

M2M News Beacon



Prez's Preface



"How did it get so late so soon? Its night before its afternoon. December is here before its June. My goodness how the time has flown. How did it get so late so soon?

Dr. Seuss

Here it is year-end and I am still on my spring to-do list! Won't admit age has anything to do with it. ☺

Our November General Meeting was spirited. Rumor had cast doubts on whether the JVS was open on the observed Veterans Day – it was.

The election of M2M officers and board members took a fun, informal turn as Tracey

Liston W8TWL managed nominations and voting. All positions remained the same with the exception of one Trustee position that was open. We welcome a new face to M2M leadership, Dave Swancer KE8APO, and look forward to his input.

M2M owes outgoing Trustee, Jim Bodnar W8UQZ a huge amount of gratitude and respect for the decades of service he continues to perform for the club. M2M is built on the contributions of long-term, committed members like Jim. He should serve as an example to all. Thank you, Jim.

The enthusiastic giveaway of Roy Norris W8UEY's donated equipment often resulted in competitive drawings among members, who then often offered the items to those more interested. Kindness prevailed!

I'd like to hear from winners of radios about their operating condition. Dave KE8APO reports that 'Ol Moldy, aka Radio Shack HTX-242, cleaned up and works fine!

I hope the blessings of this Holiday Season embraces each of you with the warmth of family and friends. 73, Jane@K8JGR.radio 216-570-8500

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Dues Increase

M2M Membership dues are set to increase in 2019 to...

- Licensed Member \$ 15.00
- Family \$ 22.50
- Associate \$ 7.50

Please remit payment to our Membership Chairperson, Gail Helwig KD8GGM
Membership forms are available to print on our website www.W8EOC.org/membership



M2M October 8 General Meeting Minutes

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

Youngsters on the Air 2018

December is getting closer and closer ... and what does this mean for us? It's time for some great activity on the bands in the upcoming DYM 2018!

But it's not a good event without some rules, attached to this post you can find the *official bulletin of 2018*.

This bulletin contains information like:

Overall rules for the event

- Log system for approved call signs
- Station profiles on the DYM website

- How to handle qrz.com pages
- QSL policy
- Hamyota on social media
- FAQs
- Funding
- Newly implemented award system
- General contact information

But the most important thing during the event ... have fun and bring the youngsters on the radio!

Because we know that there is YOUTH in Ham radio!



You can find the PDF on the YOTA website...

www.ham-yota.com/news/

Hamateur Antix



December 10, 2018 General Meeting

M2M's December 10th General Meeting will be held at the **Medina County Senior Center** from 7:30 to 9:00pm

The Bylaw Committee will present the first reading of the 2018 revisions to our governing document. The second reading and a vote by all eligible members to adopt the revised document will be done during the January General Meeting.

Also, a technical presentation will be given by Toby Kolman WT8O, who will explain the construction of his dipole antenna.



M2M Calendar

December 10, 2018	General Meeting, Sr Cntr
January 14, 2019	General Meeting
February 11, 2019	General Meeting
March 11, 2019	General Meeting
April 8, 2019	General Meeting

General Meeting Venues:

JVS = Medina County Career Center
Room 246
1101 West Liberty St.
Medina 44256

Sr = Medina County Senior Center (Basement)
246 Northland Dr.
Medina 44256

Meetings start at 7:30pm

Ohio ARRL Hamfest

December 1, 2018

Location: Village of Delta Memorial Hall
401 West Main Street
Delta, OH 43515

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

Sponsor: Fulton County Amateur Radio Club

Talk-In: 147.195+

Public Contact: Bryan Patterson KB8ELG
8202 County Road 6-2 Delta, OH 43515
Phone: 419-822-5038

Email: kb8elg@hotmail.com

ARRL Contests



December 2018

11/30-12/2	160 Met http://www.arrl.org/10-meter
12/8-12/9	10 Meter
12/16	Rookie Roundup-CW

Any member that wants to participate in any ARRL contest and be part of M2M's club score, must notify Ed Eyerdom K8NVR so he can notify the ARRL Contest Branch prior to the contest. Ed needs your call sign and six character grid square. You must reside within 35 miles of Medina City.

Member of the Month – Steve KE8BJD

Name, Call Sign, and Tech/General/Extra?

Steve Stein. Technician. KE8BJD—or phonetically, Kilo Echo Eight Bravo Juliet Delta. ☺

How long have you been a Ham?

I've been an Amateur Radio operator since mid-2015. But I have 15 years of experience as a very active Civil Air Patrol radio operator.

How long have you been a member of M2M?

While I was working on my license I took a class given by M2M. I was impressed with the knowledge of the 3 instructors and how friendly they were (you know who you are). I was not looking to join anything, but I had recently retired and they seemed like good folks and thought I might meet some others and learn some stuff. And I have.

Family Members who are Hams?

My wife, Dona (KE8BJG), got her license at the same time for the same reasons.



What/Who got you interested in Amateur Radio?

I've always had an interest in radio communications to one degree or another. As a kid I played around with walkie-talkies. Back in the 1970's, in high school, I got in on the CB radio

craze. When I got involved with the Civil Air Patrol I became a radio operator by necessity. Besides using comm for missions and training, we would talk on the radio every day to/from work to conduct business. I did that pretty hot and heavy for a good 15 years from the late '80's to early 2000's. I also taught radio operations to new communicators. In 2014 I got involved with a volunteer wilderness missing person search organization, the Ohio Special Response Team, aka OSRT.

www.ohiospecialresponseteam.org .

We could use more communicators!

Short range communications assets are used since what we do doesn't generally cover large areas. My unit commander wanted us to become Hams for a couple of reasons—to have access to other means of communication in case the need arose in a bona fide life and death emergency when anyone can use any means of communication available. He was also hoping to establish a relationship with local Hams in case we needed more capability than we had. In return, we could provide communicators for their needs. We're still hoping to do more on this topic. So, my interest is as a communicator and not so much the hardware.

What modes of operation do you like best?

I really have no interest in specific modes. To me, those things are just tools to accomplish a mission. I'm more interested in what you do with the tool than the tool itself. But I also recognize that a communicator must have some level of understanding and skill with the tools, and I do try to work on that as well.

Awards/Nets/ Activities:

In my activity with OSRT I have been filling the role of communications specialist and net control operator for training and deployment. I've also done some training of our team. Through M2M I learned about Amateur Radio Emergency Service (ARES) and ended up joining Medina County ARES (MCARES) and the Communications Unit with the county Emergency Management. I'm also Skywarn trained.



Current Projects:

I have two, 2-meter VHF only base/mobile radios from back in my CAP days. Because of my involvement with the EMA comms unit I'm hoping to get those radios back into service—one at the house and one in the vehicle. The technical side is not my forte. I've slowly been figuring out what I need to do to get those radios back into service. I'm at the point where I'm ready to make some hardware purchases and install things. If anyone is willing to help me figure out the best stuff to purchase for my needs, and to maybe help with the installations, I would be THRILLED to hear from you!

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M2M News Beacon

Favorite Rig:

I'm currently only working with a VHF/UHF HT. Recent mutterings out of the FCC might force me to upgrade from my inexpensive unit.

What would you like to learn more about?

I'm kind of at that stage of knowing enough to get myself into trouble and not knowing what I don't know. I've picked up a lot of little things since my time in M2M. But, honestly, many of you are WAY beyond me and are talking over my head more times than not. I do pick up a little. What I really need is basics and the things I need to know in order to get my old radios back into service.

I would also like to see/hear/do more WITH the hardware rather than only play with it. I like helping with the public service activities because we are communicating for a purpose.

What line of work were/are you in?

I'm a retired videographer/editor (mostly). As I used to say, I'm a jack of all trades, master of a couple. I've

produced and directed and been the crew manager. Written a little. Done lighting, audio, set building, swept the floors and some teaching. Preproduction. Post production. Distribution. Working with clients.

A bit of engineering. Most of my career was in a two-man operation which grew a little in later years. I had to be able to do everything in the production process from conception to distribution. My B.A. degree is in Mass Media Communications and I have a minor in film and writing. I've had my fill of that line of work and I'm glad to be out of it.



Other Hobbies?

My problem is too many interests. Retirement kind of allows all things to be possible and I think I have my

fingers in too many pots these days. I've been working around the house (which never seems to get done) and have not spent enough time with my desire to model build and do my model rocketry. My wife is retired and we've started to do some traveling. We've taken some bus tours and cruises, hope to do more of those, and to get on the road a little on our own.



What would you like to see in M2M?

I would like to see presentations on some basics, and I like the public service activities. Also, anything of a social nature is nice. We have a lot of friendly, nice, and interesting members and I have not met enough of them. But I'm working on it.

Potential M2M Amateur Radio License Classes

Please contact Doug KD8SSST or Jane K8JGR if you or someone you know has any interest in attending Technician, General or Extra Class Licensing classes this winter.

Also let them know if you would be interested in teaching any chapters for any levels. The more instructors that are involved, the less preparation is it for all involved.

Jane can be contacted at jane@K8JGR.radio and Doug at dmcclore1@zoominternet.net

Pass the word to prospective newbies and those wanting to upgrade. Thank you.



Star Trek–inspired, Ion–driven Airplane Flies without Fuel and No Moving Parts

a team of MIT engineers have built and flown the first-ever plane with no moving parts – a solid-state, ion-drive airplane which unlike turbine-powered planes, doesn't depend on fossil fuels to fly. and unlike propeller-driven drones, the new design is completely silent.

up until now virtually every aircraft in the sky has flown with the help of moving parts: propellers, turbine blades, and fans, have helped to achieve airborne status since the first airplane took flight over 100 years

in flight it was able to to maintain steady flight on an indoor course of over 197 ft (60 m) at MIT's dupont athletic center. the principle it is called 'electroaerodynamics' and uses an ionic wind to create thrust. it's a physical principle that was first identified in the 1920s and has since gained a niche following in aeronautical and hobbyist circles.

the basic idea is to build a grid consisting of a series of wires or lengths which are strung like horizontal fencing along and beneath the front end of the plane's wing. one set acts as a positive electrode and the other as a negative electrode. once the wires are energized, they act to attract and strip away negatively charged electrons from the surrounding air molecules, like a giant magnet attracting iron filings. the air molecules that are left behind are newly ionized, and are in turn attracted to the negatively charged electrodes at the back of the plane.

the breakthrough came as a result of steven barrett, associate professor of aeronautics and astronautics at MIT, being inspired by the silent fictional shuttlecraft of *star trek*. from that he began looking for ways to design a propulsion system for planes with no moving parts.

'for years, electroaerodynamic thrust has mostly been a hobbyist's project, and designs have for the most part been limited to small, desktop 'lifters' tethered to large voltage supplies that create just enough wind for a small craft to hover briefly in the air,' it reads in a statement detailing the project. 'it was largely assumed that it would be impossible to produce enough ionic wind to propel a larger aircraft over a sustained flight.'

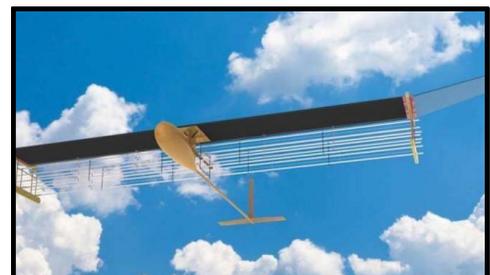
'this is the first-ever sustained flight of a plane with no moving parts in the propulsion system,' says barrett. *'this has potentially opened new and unexplored possibilities for aircraft which are quieter, mechanically simpler, and do not emit combustion emissions.'*

the team's final design resembles a large, lightweight glider with an airfoil made up of thin wires toward the leading edge and thicker wires aft. the fuselage of the plane holds a stack of lithium-polymer batteries and an electrical system devised by professor david perreault's power electronics research group in the research laboratory of electronics to supply 40,000 volts to the electrodes.

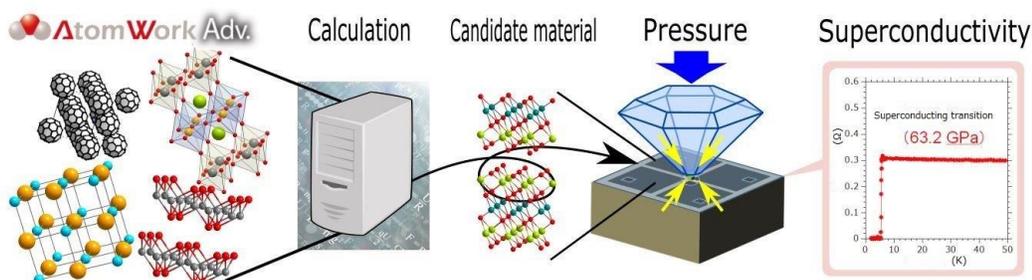
'this was the simplest possible plane we could design that could prove the concept that an ion plane could fly,' explains barrett. *'it's still some way away from an aircraft that could perform a useful mission. It needs to be more efficient, fly for longer, and fly outside.'*

'the strength of the results are a direct proof that steady flight of a drone with ionic wind is sustainable,' franck plouraboue, senior researcher at the institute of fluid mechanics in toulouse, france, who notes that researchers previously weren't able to fly anything heavier than a few grams. *'[outside of drone applications], it is difficult to infer how much it could influence aircraft propulsion in the future. nevertheless, this is not really a weakness but rather an opening for future progress, in a field which is now going to burst.'*

'it took a long time to get here,' says barrett. *'going from the basic principle to something that actually flies was a long journey of characterizing the physics, then coming up with the design and making it work. now the possibilities for this kind of propulsion system are viable.'* barrett and his team at MIT have published their results today in the journal *nature*.



Discovery of new superconducting materials using materials



A NIMS-Ehime University joint research team succeeded in discovering new materials that exhibit superconductivity under high pressure using materials informatics (MI) approaches (data science-based material search techniques). This study experimentally demonstrated that MI enables efficient exploration of new superconducting materials. MI approaches may be applicable to the development of various functional materials, including superconductors.

Superconducting materials that enable long-distance electricity transmission without energy loss in the absence of electrical resistance are considered to be a key technology in solving environmental and energy issues. The conventional approach by researchers searching for new superconducting materials or other materials has been to rely on published information on material properties, such as crystalline structures and valence numbers, and their own experience and intuition. However, this approach is time-consuming, costly and very difficult because it requires extensive and exhaustive synthesis of related materials. As such, demand has been high for the development of new methods enabling more efficient exploration of new materials with desirable properties.

This joint research team took advantage of the AtomWork database, which contains more than 100,000 pieces of data on inorganic crystal structures. The team first selected approximately 1,500 candidate material groups whose electronic states could be determined through calculation. The team then narrowed this list to 27 materials with desirable superconducting properties by actually performing electronic state calculations. From these 27, two materials SnBi_2Se_4 and PbBi_2Te_4 were ultimately chosen because they were relatively easy to synthesize.

The team synthesized these two materials and confirmed that they exhibit superconductivity under high pressures using an electrical resistivity measuring device. The team also found that the superconducting transition temperatures of these materials increase with increasing pressure. This data science-based approach, which is completely different from the conventional approaches, enabled identification and efficient and precise development of superconducting materials.

Experiments revealed that these newly discovered materials may have superb thermoelectric properties in addition to superconductivity. The method we developed may be applicable to the development of various functional materials, including superconductors. In future studies, we hope to discover innovative functional materials, such as room-temperature superconducting materials, by including a wider range of materials in our studies and increasing the accuracy of the parameters relevant to desirable properties.

Read more at: <https://phys.org/news/2018-10-discovery-superconducting-materials-informatics.html#iCp>

M2M Repeater Summary

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 Directories		CTCSS (PL)	Band
			Repeater Input	Repeater Output		
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
W8EOC	Lafayette	Split Site Repeater	51.160	51.660	107.2	6 Meter
	Litchfield					
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

M2M Monday Night 2-Meter Net Control

3-Dec-2018	W8UQZ	10-Dec-2018	Meeting
17-Dec-2018	K8NVR	24-Dec-2018	KD8SST
31-Dec-2018	K8IIT		

2018 ARRL November Sweepstakes Results

Ed Eyerdom K8NVR reported that three M2M members contributed to M2M's Contest Club Points. Logs were submitted for Fred K8FH, Toby WT8O and Ed. Gordon AI8Y also participated in the ARRL November Sweepstakes. Scores have not yet been posted on the ARRL website at the time of this writing.

M2M GROUP, INC

We're on the Web!

See us at:

www.W8EOC.org

Also,

"Like Us" on
Facebook



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

Past President:

Ed Eyerdorn K8NVR

W8EOC Repeaters:

Ken Koyan K8TV

Trustees:

Doug McClure KD8SST

Dave Swancer KE8APO

License Trustee -

Ken Koyan K8TV

Statutory Agent -

Don Duman W8DD

Sunshine:

Diane Snider KD8SSX

Newsletter:

Jane Reed K8JGR

Facebook Page:

James Johnston KD8FHY

Website:

Jane Reed K8JGR

Field Day:

Fred Helwig K8FH

Net Scheduling:

Baji Panchumarti K8IIT

Social Events:

Gail Helwig

Skywarn:

Tracey Liston W8TWL

MECARS/ARES:

Jim Bodnar W8UQZ

RACES:

Dave Rickon NF80

About Our Organization...

The Medina Two Meter (M2M) Group, Inc. is a nonprofit, ARRL Special Service registered, amateur radio organization based in Medina County, dedicated to 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 INC.

1254 HADCOCK RD
BRUNSWICK, OHIO 44212



TO:

