



# The Listening Post



Dedicated to Community Service and All Central Florida Hams

September 2020

## President's Message

Happy September everyone! I wanted to start off this month and talk a little about something we do not talk about much in OARC, hurricanes. A year ago, East Central Florida was being threatened by a Cat 5 Hurricane that stalled over the Northern Bahamas.

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### OARC MEETING

**September 2, 7:00pm**

**YouTube Live and Zoom**

Beardall Senior Center - **CLOSED**

800 Delaney Ave, Orlando, FL 32801

ARRL Testing: **CANCELED**

For information & Updates

See [www.oarc.org](http://www.oarc.org)

### OARC Board of Directors

President: John Knott, N4JTK

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The Listening Post is the OARC newsletter for OARC members. The LP will be distributed electronically via E-mail and the OARC web site ([www.oarc.org](http://www.oarc.org)).

Editor: Ed Thralls NE4H.

Comments, suggestions and articles are welcome. Send to [editors@oarc.org](mailto:editors@oarc.org).

Contributing to this edition: John Knott N4JTK, Michael Cauley W4MCA

### OARC REPEATERS

Call	Freq	Shift	PL
KB4UT	146.760*	-600	103.5
N4UMB	147.015	-600	103.5

\* Fusion Repeater

### D-Star

K1XC C	146.820	-600	
K1XC B	443.275	+5MHz	
K1XC A	1275.00	-12 MHz	Voice
K1XC A	1255.00	-12MHz	Digital
W4PLB C	145.160	+600	
W4PLB B	442.300	+5MHz	

All D-star repeaters are connected

## **From the President's Desk** *(Continued from Previous Page)*

Hurricane Dorian sat for about 36 hours on top of Great Abaco and gave the people a harsh beating that no one deserved. All the while having its sites on East Central Florida. As we waited for Dorian's next move, great relief came when she slowly started to move NW then NNW, and finally N and then on out to sea.

As we all know, 2020 has been one of those years that we all cannot wait to end. Hurricane Season included. So far this year, East Central Florida and Florida in general has been spared. Here we are at the beginning of September and climbing to the peak of hurricane season and we just skated by the "L" named storm for 2020. Yes, the "L" named storm and the weather forecasters are all saying that, "It's not over yet". Staying prepared throughout hurricane season while living in Florida is vital. Most of us have been here for years and this is not our first rodeo. For many others, are experiencing their first hurricane season.

The reason that I am discussing this is to bring to everyone's attention of a great need in our community. Our Amateur Radio Emergency Services (ARES) groups in the Central Florida area need you! It does not matter which county you live in; every ARES groups need volunteers. Because of COVID-19 this year, emergency preparedness is much different. It makes no difference on your abilities, ARES groups need and are willing to take any level of experience you may have. There is a job to be done and we MUST get it done. I say we, because as most of you know, I am the Emergency Coordinator for Orange County ARES. But I am saying this for all the surrounding ARES groups also, Seminole, Lake, Osceola, Polk, and Brevard. No matter where you live, if you are not an ARES volunteer already, please consider volunteering. There are some basic training requirements, but nothing that anyone could not easily complete. Each group has plenty of jobs that need to be done during an activation and a job that best suites you would be assigned.

Please take a few minutes and research the contact info for your County ARES and contact them. Let them know you are interested and willing to help. I am sure they will appreciate it. Together, we will make it through the rest of hurricane season 2020, and whatever else Mother Nature throws our way!

The ARRL made some huge announcements over the past couple of weeks. First ARRL announced the first ever hiring of, Director of Emergency Management. Paul Z. Gilbert, KE5ZW of Texas was recently hired and will serve in the newly created position. This is a huge step for the ARRL and I feel will help with much needed updates in the ARES program. I am excited to see what changes will be coming down the pike soon. Please see more info about Gilbert in this issue.

Just last week ARRL announced that the Board has selected a new CEO to run ARRL. David Minster, NA2AA was elected by the Board and will start on September 28th.

Minster began his career as a software engineer then moved into management at Unilever as their CIO. Later became the COO and CIO at fine jewelry manufacturer and retailer David Yurman. More recently Minster served as CEO of jewelry brands Scott Kay and Judith Ripka.

Minster became a ham in 1977 as a Novice as a teen. He later progressed from Advance to Amateur Extra and settled with the call sign NA2AA as a way to honor his mentor, N2AA. His ham radio interest has included the NTS and participation in public service events, contesting from home, club stations, and contest stations in the Caribbean – particularly on Bonaire. We look forward to meeting David at Orlando HamCation™ in February.

This coming Wednesday night will be our next OARC Membership meeting. The meeting will once again be virtual, as the Beardall Senior Center is still closed due to COVID-19. The meeting will begin at 7pm. Our guest speaker this month will be Neil Rapp, WB9VPG and he will be presenting a program on the 2021 Youth on the Air/Region 2. This should be interesting and continues our initiative to get youngsters interested in Amateur Radio. You can join the virtual meeting by clicking the link to the ZOOM meeting invite sent out with this newsletter or by going to the Orlando Amateur Radio Club's YouTube channel where the meeting will be streamed live.

I will let the cat out of the bag now for October's meeting, Ray Novak N9JA and Will Jourdain AA4WJ from ICOM America will be presenting the brand-new IC-705. As always, please plan on attending the both meetings. We really would like to have a huge OARC presence for our guest speakers and show our support!

Stay safe and see you soon!

73

*John Knott*

N4JTK

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## Holiday Party

(By John Knott, N4JTK)

The OARC Board of Directors has decided to continue plans on holding our annual Holiday Party this year! The Holiday Party will be held on Saturday December 5, 2020 at the Knights of Columbus Hall. 5727 Corneila Ave, Orlando 32807.

As usual, the doors will open at 6pm. Dinner will be served at 7pm. In years past we have held a Toys for Tots collection. We will be doing that again this year, as I have this feeling, this service will be greatly needed this year. So please bring a small,

unwrapped toy for a Central Florida child if you can. Feel free to bring more than one if you can.

Ana has been planning this year's party since last year's party ended. She is lining up some more great prizes to give away. You do not want to miss our biggest social event of the year! (Needed even more because of COVID-19.)

Tickets are \$10.00ea for members and your spouse. \$25.00ea for non-members. Tickets can be purchased in advance by sending a check for the correct amount to OARC, PO Box 574962, Orlando FL 32857. If you wish to pay by credit card in advance, send an email to [Holiday@oarc.org](mailto:Holiday@oarc.org) letting us know how many tickets you need for members/spouse and/or Non Members. We will send you a link to pay online with a credit card.

Like previous years, we need to have an accurate head count for the caterer. We must receive your check in the mail or your email registering for the party by Tuesday November 17th.

All CDC requirements will be adhered to for this event. More information will be published about the holiday party monthly before the event including all CDC requirements.

If we do have to cancel the Holiday Party, all members will be contacted as quickly as possible and refunds will be issued.



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## HamCation™ Chairman News

(by Michael Cauley, W4MCA)

Greetings Everyone

I hope everyone is still staying safe.

HamCation™ is now 100% in full swing. The website is live and accepting orders. So, if you need to buy tickets or maybe want to sell some of your extra stuff check out the website.

Do not forget we need lots of volunteers for HamCation™ more than ever for 2021. Please visit [www.hamcation.com/hamcation-volunteer](http://www.hamcation.com/hamcation-volunteer) and signup. As a HamCation™ volunteer you get FREE admission to the event when you volunteer at least 4 hours. Also do not forget that you can donate your hours to a nonprofit of your choice, and they will get a donation check based on how many hours are donated to their organization.



Did you know you can sign up for the latest updates about HamCation™? Visit [www.hamcation.com](http://www.hamcation.com) and scroll to the bottom. All you must do is put in your email address and click subscribe.

73's  
Michael Cauley  
HamCation™ General Chairman

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## OARC and HamCation Scholarship Award Winners

(By John Knott, N4JTK)

Each year OARC and HamCation donates \$1,000.00 to the ARRL Foundation to be given away to the winners of the Wayne Nelson, KB4UT Memorial Scholarship and the HamCation Scholarship.

The ARRL manages these scholarships and selects the winner of each based of the criteria for each scholarship.

We are proud to announce that the following individuals have won this year's scholarships:

The 2020 Wayne Nelson KB4UT Memorial Scholarship Award goes to Haley O'Connor, KN4MQY of Port Saint Lucie FL.

The 2020 HamCation Scholarship Award goes to Zechariah Lea, WX4TVJ of Palm Coast FL.

We congratulate each of these students and want to wish them all the success in their studies!

# ARRL Welcomes Paul Z. Gilbert, KE5ZW, as Director of Emergency Management

(The ARRL Letter for August 13, 2020)

As another step in ARRL's increased focus on strengthening its emergency communications capabilities and long-standing working relationships with federal and state agencies and private emergency response organizations, ARRL has hired Paul Z. Gilbert, KE5ZW, of Cedar Park, Texas, as its first Director of Emergency Management.



Gilbert brings more than 30 years of experience in public service in both his professional and amateur radio endeavors. Beginning with his appointment as Emergency Coordinator in 1987, he has held multiple positions in the ARRL Field Organization. Currently in his second term as South Texas Section Manager, he has also served for more than a decade as the West Gulf Division's Assistant Director for Public Service, acting as liaison between Division leadership and local, state, and federal emergency management organizations.

Professionally, Gilbert most recently was Radio Officer, HQ Staff, for the Texas State Guard, where for the past 6 years he has been responsible for planning and implementation of the organization's communications capabilities. Previously, he was a Public Safety Radio Coordinator for a Texas agency, charged with overseeing that organization's large-scale disaster communications response and identifying and eliminating in-state interoperability issues.

Gilbert, who has an Amateur Extra-class license, is a member of Army MARS, and holds numerous DHS certifications, including COML, COMT, COMT Instructor, and AUXCOM Communicator. He is a member of the FEMA Regional Emergency Communications Coordination Working Group (RECCWG), a graduate of the FEMA Emergency Management Institute's Exercise Design Course, and was a founding member of the Texas Division of Emergency Management Communications Coordination Group.

In his new role, Gilbert will manage a team responsible for supporting ARRL Emergency Communications (EmComm) programs and services, including the Amateur Radio Emergency Service® (ARES®) and National Traffic System (NTS), as well as lead the continued modernization of those programs in consonance with the future emergency communications needs of the public and ARRL's key partners.

# ARRL Board Confers Awards

(The ARRL Letter for August 13, 2020)

Meeting in virtual session July 17 - 18, the ARRL Board of Directors conferred three major awards.

## The Hiram Percy Maxim Award

The ARRL Board conferred the 2020 ARRL Hiram Percy Maxim Award on Jacob M. Nagel, ADOJA, of Wright City, Missouri. Licensed since 2012, the Board cited Nagel for exemplifying the spirit of amateur radio by learning new technologies, providing community service, and helping with emergency communication. ARRL's top youth honor, the Hiram Percy Maxim Memorial Award is given annually to a radio amateur and ARRL member under the age of 21. The award consists of a \$1,500 stipend and an engraved plaque, to be presented at an ARRL convention or event.

The Board cited Nagel's involvement in providing technical assistance to the Okaw Valley Amateur Radio Club and the Egyptian Radio Club of Illinois for the installation and upgrading of their club repeaters; advising the Germantown, Illinois, Fire Department on upgrading its communication systems; speaking at the 2016 Dayton Hamvention® Youth Forum; sharing his expertise in online forums, and active involvement in projects that allow him to integrate his amateur radio knowledge with other technical ventures in electronics.



## Knight Distinguished Service Award



The Board named veteran ARRL Rhode Island Section Manager Robert G. "Bob" Beaudet, W1YRC, of Cumberland, Rhode Island, as the recipient of the Knight Distinguished Service Award, given to an ARRL Section Manager. Beaudet has been Rhode Island SM since 2002.

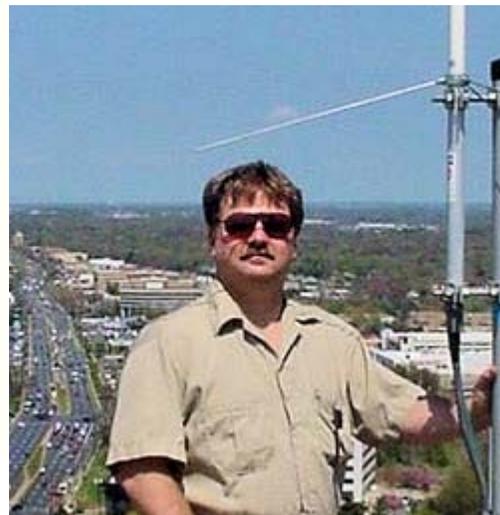
The Board cited Beaudet's active promotion of ARRL activities in his Section, including visiting hundreds of Field Day operations; participating in many Volunteer Examiner test sessions; attending countless club meetings; staying active as a contester, DXer, and mentor, and serving as a model to other Section Managers.

The Board said, "Beaudet's leadership of the ARRL Rhode Island Section Field Organization has led to a strong working cadre of volunteers within the Section."

## Doug DeMaw, W1FB, Technical Excellence Award

The Board named Al Rabassa, NW2M, of Rockville, Maryland, as the recipient of the Doug DeMaw, W1FB, Technical Excellence Award.

The Board cited Rabassa's frequent contributions to the *QST* "Hints & Hacks" column and his *QST* technical articles, including "The Basics of Fan Cooling." The Board also noted that Rabassa has served as a subject-matter expert on the Yaesu FT-101 transceiver, maintaining a website devoted to the technical aspects of the vintage transceiver series.



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## QSO Today Virtual Ham Expo to Become Twice-Yearly Event

(The ARRL Letter for August 13, 2020)

The [QSO Today Virtual Ham Expo](#) over the August 8 - 9 weekend appears to have been an unmitigated success, so much so that another virtual event will be held next March.



"It was far better than we expected," Virtual Ham Expo Dhair Eric Guth, 4Z1UG/WA6IGR, told ARRL. "We had over 26,000 registered and over 14,000 on the platform both days."

Guth said event sponsors and exhibitors that he's heard from so far "are thrilled with the turnout, engagement, and responses that they received." He said they're also enthusiastic about the second QSO Today Virtual Ham Expo, set for March 13 - 14, 2021. "Our plan is to offer this twice a year," Guth added.

The show, an ARRL-sanctioned event, was developed on the [vFairs](#) virtual conference platform, and cleverly re-created the atmosphere of a typical large hamfest, with several tracks of forum sessions on a wide array of topics. Those who had registered but did not log into the live event can see it all [on demand](#) until September 9.

"All of the services, except the chat, are running," Guth noted. "The doors are still open."

Dozens of video presentations are available to replay, including the keynote given by the Editor of ARRL's *National Contest Journal*, Dr. Scott Wright, K0MD, "COVID-19: Amateur Radio's Impact on Problem Solving to Create a Global Response to the Pandemic." Presentations from other ARRL member-volunteers span technical and operating interests, including "Everything you need to know about Lithium Batteries" with Marcel Stieber, AI6MS, and an introduction to creating Arduino-based projects for home and ham radio, with Glen Popiel, KW5GP. Presentations highlighting young ham involvement and development include "Youth in Ham Radio," moderated by Carole Perry, WB2MGP, with six youth presenters.

Guth said a poll would be sent to determine what visitors enjoyed most. "However, my guess will be that the speakers were fantastic, along with the moderators for the live Q&A afterwards," he said. Exhibitors will also be polled for their post-show impressions.

Icom, a principal sponsor of the event, had team members from around the globe staff their exhibits. Icom America Senior Sales Manager Ray Novak, N9JA, said the event supported their new product launches including Icom's new IC-705 HF - 430 MHz all-mode 10-W transceiver, which just received FCC certification.



"We really enjoyed the virtual event," said Novak. "It is our goal to see this grow and to have hams from the various countries attend in anticipation of this becoming a multilingual event as we all are starving for ham radio events during this pandemic."

Kevin Zanjani, KI6DHQ, of Bioenno Power, also gave the virtual event high marks. The show, he said, "was quite exciting and a great platform to interact with customers and the entire ham radio community during these times." Bioenno Power, based in Southern California, is a provider of Lithium-Polymer (LiPo) batteries and solar-power devices. Zanjani said the chatroom was very effective to engage with customers. "Many also dropped by to say hello as well, so we found that nice."

Icom, a principal sponsor for the event, had team members from around the globe staff their exhibits -- including representatives from the US, Japan, and Europe. Icom America Senior Sales Manager Ray Novak, N9JA, said the event supported their new product launches, including Icom's new IC-705 HF - 430 MHz all-mode 10 W transceiver, which received FCC certifications a few days before the event opening.



"We really enjoyed the virtual event," said Novak. "It is our goal to see this grow and to have hams from the various countries attend in anticipation of this becoming a multilingual event, as we are all starving for ham radio events during this pandemic."

Product Development Manager Bob Inderbitzen, NQ1R, was among the ARRL representatives engaging with event attendees using text and video chat. He described the experience as having some similarities and some differences from an in-person convention.

"Our team answered questions about ARRL membership programs and services, amateur radio licensing, and even had some fun challenging visitors to our booth with ham radio trivia," he said. Physically located at ARRL Headquarters in Newington, Connecticut, Inderbitzen treated more than 500 visitors to live, online tours from inside Hiram Percy Maxim Memorial Station W1AW.

"It was fun to see a screen full of smiling faces, and to answer questions in real time. The experience had an on-air feel," Inderbitzen said. A short welcome [video](#) greeted visitors at the ARRL booth.

Guth said the organizers' challenge going forward is to reduce the workflow in putting the show together. "But all in all, it was a lot of work, I have a great team, the volunteer speakers and moderators were out of this world, and I am grateful to our sponsors and exhibitors for footing the bill," he added.

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## **US Department of Defense to Share 3450 - 3550 MHz with 5G Commercial Operations**

**(The ARRL Letter for August 13, 2020)**

The FCC will auction sharing rights to the upper 50 MHz of the 3300 - 3500 MHz secondary amateur radio allocation to commercial 5G interests in the wake of the Department of Defense (DoD) agreement to share spectrum at 3450 - 3550 MHz. The entire band currently supports a variety of military operations, and amateur radio has a long history of peaceful coexistence with the Department of Defense as a secondary user of this spectrum.

Late last year, the FCC proposed to delete the amateur 3300 - 3500 MHz secondary allocation as well as the amateur-satellite allocation at 3400 - 3410 MHz. The FCC could auction the 100 MHz of spectrum in early 2022. This latest move makes a contiguous band of spectrum from 3450 - 3980 MHz available for commercial 5G networks.

"For a number of years, the National Telecommunications and Information Administration (NTIA) and FCC have focused on the 3450 - 3550 MHz band as the spectrum most conducive to sharing with commercial users," said ARRL Washington Counsel David Siddall, K3ZJ. "Monday's statements announced that a framework for sharing has been worked out."



In December 2019, the FCC adopted a *Notice of Proposed Rulemaking* ([NPRM](#)) in WT Docket 19-348 proposing to delete the 3300 - 3500 MHz secondary amateur band. ARRL strongly opposed the move in its comments on the *NPRM*, which put forward the FCC's plans to remove "existing non-federal secondary radiolocation and amateur allocations" in the 3300 - 3500 MHz band and to consider options for relocating incumbent non-federal operations.

Siddall said the spectrum below 3450 MHz presents a more difficult government/commercial sharing scenario, and that future sharing there remains uncertain. "We continue to argue that the amateur secondary allocation should not be deleted in this band," he said. "We recognize



FCC Chairman Ajit Pai.

that our access is secondary, and ask only to be given a chance to use our considerable technical skills to work around whatever future uses may be implemented in this spectrum."

"Together with the spectrum being made available for 5G in the C-band as well as the 3.5 GHz band, we are now on track to have a 530-megahertz swath of mid-band spectrum available for 5G from 3.45 to 3.98 GHz," FCC Chairman Ajit Pai said in a statement. "The FCC looks forward to moving quickly

to adopt service rules for the 3.45 GHz band and then hold an auction to bring this prime mid-band spectrum to market."

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## New Smartphone App Can Identify Unknown Data Modes

(The ARRL Letter for August 20, 2020)



An incredible number of digital-mode radio signals occupy the spectrum, and it's not always possible to identify the particular mode of operation. CW, PSK31, and FT8 are pretty easy, but how about CIS405, STANAG, or CHIP64? A new smartphone app can simplify things. [SignalID](#) can recognize about 20 signal modes (more may be on the way), in just 5 seconds of recording time. The app is open source and free.

Using it is simple. Once the frequency and bandwidth have been set, the user places the cell phone's microphone near the receiver's speaker, presses the large button, and waits for 5 seconds. The quieter the external environment is, the fewer errors.

"The algorithm is based on frequency, [so incorrect tuning] will result in an erroneous detection. The recording is limited to 5 seconds, for practical reasons. Mode recognition may require several attempts, the developer, Tortillum, said, and upgrades are already in the works. "The easiest way to try [it] is RTTY or STANAG," the developer added.

The very few comments so far from users suggest some further work may be needed, but they praised the concept. The developer invites additional [comments](#).

The application, which includes a complete list, could prove a valuable tool in determining the types of emissions that may stray into amateur radio bands.

A [demonstration video](#) is available. -- *Thanks to Southgate Amateur Radio News via Stephen Walters, G7VFX*

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## New Contest for Portable Stations to Debut

(The ARRL Letter for August 20, 2020)

A new amateur radio contest for portable operators -- the Fox Mike Hotel Portable Operations Challenge ([POC](#)) -- will debut October 3 - 4. The event is aimed at leveling the competitive playing field between fixed stations and portable stations. [Scoring](#) for the POC, based upon a kilometers-per-watt metric, will be handicapped in favor of the portables. The contest is the brainchild of Frank Howell, K4FMH. Sponsors include *National Contest Journal* ([NCJ](#)) -- an ARRL publication -- but the POC will not be an official *NCJ* or ARRL contest.

"*NCJ's* role is to encourage hams who don't contest to give it a try," *NCJ* Editor Dr. Scott Wright, KOMD, said. "It will encourage activity by operators who are limited by real estate and do not have a full-blown contest station. Events like this stimulate more interest in contesting, and this will have an international scope to give chances to snare some new DXCC entities."



The [contest rules](#) say scoring will be calculated using the distance between stations (Maidenhead grid squares) in kilometers divided by power output in watts. Fixed (QTH) stations will compete against portable (P) stations on 80, 40, 20, 15, and 10 meters. Allowable modes include phone, CW, and digital.

The exchange is call sign, station class (P or Q), consecutive serial number, and four-character grid square.

Contact [Howell](#) for more information.

# Technology and Technique Making Ham Radio Testing Possible During Pandemic

(The ARRL Letter for August 20, 2020)

Amateur radio license testing continues during the pandemic, with a combination of remote Volunteer Examiner (VE) test sessions and careful in-person session planning. In Hawaii, VE Team leader and Section Manager Joe Speroni, AHOA, said he and his team passed the 100-candidate mark on August 10 for video-supervised remote test sessions. Speroni said the most recent session administered exams to 10 candidates simultaneously.

"Candidates from all Hawaiian Islands, Puerto Rico, Guam, and US military bases in Okinawa have had an opportunity to sit for licenses," he told the ARRL Volunteer Examiner Coordinator. "The high pass rate of 95% is most likely due to candidates having had time to prepare for the exam." Speroni also said his VEs' willingness to contribute their time has made the program a success and available to a wide geographical range.

"Zoom meeting video lends itself to handling three candidates per session, and each requires three VEs," Speroni explained. "The 1:1 ratio of candidates to VEs makes planning important. Fortunately, the team of 15 VEs has volunteers from Oahu, Maui, the Big Island, California, and the Pacific. Often, hams from Okinawa and Guam are helping to license and upgrade hams in Hawaii."



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**The COVID-19 pandemic has affected licensing numbers as well as testing protocols.** ARRL VEC Manager Maria Somma, AB1FM, reports that through the end of July, overall FCC license activity was down by 15% compared to the same period last year. New amateur licenses are down by 12% so far in 2020, with 15,849 new licensees compared to 17,947 in 2019. "Upgraded licenses are down by a staggering 23% -- 6,501 versus 4,984," Somma said. "The year-end prediction of 7,500 upgrades is much lower than in previous years, which have averaged around 9,500."



On the other side of the US, Rhode Island Section Manager and VE Bob Beaudet, W1YRC, reports his club, the Blackstone Valley Amateur Radio Club, conducted a "pandemic-compliant" open-air test session on August 8.

"Our governor in Rhode Island has directed citizens not to congregate in groups greater than 15

outdoors," Beaudet said, estimating that group size remained at around that number at any given time as candidates arrived and left. "Some came early and left as new people arrived," he said. "Also, we were rather widely spread out in the parking lot." Everyone wore masks and observed appropriate social distancing. The VEs grading and processing applications were also spread widely apart. "We planned to keep applicants a car width apart from one another, but many applicants came in rather large trucks," Beaudet recounted. "That changed our parking pattern a little."

The session accommodated one candidate who was severely vision impaired and successfully upgraded to a General-class license, with a VE reading the questions and recording his

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## **Intrepid-DX Group Announces Winners of Youth "Dream Rig" Essay Contest**

**(The ARRL Letter for August 20, 2020)**

The [Intrepid-DX Group](#) has announced the winners of its first annual Youth "Dream Rig" Essay Contest. "We received over 60 essays from young amateurs from all over the world," said Intrepid-DX Group President Paul Ewing, N6PSE. "The essays were unique in thought and very well-articulated. Extra points were given for proper grammar, punctuation, and spelling. Most of the essays gave unique perspectives on how to reach out and connect with the youth of today. We will be sharing those ideas in subsequent postings."

The first-place winner and recipient of an Icom IC-7300 transceiver is Faith Hannah Lea, KD3Z. She will also receive a vertical flagpole antenna from Greyline Performance Antennas, a deluxe headset from Heil Sound, a Powerwerx switching power supply donated by Steve Jones, N6SJ, and a QRP Nano Morse Key-25-811P from GigaParts.

In second place was Charlie Meadows, N4VTI, who received a Yaesu FT-65 handheld transceiver donated by Ewing. In addition, he'll get a \$50 DX Engineering gift card from David Jorgensen, WD5COV.

Patrick Gawthrop, W9GGG, was the third-place winner and recipient of a BaoFeng BF-F8HP handheld transceiver donated by Ewing. He will also receive a \$50 DX Engineering gift card from Jorgensen.

"Having read over 60 essays this week, we can tell you that our youth are full of great ideas and they are brimming with enthusiasm to keep our hobby alive well into the future," Ewing said. The Intrepid-DX Group will publish several of the essays on its Facebook page.



# NEW HF OPERATORS -- THINGS TO DO

(The ARRL Contest Update for August 19, 2020)

While performing some antenna work the other day, I was reminded of how periodic inspection of cables and connections are necessary, especially outdoors. I found some coax that needed replacing, and some radial connections that I need to clean and re-tighten. It was better to do that when it wasn't cold, dark, and raining.

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## WORD TO THE WISE

(The ARRL Contest Update for August 5, 19, 2020)

### GDT

An abbreviation for gas discharge tube, a device that can be used to protect sensitive circuits from voltage transients outside of their operating range. GDTs are available in a wide range of voltage levels appropriate to the protection task. The [Array Solutions AS-RXFEP](#) uses a GDT, as does [DX Engineering's RG5000HD Receiver Guard](#).

### Ullage (Motors)

From Wikipedia: "Small, independently fueled rocket engines that may be fired to accelerate the rocket prior to main engine ignition, when the vehicle is in a zero-g situation." Ullage can also be a stage of the progress of a satellite as it achieves proper orbit or position. Check out this tweet by Daniel, EA4GPZ, showing a [graph of observed Doppler shift for the recently launched Tianwen-1 TCM-1 satellite](#) which used an ullage phase before firing thrusters for positioning.

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## OPERATING TIP

(The ARRL Contest Update for August 5, 19, 2020)

### Move FTx Contacts to CW and SSB using Custom Messages

Peter, WW2Y, extensively reported on his operation from grid FN24 during the recent CQ WW VHF Contest for the August 2020 Mt. Airy [Cheese Bits](#). Of particular note is his use of WSJT-X free-form messages to move stations to CW and SSB from FT4/8: "After working VE2HAY in FN35 on 2M FT8, I noticed that K1TEO was booming in and I didn't want to work Jeff on that mode. I loaded up the TX5 message saying, go to 195 SSB. He disappeared quickly, and I knew he figured it out. In a flash, he started calling me on 144.195 on SSB and worked him with S9 signals both ways. We quickly moved to 6M for a double." Later in the contest, N2NT called Peter: "N2NT's signal was definitely up now, and he noticed I was lurking on FT8. Suddenly, a modified TX5

message pops up saying go to 50099 CW. I knew this had to be John at N2NT, and I instantly changed bands to 6M CW." VHF/UHF operators who want to maximize paths and openings should learn how to customize the *WSJT-X* or *JTDX* TX messages on the fly to obtain contacts on CW and SSB.

## Mounting Technology Has Changed

This is more of a "decorating" tip that might come after successful operating. Just as radio technology has evolved, so has the technology which can adhere your contest plaques, awards, and picture frames to your walls. You don't need to use wire and picture frame hooks any longer, and no hammering is necessary -- the state of the art for wall mounting is strong yet removable two-piece fasteners. One brand is "[Command](#)" brand strips by 3M. Items are repositionable once mounted, and to completely remove the fastener, the mounting strip is stretched and pulled without damage to the wall.

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# CONVERSATION

(The ARRL Contest Update for August 19, 2020)

## Game Changers?

"Battery technology has advanced greatly in power capacity during recent years for their size and weight. Imagine someone who spends several hours hiking up to a peak with packed gear on their backs, only to operate in poor radio propagation conditions for 6 hours, only to return unsatisfied." - Pete, WW2Y, in the Mt. Airy VHF Society *Cheese Bits* newsletter.

Pete was describing the 6-hour limit that the CQ WW VHF Contest places on Hilltopper QRP Class entries, and how it can affect operators that happen to operate during 6 hours of poor propagation.

A related, more general question is, "what other technology assumption has changed, or is changing, that affects contesting and amateur radio in general?"

This year, we've all faced the near-overnight changes in social interaction due to the pandemic. Remote is the new black! But what about incremental technology changes that we may be taking for granted?

To Pete's point: battery technology is one that we "know" about, but in real terms, lead-acid batteries provide about 10 and 30 Watt-hours per kilogram. Lithium ion batteries? Between 130 and 180 Watt-hours per kilogram. A low power (vs QRP) battery-powered transmit signal doesn't seem out of the question.

Solar cell efficiencies have been increasing, too. Add that to the battery advances and overall miniaturization of electronics, and you can understand why [high-altitude](#)

[balloon flights](#) using amateur radio for position reporting are interesting. A recent flight by the [W5KUB team](#) lasted over 72 days, circling the Earth three times.

For those that want to set some communication [distance records](#) using light wavelengths, it might be helpful to note that the laser diode power-vs-cost curve has been increasing exponentially for the past few years. There are plenty of high-power laser "pointers" available from eBay and other sources, but on the internet, someone always takes it to the next level: [someone built a 100 watt output hand held laser](#), using an industrial part usually used in DLP projectors. Safety demands the emission from these parts to be respected and used responsibly -- just like high voltage in tube amplifiers and RF emissions at amateur frequencies that can cause human tissue damage.

Autonomous driving technology has spurred advances in radar, already trickling down to hobby use: The May/June 2020 [QEX article](#) "A Simple 122-GHz Transverter" uses a radar-on-a-chip device to reduce the cost and complexity of projects for this band.

The power of computing elements keeps increasing, while costs continue to decrease, especially at the low end. Today, for under \$10, the [ESP32](#)-based modules with WiFi, USB-C Serial port, color LCD Display, buttons, plenty of I/O, Bluetooth, and compatibility with the Arduino programming ecosystem seems appealing for all sorts of projects. Combined with various mixed-signal PCB-level modules for DDS, PLL, power measurement, and so on it's possible to have higher-functionality projects with less time and effort.

Mike, K7MDL, used an M5Stack computing element based on an ESP32 and various analog modules to build an [RF power meter with a graphical user interface](#). He has made his source code available via [Github](#).

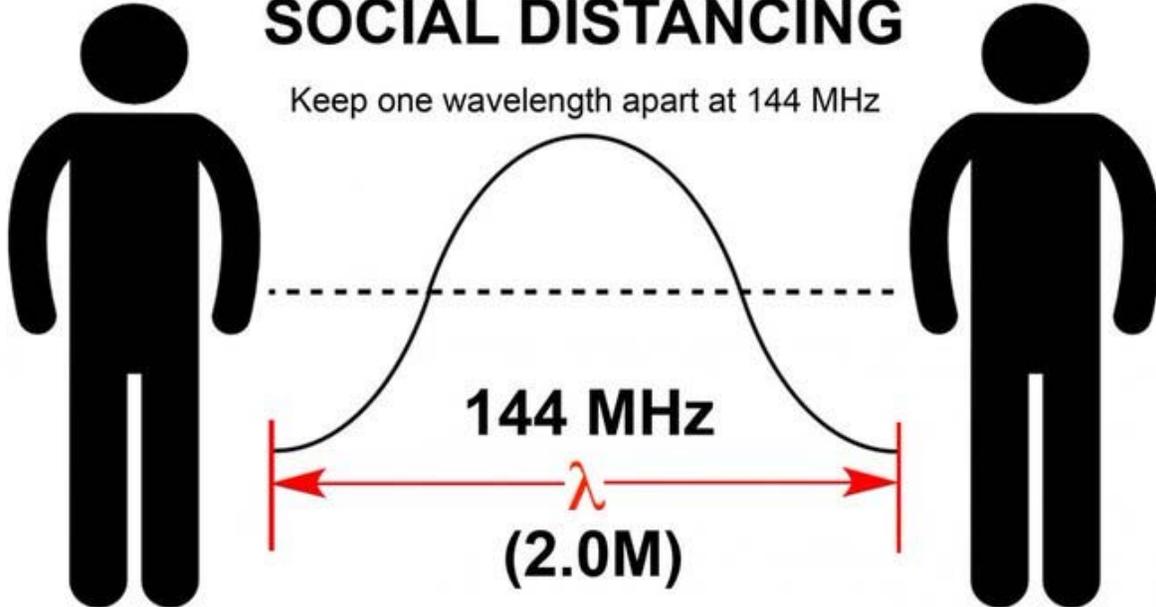
Github, and the general ability to find source code for software that has already been written to do that task you need done, is also one of those game-changers. For example, searching for "N1MM" on Github, one can find code ranging from decoding *N1MM Logger+*'s UDP packets to extracting contact information for a big screen for Field Day.

What do you think is a game-changer in 2020?

73, Brian N9ADG

Amateur radio enthusiast guide to  
**SOCIAL DISTANCING**

Keep one wavelength apart at 144 MHz



## Weekly Radio Network Meetings

Mon @ 20:00	147.090	Seminole ARES Net – Except – First Monday of the month (146.460 Simplex)
Tues @ 19:00	145.350	Osceola ARES Net
Tues @ 19:30	147.195	Quarter Century Wireless Association
Tues @ 20:00	146.760	Wayne Nelson Trader's Net
Wed @ 19:00	147.300	Disney Emergency Amateur Radio Service
Wed @ 21:00	432.090	Florida Weak Signal Group
Thur @ 19:00	443.050	Orange County ARES Net
Thur @ 20:30	432.090	Florida Weak Signal Group

## OARC Meetings and Events 2020 - 2021

September 2, Wednesday	<b>Virtual Meeting, 7:00pm YouTube Live! and Zoom</b>
October 7, Wednesday	Meeting, 7:30pm at the Beardall Center
November 4, Wednesday	Meeting, 7:30pm at the Beardall Center
December 2, Wednesday	No Club Meeting
December 5, Saturday	Christmas Party
January 6, Wednesday	Meeting, 7:30pm at the Beardall Center
February 3, Wednesday	Meeting, 7:30pm at the Beardall Center
February 12-14	HamCation™
March 3, Wednesday	Meeting, 7:30pm at the Beardall Center
April 7, Wednesday	Meeting, 7:30pm at the Beardall Center
May 5, Wednesday	Meeting, 7:30pm at the Beardall Center
June 2, Wednesday	Meeting, 7:30pm at the Beardall Center
June 26-27	ARRL Field Day
July 7	Meeting, 7:30pm at the Beardall Center
August 4	Meeting, 7:30pm at the Beardall Center
September 8	Meeting, 7:30pm at the Beardall Center
October 6	Meeting, 7:30pm at the Beardall Center
November 3	Meeting, 7:30pm at the Beardall Center
December 1	No Club Meeting
December 4	Christmas Party



# OARC Membership Application

Make checks payable to:  
Orlando Amateur Radio Club

Mail to:  
Orlando Amateur Radio Club  
Post Office Box 574962  
Orlando FL 32857

To have your membership card mailed to you, please include a SASE with your check.

Date: \_\_\_/\_\_\_/20\_\_\_ [ ] Regular Member [ ] Family Member [ ] Associate Member  
[ ] New Membership [ ] Renewal [ ] CMP

Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

E-mail Address (print) \_\_\_\_\_

(Home) Phone: \_\_\_\_\_ (Cell) Phone \_\_\_\_\_ Birth Month \_\_\_\_\_

Rates: Regular [ ] 1 year \$15.00 [ ] 3 years \$40.00 [ ] 6 years \$75.00

Rates: Family [ ] 1 year \$5.00 per family member Husband, Wife or Child under 18

Rates: Associate [ ] 1 year \$15.00 Dues Total: \_\_\_\_\_

**All Membership(s) will expire ONE, THREE or SIX year(s) from date paid.**

Other Club Affiliations: \_\_\_\_\_

\_\_\_\_\_

Are you an ARRL Member: [ ] Yes [ ] No

**Name Badges:** White letters on Black background with Gold embossed OARC logo.

[ ] Regular 3" x 1.5" @ \$10.00 each

Name: \_\_\_\_\_ Call \_\_\_\_\_

All badges are to be picked up at the General meeting or add \$3.00 for shipping & handling.

Shipping & Handling: [ ] Yes [ ] No

**Badges** \_\_\_\_\_ **S&H** \_\_\_\_\_ **Total** \_\_\_\_\_