

# M2M News Beacon

Member to Member News Beacon



### Inside this issue:

Toledo	2
Calendar	3
Triboelectricity	4
NOARS	5
Repeaters	6
Who We Are	7
ARRL Application	8

## Prez's Preface

*"It was one of those March days when the sun shines hot and the wind blows cold: when it is summer in the light, and winter in the shade."*

Charles Dickens, Great Expectations

March is a good time to cease hibernation, shake off the cobwebs and get out and about! Of course, the destination is best if it is a nearby Hamfest.

So, you have the luck of a leprechaun, since our neighbor to the north, NOARS, is holding their annual Winter Hamfest in

Elyria on March 1<sup>st</sup> (see flyer page 5), the ARRL Great Lakes Convention is in Toledo on March 14<sup>th</sup>, and the Toledo Hamfest is March 15<sup>th</sup> (see page 2).

Seems like the perfect antidote to the bleak events emerging as I write this column. With the stock market imploding and Coronavirus creeping into our consciousness, we all must find a way to deal with the uncertainty of the present.

"This too shall pass," is a gentle reminder that life ebbs and flows and the current turbulence will eventually lead to smoother sailing.

Until then, focus on the things that make you smile, whether it be family and friends, Ham Radio, or watching the daffodils poke through the snow.

God Bless and 73,

Jane K8JGR  
216-570-8500 (mobile)

## Hamatuer Antix



## MCARC February 10, 2020 Meeting Minutes

The Secretary's Minutes for February will be passed around for review at the March General Meeting.



### This and That

**ARRL Great Lakes Convention** (Saturday - March 14th, 2020) from 8:30am-9:30pm  
Location: Owens Community College (Perrysburg, OH, just outside Toledo)  
- Veteran's Hall: 30335 Oregon Rd., Perrysburg, OH 43551

What: 3 Rooms of fantastic forums all day, starting with the President of the ARRL (Rick Roderick) at 9am, 2 hours of forums with Bob Heil, the ARRL Banquet (need to buy tickets ahead online at the website), and a late Wouff Hong.

Food: A food truck will be available on-site, and information is available for other local establishments.

Tickets: You can pre-purchase tickets on the website ([toledoglc.org](http://toledoglc.org)) and receive a \$5 discount when purchasing for both the Saturday Convention and the Sunday Hamfest.

Other: Options for group meetings between 4-6pm - Let us know you are interested in your group using a room!

**Toledo Hamfest** - (Sunday - March 15th, 2020) from 8am-2pm  
Location: Owens Community College (Perrysburg, OH, just outside Toledo)  
- Student Health and Activities Center: 30335 Oregon Rd., Perrysburg, OH 43551

What: Large Hamfest (typically 1500 attendees and many vendors) + VE Testing. This is Handicap accessible and information available at [TMSHAMRADIO.ORG](http://TMSHAMRADIO.ORG).

Food: Available for purchase via on-site vendor.

Tickets: You can pre-purchase tickets on the website ([toledoglc.org](http://toledoglc.org)) and receive a \$5 discount when purchasing for both the Saturday Convention and the Sunday Hamfest.



## March 9, 2020 General Meeting

Join us 7:30 pm for our regular meeting on March 9 at the **Medina County Career Center (JVS)**, Room 246, 1101 West Liberty Street, Medina 44256.

The evening's program will explore the Satellite Disc Two-Meter Antenna, presented by Larry Shimerka N8OWS.

Sounds interesting! Bring a friend to learn something new.

## MCARC (M2M) Calendar

March 9, 2020	General Meeting
March 25, 2020	VE Testing at JVS 6:30pm
April 13, 2020	General Meeting
April 25, 2020	OH ARRL Ohio Section NVIS Day

### General Meeting Venues:

**JVS** = Medina County Career Center  
Room 246  
1101 West Liberty Street  
Medina 44256

**Sr** = Medina County Senior Center (Basement)  
aka: Medina County Office for Older Adults  
246 Northland Drive  
Medina 44256

**Meetings start at 7:30pm**

## Ohio ARRL Hamfests

### 03/01/2020

**Location:** Lorain County Community College  
1005 N. Abbe Road  
Elyria, OH 44035  
<http://www.wp.noars.net/hamfests/winter-hamfest/>  
**Sponsor:** Northern Ohio Amateur Radio Society  
**Talk-In:** 146.70 (PL 110.9)  
**Public Contact:** Thomas Porter , W8KYZ  
161 Herrmann Drive Avon Lake, OH 44012  
Phone: 440-320-5523  
**Email:** tporter161@oh.rr.com

### 03/14/2020 - 03/15/2020

**ARRL Great Lakes Division Convention and the Toledo Hamfest,**  
**Location:** Perrysburg, OH  
**Type:** ARRL Convention  
**Sponsor:** Toledo Mobile Radio Association  
**Website:** <http://www.tmrahamradio.org>

## ARRL Contests December

March 7-8 **International DX- Phone**



## The Cool Way Scientists Turned Falling Raindrops into Electricity

Scientists at the City University of Hong Kong have used a Teflon-coated surface and a phenomenon called triboelectricity to generate a charge from raindrops. "Here we develop a device to harvest energy from impinging water droplets by using an architecture that comprises a polytetrafluoroethylene [Teflon] film on an indium tin oxide substrate plus an aluminium electrode," they explain in their new paper in *Nature*.

Triboelectricity itself is an old concept. The word means "friction electricity"—from the Greek *tribo*, to rub or wear down, which is why a *diatribe* tires you out—and dates back a long, long time. Static electricity is the most famous kind of triboelectric. In most naturally occurring kinds, scientists have studied triboelectric in order to avoid its effects, like explosions inside of grain silos or hospital workers touching off pure oxygen. (Blowing sand causes an electric field, and NASA even worries about static when astronauts eventually land on Mars.)

One of the most studied forms of *intentional* and useful triboelectric is in ocean wave generators, where the natural friction of waves meets nanogenerators of triboelectric energy. These even already use Teflon, which has natural conductivity that makes it ideal for this job. But triboelectricity is chaotic, and harnessing it

generally involves a bunch of complicated, intersecting variables that can vary with the hourly weather. Promises of static electricity charging devices have often been, well, so much hot, sandy wind.

The scientists at City University of Hong Kong used triboelectric ideas to turn falling raindrops into energy. They say previous versions of the same idea were not very efficient, with materials that didn't allow for high-fidelity transfer of electrical charge. (Many sources of renewable energy aren't yet as efficient to turn into power, both because of developing technology and because their renewability means even less efficient use could be better than, for example, fossil fuels.)

"[A]chieving a high density of electrical power generation is challenging," the team explains in its paper. "Traditional hydraulic power generation mainly uses electromagnetic generators that are heavy, bulky, and become inefficient with low water supply."

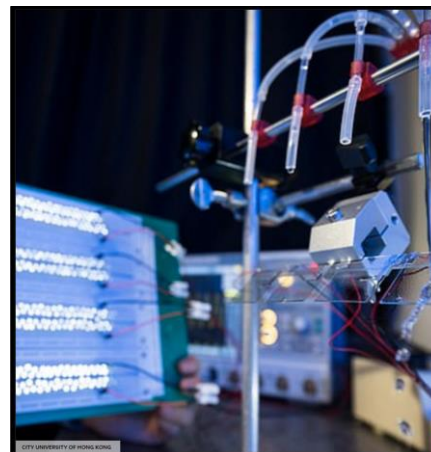
Diversifying how power is generated by water sources is good

for the existing infrastructure as well as new installations.

The research team found that as simulated raindrops fell on their device, the way the water accumulated and spread created a link between their two electrodes, one Teflon-coated and the other aluminum. This watery de facto wire link closes the loop and allows accumulated energy to move through the system. Because it's a mechanical setup, it's not limited to salty seawater, and because the medium is already water, its potential isn't affected by humidity.

Raindrop energy is very low frequency, which means this tech joins many other existing pushes to harvest continuously available, low frequency natural energy. To make an interface that increases "instantaneous power density by several orders of magnitude over equivalent devices," as the researchers say they've done here, could represent a major step toward feasibility in triboelectric generation.

*Popular Mechanics*, By Caroline Delbert  
Feb 10, 2020



From Our Friends at NOARS...



# **NOARS**

## **Winter Hamfest**

**Annual Hamfest and Computer Show**

**Sunday, March 1, 2020**

**8AM - 12PM**

**Lorain County Community College**

**John A. Spitzer Conference Center**

**1005 N. Abbe Rd.**

**Elyria, OH**

**Setup at 6:00 a.m.**

**Doors open at 8:00 a.m.**

**Climate controlled indoor vendor sales**

**Free Parking - Handicap Accessible**

**ARRL APPROVED HAMFEST**

**Just \$7.00 General Admission - under 12 free**

**6 ft. indoor vendor tables - \$10.00**

### **PRIZES**

**Hourly Prizes starting at 9 AM**

**Need not be present for Main Prizes but must be present for all other prizes.**

**Mobile check-ins and directions on 146.70- (PL 110.9) NOARS repeater**

**For table reservation contact:**

**Carl Rimmer, W8KRF, at [winterhamfest@noars.net](mailto:winterhamfest@noars.net) or call 216-256-9624 (before 9PM)**

**Vendor Special: 20% discount on 6 or more tables with early reservation and payment. Cutoff February 1, 2020**

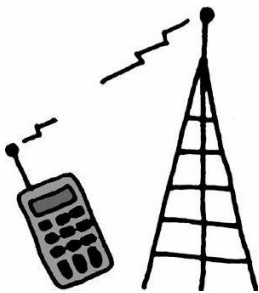
To find out more, go to the NOARS web site: <https://www.NOARS.net/winter-hamfest/>



## MCARC (M2M) Repeaters

05/11/2018

*Remember to check in to the 2-Meter Net 147.030 on non-meeting, Monday evenings at 7:30pm.*



Call	Location	Function	Repeater Input	Repeater Output	CTCSS (PL)	Band
W8EOC	Medina (Main Site)	Repeater TX & RX	147.630	147.030	141.3	2 Meter
W8EOC	Brunswick (North)	Receive only	147.630	From Main Site	131.8	2 Meter
W8EOC	Lafayette (South)	Receive only	147.630	From Main Site	88.5	2 Meter
W8HN	Medina	Digital C4FM TX & RX Repeater	147.885	147.285	(0)	2 Meter
		Analog TX & RX Repeater	147.885	147.285	(110.9)	2 Meter
W8UQZ	Medina	Repeater TX & RX	223.260	224.860	-	1.25 Meter
W8EOC	Lafayette	Repeater TX & RX	449.925	444.925	131.8	70 CM

## MCARC (M2M) Monday Night 2-Meter Net Control

02-Mar-2020	K8NVR	09-Mar-2020	<b>Meeting</b>
16-Mar-2020	KD8SST	23-Mar-2020	K8TV
30-Mar-2020	K8NVR	06-Apr-2020	K8IIT

## ARRL Membership

Please consider paying your dues **for ARRL membership** through our club Treasurer, Gail KD8GGM. **M2M will retain \$15.00 for each NEW membership and \$2.00 for each renewal.**

Yearly dues are \$49.00 for regular membership, \$25.00 for youth under age 21 being oldest Ham in household, and \$10.00 for Additional Ham member in family. All but Additional Ham memberships will receive the monthly QST magazine. Dues can be paid by cash, **personal check made out to "Medina Two Meter Group"** or credit card.

**A copy of the ARRL Membership Application/Renewal form is appended to this newsletter). Please return it with payment to:** Gail Helwig KD8GGM, Treasurer, M2M Group, 12891 East River Road, Columbia Station, Ohio 44028. (Do not mail cash, give it to Gail at the next meeting.)

**M2M GROUP, INC**

**We're on the Web!**

*See us at:*

**www.W8EOC.org**

**Also,**

**"Like Us" on  
Facebook**

**"Medina County  
Amateur Radio  
Club"**



## Who's Who

**President:**

Jane Reed K8JGR  
jane@K8JGR.radio

216-570-8500

**VP:** Diane Snider KD8SSX

**Treasurer:**

Gail Helwig KD8GGM

**Secretary:**

Ray Orobona K2RWO

**W8EOC Repeaters:**

Ken Koyan K8TV  
Ed Eyerdom K8NVR

**State Certification:**

Don Duman W8DD

**Trustees:**

Doug McClure KD8SST

Dave Swancer KE8APO

Dave Oravec N8JNX

Amy Panchumarti K2KSU

Ed Eyerdom K8NVR

**Sunshine:**

Diane Snider KD8SSX

**Newsletter:**

Jane Reed K8JGR

**Field Day:**

Fred Helwig K8FH

**Website:**

Jane Reed K8JGR

**Net Scheduling:**

Baji Panchumarti K8IIT

**Social Events:**

Gail Helwig KD8GGM

**Skywarn:**

Tracey Liston W8TWL

**MECARS/ARES:**

Jim Bodnar W8UQZ

**RACES:**

Dave Rickon NF80

**Program:**

Toby Kolman W8TO

## About Our Organization...

The Medina County Amateur Radio Club (M2M) is a nonprofit, ARRL Special Service registered, amateur radio organization based in Medina County, dedicated to communication, public service, education and fellowship.

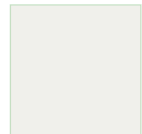
Many of our members also are involved with Skywarn, ARES/MECARS, RACES, and assist with community events

such as bicycle and foot races.

We meet on the second Monday of each month at either the Medina County Senior Center (Sr) or the Medina County Career (JVS) Center. See Website or page three for more information.



MEDINA TWO METER GROUP (M2M) INC.  
DBA: MEDINA COUNTY AMATEUR RADIO CLUB  
1254 HADCOCK RD  
BRUNSWICK, OHIO 44212



TO:



**ARRL** The national association for  
**AMATEUR RADIO®**

# Membership Application

Application for use by ARRL Affiliated Clubs

## Contact Information

- I am a brand new member or my membership has been lapsed for 2 or more years. My club will keep \$15 of my dues.  
 I am renewing (includes lapsed members of less than 2 years). My club will keep \$2.00 of my dues.

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Email \_\_\_\_\_ Phone \_\_\_\_\_

Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_ Get an annual birthday coupon (US only)

My Family Member is Joining or Renewing: (\$10 per member)

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

## Your Annual Membership Dues – Circle Your Choice/s.

	1 Year	2 Years	3 Years	
US	\$49	\$95	\$140	Monthly QST via standard mail for US members
Youth	\$25			Must be 21 years old or younger AND the oldest licensed Radio Amateur in the household
Canada	\$62	\$120	\$177	Monthly QST via standard mail for Canadian members
International	\$76	\$147	\$217	Monthly QST via standard mail for International members
International/Canada – no print QST	\$49	\$95	\$140	Digital QST only
Family	\$10	\$20	\$30	Must reside with primary member and have corresponding membership dates; no extra copies of QST
Blind	\$10	\$20	\$30	No QST delivery; all other member benefits apply. Requires a one time signed and dated statement of Legal Blindness

Additional membership options available online at [www.arrl.org/join](http://www.arrl.org/join). US Memberships include \$21 per year for subscription to QST. Dues are subject to change without notice and are non-refundable. Only one free book and one monthly issue of QST per family. Memberships may not be combined with any other promotion or special offer.

- I do not want my name and address made available for non-ARRL related mailings.

## Payment Information

Please charge my ARRL dues less my club's commission. I have paid the commission directly to my club.

\$ \_\_\_\_\_ Total Charge to:  Visa  MasterCard  Amex  Discover  Check Enclosed

Card Number \_\_\_\_\_ Expiration Date \_\_\_\_\_

Card Holder's Signature \_\_\_\_\_

ARRL = 225 Main Street = Newington, CT 06111-1494 = USA  
Toll free (US) 1-888-277-5289 or 860-594-0200 = [www.arrl.org/join](http://www.arrl.org/join)