



# The Wave Bender

April 2018



AWARD WINNING NEWSLETTER

## WRARC PREZ SEZ



In the dead of winter WRARC has been humming with activity. The seventh annual anniversary net was a fun day for all of those who hosted half-hour segments and for others who called in to participate in the event. The suggestion to shorten the event by a few hours will be instituted next anniversary. We also added two new Hams which brings our total to 46 club members. Also, our Friday night net set a record number 38 check-ins. If that wasn't enough, we had 15 members attend our Ham community breakfast that takes place every second and third Tuesday's of the month at Eat 'n Park in Boardman. What a month!

On a sad note, Al, AB8AA and Jane, K8JAA will not be attending WRARC meetings and activities because they are moving to Missouri. They will still be in touch on the Friday night net. We wish them the very best in their new venture.



-----  
"Never doubt that a small group of thoughtful citizens can change the world.  
Indeed, it is the only thing that ever has."  
Margaret Mead, American Cultural Anthropologist  
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No trees were killed to bring you this News Letter,  
but millions of electrons were terribly inconvenienced.

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: Dennis Marko, KD8DJM  
kd8djm@wrarc.net
- Facebook: OPEN

**Officer's Meeting:**

April, 10 2018, 7:00 P.M. At Eat 'n Park,  
Austintown, Eat 'n Park,  
5451 Mahoning Ave  
All members welcome

**Members Meeting:**

April 17, Davidson's  
3636 Canfield Rd., Cornersburgh  
**Speaker:** YSU Professor Dr. William Buckler  
**Topic:** Severe and Hazardous Weather

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How powerful is lightning?  
The core of a upward lightning stroke is only a few inches across but can carry a current of 100,000 amperes, enough to run nearly 8,000 electric toasters at the same time.



**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)

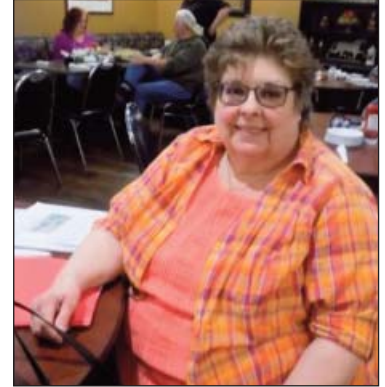


<http://www.wrarc.net/>

FROM OUR VP

Even though we are still in the middle of cold weather as I write this, we know that spring will be here before we know it. That always begins our club busy season. On top of that, April is the start of severe weather season, not only here in Ohio, but nationwide as well.

We can all ask ourselves if we are ready for severe weather season. Do we have our radios ready to be used, if needed, to communicate with family or possibly first responders if a major weather event should happen here? For those who have generators, are they serviced and ready to go for the year? Does each family have an emergency supply of nonperishable food and equipment such as flashlights, lanterns, manual can openers, camping stoves or barbecue grills, and fuel for them and extra batteries for your lights? These things may need to be used if you face power outages that last a few hours, days, or even weeks. Battery powered broadcast AM/FM radios or weather alert radios are a must to keep up with news bulletins and weather warnings. A good supply of needed prescription and OTC medications and first aid items should be kept on hand.

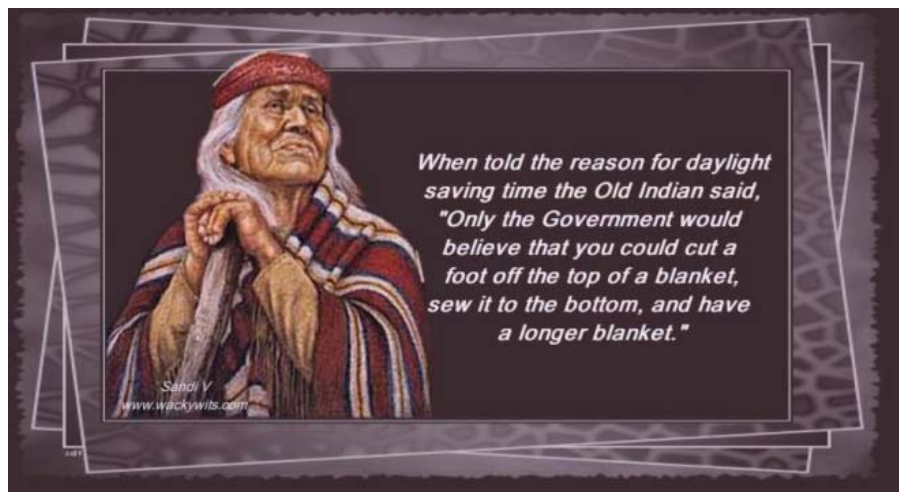


This brings us to our topic for the speaker we will have for this month's general meeting which is on Tues., April 17. We will be given a presentation from Dr. William Buckler, a professor of Geography at Youngstown State University. One of the courses he teaches is Severe and Hazardous Weather, upon which he will speak. He likely will also share with us his experiences in the aftermath of severe weather and his experiences in riding with a crew on a hurricane hunter plane. The last thought on the topic of severe weather is the upcoming Mahoning County Skywarn training class on April 25 at 6:00 P.M. at Austintown Fitch High School for those who are planning to go. Trumbull and Columbiana Counties each held their sessions in March.

In closing, just a reminder of our upcoming club activities: In May we will have our Semi-Annual Community Service Event, the Spring Road Clean-up. The date for this has not yet been set; Our three major Public Service Events which are: The Youngstown Marathon Sunday, June 3; The Panerathon Sunday, August 26; The Peace Race Sunday, October 21. More information on these events will come later. We still do not have a date for the Easter Seals "Make the First Five Count Walk." I will pass on information as I get it.

Lastly, Field Day will be here sooner than we think. It will be held on June 23-24 at Elser Airport in North Lima this year. Those who are planning to camp out and/or operate a HF station there should contact Steve, KC8SOY, Darrin, N8DMC, or Roy, KD8IJF. It's certainly not too soon to start thinking about what we are all going to be doing for Field Day, including what foods we would all like to bring to share for the Sat. evening meal. I will have the food sign up sheets at the May and June general meetings, so we can all start thinking about that now. Happy Spring and Happy Easter to all,

73, Maureen KD8NXS  
WRARC/VPC



WHAT'S COMING UP?

April 01	All Fools Day & Easter
April 07	YL Breakfast
April 08	Orthodox Easter
April 10	Ham Community Breakfast - Boardman Eat 'n Park Board Meeting - Austintown Eat 'n Park
April 17	Members meeting\ Tax Day
April 20	Wave Bender Deadline
April 24	Ham Community Breakfast - Boardman Eat 'n Park
April 25	Mahoning County Skywarn Training
May TBD	Semi-Annual Spring Road Clean-up
June 3	The Youngstown Marathon Sunday
June 23-24	Field Day at Elser Airport
August 26	The Panerathon
September TBD	Semi-Annual Spring Road Clean-up
October 21	The Peace Race



Failure is simply the opportunity to begin again, this time more intelligently. - Henry Ford



CONTACT WRARC ELMERS WITH YOUR QUESTIONS - [QUESTIONS@WRARC.NET](mailto:QUESTIONS@WRARC.NET)



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

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

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

**He who is afraid of asking, is afraid of learning**

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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](mailto: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

April 06 Joe, W0JO  
 April 12 Rocky, W8RKY  
 April 20 Roy, KD8IJF  
 April 27 Rose, KD8TII  
  
 May 04 Dennis, KA8DJM  
 May 11 Maureen, KD8NXS  
 May 18 Bob, KE8HHH  
 May 25 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.

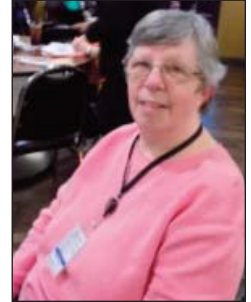
Thanks & 73

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; N8SY, W5YI, the ARRL and the World-Wide Web.

A NOTE FROM ROSE

we are into April and Spring has arrived. I don't know about the weather, but the season is here. It tells us that our yearly events will be starting right around the corner, but our founding members, Al and Jane Avnet, will not be with us any longer to enjoy these events. They are starting a new life in Missouri to be with their family. We, as the club, wish them all the love and friendship that they gave us and they will be missed.



They helped put together a great and adventurous Ham Radio Club. Over the past eight years, we did many events, had many projects about different Ham radio subjects, had and still have Ham license classes, have had and still have our great ARRL "American Radio Relay League" Field Day which is an annual event broadcast across the U.S., Canada, and around the globe. We have started a new year with new officers and new ideas to bring more members into the club in the hopes of keeping it alive another year. Anyone who has a Ham Radio License, or even if you don't, you are always invited to come to our General Meetings each month to see what the club is all about and listen to and participate in topics or discussions that are brought up at the meetings. We have really great experienced Elmers who can answer any question you may have regarding your Ham radio or possibly any other topic you might have a problem with. We also have great speakers who talk about many subjects you might be interested in.

Our Vice-President, Maureen KD8NXS, has all the information regarding all the events and she will be discussing them at the upcoming monthly general meetings. She will also be talking about them on our Friday night net at 9 P.M.. If anyone who has a Ham License and would like to check into the net, our repeater is: KD8DWV, 145.270 – PL 110.9.

Saturday, April 7 was our last YL breakfast until the Fall season. It was held at the Eat n Park Restaurant in Austintown. The breakfasts will be starting up again in October. The ladies have had a lot of fun this past Fall and Winter. There were approximately eight ladies who attended each month and some ladies even brought their husbands. This was Jane's last breakfast and Al came too. We wish them a safe trip and a long and healthy life. I hope everyone had a Happy Easter.



73 Rose KD8TII  
WRARC/Treasurer

TOO COOL! This is amazing !!! Smile Show the kids !!  
What Sheep herders in Scotland do when they're bored . Family rated !

What sheep herders in Scotland do when they're bored. A lot of time, patience, and effort went into making this. <http://www.wimp.com/sheelight/>

**MILL CREEK DISTANCE CLASSIC HALF MARATHON & 5K**

A BIG THANK-YOU!! On behalf of the Youngstown Road Runners Club I would like to thank all the Amateurs who came out and helped with the Mill Creek Distance Classic on March 4th. On behalf of the Youngstown Road Runners Club I would like to thank all the Amateurs who came out and helped with the Mill Creek Distance Classic on March 4th. With our help the Races were a huge success! The following Hams helped with the event: K8PRR, KB8TPG, KC8EFO, KC8SOY, KD8AEY, KD8NZF, KD8QNY, KE8GCG, KE8IWZ, N8DMC, W3PCF, W8IZC, W8YSU, & WB8YHD. Again my greatest thanks to all who helped

About the Classic

This is the race to come and challenge yourself. 13.1 miles, 19 hills, past two lakes, Lanterman's Mill, the falls, a cascade and Mill Creek and the weather is as much a part of the mystique of this race as the course itself. Ready yourself for the Boston Marathon. The proceeds of this race helps support the Youngstown Road Runners Club, Endowment to Youngstown State University Cross Country Athletes, and the YRRC Shoe Program for High School Suburban League Cross Country runners.



73, Dean DeMain, W8YSU

MARCH YL BREAKFAST

The second to last YL Breakfast met March 3 at Perkins in Boardman, was a great success. Those YL's who came out to enjoy the camaraderie were: Becky Kramer; Jane, K8JAA; Maureen, KD8NXS; Nancy, KD8QNY; and Shirley, KD8SSB. We had a good time laughing and chatting. The food was good, but the friendships are better. If you would like to join us next month, just send Rose an email. You don't have to be a WRARC member or a Ham to attend.



Some of our husbands (our drivers) stayed that morning, sitting at their own table because they had their own things to discuss. The brave hubbys were Al, AB8AA; Bob, KE8HHH; Dave, KD8NZF; and Dennis, KA8DJM.



April 8 will be our last YL breakfast until Fall, so we can participate in the Community and Public Service events planned during the warmer months. Join us at Eat 'n Park in Austintown 9:00 A.M. Please let Rose know if you planing on joining us, so she can let the restaurant know how many will be there. Anyone who does not know or have Rose's email, it is: kd8tii@zoominternet.net.

Remember, be radio active!

73, Jane, K8JAA



2 NEW MEMBERS

Be sure to welcome to our two new members John Malarky, KE8IWZ and Kevin Settle, KD8YFU when you see them at our next meeting. Both joined in March.



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!!



## CONGRATULATIONS TO THE ARRL CLUB OF THE YEAR

\*\* Club of the Year is none other than one of our own Ohio Section SSC Clubs - PCARS \*\*

The Portage County Amateur Radio Service (PCARS) of Ravenna, Ohio, is Hamvention's 2018 Club of the Year. PCARS was established in November 2005, and it is an ARRL-Affiliated Special Service Club.

PCARS members average more than 40 hours of club activities each month, including special interest groups, license training, contesting run from the club site (K8BF), and club social events.

"Our members cover a wide range of interests that allow us to support public safety organizations, student outreach programs, and activities focused on growing our hobby," the club told the Hamvention Awards Committee. "We love to share our experiences and have a requirement that our events be filled with a lot of fun.

Members have joined PCARS because of all the activities and fun we have." The club donated more than \$6,000 in time and money to the community last year. It has created its own contests and events, including the annual Freeze Your Acorns Off in February and Ohio State Parks on the Air, which was used as a model for ARRL's year-long National Parks on the Air event in 2016.

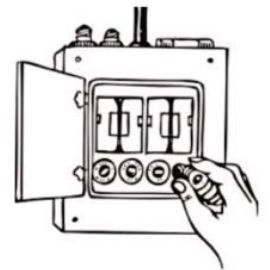
PCARS sponsors several "Build Days" each year, with projects including home-built transceivers, antennas, and digital equipment to allow members to expand their horizons into new areas of Amateur Radio. Each month features at least one Get on the Air Day, where members and non-members can use club site equipment to learn about HF and new modes of operation. "It is all about building our hobby, helping our community, building our skills, and, most of all, having fun," PCARS said.



## SHACK SAFETY

What will happen if we don't fuse a circuit?

A "fuse" is nothing more than a conductor which is designed to burn up at a particular current. That's why a better name for this class of devices is an "Overcurrent Protection Device". The basic idea behind a fuse is that you select a fuse that will burn up at a current which is lower than the current at which the particular circuit would burn up. That way, the burning is confined to a nice, enclosed glass container (or in the modern world, a nice plastic circuit breaker housing). If you don't include an Overcurrent Protection Device, and you have current fault in your circuit, then the circuit itself will burn up. And, when that circuit just happens to be in in your walls, or your car, or even your pocket, it makes for a very bad afternoon for sure!



Why we can't use AC circuit breaker for DC?

It all has to do with the construction of the contacts and their gap. Whenever a circuit is open by a switch, and a circuit breaker is fundamentally a switch, there is an arc between the contacts. This is especially true of circuits that are inductive. In an AC circuit the arc is only sustained while there is a voltage across the contacts.

When the voltage falls to zero it is extinguished. With 60 Hz AC power this happens every 8.33 milliseconds, and that is the absolute maximum time that arc can be sustained. In DC circuits there is always a voltage across the contacts and the arc will only extinguish when the load has fully dissipated its stored energy. Arcing causes the contacts to erode eventually rendering the contacts useless.



Switches, relays and circuit breakers usually have two voltage ratings, one for DC and the other for AC. For example, a 10 Amp switch may be rated at 28VDC and 115VAC. The construction of a 10 Amp 115VDC switch require a much larger gap between the contacts and may also have an insulating that inserts between those contacts when the switch opens to suppress any arcing.





## AMATEUR RADIO MORE THAN A HOBBY

The way it fundamentally works is rather than having centralized communication centers, such as microwave towers and that sort of thing, Amateur Radio is like this kind of invisible network of communication. Almost every Amateur Radio Operator has a radio station of some sort at his house so there is this big network of radio stations spread out everywhere that can come to life.

There are a lot of different modes of operation. A good place for some research into Amateur Radios is on Wikipedia. Look up "Amateur Radio" and even that will give you a really good overview of what it is all about. Hams help with big races, how? Basically, we do communication around the course. In addition to the safety communication, Hams supply race progress feedback to race officials. There will always be a number of volunteers stationed around the course, and that information is all reported back to race net-control.

Amateur radio (also called Ham Radio) describes the use of radio frequency spectrums for purposes of non-commercial exchange of messages, wireless experimentation, self-training, private recreation, radiosport, contesting, and emergency communication. The term "amateur" is used to specify "a duly authorised person interested in radioelectric practice with a purely personal aim and without pecuniary interest"; (either direct monetary or other similar reward) to differentiate it from commercial broadcasting, public safety, such as police and fire, or professional two-way radio services (such as maritime, aviation, taxis, etc.).

The Amateur Radio Service (Amateur Service and Amateur-satellite Service) is established by the International Telecommunication Union (ITU) through the Radio Regulations. National governments regulate technical and operational characteristics of transmissions and issue individual stations licenses with an identifying call sign. Prospective amateur operators are tested for their understanding of key concepts in electronics and the host government's radio regulations. Radio amateurs use a variety of voice, text, image, and data communications modes and have access to frequency allocations throughout the RF spectrum to enable communication across a city, region, country, continent, the world, or even into space.

Amateur radio is officially represented and coordinated by the International Amateur Radio Union (IARU), which is organized in three regions and has as its members the national amateur radio societies which exist in most countries. According to an estimate made in 2011 by the American Radio Relay League, two million people throughout the world are regularly involved with amateur radio. About 830,000 amateur radio stations are located in IARU Region 2 (the Americas) followed by IARU Region 3 (South and East Asia and the Pacific Ocean) with about 750,000 stations. A significantly smaller number, about 400,000, are located in IARU Region 1 (Europe, Middle East, CIS, Africa).

In some parts of the world, Amateur Radio plays much more of a dominant role for backup communication. For example, in a small Caribbean Island where there is no telecommunications cable that comes to that island, they rely on a single, satellite ground station for all of their telecommunication. Amateur Radio was recognized by the government as the back-up plan if anything happened, such as a hurricane, if their air and ground communication got wiped out. Subsequently, their government subsidizes Amateur Radio.

There are a lot of astronauts who are Amateur Radio enthusiasts. There's radio on the International Space Station and people make contact with them. Communication engineers are involved with it too. There's also been royalty involved. Several years ago, the former kings of Jordan, King Hussein, was a Ham.



A man can fail many times,  
But he isn't a failure  
until he begins to blame someone else.

John Burroughs

## HAVING WHAT IT TAKES TO BE AN ELMER

One of the unique characteristics of the WRARC is that it has a large group of Extra and General class licensed Amateur Radio operators who have expressed a willingness to assist aspiring, as well as newly licensed, Ham Radio enthusiasts.

So what exactly is an Elmer?

The term 'Elmer' is often used these days. An Elmer can be defined as a Ham who, in plain English, acts as a mentor of new Ham Radio operators. Most folks outside of Amateur Radio typically would NOT recognize the term 'Elmer' but may recognize a more common expression such as 'Mentor.' No matter how you look at it, whether you call them a 'Mentor' or 'Elmer', their mission is to provide a positive influence that impacts every Op's (operators, more specifically radio operators) level of self-confidence and knowledge by expanding their sense of discovery and helping to facilitate future Amateur Radio operational expertise.

The National Association for Amateur Radio (ARRL) has always felt that the local radio club is the best place where real Amateur Radio operations learning takes place. The mission and objective of the WRARC Elmer program mirrors the ARRL's Elmer (mentoring) program.

### ***Is an 'Elmer' an expert on every aspect of Amateur Radio?***

The obvious answer to the question is NO! Amateur Radio is a great hobby/service that offers and helps develop a wide range of Radio and Electronic disciplines. Ham Radio operators communicate by voice, data (computers), Morse code and other exciting ways. Ham Radio operators can be motivated to be part of the hobby/service because of interests in emergency communications, electronics, computers, wireless technologies and more. Amateur Radio is the premier high-tech hobby/service and it's a hobby/service that is enjoyed by many people from all walks of life from around the world. As such, it offers a diversity of opportunities, encourages the development of various disciplines to communicate with interesting people from within the Mahoning County, surrounding communities and around the world.

The term Elmer often describes men and women who really care about others and who demonstrate that they are willing to cooperatively and collaboratively share their time and their expertise in helping (mentoring) new (and old) Ham Radio Operators. Their efforts assist in developing the skill sets of future Amateur Radio Operators.

An Elmer also becomes a sounding board for those who just need someone who they can look up to and talk to from time to time . . . to ask questions about the hobby/service's various technical or operational disciplines without having to feel intimidated or fearing that their question or questions may seem dumb or just plain stupid. An Elmer knows that there are no dumb or stupid questions!

### ***Do you have what it takes to be a successful WRARC Volunteer Elmer?***

Answer these questions:

- Do you believe that Hams share a fascination with communications, electronics and new technologies?
- Do you have a real interest in promoting Amateur Radio and are you willing to share your expertise and experiences?
- Do you enjoy being and interacting with others?
- Would you describe yourself as a good listener? A good radio operator should be willing to listen to others
- Do you have an in-depth knowledge of different aspects or disciplines of Amateur Radio operations that you are willing to share with others?
- Are you willing to help others become more successful in reaching their own expectations and understanding of Amateur Radio operations?
- Can you encourage and be patient with others?

If you answered yes to any or all of the questions above, then you may be a great candidate to help others. All that's required is to volunteer a little of your time to someone that may or may not be new to Amateur Radio. Just imagine what that could mean to someone who is struggling to learn or has hit a little bump in the road. What might seem simple to you may be a new, profound experience to another. Imagine knowing that because you cared enough to share your experiences, you made another Ham's experiences so much better!

*Continued page 11*

ELMER - CONTINUED FROM PAGE 10

NO Elmer experience is required, and it doesn't take a lot of time or effort on your part.

What are the Benefits of being an WRARC Elmer / Peer / Mentor?

- You gain the satisfaction of passing along a legacy of your knowledge, insight & experience
- Your own leadership skills are enhanced
- You gain the unique perspective of how others view the world of Amateur Radio and how you can have a positive influence in their experiences
- You gain enhanced self-esteem and respect from others that comes from helping a fellow radio operator
- You are rewarded with the satisfaction of making a real and positive difference in someone's life
- You get a better return on your invested time when you consider others' needs
- And as an Elmer you receive a Huge amount of satisfaction knowing that you have been a positive influence to the Mahoning County community

Interested in being an Elmer? Want more information? Contact the WRARC General Mailbox: [qst@wrarc.net](mailto:qst@wrarc.net)

The WRARC is a nonprofit organization that is celebrating more than 8 years of serving the Amateur Radio community of the Mahoning Valley. WRARC is very proud of our Amateur Radio veterans who consistently help to keep the WRARC membership informed of the latest technological advances and happenings within this exciting hobby/service. Regardless of where you are in your journey into Amateur Radio, the WRARC is where you'll find friends and peers ready to share their insight and expertise



Some time ago a Ham was given an old Butternut Model HF3B antenna. A two-element antenna for 10-15-20 meters. It was badly corroded, so he decided to try to revive it (since he could not afford to get a new one, even if one was available.

Bencher, who bought Butternut, says that production ceased in 1985. This Ham was sure there is something available, but that is beside the point. The Ham way is try to revive, remake, redesign, or kluge it together. So he had been doing some research and found some interesting things he did not know. The first is that to make and keep a good electrical connection, the metals must be galvanically compatible. That means that they need to be as close as possible to each other on the Galvanic Table. Further apart means that they eat each other up when moist. (That explains why gold pins and steel sockets soon produce intermittent connections in cheaper computers near the beach.) The experts suggest that you need to polish the joining metals, then use an antioxidant grease and then seal the whole thing with either Spar Varnish or bathtub caulk!



*BIRTHDAYS THIS MONTH*

**KC8SOY  
N8YMZ  
KD8SDZ  
KD8NXR**

**Steve Fabry  
David Ruck  
Dave Wilms  
Kevin Stein**

Now this is something to think about: As we progress into 2018, I want to thank you for your educational e-mails over the past year. I am totally screwed up now and have little chance of recovery.

I can no longer open a bathroom door without using a paper towel, nor let the waitress put lemon slices in my ice water without worrying about the bacteria on the lemon peel.

I can't sit down on a hotel bedspread because I can only imagine what has happened on it since it was last washed.

I have trouble shaking hands with someone who has been driving because the number one pastime while driving alone is picking one's nose.

Eating a little snack sends me on a guilt trip because I can only imagine how many gallons of trans fats I have consumed over the years.

I can't touch any woman's handbag for fear she has placed it on the floor of a public toilet.

I must send my special thanks for the email about rat poo in the glue on envelopes because I now have to use a wet sponge with every envelope that needs sealing. ALSO, now I have to scrub the top of every can I open for the same reason.

I can't have a drink in a bar because I fear I'll wake up in a bathtub full of ice with my kidneys gone.

I can't eat at KFC because their chickens are actually horrible mutant freaks with no eyes, feet or feathers.

I can't use cancer-causing deodorants even though I smell like a water buffalo on a hot day.

Thanks to you I have learned that my prayers only get answered if I forward an e-mail to seven of my friends and make a wish within five minutes.

Because of your concern, I no longer drink Coca Cola because it can remove toilet stains.

I no longer buy fuel without taking someone along to watch the car, so a serial killer doesn't crawl in my back seat when I'm filling up the car.

I no longer use Cling Wrap in the microwave because it causes seven different types of cancer.

And thanks for letting me know I can't boil a cup of water in the microwave anymore because it will blow up in my face, disfiguring me for life.

I no longer go to the cinema because I could be pricked with a needle infected with AIDS when I sit down.

I no longer go to shopping centers because someone will drug me with a perfume sample and rob me.

I no longer answer the phone because someone will ask me to dial a number for which I will get a huge phone bill with calls to Jamaica, Uganda, Singapore and Uzbekistan ..

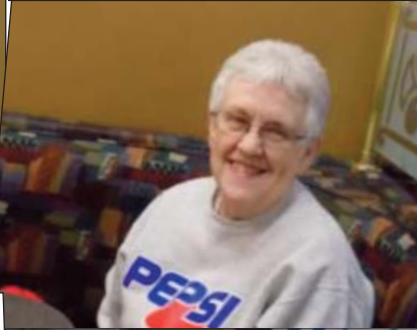
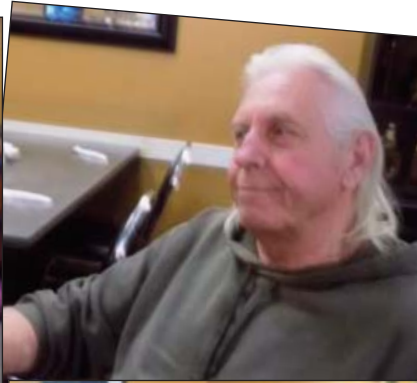
Thanks to you I can't use anyone's toilet but mine because a big black snake could be lurking under the seat and cause me instant death when it bites my butt.

And thanks to your great advice I can't ever pick up a dime coin dropped in the car park because it was probably put there by a sex molester waiting to grab me as I bend over.

I can't do any gardening because I'm afraid I'll get bitten by the Violin Spider and my hand will fall off.

If you don't send this e-mail to at least 144,000 people in the next 70 minutes, a large dove with diarrhea will land on your head at 5:00 p.m. tomorrow afternoon, and the fleas from 120 camels will infest your back, causing you to grow a hairy hump. I know this will occur because it actually happened to a friend of my next door neighbor's ex mother-in-law's second husband's cousin's best friend's beautician!

I now keep my toothbrush in the living room, because I was told by e-mail that water splashes over 6 ft. out of the toilet..  
NOW YOU HAVE YOURSELF A VERY GOOD DAY...





*Happy Easter!*



# April 2018

PREPAREDNESS LEADS TO READINESS - MATT W8DEC



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