receive the donation of an amateur's estate for the Scholarship fund.

Leon, K9GCF, has called a meeting of the Field Day Committee. They are to meet on April 23, at Leon's, at 7:15 P.M. See Leon if you want to join the committee.

Program: Cross band repeating was discussed by Vic, KB9UKE. He demonstrated a simple cross band system using HT's, and explained how he often uses the method to enable his access from his home in West Bend to the repeater. It was pointed out that the Wisconsin Association of Repeaters suggests 446.4125 to 446.4875 MHz. be used as a 'safe' frequency area to be used where no links will be affected. Station ID's are important. Remember to properly ID your transmitters

After the break the business meeting was held.

Minutes: The minutes of the previous meeting were accepted.

Treasurer's report: The Treasurer's report was passed around due to the absence of Gabe, WI9GC, our Treasurer. Dave, N9UNR, moved to accept, subject to audit, and Gary, WI9M, seconded. The report passed by voice vote.

The Audit Committee, consisting of Vic, KB9UKE, Ed, AA9W, Kent, N9WH, Gary, N9UUR, Gabe, WI9GC, and Tom, W9IPR, are pursuing a Bylaw change to clarify the funding issues with the Repeater Vice President.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that a new padlock will soon be installed at the repeater shack. Otherwise, there is little to report. Everything is status quo.

Swapfest Report: Gene, KB9VJP, reported he has sold about 37 tables. Anyone going to a swapfest before ours is encouraged to take flyers promoting our swapfest along.

OZARES Report: Jon, KB9RHZ, reported that the next M-Com class dates are April 11, and April 25, the next regular meeting night. A severe weather drill by the National Weather Service will

be held at the Justice Center on April 18. OZARES will be included in the drill.

Ham Class: Ed, AA9W, reported the first new ham class had 4 people, but he anticipates more expected this next Saturday.

Old Business: The Club's Turkey Award was presented to this year's award, Bob Truscott, W9LO! He finally received the award usually bestowed at the Post Everything Party. Weather conditions prevented his attendance there.

New Business: There was no new business

Adjournment: The business meeting was adjourned at 9:25 P.M.

Next Meeting: The next meeting will be held on May 8, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Brian, N9LOO, Kent, N9WH, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Greg, W9DHI, Vic, KB9UKE, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gary, WI9M, Bill, AA9OS, Jeff, KB9QQE, Ted, KB9PQZ, Ron, W9BCK, Gabe, WI9GC, Ted, KB9RLI, Ed, AA9W, Gerry, KB9IMH, Joe AA9HR, Ted, KA9UCD, John, KC9BJZ, Daniel, KC9BKA, Jake, KB9ZOR, Jane, KB9SYI, Joe, KB9URC, Roger, W9UVV, Tom, AA9XK, Sky, N9XRU, Bob, N9NRK, and Ted, N9LLT



The Ozaukee Amateur Radio Club in June of 1963

Here they are – our organizational founders and forefathers. The origins of our club trace back to an expressed need by the Ozaukee County Civil Defense Communications and Radio Officers, W9BCK (Ron Yokes) and W9KYA (Bob Truscott), that there should be a formal organization of the county “ham” radio operators to support emergency communications.

The first organizational meeting was January 12, 1962. The first elected officers were Harvey Goldberg (K9EOY), President; Allen Belbinger (K9VMN) vice-president; Wiollard Morouski (W9CPU), Secretary and Ed Daum (K9SJV), Treasurer.

By April the Secretary and Treasurer had to resign due to shift work commitments and they were replaced by Bill Vossberg (W9VLL) and Hal Giese (W9RXA) respectively.

In May, again due to work conflicts our new president had to resign and Vern Teske (W9RYA), currently known as the “Oak Creek bandit” and founder of the South Milwaukee Club, became our second president.

And where did they meet? – at the old Hill School in Port Washington.

AGENDA

May 8th, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.
4. Program – satellite communication - Gary and Jeananne Bargholz
5. Break
6. Auction
7. Call for acceptance of minutes.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Dave (N9QA)
10. OZARES report – Jon (KB9RHZ).
11. Committee reports. – Swapfest, Field Day, Audit
12. OLD BUSINESS
- a.
- b. Open to the floor.
13. NEW BUSINESS.
- a.
- b. Open to the floor.
14. Auction.
- 15.
16. Adjournment.

Meeting after the meeting

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, May 8th

7:30 PM



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.



AMATEUR RADIO

**ORC Repeaters on 146.97, 224.18 and 443.750 MHz -
Callsign W9CQO Web site: <http://www.qsl.net/orc/>**

Volume XXI

June 2002

Number 6

The Prez Sez

By Leon Rediske K9GCF

Our Swapfest on May 4, was a huge success, thanks to all that helped. Income was up 10% over last year, according to Gene Szudrowitz, KB9VJP, event chairman.

May 17-19 was the great pilgrimage to ham Holy Land, Dayton Ohio, and again this year; a good time was had by all. Some are still trying to thaw out however. It was C-c-cold and windy out on the tarmac this Hamvention. The new radio deals were spectacular again this year. New Icom 706's were priced under \$700. Less if you offered cash.

We still need help with all aspects of Field Day, so please help us when and where you can. The 2002 rules are in the May QST, page 108. Read them, as we may need to change some of our operation to conform to the new regs.

73's for now, and see you all at the ORC meeting, 7:30 PM June 12th, the second Wednesday.

Web Sites of Interest

HEATH@LISTSERV.TEMPE.GOV	Heathkit
www.QRZ.COM	Ham Supersite
www.users.zetnet.co.uk/kama/hamlinks.htm	UK hamlinks
http://hfradio.org/	General interest to HF radio
www.bambi.net/sara.html	Amateur Radio-Astronomers

Upcoming Events

6/02/02-Straved Rock Swapfest – Princeton, IL
6/22-23/02-Field Day @ Lazy Daze Campground

7/06/02- So. Milwaukee Swapfest
7/20/02- Fish Day Parade at Port Washington – need volunteers – contact WI9M, WB9RQR or KB9RHZ to volunteer
8/10/02- Circus City Swapfest-Baraboo
09/21-22/02 – FM Club Swapfest-Grayslake IL
1102/02-MRC Swapfest – Waukesha Expo
01/04/03 – WARAC Swapfest–Waukesha Expo

A Great ORC Swapfest

Congratulations to Gene (KB9VJP) who chaired a really great swapfest and all the volunteers who passed out the posters and handbills at the area swapfests and all those who pitched in



at the setup on Friday evening and during the event on Saturday morning. There was a 13% increase in the attendance and net income and this was in part due to the 325 personal invitations sent out by Gene. We netted \$2032 this year as compared to \$1800 last year. We netted \$80 at our consignment table and Ed (AA9W) sold over \$20 at the club table for the scholarship fund. The individual and commercial vendors both remarked that they were very pleased with the traffic and their sales. Again, thanks Gene – a great basis for the ORC 2003 Swapfest.

Contesting

June 8-10 – ARRL VHF QSO Party

June 15-16 – Kids Day Operating Event
 June 15-16 - Intl. 6 Mtr. QSO Party
 June 22-23 – ARRL Field Day

FCC PROPOSES TWO NEW AMATEUR BANDS!

Great news for ham radio this week! The FCC has proposed going along with ARRL's request for a new domestic (US-only), secondary HF allocation at 5.25 to 5.4 MHz. The FCC also is ready to permit operation on a 136-kHz "sliver band" in the low-frequency (LF) region. And, in response to a third ARRL request, the FCC has proposed elevating Amateur Radio to primary status at 2400 to 2402 MHz.

"I'm just as tickled as I can be," ARRL President Jim Haynie, W5JBP, said upon hearing the news. "This is a classic example of our ARRL at work."

The FCC voted unanimously May 2 to adopt the Notice of Proposed Rulemaking in ET Docket 02-98. The Commission released a Public Notice May 9, and the NPRM is expected to be released soon. A comment deadline will be announced as soon as it's available.

The FCC said the new 5-MHz band would help amateurs "better match their choice of frequency to existing propagation conditions." The band, if approved, would be the first new amateur HF allocation since World Administrative Radio Conference 1979 gave amateurs 30, 17 and 12 meters--the so-called "WARC Bands." Assuming the 5-MHz band eventually is authorized, it could be a few years before it actually becomes available.

A Great Wedding Anniversary & Club Program

Gary (N9UUR) and Jeananne (N9VSV) Bargholz spent another great wedding anniversary on St. Lucia island in the West Indies in the Carrabian. Adding to the fun was their FT847, dual band HT,

Arrow antenna and laptop with "PocketSat" satellite tracking software.

When not laying on the beach they were working the UO-14 and AO-27 FM satellites and the FO-20 and FO-29 SSB satellites. They were able to work all four satellites from about 8 to 10 in the morning and again from 9 to 11 at night for about 20 minutes per pass. Conditions were such that they were also able to make daily contact with another of our members, N9WJV (Mike) on a daily basis. They were assisted by Givan (J69AC) and Frans (J69DS) during their



Gary (N9UUR) and Jeananne (N9VSV) telling the group about their "satellite operations" at St. Lucia Island in the West Indies

stay and made over 100 contacts via satellite during their 5-day stay as J6/N9UUR. Jeananne also tried 6 Meters several times but there was no magic on the "magic band" at St. Lucia.

You can get more details on this exciting venture at Gary's "road runner" web site <http://home.wi.rr.com/N9UUR>.

Nets of Interest

Day	Time	Freq.	Comments
Sun	3PM	14.292	Vintage SSB net
Sat	7PM	7.233.5	LSB - Century Club
Sat	12AM	1.892.5	LSB - Century Club
Sun	4PM	14.084	RTTY-Century Club
Moon	12 AM	3.904	LSB - Century Club

Dayton – it was great!

This may have been a record year for ORC participation. At my last count there were eleven. It is about a 7-hour drive filled with stories of past years on the way down and “good deals” made and missed on the way back.



The Hamvention Gang

Shown here are some of the Dayton Gang at Dave’s (N9QA) concession and rest stop – sold out and worn out. The above gang is Kent (N9WH), Dave (N9QA), Gabe (WI9GC), Ed (AA9W), Ernie (K9LO), Brian (N9LOO), Nels (WA9JOB) and Tom (W9IPR). Also at Dayton but out getting “good deals” when the picture was taken were Leon (K9GCF), Ed (AA9WW), Jake (KB9ZOR) and Gene (KB9VJP).



The Bluegrass Hams

This group of “Hams” from the blue grass country provided really great music while you browsed their wares – it kept me coming back.



The Mobil Antenna Farm

Personally, it took me six hours to make it through the “flee market” one time. During my second tour, I judged this pickup to be the most complete antenna farm at Dayton.

No. 100 - A Better Way to Install Windows 98

By: Stan Kaplan WB9RQR

Wow! This is monthly article number 64h (h = hexadecimal), or 1100100 (binary), or 100 in our plain old decimal system. A nice, round number that represents 8 years and 4 months worth of articles. I should put a candle on my breakfast bagel tomorrow morning! I hope you have found the series useful. This month's subject is a tip that can make your life easier. You can use this tip to:

1. Install Win98 on a hard drive for the first time. This way is actually easier than the standard way, and has the added benefit of storing the important contents of the installation CD-ROM on your hard drive. If Windows needs additional files in the future (as, for example, when you add a new hardware device); it won't even ask you for the CD-ROM. It will just automatically go get the needed files from the copy on your hard drive! Win98 can do this because it knows that it was installed from the hard drive, rather than from a

CD-ROM, and that the installation files (including drivers) are still there.

2. Put a second copy of all installation files on a hard drive that already has Win98 installed. As above, when adding new hardware in the future, you will not need the CD-ROM. Just point Windows to the folder where the installation files are located, and it will happily slurp up the ones it needs for your new hardware. This works for restoring damaged or corrupt files, too.

3. You can even use this method to put Win98 on a machine that has no CD-ROM drive. I have done this many times, by first copying the files to a parallel port external hard drive (using a machine that did have a CD-ROM drive), then using the external hard drive to copy to the machine without a CD-ROM drive. This will work with an external tape drive, as well.

Copied from and continued in the Badger Smoke Signals at <http://www.bsss.org>

Repeater Frequency Coordination at Dayton



One of the more important volunteer activities is that of keeping all the repeaters in an area from interfering with each other. This is the charter of the National Frequency Co-ordination Committee; to recommend the frequencies of operation and

the PL codes to be used by individual repeaters within an area so that we can all communicate effectively. The president of this National Frequency Co-ordinating committee is our own Nels Harvey (WA9JOB) and he is shown here conducting a frequency co-ordination seminar at the Dayton Hamvention.

For Sale

WB2MSV is now a silent key and his son is settling his estate. This includes an FT657GX, ICOM EC-251A and an Ameritron ALS-500M. These and other items may be seen at www.mattmilw.com.

Contact Matt Phillips at 414-352-6087

Kenwood TS520 station – Don Belstner (W9VSC) @ 262-377-0426

ICOM 745 transceiver – Ben (K9UZ) @ 262-242-6000

HT202X – 2 Mtr. HT – Leon (K9GCF) @ 262-377-1080

Just Another Shack?

Not really, this one is unique. Here we have

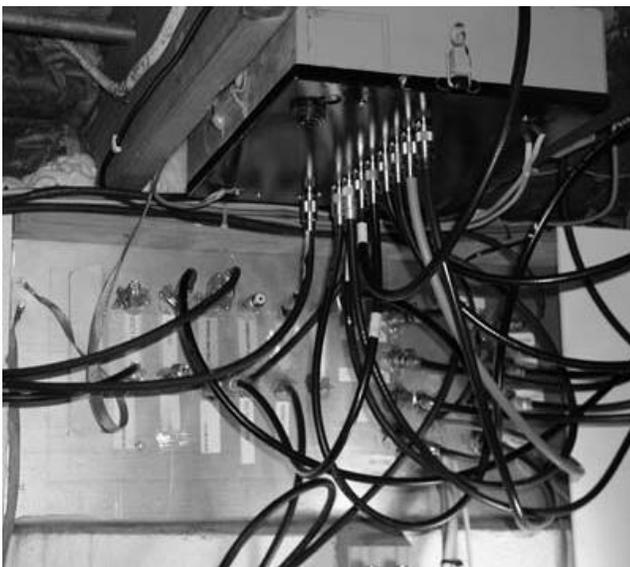


one of our more competitive stations and operators, Fred Helmstetter (N9FH). His basic station consists of an FT1000MP driving a TenTec Titan amplifier and an ICOM 746 driving a Henry Amplifier. Fred operates all the bands from 440 MHz through 160 meters and is a great contester.



This is one of Fred's two towers used to support the 70cm through 20mtr beams and provide supports for the various slopers, dipoles, long wires and bazookas.

Yes, that sounds like a lot of antennas and it is



obvious when you see the antenna feed bulkhead and antenna switching matrix. He has 4 VHF an-

tenna options and 16 antenna options on 6 through 160 meters. Plus, he lives on a hilltop.

Fred originally earned his Novice license in 1977 at age 12 and then the interest waned during his high school and collage years. In 1994 his interest was revitalized and he has become a very successful contester. In 2001 he was the number one operator in the Wisconsin QSO party and was also Number One in the Central Division of the ARRL CW Sweepstakes.

Presently Fred is assembling several stations to compete in the June ARRL VHF QSO Party. The group operating on 6 mtr., 2 mtr., 220 MHz and 432 MHz as NI9E will include NI9E, N9VA, WB9UAI, N9LLT and of coarse, N9FH. In this effort they will be using an FT847 and a variety of other VHF rigs. Good luck on June 8th.

Mobile Connections

By Vic Shier KB9UKE

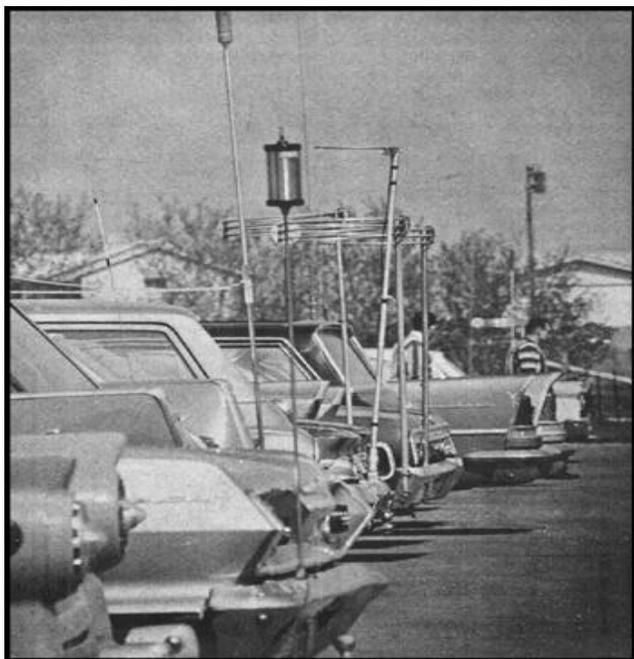
Installing a rig in a car or truck can be a time consuming project. Here is a tip that can make the job a little easier.

Some vehicles come equipped with auxiliary power points. These power points may look like cigar lighter receptacles but they are not in fact, made for lighting cigarettes. Rather they are for providing power to the many electronics that today's driver's use while commuting, such as cell phones and laptops. A simple observation of the receptacle shows that it is made to be a durable source of 12-volt power. In the '97 Suburban the two auxiliary power receptacles are fused at a combined 25 amps. Check the owner's manual for your vehicle to determine the fusing and capability of its auxiliary power receptacles. I have used mine to power 50-watt rigs that draw 14 amps. This set up has been problem free and even after extended periods of transmission the connections remain cool to the touch. Because all of the wiring is inside the passenger compartment, the connections are unaffected by winter salt spray and the rigs have been free of alternator whine.

The power cord supplied with the rig will be too long for this installation so the first step will be to cut it to the proper length but not so short as to remove any of the fuse connections. Finding a suitable cigarette plug was the tricky part. RC Communications, a CB radio supply store in Milwaukee, has a heavy-duty adapter that works well. This adapter does not have a fuse in it and the wires must be soldered in place (check the polarity!). The contact points are made of good quality material and provide a solid connection.

Performance, ease of use, safety and esthetics all play a factor when planning the project but so does the difficulty of installation. Frankly, crawling around under the hood of car isn't as much fun as it used to be and with this set up you won't have to.

The "Morning Mobilers"



The ORC morning mobilers of 1953 – big bumpers and fins with really big whips – looks like the 50's ORC morning mobilers were mostly on 75 and 6 meters.

Field Day in the 60's



This is the ORC crew manning the field day operations in October of 1960 with the "operations tent" in the background.



Here we have Vern Teske (the Oak Creek Bandit) manning the field day station long into the night. So who among us can identify the transmitter and receiver in use at this 1960 field day?

Minutes of the May 8th, 2002 Meeting

By Nels Harvey, WA9JOB, Secretary

Call to order and introductions: The meeting was called to order at 7:30PM at the Grafton Senior Center by President Leon Rediske, K9GCF. Introduction of members and guests was made.

Events and Announcements:

Cathy Pohl, FISH, asked for the ORC's support for the Port Washington Fish Day event scheduled for July 20, 2002. She requested the help of at least 7, or 8 people to provide communications. WI9M, WB9RQR, KB9RHZ, WI9GC, K9CAN, KB9VJP, and K9QLP have volunteered, but more help is welcome.

Leon, K9GCF, announced Matt Phillips has several items from his father, Charles, WB2MSV, for sale. Check his web site at www.mattmilw.com.

Dave, N9QA, announced a military to Amateur cross band contest May 11 from 1300 Zulu to May 12 at 0400 Zulu. This is a fun exercise, and urged all to try it.

Gary, WI9M, called for volunteers for Field Day this year. Several assignments were filled.

Leon, K9GCF, has called another meeting of the Field Day Committee. They are to meet on May 21, at Leon's, at 7:15 P.M. See Leon if you want to join the committee.

Paul, W9SIZ, needs help for a cancer walk on June 2, 2002. The West Bend police chief is requiring communicators on every corner before he will issue a permit. Paul needs about 15 more operators.

Cindy, KA9PZG, reminded us about the Saukville River cleanup June 1st.

Program:

Gary, N9UUR, presented a basic introduction to amateur satellite communications and history, introduced AMSAT, and told us about the trials and tribulations of setting up satellite communications on a Caribbean island.

After the break the business meeting was held.

Treasurer's report: Vic, KB9UKE, moved to accept, subject to audit, and Dave, N9UNR, seconded. The report passed by voice vote.

Repeater Report: The repeater Vice President, Dave, N9QA, reported that everything is status quo. Nels, WA9JOB, explained the repeater encode P.L. now turns off right after the reset beep, to facilitate cross band repeating.

Swapfest Report: Gene, KB9VJP, reported a net profit of \$2032.00 for this year's swapfest.

OZARES Report: Jon, KB9RHZ, thanked Nels, WA9JOB, for the repairs to the old Uniden repeater. Stan has built a PVC support structure and antenna, Greg, W9DHI, has tuned the cavities, and the unit is ready for use. The plans are to try it out at Field Day. The next meeting is scheduled for May 23, 2002, where the repeater will be displayed.

Ham Class: Ed, AA9W, reported two of this class have already obtained their Technicians license. The class is continuing each Saturday.

Old Business: Dave, N9QA, reported the Scholarship Requirements Committee recommended no change to the present scholarship requirements.

New Business: There was no new business

Adjournment: The business meeting was adjourned at 9:30 P.M.

Next Meeting: The next meeting will be held on June 12, 2002, at the Grafton Senior Center.

Attendance: Nels, WA9JOB, Dave, N9UNR, Bernie, AA9CI, Jon, KB9RHZ, Tom, W9IPR, Vince, KB9ZOT, Gene, KB9VJP, Bob, W9LO, Brian, N9LOO, Terry, KA9RFM, Ray, W9KHH, Jim, K9QLP, Don, W9VSC, Dave, N9QA, Vic, KB9UKE, Herb, WA9UVK, Paul, KB9WCC, Ed, AA9WW, Gary, WI9M, Jeff, KB9QQE, Gabe, WI9GC, Ted, KB9RLI, Ed, AA9W, Ted, KA9UCD, Jake, KB9ZOR, Jane, KB9SYI, Tom, AA9XK, Sky, N9XRU, Bob, N9NRK, Paul, W9SIZ, Stan, WB9RQR, Keith, KY9P, Peter, KB9URH, Gary, N9UUR, Jeananne, N9VSV, Mike, N9JIY, Paul, KA9RPR, Dick, K9CAN, Charlie, WA9CPE, Leon, K9GCF, Ernie, K9LO, Ben, K9UZ, and Ted, N9LLT

AGENDA

June 12th, 2002

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, etc.
4. Program – Field Day
5. Break
6. Auction.
7. Call for acceptance of minutes.
8. Treasurer's report – Gabe (WI9GC).
9. Repeater report – Rick (N9PMR).
10. OZARES report – Jon (KB9RHZ).
11. Committee reports – Field day, Audit etc.
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