Mich-A-Con RF

Iron Mountain, Michigan

July 2005

Visit the ARRL's web site at:
http://www.arrl.org

Field Day 2005, A Good One!

Martin Cole, holding the antenna; Don, KC9XJ; Bob, KC8TWG and Dennis, KD8AIT, prepare to attach the tri-bander to the tower.

Good bunch of guys! Good time! Good food! Good weather! And the results weren't bad either! What more could you ask for?

This Year vs Last Year:
Our most improved station this year was the GOTA station. Mike, N9NBN, control operator; Terry, KB9ZER; Bob, KC8TWG; Randy, KB9ZES and Dennis, KD8AIT, garnered 108 QSOs and Gage Beurjey added another 4 for a total of 112 QSOs, enough to earn a 100 point bonus for 100 QSOs completed. Gage Beurjey's par-

ticipation gave us another 20 point bonus for youth participation. GOTA station points this year - 232, last year - 79. The station consisted of a Kenwood TS850 at 100 watts. The primary antenna was a G5RV at about 45 feet. Power was supplied by a deep cycle battery. Logging was done manually.

The CW station manned by Mike, K8DDB, completed 227 QSOs, surpassing last year by 12 QSOs. CW station points this year - 454, last year - 430. The station consisted of a Ten Tec Argonaut V at 20 watts to a G5RV antenna at about 55

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Words from the President

Isn't technology wonderful? We have computers to make our daily life so much easier: word processing, Internet banking, tax filing, etc. The list goes on and on. Many of us even control our radios with the computer. We don't even need the old -fashioned photo album, thanks to the digital camera and our computer. Aim, shoot, and transfer to the hard drive. What a country!

All of the above is wonderful as long as the "technology" is cooperating. Open case, push button, and that wonderful Bill Gate's icon, Windows XP, appears on the blue screen. Well, in my case, this past two weeks, my laptop screen hasn't announced Bill's arrival! An ugly, grayish black screen with this cold message in white lettering appears, "Read Disk Error Hit Ctrl-Alt-Delete to Restart Your Computer."

Yes, the computer has crashed! No bank transfers, no Googling, no scanning the Detroit newspapers on-line, no Packet, and worst of all, no pictures to enjoy that were filed in my "electronic album". All of the Norton's in the world couldn't put this "Humpty" back together again!

After hours of scanning, "DOSing," rebooting, and praying, the inevitable was realized. All is lost; there is no recovery. Play "Taps." It's enough to make me contribute to the Ludite

Foundation!

So, it's back to Step One, reformat, and start over. All files, programs, and Belize pictures are toast.

I have learned a lesson from all of this. BACKUP! If that photo of Aunt Minnie is important, save it to another disk. Stick drives, Thumb Drives, Memory Sticks, whatever, use them. I did (thank the computer gods) save my V31TR DXpedition logs to a 64 MB "Quick Drive."

Well, enjoy your 94 degree, rainless summer! Didn't technology predict last April that this would be a cool, wet summer?

What a country!

Saturday Morning Breakfast

Thanks to Dennis', KD8AIT, announcement on the 2-meter repeater, we had a nice showing at breakfast on July 16th. Nine people attended, including four members of the Escapee's RV Radio Club and five Mich-A-Con members and family.

If you find some spare time on the third Saturday of the month, why not join us for a good time and good food. Our next breakfast will be on August 20th.

Mich-A-Con ARC Activities for August 2005

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2 Tnn	3	4	5	6 Exam
7 ARES	8	9 Club Picnic	10	11	12	13
14 ARES	15	16 Tnn	17	18	19	20 Breakfast
21 ARES	22	23 Tnn	24	25	26	27
28 ARES	29	30 Tnn	31			

Field Day 2005

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feet, which was tuned by an LDG Z11 Auto Tuner. Power to the station was supplied by a deep cycle marine battery and distributed via a RigRunner power strip. Logging was done on a laptop computer which was powered from the same deep cycle battery through a Targus Auto/Air DC-DC adapter. N3FJP's logging software was used.

The Phone/Digital station manned by Tom, W8JWN, completed 221 phone and 26 digital QSOs, surpassing last year by 21 QSOs. Phone/Digital station points this year - 273, last year 252. The relief operator was Mike, N9NBN. The station consisted of an Icom 706 MKIIG at 100 watts. Primary antennas were a tri-bander at 30 feet and a 40-meter delta loop at about 50 feet. Power was supplied to the station by an Onan generator aboard Terry's motor home. Logging was done on a laptop computer, using N3FJP software for phone. N1MM and Logger32 software were used for digital QSOs.

Tom, W8JWN, at the Phone/Digital station.

An 80-meter dipole at about 45 feet rounded out our antenna complement. It was shared by the GOTA and Phone/Digital station. Coax stubs were used at all stations to reduce inter-station interference.

Going After The Bonus Points:
Mike, K8DDB, manned his solar powered QRP station to capture 100 bonus points. The station consisted of a Sierra QRP transceiver at 4 watts to a 44 foot doublet antenna supported by two 20-foot telescoping fishing poles. The antenna was tuned by an Emtech ZM-2 tuner. Power was supplied by a 7 Amp-Hr gel cell charged by a 10 watt solar panel via a Micro M Plus charge controller. Although only 5 QSOs were required for the bonus, 23 CW QSOs were made using this station while waiting for the CW station's antenna to be launched.

Mike, N9NBN and Mike, K8DDB, teamed up to glean another

Mike, K8DDB, at the Solar powered station.

100 bonus points by passing traffic between their packet stations. Ten packet messages, each worth ten points, were sent from N9NBN's home packet station in Niagara Wisconsin to K8DDB's packet station at the Marion Park Field Day site. The Field Day site packet station consisted of a Yaesu FT-7800R transceiver at 20 watts to a pocket J-pole antenna at about 12 feet, an AEA PakRatt 232 TNC and a Dell laptop computer running WinPack software. Power to the laptop was supplied by the Onan generator, while power to everything else was supplied by the same deep cycle marine battery used by the CW station.

Site visitations by Scott Celello, Dickinson County Director of Emergency services and Ann Martin, Dickinson County Commissioner, gave us another 200 bonus points.

We earned another 300 bonus points for setup in a public place, providing a public information display and for attempt-

Don, KC9XJ and Lee, N8LT, prepare to launch yet another wire antenna.

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ing to obtain media publicity. Press releases were given to the Daily News and The Current and both papers published them.

Tom, W8JWN, copied the W1AW Field Day message, for another 100 points. And, of course, we received 200 bonus points for class 2A (two transmitters using emergency power.) We received another 50 points for filing our results using the ARRL's web applet. Total bonus points claimed - 1170.

The GOTA crew: Dennis, KD8AIT; Bob, KC8TWG and Terry, KB9ZER. Not in the photo are Randy, KB9ZES; Gage Beurjey (our youth participant) and Mike, N9NBN (control operator.)

States/ Provinces/ DX Worked:
During the 24-hour Field Day period, we worked 49 of the 50 states (missed South Dakota), 5 Canadian Provinces, the U.S. Virgin Islands and New Zealand. There were only 7 ARRL/ RAC contest sections (of a total of 80) that we didn't contact.

The Stats:
Field Day Call Used: KC8VC   GOTA Call Used: N8LT

Band	CW QSOs	Digital QSOs	Phone QSOs	Total QSOs
160	0	0	0	0
80	0	0	12	12
40	130	0	71	201
20	87	26	124	237
15	10	0	14	24
10	0	0	0	0
6	0	0	0	0
2	0	0	0	0
1.25	0	0	0	0
70	0	0	0	0
33	0	0	0	0
23	0	0	0	0
GOTA	0	0	112	112
Totals	227	26	333	586

Total CW QSOs: 227 x 2 = Total CW QSO Points: 454
Total Digital QSOs: 26 x 2 = Total Digital QSO Points: 52
Total Phone QSOs: 333 x 1 = Total Phone QSO Points: 333

Total QSO Points: 839
Claimed Score: 839 QSO Points x 2 (power multiplier) = 1,678
Total Bonus Points Claimed: 1,170

Total Score: 2,848

Community Support:
The club gratefully acknowledges support from the following businesses:
- City of Norway—Use of Marion Park, proclaiming Amateur Radio Week in the City of Norway
- Danny's Market, Loretto—Fuel
- Ebeling's IGA Supermarket, Norway—Food and drink
- LaFaive Oil—Fuel
- Marcouiller's Food Center, Niagara—Food and drink
- Tom & Jo's Drive-in Liquor Store, Aurora—Drink
- Zawada Supply & Lumber Co, Niagara—Hardware

Thanks also go to Terry, KB9ZER, for the use of his motorhome; Lee, N8LT; Don, KC9XJ and Cliff, KD4ZBP, for getting our wire antennas in place; Martin Cole for assembling the beam and tower; and Dennis', KD8AIT, son, Gage, for being a youth participant on our GOTA station.

Mike, N9NBN, at his impressive home station. He used his home packet station to send messages to the Field Day site.

Critique:
All of last year's suggestions for improvement were implemented for Field Day this year. Suggested improvements for next year include: Obtain news coverage from TV-6, put up a better 40-meter antenna, operate separate transceivers for the phone and digital stations, bring two stepladders for assembling the tower and beam, provide late-night food/snacks to keep the operators going.

I had a great time - see you next year!   K8DDB

Windows XP - A Better Way
by Bob Hart, WA7HRA wa7hra@winlink.org

I recently got a new laptop computer. It's something I seem to do about every five years. This one is absolutely state of the art, but then, so was the last one five years ago, as was the one I got five years before that. Things have changed a bit from the days of the first one in 1994, which came with PC Dos 6.3 installed. Since my primary use for a laptop is amateur radio operations from my motorhome, I rate computers and their native operating system on how well they work in my mobile ham shack. This one with Windows XP Home Edition SP2 is truly a winner.

To me, the key to exciting station operation is automation. I have five Com Ports (Serial Ports) which interface the computer with the equipment in the shack. Two of them control the IC-718 HF rig, which has automatic antenna tuning, and the TM-D700 VHF/UHF rig which has built in packet and APRS. There is another for the TNC, one for the GPS receiver, and one for the RigBlaster. I do have to manually turn the radios on and off.

Not long ago it was a chore to come up with all of those Com Ports. There was some real black magic to do so with my last machine which had Windows 98se. XP has changed all that. Now, if you could afford it, you could have as many as 256 Com Ports. No, that's not a typo. It's all there, just waiting for you to take advantage of the system.

If you are lucky, you may still have one or more Serial Ports on your computer. With the new laptops, they have all but disappeared. My new one has no serial port, no parallel port, and not even a floppy drive. It does have three USB ports, and that is the route to those 256 Com Ports.

The first thing you will need is one or more USB to Serial Adapters on your computer. IOGEAR makes one, which sells for $29.95 at WalMart. Belkin makes one they call a PDA Adapter, which sells for $29.95 at most computer stores. They both do the same thing. These *doodads* have a USB connector on one end of a foot-long cable and a DB-9 connector on the other to plug into all that old ham gear. They simply plug into a USB port on the computer and are plug and play. If you have lots of USB toys, as I do, you will also need one or more hubs. I have a seven port hub plugged into a USB port on the computer and a four port hub, in the Ham shack, daisy chained to the seven port unit. Buy the cheapest hubs you can find.

Now, let's go back to Windows XP. Here is where the boys in Redmond, WA did things right. You can still shoot yourself in the foot if you don't take advantage of "System Restore" which they provided for folks like I am who "think" they know what they are doing. Find your way to "System Restore" and "Create a restore point". Then you can always get back to "GO" if you really mess things up.

Next, go to Control Panel -> System -> Hardware -> Device Manager -> Modems. Right-click on any modem listed, and then click on Properties. Select Modem and make note of the Com Port used by the device. Do so for each modem listed.

Then, move down the Device Manager to Ports (Com & LPT). You should see a list of Com Ports in use. Right-click on any one of them. Click on Properties -> Port Settings -> Advanced -> Com Port Number. You should see a list of all 256 Com Ports with a notation for those in use. The list will include any modems or other devices using Com Ports. There may even be a number in use by something you do not recognize.

I suspect many of you have great old applications that still require Coms 1-4. That being the case, if other devices have these Com Ports in use, you will have to make some changes. Since modems are almost always serial devices they are the most common offender. My new laptop came with the onboard telephone modem installed on Com 3. When I installed the cell phone, the Wizard put it on Com 7.

Depending on how many Com Ports you expect to install, you need to move these devices. I put the cell phone on Com 10 and the onboard modem on Com 12. There are two different procedures you may encounter.

1. Go back to Device Manager –> Modems. Right-click on a modem and select Properties -> Advanced -> Advanced Port Settings -> COM Port Number. From the list of Com Ports, click on any one that is not in use. Click OK. The new number should appear in the Com Port Number box.

If you follow the above procedure and get a window for "Extra initialization commands:" when you click on Advanced, use the following proce-
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Packet Racket

Packet Testing at Pine Mountain

I don't know the cause, but the MIIMT node on Pine Mountain seems a little fickle compared to MIIMTB in Metropolitan. From my QTH, it is harder (more tries) to get a connect and once connected, it isn't as reliable (more drops.) My station consists of a Yaesu FT-7800R at 20 watts to a Diamond X-200A antenna at 30 feet and a PK232 TNC. The distance from my QTH to Pine Mountain is 12 miles vs 17 miles to Metropolitan.

We are testing to see if the Pine Mountain site will provide good service, so if you are experiencing any problems with MIIMT please let me know. The antenna for MIIMT is presently at 120 feet on the WE Energies tower. There are concerns about mutual interference (de-sensing) between the 2-meter packet node and the 2-meter repeater if their antennas are in close proximity. When the 2-meter repeater noise problem is resolved, it will once again use the antenna at the 120 foot location. This means that the 2-meter packet antenna (MIIMT) will be located substantially lower than it is now.

Field Day

The packet setup at Field Day was a success. We were able to pass traffic from Niagara to our Field Day site at Marion Park in Norway and earn 100 bonus points. I was able to demonstrate packet to a few guys. Thanks to Le Roy, N8WQG, for sending messages to us and making the demos more realistic.

APRS Digipeat

Pat, KC8EMF, is now set up to digipeat APRS from his location on Norway Hill.

If you have any packet news, please send it to me via packet (K8DDB-1) or via email (mikebray@chartermi.net)

K8DDB

Propagation Tool

Google's opening of the programming interface to their maps is already bearing fruit for the ham community.

Check out http://maps.dxers.info/gmap/

Thanks to the ARRL Contest Rate Sheet and John W1RT

Windows XP - A Better Way

dure.

2.   Device Manager -> Ports -> Right-click on an entry with a Com Port number you recognize from your examination of the modem properties -> Properties -> Port Settings -> Advanced -> COM Port Number -> Click on any number that is not in use. Click OK. The new number should appear in the COM Port Number Box.

You will have to restart your computer to make things work. If you have a cell phone installed and XP cannot find it, run the Setup Wizard.

Now, let's get on with why we came here in the first place, the installation of those new USB/Serial adapters. Once again, it would be a good plan to create another restore point just in case you muck it up and have to get back to "GO".

My five adapters are installed on COMs 1-5. This takes care of that old software I have. If there had been a real serial port on COM 1, as I had on my old laptop, I would have installed them on COMs 2-6. This part is easy. Install the adapters one at a time by following the manufacturer's instructions.

After you have installed the lst one, go back to Device Manager -> Ports -> Right-click on the adapter with the lowest port number and select Properties -> Port Settings -> Advanced -> COM Port Number. If the Port Number is not what you want, select the one you do want and click OK. Repeat this for each additional device.

I ran into a problem here. I wanted to use COM1 for my first adapter, but the list said it was in use. I looked every place I could think of to find what was using it. I finally decided it was my optional $100 serial port that I did not order with my computer. I swallowed hard and selected it. XP then warned me that it was in use and that I might have a conflict. With absolutely no fear, I clicked "OK". After all, I had set up a restore point and could bail myself out. It worked.

After you have everything the way you want it, restart your computer. Ports in the Device Manager should now show things just the way you set them up. Oh, by the way, don't forget to go to Properties on those new Com Ports and set the required baud rate and flow control. I suspect you already had thought of that.

ARES NEWS

New Mexico ARES Ready for Flood and Fire

(May 26, 2005) -- With melting snow threatening to flood northern New Mexico and early-season forest fires breaking out, this spring and summer promise to be busy for New Mexico Amateur Radio Emergency Service members. Just this week, a radio amateur driving outside Los Alamos reported smoke and fire near the Valle Calderas. Sandoval County ARES District Emergency Coordinator Mike Scales, K5SCA, announced on the Sandoval County ARES (SCARES) repeater that a second fire has broken out near Regina, while a third fire is burning in Rio Arriba County. All of these fires are in remote locations. With all rivers in New Mexico experiencing above-average water flow, flooding remains a concern. Taos, San Juan, Rio Arriba, and San Miguel Counties were reported under a flash flood watch due to present snow pack melt conditions. Residents in Questa are sandbagging their homes in an effort to keep overflowing waters from encroaching on their homes. Local emergency managers are keeping an eye on river flow and are expecting a continued rise in levels throughout the week. ARES teams in Sandoval, Santa Fe, and Los Alamos are on standby should conditions warrant an evacuation and to provide necessary communication support. In a typical situation, ARES members would deploy to emergency operations and Red Cross evacuation centers as well as to emergency command posts in the field.

New Mexico ARES Members End River Watch

(May 31, 2005) -- With water levels in the rivers of northern New Mexico finally falling, Amateur Radio Emergency Service (ARES) monitoring activities have ended. Members of several ARES teams sacrificed Memorial Day weekend plans to monitor the swollen rivers. New Mexico Section Emergency Coordinator Bill Kauffman, W5YEJ, was in the area May 27 to synchronize ARES activities with those of state and local emergency officials. An emergency operations center in Espanola provided a base of operations for radio amateurs and other emergency responders. Of special concern was the Embudo River. As of the morning of May 29, Gary Bonebrake, W5BI, reported that the water level was down another inch compared to the previous day's measurement. ARES operations stood down May 29, and ARES members were able to enjoy the last day of the long holiday weekend with family and friends. New Mexico ARES groups from Los Alamos, Santa Fe, Bernalillo, Sandoval and Rio Arriba counties provided emergency communication support and spotters at the request of the Rio Arriba County Emergency Manager.--*Sandoval County ARES*

NWS Meteorologist Praises ARES, SKYWARN

(Jun 9, 2005) -- ARRL Minnesota Section Emergency Coordinator Don Franck, AD0F, says he was grateful that Amateur Radio Emergency Service (ARES) and SKYWARN teams were on the job this week when severe weather struck his area. "It is always nice to hear how ham radio steps in to help in time of need," he says, "but, it is even better when ham radio directly aids in protecting human lives. That is what ARES and SKYWARN are all about." Franck, who's also an ARRL Emergency Communications Course instructor and mentor, says it got personal for him after a severe storm dropped a wall cloud right into the field next to his home and later spawned a tornado. "Through it all, local ARES members gave freely of their time and vehicles," he said, "driving many miles across three counties to get the best spotting of the super cell thunderstorms." Observers endured one-inch diameter hail, 70 MPH winds and 7 inches of rain. Franck was at the Olmsted County emergency operations center for the occasion. The work of ARES and SKYWARN also drew praise from National Weather Service Warning Coordination Meteorologist Todd Shea in La Crosse, Wisconsin, who offered another example of how storm spotters made a difference during the severe weather June 4. "A storm spotter in Clark County, Wisconsin, correctly reported to us a rotating wall cloud from a cluster of storms moving across central Wisconsin," he said. Shea says the report enabled NWS radar to focus on that storm, leading directly to the issuance of tornado warnings. "We were able to warn the rest of the downstream communities and neighboring county during the approximately 20-mile intermittent tornado path," he said. "A spotter can make a difference. Be proactive, organized, correct, and timely. I can't tell you how much it does make a difference and how much we appreciate the information."

Mich-A-Con ARC July 12th Meeting

The meeting was called to order by President Tom Martin, W8JWN, at 6:34 PM.

Secretary Report:
The minutes of the June 14th meeting were read and approved.

Treasurer Report:
The Treasurer's Report was presented by Tom, W8JWN. As of this meeting we have $270.84 in checking, $1,890.42 in the savings account, $1,366.48 in the repeater account and $26.00 petty cash. Transactions: $34.00 paid to Tom Martin for Field Day antenna supplies, $50.00 paid to Bill Lukes for a beam antenna, $23.08 paid to SBC and $15.11 paid to WE Energies for the Metropolitan packet site. Transfers: $200.00 from savings to checking. Deposit: $30.00 dues. Dues collected during the past month: Melissa Lewis, "repeater only" membership - $10.00. We now have 39 members, including 15 new members, that have paid their 2005 dues. 10 members on last year's roster have not yet paid.

Repeater Report:
Lee, N8LT, reported that he had not heard from Skip, KE9L, about the repeater noise problem. Tom will try to contact Skip to get the status. He will also Contact Rich Larson, WE Energies customer service representative in the Iron Mountain office, to find a contact person for the noise problem. Lee suggested that we take "before and after" noise measurements in the presence of a WE Energies representative.

ARES:
No report. Dennis, KD8AIT, was absent.

Old Business:
Tom, W8JWN, purchased a club banner from Jon's Signs for $74.00. Burt, WB8EBS, made a motion to reimburse Tom. The motion was seconded by Mike, N9NBN, and was approved by those in attendance.

Mike, K8DDB, provided a summary sheet for this year's Field Day effort. The bottom line is that we surpassed last year's score: 2,848 points this year vs 2,372 last year. Our results have been sent to the ARRL and a post Field Day press release has been sent to the Daily News and to The Current.

Tom, W8JWN, requested that letters be sent to the businesses that supported Field Day, thanking them for their contribution. He also thanked Terry, KB9ZER, for the use of his motor home; Lee, N8LT; Don, KC9XJ and Cliff, KD4ZBP, for getting our wire antennas in place; Martin Cole for assembling the beam and tower; and Dennis' son, Gage, for being a youth participant on our GOTA station.

Tom, W8JWN, noted that all of last year's suggestions for improvement were implemented for Field Day this year. Suggested improvements for next year include: Obtain news coverage from TV-6, put up a better 40-meter antenna, operate separate transceivers for the phone and digital stations, bring two stepladders for assembling the tower and beam, provide late-night food/snacks to keep the operators going.

New Business:
Randy, KB9ZES, has donated a 40 foot tower to the club. Tom, W8JWN, will deliver it to Bob, KC8TWG, to fit it to a base and rotor mount. Mike, K8DDB, will clean up the tower, paint it and store it at his home.

Mike, N9NBN and Terry, KB9ZER, will look into providing a rotor for the beam.

A club picnic will be held August 9th at 6:00 PM at the Cowboy Lake pavilion. Attendees are asked to bring their own food and utensils. Refreshments will be provided by the club. Anyone planning on attending should notify Tom, W8JWN. There will be no business meeting in August.

Cliff reported that Paul Hintz, WB8SZI, is in the Dickinson County Hospital with pneumonia.

Pat, KC8EMF, is now set up to digipeat APRS.

Adjournment:
The meeting was adjourned at 7:46 PM

Submitted by: Mike Bray

Attendees:
Mike Bray, K8DDB (Secretary)
Mike Boileau, N9NBN (Vice President)
Steve Johnson, KC8RYY
Lee Michaud, N8LT
Burt Armbrust, WB8EBS
Tom Martin, W8JWN (President)
Pat Servia, KC8EMF
Cliff Haycock, KD4ZBP (Guest)

Mich-A-Con Amateur Radio Club
Membership Application/Renewal Form

Please remit dues to:
Mike Bray, K8DDB
W3821 Waucedah Road
Vulcan, MI 49892-8483

Name: _____

Address: _____

City, State, Zip: _____

Call Sign: _____

Email Address: _____

Phone: _____

ARRL Member? Yes _____   No _____

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 <u>NEW</u> 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.

**If you are an occasional or seasonal user of the repeater, please consider our Repeater-Only-Membership.

Exam Schedule

City: Iron Mountain
Location: Dickinson County Library
Room: Conference Room
Time: 9:30 AM Central Time
Contact: Mark Lewis, N8UKD
Telephone: (906) 774-6598

  Exam Date: Aug 6, 2005
  Exam Date: Nov 5, 2005
  Exam Date: Feb 4, 2006
  Exam Date: May 6, 2006

Examinees should bring 2 pencils, a pen for the official paperwork, the originals AND copies of any previous credit that you have earned (Certificates of Successful Completion or current license), 1 photo id (usually a driver's license) and 1 other id. (usually a birth certificate or SS card), a calculator if needed (make sure your memories are cleaned out), and the test fee (2005 fee is $14).

Repeaters

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

Identifier: WA8FXQ/R IMT

Output	Offset	PL Tone
146.850 MHz	minus	—
444.850 MHz	plus	100

Both repeaters have an auto patch with a toll restriction. The auto patch on the 2-meter repeater can be used with permission . The 440 auto patch is for club use only.

A club net is held on the 2-meter repeater every Tuesday at 6:30 PM except the 2nd Tuesday of the month , which is club meeting night.

Mich-A-Con RF

Mich-A-Con ARC
c/o Michael F. Bray
W3821 Waucedah Road
Vulcan, MI 49892-8483

Club Meetings

The Mich-A-Con Amateur Radio Club meets on the second Tuesday of the month at 6:30 PM in the Grace United Methodist Church (upstairs in the room next to the sanctuary), 721 Norway Street in Norway, Michigan. 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@netnet.net

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

Treasurer (Pro Tem):
Tom Martin, W8JWN
Mike Bray, K8DDB
(Shared responsibility)

Reminders

There will be no business meeting in August. Instead, there will be a club picnic at 6:00 PM at the Cowboy Lake pavilion on Tuesday, August 9th. Please bring your own food and utensils. Refreshments will be provided by the club. Please notify Tom, W8JWN, if you will attend. Email: tmartin@chartemi.net
Phone: (906) 774-5463

Please support the club, its repeaters and packet system by becoming an active, dues-paying member. We can do more with your help!

Help to make us a better and closer knit club by becoming involved in club activities!