

Mich-A-Con RF

Iron Mountain, Michigan

August 6, 2013

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

Words from the President

Tom W8JWN

I recently returned from my annual Canadian fishing trip in time to get these "Words" together for the newsletter. While on the trip, I had a chance to talk to Bill Bertoldi, KB8SBP, the Kingsford High School Rocket Club adviser, about getting his students interested in ham radio. At one time quite a few young hams came from his program. With the death of Lee Michaud, N8LT, who, along with Bob Meyers, WA8FXQ, was an active participant in the electronics involved with rocket building, students were no longer exposed to his expertise.

Bill still uses radio as a part of his rocket launches. Through Radio Direction Finding payloads can be tracked. He conducts Fox Hunting exercises on 220 MHz band to prepare the students for this recovery. Many years ago, our club conducted Fox Hunts. Possibly, it's time to get the club again involved in this activity in conjunction with the KHS club.

Also, while soaking a leech, I had time to think about our poor turnout at club meetings. It seems that since I've been president, Tuesday evenings haven't been the best night for meetings. It is difficult to find a night that suits everyone in the club. However, if we can get more members at the meetings, I'm willing to

change the meetings back to the second Wednesday of the month. This will be discussed at the next meeting on Tuesday, August 13th, at the Dickinson County Library.

At the last meeting, those members at the Dickinson County Sheriff's Department building discussed the state of our 2 meter repeater. It was concluded that an antenna with more gain was needed to increase our coverage. This will also be discussed at the next meeting.

For those interested in packet, Mike Bray, K8DDB, informed me that Pat Servia, KC8EMF, and Jerry, N0MR, request that we change the operating frequency of our MIIMT LAN to 145.01. We'll discuss this at the next meeting.

This evening I noticed a definite chill in the air. Is fall rapidly approaching? If so, is it time to connect the antennas? See if the radios and amps still work? Check the propagation numbers and DX clusters?

After unpacking and storing my fishing gear, I realized that it just might be time to go back to my first love...ham radio!

Good day to all. I am emailing you to inform you of a planned activation of amateur radio on Isle Royale Michigan. The date is August 10 –11, 2013. We will commence operations at 0000z on August 10 and end at 2359z on August 11. If you go to www.n8i.org you can see all our info. We are using this opportunity to demonstrate ham radio capabilities in a remote area as well as to test capabilities from the Island to amateur radio communicators in Minnesota, Michigan, Wisconsin, and Canada. The planned frequencies are on the webpage. We will look forward to working with you as we test out our plan.

Thank you and 73

Doug Nelson AA0AW
N8I team leader
ASRT-Leader
MnARES EC South St. Louis County

**Mich-A-Con Amateur Radio Club
Minutes of the July 9th, 2013 Meeting**

President Tom Martin called the meeting to order at 7:08 p.m. in the lower level conference room of the Dickinson County Sheriff's Department building.

Secretary Report

Motion by Terry Moriarity, K9TRY, support by Scott Jarmusch, KA8TFF to suspend the reading of the June 11th, 2013 minutes as they are available on the clubs website.

Treasurer Report

Membership Dues Received: \$ 5.⁰⁰

Checks were written to: Armbrust, Ground Bar \$7.⁹⁴; AT&T \$28.⁰⁶; Auto Owners Insurance \$396.⁰⁰; Overdraft charge \$30.⁰⁰

Balances as of July 6th, 2013	
Checking	\$ 9.34
Regular Savings	\$ 1 81.58
Trailer Fund	\$1850.70
Repeater Savings	\$1069.97
Petty Cash	\$ 7.00

Repeater Report

Working poorly per Sam. Some days the range is OK, other days it's bad.

ARES

Inconsistent nets with poor turnout when it does meet.

Old Business

Field Day – club did not participate this year. Conditions were generally poor.

Repeater phone patch was disconnected to save about \$26/month AT&T bill.

President Tom will talk to Bill Bertoldi of the Kingsford High School rocket club to try to recruit youth by having a club program for them.

New Business

Terry and Sam discussed the idea of beefing up our repeater to add range in an attempt to increase usage. Changing the antenna to co-phased dipoles with 60 db gain and full quieting with new hardline all the way up to 120' was discussed. Pete has a used 20' fiberglass antenna in the 150 range he may be able to donate to the club which could accomplish the objective. Tom is

going to seek a hardline donation. Discussion will continue at the August meeting.

What are we going to use the trailer fund money for? Insurance cost will deplete it in four to five years.

Congratulations Dave Thomas, KG9Y on his first DXCC.

Adjournment

The meeting was adjourned at 7:50 p.m.

Tour

Pete gave a tour of the 911 center. The new equipment should be installed by September.

Emergency Services Office

Tom gave a short demo on the voice and digital on the Kenwood TS-2000 in Pete's office. The digital wouldn't receive or transmit. Sam was able to diagnose the digital problem to either the laptop sound card or the RigBlaster Pro. Adding an 80 meter dipole antenna was discussed with Pete. He's going to look into having two 10' antenna supports installed on opposite corners of the roof.

Submitted by Paul Schultz

Attendees

Tom Martin, W8JWN - President
Scott Jarmusch, KA8TFF - Vice President
Paul Schultz, KD8KUF – Secretary
Terry Moriarity, K9TRY
Sam Holmes, N8ATS
Pete Schlitt, KC8JRH

Links

ARRL WEB PAGE: <http://www.arrl.org>

FCC Universal Licensing System:
<http://wireless.fcc.gov/uls/>

ARRL MICHIGAN:
<http://www.arrl-mi.org/>

QTH.COM: <http://www.qth.com/>

US REPEATERS:
<http://www.usrepeaters.com>

QRZ.COM: <http://www.qrz.com/>

MICH-A-CON :
<http://www.qsl.net/ka1ddb>

Ehamnet.com:
<http://www.eham.net/>

Tropospheric Ducting Forecasts:
<http://www.dxinfocentre.com/tropo.html>

U.P. Skywarn: <http://kcra-mi.net/skywarn/>

CCRAA PACKET RADIO 2013

From an email sent by Bob Meyers and Tom Martin

On Thu, Jul 25, 2013 at 3:07 PM, Vance Nelson <vbnelson@gmail.com> wrote:
Please find attached in MSWord and included herewith a first cut of documentation on our packet radio system.

Please advise of gross errors or omissions as well as comments.

KC8RGO

CCRAA PACKET RADIO 2013

Revised: 07/25/2013

By: KC8RGO

Note: The original documentation on Packet Radio was prepared by George Thurner and Bryan Suits. It was called Packet Primer III and is available in the club archives. This revision by Vance Nelson (KC8RGO) reflects the 2013 changes to the Packet Radio Network operated by the CCRAA.

PACKET RADIO

INTRODUCTION: The Copper Country Radio Amateur Association provides the local area with several packet radio systems as a service to the ham radio community. All packet nodes operate on 145.01. The CCRAA Packet Network allows operators to connect to sites that are beyond the normal "line of sight" limits of voice over 2 meter radio. An operator may incorporate several of the CCRAA nodes to link to services that are outside of our area and in fact outside of our country. Traditional packet radio provided store and forward messaging services with reliable error correction. The newer digital modes and software (RMS EXPRESS) now provide linkage to the internet e-mail via the packet network system.

PURPOSE OF PACKET RADIO: The mantra of amateur radio is "WHEN ALL ELSE FAILS, AMATEUR RADIO IS THERE". Packet Radio started well before the advent of text messaging on cellular phones. Packet Radio operators could send and receive messages (like text messaging) on their systems at any time without having to be present for the voice conversation. Files of information could be transferred between operators. Cellular phone text messaging has replaced much of the "hobby" texts of packet radio, but "when all else fails" packet radio systems and amateur voice radio can and do take the place of cellular systems and the internet.

HARDWARE: The CCRAA system (Terminal Node Controllers - TNCs) is primarily on Kantronics KPC3+ Packet Communicators. Power from various brands of radios ranges from 25 to 45 watts. The system supports traditional packet radio operation with the concept of nodes and also supports digipeating in support of newer digital software. The node MIHTN is still TNC-2 architecture.

CCRAA BACKBONE: Packet Radio systems are located near the Houghton-Ontonagon County line at Donken, MI, above the ski hill in Hancock, at the CCRAA Clubhouse in Osceola and at Mt Horace Greeley in Keweenaw County.

Private nodes include N8WAV-10 in Houghton and VA3ROM-10 in Thunder Bay, Ontario, Canada for Remote Mail Services (RMS) via packet radio on 145.01.

CCRAA BBS (Bulletin Board System); located at the CCRAA Clubhouse (CMXBBS).in Calumet.

CALL SIGN: The CCRAA system uses the Club call sign of W8CDZ.

Secondary call signs such as:W8CDZ -1, -2 etc, are used to differentiate the different nodes, using the call sign of W8CDZ.

PACKET STATION IDENTIFIER: Packet Radio systems often use the aircraft designators for their locations.....hence Calumet becomes CMXMarquette is MQT....and so on.

CCRAA's CALL SIGN and STATION IDENTIFIERS

CALLSIGN FREQUENCY IDENT LOCATION /SERVICES

W8CDZ-1	145.01 MHz	MICMX	CALUMET,MI
		CMXBBS	Bulletin Board
		CMX	Digipeater
			APRS node at Calumet
W8CDZ-2	144.39		
W8CDZ-3			
W8CDZ-4	145.01	MIHTN	HANCOCK, MI
			TNC-2 no BBS, no DIGI
W8CDZ-5	145.01	MIDONK	DONKEN, MI
		DONKEN	Digipeater
			NO BBS
W8CDZ-6	145.01	MIKWNW	KEWEENAW COUNTY
		GRLY	Digipeater
			NO BBS

BACKUP POWER SYSTEMS: The systems at Calumet and Hancock both have backup power supplies (batteries). The Calumet location has a 10 KW alternator in addition to the backup batteries. The Hancock system has a backup generator.

The installations at Donken and Keweenaw have limited battery backup.

EXAMPLES OF PACKET RADIO OPERATION

1. To connect to the CMXBBS (Bulletin Board System)

C CMXBBS

L (Lists messages)

R# (where # = the number of the message) Example: R 12 will read back message #12.

B (The ~bye~ command)

D (Disconnect command)

SB ALL (Will send a bulletin to all)

Other functions: Type: ?

2. To connect to CMXBBS from Ontonagon areas

C DONKEN

C CMXBBS

Note: You may be able to connect to any of our nodes direct - this is an example of connection via multiple nodes.

3. To get mail from a WINLINK ACCOUNT.

C N8WAV-10

RM

Or from the hinter lands:

C VA3ROM-10 VIA DONKEN, GRLY

RM

Examples 2 and 3 are best replaced with the use of RMS EXPRESS.

MORE ABOUT PACKET RADIO

WHAT IS PACKET RADIO? A popular ARRL publication describes it as: A system of digital communications whereby information is broken into short bursts. The bursts (packets) also contain addressing information and error-correcting information.

WHAT UNITS MAKE UP A PACKET RADIO SYSTEM?

By combining a radio, a computer, a device called a TNC (pronounced tee-en-see) short for terminal node controller and an antenna system you have the makings of a packet radio system.

WHAT ARE THE ADVANTAGES OF PACKET RADIO?

It is high speed, error free radio communication that lends itself well to the transfer of large amounts of data by radio. It is spectrum efficient, allowing several stations to share a common (simplex) channel at one time, without interfering with one another. It is a network; meaning.....several stations can be linked together to send messages over long distances using amateur radio. It is message storage: Messages can be entered and/or forwarded to packet bulletin board systems for later retrieval.

HOW DOES IT WORK?

It has a header and FEC (Forward-error-correcting) capabilities, that insures 100 percent accuracy, unlike RTTY (radioteletype) that is subject to atmospheric disturbances (noise), fading, etc.

GETTING STARTED:

Once again, What do I need to get started? Answer: A radio, a computer, a power supply and a TNC; and of course an antenna system. Most amateurs already have the radio, computer and antenna system, so the start-up cost is minimal. All that is needed is the TNC. The TNC is connected to the computer via the computer's serial port.

WHAT DOES A TNC DO?

A lot of things! Basically it decodes the information to/from the computer and radio and assembles it into packets.....hence the name packet radio. The TNC has a number of parameters built into it, and the assembly of packets is done automatically without the operators' intervention. All silently.....within the TNC!

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Vance

Ham Radio Call Sign: KC8RGO

Marine: WDC8319

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Doug Polzien

L105 EERC 906-487-0053

V.E. TESTING:

11/2 Iron Mountain: 9:30am central time, Dickinson County Library(conference room), contact Mark J. Lewis N8UKD, Fairmount St. Kingsford, Mi 49802. Examinees must be pre-registered. (906-776-1553).

9/14 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. You must pre-register by Tuesday preceding the test date. Contact Rich Schwenke, N8GBA at 906 249-3837 e-mail: n8gba@chartermi.net or Greg KI8AF 906 225-1594 ki8af@arrl.net.

10/5 Hancock: 8:30am eastern time, The Zion Lutheran Church, 400 Ingot St Hancock, Mi. Go north on hwy 41 (Quincy Hill) near the lookout. Turn left on Ingot up about one block. The church is on the left hand side of the street. This is a barrier free entrance for the handicapped Contact Glenn Ekdahl, WA8QNF at (906) 482-7743 or email: wa8qnf@arrl.net if you have questions. You can now take a Hamexam "Anytime". Contact Glenn, WA8QNF at (906)482-7743 for details.

10/12 Gladstone: Sponsor: Delta County Amateur Radio Society Time:10:00 AM (Walk-ins welcome) Contact: Dave Palmgren N8DP, (906) 428-2271, n8dp@dcars.org Vec: ARRL/VECLocation: Gladstone City Hall Main Meeting Room 1100 Delta Ave Gladstone, Mi. 49837.

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. Note: If you have been assigned a FRN from the FCC you must use it on all forms rather than your SSN

August 2013						
Sun	Mon	Tue	Wed	Thur	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
25	26	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 Club meets the second Tuesday of the month at the Dickinson County Library at 7:00 PM. 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.

Club Repeaters:

The club maintains two repeaters, which are located on Pine Mountain (Elevation 1650 ft) 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.

Repeater Specifications;

The 146.85 repeater is a GR Master Pro, 40 watt output repeater. The 440 repeater is a GE Master Pro, 80 watt. The repeaters share a Diamond dual band antenna at a tower height of 125 ft.

**Please remit dues to :
Burt Armbrust WB8EBS
693 Cliff St
Quinnesec, Mi. 49876**

Name: _____
Call Sign: _____
Address: _____
City, State, Zip _____

**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: _____
City, State, Zip _____
Call Sign: _____
Email Address: _____
Phone: _____
ARRL Member? Yes____ **No** ____

Annual dues are Payable January 1st.

**Dues for New Members are Pro-rated.
Please remit \$1.67 per month for a Single
membership or \$2.50 per month for a
Family membership.**

Club Meetings:

The Mich-A-Con Amateur Radio Club meets on the second Tuesday of the month in the Dickinson County Library at 6:30 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:

Scott Jarmusch KA8TFF
s_jarmusch@yahoo.com

Secretary:

Paul Schultz KD8KUF
(906) 774-8900
pauls@schultzequipment.com

Treasurer:

Burt Armbrust WB8EBS
(906) 774-8383
wb8ebs@yahoo.com

Reminders:

Club dues for the year 2013 are payable on January 1st. Please use the Membership Application - Renewal form when paying your dues. Checks should be made payable to : Mich-A-Con Arc and sent to our Treasurer, Burt Armbrust WB8EBS at the address listed on the form. Thank-you for supporting your club!

**The Next Mich-A-Con Meeting will be held on:
Tuesday August 13 , 2013. It will be held in the Dickinson County
Library at **6:30 PM****

Wanted:

**Your Articles, Your pictures
and your Input for the
Newsletter!**

Send them to:

[**kd8ccp@arri.net**](mailto:kd8ccp@arri.net)