



The Wave Bender

January 2018



AWARD WINNING NEWSLETTER

PRESIDENT'S JANUARY MESSAGE

It's an honor and a pleasure to accept the Presidency of the Western Reserve Amateur Radio Club. We have many talented members who are involved with various activities of the club, which bodes well for its future. WRARC has a sound structure in place and can only improve in the future with your ideas and input. I am confident the club will excel in 2018.

For me, it all started when I was a kid listening to a short wave radio. When I retired, I decided I would try to get involved with Amateur Radio. After no encouragement at two other club meetings, I learned of a demonstration at the tech school in Youngstown. When I arrived, I asked this guy at the door where the demonstration was taking place and he said something like room 204. Then I asked if he was with the radio club and he said yes. I asked if he knew of any classes being given and how much they cost. He said they were free and that he happened to have a book that would be the only expense. We shook hands and said his name was Al, AB8AA.



After I got my license I joined WRARC and have enjoyed it ever since. Now I am entrusted with your presidency and I hope to gain your confidence over this year. I look forward to working with the newly elected officers and continuing trustees. A special thanks goes to Past President Bob, N8RCM, who has been so helpful getting me up to speed with the responsibilities of the Presidency. He has also let me know that he's always a phone call away if I need anything. He truly represents the spirit of Amateur Radio. Wishing all of you a Happy New Year!

73, Brian, AB8B
WRARC President



IN THIS ISSUE

2018 Officers:

President: Brian Lewis, AB8BL ab8bl@wrarc.net
VP: Maureen Stein, KD8NXS kd8nxs@wrarc.net
Secretary: Stan Adamski, KB3WPD kb3wpd@wrarc
Treasurer: Rose Marko, KD8TII kd8tii@wrarc.net
Past President: Bob Mitzel, N8RCM n8rcm@wrarc.net

Trustees:

Darrin Cannon, N8DMC n8dmc@wrarc.net
 Roy Haren, KD8IJF kd8ijf@wrarc.net
 Steve Fabry, KC8SOY kc8soy@wrarc.net

Appointed Positions:

Social: Maureen Stein, KD8NXS kd8nxs@wrarc.net
 Publicity: Joe Wojtowicz, W0JO w0jo@wrarc.net
 Nets: Steve Fabry, KC8SOY kc8soy@wrarc.net
 Classes/Testing: Bob Mitzel, N8RCM n8rcm@wrarc.net
 Newsletter/Web: Jane Avnet, K8JAA k8jaa@wrarc.net
 Historian: Rose Marko, KD8TII kd8tii@wrarc.net
 Badges: Al Avnet, AB8AA ab8aa@wrarc.net
 Facebook: Terri Mitzel, N1TAM n1tam@wrarc.net
 Harry Harker, KD8PQK kd8pqk@wrarc.net

Officer's Meeting:

January, 9 2018, 7:00 P.M. At Eat 'n Park,
 Austintown, Eat 'n Park,
 5451 Mahoning Ave
 All members welcome

Members Meeting:

No regular meeting in January

Speaker: None

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<http://www.wrarc.net/>

OTHER IMPORTANT WEB SITES

THE ARRL EXAM SEARCH PAGE

<[HTTP://WWW.ARRL.ORG/FIND-AN-AMATEUR-RADIO-LICENSE-EXAM-SESSION](http://www.arrl.org/find-an-amateur-radio-license-exam-session)>

OHIO SINGLE SIDEBAND NET

<[HTTP://WWW.OSSBN.ORG/INDEX.HTML](http://www.ossbn.org/index.html)>

ANTENNA HEIGHT ABOVE AVERAGE TERRAIN (HAAT) CALCULATOR

[HTTPS://WWW.FCC.GOV/MEDIA/RADIO/HAAT-CALCULATOR](https://www.fcc.gov/media/radio/haat-calculator)

FROM OUR VP

Here Comes the New Year!

Here we are entering 2018 already. You will likely be reading this on January 1 or after, already into the new year. Amazing! This year will be our ninth year as a club. How quickly time passes. First I would like to remind everyone of our annual After the Holidays Meeting/Party coming right up on Sunday, January 14, at 3:00 P.M. in our meeting room at Davidson's. I will be giving the restaurant the final head count on or about January 7, so if you would like to attend and haven't signed up yet, please get in touch with me ASAP. You can reach me at 330-398-1303 or at kd8nxs@wrarc.net to be added to the list. You can leave me a message with your name, call sign, number in your party, and phone number. Hopefully, Mother Nature will look kindly on us and we won't have to worry about any weather-related cancellations that I will need to call you about. Remember, this is a party for friends, family, and any other guests as well as members.



Secondly, at the party, we will have installation of officers for the upcoming two year term (three year for the trustee position). I am looking forward to serving WRARC as VP and send congratulations to my fellow newly elected persons - Brian Lewis, AB8BL, as President, Stan Adamski, KB3WPD, as Secretary, and Steve Fabry, KC8SOY, as Trustee. Also, a warm welcome back to Rose Marko KD8TII for her second term as Treasurer. She has done an excellent job and I know she will continue to do so!

I would like to thank the outgoing Officers and Trustee for all their hard work and leadership in the last term - Bob Mitzel, N8RCM, outgoing President; Joe Wojtowicz, W0JO, outgoing VP; Jo Wilms, KD8SNW, outgoing Secretary; and Russ Williams, NR8W, outgoing Trustee. We had a good last two year term with all of you at the helm. You have all contributed so many good things to WRARC I hope that we can keep that going in the next two years. That being said, Happy New Year and,

73 to all of you Maureen, KD8NXS
WRARC VP



**After the Holidays Annual Meeting
&
Installation of Officers
Sunday, January 14, 2018, 3:00 P.M.
Davidson's in Cornersburgh
Order from the Menu
Guests Welcome
Contact Maureen to let her know how many in your party
Deadline is January 7, 2018**

WHAT'S COMING UP?

January 06	YL Breakfast
January 07	Deadline to signup for the Annual Meeting
January 09	Ham Community Breakfast - Boardman Eat 'n Park
January 14	After the Holidays Annual Meeting
January 23	Ham Community Breakfast - Boardman Eat 'n Park
February 03	YL Breakfast
February 13	Board Meeting
	Ham Community Breakfast - Boardman Eat 'n Park
February 20	Members meeting
February 27	Ham Community Breakfast - Boardman Eat 'n Park



Amateur Radio Operator "Amateur means we're simply professional volunteers" ARRL reflector

"Dues are due" anytime between now and January 31, 2018.



The dues are \$20.00 for the initial person joining in the household if that person is under 65, and \$5.00 for each subsequent member who is in the same household. Senior dues, 65 and older, are \$16, and \$5 for each additional member at the same address. Send Ceck or moneyorder made out to WRARC to:

Rosemary Marco, KD8TII
 416 S. Edgehill Ave.
 Austintown, OH
 44515



CONTACT WRARC ELMERS WITH YOUR QUESTIONS - QUESTIONS@WRARC.NET

Avnet, Allan AB8AA

Antennas, radio setup, mobile, grounding, classes, anything anything

ab8aa@arrl.net

Beatty, Dave KC8WY
 Fabry, Steve KC8SOY
 Haren, Roy KD8IJF
 Williams, Russ NR8W
 Wojtowicz, Joe W0JO

Yaesu FT8900, FT8800, Mobile ???
 Electrician, tele-data, Amateur Extra
 ICOM radios, D-Star

kc8wy@zoominternet.net
 kc8soy@yahoo.com
 harens@juno.com
 rwiliams@neo.rr.com
 w0jo@arrl.net



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He who is afraid of asking, is afraid of learning

Articles from members for the Wave Bender are encouraged. They must be received by the editor on the 20th each month. Please send your articles to: k8jaa@arrl.net, and put WRARC on the subject line of your email. You may also send your articles to the editor: Jane Avnet, 2050 E. South Range Rd., New Springfield, OH 44443

Join us for the WRARC Friday night Net 9:00 P.M.

KD8DWV - 145.270, PL -110.9

Upcoming Net Control Operators

01/05	Roy, KD8IJF
01/12	Rocky, W8RKY
01/19	Joe, W0JO
01/26	Rose, KD8TII
February	This could be you

If your name has never been on this list
 Contact Steve, KC8SOY, to take a turn at Net Control
 330-774-6346



WRARC Simplex Frequency 146.565

Mahoning County ARES® Nets

1st Monday 8.40 PM ET W8QLY Repeater - 146.745 (PL 110.9)

&

3rd Monday 8.40 PM ET W8QLY Repeater - 146.745 (PL 110.9)

ARES thanks MVARA for the use of their repeater



W8SGT is facilitating The Ohio HF net every Tuesday - 7:00 PM

The net is run from the State of Ohio EOC on the

Ohio ARES Admin frequency 3875 kHz LSB

moves to 7240 Khz after 20-min.

All are welcome to check in.

The Ohio ARES/OES Digital Emergency Net held every Tuesday at 8:00PM.
 held on 3585 kHz USB.

Please note all digital communications are Upper Side Band.

<http://www.http://ohden.org/> for net details. Net Manager Gary NJ8BB

COLUMBIANA COUNTY DIGITAL NET

Wednesdays 8:30 pm - 9:30 pm

145.510 MHZ SIMPLEX

First Wednesday of the Month Mahoning County Skywarn Net
 is held on the W8QLY repeater 146.745 (-) at 8:30P.M.



Thanks & 73

All of our members (and others) look forward (hopefully) to getting this newsletter every month, so keep sending those articles, jokes, and suggestions! Thanks goes out to this month's contributors; KC8WY, N8SY, W5YI, the ARRL and the World-Wide Web.

FROM THE TECHNICAL COORDINATOR



Jeff Kopcak – TC

k8jtk@arrl.net

Hey Gang,

I'm touching on a third-rail topic of ham radio this month, licensing and education. I've heard any number of hams state something like this about new hams: 'ham's today only study the answers to pass the test.' 'I don't like so-and-so's teaching method because their students don't know anything.' They don't approve of the "boot-camp" style training sessions for many of the same reasons. Certainly, their thinking is one school of thought: learn the question pools, know the reasons, learn the theories and be able to provide reasonable explanations before taking the test.

I saw a presentation by Dan Romanchik – KB6NU on the Ham Radio 2.0 podcast (<http://www.livefromthehamshack.tv/2017/05/25/episode-97-teach-1-day-technician-class-kb6nu-dayton-hamvention/>). His presentation caught my attention because he publishes the "No Nonsense Study Guides" (<http://www.kb6nu.com/study-guides/>) which is a text-book approach to learning the question pools. Dan is sold on and teaches one-day Technician training classes (also called "Ham Crams" or boot-camps). He teaches the answers to the questions and teaches to the test. At the end of the class, follows up with the Technician exam. Why? To get people into the hobby. As a Volunteer Examiner, I can appreciate that. Getting people into the ranks is always important. Dan claims students will learn something from his class and retain at least enough information to pass the exam. This means students don't have to make multi-week commitments to attend class. How often does something come up in real life during a 6-week training class? More often than you'd think. Our school systems have been teaching to standardized tests and college entrance exams for decades. Iowa Tests, SATs, and ACTs anyone? The reason for Dan's teaching methodology is because the real learning happens on the radio.

After watching his presentation, I realized this is exactly how I learned things in ham radio. When I was studying, my dad mentored me with electronic theory because that is his area of education and he worked in the industry. Electronic theory wasn't necessarily something I cared a whole lot about as a freshman in high school. I knew the Part 97 FCC rules from seeing him operate or explaining them to me and from generally being around the hobby. His interests didn't cover the HF bands. Even by the time I took my General and Extra, I probably couldn't hit 40 meters with a shotgun. When the opportunity came and I found myself interested in HF, that changed. Being around mentors and absorbing everything I could, I think, made learning the material on the General exam easier. That learning happened over the better part of a decade after taking my Novice & Technician exams and when I decided to upgrade to General & Extra.

Ham Radio isn't the only hobby where you receive a license to learn. A roommate in college had his pilot's license. He was always taking aviation classes and getting flight hours in between his other classes. You have to get a pilot's license even before you can begin learning to fly an aircraft. The State of Ohio Bureau of Motor Vehicles requires an applicant for learners permit to pass a knowledge test about regulations and traffic signs. Then the real learning begins - hours of driving and education. Ham radio isn't necessarily different. Sure, many students will get their license and may not ever become a pilot or ever get on the air, but that's up to them. I believe the ARRL was trying to accomplish something similar by exploring an introductory license: <http://www.arrl.org/news/arrl-board-explores-entry-level-license-options-ways-to-face-future-challenges> Hams will argue about skills. Skills needed to build a radio or operate CW are the usual examples. These are seen as relevant to 'separate men from the boys.' Yeah, OK. At this point, neither of those 'skills' are my interests. Can those same operators write a program from scratch or write an article on take-your-pick of an HF digital mode? Maybe yes, maybe no, but I can. Does that make anyone less of a ham because of different skill sets or interests? I don't think so. The hobby is incredibly diverse with people from different backgrounds, levels of experience, and interests not even necessary related to being on the air. Such examples would be scholarships, enforcement, advocacy, public relations, regulations, laws, education, spectrum defense, and publications.

On the other hand, the ham community needs to help those hams who want to learn. I think many new hams give up because they don't get the mentoring they are seeking. They may contact a club or two asking for help and get no response. It's not fun when you have to constantly beg for help or get talked down to. We are all volunteers, have families, and other commitments too.

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TECHNICAL COORDINATOR - CONTINUED FROM PAGE 6

Club meetings may spark some interest on a topic but aren't typically good places for extensive hands-on training. Many clubs focus on similar (related) topics for their meetings. Holding regularly scheduled classes and training is usually an issue due to time commitments, availability, or lack of regular interest. Other places for training might be evening classes at a local university or look at offerings of a local makerspace. Partnering with makerspaces could facilitate a place for demonstrations and training as well as bringing those with radio building skills into the hobby. Work ham radio into topics such as WiFi and Bluetooth transmitters. Don't focus exclusively on operating demonstrations.

Working with other clubs to form special interest groups, utilize subject matter "experts" to share their experiences for an extended hands-on session, or a "program your HT" evening are some other ideas. I would like to hear ideas that have been met with success welcoming newcomers into the hobby.

Retired ARRL CEO Dave Sumner - K1ZZ was on the QSO Today podcast. Dave talked about his 44 years with the League. He started as an intern in the 1970's. The podcast starts out talking about how he got into ham radio, his antenna farm, and operating interests. Dave covered experiences with the IARU and other radio conferences during his tenure at the ARRL.

He talked about programs and history of the ARRL including the Spectrum Defense fund and IARU intruder watch program. Check out QSO Today episode 172: <https://www.qsotoday.com/podcasts/k1zz>

In some unfortunate news, one of the largest electronics distributors headquartered in Ohio for 40 years and frequent vendor at Hamvention, MCM Electronics, is partnering with Newark element 14. Two plants will close and more than 90 workers will be laid off before end-of-year. MCM sold all kinds of tools, 3D printers, parts, wires, speakers, Arduino and Raspberry Pi computers. As of September 1, their website redirects to the Newark website. I knew the name element 14 from the Raspberry Pi computers I've purchased over the years. I had the opportunity to visit the MCM facility during a recent trip to Hamvention. The store was quite small compared to the massive warehouse. I couldn't believe the size. Hopefully they'll keep the warehouse open for parts distribution. ARRL News story: <http://www.arrl.org/news/mcm-electronics-shutters-two-plants-announces-merger-with-newark-element-14>

Finally, don't forget the HF Santa Net running through Christmas Eve. Starts daily at 8:30 pm Eastern and can be found on 3916 kHz for the little ones to have a chance to talk with Santa! <http://www.3916nets.com/santa-net.html>. The Santa Watch Net will kick off at 6:00 pm Eastern on Christmas Eve as Santa delivers his presents. The Watch Net can be found on the *DoDropln* Echolink conference node #355800. Thanks for reading. Happy holidays, Merry Christmas, and Happy New Year!

73... de Jeff – K8JTK

Amateur Radio is exciting and a lot of FUN. It's also a learning experience for everyone! Share your enjoyment and learning experiences with those just coming into Amateur Radio!!
Scott, N8SY

COULD THIS BE YOU?

Could this be YOU? This is the Wave Bender YOUR Newsletter. We have plenty of room for YOUR article(s)! If something is of interest to you, odds are that we all will enjoy your thoughts and activities! Have a favorite radio? Have some reminiscing to do? maybe you have a question for one of our Elmers. OR, a Tip or Trick you learned that would help one of YOUR WRARC friends. You are warmly invited to contribute! Don't worry about writing or formality - we can help you with that. Your article could go in this spot next month!!



SWAP'N SHOP



Antennas, Tower, and Radios plus other stuff for sale

Kenwood TH-22AT 2 Mtr HH	\$ 15
Nye Viking, MBI-001 Tuner,	\$ 50
AEA model QT-1, Antenna tuner	\$ 15
Pyramid Power Supply model PS-25	\$ 30
Swan SWR-1A SWR/ Pwr Meter	\$ 5
Andrew F4PNMV2-HC N Male connector	\$ 5 ea

Code Keys, MFJ and Misc. Equipment for sale

Bencher ST-1CW Paddle	\$ 50
Coax Switches (3)	\$ 5 ea
Code Keys Straight (3)	\$ 5 ea
Code Key J-37 key on a J-44 Base	\$ 10
Iicom IC-AG1 430Mhz Preamp	\$ 10

KENT Single Paddle	\$ 15
MFJ MFJ-204B Antenna Bridge	\$ 20
MFJ MFJ-906 6 Mtr Antenna Tuner	\$ 40
MFJ MFJ-9040 40 Mtr CW transceiver	\$ 30
MFJ MFJ-945 Antenna Tuner	\$ 20
MFJ MFJ-492 Memory Keyer	\$ 20
MFJ MFJ-464 CW Reader/ Keyer	\$ 40
MFJ MFJ-484 Grandmaster Memory Keyer	\$ 20
MFJ MFJ- 812 VHF SWR/ Power Meter	\$ 5

Heathkit and Ten-Tec Equipment for sale

Heathkit HM-9 QRP Wattmeter	\$ 15
Heathkit HFT-9A Antenna Tuner	\$ 20
Heathkit HG-10 VFO	\$ 15
Heathkit AM-2 SWR/ Power Meter	\$ 10
Heathkit HM-11 SWR/ Power Meter	\$ 10
Heathkit SB-600 Speaker	\$ 10
Heathkit IM-10 VTVM	\$ 10
Heathkit DX-60 10 thru 80 Meters HF	\$ 40
Heathkit 75 Meter Single Bander	\$ 40
Heathkit GR-88 152-174Mhz Receiver	\$ 10
Heathkit VTVM Model IM-11 (A)	\$ 10
Ten-Tec Kit Shortwave Receiver Model 1253	\$ 40
Ten-Tec Kit 6 Mtr Transverter	\$ 20
Ten-Tec Power Supply 252G	\$ 25



**Will accept all reasonable offers.
Misc tower parts, lots contact me if interested.
AI, AB8AA, 330-207-3296 or ab8aa@arrl.net**



FROM THE Affiliated Club Coordinator

Tom Sly, WB8LCD - ACC
tomsly29@gmail.com

I probably won't be the first, and I hope I'm not the last, but I hope you all had a Joyous Christmas and will have a Happy New Year!

I hope you've all got your club meetings planned ahead, at least for the first quarter. If you have not lined up your speakers, or your activities, here's a couple ideas:

- Bring your rig Night: This could be a meeting topic, or a "special" activity for your club. Invite everyone to bring to the meeting, and give a brief description of, a piece of radio equipment that has some special significance to them. Everyone gets 5 minutes to show off their rig. (at 5 minutes each, 6-10 people will take about an hour) You'll see new stuff, old stuff, homebrew stuff and hear stories of why the equipment is significant. Interesting, and you have a chance to learn something about your fellow club members.
- Variation – Homebrew night: everyone shows off a homebrew project QSL night: everyone shows off a card(s) of special significance and tells the story of it
- Look at my Shack night: Everyone sends in 3-6 photos of their shack, antenna farm and all the photos are put into one big PowerPoint presentation. Everyone takes a turn describing what they have and how they use it.
- Crystal Radio Build: Give everyone a crystal diode (you can find them really cheap on the internet) and tell them that for the next meeting they need to bring back a working crystal radio set. On meeting night provide an antenna and ground so they can all be shown to work. Prizes for the simplest, most complex, and best looking working radio set. Invite some kids to your meeting that night – kids are always impressed with something that's simple, uses no power and works!
- Club History: Relive the history of your club, get photos and documents to include. Older members will like to hear about all they've been through, younger members will get a kick out of hearing (and especially seeing) what has happened in the past.

I already know what's going to happen when you try one of these ideas. First, you'll describe it in the newsletter, and maybe send out a follow up email about it. When it comes to meeting night, you'll probably have a disappointing number of people show up willing to share. To make this work you need to be a "bulldog." In addition to your mass appeals to club members, pick out a few, contact them personally and get their commitment to be there and have something to share. Remind them that the meeting is coming up and remind them of their commitment to "help you" make the meeting a success. Let them know you're counting on them. Getting people motivated is the toughest part of any of this!

These are a couple ideas that have worked in my club – PCARS. Sometimes it's nice to have something a little less formal than an "expert from afar," and sometimes you just need something that can be put together quick and easy. How about you guys?

What have you done in your clubs for interesting meetings that are simple to set up, yet still interesting for the members? Let me know so I can share your ideas with everyone.

Next month I'm going to talk about the same kind of thing, but more about you, individually.

Are you as engaged in the Amateur Radio Hobby as you would like to be? Are you having as much fun with it as you could (should)? People will gravitate in one of two directions – that which is FUN, or that which is just easy.

Hope to hear you on the air!

73,
Tom, WB8LCD
OH ACC



A LAST WISH REALIZED -- A FINAL QSO -- A STORY FOR THE HOLIDAY SEASON

Hams worked to grant a dying Vietnam vet and radio amateur a last wish of making one more contact recently. It was David Hartnett, K9DRH, and crew Don Whitney, K9DRW, James Nelson, K9QF, Harry Hahn, WB9R, Scott Campbell, KC9SJP, and others who made it happen. An account of the event was published in the local section of the Chicago Tribune. The story is about John Nugent, WA2EQJ, a U.S. Army Signal Corps member in Vietnam, who came home from the war to feelings of isolation and found ham radio to help ameliorate them: he could socialize with others around the world.

At a health care center in Chicago recently, Nugent's wish of one last QSO was realized. As many of us old timers did, he had made his first radio out of a cigar box when he was 9 years old. He told the facility staff that he was a ham since he was 16, and never let his license lapse.

The American Legion Amateur Radio Club, the North Shore Amateur Radio Club, Lake County Emergency Management and the Lake County Sheriff's Office all offered to assist in meeting his request. Lake County RACES set up antennas and his radio. Nugent made several contacts.

Nugent had volunteered for the Army and was wounded in the leg by shrapnel. His career as an electrician followed. After the QSOs were "in the log," his son Chris walked around the room thanking the Lake County RACES and other volunteers who facilitated his Dad's last wish.

ARRL Illinois Section News; Ron Morgan, AD9I, Section Manager



JETSTREAM

(from Ohio District 3 ARES Program for Wednesday, December 13, 2017)

Most of the training opportunities that have been mentioned over the past few years have involved a registration process with some governmental or non-governmental entity. Today's featured site has no such requirement.

JetStream is the National Weather Service Online Weather School. There is no cost to use the training materials, and registration is not required. The site is designed for anyone interested in weather related subjects.

I found well over a hundred choices in the site's topic matrix, and you can pick and choose without taking all of the preceding topics in your particular area of interest. To look over the choices or get started on a topic, visit <http://www.weather.gov/jetstream/>



BIRTHDAYS THIS MONTH



W0JO Joe Wojtowicz
KD8YMI Candy Davis
NR8W Russ Williams
KD8PBW Ted Baylog

KC8WY Dave Beaty
KD8DWV Liz Beaty
KC8WUX Mike Austin

K1CE END OF YEAR MESSAGE

It's been a year of natural disasters across the country on a scale that I cannot recall ever having been more horrific, from tornadoes to West coast wildfires to Atlantic hurricanes and more. As this is written, wildfire is raging across southern California in a month that is usually reserved for mudslide and flooding season. The Los Angeles Times reported no major wildfire had ever occurred in the state in December; California's wildfire season is usually summer and early fall. Of the 20 largest California fires since 1932, 14 have burned since 2000. The five largest have all occurred since 2000.



It's also been a hurricane season to remember, with horror: the humanitarian crises of Puerto Rico and other Caribbean islands, the flooding that Harvey wrought on southern Texas, and here on the Florida peninsula, the march up land of Hurricane Irma that, according to some reports, spurred the largest evacuation in US history, put large segments of the population into shelters, and locked me into the hospital to work and live for almost 60 hours.

Amateur service licensees worked in partnership with emergency/disaster response agencies, responding at all levels of government, and for the Red Cross and NGOs over the course of the year. ARRL Administrative HQ staff supported the ARRL Field Organization, and HQ's Emergency Preparedness Manager Mike Corey, K11U, traveled to Puerto Rico with radio and other equipment made possible by donors to Ham Aid, to represent HQ and personally add to the response and recovery effort there. Countless other examples of support abound, and have been documented in QST and other outlets.

One asset that seems to me to be underutilized and could evolve to be a force multiplier in community and neighborhood response and safety in disasters is the CERT program. I know I sound like a broken record; I've harped on this subject numerous times. The ARRL supports the Community Emergency Response Team (CERT) construct, and has formally supported it since 2003, when the League became an official affiliate program of Citizen Corp, the DHS initiative. The Statement of Affiliation makes ARRL an affiliate under the four charter Citizen Corps programs--Neighborhood Watch, Volunteers in Police Service, Community Emergency Response Teams and Medical Reserve Corps.

Help before the Help Arrives

The premise of CERT is undeniable: when a disaster occurs, a neighborhood or entire community could be isolated for days, inaccessible to first responders. Residents are on their own, and must take care of themselves. The CERT program trains them in basic disaster response skills, such as light search and rescue, First Aid, fire management, and radio communications. A team can be trained by local emergency management staff in the classroom, and organized at a local community center or even a neighbor's living room.

Radio amateurs are found in just about every neighborhood, and they make logical key members of CERTs, especially when it comes to establishing communications with the outside world. To start, please check FEMA's CERT web page here.

Finally, thank you being a reader of the ARRL ARES E-Letter. There are almost 40,000 of you across the country. Best wishes from the editorial and production staff for a great holiday season and happy new year!

RICHARD K PALM, K1CE

THE WRARC NET NEEDS YOUR SUPPORT....

9:00 P.M. Friday evenings: 145.270 Mhz (minus offset), PL 110.9
 You can advertise your Swap 'n Shop. You can ask our Elmers anything -
 No Question too big or too small!
 The only dumb question is one you don't ask Hope to hear you on the net.



WHAT HAMS DO

Specialized technology and code names may sound like elements of a spy movie; but they are also tools used by members of Amateur Radio Clubs. We're the most anonymous organization you're going to find. Most people have no idea what Hams do or how we do it. To become licensed, aspiring Amateur Radio Operators must pass an exam. Hams help people get started. We are ready to do this for anybody who has the drive to learn the technology. It's continually a giving back process. The government has recognized that many of us have had training that helps them in times of disaster by having that available network of radios and trained operators to help them out and take over communications if needed.

Many of the Hams are trained weather spotters, who relay hazards such as floods, or fog to the National Weather Service. They go out in severe weather to keep the NWS abreast of the latest conditions. It is important to let the NWS know if we see any funnel clouds or shelf clouds.

Amateur Radio Operators also support numerous public service events by providing communications as well as serving as weather spotters. The majority of the events Hams work are marathons or bike rides that can cover many miles of roads or trails. These events can require between six to 12 volunteers, depending on the amount of area that needs to be covered.

As event participants pass by our stations, the Radio Volunteers note if anyone is experiencing health problems, is being chased by a dog, has an emergency and needs to drop out. We arrange transportation from the middle of the course when necessary. The system also ensures riders or runners who get lost are found. The event does not end until everyone is accounted for. Event organizers don't want to close up the course if there are people straggling out there. We provide the event organizers that information.

We try to be very efficient in the information we're passing. There isn't a lot of chitchat, it's just information as needed to be conveyed to the other volunteers. We keep track of the riders or the runners so we know where everybody is on the course. If someone doesn't make it from one stop to another, we're keeping track of that. The system also ensures riders or runners who get lost are found and that the event does not end until everyone is accounted for. The event coordinators don't want to close up the course if there are two or three people straggling out there.

Some events take place in areas without dependable cell phone coverage. We are generally the only communication to the course, because cell coverage is so minimal. Hams can reach each other every time, all the time. Hams cannot be compensated. This is an all volunteer effort. The equipment we bring is our own equipment. The entire thing is done as a public service.

There have been instances when disasters have shut down regular emergency communication lines and that is when amateur radio operators are ready to step in. Amateur Radio is a public service to the local government and the community in case communications fail. Hams help people get started. It is a public service to the local government and the community in case communications fail. It is a very interesting hobby - you're dealing with dispatch communications that the public is not aware.



**"I think Congressmen should wear uniforms,
You know, like NASCAR drivers, so we could
Identify their corporate sponsors."**

RADIO AMATEUR'S INVENTION TO TREAT ALZHEIMER'S PATIENTS GOING TO CLINICAL TRIALS

Inveterate inventor and radio amateur Eric Knight, KB1EHE, may be on the cusp of medical history as a device he developed in collaboration with a prominent Alzheimer's disease researcher enters clinical trials this month. Both are hoping that the device, which essentially saturates the brain with low levels of RF, may prove to be a viable treatment for the dreaded disease affecting millions.

"Sometimes breakthroughs happen in ways that are unexpected," Knight told ARRL.

Knight learned of experiments that world-renowned Alzheimer's researcher Dr. Gary Arendash was carrying out on mice specially bred to have the disease, exposing them to low levels of RF. Knight said the effects were dramatic, sometimes even reversing the disease's effects in the mice. Borrowing some concepts from his early experiments with small rockets and avionics, he set about developing, and later patented, a device that could provide the requisite RF exposure to the human head.



"In the early 2000s, we were trying to figure out then how to make antennas that would wrap around the airframes of the rockets we were designing," he said, noting that the diameter of his group's space vehicle was about the same as that of a human head. Knight learned that Arendash was attempting to extend his investigations in a similar vein, and eventually they collaborated.

"He came at it from mice and science, I came at it from an aerospace and hobby perspective," said Knight, who patented a device based on a bicycle-type helmet. At the same time, Arendash was developing a similar wearable -- a fabric cap resembling an old-time aviator's headgear. Both devices are embedded with small antennas to bathe the brain in electromagnetic radiation in the 900 MHz spectrum set aside for Industrial, Scientific, and Medical (ISM) applications -- some 100 MHz higher than a cell phone's frequency.

"Ironic for sure," Knight said. "Who would imagine that cell phone radio waves could be a potential treatment for Alzheimer's disease?"

Knight, who has no medical background, said the device to be used in the clinical trials consists of the cap plus a palm-sized transmitter and wiring harness worn on the arm. The resulting combination has been dubbed the NeuroEM 1000. Participants will get doses of RF twice a day.

From the Food and Drug Administration's (FDA) standpoint, the clinical trials aim primarily to show that the technology is safe, but Knight said he and Arendash are also looking for data that might demonstrate that the device could be beneficial in treating Alzheimer's. The protocol they've developed goes further than what the FDA requires and includes before-and-after baseline data, with cognitive testing, assays of spinal fluid and blood, and PET scans.

"The hope is that there is a tiny bit of efficacy. Then we can work to refine it," Knight said, adding, "No one is expecting a magic cure."



Millennial job interview.... <https://vimeo.com/239050403/cdd07b248e>

Happy



**New
Year**

Take time to laugh for it's the music of the soul Author: --From an old English prayer

SIPPING VODKA

A new Priest at his first mass was so nervous he could hardly speak. After mass he asked the Monsignor how he had done.

The Monsignor replied, "When I am worried about getting nervous on the pulpit, I put a glass of vodka next to the water glass. If I start to get nervous, I take a sip."

So next Sunday he took the Monsignor's advice. At the beginning of the sermon, he got nervous and took a drink. He proceeded to talk up a storm.

Upon his return to his office after the mass, he found the following note on the door:

- 1) Sip the vodka, don't gulp.
- 2) There are 10 commandments, not 12.
- 3) There are 12 disciples, not 10.....
- 4) Jesus was consecrated, not constipated.
- 5) Jacob wagered his donkey, he did not bet his ass.
- 6) We do not refer to Jesus Christ as the late J.C.
- 7) The Father, Son, and Holy Ghost are not referred to as Daddy, Junior and the Spook.
- 8) David slew Goliath; he did not kick the shit out of him.
- 9) When David was hit by a rock and was knocked off his donkey, don't say he was stoned off his ass.
- 10) We do not refer to the cross as the 'Big T.'
- 11) When Jesus broke the bread at the last supper he said," Take this and eat it for this is my body." He did not say, "Eat me.."
- 12) The Virgin Mary is not called 'Mary with the Cherry'.
- 13) The recommended grace before a meal is not: Rub-A-Dub-Dub thanks for the grub, Yeah God.
- 14) Next Sunday there will be a taffy pulling contest at St. Peter's not a peter pulling contest at St. Taffy's.

CHURCH LADIES WITH TYPEWRITERS

They're Back! Those wonderful Church Bulletins! Thank God for the church ladies with typewriters. These sentences actually appeared in church bulletins or were announced at church services:

The Fasting & Prayer Conference includes meals.

Scouts are saving aluminium cans, bottles and other items to be recycled.
Proceeds will be used to cripple children

The sermon this morning: 'Jesus Walks on the Water.' The sermon tonight: 'Searching for Jesus.'

Ladies, don't forget the rummage sale. It's a chance to get rid of those things not worth keeping around the house. Bring your husbands.

Don't let worry kill you off - let the Church help

Miss Charlene Mason sang 'I will not pass this way again,' giving obvious pleasure to the congregation.

For those of you who have children and don't know it, we have a nursery downstairs.

Next Thursday there will be try-outs for the choir. They need all the help they can get.

Irving Benson and Jessie Carter were married on October 24 in the church. So ends a friendship that began in their school days.

ARLD051 DX NEWS

QST de W1AW
DX Bulletin 51 ARLD051
To all radio amateurs

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

SENEGAL, 6W. Earl, WA3DX will be QRV as 6W1/WA3DX from Dakar, 6W7/WA3DX from Mbao, and 6W6/WA3DX from Kaolack from December 25 to January 12, 2018. Activity will be on 40 to 10 meters using SSB, SSTV and PSK. QSL direct to home call.

SENEGAL, 6W. Jacques, F6HMJ is QRV as 6W7/F6HMJ until January 15, 2018. Activity is on 20 to 10 meters using CW and some SSB, depending on local conditions. QSL to home call.

WEST MALAYSIA, 9M2. Rich, PA0RRS is QRV as 9M2MRS from Penang Island, IOTA AS 015, until January 31, 2018. Activity is on 40 to 10 meters using CW, SSB and PSK. QSL to home call.

FEDERAL REPUBLIC OF GERMANY, DA. Special event station DM900ZWI is QRV during all of 2018 to celebrate the 900th anniversary of the city of Zwickau. QSL via DM5JBN.

IRELAND, EI. Special event station EI50AOM is QRV for the next several months to commemorate the Tuskar Rock Air Tragedy of 1968. QSL via EI2KA.

SOLOMON ISLANDS, H4. Shane, VK4KHZ is QRV as H44DA from Busuone, Guadalcanal Island, IOTA OC-047, until sometime early January 2018. He is active holiday style on 80 to 10 meters using SSB, with his main focus on 6 meters. QSL direct to home call.

MALI, TZ. Fox, PD0FOX is QRV as TZ/PD0FOX from Gao until January 2018 while working for the United Nations. Activity is in his spare time on 40 and 20 meters. QSL via operator's instructions.

AUSTRALIA, VK. Special event station VI70HI is QRV from mainland Australia until February 28, 2018 to commemorate the 70th anniversary of the first ANARE Expedition to Heard Island. Activity is on all bands and modes. QSL via M0OXO.

ROMANIA, YO. Special event station YP2018HNY is QRV from the club station in the Children's National Palace in Bucharest until January 15, 2018 to celebrate Christmas and the New Year. Activity is on all HF bands. QSL via YO3KPA.

EL SALVADOR, YS. Markus, HB9KNA is QRV as YS1/HB9KNA from La Libertad until May 2018 while waiting for his permanent residence papers so that he can apply for his full YS call sign. Activity is on 160 to 6 meters using SSB. QSL to home call.

ASCENSION ISLAND, ZD8. Andy, M0HLT is licensed as ZD8AC for the next two years and plans to be active on 40 to 10 meters near the RSGB IOTA frequencies. QSL via operator's instructions.

THIS WEEKEND ON THE RADIO. The QRP 80-Meter CW Fox Hunt, NCCC Sprint, Gedebage CW Contest and RAEM CW Contest are on tap for this weekend.

Please see December QST, page 73, and the ARRL and WA7BNM Contest Web Sites for details.

NNNN
/EX

**No trees were killed to bring you this News Letter,
but millions of electrons were terribly inconvenienced.**

January 2018

PREPAREDNESS LEADS TO READINESS - MATT W8DEC



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 ARES Net 8:30 PM 146.745 PL 110.9 	2	3 Fruitcake Toss Day	4	5 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	6 YL Breakfast 9A.M.
7	8	9 Ham Breakfast Eat'n Park Boardman 8:30 A.M. Board Meeting Eat'n Park Auatintown 7:00 P.M.	10	11	12 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	13
14	15 ARES Net 8:30 PM 146.745 PL 110.9	16 WRARC Meeting 7:00 P.M.	17 Ditch New Years Resolutions Day	18	19 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	20 WaveBender Input Due
21	22	23 Eat'n Park Boardman 8:30 A.M. Ham Community Breakfast	24	25	26 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	27
28	29	30	31		WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	