

# Mich-A-Con RF

Iron Mountain, Michigan

March 2005

## In this issue:

Charging The Lead-Acid Battery

March Meeting Minutes

Buy-Sell-Trade

CCRAA Swap-N-Shop

Upcoming Activities

Club Activity Calendar

ARES

ARRL Field Day 2005

Area News

2005 Club Dues are Due

Club Equipment List

The Novice Special Claims Hawaii

Dickinson County ARES

QRP-Try It, You'll Like It!

Help Needed for Special Event

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

## Charging The Lead-Acid Battery

The charge algorithm for lead-acid batteries is similar to lithium-ion but differs from nickel-based chemistries in that voltage rather than current limiting is used. The charge time of a sealed lead-acid battery is 12-16 hours (up to 36 hours for larger capacity batteries). With higher charge currents and multi-stage charge methods, the charge time can be reduced to 10 hours or less. Lead-acid cannot be fully charged as quickly as nickel or lithium-based systems.

It takes about 5 times as long to recharge a lead-acid battery to the same level as it does to discharge. On nickel-based batteries, this ratio is 1:1, and roughly 1:2 on lithium-ion.

A multi-stage charger first applies a constant current charge, raising the cell voltage to a preset voltage (Stage 1 in Figure 1). Stage 1 takes about 5 hours and the battery is charged to 70%. During the topping charge in Stage 2 that follows, the charge current is gradually reduced as the cell is being saturated. The topping charge takes another 5 hours and is essential for the well being of the battery. If omitted, the battery would eventually

lose the ability to accept a full charge. Full charge is attained after the voltage has reached the threshold and the current has dropped to 3% of the rated current or has leveled off. The final Stage 3 is the float charge, which compensates for the self-discharge.

Correct settings of the voltage limits are critical and range from 2.30V to 2.45V per cell. Setting the voltage limit is a compromise. On one end, the battery wants to be fully charged to get maximum capacity and avoid sulfation on the negative plate. A continually over-saturated condition at the other end, however, would cause grid corrosion on the positive plate. It also promotes gassing, which results in venting and loss of electrolyte.

The voltage limit shifts with temperature. A higher temperature requires slightly lower voltages and vice versa. Chargers that are exposed to large temperature fluctuations should be equipped with temperature sensors to adjust the charge voltage for optimum charge. Figure 2 compares

*(Continued on page 3)*

## Mich-A-Con ARC March 8th Meeting

The meeting was called to order by Vice President Mike Boileau, N9NBN, at 6:33 PM.

### Secretary Report:

The minutes of the February 8<sup>th</sup> meeting were read and approved.

### Treasurer Report:

The Treasurer's Report was presented by Mike, K8DDB. As of this meeting we have \$262.89 in checking, \$2,085.22 in the savings account, \$1,512.38 in the repeater account and \$28.00 petty cash. Total dues received this year: \$410.00 (15 members on last year's roster have not yet paid their dues.) Bills paid since last meeting: WE

Energies Pine Mountain Repeater; \$30.00, WE Energies Felch Repeater, \$23.03; SBC, \$30.52; Grace United Methodist Church, \$50.00; SBC (after long distance change), \$22.83; Frankenthum Insurance, \$165.00.

### Repeater Report:

No report – Lee, N8LT, was absent.

### Old Business:

Pat, KC8EMF, will turn the tower over to the club after the spring thaw.

The secretary will send a letter and \$50 check to

*(Continued on page 8)*

## Buy-Sell-Trade

### Wanted

- Hallicrafters SX-101 receiver (might also consider National 300 series receivers)
- Hammarlund HQ-170-180
- Collins KWM2 or 2A, or Collins receivers

Monte, K9DZD  
(906)542-3802

### For Sale

Drake Model MN-4 Antenna Matching Network, 200 Watts—\$125.00

CDE Ham II Rotors W/manual

- 1 unit complete with Box - \$200.00
- 1 unit No control Box - \$125.00

Kenwood TS-520 H.F. Transceiver, External VFO, External Speaker, Desk Microphone, Mobile Cables—\$450.00

Model 232 MBX PackRat 232- W/ Cables \$200.00

RG-58 and RG-8 coax in various lengths, some with connectors on.

- RG-58 - \$.10 per foot
- RG-8 - \$.20 per foot

Diamond X200A Dual Band 2 mtr /440 mtr Vertical Antenna—\$75.00

Bill Lukes, WB9SYG  
408 Lane Avenue  
Kingsford, MI 49802  
[blukes@chartermi.net](mailto:blukes@chartermi.net)  
(906)774-4381

See the club website for more ads:  
<http://www.qsl.net/ka1ddb/>

## CCRAA Swap-N-Shop

The annual CCRAA Swap will be held on Saturday, April 30, 2005 (The last Saturday in April), at the VFW Hall in mid-town Chassell. Setup on Friday night, April 29, or at 9 am Saturday. Doors open to the general public at 10:00am. No sales prior to 10am.

## April Club Activities

Please join us for the Tnn (Tuesday night net) on the 5th, 19th and 26th at 6:30 PM on the 2-meter repeater (146.85.) Dennis, KD8AIT, is our Net Control Operator.

Club meeting on Tuesday the 12th at 6:30 PM in the Grace United Methodist Church, 721 Norway Street, Norway Michigan. The meeting room is upstairs next to the Sanctuary.

Saturday Morning Breakfast, 9:00 AM on the 16th at the Holiday Kitchen in Iron Mountain, on US-2 across from Econo Foods.

## Mich-A-Con ARC Activities for April 2005

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

### Contests

Missouri QSO Party  
1800 Apr 2-0500 Apr 3 and  
1800-2400 Apr 3

Montana QSO Party  
2300 Apr 3-2300 Apr 4

QRP ARCI Spring QSO Party  
1200 Apr 9– 2400 Apr 10

Georgia QSO Party  
1800 Apr 9-0359 Apr 10 and  
1400-2359 Apr 10

Michigan QSO Party  
1600 Apr 16-0400 Apr 17  
Club Competition – All Michigan clubs with at least two or more credited scores will be included in club competition, with a plaque awarded to the club with the highest score. It is not necessary for the Michigan club to submit a roster or list of claimed entrants, but entries that are members of a Michigan club should indicate such on their summary sheet so that their score may be credited to their club.

Florida QSO Party  
1600 Apr 23-0159 Apr 24 and  
1200-2159 Apr 24

Nebraska QSO Party  
1700 Apr 23-1700 Apr 24

Contest dates are UTC see the ARRL web site April Contests or April QST for more information and for a complete listing of contests:  
<http://www.arrl.org/contests/>

### 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](mailto:mikebray@chartermi.net)

**License Study Materials Available from the ARRL:**

**Technician Class:**

*Now You're Talking* - 5th edition - Order No. 8810 \$19.95

*ARRL's Tech Q&A* - 3rd edition - Order No. 8829 \$12.95

*ARRL Technician Class Video Course* - 4th ed. DVD Course No. 9116 VHS Course No. 8837 \$149 each + \$12 s&h

**General Class:**

*ARRL General Class License Manual* - 5th ed. Valid beginning July 1, 2004 - Order No. 9205 \$16.95

*ARRL's General Q&A* Valid beginning July 1, 2004 - Order No. 9213 \$12.95

*ARRL General Class Video Course* Order No. 8349 \$149 + \$12 s&h

*Your Introduction to Morse Code* - Pass 5 wpm test Cassettes No. 8322 Audio CD No. 8314 \$14.95 each

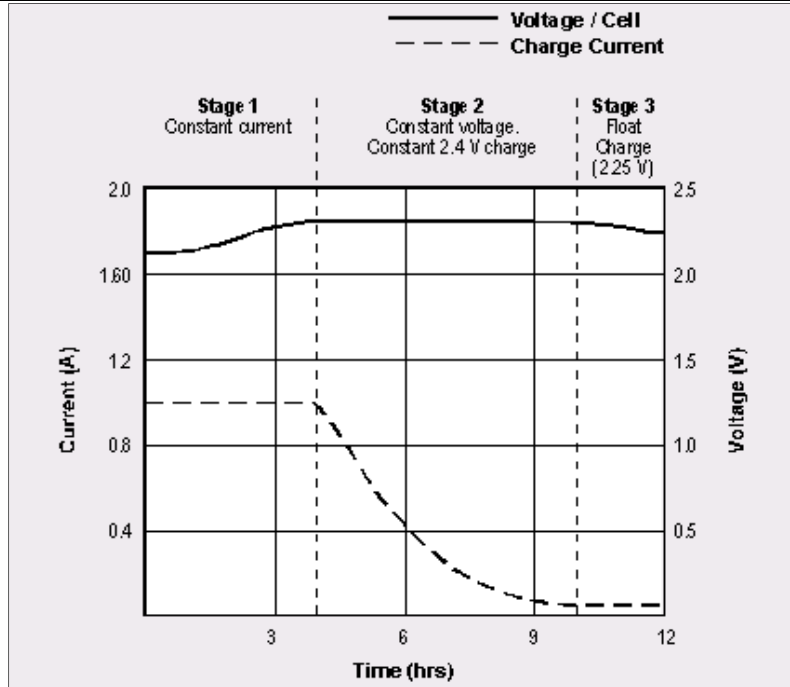
*Ham University - Complete Edition* - Learn Morse code with this easy to use software. Includes a written exam quiz generator with all three question pools. CD-ROM for Win95-XP Order No. 8735 \$39.95

Phone: 1-888-277-5289 or

<http://www.arrl.org/catalog/lm/>

<http://www.arrl.org/catalog/8330/>

<http://hamuniversity.com>



**Figure 1:** Charge stages of a lead-acid battery.

*Stage 1. The battery charges at a constant current to a set voltage threshold*

*Stage 2. As the battery saturates, the current drops*

*Stage 3. The float charge compensates for the self-discharge*

(Continued from page 1)

the advantages and limitations of various peak voltage settings.

The battery cannot remain at the peak voltage for too long; the maximum allowable time is 48 hours. When reaching full charge, the voltage must be lowered to maintain the battery at between 2.25 and 2.27V/cell. Manufacturers of large lead-acid batteries recommend a float charge of 2.25V at 25°C.

Car batteries and valve-regulated-lead-acid batteries (VRLA) are typically charged to between 2.26 and 2.36V/cell. At 2.37V, most lead-acid batteries start to gas, causing loss of electrolyte and possible temperature increases. The exceptions are small sealed lead acid batteries (SLA), which can be charged to 2.50V/cell without adverse side effect.

The cylindrical Cyclone by Hawker requires a very high peak voltage of 2.60V/cell. Failing to apply the recommended voltage threshold causes a gradual decrease in capacity due to sulfation. Follow manufacturer's recommended settings on these lead-acid variations.

Large VRLA batteries are often charged with a float-charge current to 2.25V/cell. A full charge may take several days. It is interesting to observe that the current in float charge mode gradually increases as the battery ages in standby mode. The reasons may be electrical cell leakages and a reduction in chemical effi-

ciency.

Aging affects each cell differently. Since the cells are connected in series, controlling the individual cell voltages during charge is virtually impossible. Even if the correct overall voltage is applied, a weak cell will generate its own voltage level and intensify the condition further.

Much has been said about pulse charging lead-acid batteries. Some experts believe there is a benefit in reduced cell corrosion but manufacturers and service technicians are not in full agreement on the effectiveness. There are also disagreements on the 'equalizing charge'. An equalizing charge raises the battery voltage for several hours above that specified by the manufacturer. Although beneficial in reversing sulfation, the side effects are elevated temperature, gassing and loss of electrolyte if the service is not administered correctly. A periodic discharge of about 10% is said to benefit the battery but little conclusive evidence is available.

Lead-acid batteries must always be stored in a charged state. A topping charge should be applied every six months to avoid the voltage from dropping below 2.10V/cell on an SLA. Prolonged storage below the critical voltage causes sulfation, a condition that is difficult to reverse. See also: "How to restore and prolong lead-acid batteries:

<http://www.batteryuniversity.com/parttwo-35.htm>

(Continued on page 4)

# Charging The Lead-Acid Battery

(Continued from page 3)

## Charging lead-acid batteries with a power supply

Lead-acid batteries can be charged manually with a commercial power supply featuring voltage regulation and current limiting. Calculate the charge voltage according to the number of cells and desired voltage limit. Charging a 12-volt battery (6 cells) at a cell voltage limit of 2.40V, for example, would require a voltage setting of 14.40V.

The charge current for small lead-acid batteries should be set between 10% and 30% of the rated capacity (30% of a 2Ah battery would be 600mA). Larger batteries, such as those used in the automotive industry, are generally charged at lower current ratings. Cells constructed of a non-antimonial lead grid material allow higher charge currents but have a lower capacity. The cylindrical Cyclone is sealed and can sustain a pressure of up to 3.5 Bar (50 psi). A pressurized cell assists in the recombination of gases.

Observe the battery temperature, voltage and current during charge. Charge only at ambient temperatures and in a ventilated room. Once the battery is fully charged and the current has dropped to 3% of the rated current, the charge is completed. A good car battery will drop to about 40mA when fully charged; a bad battery may not fall below 100mA.

After full charge, remove the battery from the charger. If float charge is needed for operational readiness, lower the charge voltage to about 13.50V (2.25V/cell). Most chargers perform this function automatically. The float charge can be applied for an unlimited time.

## State-of-charge reading based on terminal voltage

The state-of-charge of a lead-acid battery can, to a certain extent, be estimated by measuring the open terminal voltage.

Prior to measuring, the battery must have rested for 4-8 hours after charge or discharge and reside at room temperature. A cold battery would show slightly higher voltages and a hot battery would be lower.

## Battery as a buffer

While dwelling on float-charge, an external load can be connected to a lead-acid battery. In such a case, the battery acts as a buffer. Micro-towers on cell sites work this way. During

off-peak periods, the batteries get fully charged. On peak traffic times, the load exceeds the net supply provided by the rectifier (charger) and the battery supplies the extra energy. A car battery works in a similar way.

When configuring a battery as a buffer, make certain that the battery has the

opportunity to fully charge between loads. The net charge must be greater than what is drawn from the battery. Some chargers switch to fast charge after a deep discharge, others

simply use the float charge to recharge. Allow up to 48 hours to fully recharge on float charge. Deep discharges should be avoided if possible. Assume that the float charge voltage is set correctly.

Voltage Limit	2.30V to 2.35V/cell	2.40V to 2.45V/cell
<b>Advantage</b>	Maximum service life; battery remains cool during charge; ambient charge temperature may exceed 30°C (86°F).	Faster charge times; good, consistent capacity readings; less inclined to sulfation.
<b>Disadvantage</b>	Slow charge time; capacity readings may be inconsistent and declining with each cycle. Sulfation can occur if no topping charge is applied.	Not suitable for charging at high room temperatures. A hot battery may fail to reach the voltage limit, causing severe over charge. Subject to corrosion.

**Figure 2: Effects of charge voltage on a small lead-acid battery (SLA).** Cylindrical lead-acid cells have higher voltage settings but are lower for VRLA and car batteries.

Open circuit voltage	Charge in %
12.6V and higher	100%
12.4 - 12.6V	75 - 100%
12.2 - 12.4V	50 - 75%
12.0 - 12.2V	25 - 50%
11.7 - 12.0V	0 - 25%
11.7V and less	0%

**Figure 3: Estimated state-of-charge of a 12V car battery.**

Test the battery at room temperature. Allow 4-8 hour of rest after charge or discharge. Courtesy of BCI

## About the Author

Isidor Buchmann is the founder and CEO of Cadex Electronics Inc., in Vancouver BC. Mr. Buchmann has a background in radio communications and has studied the behavior of rechargeable batteries in practical, everyday applications for two decades. Award winning author of many articles and books on batteries, Mr. Buchmann has delivered technical papers around the world. Cadex Electronics is a manufacturer of advanced battery chargers, battery analyzers and PC software. For product information please visit [www.cadex.com](http://www.cadex.com).



**ARES**

The Amateur Radio Emergency Service (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization, is eligible for membership in the ARES. The only qualification, other than possession of an Amateur Radio license, is a sincere desire to serve. Because ARES is an amateur service, only amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

There are four levels of ARES organization--national, section, district and local. National emergency coordination at ARRL Headquarters is under the supervision of the ARRL Field and Educational Services Manager. At the section level, the Section Emergency Coordinator is appointed by the Section Manager (who is elected by the ARRL members in his or her section) and works under his/her supervision. In large sections, SECs have the option of grouping their EC jurisdictions into logical units or "districts" and appointing a District EC to coordinate the activities of the local ECs in the district. It is at the local level where most of the real emergency organizing gets accomplished, because this is the level at which most emergencies occur and the level at which ARES leaders make direct contact with the ARES member-volunteers and with officials of the agencies to be served. The local EC is therefore the key contact in the ARES. The EC is appointed by the SEC, usually on the recommendation of the DEC. The EC may have jurisdiction over a small community or a large city, an entire county or even a group of counties. Whatever jurisdiction is assigned, the EC is in charge of all ARES activities in his area, not just one interest group, one agency, one club or one band.

For more information see:  
<http://www.arrl.org/FandES/field/pscm/sec1-ch1.html>

**ARRL Field Day 2005**



**Field Day** is always held on the fourth full weekend in June. This year it falls on the weekend of June 25-26. So, mark your calendar and plan to take part in the fun this year!

Last year, our Field Day was held at Marion Park in Norway. We used the small pavilion and Terry's, KB9ZER, motor home with generator for operating facilities. Antennas were an 80-meter dipole, a Windom, two full size G5RV's and a 44 foot doublet for the Solar Station. This year, we hope to add a tri-band beam on a 40 foot tower to our antenna arsenal.

Here is a summary of Field Day 2004:

- Field Day Call Used: KC8VC
- GOTA Station Call: N8LT
- Number of Participants: 10
- Entry Class: 2A ARRL Section: MI
- Power Sources Used:
  - Generator
  - Battery
  - Gel cell with 10Watt solar panel
- Total CW QSOs: 215 (45 solar)
- Total Digital QSOs: 26
- Total Phone QSOs: 279 (79 GOTA)
- Claimed Score: 1522 (not including bonus)

Bonus Points Claimed:

100% emergency power	200
Media publicity	100
Set-up in public place	100
Information booth	100
WIAW Field Day message	100
Natural power QSOs completed	100
Site visited by invited officials	100
Summary submitted via the web	50
Total bonus points:	850

We worked 49 states (all but Delaware.) Also, 6 Canadian Provinces and the Virgin Islands. There were 9 people that signed the visitor's log

and a handful more neglected to sign.

Band QSO Summary:

Band	CW	Digital	Phone	Total
80	42	0	67	109
40	99	0	41	140
20	29	26	90	145
15	45	0	2	47
GOTA	0	0	79	79
Total	215	26	279	520

The following suggestions were presented during a critique of last year's event:

- We should have a large banner to draw passersby to our operation.
- The coaxial stubs worked well, but we need more, e.g. 80 meters.
- Consider setting up a VHF station. It doesn't count against our 2A classification and we may be able to get some 6-meter contacts.
- Correct the generator power surge problem and provide voltage monitoring.
- We should consider setting up a tower and beam antenna.
- We should be better prepared for weather conditions. It would have been nice to have heaters for each operating position.



Tom, W8JWN, reflected on his 2004 Field Day experience as he wrote his "Words from the President" for the July newsletter: "... I didn't realize until late Sunday, after a very long nap, that I missed being a part of these events. My last FD was back in the late 70's. I would hope that many of the readers of this newsletter get to savor the FD experience in the future. Don't wait as long as I did."

A Field Day 2005 planning session will take place following the April 12th business meeting. Please plan to attend. If you weren't part of the fun and camaraderie of last year's event, give it a try this year, you'll be glad you did.

K8DDB

# Area News

## From the **AIR SCOOP Monthly**

Newsletter of the Delta County Amateur Radio Society, *Editor: Les Elder, KG8SQ*

### CLUB OFFICERS ELECTED:

- Dave Palmgren, N8DP - President
- Mark Blau, N8DX - Vice President
- Marshall Seawright, N8VBA - Treasurer
- Les Elder, KG8SQ - Secretary

### DCARS GOALS FOR 2005:

1. Start and complete Ham Radio Classes for entry class amateurs, (Technicians, Generals, Extra)
2. Have a VE team organized for Delta County to administer testing after classes are completed.
3. Organize more time and start Sunday get-togethers on 147.15 repeater at 7 pm.
4. Start a weekly or bi-weekly Project Night for committee meetings to keep up to date on local news and up-coming projects. (Also work on Electronic Projects) soldering etc.
5. Our main project goal is to gain more membership in DCARS and promote more involvement in training new amateur radio operators for Delta County.
6. Mass mail – out to all area surrounding communities regarding DCARS.
7. Additions to our Monthly Newsletter.
8. Add monthly U.S. mail outs of our newsletter in addition to all E-mail accounts.

### NEW ADDITION – VHF REPEATER – GLADSTONE MICHIGAN COVERING DELTA COUNTY:

Before the meeting was completed, Dave also gave information on his new 147.240 repeater that has been activated for Delta County. The vhf unit will have a tone of 107.2. This is an open repeater for all to use. Even though he is using only a 35 feet tower with a new Motorola Repeater, it does have very good coverage for our area. Future summer plans will increase the tower height to 140 feet and to install a new Sinclair SD-224 antenna for much better coverage covering the Central Upper Peninsula throughout Delta County. We welcome another repeater to our area for everyday use as well as emergency service.

*(Submitted by Les Elder, KG8SQ)*

## From the **HARA Standing Wave**

Newsletter of the Hiawatha Amateur Radio Association, *Editor: Greg Hanson, K18AF*

### DX-PEDITION:

**Pete K8PT** will be making his annual trek to Jersey Island and will be operating March 9<sup>th</sup> – 16<sup>th</sup>. For you IOTA chasers this is EU-013. Jersey Island is one of the Channel Islands. The island has its own government, the State of Jersey, and is loyal to the British Crown but is not part of the United Kingdom or the European Community. Jersey is the largest & most southerly of the Channel Islands measuring 9 by 5 miles. The QTH was a WWII German Signal Bunker which is now the home of the Jersey Amateur Radio Society (JARS). Let's hope for Pete's sake as well as ours that radio conditions are better this coming trip than they were last year.

From

## **The Landline**

Newsletter of the Copper Country Radio Amateur Association  
*Editor: George Thurner, W8FWG*

### U.P. HAM DIRECTORY:

The 2005 edition will be out soon, (Late April), and this little booklet can be yours for just \$3.00 from the CCRAA. It contains Zip codes, a repeater map, repeater frequencies, ham census, recent FCC Rule changes and features two indices, one that is alphabetic by call sign, the other alphabetic by last name. Emergency telephone numbers are included as well as repeater operating practices and URLs for computer uses to find ham radio related sites. Again, only 100 copies are being printed so the first come, will be the first served.

### RF SAFETY CALCULATOR:

You heard about it in a program presented by W8FWG back in 1997 right here at the CCRAA. Now, the University of Texas has published a neat little "RF Safety Calculator", that is very easy to use, and is yours by simply downloading it from the site at: <http://n5xu.ae.utexas.edu/rfsafety/> All you have to do is insert the following parameters: *Average Power* (in watts), *Antenna gain* (in dBi), *Distance* (from antenna) and *Frequency* (in MHz). You will get an instant answer, and it will tell you if you are in compliance. Every amateur should run this evaluation on his or her station initially, and when any power changes, frequency changes, or antenna changes are made.

## **2005 CLUB DUES ARE DUE IN JANUARY**

Club dues for 2005 are now due. If you are a current member, please consider renewing your membership for another year. If you are not a member, please consider joining the club.

The cost of operating our repeater and packet system have risen over the years, while dues have remained the same. For the last few years, we've had to dip into our savings account to pay the bills. A larger membership would help us make ends meet. If you enjoy the use of the repeater or packet system, please consider supporting them with your monetary contribution.

Please take the time now to complete the Membership Application/Renewal form on page 9 of the newsletter. Make your check payable to Mich-A-Con ARC and send it to Mike, K8DDB.

## **N8LT's WORKBENCH**

This series, written by our resident expert on the technical side of things, focuses on technical topics that you, the reader, want him to write about. Lee wants your input. This is your chance to get those gnawing questions answered so that you can become more self-reliant when repairs are needed to your electronic gear.

What subjects would you like to see covered?

Please send your input to me and I will collate the responses and give them to Lee.

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

Mike Bray, K8DDB  
W3821 Waucedah Road  
Vulcan, MI 49892-8483



**Club Equipment List**

Please take the time to look through your "stuff" and see if you have anything belonging to the club.

Here's what we have so far:

Tom, W8JWN, has custody of :

- Gin Pole for Rohn tower sections with 100 feet of rope.
- Small TV type rotor and control.
- Dipole antennas for 80, 40, 20, 15 and 10 meters with 50 feet of RG58 coax.
- Various lengths of string for antennas (not very heavy)
- RG8X with double shield (100 feet)
- 3/16 inch single braid Dacron rope (200 feet)
- 20 meter open stub (nulls 40 and 15 meters)
- 40 meter shorted stub (nulls 20 and 10 meters)
- 40 meter shorted stub (nulls 15 meters)
- 6 PL259 silver connectors
- 4 T-adapters for stubs
- 4 UG-176 silver sleeves
- 3 right-angle connectors

Pat, KC8EMF, has custody of a light 40 foot tower (condition is not known.)

The list can be accessed by a link on the Membership page of our web site:

<http://www.qsl.net/ka1ddb/>

If you have custody of any club equipment, please notify Mike, K8DDB, of what you have. Also, notify Mike when you give custody of the equipment to another member.

Email: [mikebray@chartermi.net](mailto:mikebray@chartermi.net)  
or  
Phone (906) 563-7020

# The Novice Special Claims Hawaii



I am awakened at 4:30 AM by a cold, damp, nose poking at my arm. It's Norm, and he wants to go outside. Can't blame him, he's older than I am in dog-years and we old folks can't make it through the night anymore. I put my shirt, pants and slippers on, grab a flashlight and out we go.

When we return to the warmth of the house, I am contemplating whether to crawl back into bed or go up to the shack to see if there's anyone on 80 and 40 meters. The call to the shack is stronger than the bed, but 80 meters is noisy with static crashes from a distant storm, and it is devoid of activity, not a soul to be heard. There are a few diehards on 40 meters, but nothing that catches my interest. I decide to open up the Novice Special to make an adjustment to the oscillator grid capacitor to try to get rid of the chirps heard on my CW signal when I'm using some of the weak crystals in my collection.

An hour later, with no luck in getting rid of the chirps, the transmitter enclosure is back in place and I begin tuning the 40 meter band with my Hallicrafters SX-115 receiver. Activity has picked up on the band and as I tune through 7041 KHz I hear NH7D calling CQ from Hawaii. He is within about 500Hz of one of my chirpy crystals, with an RST of 579. As I plug my 7042 KHz crystal into its socket, I'm wondering how much power he's running. If it's 100 Watts or less and his signal is an S-7 on my receiver, the Novice Special's 8 watts should register better than an S-5 on his rig. If the CW filter he's using is wide enough to detect my signal 500 Hz away from his operating frequency I should be in good shape. I'd better hurry though, before someone else contacts him or the DX reflectors advertise his callsign and frequency. I quickly switch my antenna tuner to the dummy load, turn on my wattmeter and tune the Novice Special to the crystal frequency. I check the

wattmeter and it's reading 8 watts. Lookin' good! Now, let's switch the tuner back to the G5RV antenna and see if he's still calling.

After his next CQ I send – NH7D DE K8DDB K8DDB AR... Alright! He's sending my call – K8DDB K8DDB DE NH7D TNX FER CALL UR RST IS 559 ES QTH IS HILO, HI NAME IS BEN HW CPY? K8DDB DE NH7D. It looks like I'm putting a decent signal into Hawaii and I'm excited as I continue the QSO. NH7D DE K8DDB TNX FER QSO BEN UR RST IS 579 IN VULCAN, MI NAME IS MIKE HW? BK ... TNX MIKE RIG IS OLD TS830 AT 75 W TO A VERTICAL ANT BK ... NICE SIGNAL BEN MY TX IS HOMEBREW TWO TUBE XTAL CONTROL AT 8 W TO A G5RV ANT AT 37 FT BK ... FB MIKE TUBE FINALS HR ALSO ES I LIKE THE RCVR IN THIS RIG BT

**HAWAII - The Volcano Island**  
HAWAII COUNTY

**NH7D**

EX: VR2LA, APWMM3C, SZ4BG, AA4XK, AH2R, AH6B, KH6JLN, WA6GNA

**BENJAMIN P. BLATT**  
22 Olena Street  
Hilo, HI 96720-1864 U.S.A.  
Email: [gromit@cuahawaii.net](mailto:gromit@cuahawaii.net)

IOTA CC-010

**NH7D** **K8DDB**

Confirming QSO with  
EISTS 1111Z, FP 11 1957

DAY	MONTH	YEAR	UTC
02	FEB	05	1214-23

MHZ 7.042 RST 559 2-WAY CW QSL PSE TNX

Hi Mike,  
Many thanks QSO + QSL! UR  
BLATT HBR XTAL CONTROL  
DOING FB JOB OUT HERE ON  
THE VOLCANO ISLAND. MUST  
HAVE BEEN DAYLIGHT ON W/END  
WHEN UOE CRSO'd! I SOME TIMES  
USE MY K-1 ELECTRAFT GRP RG  
BUT PREFER TS 830 SUBS TS WATE!

TULX CUSTOM I LOVE TO GET 'EM!  
EX RM-3  
USS FLETCHER DD 445  
1967-68.

**K8DDB**  
MIKE BRAY  
W3821 WAUCEDAH RD.  
VULCAN, MI 49892

QSL - HULA POST

The QSL Name - WA8P - www.qslmail.com

173/72 de Ben, NH7D

TNX FER QSO MIKE ES I WILL QSL 73 FRM THE VOLCANO ISLAND ALOHA K8DDB DE NH7D ... TNX BEN MY QSL SURE 73 ES GUD DX ALOHA SK NH7D DE K8DDB dit dit.

Not bad! Hawaii is my 20<sup>th</sup> state toward WAS and my first real DX with the Novice Special!

C'mon, Norm, I'm going downstairs to get a cup of coffee ... and I think you deserve a cookie for waking me up!  
K8DDB

## March 8th Meeting

(Continued from page 1)

Grace United Methodist Church for the use of their facilities for club meetings.

### New Business:

Bill Becks, WA8WG, commended the local VEC for their administration of exams in Dickinson County. His wife took and passed her CW exam in February.

Congratulations to Dennis, KD8AIT, for his appointment as Emergency Coordinator for Dickinson County. Tentatively, a weekly ARES Net will take place on Sunday evenings. More information will be published when details are known.

Storm Spotter training has not yet been scheduled for Dickinson County

There will be a Field Day planning meeting following the April business meeting.

### Adjournment:

The meeting was adjourned at 6:48 PM

Following the business meeting, Bill Becks offered some insight into the organization of ARES in Northeastern Wisconsin and offered help to get our ARES chapter going. He also suggested that we consider establishing mutual support between our chapter and the Marinette County chapter.

Bill Peterson presented an overview of Highway Watch, which is a spin-off of the Homeland Security organization. He is willing to provide training to our club. If interested, see Mike, K8DDB, for a brochure.

Submitted by: Mike Bray

### Attendees:

Mike Bray, K8DDB (Secretary)  
 Mike Boileau, N9NBN (Vice President)  
 Bill Becks, WA8WG (guest)  
 Bill Peterson, KB9URW (guest)  
 Dennis Beurjey, KD8AIT  
 Al Poquette, K9ECG (guest)

## Dickinson County ARES

Robert Reid, W8UXG, ARRL District Emergency Coordinator for the western U.P. has appointed Dennis Beurjey, KD8AIT, Emergency Coordinator for Dickinson County.

## QRP—Try It, You'll Like It!

The following comment was recently posted to the QRP-L email list:

<http://mailman.qth.net/pipermail/qrp-l/>

Greetings all. I've been a silent member to this list for some time, and thought I'd take a minute to throw in my 2 cents - no applause, pse.

I've been licensed since 1995, and on HF since Dec 2003. I've been tempted by power (rigs, amps, etc) but then decided to go the other way. I found that with a mere 100W I was hitting everyone I could reasonably hear. Hmmmmm, turn the power down- 50 watts, still working rather fine. Finally getting down to 5 watts (SSB/CW/PSK) I was still having relative success. After obtaining a QSL card from Diego Garcia (on the opposite side of the earth) I was sold on this QRP thing.

Patience is the virtue, and fun is the reward. I may not make a contact every minute or make the record books, but I tell you there is no greater challenge, or fun than making a dx (or local for that matter) contact with only 5 watts (or less) and a piece of wire!

Anyway, just thought I'd share that tidbit, especially for those who are doubting QRP, and for those who want to increase power to 10W or 100W for that matter....all you need is 5 watts or less.

Thanks to all for this list, I very much enjoy the comments of its members!

73 and have a great week.

Brian - N8AVR/QRP  
<http://n8avr.us>  
[brian@n8avr.us](mailto:brian@n8avr.us)

## Hams Needed for Special Event

Raoul Revord, W8RDR, [rrevord@up.net](mailto:rrevord@up.net), is asking for help with the Munising "300" races on the 18th and 19th of March. He needs four Ham operators, each willing to be assigned to a sweep team on snowmobiles. Participating Hams are asked to attend a last minute briefing at Sidney's Restaurant at 8am on Friday and those who only work Saturday attend the last minute meeting at 8am on Saturday. Snow mobiles will be provided. The sweep hams will only be using HTs and extra battery packs will be essential. Make sure they are all charged in advance of the event.

### 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](mailto: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:  
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 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: May 7, 2005  
Exam Date: Aug 6, 2005  
Exam Date: Nov 5, 2005  
Exam Date: Feb 4, 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).

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

Permission is hereby granted for the reproduction of material found in Mich-A-Con RF unless otherwise noted, providing that proper credit is given to the author and Mich-A-Con ARC.

## 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

Mich-A-Con RF

## 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

**If you haven't yet renewed your membership, please do so now, your club depends on your support. Please take the time now to complete the Membership Application/Renewal form on page 9 of the newsletter. Make your check payable to Mich-A-Con ARC and send it to:**

**Mike Bray, K8DDB  
W3821 Waucedah Road  
Vulcan, MI 49892-8483**

The monthly meeting for April is on TUESDAY the 12th at 6:30 PM in the Grace United Methodist Church, 721 Norway Street, Norway, Michigan. (upstairs in the room next to the sanctuary.)