



The Wave Bender

August 2019

AWARD WINNING NEWSLETTER



WRARC VICE PREZ

Hello from sunny (mostly), hot (always), and sometimes rainy Central Florida. This will be short and sweet.

August is upon us and this brings the start of our public service event season. Our first one of the year is just around the corner. That is the Panerathon on Sunday, August 25, 2019. Please consider volunteering if you haven't signed up yet. Please get in touch with Roy Haren, KD8IJF, to be added to the list if you can help. The race organizers are counting on our participation. We will meet at the net control area at the rear parking lot of the Fellows Riverside Gardens early on that Sunday morning, about 8:00 A.M. or so. Remember to use the entrance off of Mahoning Ave. We will have our usual sign in sheet and take a group photo before going out to our individual assignments along the race course. We will use tactical call signs and our placements will be marked by the little flags with our individual tactical call sign (station number) on it. Look for the flag when arriving to your assigned area.



Be sure to wear your club wear and ID badges. Anyone needing a replacement badge, please get in touch with Darrin. N8DMC. For those who have magnetic car signs, please put them onto your car doors and we likely will be given dashboard papers to use as well. Race officials need to know that we are people who belong there.

Remember, we only pass along pertinent information such as the first and last runners as well as their bib numbers if you can read them. Other things to convey are any untoward occurrences or injuries to any participants. We hope that there are none of these. The August meeting program will be the workshop on doing these special events - the do's and the don't's (the nuts and the bolts so to say). Please try to attend the August general meeting for this information. We will be ready! See you all in a few weeks.

73 Maureen, KD8NXS

I wanted you all to know that what we do does indeed make a difference,
not only to the race organizers, but the participants as well - KD8NXS.

IN THIS ISSUE

2019 Officers:**President:** Bob Mitzel, N8RCM n8rcm@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.netPublicity: Joe Wojtowicz, W0JO
w0jo@wrarc.netNets: Steve Fabry, KC8SOY
kc8soy@wrarc.netClasses/Testing: Chris Monske WF8U
kd8ely@gmail.comNewsletter/Web: Jane Avnet K8JAA
k8jaa@wrarc.netHistorian: Rose Marko, KD8TII
kd8tii@wrarc.netBadges: Darrin Cannon, N8DMC
n8dmc@wrarc.net**Officer's Meeting:**July, 12 2019, 7:00 P.M. At Eat 'n Park,
Austintown, Eat 'n Park,
5451 Mahoning Ave
All members welcome**Members Meeting:**July 19, Davidson's
3636 Canfield Rd., Cornersburgh**Speaker:** None<http://www.wrarc.net/>

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**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)

TRESURER'S NOTES

Greetings everyone, I hope you had a safe and happy Fourth of July. I know I did.

Well, here it is, the start of our event season. Our first event is happening this month, Sunday, August 25, 2019. It is the Panerathon. We are looking for a few dozen volunteers to help along the route. Last month, at the July General Meeting, Steve, KC8SOY, passed around a sign-up sheet for the race. He has taken up this position in place of Maureen, our Vice President, who is out of state at the present time. He will probably repeat this task at the August 20 General Meeting. Please, everyone, think about helping us out. We will have the repeater to use for this event. If any one of you decides you would like to volunteer and needs help with your radios, Steve and possibly our President-pro tem, Bob Mitzel, N8RCM, will be able to assist you.

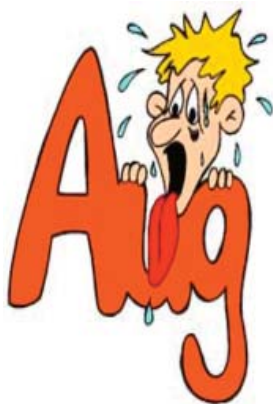


This month besides sending around the volunteer sheet, Darrin, N8DMC, and Bob will talk about the guidelines regarding what you need to know for volunteering at the events. There are certain things you should and should not do in order to maintain a safe route for all the runners. The best advice I can give you is to ride along with someone who has already done an event to get a better picture of what volunteering is all about.

At last month's meeting, I was brave and bold enough to get up in front of the group and tell my story of how, and when I got involved with the Ham Radios and the club. I was a little nervous when I first started out, but became more comfortable as I went along. Many years ago, I had to get up in front of a group of people and then too, I was nervous. But I have been able to get passed my jitters and I really enjoy talking on the radio doing the Friday Night nets and Net Control for the events. After my talk, Darrin asked me a question regarding my technique in getting over my nervousness. I answered by saying, "I take a deep breath and just go for it." That is the simplest way of doing it. Don't think about how good or bad you do, just start talking, especially doing the net because you have a script to use and you can't go wrong with that, or you'll freeze up and then you may really mess up. My only regret as far as the radio goes is that I still don't know too much about the radio, itself. When I took over the Net Control job from Jane, K8JAA, I knew she had enough confidence in me just by listening to me doing the Friday night net control. That is basically what you need, confidence in yourself to do any radio talking.

Now that we're in the dog days of summer and getting closer to October, I hope you will contemplate volunteering for the Peace Race Sunday, October 13 and the Youngstown Marathon two weeks later Sunday, October 27. Just come to the meeting this month and listen to what Darrin and Bob have to say - You will learn a lot. Until next month, I hope to see more of you at the meetings.

73 Rose Marko KD8TII
WRARC/ Treasurer




*Birthdays
of the
Month*

**Mark Stein,
Robert Mitzel,
Scott Van Der Wal,
David Moore,**

**KD8YMK
N8RCM
KB3KQY
KE8ALR**



WHAT'S COMING UP?

- Aug 13 Board Meeting - Austintown Eat 'n Park
Members welcome
Ham Community Breakfast - Austintown Eat 'n Park
- Aug 20 Members meeting 7:00 P.M.
- Aug 24 Ham Community Breakfast - Austintown Eat 'n Park
- Aug. 26 2019 Panerathon - Please Volunteer
- Sept 10 Board Meeting - Austintown Eat 'n Park
Members welcome
Ham Community Breakfast - Austintown Eat 'n Park
- Sept 17 Members meeting 7:00 P.M Nominations open be ready to serve
- Sept 24 Ham Community Breakfast - Austintown Eat 'n Park
- Oct. 08 Board Meeting - Austintown Eat 'n Park
Members welcome
Ham Community Breakfast - Austintown Eat 'n Park
- Oct. 13 2019 Youngstown Peace Race - Please Volunteer
- Oct. 15 Members meeting 7:00 P.M. Nominations open be ready to serve
- Oct. 22 Ham Community Breakfast - Austintown Eat 'n Park
- Oct. 27 2019 Youngstown Marathon - Please Volunteer
- Nov. 12 Board Meeting - Austintown Eat 'n Park
Members welcome
Ham Community Breakfast - Austintown Eat 'n Park
- Nov. 19 Members meeting 7:00 P.M.- Nominations/Elections
- Nov. 25 Ham Community Breakfast - Austintown Eat 'n Park



CONTACT WRARC ELMERS WITH YOUR QUESTIONS - 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
rwiliams@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 by the 20th each month. Please send your articles to: k8jaa@arrl.net, and please put WRARC on the subject line of your email.

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

KD8DWV - 145.270, PL -110.9

Upcoming Net Control Operators

Aug.02	Aiden W0TIS
Aug.09	This could be you
Aug.16	This could be you
Aug.23	This could be you
Aug.30	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



Thanks & 73 to all of our members (and others) look forward (hopefully) to getting this newsletter every month, so keep sending those articles, jokes, and suggestions! sending those articles, jokes, and suggestions!

Thanks goes out to this month's contributors; KD8TII, KC8WY, N8SY, W5YI, the ARRL, FaceBook, and the World-Wide Web.

100TH ANNIVERSARY

Mahoning Valley Amateur Radio Association (MVARA) was asked to set up some radios for the 100-year Anniversary for the celebration for Camp Stambaugh, the Boy Scout Camp in Youngstown. With this also being the 100-year Anniversary for MVARA, we were honored to be asked to participate in this event.

After many meetings and changes the Boy Scouts decided they needed to charge \$25.00 per person for this even. This is to cover bussing from Canfield Fairgrounds where you would have to park your car. This also would cover a lunch and a patch for the event. MVARA and the Scouts will be providing everything needed tents, tables, chairs, and radios all we need are a few able bodies to help out with radios, explaining antennas and how they work and such.

This event is September 21, 2019. Leaders can board busses at 6:45 A.M. at the Canfield Fairgrounds. The event runs until 5:00 P.M. You are not expected to come at 6:45 A.M.. We have that pretty much covered. Busses run all day. Anytime you can come out and lend a hand would be greatly appreciated.

If you're interested, you will have to take Youth Protection Training (YPT) online. This is about an hour class you will watch a short video, then answer some questions, watch more video and then answer some more questions etc., etc., Basically this is teaching you that one adult cannot be alone with a scout at anytime. On completion of the YPT you will get a number that you will need to register with the scouts.

If interested please contact Scott Wilton at 727-501-5195 or ke4uhc@arrl.net, and I will email you the needed links for the web pages.

Thank You,
73 Scott Wilton, KE4UHC



USE YOUR LICENSE TO SERVE THE COMMUNITY - VOLUNTEER



**Semi-Monthly
Ham Community
Breakfast
Second and Fourth
Tuesdays
9:00 A.M.
Eat 'n Park Restaurant
in Austintown
Join Us!**

THANK YOU

Hi everyone looks like our monsoon season may be over . Field Day went thru with out any problems and some contacts were made. Aiden W0TIS, is doing the tally this year. I would like to thank everyone that came out Field Day Weekend. Thank you all so very much.

Aiden, W0TIS
Darrin, N8DMC
Bob, N8RCM
Roy, KD8IJF
Bill, KD8HCQ
Bob, KE8HHH
Russ, N8RW
Dave, WA8GCF
Steve, KC8SOY
Ray, K8NVY

73, Field Day Captain



A NOTE FROM DARRIN

Congratulations to our newest Technician Classed Ham Radio Operator, Corinne Kramer! She is awaiting her call sign.

Thank You to Bob Mitzel, N8RCM for showing me the ropes on becoming WRARC's Volunteer Examiner Coordinator (VEC), as I feel it is a great honor to help assist those who are ready to test for their very first license as a Technician or upgrading to General and Extra. If you need to take your test, please feel free to contact me at (330) 720-4454 or email me at either N8DMC@wrarc.net or N8DMC@arrl.net .

It's that time of year again . . . the Panarathon is upon us. Do you have your radio(s) programmed and ready to go? Please double check them ASAP and if you need assistance, bring them to the meeting WITH your manual so one of our Elmers can help you program them BEFORE the event - Not the day of! Don't forget to bring a charged spare battery if you have one to the event. Steve, KC8SOY, has also asked for those that are volunteering to annotate on the sign up sheet if you have a handheld, mobile radio or both. This is important as we can place you in a spot where you will have no issues getting into the repeater. Hope to see you all there! We have a great time and it's also a great opportunity to practice your hobby as a Ham.

Club wear orders: I'm taking orders for club wear once again. You can find the order form on the members section of our club page at www.wrarc.net under the members only tab. It is your responsibility to fill out the form and bring it to me, Darrin, N8DMC, to take to our vendor. I will not fill this form out for you, as I do not want to be responsible for any errors made to your order. I will be taking pictures of my own club wear and posting it up on Face book page listed under WRARC of Mahoning County Ohio. You might even see some club wear being worn with the pictures taken by Rose near the end of this newsletter. Bring your form(s) to me at the next general meeting on August 20th. The more orders being placed at one time, it cuts down on the setup costs for silk screening etc.



That's all I have folks . . . See you soon!
73 Darrin Cannon
(330)720-4454
<mailto:Darrincan@gmail.com>



RESCAN YOUR TV

Don't forget to rescan your TV if you have Free Live TV, as the frequencies are updating as of August 2nd.

Go to tvanswers.org/when.asp enter in your zipcode and hit submit. Here is an example of what you may find:

Station: WFMJ-TV - NBC 21 NBC
Market: Youngstown, OH
*Timeframe: Phase 4: June 22, 2019 - August 2, 2019



Station: WKBN-TV - CBS 27 CBS
Market: Youngstown, OH
Rescan Day: August 2, 2019



Station: WYTV - ABC 33 ABC
Market: Youngstown, OH
Rescan Day: August 2, 2019



THE BIG " OFF AIR VIEWING" TV CHANNEL SHUFFLE

The BIG " OFF AIR VIEWING" TV channel shuffle August 2019

It's been years working to August 2nd 2019, the day when ALL television station make changes in "actual transmitting frequencies and channels", so if you watch "off air" TV don't be alarmed or confused August 2nd when you can't watch many of your favorite stations.

This is part of a multi year project to shift TV stations into fewer and fewer frequencies, with lower power and coverage. The first step was the first conversion from "old fashion NTSC" analog TV to a NEW Digital TV system. Instead of a single TV station, each station could now broadcast on several digital "SUB and Shared Channels". To off air viewers locally this was observed as channel 21 was now 21.1 and 21.2, 27 was 27.1 and 27.2 etc.

What really happened was televisions used a computerized system to decode a signal to retune your TV to the NEW frequency so not to confuse viewers. In reality, nobody was on the channel where viewers thought they should be.

Over the last year many off air viewers have noticed minor reception problems as stations operated from alternative towers, lower power, or both. All of this as part of the first step to reduce the number TV channels, getting them off channels above 42. VHF stations 2 to 13 moved to UHF while UHF stations changed frequency and often switched to less power and directional antennas.

When a Pittsburgh viewer typed in channel 2 the televisions computer retuned to channel 25. Channel 4 was first on 27, then moved to 22. With Channel 2 actually on channel 27 there was no interference with TV 27 Youngstown as that station was actually on another channel.

All this to open up frequencies above channel 42 for Cellphone and related uses. Remember the digital TV revolution / conversion was just before the cellphone conversion to 4-G ! And now to make room for "5-G"..more TV stations must move. In the latest phase of things there will be NO television stations on frequencies above channel 36.

Viewers need not worry about this issue if they use cable or satellite but those using OFF AIR will simply need "RE SCAN" and the television will detect the stations "new home". To most viewers they will re-scan and not care why things changed, but a lot of "electronic geek types" are curious and want answers to why reception is changing.

Locally..Channel 21, which is presently on channel 20, moves to 33 (remember TV 33 hasn't actually been on 33 for years) but on an antenna about 20 percent lower until a new antenna can be installed in a few weeks. Channel 27 is now "part of channel 33" with both operating on channel 36. WYTV TV 3 is actually 36.1 and 36.2 while WKBN TV 27 is 36.3 and 36.4, and all of this shifts to channel 31 on August 2nd.

Should you be interested in all this I suggest going to the website "RabbitEars.info" for more confusing details. Under the MARKET listings look up Youngstown (# 108 viewing area) and you will find all sorts of information. Cleveland is # 21, Pittsburgh is # 32 and Erie is # 133, etc.

Just remember, the simple solution is RE-SCAN, and the magic TV genie will give you back your missing off air reception channels!

73 Wes Boyd, W8IZC



PANERATHON

Panerathon is a 10K/2 Mile Walk/Run and Kids Run held annually to benefit the Joanie Abdu Comprehensive Breast Care Center (JACBCC), the only facility of its kind in the area! The event, presented by Covelli Enterprises, is the largest fund raising event in the region... 10 YEARS RUNNING!



100% of proceeds from Panerathon benefit Mercy Health Foundation Mahoning Valley in support of the life-saving services of the JACBCC. To date, the event has raised more than \$2.5 million for the cause. The 10th Annual Panerathon is Sunday, August 25, 2019 at the Covelli Centre!

The Joanie Abdu Comprehensive Breast Care Center (JACBCC)

The breast cancer mortality rate in the Mahoning Valley is among the highest in the nation. 100% of proceeds from Panerathon go directly to the Mercy Health Foundation Mahoning Valley to support the JACBCC at St. Elizabeth Youngstown Hospital. The JACBCC delivers the most accurate prevention, early detection, diagnosis, and support services in an environment of compassionate and coordinated care.

ABOUT THE JACBCC

Joanie Abdu was a nurse at St. Elizabeth Youngstown Hospital for more than 20 years. She loved taking care of her patients, and they loved her. Everyone loved Joanie, most of all, her husband, Rashid Abdu M.D. When she was diagnosed with an aggressive form of breast cancer her husband was sure they could fight the disease together and beat it. They traveled to other states to find the best technology. Unfortunately, Joanie lost her battle with the disease and passed away June 2, 1994 – 15 months from her initial diagnosis. Before she died, her husband promised her he would create a world class breast care center in her honor, so others wouldn't have to travel all over for the best care. In 2011 the doors to the Joanie Abdu Comprehensive Breast Care Center opened. Since then, thousands of women have been cared for at the facility. It has won attention and awards locally, regionally, and nationally.

HOW PANERATHON SUPPORTS THE JACBCC

All proceeds for Panerathon support Joanie's Promise Fund at the Mercy Health Foundation Mahoning Valley. Funds raised through Panerathon made possible a state-of-the-art mobile mammography unit that has been operational since September 2016. It is the first mobile unit in eastern Ohio to offer 3D mammography, which allows for a more thorough breast examination. There are approximately 24 sites serviced a month throughout the tri-county area by this unit, and from September 2016 to December 2018, over 3,626 exams were performed.

JOANIE'S PROMISE?

Joanie's Promise is that ALL women will have access to the Joanie Abdu Comprehensive Breast Care Center. Therefore, screening expenses are covered for any woman who qualifies financially. Also, transportation will be provided for any woman who requires it.

Joanie's Promise also supports a community educator who is dedicated to spreading the word about Joanie's Promise and educating the community about the importance of breast cancer screenings.

In short, Joanie's Promise will ensure that every woman in the Mahoning Valley is aware of, able to get to, and is welcome at the JACBCC regardless of the ability to pay.

Those who sponsor and participate in Panerathon will be saving lives!

"Through my ears, Joanie hears the voices of grateful women for the care they will receive in this magnificent facility. Through my eyes, she sees the reality of what once was only a dream. Through our souls, we both see the beauty, the love, the compassion and the generosity of a caring community that has made that dream come true. We are, and will always be, eternally grateful."

– DR. RASHID ABDU

KEEPING LINES OF COMMUNICATION OPEN

Keeping Lines of Communication Open--CERT & Ham Radio

[This article is from the July 2019 issue of the FEMA Individual and Community Preparedness Newsletter.]

Community Emergency Response Team (CERT) members know that communication during an emergency is vital. Don Lewis of the Alexandria Radio Club in Virginia wants CERTs around the country to know how Amateur Radio can help.



Amateur Radio is a useful tool. Lewis, who is trained in CERT, explained that ham radios are more powerful than regular radios. They aren't incredibly expensive, and they have a wide range of uses.

Sometimes CERTs may need to work together throughout a large area. They need to be able to report things that they have found. They sometimes even need to request medical support. Using a radio is easier, safer, and more efficient than sending a person back with messages, says Lewis. Ham radios enable a CERT to communicate over much greater distances than standard radios. This can improve the level at which a CERT can coordinate. CERTs already use ham radios in exercises and they have extended their range and effectiveness.

The City of Berkeley, California's CERT has already begun using ham radio in city-wide disaster drills. In the winter of 2018, they held a 24-hour mock disaster where they practiced their ham radio skills to better prepare their city. They were able to maintain communications in the whole city for the entire 24-hour exercise. This allowed them to relay critical information to citizens and disaster crews. They were also able to use hams to aid the city during a blackout in November of 2017. The CERTs used solar powered batteries in their ham radios. This allowed them to function even when power and phones were down.

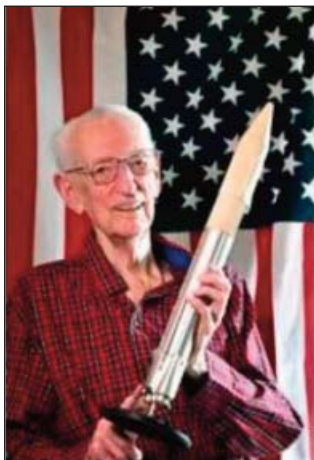
Amateur Radio protocols are also built into Pasadena, California's emergency management system. The area experiences earthquakes several times a year. The quakes can destroy cell towers and phones lines in an instant. Amateur Radio can be a huge asset during a disaster like this, so Pasadena has a network of radio operators trained to provide communications at any time they need. They can contact hospitals or fire stations to better serve their community. Ham operators can even aide families in contacting one another once a disaster has passed.

Are you interested in learning how to operate a ham radio of your own to serve your community? Then the Amateur Radio Emergency Service (ARES) may be for you. They are a group of radio operators who volunteer for various disasters and public service events. They can provide guidance for training, equipment, and licensing.

**OPERATING TIP****Change the Goal to Learn New Skills**

Try to learn and practicing one new thing each time you get on the air in a contest. Or, turn some real contests into "practice ones" by changing the goal from "winning the contest" to becoming proficient at a new technique. For example, it's usually faster to keep your hands on the keyboard to log contacts in a contest. Why not learn the keyboard equivalents of mouse movements and clicks, so you don't have to take your hands off the keyboard? Practice by putting the mouse where you can't reach it during a contest. Sure, it'll be frustrating at first, but practicing any new thing can be.

104-YEAR-OLD RADIO HAM


104-year-old Radio Ham who helped put humans on the moon
 (from the Tennessean –submitted by Greg, WD9FTZ)

The Tennessean reports on the contribution of scientist and radio amateur J. Cary Nettles, W5SRR, of Columbia, Tenn., to the US space program. Cary celebrated his 104th birthday on July 8.

In the 1950s, Nettles ran the country's largest supersonic wind tunnel in Ohio at the now NASA Glenn Research Center in Cleveland, where they tested what happens with jets and rockets going ridiculously high speeds tumbling through space or shooting through the sky.

Then-President John F. Kennedy announced in 1961 the U.S. would be the first to land astronauts on the moon, but several test rockets blew up on the launch pad or exploded shortly after liftoff.

Nettles and his team came up with the solution —put an exhaust pipe on the bottom of the rocket like the ones on the back of cars.

After the rockets were launched, hot exhaust was turning back into the rocket and destroying them.

"So we put a stove pipe on it," Nettles said, smiling and pointing to a small piece at the bottom of a model rocket in his house. "Since I put the correction adaptation on the Atlas rocket, it has not failed from that source anymore," he said, nodding his head once emphatically.

The fix helped the U.S. beat the Soviets in the race to putting astronauts on the moon. Buzz Aldrin and Neil Armstrong took those steps off Apollo 11 on July 20, 1969.

"My life today? I live alone, make meals, do laundry, some ham radio, watch some TV programs, follow the Braves baseball team mainly," he said. "I use up time."

Nettles, believed to be the nation's oldest living rocket scientist, helped save the U.S. space program that put humans on the moon 50 years ago.

Cary was licensed 74 years ago in 1945 and is currently active on the 40m, 2m and 70cm bands



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!!



THE WALL THAT HEALS

While traveling with the Gateway Sams, our camping group, we stayed in a campground near Perryville, MO. In Perryville there is the exact replica of the Vietnam Wall complete with all the names. Names of the thousands of men, some as young as 15, who gave their lives during, and as a result of that war. Seeing that wall was so moving - so many names, more than 58,000. This war happened shortly after I graduated from HS, and having my two children. I guess it brought back those memories. Not all of them good. But that's another story. I know the original wall is in DC, But, If you have a chance, this is something to put on your to do list, or not to be missed list. One of Our silent keys, Bill Wolfe KA8TZX, was a Vietnam Veteran.



73, Jane, K8JAA

The Wall That Heals

The Wall Replica



The Wall That Heals exhibit features a three-quarter scale replica of the Vietnam Veterans Memorial in Washington, D.C. The replica is 375 feet in length and stands 7.5 feet high at its tallest point. Visitors experience The Wall rising above them as they walk towards the apex, a key feature of the design of The Wall in D.C.

Like the original Memorial, The Wall That Heals is erected in a chevron-shape and visitors can do name rubbings of individual service member's names on The Wall. The replica is constructed of Avonite, a synthetic granite, and its 140 numbered panels are supported by an aluminum frame. Machine engraving of the more than 58,000 names along with modern LED lighting provide readability of The Wall day and night.

As on The Wall, the names on The Wall That Heals are listed by day of casualty. Beginning at the center/apex, the names start on the East Wall (right-hand side) working their way out to the end of that wing, picking up again at the far end of the West Wall (left-hand side) and working their way back in to the center/apex, joining the beginning and end of the conflict at the center.

Of the more than 58,000 names on the Vietnam Veterans Memorial, approximately 1,500 are still listed as Missing in Action.



I'm always asking for input by members. The following questions may give you something to think about.

What was your first station?

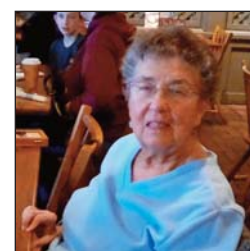
How old were you when you got interested?

and/or

How did ham radio shape your life?

Who was your First Elmer?

-ye ed



SWAP 'N SHOP



Brand new Icom 718 HF radio

\$500

Contact Darrin N8DMC – (330) 720-4454 or
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DO YOU HAVE THE RIGHT TOOLS?

Like any pursuit, to do the job right, you need to have the proper tools. Amateur radio is no exception. To do certain things, you'll need tools that you may not currently have. Without them, you'll seriously handcuff yourself when it comes to enjoying amateur radio.

You may already have a set of hand tools. Most homeowners, for example, have a hammer, a set of screwdrivers, a set of wrenches, and some pliers to make common home repairs. All of these tools will be useful for amateur radio work, but you'll also need some tools specifically designed for working with electronics, including:

- Needle-nose pliers. Needle nose pliers are possibly the most used tool on the electronics workbench. They allow you to do things that your big, fat fingers just can't.
- Diagonal, or flush, cutters. You use diagonal cutters to cut wire and trim soldered leads.
- Wire strippers. A good pair of wire strippers is essential when making cables or when you have to solder wires to circuit boards.
- Terminal crimper. You use the crimper to properly attach terminals to wires. Make sure to also purchase a selection of crimp-on terminals.
- Precision (jeweler's) screwdrivers. Many of the screws you'll find in electronics equipment are just too small to use normal-sized screwdrivers. A set of jeweler's screwdrivers will have a couple of Phillips-head screwdrivers as well as several conventional screwdrivers.
- Hobbyist knife. This is the type of knife that modelers use. It's just as handy in electronics work as it is in building models.
- Digital multimeter. With a digital multimeter (DMM), you can make voltage, current, and resistance measurements. It's the most basic piece of test equipment you can own, and every ham should have one.
- Soldering iron or soldering station. Even if you're not going to be doing a lot of building, you need a soldering iron to make simple repairs and build simple cables. Being able to solder is an essential skill for a Radio Amateur.
- De-soldering tool. If you do any soldering, there will undoubtedly be times that you have to de-solder a connection. Buy a spring-loaded "solder sucker" and not a hand-operated desoldering bulb. The spring-loaded units work a lot better.

Other tools that you'll find useful if you intend to do a lot of building include:

- Anti-static mat and/or wrist strap. Many electronic components can be damaged by an electrostatic discharge. That's why you want to use an anti-static mat and/or wrist strap. These drain off

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HAMVENTION ATTENDANCE

Dayton Hamvention 2019 Attendance Approaches All-Time Peak

The Hamvention Executive Team announced on July 15 that attendance at Dayton Hamvention® 2019 was 32,472. This marks the highest attendance recorded since Hamvention moved in 2017 from Hara Arena to the Greene County Fairgrounds and Exposition Center in Xenia, Ohio. This year's attendance also approached an all-time Hamvention high.

Attendance at the show peaked in 1993 at 33,669, before the 1996 change in date from April to May while Hamvention was still being held at Hara Arena. Last year, Hamvention welcomed 28,417 visitors in its second year in Xenia. Attendance in 2016 for the show's final year at Hara was 25,364. Hamvention hosted the ARRL 2019 National Convention, and both embraced the theme of "Mentoring the Next Generation."

"Our early indications were that 2019 would be a big year, and it lived up to our expectations," Hamvention General Chair Jack Gerbs, WB8SCT, said. "Our more than 700 volunteers worked hard to ensure that we presented a great show for our visitors. It wouldn't have been possible without them. I also want to thank all our vendors and visitors and hope they will all be back next year."

Hamvention officials suggested that a small factor behind the increased attendance could have been the free admission on Sunday. Sunday-only tickets accounted for some 800 of the total attendance. The open admission day was an effort to allow local non-hams to experience Hamvention, and free Sunday admission is expected to be continued next year, Hamvention officials said.

Assistant General Chair Rick Allnutt, WS8G, said that amateur operators from all US states and territories and 60 other countries attended Dayton Hamvention 2019. According to Allnutt, comments received about the show were overwhelmingly positive.

Gerbs said the Agricultural Society, Greene County, Xenia Township, and the City of Xenia cooperated in making Hamvention 2019 a success.

The world's largest Amateur Radio exposition, Dayton Hamvention is sponsored by the Dayton Amateur Radio Association (DARA) every third full weekend in May. Hamvention 2020 will take place on May 15, 16, and 17. Mark your calendars now.



Kristin Andrews, KB3OQV

PEOPLE ARE EXCITED
ABOUT THE NEW
IPHONE BUT NO ONE
HAS CAUGHT UP WITH
THE AWESOME
TECHNOLOGY OF
USING YOUR BLINKER
WHEN YOU DRIVE.

THE RIGHT TOOLS - CONTINUED FROM PAGE 14

so that you don't zap your electronics. Amazon, not surprisingly has a wide selection. You can also get them at Radio Shack.

- Tweezers. You need tweezers if you're working with very small components, such as surface-mount devices.
- Table vise. You need a table vise to hold a circuit board while your building or repairing it, or to hold a connector that you're soldering wires onto.
- Lighted magnifier or magnifying visor. If you're north of 40 years old, then you need good lighting and probably some magnification. Some of the parts used today are very small, making the markings hard to read and making them difficult to handle. A magnifying light or magnifying visor makes working on circuits a lot easier.

If you're really starting from scratch, you might want to consider buying a complete tool kit. Sears (yes, Sears!) sells many different electronics tool kits. Some of the tool kits include a digital multimeter and soldering iron. The nice thing about buying a tool kit is that some kits include a carrying case. Other sources for toolkits include Jameco, Sparkfun, and the Electronic Tool Box.

My own tool set has evolved over the years. I still have some needle-nosed pliers and some diagonal cutters that I acquired over 30 years ago when an electronics manufacturing company that I worked for took them out of service. I got a set of tweezers at some Hamfest. The table vise I use is an el cheapo from Harbor Freight. You could do the same, acquiring the tools as you find them, but the problem with that is that they may not be on hand when you need them.

However, you get your tools, make sure that you do get them or have access to them. If you can't make a cable or perform a simple repair because you don't have the tool to do it, it will be frustrating at the very least, and it could be expensive if you have to pay for a new cable or pay someone to make a repair for you.

Good luck and have fun as you build your kit.



ORDER YOUR CLUB WEAR

Go to the fillable Club Wear Order Form <<http://www.wrarc.net/clubwear.pdf>> found on the WRARC web site, under the Members only Tab. Fill it out, then download the order form, and hand it to Darrin. Below are a couple of examples of the club shirt and safety vest. The Safety vest comes in handy when you volunteer for the upcoming Public Service Events you will be helping out with this summer. Other items are available.



Even under ideal conditions people have trouble locating their car keys in a pocket,
finding their cell phone, and Pinning the Tail on the Donkey -
but I'd bet everyone can find and push the snooze button from 3 feet away,
in about 1.7 seconds, eyes closed, first time, every time.



August 2019

PREPAREDNESS LEADS TO READINESS - MATT W8DEC



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	3
4	5 ARES Net 8:30 PM 146.745 PL 110.9	6	7 Chinese Valentine's Day & Daughter's Day	8	9 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	10 National S'mores Day
11	12	13 Ham Breakfast Eat'n Park Austintown 8:30 A.M. Board Meeting Eat'n Park Austintown 7:00 P.M.	14 V-J Day	15	16 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	17 National Honey Bee Awareness Day
18	19 ARES Net 8:30 PM 146.745 PL 110.9	20 WRARC Meeting 7:00 P.M. & National Radio Day	21  WaveBender Input Due	22	23 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	24
25 Kiss and Make Up Day	26	27 Eat'n Park Austintown 8:30 A.M. Ham Community Breakfast	28	29	30 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	31 Internaional Bacon Day