



MCRC Spark Gap



The Longest ARRL Affiliated Club
in Michigan

June 2017

Volume 65 Issue 6

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The Prez Says!

Bruce AC8KD

On May 20th, we kicked off the 2017 Fox Hunting season. Even if you have never done any transmitter hunting or have no equipment, if you are interested come on out and we will team you up with one of our experienced hunters. It'll be lots of fun, I promise. See page 9 for more about this.

In June, we will be taking part in Field Day. This year, Field Day is June 24-25th at Centennial Farm on Grosse Ile. This has always been a great place to hold Field Day. Kudos to Don K8THU for securing this year's site. And a big thank you to Jim KD8HFX for being Field Day chair this year. We still need a people to sign up for the W8GTZ station, and to handle some of the other tasks needed to make Field Day a success. You can sign up on line or at the June meeting, where we will finalize our operating plan. See page 6 for more information.

Club Picnic is August 12th at Elizabeth Park in Trenton. There may be an impromptu fox hunt during the picnic, time will tell. Come to the picnic, have a great time laughing and talking, swap tall tales of rare DX, and leave with a full belly.

And finally, September will be here before we know it. We need to start thinking about our next club officer elections. Please consider running for office, or even just volunteering for one of the several open positions. This is your club. We need you to help run it.

73, Bruce AC8KD



The Motor City Radio Club Two Meter Net is every Tuesday at 9pm on The Wyandotte Repeater.

147.240 with a 100 Hz PL.

If you are traveling you can still check into the net via Echolink. Look for us at the bottom of the 8 section at WY8DOT-R

You do not need to be a member of the Motor City Radio Club to check into the net. All licensed radio amateurs are welcome.



Michigan International Speedway, Brooklyn, MI

October 7 & 8, 2017

Indoor Commercial Vendors
Huge Paved Flea Market
Loads of Parking
KB6NU's One-Day Tech Class
Great Food Available
Mobility Scooters Available
Unique Location
Saturday Evening Banquet

Forums
Workshops
Camping
VE Testing
Fox Hunt
Door Prizes
Room to Grow
2 Days of Fun!

- 2017 ARRL Great Lakes Division Convention
- ARRL President Rick Roderick, K5UR will be in attendance
- Tickets are now available online (\$17 in advance, \$20 at event)
- Special Promotion for limited time: \$16 in advance
- See link below:

<http://www.mispeedway.com/About-MIS/Special-Events/Great-Lakes-HamCon.aspx>



www.gllhamcon.org

Info@gllhamcon.org

Our club has signed up to be a participating member of Great Lakes HamCom. In the coming months, we will be signing up to go out to the speedway and help run the swap. Volunteers will be needed for traffic, ticket sales, etc. Let's make the first Great Lakes HamCom a great success, and the first of many to come.



Fellow Hams:

Plans for the Great Lakes HamCon at Michigan International Speedway are moving forward. The event has recently been approved as the site of the 2017 ARRL Great Lakes Division Convention. Volunteer help is needed, Event preparation has started and the pace will pick up as October grows closer.

Your skills and expertise are needed. Marketing and promotion is just one area. Do you have expertise in social media, website design, videography, graphic design or similar? We will have a presence at Dayton and many other hamfests over the summer. A robust program of forums will be staged at the event. Help will be needed staging the venue as well as setup and event day activities. Do you have contacts or relationships in the commercial side of ham radio that can help ensure an exhibitor comes to the event?

The success of Great Lakes HamCon depends on the engagement of the area hams and their clubs. Let us know how you can help. Send an email to volunteer@GLHamCon.org. Include where your interests lay and the skills and experiences you bring with you. Don't hold back, include those ideas that will make the event unique and special. If you just want to help out in general, that's fine, we need you.

Please forward the word to other hams. Include this in your club newsletter. Spread the word.

Thanks in advance for your help.

73,

Glen Ohlemacher - K8GO

President - Great Lakes Amateur Radio Association

On May 13th at 9:00 AM, 11 cars descended on First United Methodist Church in Wyandotte for a VE session. Justin Flood, Alexander Porchia, Larry Van Belle and Chris de Haan all came in looking for their tech licenses. By the end of the morning all of them passed their exams. The Club is grateful to Ralph, KA8KGW; Bill, NU3D; Tony, KE8CDD; Bill, KD8WTT and Forest aka Woody, N8MWQ who took a Saturday morning to volunteer for our exam.
Kudos again to our new Technicians.



The next **Ham Radio License Exam** is Saturday, June 24th at this year's Field Day site, Centennial Farm. 25797 3rd. St. Grosse Ile, MI.

Please arrive at 10:00 am. Testing will begin after paperwork is completed and is usually finished by 1:00pm.

Items to bring with you:

1. \$15.00 exam fee (Exact Amount Preferred)
2. Number 2 Pencil
3. An original of your current FCC license (if you have one)
4. A copy of your current FCC license (if you have one)
5. Two pieces of Identification (at least one photo)
6. Your Pay Pal Receipt if you choose to pay online beforehand.

Those interested can register for the exam ahead of time on the Motor City Radio Club's website. Go to w8mrm.net. Click on the Event tab on the left, then click on the exam announcement. On that page, you can register for the exam and also pay beforehand using PayPal.

Don Novak, K8THU
V.E. Liaison

HAMFEST!!!
It's Like Spring Break For Geeks.



THE CLUB HAS A TABLE AT THE MONROE SWAP

The Monroe Michigan Hamfest is on Father's Day, June 18th. At the Monroe County Fairgrounds on M-50, west of Monroe. This hamfest starts at 8am. Talk in is on 146.72, with a 100 hz pl.

The club has been offered a free table at the swap and accepted. There will be a ticket raffled off at the June meeting for that swap (for any one that will be going to the swap).

The club is looking for equipment to sell on our free table. Please look thru your junk box or unused equipment and bring it to the June meeting for sale at the Swap. You can ask for the club to sell your equipment and give the club a donation for selling it (usually 10%). or you can donate it to the club and we get the money for club activities.

Please think of helping the club make some money for the treasury.

Thanks

Dale WA8FRD

**SAVE
THE DATE**

It's not too early to mark your calendars for the November Dinner. As last year, the dinner will be at the Sportsmen's Den in Riverview, this year on **November 11th**. Everyone who attended last year had a great time, and all attendees reported that the food was superb. Cost this year will be \$22.00. The menu is the same as last year's. So don't delay, mark your calendar today.



On May 20th we kicked off the 2017 Fox Hunting season. We meet at 9:00am for breakfast at Leo's Coney Island Restaurant 19230 Fort St. Riverview, MI 48193, the corner of Fort and Sibley. The Fox Hunt will start promptly at 10:30am. Even if you have never done any transmitter hunting or have no equipment, if you are interested come on out and we will team you up with one of our experienced hunters.

2017 Season Schedule:

May 20th, June 17th, July 22nd,
August 19th, September 16th and
October 15th.



Wyandotte Repeater Fund

The Wyandotte Repeater has been operating on its frequency pair since the early 1970s serving the amateur radio community and the public in the Downriver area. For most of that time it has been operating from a "single site" using only one antenna. That can be accomplished by using a device that keeps the transmitter signal from being picked up by the receiver. This device is called a duplexer. Many duplexers consist of four tuned cavities two connected to the transmitter and the other two connected to the receiver.

The duplexer at WY8DOT had been in service since 1976 and served flawlessly up until recently. Then it became unstable and would not maintain its tuning adjustments which resulted in significant degradation of performance as some of the transmitter signal was getting into the receiver. We have temporarily replaced the duplexer with a borrowed unit. We have an opportunity to have the original duplexer rebuilt. Our normal donations to the Repeater Association pretty well keep up with on-going expenses. The rebuild project will significantly cut into the funds. (The cost of the rebuild is about 10% of the cost of a new Duplexer). We would like to build the capital fund up by about \$350. If we could get ten repeater users TO donate \$35 each that would do it.

We can't keep the borrowed duplexer forever and we would like to returned it to its owner as soon as possible. If you wish to help out on this project complete the form above and send it with a check to the address on the form on page Six of this issue of the Spark Gap. Or bring the form and the donation to the June MCRC meeting.



FIELD DAY 2017 June 24-25

Greeting fellow MCRC members. Field day here!!! This is the last Spark Gap before the big event. Some last minute housekeeping items for you to remember:

1. Sign up for W8GTZ operating and logging - Here is the link. <https://goo.gl/xCyPfp>
2. Be sure to order your T-Shirt and Friday night steak - Your last chance to order is at the June meeting.
3. Sign up for W8GTZ
4. Bring a comfortable outdoor chair
5. Sign up for W8GTZ
6. Bring bug spray
7. HT is a great thing to have tuned to 147.42
8. W8GTZ - Needs operators and loggers
9. Download the N3FJP software and practice logging. And
10. Sign up for W8GTZ



The June meeting will be all about field day and any last minute preparations. We will be looking for people to help setup on Friday afternoon. Volunteers will also be needed to help man the information tent and 2m talk in station. Finally, if we can all take a moment to say a prayer to the weather gods and keep our fingers crossed for a sunny mild weekend, with no clouds and good radio conditions. Looking forward to a great Field Day this year.

73, Jim - KD8HFX

When ordering T-shirts, please indicate if you would like your call, your name, or both your call and your name on your T-shirt. There is no difference in cost, depending on what you would like on your shirt.

Please have your orders in by June 9th, the day of the June Club meeting.

You can mail your order to the club mailbox, give to any board member at the June meeting, drop or mail the order to Dale's house, or order online on the club website.

Club Address:

P.O. Box 1337 Southgate 48195

WA8FRD Dale's Address

2095 22nd Wyandotte 48192

Club website:

www.w8mrm.net

Look under Club News on the front page.



FD17
ARRL FIELD DAY
WWW.ARRL.ORG

Field Day Steaks and T-Shirts.

Order your steaks and T-shirts here. Give to Dale WA8FRD or any board member.

This year, the steaks are \$5, and the T-shirts are \$15 each.

Please check if you would like your:

Name

Call or

Both on your T-Shirts.

_____ Number of steaks at \$5 each

_____ Number of T-shirts circle size:

S M L XL XXL XXXL

Name and Call _____

Telephone _____

Total amount enclosed \$ _____

Wyandotte Amateur Radio Repeater Association
1885 Pinetree Dr
Trenton, MI 48183

Name _____ Call _____

Address _____

E-mail _____

Donation amount _____

Donation form for Wyandotte Repeater Duplexer.
See Page 4 for article and more information.

September Ham Classes at Wyandotte Bacon Memorial Library.

The Club is planning on putting on technician classes in September at the Wyandotte Bacon Memorial Library. Please consider teaching one of the classes. Classes are taught out of Dan KB6NU's book No-Nonsense Technician Book. It's an easy book to read, and an easy book to teach. Each class will be one chapter of the book. For more info, please contact Kimball N8FNC at the next club meeting, or by email at k.williams@ieee.org.



August Club Picnic



August is Picnic Time. The August meeting of the Motor City Radio Club will be the annual picnic. The date is August 12th in Elizabeth Park in Trenton. Loop the park, there will be a sign on the side of the road. Pot luck, bring your favorite side dish to pass.



MCRC Officers

President

Bruce Menning, AC8KD
president@w8mrm.net

Vice President

Ralph Nagy, KA8KGW
vicepresident@w8mrm.net

Secretary

Denise Keeler KC8HDX
secretary@w8mrm.net

Treasurer

Dale Poblenz WA8FRD
treasurer@w8mrm.net

Custodian

John Roberts N8KAM

Trustee(s)

Jim Baksa KD8HFX for W8MRM
John Roberts N8KAM for W8GTZ

Parliamentarian

Bill Loeber NU3D
nu3d@arrl.net

Committee Chairs

V.E. Liaison

Don Novak K8THU
k8thu@arrl.net

Net Manager

John Roberts N8KAM
netcontrol@w8mrm.net

Education

Kimball Williams N8FNC
k.williams@ieee.org

QSL Manager

Jim Baksa KD8HFX
k8sak@arrl.net

Spark Gap Editor

Mike Antio W8MRA
w8mra1@gmail.com

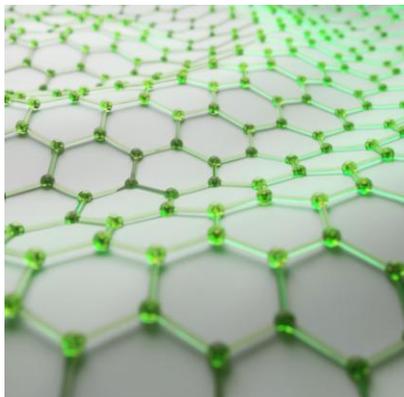
Webmaster

Jim Baksa KD8HFX
webmaster@w8mrm.net

Associate Webmaster

'Woody' Kirkman N8MWQ
N8MWQ@arrl.net

How Graphene Could Cool Smartphone, Computer and Other Electronics Chips



Graphene, a one-atom-thick layer of graphite, consists of carbon atoms arranged in a honeycomb lattice.

Rutgers scientists lead research that discovers potential advance for the electronics industry

With graphene, Rutgers researchers have discovered a powerful way to cool tiny chips – key components of electronic devices with billions of transistors apiece. “You can fit graphene, a very thin, two-dimensional material that can be miniaturized, to cool a hot spot that creates heating problems in your chip, said Eva Y. Andrei, Board of Governors professor of physics in the Department of Physics and Astronomy. “This solution doesn’t have moving parts and it’s quite efficient for cooling.”

The shrinking of electronic components and the excessive heat generated by their increasing power has heightened the need for chip-cooling solutions, according to a Rutgers-led study published recently in *Proceedings of the National Academy of Sciences*. Using graphene combined with a boron nitride crystal substrate, the researchers demonstrated a more powerful and efficient cooling mechanism.

“We’ve achieved a power factor that is about two times higher than in previous thermoelectric coolers,” said Andrei, who works in the School of Arts and Sciences.

The power factor refers to the effectiveness of active cooling. That’s when an electrical current carries heat away, as shown in this study, while passive cooling is when heat diffuses naturally.

Graphene has major upsides. It’s a one-atom-thick layer of graphite, which is the flaky stuff inside a pencil. The thinnest flakes, graphene, consist of carbon atoms arranged in a honeycomb lattice that looks like chicken wire, Andrei said. It conducts electricity better than copper, is 100 times stronger than steel and quickly diffuses heat.

The graphene is placed on devices made of boron nitride, which is extremely flat and smooth as a skating rink, she said. Silicon dioxide – the traditional base for chips – hinders performance because it scatters electrons that can carry heat away.

Upcoming Hamfests:

Monroe is on Father's Day. See article on Page 3.

Vintage Electronics Expo July 13-15 in Kalamazoo, hosted by the Michigan Antique Radio Club. More details will be in the July Spark Gap. More info can be found at

<http://michiganantiqueradio.org/>

The **Findlay** Swap in Findlay Ohio is September 10th at the Hancock County Fairgrounds.

2017 Great Lakes HamCon is coming.

Please see page 2 of this edition of the Spark Gap for more information.



June 10-12 VHF Contest: For amateurs in the US and Canada (and their possessions) to work as many amateur stations in as many different 2 degrees x 1 degree Maidenhead grid squares as possible using authorized frequencies above 50 MHz. Stations outside the US & Canada (and their possessions) may only work stations in the US (and its possessions) and Canada.

Stations in KH0-9, KL7 & KP1-KP5, CY9 and CY0 count as W/VE stations and can be worked by DX stations for contest credit.



Dear MCRC members:

After being licensed 60 years (November 1957), I have cleared out my collection, most of which has already been sold or donated to the club. I will continue to maintain my ticket, but with limited ops.

A bit about me and my reasons for donating. Although active in the past attending meetings, events and as a VE, my physical limitation have caused me to not participate anymore in recent years. I have neurological diseases that cause my legs to become numb and weak, also my arms and hands. I've not driven in a few years too.

That's the good part. I'm also diagnosed with a brain disease that is affecting my speaking and thinking ability. I have a hard time putting my thoughts into words, though I know what I want to say. But this problem is not Alzheimer's, instead it's a speech and language struggle.

Any amateur radio mode involves mental processing, which for me is dysfunctional. What I have has no cure and is progressive. Hence, why I donated some good useful ham gear.

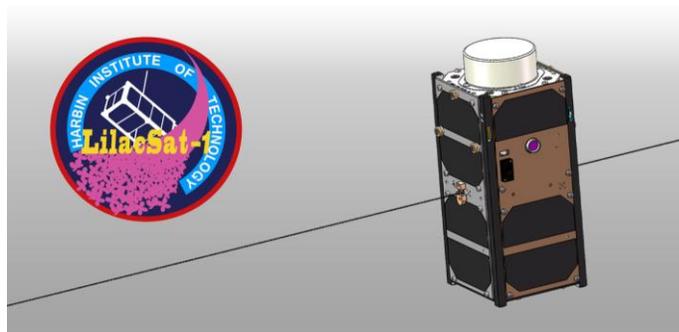
Many thanks to the club for helping me with this problem by taking what I cannot use anymore. I'm still a regular on our weekly Club Net. This is the best I can do - it's also the least I can do.

73, Bob W8OWL (Allen Park)

Phone 313-928-6658

Email: ars_w8owl@yahoo.com

Student Built Satellite



The student built LilacSat-1 carrying an amateur radio 145/436 MHz FM to Codec2-BPSK digital voice transponder, APRS Digipeater and camera was chucked out the backdoor of the ISS on May 25th. LilacSat 1 is a 2U-CubeSat for education, upper atmosphere science, amateur radio communication and technology demonstration, built by a team of students of Harbin Institute of Technology (HIT).

It is a part of the QB50 constellation. The QB50 project, which will demonstrate the possibility of launching a network of 50 CubeSats built by Universities Teams all over the world as a primary payload on a low-cost launch vehicle to perform first-class science in the largely unexplored lower thermosphere.

Morsum Magnificat now available for free download

The English language edition of Morsum Magnificat, the Morse Magazine, otherwise known as “MM”, contained a vast amount of information and illustrations of interest to Morse operators, key collectors, historians, researchers and other Morse enthusiasts. Published from 1986 to 2004, in 89 issues, with readers and contributors around the world, it covered every conceivable aspect of Morse telegraphy, past, present and future, in a truly international way.

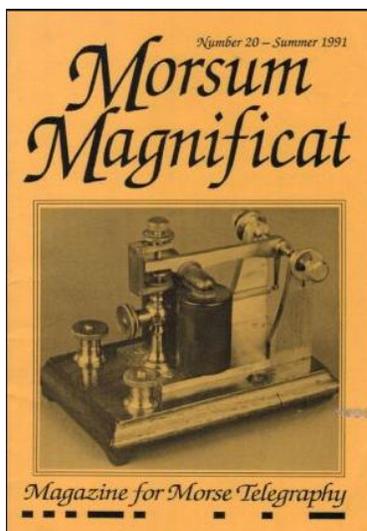
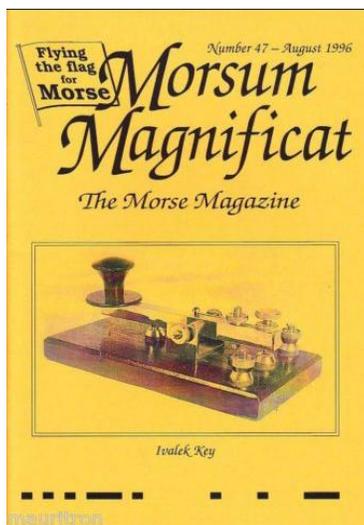
With the permission of the copyright holder, Zyg Nilski, G3OKD, this vast resource is now available for download in PDF format, free of charge, thanks to the generosity of Lynn Burlingame N7CFO who was a reader of, and contributor to, MM. Included in the downloads is an updated and revised version of the MM 54-page Key WT 8 Amp Worldwide Survey which has proved to be of great interest to both users and collectors of the many versions of this famous pre-war, wartime and post-war military Morse key.

Original readers of MM who have copies missing from their collection can now fill the gap with a digital download. Today’s newcomers, and those who missed it first time round, now have the opportunity to discover what this unique publication has to offer them, and it costs nothing!

Free downloads of MM are available for personal use only from:

<http://www.n7cfo.com/tgph/Dwnlds/mm/mm.htm>

73 of the 89 issues have been posted so far. If anyone can provide any of the missing issues for scanning to complete the set please contact Lynn Burlingame at n7cfo(at)n7cfo.com. Copies of MM may not be downloaded or distributed for any commercial purpose. Any website offering digital downloads of Morsum Magnificat or the Key WT 8 Amp Worldwide Survey for payment is doing so without copyright permission. Anyone finding such a site is asked to send details to g4fai(at)btinternet.com



Tony Smith G4FAI
Co-founder of the English edition
of Morsum Magnificat

- article courtesy kb6nu.com

FORWARDING SERVICE REQUESTED

Southgate, Michigan 48195

P.O. BOX 1337
MOTOR CITY RADIO CLUB, INC.

FIRST CLASS MAIL

Coming Events

June 9th General Membership meeting. Copeland Center. 2306 4th Street in Wyandotte.

Meeting starts at 7pm.

June 15th Board Meeting 7:30pm Leo's Coney Island, 9845 Telegraph Road, Taylor. Everyone is welcome at club board meetings.

June 17th Club Breakfast 9am Leo's Coney Island, 19230 Fort St., Riverview.

June 17th. Second Fox Hunt of season. 10:30am Following Club Breakfast from the parking lot of the Leo's Coney Island in Riverview.

June 23rd Field Day Setup at Centennial Farm. 25797 3rd. St. Grosse Ile, MI. Noon until 6pm.

Field Day. Starts 6/24 at 14:00 hours local time. Ends 6/25 at 13:59 hours local time.

June 24th Ham Radio Exam. 10:00 at the Field Day site, Centennial Farm on Grosse Ile.

July 8th. Ham Radio Exam. First United Methodist Church. 72 Oak St. Wyandotte. 9:00am.

July 14th General Membership Meeting. Copeland Center. 7pm.