

# Medina County Amateur Radio Club (MCARC)

Vol III Issue 6  
June 2020

## M2M News Beacon

Member to Member News Beacon



### Prez's Preface

*"Our real discoveries come from chaos, from going to the place that looks wrong and stupid and foolish."* Chuck Palahniuk

on-air Member Meetings, practicing Zoom meetings so technical sessions can be offered to members, and restructuring the way our Club holds Field Day Activities (see below).

Note that the FCC updated the Rules on RF safety, as published in the Federal Register. It is quite an expansive document covering much more than Amateur Radio and is littered with complex mathematical equations. So, the best approach is to wait until the ARRL has received FCC clarification and synthesizes the pertinent Ham Radio issues in an understandable format. The FCC Rules do not go into effect until 2022.

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So far, this year has exceeded in throwing terrifying events at us. Covid-19, economic devastation, and now violent protests have made us question why we have taken so many things for granted.

Our Monday night net has had record attendance, attracting sheltering Hams from across multiple counties.

Perhaps taking time to reflect and think creatively will combine with the inner strength of every American to pave the way, once again, for peace, innovation, and positive progress.

We hear about many members tackling new Ham projects: cleaning the shack, experimenting with different modes, building circuits, stringing antennas, and maintaining equipment.

Stay Safe and Be Nice,

The Medina County Amateur Radio Club has adapted to the current environment by holding

Of course, there are the on-air contacts as well.

73, Jane K8JGR

### ARRL Field Day June 27-28, 2020

M2M will be **NOT** be holding this year's Field Day at Valley City Mill Stream Park.

Instead, participation will be as INDIVIDUALS from home, 12:00pm Saturday through Noon on Sunday. Participants will use their own call sign, but contacts can be combined for a Medina County Amateur Radio Club score.

We are awaiting further clarification from the ARRL in this era of Coronavirus.

The object of FD is to work as many stations as possible for points and in doing so to learn to operate in abnormal situations in less than optimal conditions.

Ed K8NVR and Fred K8FH are working on the details. We will send out an email, and possibly hold a Zoom meeting as soon as possible to outline this year's approach.



## MCARC May 11 On-Air General Meeting Minutes

MEDINA COUNTY AMATEUR RADIO CLUB  
On-Air Net Meeting Minutes for May 11, 2020

The May 11, 2020 meeting was held as a net because of the corona virus lock down. The net opened at 7:30pm with check-ins logging onto the 147.030MHz repeater. The net was controlled by Toby WT8O. The following paid members (*and guests*) were present for the network meeting:

Toby WT8O	Jim KD8FHY	Ray K2RWO	<i>Bob KC8MRC</i>
Jane K8JGR	Steve KE8BJD	Ed K8NVR	<i>Javan N8JLM</i>
Gordon AI8Y	Steve NQ8T	Amy K2KSU	<i>Macy N8DBG</i>
Larry NB8Z	Dick W8RWK	Diane KD8SSX	<i>Dan N8DLA</i>
Ken K8TV	Frank KN4AW	Baji K8IIT	<i>Larry N8QND</i>
Jody KE8GKO	John K8JEK	Dave N8JNX	
Doug KD8SST	Mike KD8DZK	Jim WA8OSS	
Dave KE8APO	John AC8AT	Chuck K8KMA	

Toby asked net participants for their first go-around comments.

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NCO, Toby WT8O, then transferred control over to Jane K8JGR to conduct the regular monthly meeting...

The meeting opened with the Pledge of Allegiance.

The Treasurer's Report was submitted by Gail KD8GGM and read by Ray K2RWO. Doug, KD8SST moved to approve the Treasurer's Report and was seconded by Steve KE8BJD and approved.

The March 9, 2020 Minutes of the in-person meeting and the April 13, 2020 Minutes of the on-air meeting of the Medina County Amateur Radio Club (MCARC) was published in the May M2M News Beacon newsletter. Doug, KD8SST moved to approve both meetings' Minutes and was seconded by Steve KE8BJD and approved.

Sunshine: Both Gail KD8GGM and Amy K2KSU are at home, recuperating from surgery. We wish them a speedy recovery.

Program: A practice ZOOM videoconferencing session will be held by MCARC, date and time TBA. Zoom may be used to hold the MCARC technical sessions, such as Field Day planning, while the pandemic spreads.

Repeaters: Ken K8TV announced that the MCARC 440 repeater has been disconnected for the foreseeable future.

Membership: Jane K8JGR explained that the MCARC does not currently have credit card processing of dues.

Dayton: The 2020 Hamvention has been cancelled.

The May on-air meeting was called for adjournment by Doug KD8SST and second by Diane KD8SSX.

Respectfully submitted by Secretary, Ray Orobana K2RWO, and President, Jane K8JGR.

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Jane K8JGR transferred control over to NCO, Toby WT8O, who continued the net with a second round of comments, before returning the repeater back to normal operations.

# MCARC (M2M) News Beacon

## June 8, 2020 On-Air General Meeting

The Medina County Amateur Radio Club will *not* be holding *in-person* meetings until the threat of Coronavirus is under control.

However, Monday June 8<sup>th</sup>, the Club will hold the *June meeting during a special 2-meter net* at 7:30 pm. See page 6 for frequency and tone.

## MCARC (M2M) Calendar

June 8th MCARC General Meeting

June 27-28 Field Day TBA

### ARRL Contests

June 13-15 June VHF Contest

### Hamatuer Antix



## June Ohio ARRL Hamfests

**06/06/2020 - FCARC Summer Hamfest**

Location: Wauseon, OH

Type: ARRL Hamfest

Sponsor: Fulton County Amateur Radio Club

Website: <http://k8bxq.org/hamfest>

## 2019 Ohio QSO Party Winners - Multioperator

2019 Ohio QSO Party Multioperator Final Scores												
CALL	QSOs	Mult	CW	Q	CW	Mlt	PH	Q	PH	Mlt	Score	QTH
K8T	1361	238	603	120	758	118	467,432	JEFF				
NW8S	880	194	388	92	492	102	245,992	LORA				
K8DV	813	202	372	98	441	104	239,370	CLER				
K4YJ	745	179	282	87	463	92	183,833	PIKE				
W8OH	700	188	157	72	543	116	161,116	HIGH				
K8PI	586	170	335	85	251	85	156,570	BUTL				
NF8O	517	190	298	108	219	82	154,850	CARR				
K8BF	503	160	200	79	303	81	112,480	PORT				
W8DGN	383	150	127	62	256	88	76,500	GREE				
WC8VOA	668	100	0	0	668	100	66,800	BUTL				

## 2019 Ohio QSO Party Winners – Low Power

2019 Ohio QSO Party Single Operator Low Power Final Scores												
CALL	QSOs	Mult	CW	Q	CW	Mlt	PH	Q	PH	Mlt	Score	QTH
K8NVR	455	182	255	92	200	90	129,220	MEDI				
K8MAD (W1NN op)	401	169	270	98	131	71	113,399	MEDI				
W8TM	359	149	212	82	147	67	85,079	HAMI				
NO8C	349	133	238	74	111	59	78,071	PUTN				
K8BTU	361	97	361	97	0	0	70,034	DELA				
K8AJS	275	128	213	84	62	44	62,464	WAYN				
N8AA	261	106	239	86	22	20	53,000	BUTL				
KV8Q	265	92	265	92	0	0	48,760	DELA				
AF8A	244	98	240	95	4	3	47,432	GEAU				
K8RGI	221	118	115	57	106	61	39,648	CUYA				

## 2019 ARRL 160M Contest Winners

Top Ten — US and Canada			
<b>Single Operator, High Power</b>		<b>Single Operator Unlimited, Low Power</b>	
K1LZ	674,500	K1EP	265,995
K1DG	639,880	K5LG	49,700
K1KI	559,845	VE3MGY	249,828
W1UE	540,408	KG9X	182,061
AA1K	506,112	N0UR	158,166
W1/WP3C	452,718	N2ZX	152,168
NA0V	450,210	K3PC	134,800
NP2J (K8RF, op)	435,837	W9XT	126,825
VE3DZ	408,460	VA3DF	123,660
W0SD (W0DB, op)	391,556	A11T (W1WBB, op)	116,776
		N4IJ	115,974
<b>Single Operator, Low Power</b>		<b>Single Operator Unlimited, QRP</b>	
K9PG	219,800	N2WK	53,067
WB6JUI	206,300	K5LG	49,700
K1BX	203,910	WE9R	49,700
K8FH	199,008	N3HEE	45,646
K8NVR	187,880	N3CZ	30,208
AC0W	153,032	W3UL	29,300
N8II	137,970	W1IE	25,800
K1DC	130,254	K8ZT	21,010
N9JF	129,021	W3RGA	5,910
N8LJ	119,016	K2AL	2,376

## Member Requesting Help – Dan W8DEJ

I'm looking for someone I could pay to put up two antennas on and in my house for me.

I live in a ranch on a slab. I have one 2/70cm antenna I want installed in the Attic over my garage and coax run in the attic crawl space to my shack.

I need a peak mount bracket mounted, 6' x 1 1/2" mast with a TV antenna on it that I will be stringing an HF wire antenna from to a tree.

I have all the parts. I just need someone with a 25' ladder to do the labor. If you know someone please Email me or call (330) 410-2819.

Thank you.

Dan W8DEJ

## Member Requesting Help –Lou WA8DPV

I mentioned during the Zoom session that my beam was damaged by the April 8 tornado that went thru Medina and it needs to be replaced. Attached are pictures of the tower and the Cushcraft A3S Tribander beam. I have purchased a compact beam, Cushcraft MA5B to replace it.

The tower consists of one standard Rohn 10 ft section and a top section. Both are attached to the house above the garage as shown. Fred came over and helped be think thru what needed to be done. The plan is to cut the top section down so that any future work on the beam would be done while standing on the house or garage roof. The tower is anchored with a peak roof tower anchor attached to the roof. The tower is secured to the house with 3 supports. So I feel safe climbing up and down the tower.

Work is in the process of being scheduled to replace the roof shingles, paint the house and replace the patio roof. So, I won't be ready to replace the antenna for a few weeks. In the meantime, I will be getting things ready like replacing the feedline, painting the tower supports and assembling the MA5B.

Any help would be greatly appreciated. My information is good in QRZ, but here is my contact information:

Lou Mesavage, WA8DBP, 885 Wimbleton Drive, Medina OH 44256, cell: 330-635-4487

email: [wa8dbp@gmail.com](mailto:wa8dbp@gmail.com)

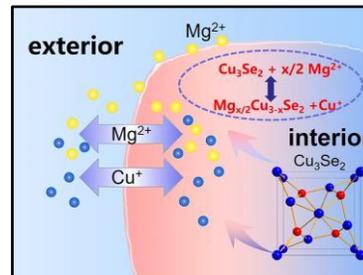
Call me to come over and take a look at the project. Thank you!

Lou WA8DBP



## Copper Ion Unlocks Magnesium's Potential in Next-Generation Batteries

Researchers at the Qingdao Institute of Bioenergy and Bioprocess Technology (QIBEBT) of the Chinese Academy of Sciences (CAS) have come a step closer to making a viable, high-output battery based on magnesium (Mg), an element the United States Geological Survey reports is far more abundant than lithium.



The researchers published their findings in *Angewandte Chemie*, a peer-reviewed journal of the German Chemical Society on April 11, 2020.

Recent attempts to develop a viable Mg battery have stumbled because the discharge products are insulators, hampering output and slowing down the charge cycle.

The QIBEBT researchers found that using a copper ion ("Cu<sup>+</sup>") origin from the cathode in the battery addresses the issue of discharge product build-up. As their Mg battery discharges, Cu<sup>+</sup> dissolves into electrolyte, exchange with the Mg<sub>2</sub><sup>+</sup> chemically, and becomes metallic copper as it receives electrons and forms a coating on the electrode. Since copper is highly conductive, electricity flows freely, allowing for high energy output.

The team's findings showed excellent performance in the newly developed Mg/Cu<sup>+</sup> battery. After initial conditioning, their experimental battery retained 80 percent of its original capacity after 200 charge/discharge cycles. A typical commercial lithium-ion battery holds at least 80 percent of its original capacity after 1000 cycles.

Prof. Cui Guanglei said his team's Mg battery is not yet commercially viable, but it is on track to compete with lithium battery. "We expect to achieve the 1,000-cycle milestone in the next two years," he said.

The day-to-day price of magnesium averages about \$5,000 USD per ton—about half the cost of lithium. Beyond being cheaper, magnesium-based batteries would also be safer. Poorly made lithium batteries can overheat and explode, creating a liability for industries ranging from telecom to aerospace. "I have every confidence to say that the employment Cu<sup>+</sup>/Mg can lead to safer battery products," Prof. Cui said.

Prof. Cui said the next step toward making Cu<sup>+</sup>/Mg batteries a commercial reality will be to design it as a flexible pouch. To do so, they'll need to create a gel form of their Cu<sup>+</sup> electrolyte solution.

"As we can see, a gel electrolyte would be suitable for the Cu<sup>+</sup> driven cathode chemistry," Prof. Cui said. Once the battery can function in a gel pouch form, it will become easier to engineer it into the odd and often very thin shapes demanded by today's consumer devices.

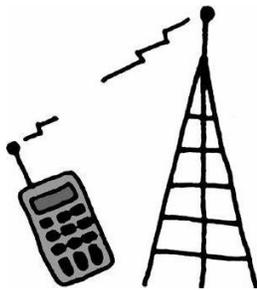
"The ultimate goal of this study is to commercialize the Mg metal battery as the next generation energy storage devices beyond lithium-ion technology." Prof. Cui said.

By Li Yuan, [Chinese Academy of Sciences](#), May 12, 2020

## 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

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

25-May-2020	K8NVR	01-Jun-2020	
08-Jun-2020	<b>Meeting</b>	15-Jun-2020	K2KSU
22-Jun-2020		29-Jun-2020	

## 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** can be obtained from Gail Helwig KD8GGM, Treasurer, M2M Group, 12891 East River Road, Columbia Station, Ohio 44028.

### Who's Who

**M2M GROUP, INC**

**We're on the Web!**

*See us at:*

**www.W8EOC.org**

**Also,**

**"Like Us" on Facebook**

**"Medina County Amateur Radio Club"**



**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 Eyerdorn K8NVR

**State Certification:**  
Don Duman W8DD

**Trustees:**  
Doug McClure KD8SST  
Dave Swancer KE8APO  
Dave Oravec N8JNX  
Amy Panchumarti K2KSU

**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...

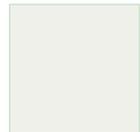
The Medina County Amateur Radio Club (M2M) is a nonprofit, ARRL Special Service registered, amateur radio organization based in Medina County, dedicated to communication, public service, education and fellowship.

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  
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TO: