



THE CHERRY JUICE

cherryland amateur radio club traverse city, mi

April 2008

Coming Club Events

April 22nd Club Meeting

The program for April has not been confirmed yet. So make sure you attend so you don't miss out on anything and have some fun interacting with your fellow CARC members. There's always coffee and cookies. Where: The Governmental Center at Eighth and Boardman streets. Lower level Cafeteria. Use the front entrance.

Tuesday Project Nights

Where: At the club station in the lower level of the Salvation Army Building located at the NE corner of Barlow and Boone. 7 p.m. Every Tuesday except the 4th Tuesday of the month which is reserved for the regular club meeting.

CLUB OFFICERS

President
Don N8QZ

Vice President
Hope AA8SN

Recording Secy
Gloria N8KXJ

Corresponding Secy
Bill W8PIT

Treasurer
Ward N8WK

Directors

John N8UL

Chuck W8SGR

Dave K8WPE

Cherry Juice Editor
Dave N8CN

CLUB NETS

MESH NET
8 pm Monday
146.86 MHz

SMASH NET
9 am Sunday
3.935 MHz



ARRL Affiliated Club
#1082

Forward Waves

VE EXAMS:

Cadillac, MI. May 3rd, 2008. Wexauke ARC
At the Cadillac Hamfest. Cadillac Junior High
School. 500 Chestnut St. 10:30 a.m. No walk-
ins. Contact : Alan 231 829-3433

Traverse City, MI. May 10th, 2008.
Cherryland ARC. Salvation Army Bldg. 1239
Barlow. (Corner Barlow & Boone). 1 p.m.
Walk-ins OK. Contact: Hope AA8SN. 231
941-7262 or AA8SN@arrl.net.

HAM FESTS:

Saturday, May 3, 2008. Cadillac, MI.
Wexauke ARC. Cadillac Jr. High School.
500 Chestnut St. 8 a.m. until noon. TI: 146.98.
Contact: Alton NU8L. 231 862-3774 or
NU8L@yahoo.com

Saturday, June 7, 2008. Hudsonville, MI.
IRA Good Old Days Hamfest. Independent
Repeater Association. Location: Hudsonville
Fairgrounds. www.w8hvg.org for directions.
8 a.m. til 2 p.m. TI: 147.160 Contact: Kathy
KB8KZH (616) 698-6627 or
kwerkema@juno.com .

Reflected Waves

April 1985

Good reports continue to pour in regarding the new repeater bequeathed to the CARC in the will of Bill Kiker **W8ZBT**. Many areas previously unreached are now covered. Letters announcing the Special Event station to be held in conjunction with the National Cherry Festival have gone out to the 4 major ham radio magazines. Ed **KA8QVH** will be heading up this project.

April 2000

The April program was a paper-work only VE session and a group presentation on ways to promote amateur radio in the community. Field day captains for this year include Ward **N8WK** for 40 meters phone, Ken **W8QKP** for 20 meter phone, Chuck **W8SGR** for 15/75 meter phone and Dick **KC8CLT** for 10 meter phone. So far, Tom **AA8YI** and Roger **N8KV** have volunteered to act as CW captains.

MARAC MICHIGAN MINI

The weekend of April 18-20 you might see a lot of vehicles with all kinds of antennas driving around the Traverse City area. The Mobile Amateur Radio Awards Club (MARAC) is having their Michigan Mini Convention at the Holiday Inn in Traverse City. Sixty people have registered for the event and will be coming from all around the Midwest as well as Texas and Arizona.

Many of the attendees have made contact with an amateur radio station, fixed or mobile, in each of the 3,077 counties in the United States. The event will be hosted by local county hunters, Ed **K8ZZ** and Joe **W8TVT**. Both Ed and Joe hold the coveted Worked-all US Counties Award.

The convention will take place on April 17-19 with workshops scheduled for Friday and Saturday mornings. Topics include contesting, county hunting and the internet, county hunting logging programs, and mobile radio grounding. Visitors are welcome however, there is a small fee for the morning workshops.

There will be a banquet on Saturday evening. Even if you can't attend, take a drive through the Holiday Inn parking lot as you might get some ideas for the installation or your mobile system.

For further information contact Joe **W8TVT** at 231 947-8555.

SATERN

No, I didn't mean to write "saturn" and we're not talking about cars or planets. SATERN is the acronym for *Salvation Army Team Emergency Radio Network*. For a full description of their activities, you can go to their website: www.saturn.org but in a nutshell, SATERN is an activity of the Salvation Army to provide communications for their relief efforts during natural disasters and other emergencies.

If you looked at the minutes of the April CARC Board meeting you noticed that Harry **KB8RIV** came to the Board with a request from our local Salvation Army corps that we help them getting some of their members an amateur radio license, provide some expertise in equipping their vehicles with VHF, UHF and HF radios, and help them establish a SATERN network for the western side of the state. The leaders of the local corps were surprised to learn that we had a functioning station in our club room at the Salvation Army building Barlow street. They were under the impression that we just used the room for meetings and projects and were surprised and happy to learn that emergency communications were already available in their building. They are interested in pursuing some emergency power in case the commercial power fails and have given us access to their internet network when we are in the building.

In addition, they have offered to provide meals during this years Field Day operations as they feel this will allow them to practice their own emergency response efforts. The Salvation Army is usually the primary source of on-site food and drink for disaster workers around the nation.

The Board authorized Harry to continue to work with the Salvation Army and several members present at the Board meeting have volunteered to help with training classes. If you are interested in helping with training, contact Joe **W8TVT** for further information.

MICHIGAN QSO PARTY

Don't forget the MI QSO party will run on April 19th from noon to midnight, local time. Get on the air, make as many contacts as possible and be sure to send in your log and list your club as the Cherryland ARC. Your individual score will be used in both the Club competition and the individual competition. The exchange is the QSO number and county name. See you there!!

NEW DIGS FOR ELMERS

Elmer's Ham Shack in Gaylord has a new location. The store is now bigger with over double the square footage of the original store. They won't be hard to find however as they are still in the Park Side Mini Mall, just 2 doors down from the old store.

Along with the new move, the store will offer one on one classes for Tech, General, and Extra!! Come in on your own schedule and study when it is convenient for you! An ARRL authorized teacher is available to work with you from 9-5 on Tuesday through Saturday!!

The store stocks all the current study manuals from both the ARRL and Gorden West.

SDR NOTES FROM K9JP

I started in a newer aspect of this ham radio hobby this past year. It's called SDR or Software Defined Radio. You might remember, Tom **AA8YI** gave a presentation on SDR about two years ago at one of the CARC monthly meetings. I thought, I would chronicle the true cost of getting into this aspect of the hobby.

I searched the internet for SDR and found a Yahoo group called SoftRock40. I joined this free group and started reading about SDR, and what the group was doing. I found out they sold kits of SDR receivers and transceivers so I ordered their SDR receiver kit. Not bad only \$10.

Put the kit together and downloaded the free software to an older computer and I was able to tune the little receiver. It worked! I was using a receiver about two inches square, with much less than a hand full of parts, and listening to ham signals on 40 meters.

The kit had some SMT (Surface Mount Technology) parts, so soldering was hard but not impossible. Then, I discovered Solder Paste. Solder Paste is not a flux, but a paste of tin/lead that you place on the printed circuit board, stick the small SMT part in the paste, and then using hot air melt the paste and solder the part to the printed circuit board. This is easy, but you can over heat the board or parts. Ordered some solder paste, cost \$5.

Next, I ordered a SoftRock40 transceiver kit for 40/30 meter bands. The RXTX v6.2 kit cost \$31. Built it, and powered it up using the older computer, and added a second cheap surplus 16 bit sound card for transmit. The internal sound card does the receive work and the other card generates the transmitted audio signal. Another \$5.00 spent. I realized right away how cool this was going to be.

I started making contacts using this 1 watt transceiver on 40 or 30 meter CW. The software allows you to see all the signals over a part of the band. A signal is displayed as a spike showing the strength of the received signal. To listen to (tune in) or work that station you just click on the spike, listen to the CW, PSK31, or SSB. Then to transmit you either use a straight key or paddles, for CW, a computer keyboard for PSK31, or a computer headphone set with microphone for SSB. Doing this in the evening after work for an hour or two was even cooler.

Then, I upgraded the computer to get a faster processor. Cost \$169.00. A better sound card was also needed. I upgraded to a 96 bit M-Audio - Delta 44 sound card for \$75.00. The increased bandwidth of 96K bps allows you to see, hear, or copy 96 KHz of the band you built the radio for.

Now, I am waiting to receive some small Si570 chips that can replace a crystal. The neat thing about this chip is that it is a tunable crystal oscillator that is very, very stable. The oscillator output can be changed from about 10 kHz to over 600 MHz. This chip is programmed or controlled by a simple computer program.

I don't know about you, but I have realized that this is the future of radio for me and maybe others. Well, you can guess where this is headed. I am now saving up for a manufactured version of a SDR transceiver. Hope to purchase a used Flex-1000 or maybe the Flex-5000 some day. Until then, I have already worked 43 states, and 17 countries with 1 watt or less output this past few months with this little SDR transceiver.

73, Jeff **K9JP**

EX-CEPT!

Every since I've been licensed, I've been hearing about the "dumbing down" of Amateur Radio. I've listened to both sides of the argument and must say that when I hear about the trips to the FCC offices for testing, having to draw circuits and be able to both send and receive perfect CW, I tend to agree with the "dumbing down" viewpoint. This little blurb I picked up from the April CQ says it all:

CEPT Pulls Automatic Reciprocity from US General, Technicians

The European Conference of Postal and Telecommunications Authorities (CEPT) has withdrawn automatic license reciprocity from U.S. hams holding General or Technician Class licenses. According to the Radio Society of Great Britain, the CEPT's Radio Regulatory Working Group compared U.S. licensing standards against those of other CEPT signatory nations and determined that "the recently revised standards for Technician and General **no longer** have any equivalent in the European community of nations." Thus, according to RSGB, , as of February 4, U.S. Generals and Technicians will have to formally apply for a reciprocal license before being permitted to operate in a CEPT country. Holders of Advanced and Extra Class licenses still have automatic reciprocity.

The key phrase here is "no longer", ie we used to match up with European hams but NO LONGER. Sounds like "dumbing down" to me. Of course, not many of us will ever plan to operate in Europe and if we do, then we can always upgrade—hmm, I wonder if the revised Extra standards will match up?

Further along in the same issue of CQ, there is an interview with Dr. Eric Haseltine, **AB3DI**. Dr. Haseltine was formerly the Director of Research for the National Security Agency (NSA). He was asked to comment on Deputy Defense Secretary Gordon England's suggestion that the greatest threat facing America today—even greater than terrorism—is falling behind in science and technology. His reply:

"I agree that the decreasing interest of our young people in science and technology is a huge threat to our national security. But I'm more worried about what causes that, as a threat, than that itself. Is that a symptom or an underlying disease? I think, it's a symptom of something deeper, and I'm not entirely sure what that something deeper is. If you ask kids, as I have done, "are you interested in going into science? If not, why not?" the answer I usually get is, 'Oh, it's hard', or 'Ohh, those are like geeks and nerds.' So somehow the disease is not the fact that the kids are choosing fields other than science and technology, but why they would want to not choose that field...."

Dr. Haseltine goes on to speculate on why our kids are avoiding science and some of the consequences likely to ensue. He also makes a very interesting case for understanding analog—analogue? That's right, good old analog—though the digital stuff is truly a revolution, what about the analog parts—ie efficient short antennas and impedance matching? In Dr. Haseltine's words, "How can you do RF stuff and propagation, if you don't understand analog circuit theory and field theory and stuff like that?"

The interview with Dr. Haseltine alone is worth the price of the April CQ, Amateur Radio and there are some additional Q&A with Dr. Haseltine on the CQ website at www.cq-amateur-radio-radio.com. Try it, you'll find it very thought provoking.

AN AHA! MOMENT

Did you ever wonder why solar minimum is predicted to occur after the first new sunspot of a solar cycle occurs? Here's how Carl Luetzelschwab **K9LA** answered the question in the April World Radio.

Although the first sunspot of Cycle 24 appeared on January 4, 2008, solar minimum is still predicted to occur in March 2008 (visit: sec.noaa.gov/SolarCycle/ for this prediction, along with the two predictions for Cycle 24 from the Solar Cycle 24 Prediction Panel).

There's a good reason for solar minimum occurring after the first new sunspot—it's because solar cycles overlap. In other words, sunspots from the old Cycle 23 will still occur concurrently with sunspots from the new Cycle 24 (whether they're from the old cycle or new cycle can be determined by the latitude at which they occur and by their magnetic polarity). As a broad definition, the point in time scientists define as 'solar minimum' can be thought of as the month when there are an equal number of Cycle 23 sunspots and Cycle 24 sunspots. This point in time can be as simple as noting when the smoothed sunspot number mathematically minimizes.

How long does it take to reach solar minimum after the first new sunspot is seen? That duration is quite variable in nature. Historical data from previous solar cycles indicates this can take anywhere from several months to many, many months.

We still have a way to go before Cycle 24 significantly ramps up (probably in late 2008), but at least the new cycle process has started. And when Cycle 24 does start to significantly ramp up, the rate of ascent may give us an early indication of which of the two Cycle 24 predictions (either a maximum smoothed sunspot number of 140 plus/minus 20 in late 2011, or a maximum smoothed sunspot number of 90 plus or minus 10 in mid 2012) will end up as the most accurate.

-tnx to World Radio

HANDS FREE MOBILE PHONE IN CA

California's soon to be in force *hands-free mobile phone* law could impact on two way radio users after all. While a recently released pamphlet released by the states Department of Motor Vehicles states that the use of dedicated two-way radios such as walkie-talkies or Citizen Band radios is not affected by the new hands-free law, there are some who tend to disagree. And because of this two camps of thinking have developed.

Those fearful of the consequences of the new law are of the opinion that judges will ignore the language in the Department of Motor Vehicles pamphlet. Instead, this group believes that those adjudicating such a case will refer to the actual law which does not generally exempt two-way radio operations from the hands-free provision.

A contrary opinion is that the law clearly refers to and is written around wireless telephone handsets and their use. These people note that most two-way radios are not wireless telephones. Also, that even the California Highway Patrol seems to acknowledge that the new law is about Wireless Telephones only.

The bottom line. Its likely that one of these days someone will get ticketed for using a business band radio, a C-B set or even a mobile ham radio station. That will be the test case and we are all

going to have to wait and see if it actually happens and what the final outcome will be.

-tnx to *Amateur Radio Newsline*

SKYWARN

The following article appeared in the Muskegon Chronicle on April 5th: I've included it for the mention of Northern Michigan and because we had our Weather Spotter training at last week's club meeting.

VOLUNTEERS HELP PROS ASSESS WEATHER DANGER

Members of the Skywarn system -- which links the National Weather Service with amateur radio operators and citizen observers -- help keep Muskegon County residents safe when severe weather threatens. Tom Porritt of North Muskegon, local Skywarn coordinator, said more than 130 people attended a recent weather training session at Muskegon Community College. The Skywarn spotters, who are certified by the weather service, learned about the characteristics of severe storms and tornadoes. Porritt said he checks the hazardous weather outlook every morning. It's up to the National Weather Service to say when the Skywarn spotters will be needed, he said.

Once activated, Skywarn spotters have 21 predetermined locations around Muskegon County from which they make observations. They also may be placed at other locations, based on a storm's path, Porritt said. "Sometimes a storm comes up so suddenly that we have people make their observations at their home locations," he said. When it's dark outside, spotters take note of wind speed and direction, as well as changes in temperature, which may indicate an approaching weather front, Porritt said.

"Communication is a big problem for any organization, and these people are very, very important," said Daniel Stout, the Muskegon County Sheriff's Department's chief deputy for emergency services. A spotter without access to a radio "sometimes will buddy-up with an amateur radio operator, so you have two sets of eyes at the same location," said Jim Duram, a Whitehall police officer who is emergency coordinator for amateur radio in Muskegon County. The amateur radio spotters report their observations back to the Emergency Operations Center radio room, which has two radio operators working, Duram said.

"One operator handles the Muskegon County radio traffic, and the other one is a liaison between Muskegon County and the NWS," Duram said. Spotters without radios use cell phones to call a designated number at the weather service, or they can report by e-mail, Duram said. "Sometimes, when the NWS sees something on radar, (spotters) will go verify it," Duram said. "Radar may be showing circular motion, but you need an actual eyeball to confirm a tornado or funnel cloud."

While a "vulnerability assessment" for Muskegon County ranks winter weather as the No. 1 hazard for residents, "severe winds" are in the No. 2 spot, Stout said. Severe thunderstorms may do even more damage than some smaller tornadoes, according to the weather service. In late May 1998, West Michigan was pummeled by back-to-back severe storms with straight-line winds that left a trail of destruction. The second of the storms, on May 31, brought winds estimated at 120 mph in some areas. Trees were toppled like matchsticks and part of a Spring Lake condominium complex was destroyed. Damage in Muskegon County alone was estimated at \$24 million. Muskegon County has had only seven confirmed tornadoes since 1950. The last time a funnel cloud was confirmed was April 11, 2001, near Cloverville.

This year's weather pattern has some meteorologists convinced that the upcoming severe weather season will produce more storms than usual. Lori Conarton, chairwoman of the Michigan Committee

for Severe Weather Awareness, noted that last year's severe weather season was "well above average for Michigan." Twenty-two tornadoes struck the state in 2007. The average is 16. The severe weather resulted in three tornado deaths, one lightning fatality, 11 injuries and more than \$150 million in damage.

Tornadoes are more likely to occur from May through August, but one of the largest recent outbreaks in Michigan was on Oct. 18, 2007 -- a time of year when most people think about leaf-raking, not heading for the basement.

Eleven tornadoes were confirmed that day in northern lower Michigan. One person was killed near Kalkaska. A tornado with winds estimated at up to 130 mph struck Ingham County, resulting in two deaths near Williamston.

The Muskegon area already has had one tornado warning in 2008. That was on Jan. 7. "We had a rotation initially on radar," Duram said. "But none of our spotters could confirm a funnel cloud." The National Weather Service issued a tornado warning around 7:15 p.m., based on the cloud rotation. The warning covered Norton Shores, and east toward Wolf Lake and Ravenna. That was also the storm that likely resulted in the damage that forced closure of the Merrill S. Bailey Bridge over Mona Lake on Henry Street.

Muskegon County has several tornado warning sirens. Three are in Whitehall and two are in Montague. Another is at the maintenance building in Lakewood Club. The Blue Lake Township Fire Department has one, as does the Muskegon Heights Fire Department. In the White Lake area, "when there is a tornado warning, or when winds exceed 70 mph, those sirens will be activated," Duram said.

A steady, 3-to-5-minute blast means "take cover immediately," he said.

IRC MORSE COMES TO THE WWW

It was bound to happen and now it has, Morse code over Internet Relay Chat or IRC. According to its host website, CWirc is a plug-in for the X-Chat IRC client. It is designed to transmit raw Morse code over the internet using I-R-C servers as reflectors. The transmitted Morse code can be received in near real-time by other X-Chat clients who are equipped with the CWirc plug-in.

CWirc tries to emulate a standard amateur radio rig. It has the ability to send and receive Morse over virtual channels, and it can listen to multiple senders transmitting on the same channel. Morse code is keyed locally using a straight or iambic key connected to a computers serial port, or using the mouse buttons. Sound is played through the soundcard or through an external sounder.

Note that CWirc doesn't do any Morse decoding. It simply transmits and receives C-W timing events. The program and your computer does the rest to give you a Morse code experience without the radio, the antenna or any T-V-I.

More about CWirc is on-line at users.skynet.be/ppc/cwirc/ The website also has historic information on the Morse code and the telegraph.

GEEK WISDOM

*The truth is out there? Does anyone know the URL?

*There's no place like <http://www.home.com>

*Give a man a fish and you feed him for a day. Teach him to use the Net and he won't bother you for weeks.

*In life, you can't press the backspace button.

<SK>