Mich-A-Con RF

Iron Mountain, Michigan May 2006

In this issue:

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SOME BASICS OF REPEATER USE

Ask VHF enthusiasts what the ideal antenna setup would be and they will tell you: "As high as possible over the top of the biggest hill around." That's because height above surrounding terrain will do more for your VHF station performance than anything else.

A considerable amount of VHF activity takes place using "Simplex" operation. (Simplex is a term coined in the two way radio business to describe direct station to station communication without the use of a repeater.) However, the range of coverage is limited by the capabilities of the stations in communication. What's the least efficient VHF radio station? The Hand held radio. Why? Low power and its tiny "rubber duck" antenna; antennas don't get any less efficient. What's the second most inefficient station? The mobile. Why? It's low gain antenna is only a few feet off the ground; remember how important antenna height is?

WHY REPEATERS?

There is no way to make up for the deficiencies of a poor site. Yet, very few of us will ever have the advantage of an ideal site. However, there is a way for all of us to share the benefits of such a site. If we could install just one station at an optimal location and use it to relay all of our signals we would all get the benefits of operating from such an ideal site while doing so from our homes, cars, and nearly anywhere we go. Such a station is called a Repeater, and you will generally find them located at the best available radio locations.

When you use a repeater it "repeats" or re-transmits everything you say. Suddenly, your hand held works as though it were connected to the repeater antenna, pumping out as much power as the repeater does! Anyone answering your call is picked up by the repeater and re-transmitted to you; your hand held receives as though it were connected directly to the repeater antenna and its inefficiencies melt away. Of course repeaters perform the same magic for mobiles, making the repeaters range their own. In fact, repeaters were first developed to extend the range of mobiles (before the days of hand held radios). But wait, there's more! Repeaters work for fixed stations too. Not everyone has a home station with a gain

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Mich-A-Con ARC May 9th Meeting Minutes

The meeting was called to order by President Tom Martin, W8JWN, at 6:30 PM.

Secretary Report:
The minutes of the April 11th meeting were read and approved with one exception. Dennis' Echolink frequency - should be 147.555 instead of 146.555 MHz.

Treasurer Report:
The Treasurer's Report was presented by Tom, W8JWN. Account balances are as follows: Checking, $325.67; Regular Savings, $1,597.42; Repeater Savings, $1,158.92; Petty Cash, $25.63. $200 was transferred from Regular Savings to Checking. $213.21 from the Repeater Savings account was paid to Tom, W8JWN, for the purchase of a Glen Martin climbing harness.

Repeater Report:
Lee, N8LT, reported that on last Wednesday we removed the Diamond dual-band antenna from the temporary tower and replaced it with a 2 me-

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Words from the President

As I type these "Words", it is 41 degrees, raining cats and dogs, and windy. It's May 11th! At least we had a nice April.

After my return from Jersey Island, I decided that I needed a new computer for the shack. The old 233 MHz. Machine was starting to crash everyday and I was concerned that I would lose something important if I hadn't saved it on my Flashdrive. So, I purchased a Dell Optiplex with two serial ports (I need three for radio control, digital control, and CW). I made the purchase on Ebay. What a difference 2.4 MHz makes and 512 MB of memory! I also got a USB to serial adapter and an extra soundcard for running SO2R. SO2R (Single Operator Two Radios) is using two radios with one computer in RTTY contests. Now, all I had to do was learn how to use a Spanish keyboard! That's right, they sent me a Spanish keyboard instead of an English one. I Googled Spanish keyboards and got an explanation of the keys but still could figure out how to get the @ key. My e-mailing days were over, unless I used the XYL's computer upstairs. So, I got on the horn and called the company. They were very nice about it and shipped me a new ENGLISH keyboard. It wasn't as nice as the Spanish one, though. I kept the latter incase I ever wanted to learn Spanish.

My old IBM machine is now dedicated to 147.420 our Packet repeater frequency through the AEA PK-232MBX tnc and an Alinco DR-140 2 meter rig. I am learning a lot about packet radio by trial and error. Actually, more error than trial! Thanks to Mike, K8DDB, I have someone to "talk" to. He can't get into my Mailbox but we can communicate through MIIMTB the Iron Mountain LAN. I don't know what's wrong with my Mailbox. If anyone is reading this that is on packet, please try W8JWN-1 and see if you can connect.

Well, it's SKYWARN season again. Hopefully, thanks to the efforts of several members over the past week, the repeater won't be as noisy as last year. Get your 2 meter gear in order and be ready to observe. We need another observer in the East E Street area. There is a perfect view to the south from there. If someone can go to that site, please let me know.

That's it for now. Hope that the WX gets to be more like summer and that all of your signals get heard.

73,

Tom W8JWN

Mich-A-Con ARC Activities for June 2006

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

June Club Activities

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

Monthly meeting on Tuesday the 13th at 6:30 PM in the Grace United Methodist Church, 721 Norway Street in Norway. The meeting room is upstairs next to the sanctuary.

Our Saturday Morning Breakfast is held on the 3rd Saturday of every month at 9:00 AM in the Holiday Kitchen Restaurant on Stephenson Avenue (US-2) in Iron Mountain, across from Econo Foods. Why not enjoy a good meal and camaraderie with your fellow members.

Field Day will be held on the 24th and 25th at Marion Park in Norway. Setup will begin at 9:00 AM on Saturday morning, and operating will commence at 1:00 PM and continue through 1:00 PM on Sunday afternoon. Come out and enjoy a good time with your fellow club members.

Club Operating Activity

All club members are invited to use the club callsign to help the club attain WAS and DXCC. If you use the club call, please give information required for the log such as: station worked, date and time (UTC), frequency, RST sent and received, mode and power to Mike, K8DDB. Also give a description of the equipment you were using.
mikebray@chartermi.net

VEC Testing at Iron River

The Iron Range Amateur Radio Club VEC makes exams available on a monthly basis on the 3rd Thursday of the month, prior to the start of their club meeting. Examinations must be arranged before hand. Exam time: 6:30 PM (Central), Place: Iron River Lutheran Church (on US-2 next to McDonalds), Contact: Dan Waters, AA9G.
(906) 265-4240
dmwaters@ironriver.tv

Some Basics of Repeater Use

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antenna mounted high in the air outside. But, if you can reach a repeater, the repeater's range effectively becomes the range of your home station. Even good home stations with beam antennas mounted high in the air can benefit from repeater use. By accessing a distant repeater just within their range, the repeater can effectively double that range when a similarly capable station exists a comparable distance beyond the repeater. The range of such fixed stations can be extended as far as a couple of hundred miles under the right circumstances.

Repeaters also make great "calling frequencies". Since the coverage range is much better than a simplex station, if you can't reach someone through a repeater you certainly aren't likely to succeed on simplex. Also, if everyone monitors the same local repeater your chances of reaching any particular individual are much better than they will be if you have to hop from one favorite simplex frequency to another trying to locate them. If desired, and conditions permit, you can easily switch to another frequency after establishing contact.

BACKGROUND

The term Repeater was first coined before the turn of the last century to describe telegraph apparatus used to extend the range of telegraph circuits where the distance to be covered exceeded the practical limits of a single line or when messages had to be transferred from one line to another. The apparatus received telegraph signals from one line and automatically "repeated" them into the next line, a process that previously required an operator to do by hand. It was later applied to "bi-directional" amplifiers placed in long telephone lines to make long distance calling possible. Radio repeaters do the same except that they receive and retransmit radio signals.

A repeater must receive and transmit simultaneously. (Called "Duplex" operation, the term, again, coined in the telegraph days for a method that allowed the simultaneous transmission and reception of telegraph signals over a single wire.) Although repeater users do not transmit and receive simultaneously, though they do transmit and receive on different frequencies in the same band, their radios are said to be operating Half-Duplex; a term coined by the two-way radio business. Repeaters are usually identified by their output or transmit frequency. For example, the 146.85 Repeater, or simply the '85 repeater if there will be no confusion, transmits on 146.85 MHz. To prevent the repeater's transmitter from blocking and overloading it's own receiver, transmission and reception must take place on different frequencies. The difference between the receive and transmit (or input and output) frequencies is called the "offset". In the Two Meter Band the normal offset is 600 KHz. If the repeater output is at 147.00 MHz or higher the repeater receive offset is "plus" or 600 KHz higher than the repeater output frequency. If the repeater output frequency is below 147.00 MHz the repeater receive offset is "minus" or 600 KHz lower. It is understood from the foregoing that a 146.85 repeater transmits on 146.85 MHz and receives 600 KHz lower at 146.25 MHz and that a 147.00 repeater transmits on 147.00 MHz and receives 600 KHz higher on 147.60 MHz.

To use a repeater you must transmit on the repeater's input frequency and listen on the repeater's output frequency. As a result, repeater frequencies are sometimes given by the repeater's input and output frequencies such as 146.25/85 or 147.60/00 meaning, for example, you transmit on 146.25 MHz (the repeater's input frequency) and receive on 146.85 MHz, (the repeater's output frequency). Indicating both the input and output frequencies is especially important for repeaters with non standard offsets. In the 440 MHz band the offset is plus 5 MHz, that is, the repeater input frequency is normally 5 MHz higher than the output frequency. For example, the 444.85 MHz repeater receives on 449.85 MHz.

A FEW THINGS YOU SHOULD KNOW

Time-out Timer: Every repeater has a Time-out Timer. Its primary purpose is to shut down the repeater if it hangs up due to a malfunction. The timer begins timing when ever the repeater keys up. The timer is reset when ever the signal that keyed up the repeater drops out. Time-out timers are typically set for about 3 minutes. This means that if someone talks continuously for more than 3 minutes the repeater will automatically shut down cutting off any subsequent portion of the offending stations transmission. When that happens the repeater cannot be keyed up again by anyone until the offending signal drops out, at which time the Time-out Timer will automatically reset and the repeater will again be ready for service. If you need to make a transmission longer that 3 continuous minutes you must momentarily release your mic button (PTT) at least once every 3 minutes.

Courtesy Beep: When a station stops transmitting to a repeater you will hear a short beep called the Courtesy Beep. Its purpose is to let you know that the other station has stopped transmitting and that you can go ahead and do so. (This can be particularly useful if the person on the other end simply stops talking momentarily due to interruption or other distraction but continues to transmit causing your radio to fall silent, leading you to think he has finished transmitting. If you proceed to transmit neither of you will hear what the other says until one of you unkeys. Two stations transmitting simultaneously on the same frequency is called "Doubling".)

The Courtesy Beep also signals the resetting of the Time-out Timer. You don't have to wait for the Courtesy Beep before transmitting but if you don't, the Time-out Timer will not be reset and after 3 minutes without a beep the repeater will time-out and you will have to wait for it to reset itself.

Hang Time: Repeaters have a timer called a Hang Timer that

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Some Basics of Repeater Use

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holds the repeater transmitter on for a preset period (the Hang Time) after a user stops transmitting. The purpose is to prevent the annoyance caused by a repeater constantly shutting down and keying up with every user transmission (called "Kerchunking"). Normal Hang Time is about 5 seconds. (The Hang Time on the 146.85 MHz repeater is a bit short at only about 2 seconds.) Users should not defeat the purpose of the Hang Timer by waiting for the repeater to drop out before transmitting! Of course, there is no need to rush a transmission just to prevent the repeater from dropping out; just don't wait needlessly for it to do so. The normal procedure is to "go" right after the Courtesy Beep. During protracted use it's a good idea to pause for a few seconds occasionally and let the repeater drop out to signal to others that your pausing to allow them to join you or use the repeater if they wish. (On HF, pausing before transmitting to give someone else a chance to join in is called "dragging your feet").

ID: Repeaters, like all other Amateur Stations, are required to identify themselves by call sign at least every ten minutes while in use (usually done with Morse Code but sometimes by recorded artificial speech). Repeaters have a timer to periodically generate an automatic ID called the ID Timer. When the local 148.85 MHz repeater ID Timer has timed out the Courtesy Beep will shift to a slightly higher pitch. It will then insert an ID at the first opportunity. If the repeater is being used with rapid exchanges the ID will hold off until there is a short pause in the "action" before inserting the ID. You should pause and allow the repeater to ID when you notice the higher pitched Courtesy Beep. Since regulations require the repeater ID to be copyable over any conversation on the repeater it is ok to talk during an ID but it may interfere with what your saying. During lengthy conversations is a good idea to use the ID Timer as a reminder to identify your station when the repeater IDs.

Autopatch: The autopatch gives you phone line connectivity and permits making telephone calls from your station. It can be particularly valuable during emergencies. If you bring up the autopatch (deliberately or by accident) and find that you cannot shut it down, don't panic. This is often a problem with handheld radios for example which, due to their low power, may have a noisy signal into the repeater even though they may be hearing the repeater perfectly. Autopatches also have Time-out Timers, typically set at about 30 seconds. (To prevent the repeater from hanging up during an autopatch malfunction since the repeater remains keyed up continuously as long as the autopatch is on.) If you do not transmit for 30 seconds the autopatch will shut itself down. However, every time someone keys their transmitter the timer will be reset for another 30 seconds. By the same token, if you are using the autopatch you must key your transmitter, at least momentarily, once every 30 seconds or less or the autopatch will hang up the connection. You can (must) do this even though the called party is talking. If you wish a long ring time when making a call, momentarily key your radio at least once every 30 seconds during the ringing period or the autopatch will hang up. If the autopatch times out it is not necessary to shut it down since it has already shut itself down. If the repeater shuts down it means the autopatch is off. The autopatch timeout timer is disabled while you are transmitting and cannot timeout while you are talking.

OPERATING ON A REPEATER

To use a repeater you need only tune your radio to the repeater's output frequency, select the radio's "RPT" (repeater) mode, press the push-to-talk (PTT) button, and speak. The repeater will re-transmit what ever you say on its output frequency. When you release the PTT button your receiver will receive everything the repeater transmits back such as any responses to your call. Some repeaters require a "PL" tone for access which must be set and turned on in your radio. (PL stands for "Private Line", a term coined by a two way radio manufacturer for a feature designed to allow only desired stations to be heard while screening out other users of the frequency.) On Amateur repeaters it is used to prevent users of one repeater from keying up other nearby repeaters that share the same frequency or to prevent noise, interference, or "intermod" from keying up the repeater. It works by users sending a low frequency tone while transmitting which must be detected by the receiving station (in this case the repeater) in order for the transmitting station to be heard (repeated). Exclusivity is accomplished between different groups or repeaters by using different PL tone frequencies.

There are standardized operating procedures that have evolved to meet regulatory requirements, streamline operation, and maximize operational efficiency. To use a repeater it is only necessary to ID (IDentify yourself by announcing your call sign) to make your presence known. Some like to add the word "listening" or "monitoring" to indicate that they are willing to accept calls though that is implied when you ID. (Why else would you transmit your ID on a repeater?. If you're not willing to accept calls don't say anything, just listen.) Some will also identify the repeater or frequency they're on by saying something like 146.85 or just '85 for the benefit of those that are monitoring more than one frequency or scanning. Nothing more need be said. If anyone wishes to talk to you they will call you by giving your call followed by theirs. If you wish to call a particular station that you have not yet heard give their call sign a couple of times then yours. It's also helpful to pause for a second after key-up before speaking to give scanning radios time to find and stop on your frequency before you speak so your call is less likely to go unheard. If you don't get a response it's ok to try again but give them time to answer, they may be away from the radio, in heavy traffic, or tied up when you call. Also, don't jump to another frequency immediately if you fail to get a response. It can sometimes take a couple of minutes before someone is free to respond.

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Packet Corner

by Jerry Groeneveld, N0MR

If you lose the parameters in your TNC from power failure, hard reset, or have purchased a used tnc, here is a list of parameters to set. These parameters are for a Kantronics tnc, but are very similar for other brands.

The pacterm terminal program is a good starting program for packet. You can download this program from the kantronics.com web site download page. You can also use Windows Hyperterminal. Set the baud rate for communications from the computer to tnc at 9600 baud and the comm port to generally com1 for most computers. If you do not see any communications and you are sure the cables are correct, try turning the tnc power off and then back on and generally a sign on message will print. If you see nothing, the cables or comm port are wrong. If you see some unreadable characters, the baud rate is wrong.

Parameters are installed when the CMD prompt is visible. If it is not visible, type control C then enter and the cmd prompt will appear. Then just type the parameter without the following information and enter to see the parameter value. If it is not the desired setting, then type the parameter followed by the information and enter. The tnc usually responds with the parameter setting. Some parameters do not respond with the setting but you can check if your setting took effect by just typing the parameter and enter.

Set the following parameters.

abaud 9600
intface terminal
mycall yourcall
mypbbs yourcall-1
mynode yourcall-7.
ctext Packet station of yourcall. PBBS yourcall-1.
Ptext Packet mailbox of yourcall.
ntext Packet node of yourcall.
pbbs 100. If it says not enough memory, set to 5.
numnodes 1
cd software
monitor on
mcom off
mcon off

set echo to on if you need to see characters echoed on the screen or off if you see double characters.

If you are using an old tnc without battery back-up, now issue the parameter, perm, that permanently sets your parameters above in memory in case of a power fail or you shut down.

Connect your radio. Set the squelch fully counterclockwise to open the squelch. Set the volume to about the 10 O'clock level. If there are packet signals in your area, you should see monitored packets on the screen.

Have fun with packet. I'll be looking for your messages.

Jerry, N0MR

Winlink 2000

Winlink 2000 is a worldwide radio messaging system that takes advantage of the Internet where possible. It does this in order to allow the end-user more radio spectrum on the crowded bands. There are three modules in Winlink 2000. Airmail is an automatic message upload and download via the internet, HF pactor, and packet. Telpac is a packet access to Winlink 2000 for manual keyboard message reading and message sending. Paclink is the latest module for automatic message handling using familiar internet mail programs and allows connecting several tncs to one common system.

Airmail (mainly for HF Pactor) is a messaging program (similar to Microsoft Outlook in appearance) specifically designed for connection to an HF radio Winlink 2000 participating station. Airmail is required for a radio user to connect to Winlink 2000 over HF radio. Once connected to a compatible station, message transfer is completely automatic. Airmail also has an option for an Internet connection to the various participating Winlink stations via a Telnet client module. The Telnet option works just as if Airmail was using radio, only, it is obviously much faster. A packet client is possible in areas that have a packet server but not in Minnesota.

Telpac stands for TELnet PACket bridge. Telpac is ideal for temporary emergency setup or unattended remote locations where it can deliver reliable wireless communication to the “last mile”. A packet user can connect to a telpac station and be connected over the internet to the Winlink 2000 message system. Commands are very much like the prompt line from a personal tnc mailbox.

Paclink Post Office is a new implementation of a flexible, personal mini radio E-mail Server that interfaces with most popular E-mail client programs such as Microsoft Outlook or Outlook Express. Essentially Paclink AGW adds packet radio and Telnet channels to Outlook Express. Paclink duplicates the capabilities of Airmail and telpac, but offers much more flexibility to connect multiple tncs to one computer and outputs to the popular E-mail client programs.

In the month to come, we will print procedures for the Winlink modules.

Jerry, N0MR

Some Basics of Repeater Use

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The easiest way to learn new procedures and techniques is to observe others with more experience and follow their lead. However, the best sources of information on accepted standard operating procedures are publications like "Now Your Talking" and "The ARRL Operating Manual". There are many daily examples of pointless, questionable, and incorrect operating practices to be heard on the VHF bands. New ones seem to crop up weekly and spread like the plaque; even some experienced operators who should know better pick them up.

When you operate through a repeater you are not listening to the other stations signal directly, you are listening to the signal from the repeater's transmitter. There is no relationship between the repeaters power output or signal strength and that of the signal it is receiving. Therefore you cannot give another station a signal report based on the strength of the repeater signal you are receiving! As a result, signal reports can only be given based on how well the repeater appears to be receiving a signal. As a clue, FM receivers tend to put out a great deal of noise (white noise, a hissing or rushing sound) when no signal is present. (That's why FM communications radios all have squelches, open the squelch on your radio when no signal is present to see what I mean.) The presence of an FM signal produces an effect called quieting. When an FM receiver detects a signal the noise is reduced, the stronger the signal the greater the noise reduction. A sufficiently strong signal can completely eliminate all of the noise (called full quieting). Here lies the clue for how signal reports can be given. As a rough scale, signals are usually described as noisy, 20 dB of quieting (background noise reduced by about 20 decibels, i.e., some background noise, signal perfectly readable), 30 dB of quieting (only a very slight amount background noise), and "full quieting" (no background noise). There is no advantage to any greater signal strength than that which produces full quieting. Sometimes it can be difficult to tell the difference between a signal received poorly by the repeater and poor reception of the repeater itself by you. It takes experience to learn what to listen for. A good indicator is to listen to the short period after the sending station stops transmitting and the repeater drops out or during a repeater ID when no one is transmitting to the repeater. At both times the repeater receiver will be "squelched" and any noise you hear will be between you and the repeater and not the fault of the other stations signal.

Incidentally, everyone listening to a repeater hears exactly the same thing. It is not possible for someone to hear something on a repeater that you do not unless you yourself are receiving the repeater poorly.

N8LT

Field Day—June 24th & 25th

Field Day 2005— Martin Cole, Don Welch, KC9XJ, Bob Uren, KC8TWG and Dennis Beurjey, KD8AIT, assemble the HF tri-band antenna at Marion Park in Norway.

The time for Amateur Radio Field Day is rapidly approaching. The club will once again be using the facilities at Marion Park in Norway to conduct Field Day operations. Setup of equipment and antennas will begin at 9:00 AM on Saturday morning, June 24th. Operation will commence at 1:00 PM Saturday and will continue through 1:00 PM Sunday afternoon, June 25th.

We will be operating class 2A, which means that 2 transmitters will be in simultaneous operation, not counting VHF/UHF or Get On The Air (GOTA) transmitters, that stations must be located in places that are not regular station locations and must not use facilities installed for permanent station use, or use any structure installed permanently for Field Day use, and that a power source other than the commercial electrical mains will be used to provide power to our transmitting equipment.

Stations will be set up to operate/demonstrate, digital, single side band, CW (Morse code) and packet communications. A QRP (low power) solar powered station will also be in use.

Our packet station will be operating under the callsign of KC8VC with a mailbox ID of KC8VC-1. So, drop us some mail to help demonstrate this mode of communication. We should be able to receive via the MIIMTB or MIIMT Lan.

We would like to see all club members take part in the activities. Whether you can spare a few hours out of your weekend or just a few minutes, why not drop by and share in the camaraderie. You are welcome to participate in any of the activities or bring a folding chair and just relax and enjoy the park.

We encourage our new hams, prospective hams and those that have not been active in amateur radio for a while to take advantage of the opportunity to operate the GOTA station. A control operator will be on hand to help you make Field Day contacts

with other stations throughout the United States, Canada and Central and South America.

We are improving our score each year, with the greatest improvement shown on the GOTA station. GOTA operators took great pride in making 112 QSOs, including one with a station in the Virgin Islands, during the 24 hour operating period last year. As a group we worked 49 out 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.

Field Day 2005—Bob, KC8TWG, makes a GOTA contact, while Dennis, KD8AIT, logs it and Terry, KB9ZER, looks on.

Last Year's Stats:

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

A critique of our club's effort for Field Day 2005 showed a need for the following improvements: 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 beam to the tower, provide late-night food/snacks to help keep the operators going.

The more members that participate, the more fun we can have. Remember, even though we can get caught up in a spirited competition with other clubs or in just trying to improve upon last year's results, this is not a contest. It should be a fun event and at the same time allow us to demonstrate that we are able to set up communications in an emergency/disaster situation. It is a time that we can "learn by doing" and also a time that we can educate the public about the capabilities of amateur radio.

I hope to see you there!

73,

Mike, K8DDB

U.P. Hamfest 2006

Make plans now to attend U.P. Hamfest 2006 on August 5th at Escanaba. The Hamfest is sponsored by the Delta County Amateur Radio Society and Bay de Noc College. Events include Swap & Shop, Meetings and Door Prizes.

The Hamfest will be located at the Joseph Heiman University center at Bay de Noc College. The college is on the North end of Escanaba along the combined highways of US2 and 41 and M35.

Directions from the North or East: After crossing the Escanaba River, turn right at the second traffic light (Danforth Road), travel one block and turn right into Parking Lot D.

Directions from the South or West: US2 and 41 combine with M35 in Escanaba. Take M35 North until passing under the viaduct, turn left at the first traffic light onto Danforth Road, travel one block and turn right into Parking Lot D.

GPS coordinates are N45 Degrees, 46.226 Minutes and W87 Degrees, 5.087 Minutes.

Talk-in on the 147.150 repeater.

Hamfest information can be found on the DCARS website: http://www.dcars.org

Contact Hamfest Chairman, John Anderson for information or table reservations at wd8rth@dcars.org

May 9th Meeting Minutes

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ter monoband vertical antenna. The 146.850 repeater was transferred to the primary repeater antenna at 120 feet. Packet node MIIMT was transferred to the antenna on the temporary tower. Bob, WA8FXQ, secured loose cables, clamps, etc with nylon tie-wraps. Last Sunday we mounted a Diamond dual-band antenna at 80 feet and ran 1 inch Heliax from the antenna to near the base of the tower. Lee will order 25 feet of hard-line, two N-connectors and a Polyphaser lightning arrestor needed to complete the installation

Old Business:
Tom, W8JWN, purchased a Glen Martin climbing harness and was reimbursed with funds from the Repeater Savings account. The harness has a lanyard for the chest as well as one for the hips. Tom will have custody of the harness.

Bob, KC8TWG, will resume work on the Field Day tower now that his work on the repeater is complete.

Tom, W8JWN, met with Scott Celello, Dickinson County Office of Emergency Services. Scott was very receptive to using our ARES/RACES group to assist his department in emergencies. He will have photo ID cards made and will check about providing funds for magnetic ARES signs for our vehicles. He will provide us with 2 hand held radios for our use while in the field. Tom and Dennis, K8SWX, will attend a meeting with Don Brown of State Police Emergency Services on May 23rd at 10 AM.

Members were reminded that Skywarn season is here. Storm spotter training will be provided by the National Weather Service, tomorrow at 6:30 PM in the Dickinson County Correctional Center, lower level.

Steve, KC8CCP, volunteered to take over the newsletter editor's job from Mike, K8DDB.

Field Day is June 24th and 25th. We discussed our readiness for the big weekend and will have a detailed planning session after the June business meeting.

New Business:
None

Adjournment:
The meeting was adjourned at 7:42 PM.

Submitted by: Mike Bray

Attendees:
Mike Bray, K8DDB (Secretary)
Lee Michaud, N8LT
John Hurschik, KB8DSC (guest)
Mike Boileau, N9NBN (Vice President)
Tom Martin, W8JWN (President)
Rand Hruska, KD8DJL (guest)
David Carey, KD8DJP (guest)
Burt Armbrust Sr, WB8EBS
Steve Skauge, KD8CCP
Terry Moriarity, KB9ZER

For Sale

- Mosley TA-33C HF Triband Beam with Manual
- Cushcraft 2 Meter Beam with Manual
- CDR Model CD-Ham II Rotor (has brake) with Controller and Manual
- 30 or 40 Foot Tower

All of the above items are on the ground.
Please make offer to:
Don Schettler, WA8AYG
901 Blaine
Iron Mountain, MI 49801
(906) 774-4337

2 Meter Mobile Transceivers:

- Icom IC-28A w/mic $125
- Kenwood TM-241A w/mic $110
- Kenwood TM-261 w/mic $80
- Kenwood TR-7400 w/mic $95
- Icom IC-2000H w/mic $140

Bob Uren, KC8TWG
rjuren@chartermi.net
(906) 779-1708

ICOM 706MK2G with original box, mic, power cord, manual plus RJ45 to 8pin mic adapter, manual antenna tuner plug, service manual on CD, face plate separation cable and bracket. Excellent Condition. Has general coverage / MARS / CAP 60 m mod. Works and looks new. I recently purchased this from 2nd party. I have never hooked it up or used it. $700.00

Pyramid Regulated DC Power Supply, Model: PS-36KX was purchased to use with the Icom 706, but no longer interested..$120.00

The Pyramid and the Icom 706 will be sold as a unit.
Randy, kb9zes jupiter49801@hotmail.com
715-324-5429

Club Apparel:
Our club apparel is supplied by:

Shirt Tails
408 S Stephenson Ave.
Iron Mountain, MI 49801

Phone: (906)774-3370
or
finleyd@up.net

Prices:

Jacket with liner $45
(Tall add $5, 2X or 3X add $5, to add your name or call sign on the front is $5)

T-Shirt - $10
(2X or 3X add $1)
Sweatshirt - $16
(2X or 3X add $2)

If you wish to have the club logo printed on an item of clothing that you have purchased elsewhere, there is charge of $6.

Club patches are available from:

Tom Martin, W8JWN
812 West B Street
Iron Mountain, MI 49801

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

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

Please remit dues to:
Dennis Beurjey, K8SWX
612 Balsam Street
Kingsford, MI 49802

Name: _____
Address: _____
City, State, Zip: _____
Call Sign: _____
Email Address: _____
Phone: _____
ARRL Member? Yes _____ No _____

Annual dues are due in January—Please make checks 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.

**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 5, 2006
Exam Date: Nov 4, 2006
Exam Date: Feb 3, 2007
Exam Date May 5, 2007

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 (2006 fee is $14).

Mich-A-Con RF is published by the Mich-A-Con Amateur Radio Club of Iron Mountain.

Items for Mich-A-Con RF should be in the editor's hands by club meeting day (2nd Tuesday of the month) to be included in that month's edition. Please consider writing an article related to Amateur Radio to share with your fellow members. Send the article in plain text and attach any photos, etc., don't worry about format, that's the editor's job.

Send to:
mikebray@chartermi.net
(906) 563-7020

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.

An ARES/RACES net is held on the 146.850 repeater every Thursday at 6:30 PM. Dennis, K8SWX is the net manager.

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:
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tmartin@chartermi.net

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n9nbn@netnet.net

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(906) 563-7020
mikebray@chartermi.net

Treasurer:
Dennis Beurjey, K8SWX
(906) 771-1996
dbeurjey@msn.com

Reminders

Club dues for the year 2006 were payable on January 1st. Please use the Membership Application/Renewal form on page 9 of this newsletter. Checks should be made payable to Mich-A-Con ARC and sent to our Treasurer, Dennis Beurjey, K8SWX, at the address listed on the form. Thank you for supporting our club!

The monthly meeting for June is on TUESDAY the 13th at 6:30 PM in the Grace United Methodist Church, 721 Norway Street, Norway, Michigan. (Upstairs in the room next to the sanctuary.)

Don't forget to set aside some time for Field Day on the weekend of June 24th and 25th.