



Spark Gap

Vol. 36, Issue 1, January 2020 *MARC - Serving Central Indiana Communities for thirty-six years*

On Our M.A.R.C.:

Welcome to 2020!!

Hope everyone had a good Holiday Season and Santa brought you what you asked for. I would like to thank everyone that brought something to eat to our December meeting. The food was great and I hope that everyone enjoyed the White Elephant exchange.

2020 is a start of the new year and here at MARC, your Executive Committee has been busy coming up with ideas for the year. Looking at getting speakers for the year, our yearly activities and new activities. We are still looking for people for the PIO team. If interested, please see me or Bruce.

Please mark your calendar for March 5th, 2020, we have a date for Johnson County Storm Spotter Weather Training. It will start at 7pm and will be held at the Johnson County Sheriff's Department Training Facility located at 1061 Hospital Road, Franklin, IN. Please take the drive from the Sheriff's Department parking lot to the east of the jail, drive through the gates and take the first left that will lead to the parking lot for the training facility. The entrance to the building is on the south side.

With the New Year, Club dues are due. Please see Chris Mazzarella, KC9VG0, about getting your dues current for 2020 and get your coffee cup with the Club's new call sign on it. Hope to see you Saturday. The coffee will be on.

Jacki, K16Q0G





Birthdays for the month of January:

***KD9ALA - Ken Barr
KD9BHM - Marlys Barr
KB9BVN - Brian Murrey
N9EJR - Jim Williams
KB9UJE - Matt Payne
KC9ZMV - Cliff Whitrock
WA8SKY - Roy Francis
KC5GHM - Josh Kiilu
KC9WLL - Joseph Kresbach
KU9E - Joe Tally***

**Free Johnson County Storm Spotter Weather Training
March 5, 2020**

What is Indiana's tornado season going to be like this year? "It's difficult to determine," said Sam Lashley, Warning Coordination Meteorologist from the National Weather Service in Indianapolis. "As we all see with tornadoes, it's important that everyone is prepared and responds whenever severe weather occurs."

The National Weather Service, working with the Johnson County Emergency Management Agency (EMA), will conduct severe storm spotter training from 6:30 p.m. to 8:30 p.m. Thursday, March 5, 2020. The training is free and will be held at the Johnson County Sheriff's Department Training Facility at 1061 Hospital Rd. Franklin, Indiana. Please take drive from the Sheriff's Department parking lot to the east of the jail and drive through gates and take first left drive that will lead to parking lot for the training facility. The entrance to the building in on the south side.

A National Weather Service Meteorologist will describe the importance of storm spotters, cloud and wind patterns associated with severe weather, how to interpret weather radar data, and how to remain safe during severe weather. The training session is open to the general public.

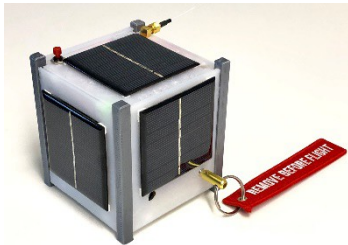
"Awareness and preparedness are keys to safety," said Stephanie Sighting, Director of the Johnson County Emergency Management Agency. "And volunteers monitoring the sky and reporting severe weather helps increase everyone's safety," said Sighting.

For other upcoming spotter training sessions in nearby counties see weather.gov/ind.

Speaker for the January 2020 MARC Meeting



Most hams don't realize they have the power in their hands to make some out of this world contacts using 5 watts. This mode of communication occurs via Amateur Satellites. It's not rocket science. Well, close.

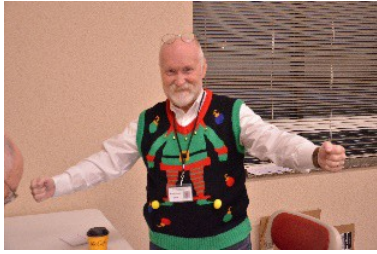


Dave Spoelstra, N9KT, is our January 18th guest speaker. He will bring the technology down to earth explaining how you can use your HT or mobile radio to contact hams across the country with every little effort. Join us for the MARC meeting 8am January 18th.

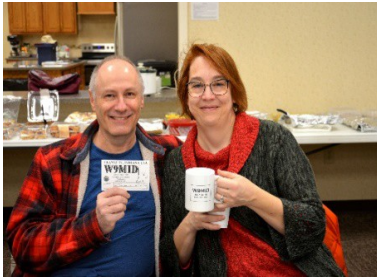
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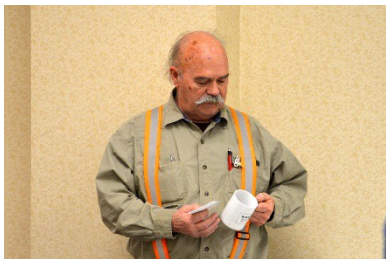
MARC Christmas Meeting and Pitch-in



The annual MARC Christmas breakfast was a real Christmas treat. Forty hearty souls covered the pitch-in serving line with lots of breakfast casseroles and enough donuts and sweet rolls to feed an entire police force.



Following breakfast everyone grabbed at the chance for a unique present from the White Elephant table. The gifts ranged from an old AM/FM radio to newly minted extendable flashlights. A tool perfect for finding those loose screws in the ham shack. Santa brought a surprise gift for all the good little girls and boys who paid their 2020 club dues. Thanks to the MARC board every paid member got a coffee cup with the new W9MID call sign logo and a new W9MID QSL card. Everyone left the meeting full of sugar and spice and with great expectations of another great year with the Mid-State Amateur Radio Club.



Photos by
Jack
w8ish



Everything should be made as simple as possible, but not simpler

By Dan Romanchik, KB6NU

"Everything should be made as simple as possible, but not simpler" is a quote attributed to Albert Einstein (<https://quotationcelebration.wordpress.com/2017/01/07/everything-should-be-made-as-simple-as-possible-but-not-simpler-albert-einstein/comment-page-1/>). Here's one way to apply this principle in amateur radio, specifically to code practice oscillators.

A week ago, my friend, Paul emailed me:

"I am planning on teaching a two-hour introduction to Morse code to 14 girls ages 8 to 9 *[[Paul's granddaughter is a Girl Scout.]]*. I plan on having the girls build a code practice device. I need your help in selecting a low cost buzzer and battery holder. Please take a look around and see what you can find. I would like to limit the power to one or two AA batteries."

I replied that I'd be happy to help him with the demonstration, and offered the following advice:

"A while back, I built the QRPGuys' K7QO Code Practice Oscillator (<https://qrpguys.com/k7qo-code-practice-oscillator>). It uses a CR2032 coin battery.

"Unfortunately, they don't sell it anymore, but the assembly manual is still online (https://qrpguys.com/wp-content/uploads/2017/03/cpo_assy_012616.pdf). The assembly manual doesn't call out specific parts, but here are some Amazon SKUs:

- B00J4BK0NS, Black 3V Electromagnetic Type Piezo Buzzer, 20 pcs/\$6.58
- B06XF3K4NP, Coin Cell Button Battery Holder, 30 pcs/\$9
- B008SNZUYC, 3 Pin PCB Mount Female 3.5mm Stereo Jack, 10 pcs/\$5.40
- B071RMD6FD, 1/8" 3.5mm Stereo Male Connector, 10 pcs/\$7

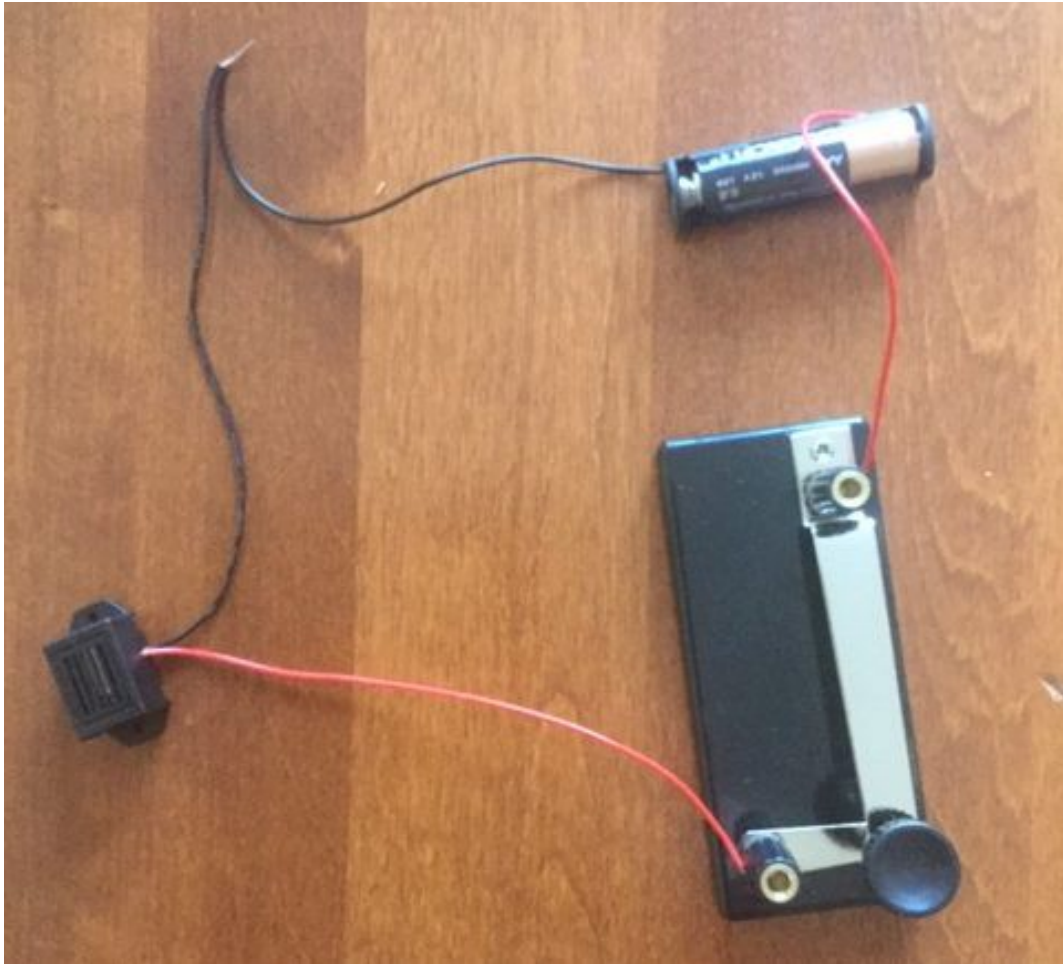
"Batteries are available at the dollar store for about 30 cents each. So, you could do the whole thing for less than \$5 for sure, even with a printed circuit board, which I would suggest that we do. Heck, if you ask nicely, the QRPGuys might even give us the artwork, or even better, have some boards still in stock. Even if they have neither, you should be able to get the boards in plenty of time."

Later that day, Paul replied:

Thanks, Dan, for the information and making yourself available to help. I am just going to use a buzzer, key, and battery. The buzzer has a frequency of 400 Hz.

- <https://www.xump.com/science/Buzzer-Leads15V.cfm>
- <https://www.xump.com/science/ContactKeySwitch.cfm>
- <https://www.xump.com/science/Single-AA-Battery-Holder.cfm>

And this morning, he sent me this photo, noting, "FYI. Also sounds great."



I think that this is as good an example of "Everything should be made as simple as possible, but not simpler" as there can be. I've volunteered to help Paul with his class. That will be fun, too.

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not trying to keep things as simple as possible, but not simpler, he likes to build stuff and operate CW on the HF bands.



Snoopy chasing DX

ARRL On the Air Podcast Premieres on January 16

ARRL's new *On the Air* podcast for those just getting started on their amateur radio journey, will debut this Thursday, January 16, with a new podcast posted each month. The podcast is a companion to the new bimonthly *On the Air* magazine, which is already on its way to member subscribers. *On the Air* magazine editor Becky Schoenfeld, WIBXY, will be the host of the new podcast. Both the podcast and the magazine are aimed at offering new and beginner-to-intermediate-level radio amateurs a fresh approach to exploring radio communication.

Listeners can find the *On the Air* podcast at Blubrry, Apple iTunes (or by using your iPhone or iPad podcast app (search for *On the Air*), and Stitcher (or through the free Stitcher app for iOS, Kindle, or Android devices). Episodes will be archived on the ARRL website.

Each *On the Air* podcast will take a deeper dive into the articles and issues raised in the magazine, including advice and insight on topics covering the range of amateur radio interests and activities: radio technology, operating, equipment, project building, and emergency communication.

Supplementing *On the Air* will be a new Facebook page for those who share a love of radio communication and are looking to learn and explore more about their interests.

The biweekly *Eclectic Tech* podcast for experienced radio amateurs will launch on February 13. Hosted by *QST* Editor Steve Ford, WB8IMY, *Eclectic Tech* will highlight topics involving amateur and non-amateur technology, offer brief interviews with individuals involved in projects of interest to amateurs, and include practical information of immediate benefit to today's hams. *Eclectic Tech* will be available via iTunes and Stitcher.

The *ARRL Mags* apps including *QST* and *On the Air* are now live on Apple iTunes and Google Play. The digital edition of *On the Air* magazine is now live and linked from the *On the Air* page on the ARRL website.

UP – COMING ACTIVITIES AND HAMFESTS

01/18/2020 - 0800 MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

02/15/2020 -- 0800 MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

02/29/2020 – Laporte Hamfest – Laporte, IN

03/21/2020 – 0800 MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

04/18/2020 – 0800 MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

05/16/2020 – 0800 MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

06/20/2020 – East Central Indiana Hamfest – Randolph County Fairgrounds

If you would like to be part of Johnson County ARES please contact Bob LaGrange

N9SIU@YAHOO.COM



Regency HR-2

AMERICAN MADE

Mobile 2 Meter FM Transceiver

Here is what the 2 meter, FM Ham World has been asking for.

Specifications: 90 day warranty

RECEIVER	TRANSMITTER
The HR-2 receiver is a double conversion, superhetrodyne with highly selective ceramic filter.	The HR-2 transmitter uses phase modulation for the ultimate in carrier stability. Built in SWR load mismatch circuitry provides protection against open and shorted antenna conditions.
Frequency Range.....114-128 MHz	Frequency Range.....144-148 MHz
Sensitivity.....0.35 μ V (nom.) 20DB Quietng	Power Output.....15 Watts (max.) @ 13.8 VDC
Selectivity.....40DB Down \pm 14KC	Modulation.....Phase Modulated with automatic deviation limiting
20DB Down \pm 32KC	Automatic Limiting with internal adjustments from 0-15KC deviation
Audio Output	Deviation.....Plug-in, hand held, high Z Ceramic speaker
(3-4) Speaker.....3 Watts 10% Distortion	Microphone.....6 Crystal controlled with individual trimmer capacitors for frequency setting
5 Watts Maximum	Channels.....6
Channels.....6 Crystal controlled with provision for adding an additional 6 channels	
I.F. Frequencies.....15.7 MHz & 455KHz	

GENERAL
Power Requirements.....13.6 Volts (nominal)
Receive (Squelched).....100 MA.
Receive (Max. audio output).....300 MA.
Transmit.....2.5 Amps (max.)

STANDARD EQUIPMENT
Built-in 4" Speaker
Mobile Mounting Bracket
SO-239 Antenna Connector Socket
T & R Crystals for 146.94 MHz
IFT Ceramic Mixer

only **\$22900** Amateur Net

Regency ELECTRONICS, INC.
7903 Pendleton Pike, Indianapolis, Indiana 46226

This is actual size and shape of our radio. Cut it out and place it under your dash to see how compactly it fits.

Manufactured in Indianapolis, 1971



MID-STATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the **THIRD SATURDAY** of each month at the Johnson County REMC 750 International Drive Franklin, IN 46131.

See our website, www.midstatehams.org, for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a *HAM* to attend our meetings or a member of the club.

W9MID Repeater:

146.835/
146.235 MHz
(151.4 Hz PL Tone)

Club Officers:

President: Jacki Frederick – KI6QOG
Vice President: Bruce Tisdale – K9ICP
Secretary: Chris Read – W9OQ
Treasurer: Chris Mazzarella – KC9VGG
Repeater Trustee - Chris Frederick – KQ9Y

W9MID Repeater:

443.525/
448.525 MHz
(151.4 Hz PL Tone)

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and ALL RADIO AMATEURS
146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836
Franklin, Indiana
46131

Spark Gap Editor: Robert LaGrange N9SIU

Please send your articles to my email: n9siu@yahoo.com no later than the 2nd week of the month.



Special thanks to Johnson County REMC for the use of their community room for meetings and testing.