Monroe County Radio Communications Association

The Hertzian Herald

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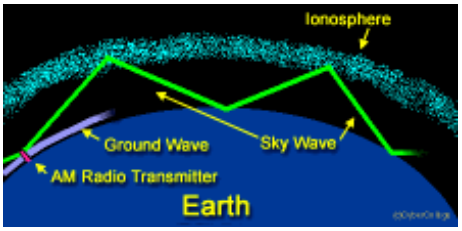
N8DXR's Ground Waves



Half way through October, the weather is changing, leaves are falling and the days are sure shorter. Once again, it's that time of the year to start checking those parts of our stations that are exposed to the winter weather. You never know what's in store for us as we pass through another Michigan winter.

Winter weather can range from mild snow and sunny days to the most severe weather with power crippling snow and ice. How many of us are prepared to be an off grid amateur station? Whether you are a portable station or working from your QTH the goals to be able to operate are similar.

- A power source and fuel. This can range from your car/truck to portable or stationary generators to solar panels to charge batteries or keep you on the air.
- HF to VHF phone and CW coverage. With limited power, be prepared to be QRP. With limited power, digital is a good option. A laptop and a portable sound card device such as a Signalink USB can have you on the air in no time.
- Antennas. If mobile/remote think weight, ease of deployment and effective operation. Rubber antennas for VHF/UHF, higher frequencies wire dipoles and verticals that are ease to carry and set up. Resonant antennas can be a great asset when running QRP on limited power.
- Ancillary equipment such as small tuners, coax, Baluns and Ununs, various cable connectors and any other small item that could be invaluable if you don't have it handy and you are mobile/remote.

This is just a starting list of things to consider for off grid operations. Your individual needs and situations will guide you as you make the decisions and preparations for possible power failures and off grid operations. And even if there is no power outage a sunny winter day can be a great opportunity to get outside, get on the air, see how many contacts you can make and enjoy mobile or remote opps.

Well that's about it for this month. Remember that Spook Patrol is coming. Also keep in mind that the MCRCA Christmas Party is usually held the last meeting of the year in December. More information will be at the meeting.

Hoping to see you on the air and at our meetings

73 – John N8DXR

Club Officers

PRESIDENT
John Copeland N8DXR
jcn8dxr@gmail.com

VICE PRESIDENT
Glen Ohlemacher K8GO
goglen@gmail.com

SECRETARY
Fred VanDaele KA8EBI
ka8ebi@yahoo.com

TREASURER
Brenda VanDaele KB8KQC
ka8ebi@yahoo.com

DIRECTOR
Paul Trouten W8PI
w8pi@arrl.net

DIRECTOR
Rodney Haddix KD8ZNZ
rodhaddix@hotmail.com

DIRECTOR
STATION TRUSTEE
Wes Busdiecker KC8SKP
busdiecw@netscape.net

Inside This Issue

MCRCA Minutes:

September 20, 2018

Meeting called to order at 7:30 pm, by John Copeland N8DXR

Pledge of Allegiance

Introductions: One new member, one new license and one guest from Texas.

PROGRAM: John N8DXR show and tell emergency op cheap antennas options.

BREAK

DOOR PRIZE DRAWING: Lance, Gary and Tom Imlach

50/50: Sandy donated half to scholarship

MINUTES: Motion by Bob AC8DZ, supported by Sandy KE8CQW, to approve as written in the Herald. Approved.

TREASURER REPORT: Motion by Sandy KE8CQW, supported by Gary W8GPR, to approve the treasurer's report as passed out to the membership. Approved.

DX REPORT: Tom KG8P reported that a Maldives operation started today and will run for a month. **ZD9CW Tristan da Cunha Island through Oct. 22.** TO6OK Mayotte Arrival : September 20th , Departure :October 6th. Operators: Petr OK1BOA, Petr OK1FCJ, Pavel OK1GK , Ruda OK2ZA, Ludek OK2ZC, Karel OK2ZI, David OK6DJ. **9XOT Rwanda Sept. 26 to Oct 10.** DX is out there but challenging.

FUTURE PROGRAMS: Nothing yet.

TESTING: Next session - Sat. October 20, 2018.

ARPSC: Lance has an article in the Herald. Fermi drills went well. Fall S.E.T. will be Oct. 13th. 8 am to Noon with a fox hunt and a potluck cookout to follow at 12:30 am.

ARRL: See Dale's tales on the Net.

RRRA: Dale reported that after the repeater move 1-1/2 years ago the Ida site is finally finished up. 220-440-72-packet done and now in progress of upgrading all the satellite receiver sites. Five of them with equipment that is 25 years old.

OLD BUSINESS: None

NEW BUSINESS: None

ANOUNCEMENTS: Martin Goins KB8TMJ became a SK. A condolence card was sent to the family.

ADJOURNED: 8:30 pm

ATTENDANCE: 21

AC8WE Donald	KA8EBI Fred	KA8PQH Neil
KB8KQC Brenda	KC8SKP Wes	KE8DDM Dalton
KF8LT Jim	KG8P Tom	N8DXR John
N8KUF Mike	N8NYP Terry	N8RWI John
W8PI Paul	WA8EFK Dale	AC8DZ Bob
KE8CQW Sandy	W8GPR Gary	KE8BYC Lance
KE8KNZ Tom	KD8SGT Eric	N5WRX William

Committees

Classes

Club Station
Wes Busdiecker KC8SKP

DX Net

Field Day
Jeff Breitner KA8NCR

Finance
Paul Trouten W8PI (chair)
Fred VanDaele KA8EBI
Dale Williams WA8EFK

HamFest
Fred VanDaele KA8EBI

Hertzian Herald
Fred VanDaele KA8EBI

Historian
Paul W8PI

Public Relations
Jeff Breitner KA8NCR

Scholarship
Fred VanDaele KA8EBI

School Liaison
open

Programs
open

Membership
open

Planning
open

Property Custodian
open

Holland State Park activation

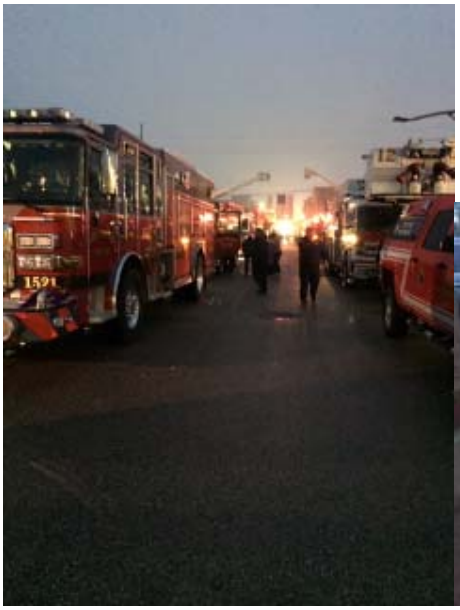
Plans were to activate Holland State Park around 1700z on Friday, October 5th. We were here for the Holland 50 fire truck parade and fire safety event. October has us traveling all around Michigan. Weather is a big issue off Lake Michigan and it was 48 degrees with rain and wind. The park is in Ottawa County Michigan, grid EN62.

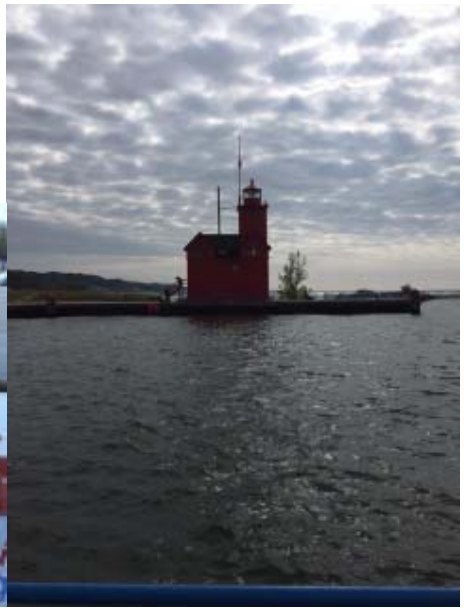
Originally, I was going to set up close to the light house but the wind was rough. I had found a couple other park places and set up last time. Pinched a coax and the logging program did not want to cooperate but managed 22 contacts in an hour. This included Italy, Spain, Canada and some new faces from USA. Worked a park to park with N4CD, who was in Kansas, on 40 cw and ssb. Cell service was ok but is usually tough on the West side of Michigan.

The set up was my normal end fed vertical with 9:1 un un and some counterpoise. The rig is an Icom 706 running 100 watts and IT 100 tuner. Could have sworn there was ice on the Spiderbeam pole while taking it down….

Made a few stops in Holland which is a tourist town and travel was tough with vehicle crashes on side and main roads due to the rain and some fog. After dinner we set up for the event to learn we were not in the fancy shmancy new civic center building. We were outside and did I mention the rain and fog? We were under an overhang that had electricity and also serves for the local farmers market.

50 fire trucks make quite a display and they arrive under an American flag held up by two ladder trucks. And now for a ham twist. What are the chances a ham would park next to me during set up? Well in the one photo K8PVH from Holland backed in to the left of me and we chatted a bit. Ü He works with CERT and was helping out at a table making house number signs. de KG8P





ARRL president suggests that we "re-brand" amateur radio

By Dan Romanchik, KB6NU

This Week in Amateur Radio recently reported (https://www.stitcher.com/podcast/this-week-in-amateur-radio/e/51325707) on a speech given by ARRL president, Rick Roderick, K5UR, at the 60th annual West Virginia State ARRL convention held August 25th at WVU Jackson's Mill Conference Center. Here are some things that he had to say:

> "Are we even relevant anymore as ham radio operators? Well, let's see: We're world communicators. We provide public service. We help in emergencies and disasters. We help save lives. We talk to the jungles of Africa…to the beaches of the South Pacific. We bounce signals off the moon. We talk to astronauts. We promote technology. We do positive things. So absolutely—we are relevant.
>
> "We've got to accept change and we've got to adapt if we're going to bridge that gap to that next generation. So the question that I have here that I have challenged my colleagues at ARRL with is this: is it time to rebrand ham radio? Maybe we need to rebrand the American Radio Relay League. That's a pretty profound statement."

Of course, I agree with K5UR on this and said so myself (https://www.kb6nu.com/are-we-amateurs-or-what/) several years ago. Unfortunately, according to the report, he retreated to the same old ideas that the ARRL has been spouting for years:

> "Well I think we ought to get out there and stir things up. That's what I think we ought to do. I think you ought to go back and rejuvenate your club. Over the next year, get somebody into ham radio. The second thing I want you to do….I want you to help a ham that needs your help. And the third thing I want you to do is—if you're not a member of the American Radio Relay League, you need to join today…because you know that whether you like us or not, we're all you've got; ain't nobody else in Washington DC helping us. I want you to ask yourself this question: don't you think it's time to give something back? Now I believe as a group, if we all did that we'll make a difference in this hobby as we go forward. Be a champion of ham radio. Let's work together and get it done. Thank you very much."

I'd like to challenge K5UR and the ARRL to really stir things up. There are lots of us out here giving back by teaching classes, conducting exam sessions, and helping hams get on the air. That's not the problem.

What we need from the ARRL is real leadership, not just talk. Exhorting the troops is only going to go so far. For most hams, amateur radio is only a hobby, and they do what they can. It's really up to the ARRL to provide the leadership that ties it all together and provide the framework that will allow us all to be successful.

Saying, "Whether you like us or not, we're all you've got; ain't nobody else in Washington DC helping us" doesn't really cut it. You have to show people that you're really making a difference, not just say you are.

———

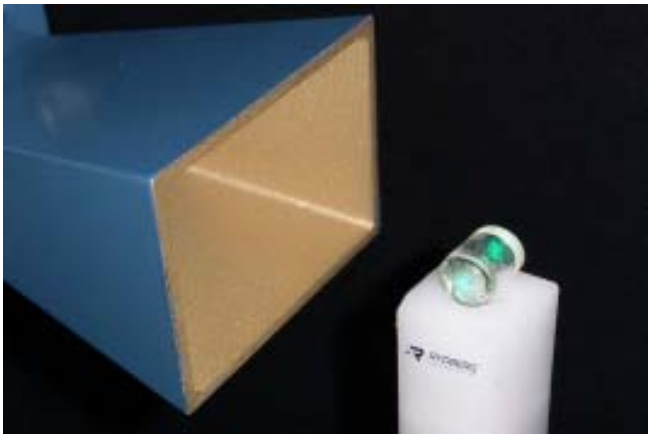
When he's not giving the ARRL the benefit of his opinions, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him your thoughts about the ARRL at cwgeek@kb6nu.com.

"So to make this clear, you talk on the radio, use the internet to look up one another's addresses, then send cards to say you talked on the radio?"

A new antenna using single atoms could usher in the age of atomic radio

The team tested their device by recording themselves singing "Mary Had a Little Lamb"

JENNIFER OUELLETTE - 9/19/2018, 9:18 AM



Zapping a vapor cell of excited cesium atoms with lasers makes an excellent detector of radio waves.

Rydberg Technologies

In the 1950s, atomic clocks revolutionized precision time-keeping. Now we may be on the verge of so-called "atomic radio," thanks to the development of a new type of antenna capable of receiving signals across a much wider range of frequencies (more than four octaves) that is highly resistant to electromagnetic interference.

An antenna is typically a collection of metal rods that pick up passing radio waves and convert their energy into an electrical current, which is then amplified. One might argue that the good old-fashioned radio antenna has served us well since the dawn of the 20th century, so why do we need anything to replace it?

According to David Anderson of Rydberg Technologies, those antennae are wavelength-dependent, so their size depends on whatever wavelength of signal they are trying to measure (they need to be about half the size of whatever wavelength they are designed to receive). That means you need antennae of several different sizes to measure different radio frequencies.

Anderson is a co-author of a new paper posted to the arXiv describing a novel alternative to conventional antennae, based on vapor cells filled with a gas of so-called "Rydberg atoms." That just means the atoms are in an especially excited state, well above their ground (lowest-energy) state. This makes them especially sensitive to passing electric fields, like the alternating fields of radio waves. All you need is a means of detecting those interactions to turn them into quantum sensors.

"You can design the receiver to operate at whatever frequencies you want and avoid intentional electromagnetic interference much more easily."

The Rydberg Technologies team realized they could zap their vapor cells filled with excited cesium atoms with laser light tuned to just the right critical frequency. This saturates the atoms so they can't absorb any more light, such that a second laser beam can pass right through them, effectively making the gas transparent. The critical frequency at which this transition happens will change in response to a passing radio wave, so the light from that second laser beam will flicker in response. The vapor cell becomes a purely optical radio wave detector, with no need for any wires or circuitry.

Plus, it's capable of measuring pulsed and modulated RF fields, according to Anderson, which is how information is transferred across the airwaves. They have already tested the concept with AM and FM microwaves to transmit recordings of various team members singing "Mary Had a Little Lamb"—a nod to Thomas Edison, who sang the same song when he invented the phonograph in 1877.

FURTHER READING

US Intelligence thinks Russia may have microwaved US embassies in Cuba, China

The all-optical nature of the vapor cells means that even if they are hit with a massive burst of electromagnetic radiation, like that from a solar flare, they won't be permanently damaged because there is no circuitry to fry. This is a major concern for the electrical grid or certain defense systems and satellites. An atomic antenna would also be less vulnerable to the recent spate of suspected microwave attacks at US embassies in Cuba and China. And the cells are ideal for secure communications. "You can design the receiver to operate at whatever band or whatever frequencies you want and avoid intentional electromagnetic interference much more easily," says Anderson.

(Continued)

The detector cells are quite small, merely millimeters in size, with potential to scale them down even more. However, they require a significant backup system to operate, which has not been miniaturized. "You're not going to have a radio receiver that fits into a car dashboard today," says Anderson. "But the atomic clock paved the way for what we now call quantum technologies," and they began as large tabletop devices. Eventually scientists figured out how to make them small enough to fit into commercial systems.

Anderson foresees a similar trajectory for atomic radio. Within the next couple of years, he is confident they will have a suitcase-sized system that would fit neatly into an airplane or a ship, for example—vessels that would welcome the added protection from interference and electromagnetic pulses conferred by these detector cells. And perhaps one day these vapor cells will replace those pesky car antennae with something a bit more aesthetically pleasing.

Wireless electricity transmissions in Texas

KWTX reports scientists are studying wireless electricity transmission in Central Texas

An oddly shaped, but prominent, roadside construction project along Interstate 35-East just north of Carl's Corner is actually a high-tech study into the feasibility of transmitting electricity from place to place without wires.

Driving toward Dallas on Interstate 35 East, just past Carl's Corner on the right, there's a unique tower. It has a large circular base, a smaller round structure jutting from the top, and on top of the pole sits a large, round, metal-looking ball.

ne of the broadcast engineers at KWTX noticed the thing while coming back from Dallas, took a picture and brought it to the newsroom so a reporter could figure out what it is.

Guesses ranged from some kind of electric-powered car charging port, or a radar for Dallas Fort Worth International Airport or Love Field, maybe something to do with the Internet and even a suggestion that it might be a prop on a new Star Trek movie set.

Turns out the first guess was closest.

It's part of an experiment to study the feasibility of transmission of electric energy from source to user without using wires.

It's being undertaken by a Waxahachie company named Viziv Technologies and it uses a technology they call a surface wave system.

Read the full story at

https://www.kwtx.com/content/news/Scientists-studying-wireless-electric-transmission-in-Central-Texas-494839331.html

Viziv Technologies

http://vizivtechnologies.com/

The American Radio Relay League's round-up of the forthcoming week's DX activity on the amateur radio bands

This week's bulletin was made possible with information provided by NT5V, The Daily DX, the OPDX Bulletin, 425 DX News, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites.

Thanks to all.

WESTERN SAMOA, 5W. Steve, WB2IQU will be QRV as 5W2IQ from Apia from October 18 to 25. Activity will be on 40, 20, 15 and 10 meters. QSL direct to home call.

CAPE VERDE, D4. Harald, DF2WO is QRV as D44TWO from Praia, Santiago Island, IOTA AF-005, until October 22. Activity is holiday style on 160 to 10 meters using CW, SSB and various digital modes. QSL via M0OXO.

SPAIN, EA. Members of the Cartagena Team are QRV with special call AM5BCP until October 21 to commemorate the Battle of Cabo de Palos 80 years ago. QSL via EA5GUQ.

WALES, GW. Special event station GB100MCV is QRV from Holyhead on Holy Island until October 28 to commemorate the sinking of the Royal Mail Ship Leinster during World War I. QSL via bureau.

REPUBLIC OF KOREA, HL. Operators Han, DS2GOO, Rew, DS4NYE, Rocky, HL1VAU and a few other members of the Korea Contest Club are QRV as home calls/3 and D70LW/3 from Hwang Island, IOTA AS-080, until October 14. Activity is on 80 to 10 meters using CW, SSB, RTTY and FT8. QSL via home calls, and D70LW/3 direct via DS4NYE.

SOUTH SHETLAND ISLANDS. Sang, DS4NMJ is QRV as DT8A from the Korean Antarctic Scientific Base King Se-Jong on King George Island, IOTA AN-010, until the end of December 2018. Activity will be on various HF bands using mainly CW and some SSB. QSL via HL2FDW.

PANAMA, HP. Members of the Radio Club de Panama and GREMPA, an emergency group, are QRV with scout station 3E1JT until October 31.

This includes being active in the upcoming Jamboree On The Air. Activity is on all bands using SSB, with some CW and on various satellites. QSL via HP1ALX.

SVALBARD, JW. Just, LA9DL, Erling, LA6VM and Halvard, LA7XK are QRV as JW9DL, JW6VM, and JW7XK, respectively, from Longyearbyen, IOTA EU-026, until October 15. They will be QRV as JW5X in the Scandinavian Activity SSB contest. QSL JW7XK via LA7XK, JW9DL via LA9DL, JW6VM via LA6VM, and JW5X via LA5X.

ARUBA, P4. Operators NN5E and NT5V are QRV as P4/home calls until October 19. Activity is on 80 to 10 meters using CW, SSB, RTTY and FT8. QSL to home calls.

UKRAINE, UR. Special event station EM75QM is QRV until October 28 to commemorate the liberation of Melitopol in World War I. QSL via bureau.

GREECE, SV. Erich, HB9FIH is QRV as SV8/HB9FIH from Lesbos, IOTA EU-049, until October 21. This includes being active from numerous COTA, SOTA, and lighthouse references. This also includes being an entry in the upcoming Worked All Germany contest. QSL to home call.

CHRISTMAS ISLAND, VK9X. A group of operators will be QRV as VK9XG from October 17 to 29. Activity will be on 160 to 10 meters using CW, SSB, RTTY and FT8. QSL via G3TXF.

CAMBODIA, XU. Jaye, VK2SD is QRV as XU7AME from Phnom Penh until October 16. Activity is holiday style on 40 to 6 meters. QSL to home call.

VIET NAM, XV. Jun, OE1ZKC is QRV as XV9RH from Hanoi until October 16. Activity is in his spare time on the HF bands using only CW. QSL to home call.

LAOS, XW. Bruce, 3W3B is QRV as XW4XR until October 22. Activity is on 40 to 6 meters using CW, RTTY and FT8. QSL via E21EIC. In addition, Champ, E21EIC is QRV as XW1IC until October 16. Activity is on 40 to 6 meters. QSL to home call.

VANUATU, YJ. Stan, LZ1GC, Lubo, OM5ZW and Karel, OK2WM will be QRV as YJ0GC from Efate Island, IOTA OC-035, from October 15 to November 4. Activity will be on the HF bands, with a focus on the low bands, using CW, SSB and RTTY. QSL via LoTW.

THIS WEEKEND ON THE RADIO

The NCCC RTTY Sprint, NCCC CW Sprint, Makrothen RTTY Contest, QRP ARCI Fall QSO Party, Nevada QSO Party, Oceania DX CW Contest, SKCC Weekend CW Sprintathon, Scandinavian Activity SSB Contest, Pennsylvania QSO Party, Arizona QSO Party, FISTS Fall Unlimited CW Sprint, South Dakota QSO Party, PODXS 070 Club 160-Meter Great Pumpkin Sprint, UBA ON 80-Meter CW Contest and the UBA ON 6-Meter Contest are all on tap for this upcoming weekend.

The ARRL School Club Roundup runs from October 15 to 19.

The 4 States QRP Group Second Sunday Sprint and Telephone Pioneers QSO Party are scheduled for October 15.

The RSGB 80-Meter Autumn Data Series, CWops Mini-CWT Test and Phone Fray are scheduled for October 17.

The ARRL International Grid Chase runs during all of 2018.

Please see October QST, page 91, and the ARRL and WA7BNM contest web sites for details

Amateur Radio Examinations Monroe, MI

Monroe County Radio Communications Association Amateur Radio examinations are held the 3rd Saturday of every even numbered month at:

American Red Cross Chapter Bldg.
1645 North Dixie Highway
Monroe, MI 48161

Walk-ins are always welcome.

2018 Schedule:
February 17 April 21
June 16 August 18
October 20 December 15

TESTING BEGINS PROMPTLY AT 9:00 AM

Applicants are expected to have all forms filled out and be ready to take tests at that time. Coffee and doughnuts are available at 8:30 AM. For more information or to make reservations, call Paul Trouten - W8PI at 734-854-2224

Join us at the next meeting

October 18th at 7:30 pm
American Red Cross Chapter Bldg.
1645 North Dixie Highway
Monroe, MI 48162

Local Net

ARPSC Net - Every Monday evening on '72-Monroe (146.72 Mhz) starting at 8:00pm.

ARPSC Meeting first Thursday of every month at the EMD office on Raisinville Rd.. 7:00 PM

Monroe County Radio
Communications Association
P.O. Box 237
Monroe, MI. 48161-0237