

Mich-A-Con RF

Iron Mountain, Michigan

February 2009

In This Issue:

The U.P. 200 Dog Sled Race:
An Amateur Radio Adventure

Power Line Interference

Words from the President

EAU Clair Amateur Radio Auction

Membership Renewal / Application
Form

Calendar of Events

Club Activities

VE Testing

Minutes of the Feb 10th 2009
Meeting

Club Patches

Hams Can Still Help with Digital TV
(DTV) Conversions

Club Repeaters

Club Meetings

Club Officers

Reminders

Visit the ARRL's Web Site at
<http://www.arrl.org>

The U.P. 200 Dog Sled Race: An Amateur Radio Adventure

by Steve, KD8CCP

Amateur Radio volunteers are an important part of the U.P. 200 Dog Sled Races each year and I have had the privilege of working the race for several years. This year Bruce Lawry, KB8RJV and myself were assigned the Chatham, Michigan road crossing. The job is easy but vital. We set up on our assigned site and establish contact with race headquarte

rs in Marquette via the net on our designated frequency. We record the bib number and time of each sled team as it crosses our check point. We are also available

for messages and emergencies that may occur during the race. This years race had weather implications that made the day into an adventure!



Bruce, KB8RJV and I started the day by heading down highway 94 Sunday morning expecting an easy run to our check point. Several miles down the road we suddenly encountered blizzard conditions. The road was not plowed and it was hard to see the vehicle in front of us, let alone the oncoming traffic. I turned on the emergency flashers and we proceeded to make our way down the road behind a line of slow moving cars.

I was glad I had my GPS unit guiding us, it was showing me the road ahead better than the view out the windshield! I was amazed by the amount of snow that was coming down! The GPS unit sounded the left hand turn was here, I stopped in the road and sure enough there was a road to the left, we drove down a short distance and arrived at the crossing point!

Bruce and I reported into headquarters and organized our paper work. We began recording the times and bib numbers of the sleds as they passed and helped the trail crew guide the dogs across the road. The sleds are moving quite fast and it is very important to make sure they do not have a problem with road traffic!

The weather actually cleared for awhile and I got some nice pictures with my cell phone. I noticed it was easy to calculate the approximate time for the next crossing by comparing the times from the the other check points and the distance to our check point. The calculation indicated we would have a gap in sled crossings. We would even have time to clear the checkpoint for a break. Bruce and I took advantage of the gap to enjoy a great lunch at a local restaurant.



We returned to the crossing after about an hour and noted the snow had started to get quite heavy again. One of the race officials was in contact with the road commission, they were “trying” to keep 94 open but none of the other roads were being plowed at all! Shortly after that report headquarters notified us M28 between Marquette and Munising was closed. The closing trapped our Hams at the Deerton crossing. The crew had food and a building to stay in so they would be safe for an overnight.

Bruce and I made the decision to leave Chatham about 4:30 pm. One dog team remained and would not make it to our check point until 7:00 or 8:00 pm and we felt the road conditions were just deteriorating too fast. It is always prudent for ham operators to make sure they keep themselves safe!

We followed the snow plow down 94 for a short time and marveled at the weather change as we approached Marquette. The sky was clear and the roads bare. What a difference a little drive towards the big lake can make! (A total of 30 to 36" of snow fell that day in Chatham!)

I was glad we were a part of the team helping to make the U.P 200 safe and successful!



The Chatham, Mi crossing



Steve, KD8CCP

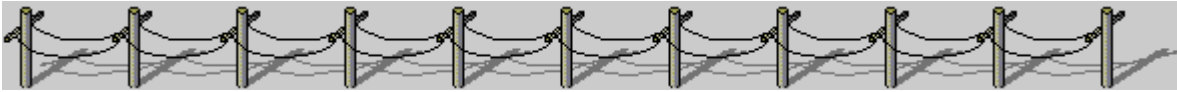


Great weather... if you're a dog!



On the road to Marquette... only 35 miles to go!

POWER-LINE INTERFERENCE



As we all know, power lines are everywhere. Even in communities where power lines are laid underground, they are still above ground at some nearby location. Even with buried lines, transformer still abound in small bunkers dug into the ground and one of them may be right in front of your house. In addition, there are almost certainly streetlights in your neighborhood that could also be a source of problems. And then we have traffic lights, internal home wiring just to mention a few other sources of potential power-line noise.

First you need to know that if, for example, your local power company has a problem near you that causes harmful interference, and they are responsible for correcting it. They would clearly be in violation of FCC rules if they do not locate and correct the problem. From previous cases the FCC has gotten involved with a 30 day period to diagnose and repair seems acceptable to the FCC. The ARRL can also assist with these problems if it turns out the local power company is reluctant to diagnose and subsequently correct the problem.

Lower frequencies are more affected by power-line noise than VHF and above. If you have a potential power-line noise problem in your area it will most likely be fairly localized. That is not to say that a problem many miles from you cannot be heard at your location. It only means that if you have a high noise level on 160, 80 or 40 meters (and even higher) that the source is fairly close by. Now this type of noise source will not affect a true FM radio since noise is amplitude modulated and not frequency modulated. Some modern radios though have both an active AM and an active FM detector working all the time. This is easier to do (read lower cost) for the manufacturer than designing in switching circuits that are selectable. What this means is you might have a wideband receive FM handheld transceiver (HT) that hears the noise. Rest assured it is the AM detector hearing it, not the FM detector.

So what causes power-line noise? Weather exposure is a major cause of problems. Dirt can build up across an insulator and then along comes some rain. Now all of a sudden there is a small arc across the insulator and 40 meters has an S9 noise level. You call the power company, they send out a technician on a nice dry day and he finds nothing. But then you say that it has been quiet for the last few days. Sure enough, he leaves and a few days later along comes another rainstorm and the noise is back. So if you pay attention to different conditions when the noise exists write them down and over time see if there is some correlation. If you have one of those nifty all mode, multiband handhelds (such as the Icom R-3), listen to the AM broadcast band in AM mode and start walking around the neighborhood. As you get closer to the source of the noise, it will get louder and stronger. You may even be able to pinpoint it to a specific power pole. Write down the power pole number from the power company label fastened to it.

Another common source of power-line noise is loose, cracked insulator or oxidized clamp, defective fuse and even a damaged lightning arrester. These can all produce arcing across or within them that results in a very high HF noise level.

Not all power-line noise is limited to HF frequencies though this is where they are most common. It is rare to have power-line noise bother 2 meters or higher yet it does occur.

Think about it, power-lines are very long, transformers are big and even the high voltage insulators can be massive. These things tend to generate noise at lower frequencies.

If you experience this type of interference, do yourself and favor, and the power company one as well and try to isolate the source as close as possible. Write down as much information specific to the time and conditions of the noise as you can. Don't omit what may seem like an insignificant detail since that one small piece of the puzzle might potentially lead the power company technician to the actual source of the problem. But you do need to help yourself and go out and do some nosing around. Just NEVER, EVER, try climbing a power pole to get a "closer look." It is not worth the risk. Leave that to the professionals. If you can narrow the noise source down to something like that pole or behind that fence, let the power company take it from there. You also need to be aware of any potential trespassing. The power company has right-of-way in all locations where they have equipment, you don't.

(From NR6CA.org)

Common Household Items That Cause Interference

- Door bell transformers
- Electric blankets
- Heating pads (of all kinds)
- Recessed ceiling light fixtures
- Furnace control circuits
- Refrigerators (becoming a frequent problem)
- TV top and stereo, amplified antennas
- Light dimmers
- Aquarium heaters
- Screw-in photocells
- Low-energy compact (screw-in) fluorescent lights
- Touch control lamps
- Clean air machines (table top and furnace type)

Common Power-Line Noise Sources (Listed in order from most common to least common)

- Loose staples on ground conductor
- Loose pole top pin
- Ground conductor touching nearby hardware
- Corroded slack span insulators
- Guy touching neutral
- Loose hardware
- Bare tie wire used with insulated conductor
- Insulated tie wire on bare conductor
- Loose cross arm braces
- Lightning arrestors

Words from the President
by Tom, W8JWN
My noise has been cut considerably!

After my call to Customer Service for WE Energies in Milwaukee, exactly one week later I had a visit from their Troubleshooter for this area. He is Brent Larson from Florence. Brent came down to the shack and listened to the noise on my receiver. After I told him where I thought the noise was coming from, down the alley to the east, he left to ride around and listen on his special equipment for tracing noise sources. He returned and said that the pole I thought might be the culprit was indeed noisy. He would have to return with another worker with a bucket truck to make the necessary fix. Two days later they appeared at my door and asked me to see if I still had noise. They had replaced some bad insulators. The noise was less but still present. They left with the assurance that they would check more of the area.

A few days later, I got a call from Brent. He was two blocks west of me and said that they found some more bad insulators and to check for noise. I turned on the rig and noise was way down. There was a big difference from the previous BUZZZZZZZZZZ!

My noise has been cut considerably, from S9 to S3 on 80 CW in the evening. Tonight, as I write this, noise is at S0!!! On 160 it's S5-7. I just worked a G3 in England on 160. Finally, I could copy a 559 signal. I think a lot of the noise now is QRN. The Noise Blanker doesn't make a difference with atmospheric noise. On 20 through 10 meters the NB will take any noise down to zero. The worst noise, man generated, is in the morning. A neighbor with an electric razor? An aquarium heater? Also, our furnace blower tends to generate a bit of noise on the high bands but not 80 and 160.

I have been quite pleased with the response from WE Energies. It was especially gratifying to know that the Troubleshooter was a local boy. If any of you are experiencing power-line noise, don't hesitate to call WE Energies

EAU CLAIR AMATEUR RADIO CLUB AUCTION ANNOUNCED

submitted via email by:
Terry, KB9ZER

The EAU Clair Amateur Radio Club announced it will be holding the club's 20th annual Amateur Equipment Auction on March 14th, 2009. Doors open at 7:00 am and the Auction begins at 8:30 am. Admission is only \$5.00.

For additional information see the following web site:

<http://www.ecarc.org/auction.html>

Please remit dues to :

Mike Boileau, N9NBN
1106 Cleveland St
Niagara, Wi. 54151

Name: _____

Address: _____

City, State, Zip _____

Call Sign: _____

Email Address: _____

Phone: _____

ARRL Member? Yes _____ **No** _____

Annual dues are due in January.

Please make check payable to Mich-A-Con ARC

Annual dues for Full Membership - Single \$20 __ * Family \$30 __

Repeater Only \$10 __ **

If family membership, please list additional names and call signs:

*** The dues for NEW members are prorated - you only pay for the remainder of the year! Please remit \$1.67 per month for a Single membership or \$2.50 per month for a Family membership.**

Mich-A-Con ARC Activities for March 2009						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3	4	5 ARES	6	7
8	9	10 Meeting	11	12 ARES	13	14
15	16	17	18	19 ARES	20	21 Club Breakfast
22	23	24	25	26 ARES	27	28
29	30	31				

Club Activities:

ARES Nets are conducted at 6:30 PM Central Time every Thursday on our 2-meter repeater (146.850 MHz.)

Meeting: The Mich-A-Con Amateur Radio Club meets the second Tuesday of the month at 7:00 PM at the Dickinson County Library. Visitors and Prospective Members are always welcome!

Our **Saturday Morning Breakfast** is held on the 3rd Saturday of every month at 9:00 AM at the Holiday Kitchen Restaurant on Stephenson Ave (US-2) in Iron Mountain.

V.E. TESTING:

03/14 **Marquette:** 8:30am eastern time, (arrive by 8:00am) Marquette County Health Dept. Bldg, U.S. 41 just east of the Michigan State Police Post. Contact Rich Schwenke, N8GBA at 906 249-3837 or e-mail: n8gba@chartermi.net

03/21 **Iron River:** 9:00am central time, at the Beef-A-Roo Restaurant in Iron River.
NOTE: Pre-registration is required, contact Dan Waters, AA9GJ at 906 265-4240 or e-mail: dmwaters@ironriver.tv .

04/11 **Houghton:** 8:30am eastern time, V.E. Exams at Michigan Tech. University in Houghton, MI will be held in the ballroom of DHH (Douglass Houghton Hall at Michigan Tech). Free Parking in Lot #14, front of DHH, across from Wadsworth Residence Hall. Use door #9 on the South-East side of DHH. Contact Glenn Ekdahl, WA8QNF at (906) 482-7743 if you have questions.

04/11 **Gladstone:** 9:00am arrival time with testing beginning at 9:00am, at the Gladstone Public Library. Contact Howard W8HSJ at (906) 428-9476 or w8hsj@dcars.org .

05/02 **Iron Mountain:** 9:00am central time, (arrive by 8:30am) Dickinson County Library (conference room), contact Mark J. Lewis N8UKD, (906) 396-5519 - 412 Fairmount St. Kingsford, Mi 49802.

Please arrive one-half hour early for test sessions to give time to process applications. Testing applicants should bring the following items with them: Two pieces of I.D. one being a photo I.D., Original license and one clear copy of their license if applicable, Completed form 605 (one will be provided if you don't have one), pencils, calculator and the test fee of \$15.00. Please have the correct fee as examiners do not carry change. Please contact the individual(s) listed to confirm date(s), location(s), etc.

Mich-A-Con Amateur Radio Club

Minutes of the February 10, 2009 Meeting

The meeting was called to order by President Tom Martin, W8JWN, at 7:00 p.m.

Secretary Report

The minutes of the January 13th meeting were read and approved.

Treasurer Report

Balances as of February 1, 2009:

Regular Savings - \$2,134.40, \$860.20 of which is in the Trailer Fund.

Repeater Savings - \$899.87.

Checking - \$473.64.

Petty Cash - \$0.00.

Repeater Report

Bob, WA8FXQ, reported that we now have a thermostat and heater for the building. When the weather warms, we need to remove the flaking paint from the interior walls.

ARES

Net is being run by Dennis, K8SWX, Thursday evenings at 6:30 p.m.

Old Business

Veterans Day Special Event –

Requests for certificates and QSL cards have subsided.

Club Station –

Tom, W8JWN, submitted a proposal to the VA hospital on January 21st. No response as yet.

Charlie Dickinson Estate –

Randy, KB9ZES, has returned the two 2-meter beams.

Jay Jennings Estate –

We need to contact Dan Weaver of ManorCare when we want to take down Jay's Tower. Tom and Jay's son will determine if the equipment at Jay's home is of any value.

Club Anniversary -

The 40th anniversary of the founding of the club will be celebrated during Field Day.

Technician License Class –

Bob, WA8FXQ, reported that instructor materials have been purchased from the ARRL. The class will begin on Feb 11 and run every Wednesday from 6:30 to 8:30 p.m. for 8 weeks. An exam will be administered the first week of April.

Field Day 2009 -

Mike, K8DDB, has reserved the small pavilion at Marion Park. We will check the site after the weather warms up.

Negaunee Swap Fest -

Several club members attended and came away with a few bargains.

New Business

Bob, WA8FXQ, reported that 3 examinees passed the license exams administered on February 7th. Brian McEachern, N8LTD, and his son of Rumely Michigan passed their upgrade exams and our own Steve Johnson, KC8RYY, passed the Extra exam. Congratulations to all!

Adjournment

The meeting was adjourned at 7:32 p.m.

For The Good Of The Order

Attendees discussed their recent radio related activities.

Mich-A-Con RF is published by the Mich-A-Con Amateur Radio Club of Iron Mountain. Send articles to: Steve Skauge KD8CCP@arrl.net.

Permission is hereby granted for reproduction of material with proper credit to the author and Mich-A-Con.

Submitted by Mike Bray

Attendees

Mike Bray, K8DDB---Secretary

Tom Martin, W8JWN---President

Michael Boileau, N9NBN---Vice President/Treasurer

Steve Johnson, KC8RYY

Bob Uren, KC8TWG

Bob, Meyers, WA8FXQ

Barry Perron, KC9NFT

Scott Jarmusch, KA8TFF

Art Costa, KD8GLO

Nate Mieras, KD8GLP

Burton Armbrust, WB8EBS

Al Poquette, K9ECG

Beth Baker, KC9KVP

Scott Baker, KB9AVX

Club patches are available from:

Mike Boileau, N9NBN
1106 Cleveland Street
Niagara, WI 54151

The patches are 3 inches in diameter and sell for \$3.00 each. If ordering by mail, please enclose a SASE along with your payment.

HAMS CAN STILL HELP WITH DIGITAL TV (DTV) CONVERSION

FROM

The ARRL Letter
Vol. 28, No. 7
February 20, 2009

Even though the mandatory conversion date for television stations to switch from analog signals to digital has been delayed by four months http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-9A1.pdf, hams are still assisting the FCC and their communities by providing technical support to those who need

assistance<<http://www.arrl.org/news/stories/2008/12/10/10499/>>. Although many TV stations won't turn off their analog signals until the new deadline, the law allows stations to apply to switch on the original date -- February 17 -- or any time before June 12.

According to the FCC, there are nearly 1800 full-power television stations in the US. Of these, the FCC said that "220 will have terminated their analog signals before Tuesday [February 17] and another 421 will terminate their analog signals on Tuesday [February 17] before 11:59 PM, for a total of 641 stations, or about 36 percent of all full-power stations nationwide." The FCC has posted a list of stations making the conversion on or before February 17 on their Web site

<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-288530A2.pdf>.

ARRL Media and Public Relations Manager Allen Pitts, W1AGP, said he has been getting e-mails and phone calls from Amateur Radio operators concerning the digital TV conversion, now set to take place on Friday, June 12. "People are asking what's happening with the DTV conversion -- especially now that it's been delayed -- and wondering what we as hams can do to help," he said. "There has been considerable confusion concerning the extension of the date, but the role of Amateur Radio is simply to be helpful to the people in our communities."

Pitts advises those hams that are helping to provide technical educational assistance keep in mind the following troubleshooting pointers, provided by the FCC:

* Check Your Connections

Check that your digital-to-analog converter box (or digital television) is connected properly. Make sure that your antenna is connected to the antenna input of your digital-to-analog converter box (or digital television). If you are using a digital-to-analog converter box, ensure that the antenna output of the converter box is connected to the antenna input of your analog TV. If you are unsure of the proper connections, refer to your owners manual.

Make sure that your components are plugged in and turned on. If using a digital-to-analog converter box, tune your analog TV to channel 3. You should see a set-up menu or picture on your screen. If you do not see this, re-check your connections.

* Perform a Channel Scan

Digital-to-analog converter boxes (and digital televisions) have a button -- usually on the remote control -- that is labeled "Set-up" or "Menu" or some similar term. Press that button to access the set-up menu. Using the directional arrow buttons on your remote, scroll to the option that allows you to perform a "channel scan." The channel scan will search for digital broadcast channels that are available in your area. If you are unsure how to do a channel scan, please refer to the owners manual for your converter box or digital television (whichever applies).

Once the channel scan is complete, you will be able to tune to the digital channels received by your antenna.

* Adjust Your Antenna

As many hams know, small adjustments to an antenna can make a big difference; digital TV is no exception. If you have an indoor antenna, try elevating it and moving it closer to an exterior wall of your home. After adjusting your antenna, perform another channel scan to see if your reception has improved.

While adjusting your antenna, it may be helpful to access the "Signal strength meter" on your converter box or digital television set to determine whether your adjustments are improving the signals' strength. You can probably find your signal strength meter via the "Menu" function on your remote control, and your owners manual will provide detailed information on how to perform this function. Remember to do another channel scan after you have adjusted your antenna.

Make sure that you are using an antenna that covers both the UHF and VHF bands and that is connected properly (depending on what channels are in use in your area).

Late last year, the FCC requested assistance from the ARRL in providing educational support to local communities regarding the digital TV conversion.

"I really appreciate the willingness of the ARRL to actively participate in helping Americans with the transition to DTV and your helpful suggestions," said George Dillon, FCC Deputy Bureau Chief for Field Operations (now retired). "The DTV transition will be an historic moment in the evolution of TV. Broadcast television stations can offer viewers improved picture and sound quality and new programming choices. All-digital broadcasting also will allow [the FCC] to significantly improve public safety communications and will usher in a new era of advanced wireless services such as the widespread deployment of wireless broadband. Our goal is to engage the amateur community on a cooperative basis to help with the DTV outreach and to educate consumers."

The FCC said that it is seeking to ensure that even where all or most stations in a market are terminating analog service, consumers who are unprepared for the switch will continue to have access to critical local news and emergency information. In a statement released by the FCC, the Commission "examined each market in which stations planned to end analog service to try to ensure that at least one affiliate of the four major networks -- ABC, CBS, Fox and NBC -- would continue broadcasting in analog after February 17. Many had such a station, but in those instances in which there would be no top-four affiliate remaining in a market, the FCC attempted to ensure that analog local news and emergency information would remain available -- generally through what is being called 'enhanced analog nightlight' service. Under 'enhanced analog nightlight,' the top-four affiliates must keep at least one analog signal on the air to provide programming that

includes, at a minimum, local news and emergency information"
<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-288530A1.pdf>.

FCC Acting Chairman Michael Copps said that the Commission is "trying to make the best of a difficult situation. While this staggered transition is confusing and disruptive for some consumers, the confusion and disruption would have been far worse had we gone ahead with a nationwide transition on [February 17]."

For more information on the conversion to digital television, please see the DTV Conversion Web site <<http://www.dtv.gov/>>.

Club Repeaters:

The club maintains two repeaters, which are located on Pine Mountain (elevation 1,650 feet) in Iron Mountain, with tower and facilities provided by the Wisconsin Electric Power Co.

The range of the 2 meter repeater is about 40 miles under normal conditions, depending upon terrain. The 440 MHz repeater has a range of about 25 miles.

OUTPUT CALLSIGN	OFFSET	PLTONE	
146.850	Minus	-	WA8FXQ
444.850	Plus	100 Hz	WA8FXQ

Repeater Specifications:

The 146.85 repeater is a Melco Hi Pro (built from a kit in the 1970s) with 25 watts output.

The 444.85 repeater is a GE Master Pro with 30 watts output.

The repeaters share a Diamond dual band antenna at a tower height of 125 feet.

To use the Auto Patch, key your mic and dial the Auto Patch ON code and let up on your mic. You will then hear a dial tone. Key your mic and dial your number. The phone should then ring. When you complete your call, key your mic and dial the Auto Patch OFF code and the phone call will terminate. Club members will be given Auto Patch codes on request.

MICH-A-CON RF

Mich-A-Con ARC
c/o Stephen Skauge
213 South Angeline
Ishpeming, Mi 49849

Club Meetings:

The Mich-A-Con Amateur Radio Club meets on the second Tuesday of the month in the Dickinson County Library at 7:00 PM. Visitors and prospective members are always welcome!

The URL for the Mich-A-Con ARC web site is:
<http://www.qsl.net/ka1ddb/>

Previous editions of Mich-A-Con RF can be accessed by a link on the news page.

The ARRL DX Bulletin on the Upcoming Activities page is updated each Thursday and the contests section is updated on a monthly basis.

Club Officers:

President:
Tom Martin, W8JWN
(906) 774-5463
tmartin@chartermi.net

Vice President:
Mike Boileau N9NBN
(715) 251-3137
n9nbn@uplogon.com

Secretary:
Mike Bray, K8DDB
(906) 563-7020
mikebray@chartermi.net

Treasurer:
Mike Boileau N9NBN
(715) 251-3137
n9nbn@uplogon.com

Reminders:

Club dues for the year 2009 are payable on January 1st. Please use the Membership Application - Renewal form in this newsletter when paying your dues. Checks should be made payable to Mich-A-Con Arc and sent to our Treasurer, Mike Boileau, N9NBN at the address listed on the form. Thank-you for supporting your club!

The March Mich-A-Con Meeting will be held on Tues March 10th 2009.

