



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 XXII

July 2003

Number 7

The Prez Sez

By Vic Shier (KB9UKE)

We had a rough start to Field Day 2003. The weather worked against us as small storms rolled through the area Friday afternoon and evening. Then we woke to an ominous looking sky on Saturday that produced rain in the morning and thunderstorms at night. We weren't able to test all 5 transmitters prior to the start of the contest and the propagation was poor.

A reporter from the Milwaukee Journal/Sentinel asked if I considered this field day effort a success. My response was "absolutely," but I didn't have clear reasons as to why I believed it was a success. In fact we had some problems this year, which lead to fewer contacts being made and we didn't get all of our bonus points. His question forced me to focus on the purpose of Field Day and the benefits derived from it.

Field Day is an exercise in emergency preparedness; we learn and improve each and every year. It is also a team building exercise and it gives us a chance to meet the families of our members, helping to build lasting relationships within the club. Hams who are new to the hobby learn how to assemble a station and get a chance to operate on HF. The general public gets an opportunity to learn about amateur radio, as do government officials. It is also a contest that gives us a measure of how we stack up compared to other clubs throughout North and South America.

Each and every one of these key points was accomplished. Yes, Field Day 2003 was absolutely a success and we can all be proud of our efforts.

...but that was last week. Now it's time for a corn roast!

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

FIELD DAY—THE KING OF ALL HAM RADIO EVENTS

De Bob Truscott (W9LO)

IS IT REALLY OVER? DID IT REALLY HAPPEN? OR WAS IT JUST A DREAM? Darned if I know. I arrived at the FD site about 10:00 AM on Friday to begin putting up antennas and tents, and the next thing I knew it was Sunday afternoon, and we were taking the antennas down and loading our cars to go home. Or so it seemed. What happened to all of that time? We must have been having a ton of fun for it to have passed so quickly. You might think that after about 50 of these events it would get to be "old stuff", but it's not---every FD is new, different in some ways, and exciting in all ways. Some of us planned and prepared for this one for at least 11 & ½ months, and to have it "fly by" in what seemed to be about 5 minutes was disappointing—it should take a little bit longer than that.

The gods of FD were unkind to us this year. Scores in all tents were down compared to last year because of band conditions, we put up some of the tents and antennas in the rain, got more than a little chilly on Friday night, and some of us shut down and disconnected our antennas when the storm went through the area on Saturday night. So what! It's Field Day, and these things are supposed to happen.

On the funny side, the 40-meter CW crew appointed a chairperson to supervise the erection of the tent. After much discussion (arguing?) the canvas was laid out on the ground according to

this person's instructions, and then erected. It didn't take long to discover that the tent was inside-out, and it would be impossible to guy the tent poles, and still be able to close the tent flaps. She was embarrassed.



Gary, WI9M, at the 40 meter CW keyboard

And, we had a practical joker in the group. Gary, WI9M, took his turn operating in the 40 meter CW tent on Sunday morning. I relieved him after about an hour, and noticed a strange phenomenon—our standard way of ending a QSO is simply to send “TU” (thank you) to the other station, and when I did that, some other station always sent “and have a beer” immediately after I sent TU. That was puzzling because he was always on my frequency, his timing was always perfect, and his speed always matched mine. I finally realized I’d “been had” when I checked the preprogrammed messages on the computer—Gary had added “and have a beer” to the standard TU message. Thanks, OM.

The highlight of my weekend? I played sheep-shead for 4 hours on Friday night, and it only cost me 75 cents. Now that’s cheap entertainment.

Coming up in July:

July 12-13 IARU HF World Championship—Rules in Apr. QST, page 99.

July 12 FISTS Summer Sprint—Rules in Feb QST, page 103.

July 19-20 North American RTTY QSO Party—Rules in July QST, page 94.

July 19-20 CQ WW VHF Contest—Rules in July QST, page 94.

Have fun contesting.

Wanted

HERK-2 – Mobil HF 400 watt amplifier by TenTek – Contact Ray Burnette (W9BUJ) at 262-377-5777

160 TVH B&W plug in (swing link) coil –Contact Tom Ruhlmann (W9IPR)

60-Meter band is here... have you tried it yet?

De Gary Sharbuno, WI9M

Well I tried it on midnight July 3rd, and was not too successful. I did hear some stations and tried to work them. I was at my trailer, and with 50 watts and a long wire, it did not cut the mustard. When I arrived home on July 7th, I tried my 850s to an inverted vee (G5RV), and worked a W9HBF in western Illinois. The info on this band is as follows:

The NTIA advised in a letter to the FCC Office of Engineering and Technology (OET) that users of 60 meters should set their carrier frequency 1.5 kHz *lower* than the channel center frequency, according to this NTIA chart:

Channel Center	Amateur Tuning Frequency
5332 kHz	5330.5 kHz
5348 kHz	5346.5 kHz
5368 kHz	5366.5 kHz
5373 kHz	5371.5 kHz
5405 kHz (common US/UK)	5403.5 kHz

Noting that high-frequency audio response can vary considerably from radio to radio, Hare has suggested a more conservative approach. He suggests restricting audio bandwidth to 200 Hz

on the low end, and 2800 Hz on the high end--for a total bandwidth of 2.6 kHz.

So give it a try, it is sort of like 75M, but open most of the time. Be sure to stay below 50Watts, I just turned down my power level to 12 o'clock, and watched my meter output not to exceed 50 Watts, and also make sure your in upper side band on your transceiver. If you need to modify your rig, contact the manufacture or Internet for mods.

73's Gary WI9M

The Dead Battery

De Stan Kaplan, WB9RQR

No, this is not about your car. It is about, however, a minor catastrophe in the making concerning your computer. It happened to me yesterday, but fortunately, I had taken steps to make it fairly painless.

Inside every modern computer is a "wrist watch" - a small battery-powered clock. When you shut your computer off today, it will know what time and date it is tomorrow when you fire it up again, because the little wristwatch in its belly is ticking along, keeping track of the time and date. More important, the battery also powers a little bank of memory that, when you boot up, tells the computer several vital settings it should make. Those settings, contained in a memory cache called the CMOS Setup, are very important to the proper operation of the computer. The CMOS settings are changeable by the human user, and remain set that way until the human user alters them again, so long as the battery does not go dead. If it does go dead, the CMOS settings revert to a default condition which may not be at all optimal for your computer.

A few years ago, those settings held information on the number of cylinders, heads and sectors per track on the hard drive. When a battery went dead in those years, not only was the date and time wrong, but also all the data on the hard drive was inaccessible, and the machine would not boot from the hard drive! Fortunately, the CMOS setup designers and the hard drive designers got together and solved that problem. In all modern machines, the following conversation takes place

between the computer and the hard drive, every time it is booted:

Computer: Is there a hard drive residing in my belly?

Hard Drive: Yes! I am here!

Computer: Who are you?

Hard Drive: A Maxtor Model 98196H8 and my operating parameters are _

The computer then registers the data (actually more than what is suggested above - a total of 512 bytes of data, including even the unique serial number of the drive) in the CMOS memory, and booting is successful because the proper boot records can now be found on the hard drive. That happens today, even when the battery is dead. A Good Thing, indeed!

However, other things might not work properly. Just to mention a few: The second floppy drive, if present, may not be recognized. A PS/2 mouse may no longer work. The expensive VGA card you installed may not work (so the monitor will not work!). An Infrared port may not work. A USB port may not work. The machine may operate at only half speed etc.

Copied from and continued in the Badger State Smoke Signal newsletter at www.bsms.com

Next Meeting – July 9 th

Old Time Radio – Part 3

De Jim Hilins, KA4UPW

This is the continuing saga of the steps required in the restoration of an antique radio. Up to this point we have:

1. Removed the chassis from the cabinet
2. Cleaned the chassis and components
3. Determined the model number and obtained related information
4. Assessed the condition of the chassis
5. Tested the radio to determine if operational
6. Replaced the filter capacitors.

Now its time to check the resistor values (they change with time), make any required speaker

repairs and then run an "operational check". Now, lets get started.

8. Resistance Tolerance Test

Most resistors remain within tolerances, but enough of them change value to make testing worth the effort. The standard tolerance for resistors in most old radios is 20%. Replace any resistors that are more than 20% off of their rated value. Replace any burnt resistors, even if they still have the proper resistance. Shorted and leaky capacitors overheat the resistors. Atwater Kent radios made in the 1930s normally contain many out of tolerance resistors. The AK resistors change value over time. Any high value resistor should be suspect as they tend to change value more than the lower value resistors. Radios with tuning eyes usually have a bias resistor in the socket of the tuning eye. I have found the tuning eye resistor bad in 80% of the radios I restore. When replacing resistors, use the same value in ohms (or close) and an **equal or greater wattage rating**. A resistor with a lower wattage rating will overheat.

9. Speaker Cone Repairs

Most speakers need minor repair or adjustment. I always try to repair a speaker before resorting to re-coning. You can repair large tears and holes in the cone as well as loose cone edges. An old speaker rebuilder once told me to glue torn speaker cones with RTV (silicone caulk). I thought this was messy and "unprofessional", but I found that it works great! RTV looks really bad, but unlike other glues, it remains flexible. Gluing a speaker cone with a rigid glue often just results in another rip since the glue will not flex with the rest of the cone.

Speaker cones frequently come loose at the outside edge where the cone meets the frame. Loose cones edges cause loud rattles in the speaker. The chief difficulty in re-gluing the cone edge lies in getting the glue in the right spot. I use a syringe and needle to get glue under the edge of the cone. Woodworkers glue works well for this since it flows easily and cleans up with water. Other suitable glues include super glue, Duco cement, or RTV.

Many speakers use a spider to center the voice coil in the magnet. Often, the speaker voice coil is rubbing the magnet, causing buzzing and distortion in the speaker. Sometimes, you can cure this by adjusting the spider. Carefully loosen the bolts holding the spider in place, and move the spider to a position where the voice coil does not rub the magnet. Retighten the bolts to finish the job. This may take quite a few tries to complete a successful repair. The speaker spider is located in the center of the speaker where the coil meets the cone, or on the outside of the voice coil where it meets the cone. Spiders on the inside of the cone use a single bolt fastened to the magnet, spiders on the outside of the cone fasten to the speaker frame with several bolts. Newer speakers (1940's and later) use a combination spider/dust cover on the outside of the voice coil. These covers are glued to the speaker frame. When the glue ages and fails, the loose cover rattles and buzzes. Re-glue these using the same techniques as for re-gluing the cone edge. Make sure the voice coil is centered before gluing.

10. Operational check

All the repairs done? Will the radio work? Now it's time to find out! Hook up your Variac; set it for zero volts. Turn the radio chassis on its side or in some position where you can measure the high voltage in the power supply (other wise known as the B+ voltage). Plug the radio into the Variac and turn on the radio. Slowly bring up the voltage to 80 volts. At this point, your radio may begin to play, if not don't despair. Measure the B+ voltage; it should be around one half of the normal reading. If the voltage is zero or very low, turn the radio off and look for the cause. If the radio seems OK, examine tubes, resistors, transformers, capacitors, and the speaker field coil for overheating. Once everything passes your scrutiny, attempt to tune in a strong local station. Gradually bring up the voltage to 100volts (I'm assuming a line voltage of 120volts). The radio becomes louder and more sensitive as the voltage comes up.

11. Additional Repairs and Troubleshooting

If the radio did not work properly, then it's time to dig a little deeper to repair the radio. I start at the audio section and work back through the radio. If the radio has a first audio tube with a grid cap (75, 6Q7, 6F5, etc.) touch your finger to the cap and you should hear a loud hum. If there is no hum, the problem is somewhere between the first audio tube and the speaker. The best way to check the audio stages is with a signal generator that supplies a modulated audio signal.

Who did what at Field Day?

De Gary Sharbuno, WI9M

Well here we go again, the 2003 version. We had a good gathering at the barn, Thursday evening and thanks to Gabe WI9GC for getting the big trailer from Ed AA9W, and getting all our stuff out to the Lazy Days site.



Steady as you go as the 15-meter team erects the trailer mounted tower & tribander under the direction of Leon, K9GCF

Friday was a busy day, for towers were going up and tents to get erected. We had 3 new tents to try this year, and they worked just great. The group over at 40 CW area had a little trouble trying to figure which end is up, thanks to Ron 's W9BCK supervision, just remember Ron GREEN SIDE UP !!!



They finally got it up side out – the discussion at hand seemed to be who was going to last the longest, this Korean War vintage tent or W9LO

The cook tent was up in plenty of time to have the annual gathering of appetites for the Stanley WB9RQR turkey roast. Lots of good food was out there, and if you missed it, put it on the calendar for next year. The evening was great, the Sheep-head players were abundant, and even had 2 tables going. Gary and Jean Ann cleaned me out of my quarters.



Stan, WB9RQR, had to move the turkey roasters inside during the rain but he kept the gang lined up for seconds



As the rain stopped the evening was spent by many visiting about things other than radios, contests and antenna



Some spent the evening perfecting their beer balancing technique, as did Tom, W9IPR

Saturday had a little rainy start, but we had a lot of stuff up already, but there was nothing we could not handle.



We again had the benefit of central “portable power” from the trailer mounted 50 kW generator provided by Ed Frac, AA9WW.

So all was readied, with the antennas, and tents up, and the rig tuned up and ready, 1 PM came and went with the sound of dots and dashes flying, and the sound of (cq field day cq field day). We had a little rain that night, and with lousy band conditions, contacts were tuff to get.



State Representative Glenn Grothman learns about HAM radio and the 6-meter band from Mike Borchardt, N9NPB and Dave, N9UNR.

Sunday had some tired folks running around but we got the job done. The breakfast that Julia and the gang put on was just great.



Julia, did another great job on the ORC information board which proved to be of interest to members and visitors alike.

We seemed to have enough operators, and thanks to all club members who helped out in the GOTA area.



Jake, KB9ZOR and Carol, KC9CBC try their luck at the 20 meter GOTA station – a real point getter.

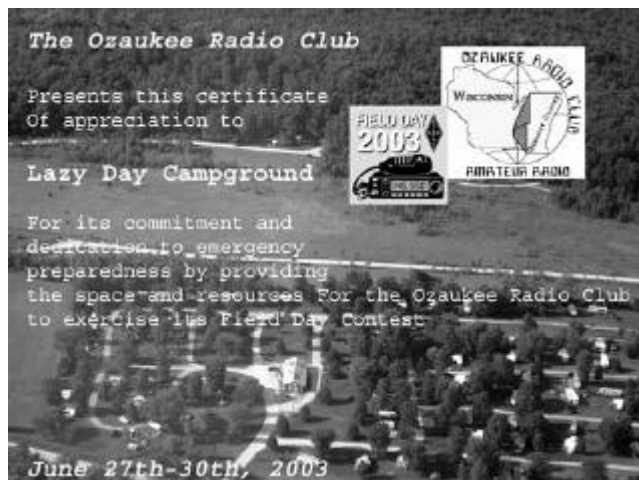


Paul, KB9WCC oversees his niece as she makes a contact at the 10 meter GOTA station.

The rough count is as follows: CW had 1666 contacts times 2 is 2332 points, and SSB had 1455 contacts for ruff of 3783 points. Last year we were approximately 5000 points. So band conditions and weather did take us down a bit, but think this was the norm for all over the country. So all in all things went well. Thanks much for the great participation, and on behalf of Leon and myself, thanks for the great turn out. Results will be published in December.



What goes up in a day and a half must come down – and it only took a couple of hours – What a crew. They all knew what to do and did it – great time by all.



Finally, Leon, K9GCF and Jim, KA4UPW collaborated to get an aerial shot of Lazy Days – and create a certificate of appreciation which was presented to Joe Waters, the owner.

73 to all

River Fest

By Cindy (KA9PZG)

In spite of a little drizzle in the early morning hours of Saturday, May 31, 2003, the river cleanup in Saukville was another success! Once the groups of volunteer cleanup crews and ham operators were out among the community, the rain stopped to make it a nice day. By 11:30 AM, everyone returned to Grady Park to be treated lunch and be given their official thank you gift, a "glow in the dark" flashlight with batteries included!!!

Nels, WA9JOB who was our newcomer this year was among other seasoned helpers to offer communications between workers and home base: Tom (W9LNL), Bernie (AA9CI), Don (W9VSC), Skip (KA9DDN), and Cindy (KA9PZG) all pitched in to help maintain a more beautiful river.

The River Fest Committee members wish to offer many thanks again to those gracious volunteers who offered up their morning to help make sure the cleanup crews were safe. Hope to see you next year!!

Airfest – 2003

What a show at the West Bend airport – C130, B-25, P-51, T-28, Pitts, Extra 300, WACO's, T-6's, F-16 and B2 performances, skydivers, wing-walkers, helicopters, homebuilt's etc. etc. etc. A really great aerial show with over 4 hours of aerobatics each day. There were several groups there volunteering for the sake of a donation to their club and to watch the really great show. Just ask Tom Oehler (W9LNL) and Ed Rate (AA9W) if they had a good time working the show. Join us for the 2004 airshow the weekend following Fathers Day.

Upcoming Events

12 July – South Milwaukee WI - Swapfest

27 –28 Sept. – Grayslake IL – Swapfest

Minutes

De Carol Szudrowitz (KC9CBC)

ORC Meeting was called to order June 11, 2003 at the Grafton Senior Center.

Introductions: None

Announcements: AA9W Ed's Novice Class is done. 6 people will take exam.

Upcoming Events:

Field Day Update: Jim KA4UPW led the discussion by saying that Field Days are his favorite event. This comes from being part of a club in Virginia whose focus was primarily Field Day. They planned for nine months of the year and became one of the top scorers. KA4UPW said he wants to share the tips he learned there so he will go from tent to tent to help operators and instill his enthusiasm for the event.

Gary WI9M continued the discussion by asking TomW9IPR to take pictures as that will add bonus points to our score. Vic KB9UKE will take care of newspaper promotion. Nels WA9JOB will set up the computer logging. Others volunteered to work on the myriad of other jobs to ensure a successful Field Day.

Important: Be at Barn Thursday night, June 26, 6:30 PM to help load equipment for the weekend. We have new tents to use this year. Also it is important to set up Field Day Display Board.

Leon K9GCF shared the summary of the Field Day meeting held at his home June 3, 2003. Bring Era Bottles – Orange color is good for identifying danger areas. Also emphasized that help is needed for set up and especially tear down on Sunday when everyone is tired.

Fish Day: Kathy Poole requested ORC's help for communications during the parade on Saturday, July 19, 8:30 to 1:30 PM. Please sign up. She will bring more information at July meeting. 100 units are expected in the parade. ORC members would travel with parade people for communication purposes.

Fellowship Break:

Auction: Stan WB9RQR held the usual auction.

Business Meeting:

Secretary Notes: Minutes of last meeting were accepted as printed.

Treasurer's Report: Accepted as printed on report.

Repeater Report:

Nels WA9JOB, restated that the 7 K Controller was blitzed. It has been repaired, and returned from Scam Industries. The 443.75 repeater failed, and was taken to Nels' workshop. It is on the air there, and the amplifier donated by Ozaukee County Emergency Government has been added. The repeater is now putting out 52 watts. Unfortunately, the repeater's preamp failed, and has been sent back to the manufacturer for repairs. Dick K9CAN has the 220 repeater at his home, where it is being gone over before placing it at the repeater site. Once at the repeater site, the repaired 7K controller will be interfaced to it, and connected to the telephone line. The plan is to connect both the 224.18 repeater and the 146.97 repeater for nets and emergency communications. If a user presses 900* on the 146.97 repeater, it will announce the date and time. Alan Romeis, KB9DRZ, climbed the tower and checked over everything when he replaced the old 146.97 repeater antenna with the new one the Club bought from Fond du Lac. Greg W9DHI, stated that as of April 30 he sold his company to General Communications in Madison. They have agreed to keep our repeaters on the tower in Germantown rent free, but ask that the club donate their services in perhaps June and October to cut the weeds down in that area. Also the new owners want us to remove the 220 antenna if it is not going to be used in that location.

OZARES Report: Meeting moved to 3rd Wednesday of month due to Field Day.

Scholarship Fund: Ed AA9W, reported that he still has a 757 YAESU to sell and an oscilloscope.

Old Business:

River Clean Up Report: Cindy KA9PZG, reported that the day went well after the drizzle stopped, lunch was good and over 2 tons of garbage was picked up. Tires were the big thing this year.

New Business:

Ray W9KHH, made suggestion that club pick up fees for new hams to take exam. Ed AA9W stated that now we give new hams who pass exam one year free membership to club.

Tom W9IPR suggested a Kids Club to make radio club more interesting to young people. Perhaps a NET on a kids level. It was stated that ARRL currently has a kid's section. Ed AA9W, Ray W9KHH and Tom will look into this further.

Dave N9UNR, offered to update the leaflet about the club and make sure that AES has them for distribution at the store. He will give them to Ray W9 KHH.

Terry KA9RFM said to mark your calendar for the Special Olympics Air Show, Aug. 2. He is selling tickets. It is an annual RC model airplane event.

Tom W9IPR gave a plug for the air show in West Bend. Clown act on a Piper airplane was very good. It is scheduled for Sat and Sun.

Meeting was adjourned.

Attendance: Jake KB9ZOR, Stan WB9RQR, Mike WJ9O, Jim N9WIU, Jon KB9RHZ, Jim K9QLP, Gabe WI9GC, Greg W9BHI, Charlie WA9CPE, Nels WA9JOB, Tom W9LNL, Herb, WA9UVK, Keith KY9P, Gary N9UUR, Ed AA9WW, Ray W9BUJ, Bob W9LO, Paul KA9RPR, Gary W9XT, Paul KB9WCC, Tom W9IPR, Jeff KB9QQE, Julia KB9WBQ, Terry KA9RFM, Bob N9NRK, Carol KC9CBC, Jane KB9SYI, Leon K9GCF, Don W9VSC, Gary WI9M, Ed AA9GT, Ed AA9W, Cindy KA9PZG, Jeananne N9VSV, Gary N9UUR, Gene KB9VJP, Andy W9ASB, Darrell W9DB, Bernie AA9CI, Ron W9BCK, Vic KB9UKE.

AGENDA

July 9, 2003

1. Call to order.
2. Introductions.
3. Announcements, Upcoming events, Etc.,
4. Program:
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Tom (KG9DP).
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, July 9th

7:30 PM