

The “Official Organ”

The Official Newsletter for the Johnston Amateur Radio Association

April 2018 edition

JARS Meeting this Thursday:

Our monthly meeting is this Thursday, April 19th at Golden Corral located at 1100 Town Centre Place, Smithfield, NC 27577. Dinner starts at 6:30pm with the meeting following at 7pm. Mark says that we will have a presentation by Scott Lewis, AB4SL on AuxComm.

In this edition of the “Official Organ”

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Life on the Farm:

Life here on the farm has been interesting. I have discovered a new season here in North Carolina- “Sprinter”. That is when Spring is ready to make an appearance, but winter is not ready to give up.

Velda, who rarely, if ever, gets sick or hurt did a good one this time. She fell down some stairs at my brother’s house back in February and hurt her left shoulder. It did not get any better. So, we went to the urgent care. They took some x-rays and said she just had a sprain and gave her some medicine. Well, it never got any better, so we took her to see an orthopedic doctor that I worked with. He ordered an MRI which showed she had three tears in her rotator cuff and a torn tendon.

She had surgery on Friday the 13th in Raleigh, during which time I was so nervous that I chewed my fingernails off up to the elbow.

After the surgery, the doc told me that he repaired her rotator cuff, repaired her tendon and cleaned up a bunch of arthritis.

Remember, I said that she fell down the stairs. A more believable story is that she tried a double backhand throw at me with at #16 cast iron skillet. I ducked, she missed and the skillet has not been seen since. I guess that will teach her to try something new.

On a better note, she is recovering well. She has to sleep in my recliner and wear the sling for several weeks and then have rehab.

It looks like spring has finally sprung. As I took the Hairy Hound out for his morning walk, I noticed the sun was shining, the flowers were shining and the birds were blooming.

That's it from the farm.

73 from Mike (KD4MC), Velda (K4VJC), Remington (Hairy Hound), and Tabitha (Krazy Kat).



New ARRL CEO Comes Aboard Facing Challenges and Change

ARRL's new Chief Executive Officer, Barry Shelley, N1VXY, moved one floor down at ARRL Headquarters earlier this year to assume leadership of the organization with an overarching goal of promoting the League's mission: "To advance the art, science, and enjoyment of Amateur Radio." Shelley has spent much of his tenure at ARRL Headquarters toiling out of the limelight, so he's a bit of an unknown quantity within the greater Amateur Radio community. But he brings to his new position nearly 3 decades of experience as ARRL's Chief Financial Officer. Shelley intends to leverage that background in his role as CEO, enabling him to hit the ground running.

"I am familiar with the issues that matter to ARRL members and the Amateur Radio community at large," Shelley pointed out in his inaugural "Second Century" editorial, "Advancing Amateur Radio, Together," in the April issue of QST.



He acknowledged that with both ARRL and Amateur Radio undergoing "a great deal of change," not all League members will necessarily be on the same page, but he believes disagreement about the way forward "can be healthy, and bring new perspectives to light." At the same time, he encouraged individuals to "remain respectful and constructive" in discussing issues.

"In my opinion, fulfilling ARRL's mission means doing so for all Amateur Radio operators, regardless of their license class, level of technical ability, or particular interests within the wide range of activities that Amateur Radio has to offer," Shelley allowed. Increasing the number of younger radio amateurs will benefit both the avocation and ARRL, he said. And, Shelley added, that despite any generational rift -- perceived or otherwise -- between older and younger hams, "There's more to enjoy than ever before -- Amateur Radio in 2018 looks and sounds different than it

did in 1968 or even in 1988 -- and licensing numbers indicate that people are still interested in exploring Amateur Radio."

Blazing the trail for Amateur Radio's future should involve all hams, Shelley believes, and he urged hams to be there for each other.

The ARRL Board elected Shelley as CEO in January, to succeed Tom Gallagher, NY2RF, who retired. As Shelley nears his own retirement over the next 18 months, the League continues to [advertise](#) for applicants to fill the CEO position on a long-term basis.

Amateur Radio's Service and Support Commended on National Volunteer Week

ARRL President Rick Roderick, K5UR, used the occasion of National Volunteer Week, April 15 - 21, to express gratitude to "the thousands of Amateur Radio operators who have given, and who continue to give, of their time and expertise" to serve as vital communication links during



emergencies, disasters, and community events. Throughout the past year, President Roderick recounted, ham radio operators have volunteered during hurricanes, wildfires, and severe weather to support communication for emergency evacuation shelters, pass health-and-welfare traffic to anxious

families, and partner with the National Weather Service as SKYWARN volunteers to report local weather conditions. Hams also volunteered during the solar eclipse last August, working with scientists to record its impact on radio propagation, he pointed out.

"Amateur Radio volunteers have a long history of providing service and support to their communities and our served agencies," Roderick said. "As this avocation continues to evolve, alongside the technological advances in telecommunications, we are proud that, as hams, public service to our communities will continue to be at the core of who we are."

Echoing President Roderick's remarks, ARRL Emergency Preparedness Manager Mike Corey, KI1U, cited Amateur Radio's volunteer spirit as one of its most admirable aspects.

"Radio amateurs have taken their passion for radio, communication, science, and technology and given back service in so many ways," Corey said. "Radio amateurs teach, inspire, offer insights to the world that others cannot, assist during times of emergency and disaster, and report to assist during such community events as marathons and festivals," he said.



**ARRL Emergency
Response Manager Mike
Corey, KI1U.**

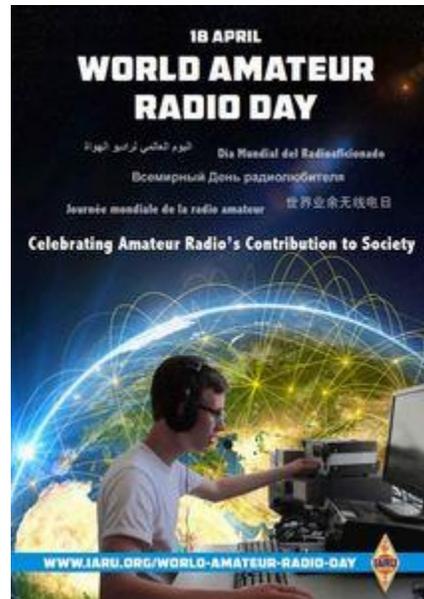
"Volunteerism has always been at the heart of Amateur Radio, and it is through the work of volunteers that Amateur Radio will be there for future generations to enjoy."

National Volunteer Week is sponsored by [Points of Light](#), an ARRL partner through National Voluntary Organizations Active in Disaster ([VOAD](#)). Points of Light called the week-long observance "an opportunity to celebrate the impact of volunteer service and the power of volunteers to come together to tackle tough challenges and build stronger, more resilient communities."

"Each year, we shine a light on the people and causes that inspire us to serve, recognizing and thanking volunteers who lend their time, talent, and voice to make a difference in their communities," the organization said.

ARRL President Extends Greetings for World Amateur Radio Day 2018

Wednesday, April 18, is World Amateur Radio Day ([WARD](#)), this year marking the 93rd anniversary of the International Amateur Radio Union ([IARU](#)), founded in Paris in 1925. Each year, WARD celebrates Amateur Radio's contribution to society.



"World Amateur Radio Day is an

opportunity for our member-societies to show our capabilities and promote the use of Amateur Radio, both on the air and through social media," IARU President Tim Ellam, VE6SH/G4HUA, said. "It is a celebration of what the Amateur Radio Service has brought to the public over the years, and of our ability to provide communication to assist others in times of crisis."

Amateur Radio experimenters were the first to discover that the shortwave spectrum -- far from being the wasteland "experts" of the time considered it to be -- could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was "in grave danger of being pushed aside," the IARU's history has noted. Amateur Radio pioneers met in Paris in 1925 and

created the IARU to support Amateur Radio around the globe.

Two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today -- 160, 80, 40, 20, and 10 meters. The IARU has been working to defend and expand Amateur Radio frequency allocations ever since.

From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

"I wish all amateurs a fantastic day of celebration of Amateur Radio, encourage everyone to get involved, and, most of all, to have fun!" IARU President Ellam said.

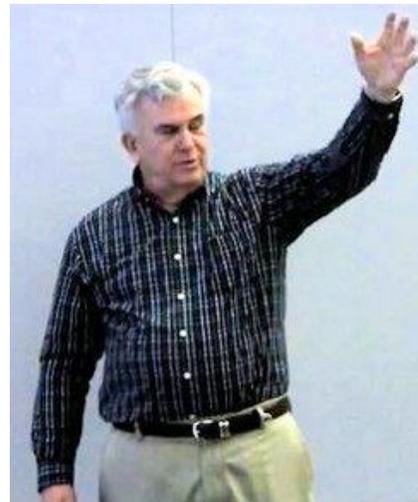
Groups should promote their WARD activity on social media by using the hashtag #WorldAmateurRadioDay on Twitter, Instagram, and Facebook.



IARU President Tim Ellam, VE6SH/G4HUA.

More-Frequent Spotless Days Signal Start of Lengthy, Deep Solar Minimum Phase

The sunspot numbers have not been good, and it does not seem they'll be getting much better anytime soon. According to the April 12 "K7RA Solar Update," no sunspots were seen over the April 5 - 11 reporting week. Solar flux has been sitting in the 60s lately and is forecast to remain at that level for the next 45 days. We're not at solar minimum yet, though; better days lie ahead -- eventually.



Top

Frank Donovan, W3LPL, during a 2017 presentation on propagation at the Fair Lawn (NJ) Amateur Radio Club.

contester Frank Donovan, W3LPL, asserts that solar precursors like spotless days, which correlate physical solar phenomena with future solar activity levels, are much better indicators of progress toward a solar minimum -- a broad phase of the solar cycle -- than of a specific event, such as

the bottom of a broad solar minimum. Not only that, these and other solar precursors are useful in predicting the likely strength of Solar Cycle 25, although accurate predictions of the strength and timeframe of the Cycle 25 solar maximum aren't possible until the new sunspot cycle is under way.

"We entered the Cycle 24 solar minimum with the onset of 8 spotless days in June 2016," Donovan pointed out. "We had only 32 spotless days in 2016. We had 15 spotless days in a row in March 2017, followed by relatively infrequent spotless days for the next 7 months."

The frequency of spotless days accelerated in early November 2017, with 13 spotless days in a row. That was followed by many more spotless days over the next 5 months. In all, 2017 experienced 104 spotless days.

"The frequency of spotless days accelerated again last month, when we had 25 spotless days," Donovan noted. "We've already had 54 spotless days during the first quarter of 2018. This data and comparisons to frequent spotless days during the last solar minimum suggests that we may have just begun a period of very frequent spotless days for approximately the next 2 years, similar to the period of September 2007 through January 2009."

Donovan said the next solar precursor is frequent extended periods of spotless days. For example, 2016 saw 14 spotless days in a row, March 2017 had 15, November 2017 saw 13, and early March experienced 14.

"Long periods of spotless days will become even more frequent as we go deeper into solar minimum," Donovan

predicted. Once extended periods of spotless days become more frequent, another solar precursor will become important, he said.

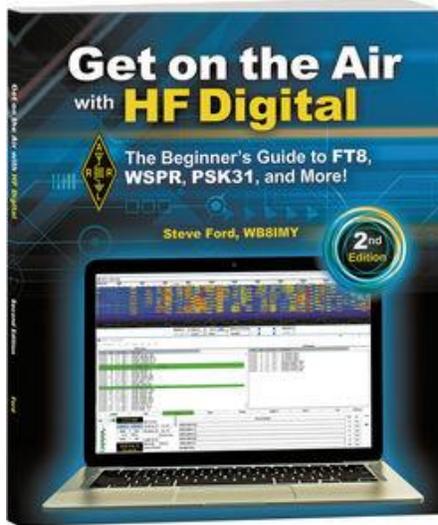
"New high-latitude, opposite-polarity Cycle 25 sunspots will then begin to appear more frequently, perhaps by late next year," Donovan said. "More frequent Cycle 25 sunspots will signal that we're approaching the bottom of the [Cycle 24] solar minimum phase."

An ongoing solar precursor that could herald the future strength of Cycle 25 is the intensity of the solar polar magnetic fields *prior* to the Cycle 24 solar minimum, Donovan said. "The good news is that the solar polar magnetic field strength is already slightly stronger than it was prior to the last solar minimum," he said. "This suggests that Cycle 25 will be somewhat stronger than Cycle 24."

Donovan said if the long periods of spotless days end in about 1 year, that will be a precursor of a stronger Cycle 25. If they take more than 2 years to end, however, it will portend a weaker Cycle 25.

. **New Book Featuring Popular Modes FT8 and WSPR is Now Shipping!**

The popularity of HF digital communications among Amateur Radio operators continues to grow rapidly. A few watts of RF power are all it takes to work the world - digitally!



Fully updated, the second edition of [*Get on the Air with HF Digital*](#) by ARRL's own Steve Ford,

WB8IMY, is a step-by-step guide that'll get you started in the fascinating world of HF digital technology. Written in an easy-to-understand style, this book will show you how to set up and operate your own HF digital station. The text includes instructions for configuring software programs for popular modes such as PSK31, RTTY, FT8, and JT65. You'll also learn about other digital communication modes such as MFSK, Olivia, PACTOR, and WSPR.

"I believe this may be one of the first books to include discussions of FT8 and WSPR operating for beginners," Ford said.

Get on the Air with HF Digital includes:

- **Let's Build an HF Digital Station:** An HF digital station boils down to three essential pieces: A radio, a computer, and a device that ties them together.
- **PSK31:** Enjoy text chats around the world with low power and minimal antennas.
- **RTTY:** RTTY may be a vintage operating mode, but it's still the

champ when it comes to contesting and DX hunting.

- **WSJT-X Modes FT8 and JT65:** You'll be astonished at how low you can go with FT8 and JT65. High power and big antennas are definitely *not* required!
- **MFSK and Olivia:** With these two modes, you'll still be chatting when all the others have given up.
- **PACTOR:** When your message absolutely *must* get through error-free, PACTOR is a great way to go.
- **WSPR:** Transmissions are strictly one-way, but the results are fascinating.

[*Get on the Air with HF Digital*](#) (2nd edition) is available from the [ARRL Store](#) or your [ARRL Dealer](#). (ARRL Item no. 0833, ISBN: 978-1-62595-083-3, \$22.95 retail, special ARRL Member Price \$19.95).

Call (860) 594-0355 or, toll-free in the US, (888) 277-5289. It's also available as an [e-book](#) for the Amazon Kindle.

ARRL VEC Conducts First-Ever Amateur Radio Licensing Exam Session in Cambodia

The first ARRL VEC Amateur Radio examination session in Cambodia was held on April 5. The session resulted in two new Technician licensees, both Cambodian nationals, and one university professor, who tested all the way to Amateur Extra-class in a single

bound. Currently, no path exists for Cambodians to obtain an Amateur Radio license in that Southeast Asia nation, but qualifying for an FCC-issued US license enables licensees to obtain a Cambodian license based on their US tickets.

"This is very exciting news!" ARRL VEC Manager Maria Somma, AB1FM, said.



Volunteer Examiners were Mike Adams, KH0AS -- a resident of Cambodia who holds XU7AJA; Guy West, NOMMA/XU7AKA, and David Creel, AH0AM, who visits Cambodia often.

Participants were associated with the National Polytechnic Institute of Cambodia (NPIC). The radio club there has been active in contests for the past 3 years, using Adams' XU7AJA call sign. Adams has been working in Cambodia for more than 20 years and living there full-time for the past 3 years. He said that, while foreigners can get a reciprocal license, there is no process for Cambodians to earn a ham one, except to show a foreign radio license.

"We hope to work with the Ministry of Post and Telecoms to show there is a demand for Amateur Radio in Cambodia," he said.

Second Public Test of FT8 DXpedition Mode Demonstrates High Contact Rates Possible

The second public test of FT8 DXpedition Mode has shown that the mock DXpedition stations ("Foxes") were able to work the pileups of callers ("Hounds") at a fairly good clip. Logged data showed that 390 unique stations were copied by one or more of the three Foxes. FT8 is part of the [WSJT-X](#) digital software suite. Ned Stearns, AA7A, the operator at W7/KH7Z, learned to manage queues of calling stations much more effectively as his hour progressed, according to co-developer Joe Taylor, K1JT.



"After a program restart at 1532 UTC, he worked 105 additional stations at a rate of

225 per hour during the remaining part of the hour," Taylor reported. "Slowly but surely, we are optimizing the software and improving our 'FoxOp' skills. Further progress will definitely be possible!"

Taylor also released a [list](#) of stations heard and worked during the second public test of the still-beta FT8 DXpedition Mode protocol. It showed that W1/KH7Z logged 61 stations in 36 minutes for a rate of 102 per hour; K1JT

logged 55 stations in 21 minutes for a 157 per hour rate, and W7/KH7Z worked 174 stations in 60 minutes, a rate of 174 per hour.

Stearns told ARRL that FT8 DXpedition Mode is nearing general release, but he expects another public test. "The development team has identified a few of the defects that were uncovered in the test on April 7 and is currently working on the fixes," he said.

Taylor's March [presentation on WSJT-X](#) at the MicroHAMS Digital Conference has been posted on YouTube. Taylor has credited the "very professional" editing by Budd Churchward, WB7FHC.

ARRL Rookie Roundup SSB Returns on Sunday, April 15

The [ARRL Rookie Roundup](#) (SSB) returns on Sunday, April 15, starting at 1800 UTC and continuing through 2359 UTC. The aim of Rookie Roundup is to encourage recently licensed operators in North America (including territories and possessions) to operate on the HF bands and experience competitive Amateur Radio operating.

You're a Rookie if you were first licensed in 2018, 2017, or 2016 (send the year you were first licensed in the exchange).

You
can



qualify as a Rookie for just 1 year in two possible ways: if you were licensed before 2016 but made your first Amateur Radio contact during 2018, 2017, or 2016, or if you never made a contact using the mode of the Rookie Roundup event (in this case, SSB) before the 2018 Rookie Roundup (send the current year in your exchange).

The object is simple: Rookies attempt to make as many contacts as possible during the 6-hour event on 80, 40, 20, 15, and 10 meters. Rookies work everyone, and non-Rookies work only Rookies. Experienced operators are encouraged to participate and help new operators -- either on the air or in person.

Experienced hams may want to consider opening their stations to Rookies and serving as contesting mentors. The more operators on the air, the more fun the Roundup will be for everyone.

Rookies call "CQ Rookie Roundup," while veteran operators call "CQ Rookies." Exchange the call sign of the station you're working, your call sign, your first name, the two-digit number of the year first licensed, and your state,

Canadian province, Mexican call area, or DX.

To register teams or to submit your score after the event, visit the [Rookie Roundup](#) page hosted by Bruce Horn, WA7BNM.

Rookie Roundup events take place three times a year: SSB in April, RTTY in August, and CW in December. [Contact](#) the ARRL Contest Branch for more information.

Kenneth Graham, WX4KEG, is New National Hurricane Center Director

Kenneth Graham, WX4KEG, is the new head of the National Hurricane Center ([NHC](#)) in Miami, the National Oceanographic and Atmospheric Administration (NOAA) has announced. Preparations at the NHC continue ahead of the 2018 hurricane season, which begins on June 1. Graham picked up the reins from Deputy/Acting Director Ed Rappaport on April 1.



"It's an honor and privilege to be selected to work alongside the talented and dedicated employees of the National Hurricane Center," said Graham.

"This is an exciting time to work for the National Weather Service, and I look

forward to the important work ahead in an effort to keep our communities safe from the various threats posed by hurricanes." He and Rappaport were presenters at the recent National Hurricane Conference in Orlando.

Graham comes to the NHC after serving as the meteorologist-in-charge of the National Weather Service New Orleans/Baton Rouge Office since 2008.

"Graham has vast experience working with emergency managers prior to and during a wide variety of weather threats and spent time deployed with officials at emergency operations centers," the NOAA announcement said. A former TV meteorologist, Graham holds a B.S. degree from the University of Arizona and an M.S. degree from Mississippi State University.

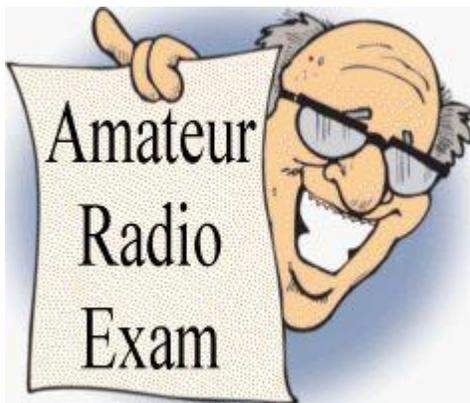
Just Ahead in Radiosport

- April 14 -- QRP ARCI Spring QSO Party (CW)
- April 14-15 -- JIDX CW Contest
- April 14-15 -- OK/OM DX Contest (SSB)
- April 14-15 -- New Mexico QSO Party (CW, phone, digital)
- April 14-15 -- North Dakota QSO Party (CW, phone, digital)
- April 14-15 -- Georgia QSO Party (CW, phone, digital)
- April 14-15 -- Yuri Gagarin International DX Contest (CW)
- April 15 -- International Vintage Contest HF (CW, phone)
- April 15 -- WAB 3.5/7/14 MHz Data Modes

- April 15 -- Hungarian Straight Key Contest
- April 15 -- ARRL Rookie Roundup (SSB)
- April 16 -- Run for the Bacon QRP Contest (CW)
- April 17 -- 222 MHz Spring Sprint (CW, phone, digital)

See the [ARRL Contest Calendar](#) for more information. For in-depth reporting on Amateur Radio contesting, subscribe to [The ARRL Contest Update](#) via your ARRL member profile e-mail preferences.

Johnston County ARRL VE Team:



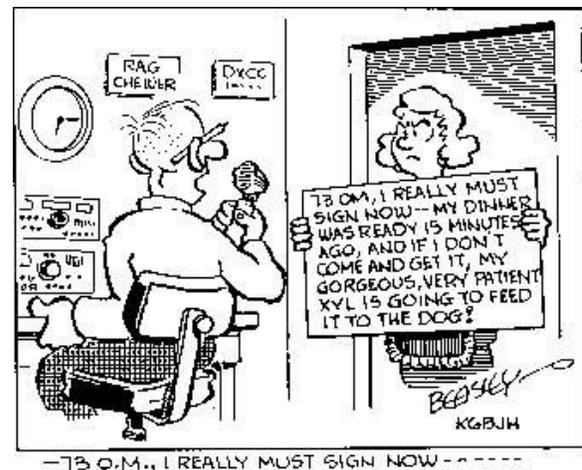
The Johnston County ARRL VE Team will be holding our next test session on Monday, April 23rd at 7 PM at the American Red Cross located at 805-A S. 3rd Street in Smithfield. If you know anybody that is ready to take the technician exam have them go to: <http://wireless.fcc.gov/uls/index.htm?job=home> and register for an FRN. If you are coming to upgrade your license, you will need a copy of your current license that we can keep. Cost is \$15.00. More information can be had by contacting Mike Callam-KD4MC at

mcallam@centurylink.net.

Digital FM Radio Group:

The next meeting of the Digital FM Radio Group will be this coming Wednesday, April 18th at the Golden Corral in Smithfield. Show up at 6:30 pm and enjoy dinner with us. This month, we will go over how to write a DMR code plug for use with a hot spot.

Ham Radio Humor:



—73 O.M., I REALLY MUST SIGN NOW—

JARS Officers 2018

President	Mark	N4MQU
V. President	Stan	WA2KQY
Secretary	Peggy	KJ4OPH
Treasurer	Paul	KD4BJD
Membership	Dianne	KE4VNX
Net Whip	Stephen	KJ4QNW
Ham of the Year	Dianne	KE4VNC
Editor	Mike	KD4MC

That does if for another edition of the JARS "**Official Organ**". I look forwarding to seeing everyone at the meeting Thursday.



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73 de KD4MC.