



# 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

<a href="http://www.qsl.net/orc/newsletter.htm">www.qsl.net/orc/newsletter.htm</a>	The ORC newsletter
<a href="http://www.homepcnetwork.com">www.homepcnetwork.com</a>	Home networking
<a href="http://www.driverguide.com">www.driverguide.com</a>	Drivers
<a href="http://www.bulbdirect.com">www.bulbdirect.com</a>	Panel lamps
<a href="http://www.topbulb.com">www.topbulb.com</a>	Panel lamps

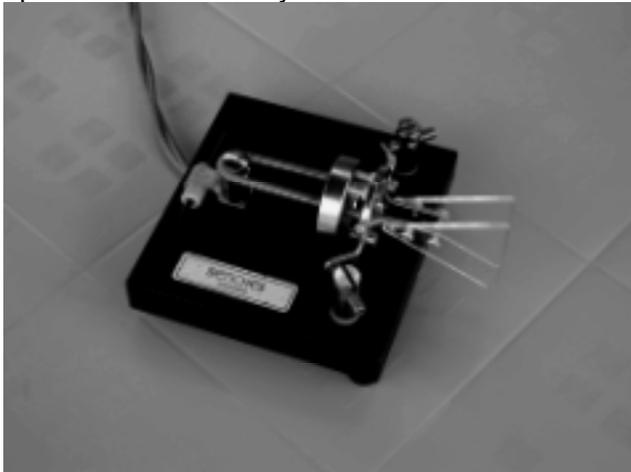
## Squeeze it!

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](http://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

FFFFFrinstance:

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](http://www.w5bbr.com/soundbd.html) or  
[www.packetradio.com/psk31.htm](http://www.packetradio.com/psk31.htm)  
Shielded audio cables with stereo 3.5mm Male  
phono plugs on each end.  
try: [www.allelectronics.com](http://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](http://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 21<sup>st</sup> 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?

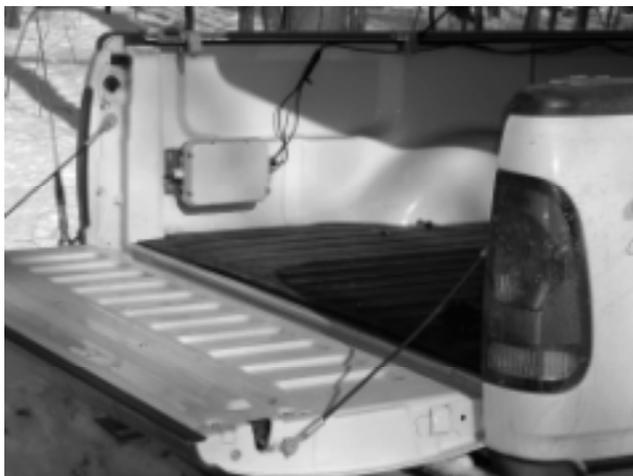
Gabe's (W19GC) Ford F150 hardly qualifies as a typical shack but it is his primary operating location. Note how the dash of his 4X4 dwarfs the ICOM 706 installation – you hardly notice it is there. The 706 is capable of 440MHz, 2Meters and HF of 6 through 160 meters. The ICOM AH-4 antenna tuner in the 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](http://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?

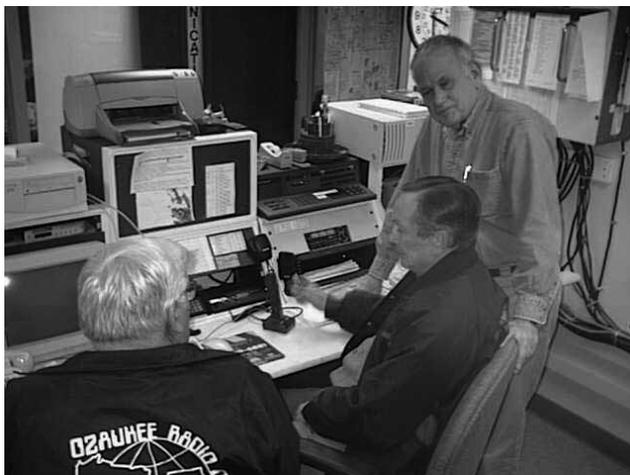
By Jon Gilmore KB9RHZ

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 2<sup>nd</sup>, 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 25<sup>th</sup>

## Reservations

Required  
By February 25<sup>th</sup>

Buffet Menu

*Includes*

Hor D'Oevers

Turkey and Dressing

Swiss Steak with Potatoes and Gravy

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## 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 25<sup>th</sup> 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.

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## 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**