



VIRGINIA SECTION HAM RADIO NEWS QSL! #18

October, 2020

Vienna Wireless Society Antenna Installation Team

Several years ago, members of the Vienna Wireless Society (VWS), the premier amateur radio club in Northern Virginia, instituted an antenna installation team. This group of members, under the leadership of Mike, WA8AHZ, was started to help members put up new antennas, repair old antennas, or all-around antenna advice for new hams. The basic group of about 13 members including, John, K1NME; Don, KM4UDX; Mike, KN4VKN; Joe, KN4JVV; Dave, KN4MHP; Harry, K3NF; Leon, NT8B; Ron, WA6YOU; Lou, KN4IJC; are regularly augmented by others from the club. The group first does an antenna survey, either via Zoom or in person to evaluate space, orientation, tree height, antenna type, and plan for necessary materials. Recommendations are made to the individual on the best type of antenna to install and a necessary parts list is drawn up. The club provides connectors, cordage, cables, coax wrap, and other miscellaneous items. In addition to antenna installation, the other main focus of the group is on proper grounding, not only of the antenna with lightning arrestors, but for grounding of the shack and proper bonding of equipment. Mike, WA8AHZ is the club's "go to" resource for grounding and bonding and has taught several classes on the subject using the ARRL Book, "Grounding and Bonding for the Radio Amateur", by H. Ward Silver, NoAX. Ron, WA6YOU, is the club's expert for coax, coax connectors, soldering, and proper installation. Ron has hosted several hands-on sessions teaching members soldering techniques, the use of crimp-crimp and crimp-solder connectors, and the differences in coax for different requirements. Ron is available to members, and others, to construct custom-made coax cables with connectors of their choice.

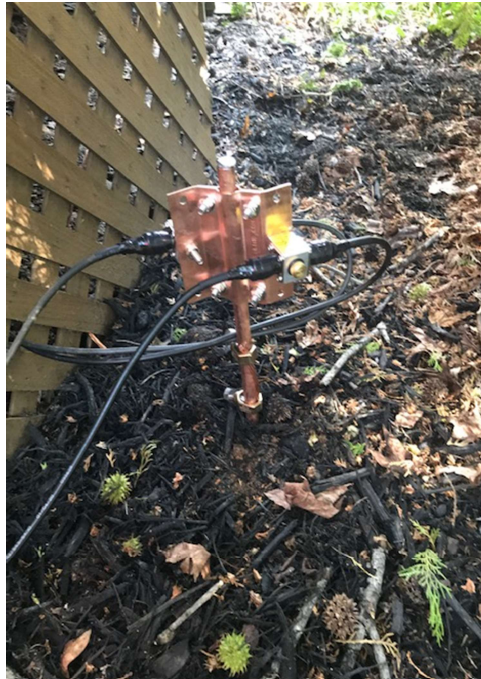


This year, 2020, the team has completed over 12 installations including, assisting several blind members of the club and several senior members. In addition to outdoor wire antennas, the team has helped with coax issues, attic installations, RFI elimination, and vhf/uhf antennas. The group is all about helping folks get on the air or improve their current on-air abilities; and realizes that putting up even a small wire antenna needs a group effort. During Covid-19, it is good for the group to get together, with proper precautions, in an outdoor setting and enjoy some camaraderie while helping each other.

Shown below is the one recent grounding installation to ensure electrical safety, lightning protection and reduce Radio Frequency Interference in the ham shack. Three members of the VWS Antenna Installation Team installed a #6 AWG stranded copper grounding conductor between the existing electrical service entrance grounding electrode conductor to a new 8 ft long by 5/8-inch ground rod to serve as the antenna surge protection ground. The team then bonded this conductor to the shack's existing station ground rod and ensured all metal, non-current carrying equipment enclosures in the shack were grounded to the station

grounding conductor which was a 1/2 in copper braid. Two surge arrestors were installed, and connected to the antenna ground rod, one each for the multi-band, folded dipole and the 10 m J-Pole antennas.

As leaves begin to drop, the team is planning for more installations in the coming weeks. New members are encouraging to join the team for assistance as well as instruction in antenna basics. On November 14th, via Zoom, the group will have an “antenna tutorial” of 4 hours, covering 5 blocks of antenna basics, tuning antennas, different types of antennas, and more to assist the team and new amateurs. For more information on Vienna Wireless Society and its many programs, visit www.viennawireless.net .

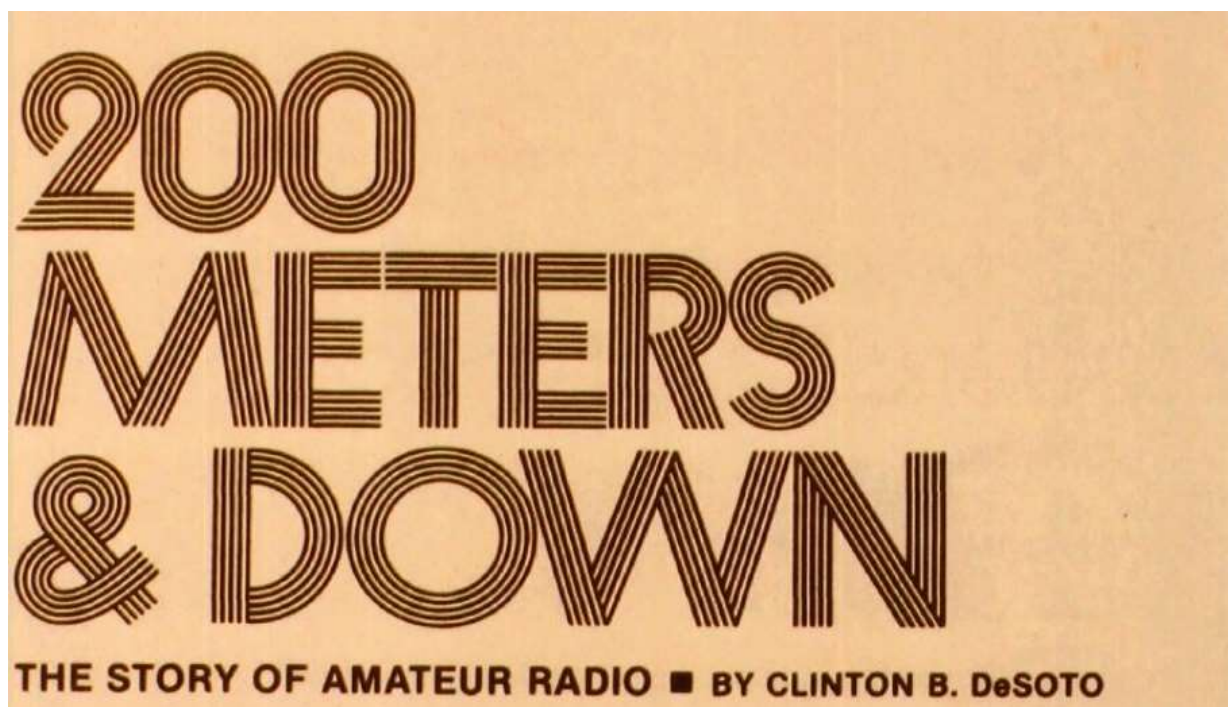


Grounding and lightning arrestors installed at the home of John, KAoGDI to provide proper feedline and shack protection.



Team members ensuring proper grounding in the shack of John, KAoGDI, at an install in September. Shown left to right (Don, KM4UDX; Lou KN4IJC; and Mike, KN4VKN)


Great Book Review on New River Valley ARC's FB Page



Do you wonder how amateur radio started, or how our bands were determined, or how the ARRL started and how it became the American Radio Relay League? All those questions and more are answered in “200 Meters and Down”. Originally published in 1936, this 184 page book is an easy, informative read; well worth a position in any ham’s book shelf.

The author, Clinton B. DeSoto, started the book as an exercise; he wanted to document the formative years of amateur radio for future generations. His writing skills brought him to the attention of the staff at ARRL, where he served on the secretarial staff; his workload there necessitated that he set aside the manuscript for a few years. As it turns out, that hiatus was very beneficial. Given his position at ARRL, and his access to files there, he was able to add substantial details.

The first three chapters relate the formative years of experimentation. Transmitters used spark gaps and a “station’s” power was related in terms of the gap of the spark. As you can imagine, transmissions were extremely broadband and bands were wide open to everyone, commercial or amateur. As a result, the government eventually stepped in to make everyone play nice. As the military and commercial operations took an interest in wireless communication, amateurs were relegated to 200 meters and below since those frequencies had been deemed undesirable.



The next few chapters relate the maturation of the art of amateur wireless use to relay messages. Hiram Maxim realized the utility of relays and organized stations to relay messages across country. Recognizing the need to organize the relay stations, Maxim

helped create the ARRL. I found it interesting that in February 1917, when the ARRL was organized, K.T. Gravely of Danville VA was designated as a member of the Board of Direction.

World War I saw “...between 3500 to 4000 and probably more...” radio amateurs who provided critical communication services. After the war, the use of (and interference in) the airwaves skyrocketed; governments on both sides of the Atlantic collaborated to define (and constrict) band access. A few chapters relate the efforts of government and private organizations to (sort of) play well together. This is another area where the author’s access to ARRL records was crucial. He devoted a number of chapters to the development of transatlantic communications, the challenges the amateurs faced and methods they used to overcome them. The reader is taken “behind the curtain” to reveal how governments and organizations carved out plans to allocate bands (plans which would subsequently be rewritten) and create international organizations to facilitate cooperation. The negotiations and technical issues involved to creating band plans with international agreement are clearly documented.

Amateur radio’s contributions to international expeditions and to emergencies make a fascinating read. The author maintains that some expeditions would not have taken place without the presence of an amateur on board and assurances that communication would be maintained.

Do you wonder how we got to where we are today? This book is for you.

“200 Meters and Down” is available from the usual suspects as well as the [ARRL Store for \\$15.95](#)

Jim Hassall W4BEA



Marathon DXer's Unite

**Look at the International True Blue DXers- Marathon
DX Contest for 2021!**

I'm not even a DXer and this interests me so much

I SIGNED UP!

<https://www.tbdxc.net/marathon>





From Dino Papas KL0S:

Williamsburg Area Amateur Radio Conducts Competition During Annual Route 66 Special Event Week

The Williamsburg Area Amateur Radio Club recently sponsored a competition for members during the annual Route 66 Special Event Week. Members were challenged to contact as many of the W6 1x1 stations operating throughout the United States. Two categories were established, one for members licensed four years or less and a second for members who have been licensed more than four years. Competitors were limited to a maximum power of 100W.

Not surprisingly all of the competitors were also members of the local Colonial Capital Chapter of PVRC. Scoring highest in the new ham category was Francine Cicatiello KN7YL who only just recently installed her new HF station, an Icom IC-7300, Palstar AT2K Tuner and a homebrew OCF dipole antenna. Francine contacted 16 of the 21 possible stations. High score in the long-time ham category was Wally Frank WA3RWP who scored highest with 18 out of 21 stations contacted. Wally uses a Yaesu FT-DX3000 and a simple 23' HOA approved vertical antenna. Both operators were awarded nice prizes by club President Toby Papas KLØSS for taking first place in each category. (Submitted by Dino Papas KLØS)





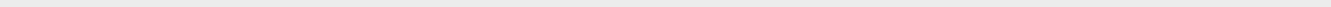
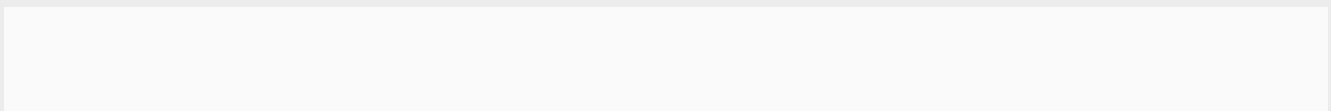
From Jim Quattlebaum W4QQI

Thanks to all that participated in our recent SOTA activation of Terrapin Mountain.

I have put together a video on the YouTube platform that chronicles our summit.

<https://youtu.be/ZSJbucyJ4II>

Thanks to all for your support in this mission!





From Bob Inderbitzen NQ1R

Below is a roundup of Media Hits – shared with ARRL by so many of you. There are stories here to remind us of how many different ways ham radio uniquely serves opportunities for education, innovation, and public service in our pursuit of radio communications and related technology. Check [Media Hits](#) on a regular schedule to keep up with the media coverage amateur radio is getting and that your fellow PIO/PIC's are contributing.

As another hurricane bears down on the US Gulf Coast, I'm also reminded of the hard work and dedication of so many radio amateurs who have been active in emergency communications training, readiness, and response during this year's severe weather and wildfires. Their volunteerism and service to our communities are important stories to tell and share.

I urge you to read through the newly published [2019 ARRL Annual Report](#) (PDF). It will help familiarize you with many ways ARRL and our members are growing and changing our organization, and our hobby and service. For example, on page 5 is an exhibit showing the value of total volunteer hours contributed by Amateur Radio Emergency Service® (ARES) members: over \$14.5 million dollars in 2019. What an incredible resource to our nation!

Finally, the ARRL [Public Relations Committee](#) is seeking nominations for the [2020 Bill Leonard Award](#). The award is presented in three categories: print/digital, audio, and visual. To be considered, each nominee must be a professional journalist or a professional journalistic team in print, electronic, or multimedia. Can you help identify the newspaper, radio, or television stories that did the best job of showcasing what amateur radio is all about? The nominee's work must have appeared between Dec 1, 2019 and Nov 30, 2020. Complete details can be found here: <http://www.arrl.org/bill-leonard-award>.

ARRL NEWS ROUNDUP

Find the latest ARRL News at www.arrl.org/news and www.arrl.org/2020-

Great Stories

[McConnell Middle School Students Make Ham Radio Contact with International Space Station Astronaut](#) Loganville, Georgia (YouTube video)

Amateur Radio on the International Space Station (ARISS), October 7, 2020

[Amateur Radio Operators Assist Stranded Motorist](#)

Clear Lake Courier (South Dakota), October 7, 2020

[Ham radio operators let their fingers do the talking](#)

Mount Desert Islander (Maine), October 2, 2020

[Amateur Radio Emergency Service to Conduct Simulated Test on Saturday](#)

Clay Today (Florida), September 30, 2020

[New mobile communications unit for amateur radio association](#)

News8000.com (Wisconsin), September 27, 2020

[Tracking Down Radio Frequency Noise Source, with Help From Mother Nature](#)

Hackaday (Online), September 25, 2020

[Local Group to Participate in Nationwide Simulated Emergency Test](#)

St. Louis Post-Dispatch (Missouri), September 23, 2020

[There's no better time to be an amateur radio geek](#)

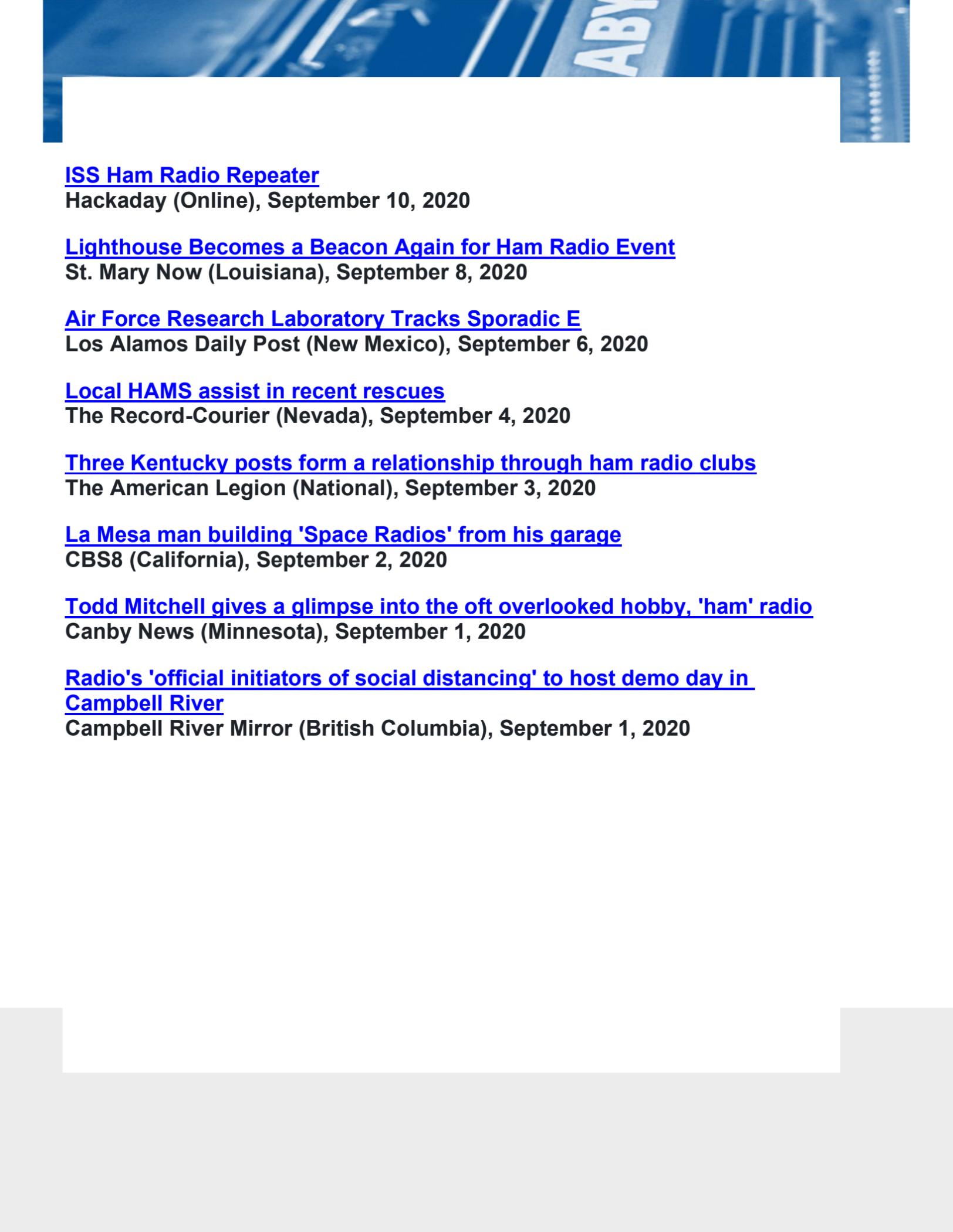
Wired Magazine, September 16, 2020

[Ham radio operators stay active during pandemic](#)

River Towns (Minnesota), September 14, 2020

[New Northeast complex aligns technology, business](#)

The Kingswood Times News (Tennessee), September 11, 2020



ISS Ham Radio Repeater

Hackaday (Online), September 10, 2020

Lighthouse Becomes a Beacon Again for Ham Radio Event

St. Mary Now (Louisiana), September 8, 2020

Air Force Research Laboratory Tracks Sporadic E

Los Alamos Daily Post (New Mexico), September 6, 2020

Local HAMS assist in recent rescues

The Record-Courier (Nevada), September 4, 2020

Three Kentucky posts form a relationship through ham radio clubs

The American Legion (National), September 3, 2020

La Mesa man building 'Space Radios' from his garage

CBS8 (California), September 2, 2020

Todd Mitchell gives a glimpse into the oft overlooked hobby, 'ham' radio

Canby News (Minnesota), September 1, 2020

**Radio's 'official initiators of social distancing' to host demo day in
Campbell River**

Campbell River Mirror (British Columbia), September 1, 2020



From the ARRL:

ARRL National Convention and Orlando HamCation® Postponed to February 2022

ARRL and the Orlando Amateur Radio Club (OARC) have announced that the ARRL National Convention and Orlando [HamCation](#)® -- which was to host the convention -- have been postponed until February 10 - 13, 2022. The convention had been set for next February.

"The joint decision came after considering the national public health emergency including the health and safety of all participants, the uncertainty that continues to impact our organizations, and the reluctance to travel to, and attend, large events," said ARRL CEO David Minster, NA2AA. "We regret the disruption to the hard work already completed by so many volunteers preparing for the ARRL National Convention and HamCation."

"While postponing was a difficult decision, our top priority is delivering a safe and successful HamCation experience for everyone, including our attendees, dedicated volunteers, exhibitors, and service partners," said HamCation General Chairman Michael Cauley, W4MCA.

OARC President John Knott, N4JTK, noted that holding the convention in 2022 will mark the 75th anniversary of HamCation -- one of the largest annually held gatherings of radio amateurs in the US. The published gate figure for 2020 was 24,200 for all 3 days.

"We want our diamond anniversary show to be an exciting, five-star event," said Knott. "We look forward to seeing you in Orlando in 2022, and hope that you and your loved ones remain safe in the months to come."

A full day of National Convention programming and training sessions was previously scheduled to precede HamCation. That will be rescheduled for Thursday, February 10, 2022. HamCation will host the rest of the





convention on Friday, Saturday, and Sunday, February 11 -13, 2022 at the Central Florida Fairgrounds & Expo Park in Orlando.

Cauley said HamCation may organize some online presentations and programs for what would have been HamCation 2021 next February. A QSO party is also under consideration. The [HamCation website](#) will soon post details, including information for anyone seeking refunds and other options for pre-purchased tickets and exhibit space. You can follow HamCation on [Facebook](#), [Twitter](#), and [Instagram](#). Further details and any changes will be shared via the [2022 ARRL National Convention](#) and [Orlando HamCation](#) websites.

From the ARRL:

ARRL to Celebrate 20 Years of Ham Radio on the International Space Station

Amateur Radio on the International Space Station ([ARRL](#)) will soon celebrate 20 years of continuous ham radio operations on the International Space Station (ISS). NASA is commemorating the milestone with a newly produced [infographic](#) highlighting the educational contacts via amateur radio between astronaut crew members aboard the ISS and students. Over its 20 years, ARRL has supported nearly 1,400 scheduled ham radio contacts with schools, student groups, and other organizations.

Planning for ARRL began in 1996 as a cooperative venture among national amateur radio and amateur satellite societies, with support from their respective space agencies. The ARRL ham radio gear actually arrived on the station before the Expedition 1 crew, headed by Commander Bill Shepherd, ex-KD5GSL. The FCC issued ham radio call sign NA1SS for ISS operations. After Expedition 1 arrived on station, some initial tests with ARRL ham radio ground stations and individual hams confirmed the ham gear was working properly. The first ARRL school contact was made with students at Luther Burbank Elementary School in Illinois on December 21, 2000, with Shepherd at the helm of NA1SS on the ISS.

NASA produced a [video](#) of students talking with astronaut Chris Cassidy, KF5KDR, during an ARISS contact in May 2020.

Before and during scheduled ham radio contacts, students, educators, parents, and communities learn about space and related technologies, and radio communication using amateur radio.

ARISS relies on a large network of amateur radio operator volunteers, many associated with radio clubs in the communities where students and groups participating in the contact reside. ARISS volunteers support satellite ground stations, serve as technical mentors, and provide additional help in the areas of education, community outreach, and public relations.



Jordan was among the participating students at Celia Hays Elementary School in Rockwall, Texas, late last February, who were excited to have their ARISS contact with Astronaut Drew Morgan. More than 190 students sat on the gym floor while another 680 on campus listened via the school's inter-communication system.

While student-to-astronaut radio contacts are a primary objective for ARISS, the capability has also inspired further experimentation for amateur radio in space and the evaluation of new technologies. In September, ARISS [announced](#) that the initial element of its next-generation ham radio system had been installed in the ISS *Columbus* module. The new radio system replaces equipment originally certified for spaceflight in mid-2000. The onboard ham station also provides a contingency communications system for the ISS crew. Several astronauts have also enjoyed using NA1SS to make casual contacts with – and delighting – earthbound members of the ham radio community.

In the US, ARISS sponsors include [ARRL](#), [AMSAT](#), and NASA, the ISS National Lab-Space Station Explorers, and NASA's Space Communications and Navigation program.



Students at Kittredge Magnet School near Atlanta, Georgia, took part in an ARISS contact with Astronaut Drew Morgan, KI5AAA. Morgan answered 15 student questions. The students have their own radio club, Kittredge Magnet School Amateur Radio Club, KQ4KMS.

time," she said. Read [more](#).

The next proposal window for US schools and educational organizations to [host an amateur radio contact](#) with a crew member on board the ISS opened on October 1 for contacts that would take place from July through December 2021.

[Proposal information and more details](#), including expectations, proposal guidelines, and proposal forms, and dates and times of informational webinars, are on the ARISS website. Send questions to ariss.us.education@gmail.com.

Like many educators who have coordinated ARISS radio contacts for their students, teacher Rita Wright, KC9CDL, an ARRL member, described the first ARISS school contact as inspirational and having a lasting impact on their community. Five months after their contact, nearly 500 students greeted Bill Shepherd when he visited Luther Burbank School. Wright said it was "like tossing a pebble into a stream."

"The ripple effects are still occurring, and I suspect will continue to occur for a long

From the ARRL:

British Columbia Radio Amateur Hears Mars Reconnaissance Orbiter

According to a [Spaceweather.com](https://spaceweather.com) report, Scott Tilley, VE7TIL, in British Columbia, Canada, received a signal from the NASA Mars Reconnaissance Orbiter (MRO), flying just 274 kilometers (about 170 miles) above the red planet's surface. The signal was an X-band carrier containing no data or telemetry.

"Its purpose is to allow for Doppler tracking," Tilley explained. "The rapid change in pitch of the signal is caused by the relative motion of the satellite and the observer." He used a homemade satellite dish to hear the orbiter.


Tilley enjoys tracking down signals from "dead" satellites, zombie satellites, and spy satellites, but the MRO was a first for him. "MRO's signal is weak, but it is one of the louder signals in Mars orbit," he said. "The spacecraft has a large dish antenna it uses as a relay for other Mars missions. With the proximity of Mars these days, it was the perfect time to try."

In 2018, Tilley saw the "signature" of the Imager for Magnetopause-to-Aurora Global Exploration (IMAGE), a NASA spacecraft believed to have died in 2005.

That [discovery](https://www.discovery.com) delighted space scientists.



Scott Tilley, VE7TIL used this homebrew dish antenna to hear signals from NASA's Mars Reconnaissance Orbiter. [Scott Tilley, VE7TIL, photo]



What is your club doing? Please let me know and I'll publicize it. And if you don't send me your news, I'll try to FIND IT!

LOL! 73 de KW4GF





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