



MICH-A-CON

Iron Mountain,
Dickinson County, Mich

November 2017

Meeting Reminder: [Second Wednesday of the Month](#)

Which is **November 8, 2017** at 07:00 PM at the Dickinson Library, Iron Mountain.

From The President

WORDS from the PRESIDENT November 2005

As I pondered over what to say in the "Words" for this month's issue, thoughts of deer season rapidly took over. I had a vision of that BIG buck slowly approaching my blind from the dark swamp in front of me. His rack appears against the white background of newly fallen snow. I can't believe the size of that rack! It has at least 12 points! I lift my rifle and peer through the scope. Indeed, one, two, three, four, five, six points on one side. The same count is made on the other side. This is a perfect, typical rack! I must be dreaming. This is the chance of a lifetime. Don't blow it now. I place the crosshairs just behind the left shoulder and squeeze.....

Of course, the above is just a "vision", the odds of that happening our slim and none at our camp. Heck, I haven't seen anything over 7 points since 2000. Before that, a few 8 pointers graced our 80 acres with their presence but nothing to brag about. I guess that the old adage about being in the right place at the right time fits deer hunting and life's experiences. From hunting, to DXing, to winning the lottery it is based on luck and chance. Of course, skill is necessary in some respects.

I have honed my Dxing skills over 45 years as a ham. I have tried to get the best antennas and equipment that I can afford and assemble in the space allotted. I have operated in all modes and participated in all kinds of contests over the years. I have used the computer the past six years to access DX clusters on the Net. These clusters show on what bands the DX is operating and times and modes. Of course, propagation is a big factor. If there isn't good propagation to Jan Mayen from the U.P., it will be quite difficult to get JX in the log as a new country. I still need JX confirmed for country number 318. I worked them in the 70's but never got a QSL card.

Perhaps, this year will be different. This could be the chance of a lifetime! JX is active again after several years of inactivity. Hopefully, when I see JX9NOA on the computer screen, I will be able to "squeeze" the key and get lucky!

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I didn't work JX until 2011. They weren't even heard here in 2005! They were on again in 2008 but a wind shear took down my tower in May. Mike Bray, K8DDB, called me and said that I could come to his QTH and work them. By the time I got to Mike's, they had gone QRT. In 2011 they were on again. I worked JX ten times from 2011-2012!

By the way, I shot a 9-pointer in 2012!

Saturday's snow finally got me thinking about deer season. I had not been too excited about this season at all. I have had antenna and rotor issues since March. The rotor was repaired and it will be delivered Monday afternoon. The SteppIR still doesn't work but that issue maybe resolved in a few weeks. The control cable was cut by the antenna windmilling. Hopefully, with a repaired cable, all will be well. Vertigo Climbers have been here and have

given me a proposal for repair. I'm waiting for the insurance check to arrive and then I'll get things in motion.

I have also had pneumonia and for the past month have not felt the best. I have had no desire to trudge through the woods to prepare for hunting. As I begin to feel better, I will probably head to camp and try to get into the mood.

My last buck was shot in 2012. I think it's time to get another!

I haven't worked any new countries. I just need one more, Bouvet Island, to complete the DX Country List. Bouvet Island (3Y0B) will be on in late January, or early February. Hopefully, my SteppIR will be available by then.

Election of officers will be held at the next meeting on Wednesday, November 8th at 7:00 in the library.

73

Tom W8JWN

MICH-A-CON AMATEUR RADIO CLUB MINUTES OF October 11th, 2017

President Tom Martin called the meeting to order at 7:00 pm.

Secretary Report

Minutes of the September 13th meeting were read and approved.

Treasurer Report

Balances as of October 11th, 2017

Checking:\$31.27

Savings:\$1491.70 (Repeater:\$210.25)

Cash:\$23.00

Treasurer Debbie Grabowski presented a detailed accounting from the September 30 hamfest. Final proceeds to the club are still pending payment of minor expenses.

Motions related to the hamfest were approved unanimously:

(Tom Martin/Bob Meyers) to pay the Sportsman's Club \$25.00 for the use of their tables.

(Bob Meyers/Terry Moriarity) Debbie Grabowski to be paid \$63.26 for expenses incurred.

(Sam Holmes/Tom Heyboer) The club will pay for the case of water, in kitchen expenses.

**Repeater Report**

Bob Meyers reported that the 440 unit is not transmitting. It is currently off and needs to be tested. The 440 antenna also is in need of repair and should be relocated to the north side of the tower near the top.

The two-meter repeater is working but needs winterizing and maintenance. In addition, due to high SWR on receive, the two-meter unit should be moved back to the four-bay antenna.

Bob recommended that the repeater call sign should be changed to the club call and that the mailing address be updated, as Tom Martin is now the trustee.

After discussion, it was decided to leave the PL tone, on the two meter repeater, at 100.0 despite a conflict with the Wisconsin repeater system.

Old Business

There was nothing new to report or discuss in regard to Field Day, insurance, or Veterans Day.

Burt Armbrust reported that the Red Cross programs in Iron River are still as noted at the October meeting.

New Business

President Tom Martin issued a reminder that the club election of officers, for the upcoming year, will take place at the November 8 meeting.

Adjournment

Meeting adjourned at 7:38 pm. (Skip Caswell/Terry Moriarity)

The 50/50 drawing was won by Sam Holmes. The treasury was enriched by \$35.

For the Good of the Order

Attendees reported on their recent activities.

Attendees

Tom Martin	W8JWN	Sam Holmes	N8ATS
Scott Jarmusch	KA8TFE	Tom Heyboer	KC8TH
Joe Ferris	KC9TQR	Skip Caswell	KE9L
Debbie Grabowski	KD8VTS	Bob Meyers	WA8FXQ
Bill Grabowski	KD8VTT	Sally McQueen	KB9PLR
Burton Armbrust	WB8EBS	Joyce Williams	Visitor
Dave Thomas	KG9Y		
Gary Schafer	K4FMX		
Terry Moriarity	K9TRY		

News

Hello:

As of this evening (Tuesday, October 17, 2017) the corrections have been made to the NAMES and the ADDRESS lists on the KCRA Web Page [www.kcra-mi.net], so it is now correct, and you may download FREE, the information shown there.

The next spirally bound edition of the U.P. Ham directory is scheduled to be released in the year 2020.

Thanks for your patience.

Feel free to download now, from this site.

-73-

George R. Thurner, Secretary

K.C.R.A., Inc. E-Mail: w8fwg@arrl.net

MINUTES OF ARRL EXECUTIVE COMMITTEE

Number 507

Hartford, CT– October 14, 2017

Pursuant to due notice, the ARRL Executive Committee convened at 8:30 AM at the Marriott Hartford/Windsor on Saturday October 14, 2017 with Rick Roderick, K5UR, in the Chair. Present were committee members First Vice-President Greg Widin, KØGW; Chief Executive Officer / Secretary Tom Gallagher, NY2RF; and Directors Mike Lisenco N2YBB; David Norris, K5UZ; Dale Williams, WA8EFK; Jim Boehner, N2ZZ; and Bob Vallio, W6RGG. Also present were Second Vice-President Brian Mileschosky, N5ZGT; International Affairs Vice-President Jay Bellows KØQB; ARRL General Counsel Chris Imlay, W3KD; and Assistant Secretary Dan Henderson, N1ND, acting as Recording Secretary. Guests present were Directors Tom Abernethy, W3TOM, Atlantic Division; Tom Frenaye,



K1KI, New England Division; and Dick Norton, N6AA Southwestern Division.

1. On the motion of Mr. Vallio, seconded by Mr. Lisenco the agenda was **ADOPTED** as follows:

1. *Welcome and consideration of agenda for the meeting*
2. *President's report*
3. *Chief Executive Officer and Secretary's report*
4. *General Counsel's report*
 - A) *FCC/Regulatory items*
 - i) *Review of Enforcement issues/concerns*
 - ii) *Status update/reporting items and/or FCC submissions since July 2017 Board Meeting*
 - iii) *Open Items with no FCC action since July 2017 Board meeting*
 - B) *Local antenna/RFI cases*
 - C) *Organizational matters*
 - D) *Other legal/regulatory matters*
5. *Legislative matters*
 - A) *Status – HR 555 - Amateur Radio Parity Act of 2017*
6. *International matters*
7. *Organizational matters*
 - A) *Next steps on comprehensive review of Articles of Association and By-Laws*
 - B) *Change to the indemnification clause in Article 15*
 - C) *Review of Rules and Regulations regarding Advisory Committees*
8. *Review of pending action items including work in progress by committees*
 - A) *Amateur Auxiliary Study Ad Hoc Committee*
 - B) *Develop plan for implementation of Entry Level License Committee recommendations*
 - C) *Trademark Review Committee update*
9. *Recognition of new Life Members*
10. *Other business and adjournment*

2. Mr. Roderick offered the President's report and entertained comments. He expressed concern in the continued drop in membership numbers. He expressed pride in the ARRL's efforts in providing relief to Puerto Rico for the Hurricane Maria recovery. He requested Mr. Gallagher to express the thanks of the Executive Committee to the Headquarters staff for their efforts to assist with Hurricane relief efforts.

3. Mr. Imlay began the report of the General Counsel. A possible petition for partial reconsideration in FCC Docket 15-26 (with respect to power levels in the 76-81 GHz band for Amateur Radio operators) was discussed. On the motion of Mr. Norris, seconded by Dr. Boehner, the General Counsel was directed to prepare a request for an experimental license for the band, to allow for the collection of data, which could be used to allow us to file a new petition to adjust the current Report & Order in the future.

4. The committee moved to Mr. Gallagher presenting the joint CEO/Secretary's report. The January QST will be trimmed to a standard magazine size. This change will result in significant savings over the year. He offered that by having standing committees reduce in-person meeting by one a year, significant resources could be saved. Dr. Boehner noted that if more teleconference meetings are to be considered, upgrading of videoconferencing software

should be considered. Gallagher highlighted the efforts of the “Force of 50” – the ARRL Amateur Radio volunteers who deployed to Puerto Rico. They were assembled and equipped within 48-hours from the time the initial request from the American Red Cross was received at ARRL Headquarters

On the motion of Mr. Gallagher, seconded by Mr. Williams, the Committee resolved into a Committee of the Whole at 9:45 AM consisting of the Committee members, Vice-Presidents and General Counsel. The Committee of the Whole rose at 12:23 PM and on the motion of Dr. Boehner, seconded by Mr. Norris, the report of the Committee of the Whole was approved.

On the motion of Mr. Lisenco, seconded by Mr. Norris, the Executive Committee **voted** that “Within 2 weeks the Secretary will call a special Board meeting to consider the Ethics and Elections Committee recommendation and related items.”

The committee was on break for lunch from 12:25 until 12:59 with all persons previously noted present. Mr. Gallagher continued his report. He is recommended that the Programs and Services Committee be tasked to conduct a thorough evaluation of all current program offerings to the membership, with a report back to the Executive Committee in the fall of 2018. He also recommended that the ARRL consider adopting alternative dispute resolution methods in lieu of court action. In response to the Board’s July request, he continues to investigate possible alternative locations for the ARRL incorporation. He continues to have concerns about the effectiveness of ARRL’s IT Department and its ability to meet ongoing requirements.

On the motion of Mr. Norris, seconded by Dr. Boehner, it was **voted** to request the Programs and Services Committee to begin the evaluation of all membership program offerings, with their study to include coordination with the Administration and Finance committee.

On the motion of Mr. Lisenco, seconded by Mr. Norris, the committee **voted** to direct General Counsel to draft a by-law change proposal to develop and implement alternative dispute resolution methods for the ARRL.

5. The committee returned to the report of General Counsel. FCC Docket 10-119, adopted in July 2017, has a disconnect between the Part 73 rules which allows a broadcast station to retransmit signals from the Amateur service without the consent of the Amateur licensee and the current Part 97.113 (b). There is a potential liability to an Amateur’s license if they are involved in the direct gathering of the information retransmitted, in direct conflict

with Part 97.113. On the motion of Mr. Vallio, seconded by Dr. Boehner, the committee directed General Counsel to prepare and file a request for declaratory ruling asking the FCC to correct discrepancies between Part 73.1027© and Part 97.113(b).

Mr. Imlay next requested guidance on a possible ARRL response to the August 30, 2017 Public Notice of Technology Advisory Council’s “technical inquiry into reforming technical regulations” in radio services. The purpose of the notice is to identify FCC technical rules that are obsolete or might be ripe for change in light of current communications technologies. Mr. Imlay was requested to work with ARRL resources to develop a series of recommendations for possible deregulation, with such recommendations to be brought back to the Executive Committee.

Next, Mr. Imlay discussed a potential ARRL response to the National Forest Service Transmitter Site Regulations and Fee Structure and its impact on Amateur Radio repeater sites on NFS leased land. The committee directed Mr. Imlay to continue to track and monitor this situation and that it might consider potential action as warranted after more information is gathered

6. Mr. Lisenco spoke to the status of S 1534, the Amateur Radio Parity Act of 2017 and moving it forward in the US Senate. The legislative team continues to work all avenues to secure passage and implementation of the bill.

7. Mr. Bellows reviewed the report of the International Affairs Vice-President. In reviewing the responses to the current natural disasters in the Caribbean and Central America, the Region 2 leadership is looking to develop workshops, funded through Region 2, to provide more opportunities to train the various national societies to better plan and assist for disaster relief and recovery communications. He also indicated that the Region 2 Administrative Council is looking to develop an on-going system of review band planning, rather than working on it at only specific intervals.

8. Mr. Imlay reported on the Day, Pitney concerns on the two changes to the Articles of Association, taken at the July 2017 Board meeting and reflected in Board Minutes 27 and 29 of the meeting. It was decided to share the Day, Pitney recommendations with the full Board in sufficient time for consideration of possible changes/actions at the January 2018 Board meeting.

9. The committee requested a red-line version of previously discussed By-Law changes that were not associated with Vice-Directors be circulated to the full Board in time for possible consideration at the January 2018 Board



meeting.

10. Discussion next turned to the discussion of a review of the rules and regulations concerning Advisory committees. Mr. Norris will head a working group to look at this issue and make possible recommendations, with Dr. Boehner and Mr. Henderson to serve on the committee. They will report back to the Executive Committee when they have completed their review.

11. Mr. Milesosky briefly discussed the recent work on the Amateur Auxiliary Study Ad Hoc Committee. The committee has completed its discussions and a first draft of the new training manual incorporating the proposed changes has been written. The committee is reviewing and editing the draft manuscript, which will be presented to the Executive Committee for review and comments. We are waiting feedback from the FCC on the proposed MOU for the Amateur Auxiliary. Several topics related to in-house management of the revised program still must be resolved. It is hoped to have the package completed shortly, so that it can be circulated to the Board for consideration in January.

12. Discussion next turned to developing a plan for implementation of recommendations that might come from the Entry Level License Committee. Mr. Imlay will work with Mr. Bellows and Mr. Frenaye to develop a specific proposal for the frequencies and modes to be requested to expand the current Technician class operating privilege. The goal is to have this proposal to the Executive Committee in time to be reviewed by the full board at their January 2018 meeting.

13. On the motion of Mr. Vallio, seconded by Dr. Boehner, the list of new life members was **approved (with applause)**.

14. After comments from several attendees, and on the motion of Dr. Boehner, seconded by Mr. Lisenco, the meeting adjourned at 5:23PM.

Respectfully submitted,
Dan Henderson, N1ND
Assistant Secretary, ARRL

REST IN PEACE

ZCZC AX10
QST de W1AW
Special Bulletin 10 ARLX010
From ARRL Headquarters
Newington CT October 23, 2017
To all radio amateurs

ARLX010 QRZ DX and The DX Magazine Publisher Carl Smith, N4AA (SK)

QRZ DX and The DX Magazine Publisher and Editor Carl Smith, N4AA, of Asheville, North Carolina, died on October 20. An ARRL member, he was 77 and had been a radio amateur and DXer for more than 6 decades. Smith and his late wife Miriam, KB4C, bought the two publications' parent DX Publishing in 1997

"Carl was a ham's ham, as he dabbled in many aspects of our great hobby," The Daily DX Editor Bernie McClenny, W3UR, observed. "He did a lot for Amateur Radio over the years."

Licensed in Kansas City in 1954 as WN0YFT (later W0YFT), Smith served in the US Air Force from 1958 until 1966. He became W4NQA after moving to North Carolina.

From 1968 until 1970, Smith was on the ARRL Headquarters staff and held the call sign W1ETU. When he moved to Virginia in 1970, he regained W4NQA and, after moving back to North Carolina, obtained N4AA in 1976.

An avid DXer and at the top of the DXCC Honor Roll, Smith was inducted into the CQ DX Hall of Fame in 2012.

Smith was a member of the Potomac Valley Radio Club (PVRC). He re-established QCWA Chapter 145 for the primary purpose of establishing the Southern Appalachian Radio Museum - now the Asheville Radio Museum - on the campus of Asheville-Buncombe Community College. He also was a long-time Roanoke Division Assistant Director. For many years, he was the owner and manager of Georgetown Communications, an Amateur Radio store in Asheville.

In the 1970s, Smith was instrumental in the formation of the Western Carolina Amateur Radio Society and served a few terms as president. Through WCARS, he instituted the annual Asheville Hamfest. WCARS became a Volunteer Examiner Coordinator in the 1980s.

He also established the KB4C Miriam Smith Award, in memory of his late wife. The award, presented annually by the ARRL Roanoke Division, honors an Amateur Radio operator from Western North Carolina who has demonstrated an active commitment to public service and emergency communication through ARES/RACES.

Smith was among the founders of the SouthEastern DX and Contesting Organization (SEDCO) W4DXCC Convention, and his wife's call sign is used on the air at the annual convention and for various operating activities.
NNNN

ARLB032 W1AW 2016/2017 Winter Operating Schedule

ARRL Bulletin 1 ARLB001
From ARRL Headquarters
Newington CT January 3, 2017
To all radio amateurs

Morning Schedule:

Time	Mode	Days
1400 UTC (9 AM EST)	CWs	Wed, Fri
1400 UTC (9 AM EST)	CWf	Tue, Thu

Daily Visitor Operating Hours:

1500 UTC to 1700 UTC - (10 AM to 12 PM EST)
1800 UTC to 2045 UTC - (1 PM to 3:45 PM EST)
(Station closed 1700 to 1800 UTC (12 PM to 1 PM EST))

Afternoon/Evening Schedule:

2100 UTC (4 PM EST)	CWf	Mon, Wed, Fri
2100 " "	CWs	Tue, Thu
2200 " (5 PM EST)	CWb	Daily
2300 " (6 PM EST)	DIGITAL	Daily
0000 " (7 PM EST)	CWs	Mon, Wed, Fri
0000 " "	CWf	Tue, Thu
0100 " (8 PM EST)	CWb	Daily
0200 " (9 PM EST)	DIGITAL	Daily
0245 " (9:45 PM EST)	VOICE	Daily
0300 " (10 PM EST)	CWf	Mon, Wed, Fri
0300 " "	CWs	Tue, Thu
0400 " (11 PM EST)	CWb	Daily

Frequencies (MHz)

CW: 1.8025 3.5815 7.0475 14.0475 18.0975 21.0675
28.0675 147.555
DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095
28.095 147.555
VOICE: 1.855 3.990 7.290 14.290 18.160 21.390
28.590 147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM
CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM
CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.
DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

The voice mode used for W1AW's 40 meters voice bulletins is now full-carrier, double sideband AM.
Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.
On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

Audio from W1AW's CW code practices, CW/digital bulletins and phone bulletin is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to w1aw@arrl.org.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC to 1700 UTC (10 AM to 12 PM EST), and then from 1800 UTC to 2045 UTC (1 PM to 3:45 PM EST) Monday through Friday. Be sure to bring your current FCC amateur radio license or a photocopy.

The W1AW Operating Schedule may also be found on page 96 in the January 2017 issue of QST or on the web at <http://www.arrl.org/w1aw-operating-schedule>.

ARRL MICHIGAN SECTION NEWS

Greetings to the Hams of Michigan,

The Inaugural 2017 Great Lakes HamCon (2017 Great Lakes Division Convention) is in the books! We hosted the ARRL Great Lakes Division Convention and welcomed over a thousand guests to our incredible venue at Michigan International Speedway. We welcomed Rick Roderick, K5UR, ARRL President and Yvette Vinci, KC1AIM and Kim McNeill, KB1WUX from the Marketing/Circulation Department at ARRL HQ who operated the ARRL display and answered countless questions.

This event was the culmination of over a year's work on behalf of dedicated staff and volunteers from our 21 clubs that came together to produce this event.

We had a day and a half of forums in the great meeting rooms along pit road as well as a one-day Tech class and subsequent VE test session. Our ARRL Banquet was held in the prestigious Champion's Club atop the grandstands where Great Lakes Division Awards were presented to deserving individuals.

As with all new events of this kind, our list of commercial vendors was smaller than we would have liked. For a first-time event, most chose to take a wait and see approach, and they missed a good one! Our vendors reported fantastic sales numbers and while we thank them for seeing the 'vision' and coming to GLHamCon, we also thank our shoppers for making the event worthwhile for our vendors.

There were some areas that did not go as planned or happen how we thought they would, and as a result, we have a laundry list of things that can be made better for next year's event. Your GLHamCon team appreciates your understanding and patience.

With over 1000 paid attendees, we are absolutely rating the event as a success! Our thanks go to our NASCAR and Michigan International Speedway friends, the ARRL, our partner clubs who believed in us and most of all, the

amateurs of the ARRL Great Lakes Division and beyond. Stay tuned for GLHamCon Ver. 2.0!

Texas, Florida, Puerto Rico and Caribbean relief updates.

Many thanks go to our fellow hams in Texas and Florida (and others from afar) for their quality assistance to their neighbors and communities by providing communications and personnel where needed. In addition, those that volunteered to deploy to Puerto Rico and the US Virgin Islands to help ease the devastation there have done a great service to their nation. As ARRL President Rick Roderick, K5UR stated at the recent ARRL Banquet at Great Lakes HamCon, this is our finest hour! We can all be very proud of the amateur radio community's response to the call for help.

All the latest updates on the Puerto Rico and Caribbean can be found here: www.arrl.org/pr-carib

Hospitality Acknowledgements

Thanks to these organizations and clubs for their outstanding hospitality shown to the MI ARRL staff:

- Sep 21, 2017 University of Michigan ARC Meeting, Ann Arbor
- Oct 7-8, 2017 Great Lakes Div. Conv., Brooklyn, MI

ARRL Section Staff Travel Schedule

- Oct 21, 2017 Muskegon Hamfest, Muskegon, MI – WB8R
- Oct 22, 2017 Kalamazoo Swap & Shop – WB8R
- Oct 29, 2017 USECA Swap, Madison Hgts, MI – WB8R
- Nov 10, 2017 Central MI ARC Meeting, Mason, MI – WB8R



Dec 3, 2017 L'Anse Creuse Swap, Madison Hgts – WB8R

Michigan Public Service Activities

Michigan Section Traffic/ARPSC Nets (all times local)

Please note that time adjustments may be necessary due to propagation changes. Contact your net manager for alternate frequencies and/or times.

- MACS - MI Amateur Communications System 3.952 1000 Daily
- UPN – Upper Peninsula Net 3.921 1700 Daily; Noon Sun
- MIARPSC – MI Amateur Radio Public Service Corps 3.932 1700 Sun
- QMN – The Michigan Net 3.563 1830 and 2200 Daily
- MITN – MI Traffic Net 3.952 1900 Daily
- MIDTN – MI Digital Traffic Net 3.583 (Olivia 8/500) 2000 Tu, Th, Sat
- MIADS – MI ARES D-Star Net Reflector 24A Mon 2000
- D8EN - District 8 Emergency Net 3.909 Wed 2000
- GLETN – Great Lakes Emergency and Traffic Net 3.932 2000 Daily
- MVTN – MI VHF Traffic Net IRA Link System 2100 Mon, Wed, Fri, Sun
- NLEUP - Northern Lower Eastern UP Net 146.64- 18:30 Daily
- SEMTN – SE MI Traffic Net 146.76- 2215 Daily
- TMMTN – Thumb Mid-Michigan Traffic Net 147.30+ 2130 Mon - Sat

More information is available at <http://nts-mi.org/>. Come join us on our traffic and public service nets.

Michigan Amateur Radio Public Service Corps (ARPSC) Activities for September 2017

Station Activity Reports (SAR) September 2017: WB8WKQ 279, WB8TQZ 130, K8ED 90, K8RDN 72, N5MKY 67, WD8USA 49, WD8MWD 42, K8BKM 39, KC8NFN 29, WB8RCR 12, N8UN 12.
Total SAR reported: 821

Public Service Honor Roll (PSHR) for September 2017: WB8RCR 232, KC8YVF 207, WB8WKQ 190, WD8USA 170, WD8MWD 150, WB8TQZ 110, K8ED 105, N5MKY 105, NE8B 95, KC8NFN 84, KE8BYC 37, KE8HJA 5.

Brass Pounder's League (BPL): None

Net traffic for September 2017: The Michigan Net 103, Southeastern Michigan Traffic Net 91, Michigan Traffic Net 75, Michigan Amateur Communications System 73, Great Lakes Emergency and Traffic Net 43, Upper Peninsula Net 40, Michigan Digital Traffic Net 7, Northern Lower Eastern Upper Peninsula Net 4, Saginaw County ARES Net 3, Michigan VHF Traffic Net 2, District 5 Hospital Net 2, District 3 ARPSC Net 2, Red Cross Net of Greater Grand Rapids 1, Bay Area Regional Traffic System, Genesee County ARPSC Traffic and Training Net, Michigan Amateur Radio Public Service Corps, District 8 Emergency Net, Luce County ARES Net, Michigan ARES D-Star net.

Total net traffic reported: 446

September 2017 Volunteer Hours Dollar Value:

ARPSC: \$ 268,298

NTS: \$28,311

Total Volunteer Dollar Value for September 2017: \$296,609

A hearty thanks to the hundreds of volunteers across the State of Michigan who work hard to hone their skills month after month to make sure they are ready for any situation that may arise. Our ARPSC and NTS programs are an integral part of AuxComm, which in turn is part of the Michigan State Police Homeland Security Division.

73 until next month,

Larry, WB8R



Dales Tales

Greetings everyone, welcome to "Dale's Tales" for November 2017.

CONGRATULATIONS go out to all of the Great Lakes Division award winners announced at GL HamCon. ARRL President Rick Roderick K5UR attended and presented former ARRL Director Jim Weaver K8JE with the George S. Wilson W4OYI Lifetime Achievement Award for his many years of outstanding service to amateur radio. Stan Broadway N8BHL received the Great Lakes Division Amateur of the Year Award. Christopher Brault KD8YVJ was named the Great Lakes Young Amateur of the Year. The Great Lakes Technical Achievement Award was presented to Bob Dixon W8ERD while the Portage County (OH) Amateur Radio Assn, received the Joe Phillips K8QOE Newsletter Award. All of these awards are presented bi-annually at our Division Conventions and the winners are selected from nominations offered by the general membership.

THE BANDS seem to be holding their own, CQ-WW is running in the background as I am writing this and the activity sounds reasonably good on all bands. We'll see what the scores bring in, but it is nice to hear all of the activity. November Sweepstakes is coming soon (Nov 4-6 CW and 18-20 phone) and those seems to be the traditional favorites for many hams in the Great Lakes Division. Let's all hope that every Section is back on the air for SS and the opportunities are there for a clean sweep. Club and contesters alike, this may be a great time to introduce contesting to some of our newer club members. Have at it.

NOW THAT the cooler weather has settled in, for some strange reason, my mind rolls around to antennas and all of the antenna projects I have put off doing all summer. It is crunch time, time to get the postponed maintenance done, and time to put up the sloper I have been putting off for an excessively long time. Time to prune the birch tree that is invading the air space near the tri-bander. Time to find out why the VSWR on the UHF vertical is a little high. And here I go, attempting to demonstrate again, that blizzard-borne antenna installations, held together with bailing wire, duct tape and bubble gum are the best working ether-grabbers.

My thanks to a couple of friends who stopped by to assist in a rotor repair a couple of weeks ago. At the very least, that project is complete and I can target a couple of others before bringing out the BW, DT and BG. Interestingly, I thought I was the only ham that does this. Surprisingly, I found several others in the final planning stages of mid-fall antenna jobs. Hmm, it must be something caused by the cooler fall weather. It just couldn't be procrastination - never that.

GL HAMCON: This was the first ham radio event to be held at Michigan International Speedway. What a venue! The HamCon team, 21 regional ham clubs, went over the top to make this a successful effort. The reviews were glowing and importantly, the booking requests for space at the 2018 HamCon are already arriving. Larry WB8R reports the 2018 dates are October 6 & 7. Will there be some things done differently? Most certainly. This was a very large venue, the first effort and anyone's expectations for absolute perfection might be a little high. The sponsoring clubs that make up the Great Lakes Amateur Radio Assn., have offered their ideas and input for next year's effort, noting it is resoundingly positive, resolute in optimism and loaded with excitement for the future. It'll be Great in 2-0-1-8.

TOM'S COMMENTS: Comments from our Vice Director Tom Delaney W8WTD

Even though it's the end of October, the highlight of the month had to be the Great Lakes HamCon, held on the first weekend in October. Congratulations to all the organizers, and especially to the coalition of Michigan clubs who got together to sponsor the event. Great venue, excellent forums, and lots of people! Looking forward to next year already.

Along with my travel to Michigan, this month included a lot of travel, most of it personal. The following reflection is not new, and not un-noticed by others. It's just to note the continuing trend of non-use of two-meter repeaters, pretty much across the country. I notice it when I'm home. I monitor the club repeater, and try to answer any

call I hear. And I don't hear anyone, club member or traveler, calling.

It's the same when I'm on the road. State by state, city by city, a call on a local repeater produces only the ID. No QSOs. Where is everyone?

Of course, it's not the same as in the 1970s or 1980s. If I come across a road emergency, or have trouble myself, 911 is now the best and quickest solution. It was great that we hams stepped up when there were no such things as cell phones, and we were there with communications when it counted. We're better off now than we were, and we did a great service for the community. So naturally, with less need, fewer people monitor. But did we turn off our VHF radios for good? Yes, there are nets, and some of them are well-attended. But is once a week for a half hour good enough?

We are tying up a lot of spectrum on 144-148 MHz. Are we making good use of it? If you put a meter on your club repeater, to measure how often the repeater comes on the air (exclusive of announcements) you won't find that it gets a lot of use. There are exceptions, of course. By and large, though, we're letting a good resource go unused.

If there's a solution, it's not one that requires a big change.

It's just a matter of individuals deciding that it's worth making a contact or two a day on the local repeater. When you're doing a project at your workbench, do you have a scanner or your VHF/UHF rig on?

Or if you're in your car, does the music drown out the repeater (assuming that the rig might even be on)?

I like operating HF and various other modes besides FM. But the local repeaters are the easiest and quickest ways to make contacts, and sometimes provide as much interest as any other mode. What do you say?

If I key up your club's repeater while I'm driving by, will you be there?

73, Tom W8WTD Vice Director, Great Lakes Division

HAMFESTING: We have approximately 65 ARRL ham-fests each year in the Division. I do encourage each

Hamfest Chair to register early for ARRL Sanctioning. Be sure to invite your ARRL Officials as soon as your date is set. Here is the current Great Lakes Division ARRL Sanctioned Hamfest Schedule covering the next couple of months. These swaps have received their sanctioning approval from ARRL HQ at the time of this publication.

11/4/17	Grant ARC Hamfest	Georgetown, OH
12/2/17	Fulton County	Delta, OH
12/3/17	Lanse Creuse	Madison Heights, MI
1/14/17	SCARF Hamfest	Nelsonville, OH
1/28/17	Hazel Park Hamfest	Madison Heights, MI
2/3/17	HARA Hamfest	Negaunee, MI
2/1/17	Cherryland Hamfest	Traverse City, MI
2/18/17	InterCity Hamfest	Mansfield, OH
2/18/17	Livonia Hamfest	Livonia, MI

Be sure to check your Section's news pages for the latest local happenings, club and net information.

73, Let's be radio-active. I like Tom's request, we need to get back to actually using our repeaters!

Dale Williams WA8EFK
Director
Great Lakes Division



ARRL PROPAGATION BULLETIN

ZCZC AP44

QST de W1AW

Propagation Forecast Bulletin 44 ARLP044 From Tad Cook, K7RA Seattle, WA November 3, 2017 To all radio amateurs

ARLP044 Propagation de K7RA

Average daily sunspot number increased from 13.4 to 17.7 for the October 26 to November 1 period, compared to the previous seven days. The main reason for the difference was that the previous seven days started out with two days with no sunspots, and the latter period ended with one day of 0 sunspots, on November 1.

Predicted solar flux is 74 on November 3-4, 73 on November 5-9, 71 on November 10, 70 on November 11-13, 71 on November 14, 72 on November 15-16, 73 and 74 on November 17-18, 75 on November 19-28, 72 on November 29-30, 70 on December 1-10, 71 on December 11, 72 on December 12-13, then 73 and 74 on December 14-15 and 75 on December 16-17.

Predicted planetary A index is 8 on November 3, 5 on November 4-5, then 8, 16, 25, 30, 28, 25 and 8 on November 6-12, then 5 on November 13-14, then 12, 10 and 8 on November 15-17, 5 on November 18-19, then 20 on November 20-22, 5 on November 23-27, 8 on November 28, 15 on November 29-30, then 10, 8, 5, 25 and 28 on December 1-5, then 35, 25, 20 and 8 on December 6-9, 5 on December 10-11, then 12, 10 and 8 on December 12-14, then 5 on December 15-16 and 18 on December 17.

Geomagnetic activity forecast for the period November 3-29, 2017 from F.K. Janda, OK1HH:

"Geomagnetic field will be:

Quiet on November 4, 6, 12-13, 23-27

Mostly quiet on November 3, 5, 16-19

Quiet to unsettled on November 15, 20

Quiet to active on November 7, 11, 14, 22 Active to disturbed on November 8-10, (21)

"Amplifications of the solar wind from coronal holes are expected November (3,) 9-14, 20-21

"Remarks:

- Parenthesis means lower probability of activity enhancement.

- Current forecasts remain less reliable."

Lately, it seems we cannot get enough of Hisako Koyama. Yet another story appeared this week at Syfy.com:

<http://bit.ly/2xT7WJj>

Don't miss the links at the end of the article showing detailed instructions for sketching sunspots.

Dr. Tamitha Skov on October 31 on You Tube:

<https://www.youtube.com/watch?v=jrUxUXTaL7A>

The CW portion of ARRL November Sweepstakes is this weekend. The complete package for this contest is here:

<http://bit.ly/2iopVkn>

Jon Jones, NOJK wrote:

"Jeff, N8II's comments re 10 meter openings in the ARL-P043 Propagation bulletin inspired me to check 10 Meters in the CQ WW SSB contest last weekend.

"Saturday afternoon October 28 was not good in KS, with only a few very weak LU and PYs coming through.

"Sunday Oct. 29 was much better on 10 Meters.

I set up fixed mobile with 100 W and a full size 1/4 wave whip at 1905z on 10 meters in eastern Kansas on a hilltop. Nice sunny afternoon, temp 65 degrees. FM5BH went into the log at 1909z followed by a very loud HI3T at 1911z, then CU4DX on 28.325 MHz for the only European at 1912z. Over the next hour and half I logged around 40 more stations, a mixture of Caribbean, Central America and CE, CX, LU and PY. DX included FY5KE, PZ5K, OA4SS, HC2G and HP1XT.

Some fairly short F2 with CO8RH at 1952z and Stan, K5GO at ZF9CW in the log at 2002z. Not bad for a solar flux of 75."

If you would like to make a comment or have a tip for our readers, email the author at k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service web page at, <http://arrl.org/propagation-of-rf-signals>. For an explanation of numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>.

An archive of past propagation bulletins is at <http://arrl.org/w1aw-bulletins-archive-propagation>. More good information and tutorials on propagation are at <http://k9la.us/>.

Monthly propagation charts between four USA regions and twelve overseas locations are at <http://arrl.org/propagation>.

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for October 26 through November 1, 2017 were 23, 23, 22, 23, 22, 11, and 0, with a mean of 17.7. 10.7 cm flux was 77.3, 76, 75.4, 75.3, 75.6, 75.4, and 72.6, with a mean of 75.4. Estimated planetary A indices were 20, 5, 6, 4, 3, 3, and 4, with a mean of 6.4. Estimated mid-latitude A indices were 16, 4, 5, 3, 1, 2, and 2, with a mean of 4.7.

NNNN



ARRL DX NEWS

QST de W1AW
DX Bulletin 44 ARLD044
From ARRL Headquarters
Newington CT November 2, 2017
To all radio amateurs

ARLD044 DX news

This week's bulletin was made possible with information provided by LU4AAO, NK8O, the OPDX Bulletin, 425 DX News, The Daily DX, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

MAURITIUS, 3B8. Jean-Paul, HB9ARY will be QRV as 3B8HC from November 4 to 18. Activity will be holiday style on 80 to 10 meters using CW and SSB. QSL direct to NI5DX.

GUINEA, 3X. Alain, F5OZC and Sebastien, F8DQZ are QRV as 3XY3D/p from Kassa Island, IOTA AF-051, during the month of November. Activity is on 40 to 10 meters using mainly CW. QSL via F5OZC.

TIMOR-LESTE, 4W. Thomas, OZ1AA is QRV as 4W/OZ1AA until November 7. Activity is on 40 to 10 meters using CW and FT8. QSL via OZ1ACB.

TANZANIA, 5H. Charles, NK8O will be QRV as 5H3DX from Zinga from November 5 to December 5. Activity will be in his spare time on 40 to 10 meters using CW, PSK and FT8. QSL to home call.

CROATIA, 9A. Sergio, IZ3NXC will be QRV as 9A/IZ3NXC from Pag Island, IOTA EU-170, from November 7 to 9. Activity will be on 80 to 10 meters using SSB and various digital modes. QSL via IK3GES.

BURUNDI, 9U. Members of the Mediterraneo DX Club will be QRV as 9U4M from November 6 to 17. Activity will be with five stations on the HF bands using CW, SSB and RTTY. QSL via IK2VUC.

GUADELOUPE, FG. Bill, K2HVN will be QRV as TO2E from November 5 to 10. Activity will be holiday style on 40 to 10 meters using CW and some SSB. QSL to home call.

NEW CALEDONIA, FK. Manuel, HB9DQM is QRV as FK/HB9DQM/p. Activity is on the HF bands using CW and SSB from some SOTA locations, and some FT8 from Noumea. His length of stay is unknown. QSL to home call.

ARGENTINA, LU. Special event station LU4AAO/D will be QRV on November 4 and 5 from the Antarctic Museum, Villa Adelina, near Buenos Aires to celebrate the Night of Museums. Activity will be on 80 and 40 meters using SSB, 15 meters using CW, JT65 and FT8, and FM on 2 meters. QSL via LU4AAO.

FAROE ISLANDS, OY. Axel, DK2AJ is QRV as OY/DK2AJ from Kivik until November 11. Activity is on the HF bands using RTTY and PSK. QSL to home call.

NETHERLANDS, PA. The VRZA Zuid West Nederland Radio Club is QRV with special call PA25ZWN until November 28 to celebrate the club's 25th anniversary. QSL via PI4ZWN.

SWEDEN, SM. The Helsingens Radio Club Goeteborg is QRV with special event call 7S50AW during November to celebrate the club's 50th anniversary. QSL via SM6PPS.

POLAND, SP. Special event station SN145BRAIL is QRV during November to mark the founding 145 years ago of the Louis Braille Special Educational Centre for Blind and Visually Impaired Children and Youth. QSL via SP2PBY.

TURKEY, TA. Nuri, TA3X is QRV with special event call TC630MECCA until January 14, 2018. Activity is on 160 to 10 meters using CW, SSB, RTTY, SSTV and PSK63. QSL to home call.

MELLISH REEF, VK9M. A group of operators are QRV as VK9MA until November 16. Activity is with five stations on 160 to 10 meters using CW, SSB, RTTY, JT65 and FT8. QSL via N7QT.

NORFOLK ISLAND, VK9N. Rob, MOVFC plans to be QRV as VK9/MOVFC until November 6. Activity is on 30 and 20 meters, and possibly 40 and 17 meters using CW and SSB. He may also be active as VK9/MOVFC/P from SOTA VK9/NO-001 using QRP power. QSL via LoTW.

HONG KONG, VR2. Tom, KCOW is QRV as VR2/KCOW from Cheung Chau Island, IOTA AS-006, until November 15. Activity is on the HF bands using CW and FT8. QSL direct to home call.

INDONESIA, YB. Look for stations YB8RW/P and YE8XBN/P to be QRV from Zum-Zum MacArthur Island, IOTA OC-145, from November 5 to 8. Activity will be on 80 to 10 meters using CW, SSB, RTTY and other digital modes. QSL both calls via YB8RW.

VANUATU, YJ. Michael, VK2BXE and Chris, VK2YUS are QRV as YJ0MB and YJ0CA, respectively, from Efate Island, IOTA OC-035, until November 7. Activity is on 40 and 20 meters using SSB. QSL direct to home calls.

THIS WEEKEND ON THE RADIO. The ARRL CW Sweepstakes Contest, ARRL EME Contest, NCCC RTTY Sprint, NCCC CW Sprint, IPARC CW Contest, Ukrainian DX Contest, IPARC SSB Contest, EANET Sprint and High Speed Club CW Contest will certainly keep contesters busy this upcoming weekend.

The ARS Spartan CW Sprint is scheduled for November 7. The CWops Mini-CWT Test, Phone Fray and QRP 40-Meter CW Fox Hunt are scheduled for November 8.

Please see November QST, page 93, and the ARRL and WA7BNM Contest Web Sites for details.

NNNN

CLASSIFIED

Looking to swap my 50' aluminum tower, C-II rotor and control box. Please email fdlequia@alphacomm.net with info. Thanks!

Fuzzy Wd9hdp
Felch, MI

Yaesu FT-840 HF rig, everything works, no scratches, very good condition. Includes hand mic, power cable and manual. This radio has general coverage receive for shortwave listening. \$450

Yaesu MD-1 desk mic, very good condition. \$90

If purchase both I will sell for \$500.

Bruce, N9MDE
Cell: [906-250-9234](tel:906-250-9234)



Space Available to push your stuff

LINKS AND STUFF

Under re-construction. Watch for the orange barrels

*Delta County Amateur Radio
Escanaba, MI
www.dcars.org*

*Cooper Country Radio Amateur
Dollar Bay, MI
www.ccras.net*

Area Repeaters

Escanaba 147.15+	100.0
	145.13- No PL
Wells 444.30+	No PL
Gladstone	
IRLP 4013 147.55 Smpx	100.0
Champion 146.82-	100.0
Cooks 146.70 -	110.9
GrdMarais 147.195+	No PL
Gwinn 146.64	100.0
Iron Mtn 146.85 —	100.0
Iron River 145.17-	107.2
Ishpeming 146.91-	No PL
IRLP 8993 443.50+	100.0
Manistique 146.79 -	No PL
Marquette 146.97 -	No PL
	147.27+ 100.0
	444.80+
	No PL
Menominee 147.00+	107.2
Newberry 146.61 +	No PL
	147.09+ 114.8
Republic 147.09+	No PL
Trenary 147.03 +	100.0
Wetmore 145.41-	100.0

ARRL Affiliated Club Area Nets

UP Net 3921khz
Daily 5pm EST
Sunday Noon EST

UP CW NET 3590khz
Sunday 7pm EST

160 Net 1895khz
Everynight 0100UTC
Dailey 0600UTC

Midcars 7258khz
Daily 0730am EST
0200pm EST

Outhcars Node 9614
Saturday 0900am EST

UP Echolink Node 9617
Sunday 8pm EST

Copper County ARES
146.88
Wednesday 6pm EST

Dickenson County ARES
146.85
Sunday 6pm CST

Mich-A-Con Social
146.850
Thursday 0630pm CST
ARES follows

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

ARRLMICHIGAN: <http://www.arrl-mi.org/>

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

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

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

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

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

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

E Ham Net <http://www.eham.net/>

UP Skywarn: <http://kera-mi.net/skywarn/>

Band Conditons: <http://bandconditions.com/>

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Terry Moriarity: 715 251 1670

Activities:

Second Wednesday of the month the Mich-A-Con Amateur Radio Club meets in the Dickinson Country Library at 7:00 P.M. Winter or 6:30 PM Summer

Visitors and prospective members are always welcome!

Club Repeater:

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. The range of the 440 MHZ repeater is about 25 miles. Both are under normal conditions, depending upon terrain.

The Repeater Specifications:

The 146.85 repeater is a Yaesu DR 1 digital and Analog repeater Frequency. 146.85 minus offset, 100 hz PL tone encode and decode Power 50 watts. The Controller is an Arcom RC 210 . It is also System Fusion capable.

. The 440 MHZ repeater is a GE Master II 444.85, plus offset, 100 hz pl tone. 35 watts output. The Controller is a Arcom 210.

The 2 meter and the 440 can be linked. The repeaters share a Diamond dual band antenna at a tower height of 125 ft.

We're on the Web!

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

Previous editions of the Newsletter can be accessed by a link on the **news** page

From Your Newsletter Editor

Thank you to those contributors and critiques.
Welcome your articles - They make the Newsletter.

For those not getting the Newsletter, it is because I have an incorrect email address. Please give me the correct address.

The following is referenced from <http://www.dx-code.org>

DX Code Of Conduct

I will listen, and listen, and then listen again before calling.

I will only call if I can copy the DX station properly.

I will not trust the DX cluster and will be sure of the DX station's call sign before calling.

I will not interfere with the DX station nor anyone calling and will never tune up on the DX frequency or in the QSX slot.

I will wait for the DX station to end a contact before I call.

I will always send my full call sign.

I will call and then listen for a reasonable interval. I will not call continuously.

I will not transmit when the DX operator calls another call sign, not mine.

I will not transmit when the DX operator queries a call sign not like mine.

I will not transmit when the DX station requests geographic areas other than mine.

When the DX operator calls me, I will not repeat my call sign unless I think he has copied it incorrectly.

I will be thankful if and when I do make a contact.

I will respect my fellow hams and conduct myself so as to earn their respect.

MEMBERSHIP

Call Sign	Last Name	First Name	City	Phone	Email
WB8EBS	ARMBRUST	BURT	QUINNESEC	906-774-8383	wb8ebs@yahoo.com
W8XBO	ARMBRUST	ED	IRON MOUNTAIN	906-779-5593	w8xbo@sbcglobal.net
KC9KVP	BAKER	BETH	NIAGARA		
KB9AVX	BAKER	SCOTT	NIAGARA	715-251-1944	kb9avx@yahoo.com
KB8SBP	BERTOLDI	BILL	KINGSFORD		
W8BEY	BEY	DANA L.	KINGSFORD	906-774-7937	lst797@charter.net
K8DDA	BRAY	MIKE	VULCAN	906-201-1550	mikebray@chartermi.net
KE9L	CASWELL	SKIP	IRON MOUNTAIN	906-774-3371	acaswell4238@charter.net
KC8QZG	DAKE	DAVE	NEWBERRY		
KC9ZBC	DOLATOWSKI	SCOTT	GOODMAN	715-633-1006	kc9zbc@live.com
KC9TQR	FERRIS	JOE	FLORENCE	517-589-4386	jrferris@borderlandnet.net
N9MBG	FRY	ED	PEMBINE	906-221-7307	efry7849@gmail.com
KG8NK	GEMBOLIS	LOUIS	ISHPEMING	906-485-5442	lgembolis@chartermi.net
KD8VTS	GRABOWSKI	DEBRA	CRYSTAL FALLS	906-284-2450	kd8vts@gmail.com
KD8VTT	GRABOWSKI	WILLIAM	CRYSTAL FALLS		
KC8TH	HEYBOER	TOM	IRON MOUNTAIN	906-779-0481	heyboer.tom@gmail.com
N8ATS	HOLMES	SAM	PEMBINE	906-322-8507	chopsam@centrylink.com
KA8TFF	JARMUSCH	SCOTT	IRON MOUNTAIN		
KB9EMU	KNUTSON	WILLIAM	FENCE	715-336-2250	dknutson54@gmail.com
KB8ETK	KOMBLEVICZ	JOSEPH	IRON MOUNTAIN	906-774-4094	kombleviczj@charter.net
KD9HQD	LaLIBERTE	BRUCE	NIAGRA, WI	?	liberte@borderlandnet.net
W8JWN	MARTIN	THOMAS	IRON MOUNTAIN	906-774-5463	tmartin@chartermi.net
WA8FXQ	MEYERS	BOB	VULCAN	906-396-0119	meyersb@uplogon.com
KC8LRP	MEYERS	MARGE	VULCAN	906-396-8913	mgmeyer@uplogon.com
N8TUM	MILLER	TIMOTHY	FLORENCE	715-696-6517	timmiller.up@gmail.com
K9TRY	MORIRITY	TERRY	NIAGARA	715-251-1670	kb9zer@yahoo.com
ND8M	PAUL	JARED	NORWAY	989-660-9535	jaredpaul@me.com
KD8SZA	PAUL	MICHELLE	NORWAY		
KC9NFT	PERRON	BARRY	FLORENCE	715-696-6175	bperron2@netzero.com
KC8JRI	REED	GORDY	IRON MOUNTAIN	906-779-1254	gordyreed@charter.net
K8ABS	RIVERSIDE	JIM	IRON MOUNTAIN	906-458-0773	jriverside@charter.net
W8IFI	RYE	JIM	CRYSTAL FALLS	906-875-3582	jimrye@up.net
K4FMX	SCHAFFER	GARY	NIAGRA, WI	?	GARYSCHAFFER@LARGERIVER.NET
KG9Y	THOMAS	DAVE	NIAGARA	715-251-1393	kg9y@arrl.net



MICH - A - CON

Please remit dues to:

**Debbie Garbowski, KD8VTS
203 Camp 5 Road
Crystal Falls, MI 49920**

Name: _____

Call Sign: _____

Address: _____

City, State, Zip: _____, _____, _____

Email Address: _____

Phone: _____

ARRL Member? Yes _____ No _____

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: _____

Call signs: _____

City, State, Zip: _____

Annual dues are Payable January 1st.

Dues for New Members are Pro-rated. Please remit \$1.67 per month for a Single membership or \$.50 per month for a Family membership.