



# The Wave Bender

November 2017

AWARD WINNING NEWSLETTER

## WRARC PREZ SEZ

The peace race is behind us and so ends our busy Public Service Season. I want to thank all those that came out and assisted with the race. It was a beautiful day, and we had no serious issues during the race so all in all it was a very successful outing again.

We also had a test session at the Red Cross office on Belmont Avenue, and had one operator upgrade his ticket to Extra from General. Our congratulations go out to Scott Griffin, KE8HT, on his upgrade. I want to thank the VEs that came out to assist.

Now to the most important item in my little missive this month, the upcoming election, this is the single most important issue for the members of WRARC. It is in your hands who will run our club for the next two years. If there is anyone out there that feels the urge run for office, you still have the opportunity to get your name on the ballot. At the very least we need to see all the members out for the election.

It has been my pleasure to serve as your president for the last two years, and would like to thank all the officers and trustees that made my job much easier than it could have been, I appreciate and am proud of every one of them for their dedication and service to WRARC.

I hope to see all of you out to vote at our next meeting.

73 Bob, N8RCM



Time to get  
back to  
Standard Time  
2:00 A.M.  
Sunday  
November 5



## IN THIS ISSUE

**2017 Officers:****President:** Bob Mitzel, N8RCM n8rcm@wrarc.net**VP:** Joe Wojtowicz W0JO w0jo@wrarc.net**Secretary:** Jo Wilms, KD8SNW kd8snw@wrarc**Treasurer:** Rose Marko, KD8TII kd8tii@wrarc.net**Past President:** Roy Haren, KD8IJF kd8ijf@wrarc.net**Trustees:**

Russ Williams NR8W nr8w@wrarc.net

Darrin Cannon, N8DMC n8dmc@wrarc.net

Roy Haren, KD8IJF kd8ijf@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:**

November 14, 2017, 7:00 P.M. At Eat 'n Park,  
Austintown, Eat 'n Park,  
5451 Mahoning Ave  
All members welcome

**Members Meeting:**

November 21, Davidsons  
3636 Canfield Rd., Cornersburgh

**Elections**
<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)

## FROM OUR VP

I am writing this month's article on the Thursday before the Youngstown Peace Race on Sunday, October 22nd. Due to an out-of-town family wedding planned well over a year ago, I will not be able to make our last Public Service event of the year. I hope all goes well and would like to thank our President, Bob N8RCM and our Past-President and current Trustee, Roy, KD8IJF for all their help in assisting me with this event. Many thanks also to all our members, associate members and fellow HAMS who volunteered to help.

The Youngstown Peace Race started in 1975 and is one of the oldest community fund-raising events in the Mahoning Valley. It benefits many local charities including the Akron Children's Hospital Mahoning Valley Diabetes Outreach Program, the St. Vincent DePaul Society, the Rescue Mission of Mahoning Valley, YMCA's Partner in Youth Program, the Fairhaven School/Special Olympics and the Beatitude House.

It's been a very busy year for us and our Public and Community Service club events are done for this year. I would personally like to thank everyone who helped and participated.

We are still seeking nominations for several officers positions for our club including President, Vice President, Secretary, Treasurer, and one Trustee. If you would like to serve in one of these positions, please let either Darrin, N8DMC, [n8dmc@wrarc.net](mailto:n8dmc@wrarc.net); Roy, KD8IJF, [kd8ijf@wrarc.net](mailto:kd8ijf@wrarc.net); or Steve, KC8SOY, [kc8soy@wrarc.net](mailto:kc8soy@wrarc.net), know as soon as possible because we will also be having our election at next month's club meeting. In order for the club to continue we must have duly-elected officers and a board in order to officially do club business. Please give it some consideration. Your current officers will assist the new officers in a smooth transition to those positions.

Those of you who were on the Friday Night Net last Friday, October 13th, heard me announce that our scheduled guest speaker for our November meeting would be WKBN-TV's Chief Meteorologist, Paul Wetzl. Right after the net concluded, I received an email from Paul stating he could not make our November meeting because his wife was having surgery that week and he was taking it off. He asked if we could schedule him later and I have him scheduled for our December 19th meeting. So, please mark your calendars for our last monthly club meeting for 2017 on that date.

Our next monthly club meeting will be on Tuesday, November 21st at Davidson's Restaurant, 3636 Canfield Road, Canfield, OH 44406. We have dinner at 6:00pm EDT and our meetings start at 7:00pm EDT. As of today, I'm still working on getting a speaker for that meeting and will let everyone know, in advance, who it will be. We invite all of our members and associate members to the meeting as well as any licensed amateur radio operators who would like to know more about our club, or any individuals interested in the hobby/service of amateur radio. Until then . . .



73, Joe, W0JO,  
VP/WRARC



## WHAT'S COMING UP?

Nov. 04	YL monthly breakfast - IHOP Boardman
Nov. 05	Daylight Savings Ends
Nov. 07	National Elections
Nov. 14	Board meeting - open to all interested members.
Nov. 21	Member's Meeting - Elections
Nov. 23.	Thanksgiving - Eat, drink, and be thankful
Dec. 12	Board meeting - open to all interested members.
Dec. 19	Member's Meeting <b>Speaker:</b> Paul Wetzl WKBN-TV's Chief Meteorologist
Jan. TBD	Annual Meeting and installation of Officers



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

**Your Vote**  
makes a difference



MAKE SURE YOU ATTEND THE  
NOVEMBER WRARC  
MEMBERS MEETING  
AND VOTE FOR YOUR NEW  
2018 & 2019  
BOARD

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

Avnet, Allan AB8AA

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

[ab8aa@arrl.net](mailto: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](mailto:kc8wy@zoominternet.net)  
[kc8soy@yahoo.com](mailto:kc8soy@yahoo.com)  
[harens@juno.com](mailto:harens@juno.com)  
[rwiliams@neo.rr.com](mailto:rwiliams@neo.rr.com)  
[w0jo@arrl.net](mailto: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](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**

Nov. 03	KD8IJF, Roy
Nov. 10	W0JO, Joe
Nov. 17	This could be you
Nov. 24	KD8TII, Rose
Dec. 01	KD8NXS, Maureen

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; KA8DJM, W5YI, the ARRL and the World-Wide Web.

## NOVEMBER ELECTIONS



Hi everyone it is that time of year, "ELECTION of OFFICERS." Why don't you consider throwing your hat into the pool of members running for office? To run for a position on the Board, you must have been a member for at least one year. A successful organization needs new blood. If the same people remain in office, an organization grows stale.

While we know the members who have already stepped up will do an excellent job, we don't want to have an unopposed election. Holding an office is not rocket science. Yes, you will have responsibilities, but how difficult can that be? Just remember this month you will be electing or re-electing President, Vice President, Secretary, Treasurer, and one Trustee. With your help WRARC will continue.

Please attend the November meeting and vote for the members you want to serve you as the new WRARC Board for the next two years. The members that have stepped up so far to take one of the open positions are:

President – Brian Lewis, AB8BL  
 Vice President – Maureen Stein, KD8NXS  
 Secretary – Stan Adamski, KB3WPD  
 Treasurer – Rose Marco, KD8TII (for her second term)  
 Trustee – Steve Fabry, KC8SOY

It's not too late to run for an office, as nominations are open up until the time we cast our ballots.

73 FROM  
K8JAA



## COMMENTS FROM ROSE



At last, the waiting is over. We have four tentative names ready to fill the board positions to continue our club for next year, 2018. The nominees are:

- President--Brian Lewis-AB8BL
- Vice-president--Maureen Stein-KD8NXS
- Secretary--Stan Adamski-KB3WPD
- Treasurer--Rose Marko-KD8TII (2<sup>nd</sup> Term)
- Trustee--Steve Fabry-KC8SOY

Nominations are being accepted up to the time we vote at the General meeting on Tuesday, November 21st. At that time, if there are no other nominees to run for these positions, these five people will automatically become the new board members. I, as

Treasurer of the club, thank them for stepping up to the task and am eager to begin working with them in the new year. Congratulations to all of you.

I would like to say "Thank you" to all the members and others who volunteered to help in the Youngstown Peace Race. I would also like to thank Jane Avnet, K8JAA, for showing me the ropes for doing Net Control for the race. It will be a new task for me to add to my list of accomplishments. I hope next spring I will do as good a job as she has done all the years before. I am also hoping there will be other members of the club that I can count on to help me when the time comes.

Our monthly YL morning breakfast is starting back up on Saturday, November 4th. Those planning on attending are: Jane Avnet, K8JAA; Donna Haren; Liz Beatty, KD8DWV; Shirley Boles, KD8SSB; Maureen Stein, KD8NXS; and myself. The breakfast will be at IHop Restaurant in Boardman. It should be good. It will be fun, and we'll have a great time. Join us, you don't have to be a member of WRARC. I hope we can count on more ladies to join us in the upcoming months.

I hope to see many members at our November meeting to greet our new board member and say "Thank you." Until then. . .

73, Rose, KD8TII  
 Treasurer, WCARC

## A NOTE FROM AL

As one of the founder's and a past President, I am upset with our membership. We have around 50 members, but only 10 or so are doing all the work. We need to have members step up and take a job. There is help needed for teaching classes, working events, becoming an officer of the club, and/or presenting something at a meeting.

We have members that can and will help anyone that needs help with your radio's or antenna's or anything. All you have to do is ask. We have quite a few Extra class hams that I never see at meetings, events or hear them on the net. I have only one question WHY? If you cannot hit the repeater with your handheld, you can use echolink. Jane and I have checked in from MO thru the K8STN-R echolink node from our cell phone.



If it wasn't for the public and emergency service we provide to the country we would not have any of the bands we now have. There are lots of people that are going to the government and asking for more and more frequencies. If we don't use them they will be taken away. "Money talks" and they have a lot of it.

Part of the training that we should be doing is the weekly nets. Everyone in the club should be doing net control and checking into the nets. What is your excuse for not checking in or doing net control? There is a script on the club website all you have to do is follow it.

Being in a RACES or ARES group should be one of your things you do with Ham Radio. I know that nothing bad has happened here lately, but if it did are you ready to help out. Some of you have heard me say without regular training when you showed up I would make you a runner or send you home. The reason I would do that is that you do not have the training to know how to operate in an emergency. Are your radios ready to be used in an emergency? Batteries charged antennas ready? Do you have a personal emergency plan? Do you have extra food, water, clothing, shelter and an out of state person to call? Do you know where to go in an emergency?

This gives you a lot to think about as a Ham Radio operator. We are here to help not be a part of the problem. Think about it!!!!

AB8AA



Use your Ham Radio license to serve the Community  
ARRL's volunteer Amateur Radio operators help their communities  
in good times and bad, through community events, disaster response,  
and various programs.

You can use your Ham Radio license to serve the community too.

ARRL, the national association for Amateur Radio®



## YOUNGSTOWN PEACE RACE

Rose, KD8TII, brought the net up at 9:00 A.M. Sunday, October 22 with roll call. We thought the race was going to start at 9:30. Roll call pointed out a couple problems with volunteer's radios. Most all were resolved by the time the race finally got under way at 10:00 A.M. The race, 10K run- 2mile walk, went off with almost no problems, that is, until it was almost done. Maureen, KD8NXS, noticed an older gentleman, bib 1569, seemed to be having a problem breathing when he went by her. So she let net control know so we could let the race committee know. He was later sent to St E's. The net came down at 11. Steve, KC8SOY, later told us there was a suspicious backpack left unattended. The police were called to check it out.

## IF YOU SEE SOMETHING SAY SOMETHING!

It was a busy morning, we just want to thank those who volunteered to help with the Youngstown Peace Race. Although it was the first time doing a net for a Public Service Event, Rose, KD8TII, did a great job as NCO. Jane, K8JAA, was the scribe and backup NCO. Steve, KC8SOY, volunteered to do both the start and the finish lines. (Not in the same spot.) Darrin, N8DMC, also took two stations. We used tactical calls which help a lot when trying to keep volunteer and location together. The other Hams who volunteered were: Al, AB8AA; Bob, N8RCM; Bob, AB8OP; Dave, KD8SDZ; Devon, KD8SNV; Jo, KD8SNW; John, KT8TAT; Mark, KD8YMK; Rocky, N8RKY; Roy, KD8IJF; Russ, NR8W; and Stan, KB3WPD. This group of volunteers represented both WRARC and 20/9. Thanks again for giving up part of your Sunday to come out and help, and job well done!





# #GI♥INGTUESDAY

You've heard of Black Friday and Cyber Monday, but have you ever heard of #GivingTuesday? Now, we have a day for giving thanks, we have #GivingTuesday, a global day dedicated to giving back. #GivingTuesday is always the last Tuesday in November a special holiday created to celebrate America's proud tradition of charitable giving. It's a day when people around the world come together to give back, make the world a better place and prove that the holidays can be about giving and giving back.

Please consider making a donation on November 27, this year's #GivingTuesday. We have two for getting deals. Last year you and I joined the nation in celebrating the 100th anniversary of the National Park Service — a huge milestone. National Parks on the Air we must take a hard look at the state of our parks as their second century begins. Unfortunately, it's not a pretty picture.

As you take advantage of holiday season bargains, we hope you will consider giving to support the work of your favorite charity. They gratefully accept the contributions of individuals and organizations who wish to support our mission to provide assistance to needy individuals/families in our area.

If you would like to give back to the community, contributions can be made by mailing a check to one of these fine charities:

- FullCircle Giving, Inc. 11209 Sharon Drive, Parma, Ohio 44130
- Second Harvest Food Bank, 2805 Salt Springs Rd., Youngstown, OH 44509
- The Salvation Army, 1501 Glenwood Ave. Youngstown
- Rescue Mission of the Mahoning Valley, POBOX 430 Youngstown OH 44501-0430
- Your favorite charity

They thank you in advance for your support!



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## *BIRTHDAYS THIS MONTH*

KB8UCZ  
KD8SNW  
KD8NZF  
KD8IJE  
KD8YML  
KD8TII

Joan Twaddle  
Jo Wilms  
Dave Brett  
Ted Filmer  
Michael Stein  
Rose Marko



## CONGRATULATIONS!

The RADIOGRAM won first place in the Great Lakes Division newsletter competition. Congratulations to Parky and to PCARS!



MICHIGAN HAMCON

Hey Gang,

It was really great to get to go to the Great Lakes HamCon this past weekend. I got to visit with a lot of folks I only get to talk with on the air.

If you didn't read about all the awards that were given out, you'll definitely want to. It's a great list of folks that I'm sure you'll all know!

Now if you didn't know, we also had some Divisional Awards to give out. Here's the Pomp and Circumstance on that part of the evening:

- For the Young Radio Amateur of the Year – Chis Brault, KD8YVJ – Liberty Township, OH
- For Technical Achievement – Bob Dixon, W8ERD – Delaware, OH
- For the Great Lakes Division Amateur of the Year – Stan Broadway, N8BHL – Delaware, OH
- For the Joseph J. Phillips, K8QOE Newsletter Award – Radiogram from the Portage County Amateur Radio Society (PCARS) Ohio
- And last, but certainly not least, the George S. Wilson III, W4OYI Lifetime Achievement Award – to none other than Jim Weaver, K8JE – Mason, OH – our past Great Lakes Director!

Scott, N8SY..



"The 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 years of age, and \$5.00 for each subsequent member who is in the same household. The senior dues for the initial person joining in the household who is 65 years of age or older is \$16.00 with \$5.00 for each subsequent member from the same household.

## 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**

Benchner 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
Icom 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**

## THE AMERICAN LEGION TAKES TO THE AIRWAVES WITH A SALUTE TO VETERANS



Grab your calendar and make note that on Saturday, Nov. 11, 2017, The American Legion will honor fellow veterans in a special on-the-air amateur radio tribute. Members of The American Legion Amateur Radio Club (TALARC) will operate Special Event stations using the American Radio Relay League-authorized radio call sign N9V – November-Niner-Vet-eran. Any ham radio operators who contact the stations are eligible to receive a QSL card and a commemorative certificate to document their participation.

Ham Radio Operators wishing to contact Special Event Station N9V should tune to 40m, 7.225 MHz (+/- 5 KHz) LSB; or to 20m, 14.275 MHz (+/- 5 KHz) USB; or to the 2m K9DC 147.315 Repeater at Indianapolis; or IRLP Node 9735; or to EchoLink \*CROSSRDS\* Conference node. All operations will

be conducted on Saturday, Nov. 11, between 1:00 p.m. and 7:00 p.m. Eastern Standard Time.

The purpose of this Special Event is to underscore the importance of Veterans Day via the amateur radio community and acknowledge the honorable nature of military service. It's an opportunity to salute the men and women who have served our country admirably in uniform. And it's a time to remember the contributions of so many military personnel who served as radio technicians, engineers and members of MARS (Military Affiliate Radio System), who in the non-digital age phone-patched soldiers' and sailors' messages from war zones, at sea and from other overseas locations to loved ones back home.

N9V communications on 40 meters, IRLP, 2 meters and EchoLink will be coordinated by TALARC members operating from the Legion's National Headquarters in Indianapolis. The 20 meter communications will be coordinated by N9V/KI0CW in Dell Rapids, S.D., and by N9V/WA3DVO in Palmer Park, Md. With band conditions being whatever they might be and signal strength varying, often by the hour, HF stations calling into any of the three locations in Indiana, South Dakota or Maryland may be in need of relay help. Anyone in a position to provide that help, please feel free to offer your assistance to the respective control stations.

To receive a QSL card and certificate after working N9V, send your name, address, call sign and a 9x12-inch self-addressed stamped envelope to The American Legion Amateur Radio Club, c/o The American Legion, 700 N. Pennsylvania Street, Indianapolis, IN 46204.

I'm looking forward to hearing your call to N9V on Saturday, Nov. 11, for this year's salute to America's veterans.

Marty Justis, W9WMJ – President,  
The American Legion Amateur Radio Club  
Indianapolis, Indiana.



### 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.



## ARE YOU READY?

WOW, a horrible shooting in Nevada! How disturbing! My heart goes out to those families of the more than 500 folks who were killed or wounded. Some just starting out in life. Ask yourself; am I ready? For what you say. Ready for the next disaster to hit close to Ohio. Yes, we are vulnerable to disasters just like Texas, Nevada, and the Caribbean Islands that we are reading about in the daily news. A widespread disaster in or near Ohio will likely be something like what happened in Nevada, or a problem with one of the nuclear plants that are close by.

So, the question is; Are you ready? I'm not referring to the state of your HT batteries; I'm talking about the ability for you and your family to function for at least 72 hours without aid. Have you replenished the fresh water supply? Started that portable generator recently? Checked the contents of your "ready bag?" Would you be able to volunteer if the need arose? Have you taken advantage of the training offered by FEMA or ARRL? If you haven't, you won't be able to help.

Our Amateur Radio licences put us in a unique position to help, but only if you are trained and know what is needed from a trained Ham. Don't procrastinate; the next disaster could happen tomorrow!

N6ISY (paraphrased)  
Editor of the Intermod  
Fountain Valley, CA

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PATIENCE IN CHECKING INTO NETS

Patience is a virtue, but sometimes, I think that this is rare in Amateur Radio . . . especially in regard to checking into nets. I have been doing nets ever since I got into Amateur Radio over 26 years ago . . . so I have more than enough experience as a Net Control Operator . . . with regular traffic nets, special format nets, and even with severe weather emergency nets.

Yet, there is seemingly ALWAYS a pile up or rush to check -in -- whether on HF, VHF, UHF, Echolink, Packet, D-Star, D-Rats, etc.; as if certain ham radio operators feel that "It's the UNPARDONABLE SIN that will send them to Hell." There is such a sin, but missing checking into a net, not checking in early, or not in the first group of check-ins, is NOT that sin!!

Ham Radio is a HOBBY -- it should NEVER take priority over church, family, health, job, or honey-do's -- in the latter case, you could LOSE that nice new rig that you have your eye on for Christmas . . . especially if your spouse or significant other has already said "What part of YOU ARE NOT GETTING A NEW HAM RADIO do you not understand??!!" (hi hi).

Not all nets do "prenet" or "early check-ins." Some will do them 15 to 30 minutes before the net begins . . . and sometimes as much as 45 minutes beforehand. It is RARE to have a net start check-ins an hour or more before the net commences. Remember, the Net Control Station is devoting 1 to 3 hours of their time before, during, and after the net . . . so that everything is in order, for traffic, and logging. And, some Net Controls (like myself) are involved with nets on a nightly basis . . . either running them, or checking into them.

Note that if the check-ins are PAUSED at a certain point during the net, stations need to abide by those instructions from Net Control . . . such as if an Emergency Traffic situation develops during the net (and I've been in those situations more than once as Net Control). If the check-ins are paused as the net starts, if you wait right up until that moment to check-in, your check-in has to WAIT, until the check-ins are resumed. In the cases of Emergency or Priority Traffic, the regular net schedule, format, etc. goes by the boards, until the Emergency Situation is resolved . . . and that could last a few minutes to several hours.

Awhile back, a local club's regular traffic net was pre-empted by a Skywarn Severe Weather Net, and one ham "went ballistic" . . . thinking that "rag chewing" and net comments took priority over severe weather!! "I suspect that he was always interfering with me when I got on the air, and that's one reason why I'm NOT a member of ANY Arkansas Ham Radio Club. Except for conducting selected area license exam sessions, all of my ham radio nets, involvement, etc. are OUTSIDE of Arkansas."

*Continued page 14*

## NETS - CONTINUED FROM PAGE 13

Emergency or Priority Traffic can break into the net at any time . . . and these are LIFE OR DEATH URGENCY to those individuals involved, such as severe weather warnings . . . or for "significant weather advisories." Also, if and when Net Control is asking for announcements, this is for items such as ham radio license classes, exam sessions, hamfests, demos, special event stations, question pool updates, etc. The Emergency or Priority Traffic, or Announcements, does NOT include details on how your day went, and to invite others to nets. On some nets, you WILL be called down by Net Control, if you violate this . . . and may be banned from the net itself!!

It's as if some stations feel that "it's an Emergency if they don't get Priority to pass their traffic first." To me, if you are trying to check in early, just to see how many nets that you can check into in an evening (admittedly, several do meet at the same time) . . . or trying to see how many prizes, bonuses, awards, certificates that you can get for doing such, you are doing it for your ego, and are in ham radio for the wrong reason!! While SOME nets do offer such a certificate, that is more the EXCEPTION than the rule.

I am NOT going to make an exception for these (thankfully few) impatient Amateur Radio Operators . . . it's as if trying to butt in line to a sporting event. Try that, and you could be seriously injured or killed by the anger of others. All of the other check-ins patiently wait their turn to pass traffic, make comments, etc. -- and to these, I say a heart y THANK YOU!! If I personally can NOT run a net . . . be it for weather, health, internet, family, or other issues . . . I try to get a replacement. However, if that net is just "one where I check-in and make comments," if I have to miss that net for whatever reason, to me, IT'S NO BIG DEAL!! I'll just try again the next week. So, please be patient on checking into a net . . . wait for the announcement from Net Control, no matter what band or mode . . . on the check-ins. If you cannot be patient in this regard . . . then you can either go to a net more to your liking . . . quit checking into nets entirely . . . or maybe you should sell your gear, turn in your license and find a new hobby. Again, there is far more to life than Amateur Radio, and checking into nets

(from Daryl Stout, WX1DER)



### A LETTER TO THE EDITOR

Hello members of the Western Reserve Amateur Radio Club, (WRARC). I am a former member of WRARC, due to extenuating circumstances. I want to address an issue that has plagued me not long after I originally joined the club. Why, when we have 50 plus members of the club that only a few join the net, and do the net on Friday nights. Not long after I joined, I started doing the net and found that it is fun and very simple to do. There is a script that has been made for all to follow, so it's not really that hard to do.

I know some of you may have to work and aren't able to do it, so you have a legitimate reason for not doing the net. But, most of you are capable of doing it if you just take the time to do so. Probably most of you don't want to do the net because you are afraid of making a mistake. You know what I say about that, "horse feathers." If you have never made a mistake in your life, then I want to be the first to shake the hand of a perfect "an \_\_\_ hole," pardon my French, but that is my opinion.

Every week it is the same 6 – 8 people who do the net, out of 50 plus members. I'm asking the members to get the lead out of their butts, and contribute your PRECIOUS time. What did you join the club for? The same goes for the monthly meeting at Davidson's Restaurant. Come on people, support the club that you joined and pitch in and do what's right.

**Anonymous**

P.S. When I think it is time, I will reveal myself as the anonymous writer of this letter.

## AMATEUR RADIO VOLUNTEERS IN PUERTO RICO MEET A VARIETY OF COMMUNICATION NEEDS



If you are having trouble reading this message, you can see the original at:  
<http://www.arrl.org/arrlletter/?issue=2017-10-19>

The ARRL Letter

October 19, 2017 Editor: Rick Lindquist, WW1MEARRL Home Page ARRL Letter  
 Archive Audio News

"Force of 50" Volunteers' Puerto Rico Hurricane Recovery Mission Ends  
 Puerto Rico Volunteer Aids Burn Victim, Contacts Family via Ham Radio  
 The Doctor Will See You Now!

New Ham Bands Spring to Life; Veteran LF Experimenter Denied Access to 2200 Meters

California Fire Situation Improves

Global Effort Under Way to Restore Dominica's Amateur Radio Capabilities

Caribbean Telecommunications Union Head Calls for "New Generation" of Hams

World Radiosport Team Championship 2017 Announced 63 Teams to Compete Next July

In Brief...

The K7RA Solar Update

Just Ahead in Radiosport

Upcoming ARRL Section, State, and Division Conventions

"Force of 50" Volunteers' Puerto Rico Hurricane Recovery Mission Ends

The 22 "Force of 50" radio amateurs who deployed to Puerto Rico earlier this month as American Red Cross volunteers have ended their mission and will be back on the US mainland by week's end. They had been in Puerto Rico for about 3 weeks.

"The Force of 50 volunteers demonstrated an extraordinary range of skills possessed by this accomplished team," said ARRL CEO Tom Gallagher, NY2RF. "There was no task that they wouldn't tackle. It also demonstrated the generosity of these volunteers, who not only performed their roles as communicators, but also engaged the population with their many acts of personal kindness."

Val Hotzfeld, NV9L, who filed situation reports documenting the team's activities, said the volunteers accomplished everything they went to Puerto Rico to do, "and then some." She said that the Red Cross felt they had exceeded all expectations.

"We opened a lot of people's eyes when we started going to the ESF-2 communications task force meetings. They had no idea of our capabilities," Hotzfeld told ARRL. "When they heard what we'd accomplished, we were swarmed; everybody was wanting us."

Hotzfeld said the volunteers' initial mission was to provide a way to gather outbound health and welfare messages and put them into the Red Cross's Safe and Well System using Winlink. However, the mission changed once they were on the ground, when they discovered the needs were much greater.

"No one had any communications, so the mission morphed to communications," she said. "But, we did both." She said the Red Cross recognized the value of ensuring communication for hospitals, and other volunteers handled Safe and Well messages. Amateur Radio volunteer Val Hotzfeld, NV9L. She is now back home.



She said the volunteers possessed a wide range of talents, from medical to mechanical, not just communications. For example, Andy Anderson, KE0AYJ, set up the helicopter landing pad at Guajataca Dam, Hotzfeld said, and provided communication where there was none.

Ten SHARES (Shared Resources) HF Radio Program operators will replace the Amateur Radio volunteers who had worked on behalf of the Red Cross. These SHARES operators are federal employees who *Continued page 16*

## PUERTO RICO - CONTINUED FROM PAGE 15

happen to be radio amateurs and volunteered for the duty in Puerto Rico. Hotzfeld said they will be stationed in four different zones, with two operators at headquarters in the San Juan Convention Center. "The hospitals did not want us to leave," Hotzfeld said. "They were begging us to stay." She noted, though, that the hospitals also have access to satellite telephones.

"I was so proud of our guys," Hotzfeld said in summary. "They were rock stars."



"The 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.

The senior dues for the initial person joining in the household who is 65 years of age or older is \$16.00 with \$5.00 for each subsequent member from the same household.

## THE YL'S AMONG US



It's hard to open any Amateur Radio magazine or newsletter and not notice the stories about, and written by, female ham radio operators. Their numbers are growing...the FCC estimates about 15% of all licensed amateur radio operators are female...I think it's higher, more like 25%. It's clear that female amateur radio operators are having a great impact on the hobby and are an important part of the growth of Amateur Radio worldwide.

50 years ago, I only knew of one female ham, today I know dozens. First known as YL's (young ladies) and XYL's (unlicensed but married to a male ham) they have been around longer than you might know. The first was thought to be Gladys Parkin 6S0 who was first licensed in 1910 at the age of 9! By the 1930's there were a dozen female hams and they even had their own signoff moniker, YL33. YL33 was created by Clara Reger and used to end a QSO between two YL's.



There is an international organization of female ham radio operators, the Young Ladies Radio League (YLRL). Their membership is around 800 with chapters in many counties including the United States. I kicked up some dust a few days ago asking the FCC, ARRL HQ and the YLRL for better numbers. It seems no one has really paid attention to the demographics of female ham radio operators. I thought it was time to change that.

The numbers will come and I'm sure they will show what we already know...they are important to us....and generally under noticed! The old adage "behind every good man is a woman" almost applies here...except the ladies now stand beside us and among us and have earned their place in Amateur Radio. It's never too late to say THANKS and we are glad you are part of Amateur Radio.

## THE PUBLIC INFORMATION COORDINATOR

John Ross, KD8IDJ - PIC  
john.ross3@worldnet.att.net



Michelle (W5MQC) <w5mqc@ylrlconvention.org>



## THE AFFILIATED CLUBS COORDINATOR

Tom Sly, WB8LCD - ACC

tomsly29@gmail.com

October ACC Report

Having gotten a few things behind me that required a lot of my attention, I am now starting to make plans to visit with as many clubs in the Ohio Section as possible. Since my job, my wife, my kids, grand kids and two chihuahuas all require my attention on a pretty regular basis, I won't be able to keep up the pace that my predecessor maintained, but I will do as much traveling as possible. Hope to see you soon.

I would also like to suggest that YOU do some traveling too! There really are some fantastic clubs in the Ohio Section. But don't stop there, going somewhere for a vacation, or even on business? Use the ARRL website to find out what clubs are in whatever area of the country you're headed for and try to work a visit in while you're there. Look at what that club is doing, or not doing. Look at their meeting and all of their other activities. You might find an idea or two that would work for your club. I guarantee that you will meet some interesting people and probably some very talented people.



October, November and December are the months when most clubs elect their officers for the coming year. Before you get all excited about all the Glory, Glamor and Prestige that goes along with being an officer in an Amateur Radio Club, I want you to consider a few things. First off, what kind of a club do you want to be the officer of? Sure, anyone can be the successful officer of a mediocre club, but, that's really not what most clubs are looking forward to in electing you.

Now, if you want to be an officer of a truly OUTSTANDING club, then you better plan on spending quite a bit of time and effort on it.



I've heard it said that running a successful Amateur Radio Club program is pretty much about the same task as "herding cats." The first thing to remember is that "clubs" are usually all volunteer organizations. As a club officer, you have absolutely no authority to make any demands on any other member of the club. It's your job to motivate the other officers and the membership to want to work for and assist you in the running of the club. You can't get there by demeaning and demoralizing the other officers and the membership of the club. In the beginning, you might have to do it ALL by yourself. Please, do it with a smile on your face! Make it look like you're having fun and you're doing it because you want to. Once others start having fun, they'll want to be involved in the planning and implementation of all the things a club has to do. Here's a secrete phrase you can use: "I need your help." It's not that

often that an honorable man will refuse to help another.

Once again, it can't be all on the officers of a club. If you're a member, you need to do the things that are required of the membership – most notably – participate! That's about the best way that you can thank the officers for all the work that they put into the club program. A verbals "thank you" would also be appreciated by most. There's a whole bunch of other stuff that needs to be done in any club operation – please, do your part. Back to the herding cat's analogy, one of the things that is most important with a club is regular communication. If you've got an activity, a meeting, a net or any other item of interest to the club, you've got to keep it on the top of their minds via emails, net announcements, whatever you've got going. You need to get things planned in advance. Get it announced as early and often as possible! In today's world people need to get it on their calendar as soon as possible, and then they need to be constantly reminded so they don't forget. If you can get people talking about it, it will create a "buzz" and that will be the best way to build interest and participation. To make my long story just a bit shorter, taking any club and making it a better club is not all that complicated, but it's not easy. Thomas Edison said that "most people miss a good opportunity because it usually shows up in coveralls and work boots, and looks like a lot of work." If you want to be the officer of a club and do a great service to all the other members, be prepared to do whatever it takes to make it happen.

It may take a lot of time and commitment, but it really is worth it. Hope to hear you on the air!

73,

Tom, WB8LCD

OH ACC

## THE HISTORY OF TELECOMMUNICATION

Telecommunication is defined as the science and technology of communication over a distance. The ability to convey information quickly, accurately, and efficiently has always been one of the main focuses driving human innovation. From prehistoric man with their signal fires to the smartphone-wielding high-powered executives of today, communication still remains a key for survival and success. The history of telecommunication illustrates this never-ending push for progress as it steadily parallels human growth, becoming more widespread and efficient as the development of modern civilization unfolds.

- **Prehistoric Era:** Fires, beacons, smoke signals, communication drums, horns: Man's first attempts at distance communication were extremely limited. Prehistoric man relied on fire and smoke signals as well as drum messages to encode information over a limited geographic area as they attempted to contact neighboring clans. These signals also needed to have very simple, pre-decided meanings like "safe" or "danger" or "victory" or could be used as a form of alarm system in order to alert prehistoric clans to predators or invading clans.

- **6th century BCE:** Mail: Cyrus the Great was a Persian emperor at the height of Persia's power in the 6th century BCE. The empire was so vast that Cyrus couldn't easily communicate from one end to the other: He is credited as having established the first postal system in the history of the world. Other ancient powers like Egypt, Rome, and China eventually built their own postal systems later on.

- **5th century BCE:** Pigeon post: Persia and Syria are credited with establishing the first pigeon messaging system around the 5th century BCE due to the discovery that pigeons have an uncanny ability to find their way back to their nests regardless of the distance. Travelers would bring doves and pigeons along with them, attach messages to them and release them to fly back home. Later on, pigeons would be used by Romans to report the outcomes of sporting events and by Egyptians for military communications.

- **4th century BCE:** Hydraulic semaphore: In the 4th century BCE, the hydraulic semaphore was designed in ancient Greece as a method of communication, and it was vital during the first Punic War. Very much like early smoke signals or beacons, it involved a network of identical containers on separate hills, each with a vertical rod floated in it. These rods would have predetermined codes inscribed at various intervals. Someone who wished to communicate would signal another with a torch; they would synchronize and then simultaneously open their spigots and drain the water until it was at the desired code. This system also had the same limitations as smoke signals - the messages had to be pre-determined prior to sending them.

- **Circa 490 BCE:** Heliographs (shield signals): The heliograph or shield signal was first documented during the famous Greek battle of Marathon that took place in 490 BCE. A heliograph involves the shining of the sun on a polished object like a shield or mirror. Interestingly enough, in this instance, the signal given was not really understood, since its meaning had not been clearly agreed upon prior to it being used.

- **15th century CE:** Maritime flag semaphore: The ability to communicate between ships was very difficult before the 15th century. At that time, flag semaphore, a special code involving the positions of two hand-held flags, was introduced. Each position and motion represented a letter or number. This made it very easy for fleets to communicate.

- **1672:** First experimental acoustic (mechanical) telephone: Robert Hooke is first credited with creating an acoustic telephone in 1672. Hooke discovered that sound could be transmitted over wire or string into an attached earpiece or mouthpiece. At the time, it's not clear that he was aware of the implications of this discovery, as his notes point toward his desire to use this device to make music.

- **1790:** Semaphore lines (optical telegraphs): Using the maritime flag semaphore as a starting point, the Chappe brothers, two French inventors, created the first optical telegraph system in 1790. The optical telegraph was a system of pendulums set up somewhere high like on a tower or the top of a town clock. The telegraph would swing its mechanical arms around and sign messages from one tower to the next. It was the first telecommunication system in Europe.

- **1838:** Electrical telegraph: Samuel B. Morse had been working on the idea of a recording telegraph with friends Alfred Vail and Leonard Gale. They discovered that when connecting two model telegraphs together and running electricity through a wire, you could send messages by holding or releasing the buttons in a series

*Continued page 19*

## HISTORY - CONTINUED FROM PAGE 18

of intervals. This became known as Morse code and lay the foundation for modern land-line phones.

- 1858: First trans-Atlantic telegraph cable: At this point, most of Britain and the United States had telegraph stations and were able to regularly communicate within their own countries, but a man named Cyrus Field from New York wanted to lay the first transatlantic telephone cable to connect England and the United States by telegraph. This project, though it was met with many setbacks, was finally completed in August of 1858.

- 1867: Signal lamps: In 1867, the first dots and dashes were flashed by signal lamps at sea. The idea was that of British Admiral Phillip Colomb, who took the design of signal lamp inventor Arthur C.W. Aldis and implemented this method of communication as well as his own code in order for the ships in his fleet to easily communicate. This code was similar to Morse code, but eventually, Morse code became more widely used.

- 1876: Telephones: The year 1876 was a big one for Alexander Graham Bell. Having come to the U.S. as a teacher for the deaf, he had been trying to figure out a way to transmit speech electronically. Despite little support from his friends, he successfully invented the telephone in March of 1876.

- 1877: Acoustic phonograph: Inventor Thomas Alva Edison made incredible strides in sound recording and transmission when he completed the first acoustic phonograph in August of 1877. He had been trying to improve and finalize the model for the telephone when he realized that by attaching a needle to the phonograph diaphragm and a tin-foil cylinder on which the needle could record spoken words, he could record and play back sounds.

- 1880: Telephony via light-beam photophones: In 1880, Alexander Graham Bell took the money he'd received for successfully creating the telephone, set up a lab and got to work improving his invention. The fruit of his labor was the photophone, a device capable of transmitting sound in a beam of light. In essence, Bell had made the first wireless call in history!

- 1893: Wireless telegraphy: Nikolai Tesla was the first to successfully transmit radio waves wirelessly through a transmitter in 1893. He patented his work, which was lucky because shortly after that, Guglielmo Marconi, another inventor, alleged that Tesla had copied his work. During the legal battle that ensued, this was found to be untrue. Tesla continued to experiment with wireless transmission and attempted to create a more efficient light bulb.

- 1896: Radio: Undaunted by his defeat in the U.S. courts, Marconi kept working on his own versions of wireless transmission of sound. In 1896, he sent his first long-distance wireless transmission. The signal was sent over a distance of 2 kilometers. The recipient of this signal waved a white kerchief to show that it had been received. This earned Marconi a place in the history books as the man who gave us the first radio.

- 1915: First North American transcontinental telephone calling: Alexander Graham Bell is back in the history books again after he made the first coast-to-coast call by phone in January of 1915 to his assistant. It was the first long-distance call made in history from a land-line. It has significance because it made long-distance communication all over the country a reality.

- 1927: Television: Phillip T. Farnsworth made media history on September 7, 1927, when he demonstrated the first working television set. He had been working on a method to transmit images: What he discovered was that you could encode radio waves with an image and then project them back onto the screen. This gave us the first television prototype.

- 1927: First U.K.-U.S. radio-telephone service: The first radio-telephone service from the U.K. to the U.S. was established in January of 1927. The phones were initially radio phones, so there were some issues with fading and interference. Initially, it was only one circuit and received about 2,000 calls a year, and the cost for three minutes of conversation time was nearly \$10.

- 1930: First experimental videophones: In 1930, AT&T had decided to create a two-way experimental video-phone they called the Iconophone. This allowed people to see, hear, and respond to those they were speaking to in real time. The idea, although different, did not meet with much commercial success.

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## HISTORY - CONTINUED FROM PAGE 19

- 1934: First commercial radio-telephone service, U.S.-Japan: The first radio telephone calls from the U.S. to Japan were first made in 1934. This enabled people to speak across the Pacific Ocean for the first time. Unfortunately, due to the distance, the quality of the calls was not great. There tended to be a lot of fading and interference.
- 1936: World's first public videophone network: The world, now in the throes of World War II, sees the first public videophone network installed in Nazi Germany in March of 1936 during a trade fair. It was for use by "Aryans only" for a limited time each day from 8 a.m. until 8 p.m. It was left installed there even after the trade show was over.
- 1946: Limited-capacity mobile telephone service for automobiles: In June of 1946, the first telephone call was made from an automobile phone. The design had been put together by Southwestern Bell. Due to the cost of installation and the small volume of calls, it wasn't a very extensive mobile network.
- 1956: Transatlantic telephone cable: The first 36-circuit transatlantic telephone cable was installed in 1956. The cable stretched from Newfoundland to Scotland. This now made phone calls much less expensive than the older radio telephone system.
- 1962: Commercial telecommunications satellite: The Communications Satellite Act was officially passed in 1962, allowing telecommunications to finally go into space. AT&T was in the process of constructing their satellites, and two short years later, they would have put six telecommunications satellites into orbit.
- 1964: Fiber-optic telecommunications: In 1964, Charles Kao and George Hockham published a paper that proved that fiber-optic communication could be possible as long as the fibers used to transmit the information were free of impurities. This discovery reopened the door Alexander Graham Bell had first created with his photophone, allowing sound to be transmitted over beams of light.
- 1965: First North American public videophone network: In 1965, the first picturephone service began in trials. These phones were called "Mod I" picturephone sets, and in July of that year, Union Carbide Corporation began trials for the first picturephone network. In December of the same year, AT&T also began similar trials in some of their networks.
- 1969: Computer networking: In October of 1969, the first data traveled between nodes of the ARPANET, a predecessor of the Internet. This was the first computer network and was invented by Charley Kline and Bill Duvall.
- 1973: First modern-era mobile phone: Inventor Martin Cooper placed the first cellular mobile call in 1973 to his rival at Bell Labs, Joel Engel. The first mobile phone had a maximum talk time of 30 minutes, and it took a year for the battery to recharge. The phone would eventually be a prototype for Motorola's first mobile phones.
- 1979: INMARSAT ship-to-shore satellite communications: The year 1979 was a big leap forward for maritime communications. The International Maritime Satellite Organization (INMARSAT) was established to provide marine vessels with reliable communication for increased safety and communication for sailors and passengers who needed to speak to someone on shore.
- 1981: First mobile phone network: The first commercially automated cellular network was launched in Japan in 1981. The network was originally launched only in Tokyo in 1979 and then was expanded. Simultaneously, the Nordic Mobile Telephone system was also established in Denmark, Finland, Norway, and Sweden.
- 1982: SMTP email: Prior to 1982, the Internet was highly secure and comprised of limited network clusters between military, corporate, and some university research facilities. In 1982, Jonathan Postel wrote the Simple Mail Transfer Protocol and shifted the focus of the Internet from security to reliability using the networks as relay stations to send electronic mail to the recipient through cooperative hosts.
- 1983: Internet: On January 1, 1983, the Internet was officially born. ARPANET officially switched its old network control protocols (NCP) and Transmission Control Protocol/Internet Protocol (TCP/IP) be-

*Continued page 21*



## HISTORY - CONTINUED FROM PAGE 20

came standard.

- 1998: Mobile satellite hand-held phones: The first canopy of 64 satellites was put into place by a company called Iridium in 1998. They also produced the first hand-held satellite phones, which were smaller and less cumbersome than the earlier "bag" phones. This revolutionized mobile telecommunications and would lead to the modern smartphone.
- 2003: VoIP Internet telephony: In 2003, phone calls were now capable of being transmitted over a computer through Internet protocols. This meant that long-distance charges were not applicable, as callers would use already-established computer networks.

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### FCC GRANTS EXPERIMENTAL LICENSE FOR PROJECT LOON TO OPERATE IN PUERTO RICO



WASHINGTON, October 7, 2017—The FCC has granted an experimental license for Project Loon, led by Google's parent company Alphabet, to help provide emergency cellular service in Puerto Rico. "More than two weeks after Hurricane Maria struck, millions of Puerto Ricans are still without access to much needed communications services," said Chairman Pai. "That's why we need to take innovative approaches to help restore connectivity on the island. Project Loon is one such approach. It could help provide the people of Puerto Rico with access to cellular service to connect with loved ones and access life-saving information. I'm glad the FCC was able to grant this experimental license with dispatch and I urge wireless carriers to cooperate with Project Loon to maximize this effort's chances of success."

Project Loon is a network of balloons that provides connectivity to users on the ground. Now that the experimental license has been approved, it will attempt to initiate service in Puerto Rico. Project Loon obtained consent agreements to use land mobile radio (LMR) radio spectrum in the 900 MHz band from existing carriers operating within Puerto Rico.

### LET'S TALK

Wow..

I can't believe that it's the middle of October already! Time is really flying by quickly for sure. The grass is still growing some, although it has slowed down some for the fall. Now with that in mind I have a little story to tell all of you. As some of you know I live in a very small village, but our properties are more than average in size. I have about three quarters of an acre and my neighbor has about the same size lot as I do. So, as you can imagine, most of us on good weather days are out mowing the lawn or raking leaves. Not my neighbor! He's got the most advance mower in the world. It mows the lawn for him! Yes, that's right, he has a robot mowing the lawn. It's actually a cute little bugger, but it is the epitome of laziness for sure. Now when they went to install this little robot they laid a small wire down like they do for those invisible fences for dogs. So, being the curious one in the neighborhood I went over to the guy laying the wire underground and started asking some basic questions about it. It seems that this little device runs until it finds the wire and then turns 120 degrees and starts mowing in that direction.

There's just too much to list it all here! <http://arrrl-ohio.org/news/OSJ-October-17.pdf>  
Scott Yonally, N8SY - SM



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**"GOOD FRIENDS ARE THE RARE JEWELS OF LIFE.....DIFFICULT TO FIND  
AND IMPOSSIBLE TO REPLACE!"**

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

This test will keep that dreaded disease that effects your memory at bay!  
New Senior's Exam, you only need 4 correct out of 10 questions to pass.

- 1) How long did the Hundred Years' War last?
- 2) Which country makes Panama hats?
- 3) From which animal do we get cat gut?
- 4) In which month do Russians celebrate the October Revolution?
- 5) What is a camel's hair brush made of?
- 6) The Canary Islands in the Pacific are named after what animal?
- 7) What was King George VI's first name?
- 8) What color is a purple finch?
- 9) Where are Chinese gooseberries from?
- 10) What is the color of the black box in a commercial airplane?

Remember, you need only 4 correct answers to pass.  
Check your answers below ....

### ANSWERS TO THE QUIZ

- 1) How long did the Hundred Years War last? 116 years
- 2) Which country makes Panama hats? Ecuador
- 3 From which animal do we get cat gut? Sheep and Horse
- 4) In which month do Russians celebrate the October Revolution? November
- 5) What is a camel's hair brush made of? Squirrel fur
- 6) The Canary Islands in the Pacific are named after what animal? Dogs
- 7) What was King George VI's first name? Albert
- 8 ) What color is a purple finch? Crimson
- 9) Where are Chinese gooseberries from? New Zealand
- 10) What is the color of the black box in a commercial airplane? Orange (of course)

What do you mean, you failed?

Me, too!

(And if you try to tell me you passed, you LIED!)



### Thought for the Day

No country can sustain, in idleness, more than a small percentage of its numbers.  
The great majority must labor at something productive.

Abraham Lincoln





# November 2017

PREPAREDNESS LEADS TO READINESS - MATT W8DEC



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	4 YL monthly breakfast 
5 Standard Time Begins 2 A.M. 	6 ARES Net 8:30 PM 146.745 PL 110.9	7 National Election Day VOTE	8	9 Chaos Never Dies Day	10 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	11 Veterans Day 
12	13	14 Ham Breakfast Eat'n Park Boardman 8:30 A.M.  Board Meeting Eat'n Park Auatintown 7:00 P.M.	15	16	17 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	18
19  WaveBender Input Due	20 ARES Net 8:30 PM 146.745 PL 110.9	21 WRARC Meeting 7:00 P.M. 	22	23 Thanksgiving 	24 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	25
26	27	28 Eat'n Park Boardman 8:30 A.M. Ham Community Breakfast	28	30	WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	