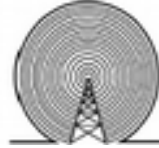


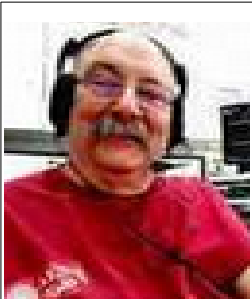
# The Ham Arundel News



Providing Fellowship and Community Service through Amateur Radio Since 1951

October 2019

41<sup>st</sup> Year of Publication



Keith Miller, AE3D

## The Prez Sez

Its fall. The leaves have begun to drop, and that means one thing for sure. It's easier to put up wire antennas. So get to it, before you are stuck inside till spring. Speaking of antennas, recently, on the club's north tower, we put up a Crushcraft A3S with 40 meter extension kit. The second contact was with a station calling CQ.

Before I did anything, I heard at least two other stations trying to reach him. I said "W3VPR" just once, and was immediately answered. That contact was with Belgium. The one before it, Ukraine. Obviously everything works great.

Earlier in the month the new Ham Shack Antenna Committee met for the first time, with one goal being to give AARC members access to all bands between 160 meters and 70 centimeters. They made some real progress even though they've only held one meeting. By spring, with a few more meetings, I hope to have the entire antenna plan ready for construction. Over the past few months, the Board has made arrangements for the Eagle Scouts to help us build a new slab around the base of the west tower, and as a second project will help with clearing of brush and mounting of a base plate for a future tower adjacent to the former radar dish pedestal. To make all this operational, with limited self-interference, we will need a number of single band filters. Some we already own, and others have been donated by Ed Wetherhold (W3NQN). Still others, we will have to build or buy. But we have identified what we need, and we are actively looking for it. That need of course includes some Rohn 45G tower stock. If you have some you don't need, or know someone with some to donate, let us know.

Meanwhile on October 5<sup>th</sup> we will begin yet another Technician License Class. We are getting better at publicizing our courses. Ed Santilli (KB3YMU) has been doing a great job of notifying local publications. Meanwhile this year we managed to pick up a few students courtesy of sharing booth space with Anne Arundel ARES and the Maryland Mobileers at this fall's Emergency Preparedness Expo at Marly Station. As usual around 9:15 AM on the first day of class we hope to have 5 to 15 members drop by to meet the newbies, and tell them a bit about some of their exploits as hams. If interested in speaking, prep two minutes worth of talk, and let me know you are coming, at [President@w3vpr.org](mailto:President@w3vpr.org).

One of the things we started in 2019 was a standing Rules Committee. If you have been to a Rules Committee meeting you know how much work is being done. But at least to date, the average member hasn't seen many results. The Rules Committee has a mammoth job, and Chairman Chuck Tanner (K3ACT) has proved himself as the master, if only for putting up with me. Not many members spend time wondering about the rules under which this club operates. We just assume that the Articles of Incorporation keep us straight with respect to the government, and that the Bylaws continue along those lines, plus prevent the Board from doing stupid things. What you may not know is that the only record of Motions passed by your Board is in the club minutes. If you figure the AARC holds a Board meeting a month, and that we've been operational since 1953, that means any given Motion is hopelessly lost in over 790 plus sets of minutes, most of which are not computerized for easy lookup. In other words nobody actually knows what our rules say. Nobody! So the Rules Committee is attempting to create a "Policy Book". This "Policy Book" should eventually contain all relevant ongoing Motions passed as ongoing rules by the Board of Directors or by the Membership. In addition it will contain examples and descriptions of what is considered common practice, as well as the duties of those holding various elected or appointed positions within the club. To get this whole thing in motion, we must first make any changes in the Bylaws that are required. Second we have to create and pass a Policy on Policies, to outline how things are added, modified or removed from the Policy Book. Then we have to begin approving Policies to be entered into that Policy Book.

So if this is what the Rules Committee is doing, why haven't we come to you with any of this? This spring, we became aware that various rules with respect to our Trustee, and the use of the W3VPR call sign, needed immediate study. This resulted in the Committee working first on the Trustee Policy, and rules pertaining to use of the call sign for Field Day, the Ham Shack, etc. I also asked the Rules Committee to consider changes in rules for the Maryland DC QSO Party, and though considered, the imminent nature of this August event kept many changes from being implemented this year. If it was my fault. I simply hadn't considered that software providers like N1MM and N3FJP would need time to modify their products to handle any new rules. With the 2019 event now over, the Rules Committee in late September addressed possible changes for 2020. So though you have not seen much happen yet, once Bylaw changes are addressed, and the Policy on Policies is adopted, the

Rules Committee will be expected to put forward a series of Policies in the upcoming months. Depending on how this goes, you may have a lot to vote on.

October 3<sup>rd</sup> we will be voting to approve our 2020 budget. Meanwhile the Nominating Committee is already busy lining up a slate of candidates for 2020. Last year when I ran for President, one of my major goals was to finish the Ham Shack renovation that former President Richard Grace (KB3ZYO) worked so hard to get started. Of course I realized even then, that renovating the Ham Shack was only half the job. The antenna system needed renovation too. What we built, was a ham shack with 4 operating positions that can run on 14 different bands. Meanwhile the antennas currently in place can handle only 5 bands and 2 operating positions at a time. Yes, only 2 of our 3 current antennas can't be run simultaneously without significant self-interference.

We are off to a good start, but we aren't done yet. So I'm hopeful you will let me stay on the job another year, so we can achieve two major goals. First, to actually work out the rules and create a "Policy Book" worth having, and second to finish giving the AARC ham shack the antenna system capabilities it deserves. 73s, and have a happy October.

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## LIFE IS SIMPLE



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### ARRL Thanks Official Observers as Volunteer Monitor Program is Set to Debut

As the September 30 date for the closing of the Official Observer (OO) program nears, ARRL has expressed deep appreciation to the hundreds of volunteers who gave their time as Official Observers to help preserve the integrity of the Amateur Radio bands.



The Official Observer program has served the Amateur Radio community and assisted the FCC Enforcement Bureau for more than 85 years. The OO program is giving way to the new Volunteer Monitor (VM) program, established as part of a formal partnership between ARRL and the FCC. ARRL and the FCC signed a Memorandum of Understanding (MOU) earlier this year that establishes the Volunteer Monitor program as a successor to the Official Observers. The first Volunteer Monitors should be in place and ready to begin their duties this fall.

"Thank you for your dedication and service," ARRL Regulatory Information Manager Dan Henderson, N1ND, said. "It was the good work of the OOs over many years that laid the foundation for the FCC to recommend this new agreement for enforcement." The FCC proposed the

program following the closures of several FCC regional offices and a reduction in field staff.

Last February, Riley Hollingsworth, K4ZDH, who once handled Amateur Radio enforcement for the FCC, was named to oversee the development and implementation phases of the Volunteer Monitor program.

Under the new VM program, volunteers trained and vetted by ARRL will monitor the airwaves and gather evidence that could be used to correct misconduct as well as to recognize exemplary on-air operation. ARRL will refer instances of flagrant violation to the FCC for action, in accordance with FCC guidelines, and the FCC will give priority to enforcement cases developed by the VM program.

Official Observers were invited to apply to become Volunteer Monitors, and many did. The requirements for being a Volunteer Monitor include:



• Ability to utilize state-of-the-art receiving equipment and to access no-cost remote receive sites; strong writing and communication skills

- An understanding of the importance of thorough documentation
- Basic word processing and data entry skills
- The ability to send such information, including recordings, to ARRL electronically. Applicants must also be ARRL members, have no history of FCC enforcement action, hold a Technician-class or higher license, and been licensed for at least 3 years.

Applicants underwent a training and certification program administered by ARRL and were vetted by ARRL through at least one oral interview and a preliminary evaluation by ARRL staff. Volunteer Monitors will serve 3-year terms at the pleasure of ARRL.

The objectives of the Volunteer Monitoring Program include improving and promoting knowledge and compliance of FCC Amateur Radio Service rules, extending and preserving the tradition of self-regulation and self-administration of the Amateur Radio Service by volunteers, and enabling the FCC Enforcement Bureau "to more efficiently and effectively utilize its resources in enforcing the Communications Act and Commission rules," according to the MOU.

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**Net Control Radio Operators**

**ARE NEEDED**

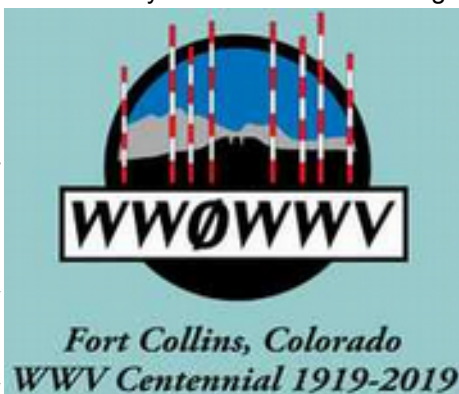
during the work-weekdays -

from 0700 to 0900 am.

**Contact: Jim Wallace, N3ADF**

## WWV Centennial Celebration and Special Event Kick Off this Weekend

The culmination of months of planning will come to a head this weekend as the WWV Centennial Celebration and the related [WW0WWV](#) Amateur Radio special event get under way. WW0WWV will begin operation on Saturday at 0000 UTC and continue through October 2 at 0000 UTC. The National Institute of Standards and Technology ([NIST](#)), the Northern Colorado Amateur Radio Club ([NCARC](#)), and the WWV Amateur Radio Club have teamed up to organize 100th anniversary events. WW0WWV will be active around the clock on 160 - 6 meters on CW, SSB, and digital modes (FT8 operation will be Fox and Hound, except on 160 meters). WW0WWV will operate from the challenging RF environment at the WWV site near Fort Collins, Colorado. Logs will be streamed live to Club Log, and all logs will be uploaded to Logbook of The World (LoTW) after the event ends.



WW0WWV committee member Dave Swartz, W0DAS, said he's been addressing last-minute details and putting out "many little fires." Swartz is camping out at the WWV site ahead of the special event.

WWV is reputed to be among the oldest -- if not the oldest -- continuously operating radio stations in the world. It started out as an experimental station that eventually became a time and frequency standard, and WWV often broadcast music in its early years. WWV served as a beacon for Amateur Radio pioneers, who may only have had a rough idea of where they were transmitting. When they began, early time announcements were in CW. Voice announcements did not start until 1950. Time announcements used to be every 5 minutes, but WWV switched to announcing the time every 60 seconds in 1971.



A c1920 WWV transmitter, built by National Bureau of Standards staff and coupled with a hand-crank record player. [Photo courtesy of WWV/NIST]

W3V East Coast Special Event Will Also Mark WWV Centennial

An unrelated east coast special event, W3V in Maryland, will also celebrate the 100th anniversary of

WWV. Originally an experimental/demonstration radio station, WWV was licensed to what then was called the National Bureau of Standards -- today NIST -- on October 1, 1919. The transmitter site, initially in the Washington, DC, suburbs, moved to the grounds of the Agricultural Research Center (BARC) in Beltsville, Maryland, in the 1930s, before relocating to Colorado in 1966.

The NASA Goddard Space Flight Center (GSFC) also was located on the BARC campus, and the Goddard Amateur Radio Club (GARC) will host the W3V special event September 28 - October 2 at the GARC club station, just north of the old WWV site. It will use the former WA3NAN space shuttle HF retransmission



The WWV Beltsville, Maryland, home of WWV from 1943 until 1966. [Photo courtesy of WWV/NIST]

frequencies -- 3.860, 7.185, 14.295, 21.395, and 28.650 MHz -- as well as amateur satellites. For many years, the GARC retransmissions used 100-foot wooden antenna poles that it inherited from WWV.

As part of the WWV centennial, [HamSCI](#) and the Case Amateur Radio Club of Case Western Reserve University (W8EDU) invites all radio amateurs and others capable of making highly accurate HF measurements to participate in the [WWV Centennial Festival of Frequency Measurement](#). The event will take place on WWV's centennial, October 1, from 0000 to 2359 UTC (starting on Monday evening, September 30, in the Americas). Participants are requested to share their data with the HamSCI community on the [Zenodo](#) data-sharing site.

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## WWV Centennial: 100 Years of Broadcasting

**GODDARD AMATEUR RADIO CLUB, WA3NAN will operate Special Event Station W3V Greenbelt, called the WWV Historical Site from Sept. 28th to Oct. 2nd at their Club House on Beaver Dam Rd, Glenn Dale, MD 20769.**

### Historical WWV Greenbelt Site

It all started right here in the MDC Section - For almost 50 years the WWV stations transmitted from Washington D.C. and three area locations in Maryland

Starting as the Department of Commerce experimental station by the National Bureau of Standards, then at Connecticut Avenue and Upton Street, known as Chevy Chase from 1920 until 1932. This site is north of the Melvin C Hazen Park and several International Embassies.

After more than ten years WWV relocated to College Park MD before moving again to Beltsville and finally Greenbelt, MD - the location now known as Goddard



## Hurricane Watch Net Sets New Activation Record during Dorian

Hurricane Watch Net (HWN) volunteers set a new record for total hours activated during a single storm. The net was active for 157 hours -- 139 hours of which were continuous. HWN Manager Bobby Graves, KB5HAV, said the continuous activation record stands at 151 hours for Hurricane Matthew in 2018.

"During this marathon activation, members of the Hurricane Watch Net collected and forwarded countless surface reports to the National Hurricane Center in Miami," Graves noted.

After devastating Abaco and Grand Bahama islands with winds clocked at 200 MPH or more, Dorian made its way slowly toward Florida, before sliding up the southeastern US coast and making a second landfall on Cape Hatteras, North Carolina. It wasn't over, however. Dorian veered out into the Atlantic, affecting New England before hitting Maritime Canada, where it knocked out power and downed trees.

During its lengthy initial activation, the HWN attempted on numerous occasions to raise stations in the Bahamas but was unable to contact anyone in the most-affected area.

The HWN activated for the last time during Hurricane Dorian last Saturday, as the storm was, by then, speeding up the east coast of the US as a Category 1 storm. Poor propagation plagued net operations throughout the activation, even right up to the end. At one point, propagation was lost between net members and Nova Scotia on 40 meters, although the net continued for a while longer on 20 meters.

Early on, Amateur Radio Emergency Service (ARES®) volunteers went on alert along the US east coast, preparing for the worst. The major problem was storm surge-related flooding. Evacuations were ordered ahead of the storm.

The ARRL Headquarters Emergency Response Team convened early on to monitor the situation closely. ARRL officials were in regular communication with partner agencies, particularly FEMA and the Department of Homeland Security. W1AW, which had already planned to be in operation for the Hiram Percy Maxim 150th birthday special event, remained ready to assist with emergency communications.

The VolP Hurricane Net activated over the weekend in conjunction with WX4NHC at the National Hurricane Center to keep on top of ground-truth weather information.

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## FCC Proposes to Make All Universal Licensing System Filings Electronic

The FCC is seeking comment on a *Notice of Proposed Rulemaking (NPRM)* that is part of an overall plan to transition completely to electronic filing, licenses, authorizations, and correspondence. The notice proposes to make all filings to the Universal Licensing System (ULS) electronic, expand electronic filing and correspondence elements for related systems, and require applicants to provide an email address on the FCC forms related to these systems. Although much of the FCC's ULS filings are already electronic, the changes suggested in the *NPRM* (in WT Docket No. 19-212) would require all Amateur Radio Service applications to be filed electronically. Under current rules, Amateur Radio applications may still be filed manually, except those filed by Volunteer Examiner Coordinators (VECs).



"Given the drastic changes that have occurred with regard to the ubiquity of the internet and increased personal computer access, we find it unlikely that electronic filing remains infeasible or cost-prohibitive for the previously exempted types of filers, or that they lack resources to file electronically," the FCC said in the *NPRM*, released on September 6. "We therefore propose to eliminate Section 1.913's exemptions to mandatory electronic filing."

The FCC said that while the vast majority of ULS applications today are submitted electronically, some are still manually filed, largely from exempted filers, such as radio amateurs. Last year, the FCC received some 5,000 manually filed applications out of a total of some 425,000. The FCC is seeking comment on whether its underlying assumptions about the ease of electronic filing for previously exempted filers are valid.

This *NPRM* also seeks comment on additional rule changes that would further expand the use of electronic filing and electronic service. The FCC stopped providing printed Amateur Radio license documents in 2015.

"Together, these proposals will facilitate the remaining steps to transition these systems from paper to electronic, reducing regulatory burdens and environmental waste, and making interaction with these systems more accessible and efficient for those who rely on them," the FCC said.

Comments are due within 30 days of the *NPRM's* release.

Used with permission The ARRL Letter for September 12, 2019

## AARC STAFF – 2019 Officers

<b>President</b>	Keith Miller / AE3D president@w3vpr.org	240 758 0423
<b>Vice President</b>	Tim Nagel / KB3YQK vice.president@w3vpr.org	
<b>Secretary</b>	Steve Grimaud / W3SWG secretary@w3vpr.org	
<b>Treasurer</b>	Bill Mooney / KA3UQQ treasurer@w3vpr.org	
<b>Director A</b>	Eric Berman / KC3GDV eric.board19@w3vpr.org	
<b>Director B</b>	Larry Booth / AA3AU larry.board19@w3vpr.org	
<b>Director C</b>	Bernie Coletta / NK3PS bernie.board19@w3vpr.org	

### Support Staff

<b>Membership Secretary</b>		
<b>Information Officer</b>	Ed Santilli / KB3YMU info.officer@w3vpr.org	
<b>Safety</b>	John Bowes / KB3YLY safety@w3vpr.org	443 760 1666
<b>Security</b>	Tom Provenza / N3HLD security@w3vpr.org	

### Representatives

<b>ARES/RACES</b>	John Bowes / KB3YLY ares.races@w3vpr.org	
<b>DFRC Rep</b>	Milford Craig / N3WYG dfrc.rep@w3vpr.org	301 218 8867
<b>FAR</b>	Ed Brown / AA3EB far.rep@w3vpr.org	301 856 3317
<b>Fox Hunt</b>	Jim Wallace / N3ADF	
<b>Joint 440 Comm</b>	Gordon Davids / WJ3K joint440@w3vpr.org	410 647 2956
<b>MD Slow Net</b>	(T B A)	
<b>MDC Section Manager</b>	Marty Pittinger / KB3MXM arri.sec.mgr@w3vpr.org	
<b>Public Relations</b>	Ed Santilli / KB3YMU pr@w3vpr.org	301 261 7561
<b>Resident Agent</b>	Justin Leishman / KC3BJT ra@w3vpr.org	
<b>Trustee</b>	Dick Mayo / WW3R trustee@w3vpr.org	

### Committees

<b>Club Sale &amp; Auction</b>	Ike Lawton / W3IKE club.sale@w3vpr.org
<b>Digital Networking</b>	Ted Ruddy
<b>Facilities</b>	Eric Berman / KC3GDV facilities@w3vpr.org
<b>Field Day</b>	(TBD) field.day@w3vpr.org
<b>Station Manager</b>	(TBD)

<b>Holly Net</b>	Jim Wallace / N3ADF holly.net@w3vpr.org (TBD)
<b>HSMM-MESH</b>	hsmm.mesh@w3vpr.org
<b>Kit building &amp; Repair</b>	'Raven' Weiland / KB3MUJ 203 948 5369 kit@w3vpr.org
<b>MDC QSO Party</b>	Jim Wallace / N3ADF 301 538 6233 mdcqsop@w3vpr.org
<b>Newsletter</b>	Milford Craig / N3WYG 301 218 8867 newsletter@w3vpr.org
<b>Packet Radio</b>	Jonathon Grafe / AE2JG 240 426 2664 packet@w3vpr.org
<b>Program</b>	Tim Nagel / KB3YQK vice.president@w3vpr.org
<b>Public Service</b>	Erick Graves / WA3G 410 987 7670 public.service@w3vpr.org
<b>Repeater Ops</b>	John Williams / K8JW 410 647 7406 repeaters@w3vpr.org
<b>Rules</b>	Chuch Tanner / K3ACT 301 464 2667 rules@w3vpr.org
<b>Service Hours</b>	Jim Wallace / N3ADF 301 538 6233 service.hours@w3vpr.org
<b>Tower</b>	(TBD) tower@w3vpr.org
<b>Training</b>	Keith Miller / AE3D 240 758 0423 training@w3vpr.org
<b>VE Team</b>	David Rawley / N3AT testing@w3vpr.org
<b>Webmaster</b>	Mark Bova / W2PAW 240 274 6294 webmaster@w3vpr.org
<b>Wed. Nite Net</b>	Jamison Phipps / W3KNH wednesday.night.net@w3vpr.org
<b>Winter Field Day</b>	Rick Steer / AB3XJ winter.field.day@w3vpr.org

### Groups

<b>Board of Directors</b>	board19@w3vpr.org
<b>Kit Building Committee</b>	kitbuilding@w3vpr.org
<b>Rules Committee</b>	<a href="http://rules.com@w3vpr.org">rules.com@w3vpr.org</a>

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## VE Testing Schedule

**Second Saturday of each month  
– Noon – AARC –  
David Rawley, N3AT [testing@w3vpr.org](mailto:testing@w3vpr.org)**

**Third Saturday of each month – 9AM – Laurel ARC –  
John Creel, 301-572-5124**

**Fourth Tuesday of each month – 6PM – MMARC –  
Mike Montrose / KA2JAI 443-310-4907 web site is  
[tinyurl.com/marylandmobileers](http://tinyurl.com/marylandmobileers)**

#### To all exams bring:

- Picture ID
  - Social Security Number or FCC Registration Number (FRN)
  - **ORIGINAL** and a **COPY** of current FCC amateur radio license
- ORIGINAL and a COPY of all element credits (eg., FCC letters, old licenses or unexpired Certificates of Successful Completion of Examination-CSCE)**



# W1AW 2019 Spring/Summer Operating Schedule

## Morning Schedule:

Time	Mode	Days
1300 UTC (9 AM ET)	CWs	Wed, Fri
1300 UTC (9 AM ET)	CWf	Tue, Thu

## Daily Visitor Operating Hours:

1400 UTC to 1600 UTC - (10 AM to 12 PM ET)  
 1700 UTC to 1945 UTC - (1 PM to 3:45 PM ET)

(Station closed 1600 to 1700 UTC (12 PM to 1 PM ET))

## Afternoon/Evening Schedule:

2000 UTC (4 PM ET)	CWf	Mon, Wed, Fri
2000 " "	CWs	Tue, Thu
2100 " (5 PM ET)	CWb	Daily
2200 " (6 PM ET)	DIGITAL	Daily
2300 " (7 PM ET)	CWs	Mon, Wed, Fri
2300 " "	CWf	Tue, Thu
0000 " (8 PM ET)	CWb	Daily
0100 " (9 PM ET)	DIGITAL	Daily
0145 " (9:45 PM ET)	VOICE	Daily
0200 " (10 PM ET)	CWf	Mon, Wed, Fri
0200 " "	CWs	Tue, Thu
0300 " (11 PM ET)	CWb	Daily

## Frequencies (MHz)

CW: 1.8025 3.5815 7.0475 14.0475 18.0975 21.0675  
 28.0675 50.350 147.555  
 DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095 28.095  
 50.350 147.555  
 VOICE: 1.855 3.990 7.290 14.290 18.160 21.390 28.590  
 50.350 147.555

## Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM

CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM

CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2230 UTC (6:30 PM ET), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0000 UTC (8 PM ET) Thursdays and 0000 UTC (8 PM ET) Fridays.

Audio from W1AW's CW code practices, and CW/digital/phone bulletins is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The CW/digital/phone audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to [w1aw@arrl.org](mailto:w1aw@arrl.org).

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

FCC licensed amateurs may operate the station from 1400 UTC to 1600 UTC (10 AM to 12 PM ET), and then from 1700 UTC to 1945 UTC (1 PM to 3:45 PM ET) Monday through Friday. Be sure to bring your current FCC amateur license or a photocopy.

The complete W1AW Operating Schedule may be found on page 93 in the March 2019 issue of QST or on the web at, <http://www.arrl.org/w1aw-operating-schedule>.

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## ARRL's Special Service Club Award Presented To The Anne Arundel Radio Club.



At the September 19, 2019 meeting, the ARRL MDC-Section Affiliated Club Coordinator, Joe Dorffner KC3KFG (right) presented the ARRL's Special Service Club Award to the Anne Arundel Radio Club. Keith Miller AE3D (left), the current AARC President happily accepted the award on behalf of the club.

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# SECTION TRAFFIC MANAGER'S REPORT

MDC NTS NETS:

MEPN 1908 W3YVQ QND/31 QNI/392 QTC/56 MINS/682  
BTN 1908 AB3WG QND/31 QNI/323 QTC/37 MINS/511  
MDD 1908 AA3SB QND/62 QNI/242 QTC/84 MINS/494  
MSN 1908 N3AEA QND/26 QNI/106 QTC/56 MINS/491

PSHR: KK3F 150, W3YVQ 135, K3IN 110, N3JET 108,  
NI2W 101, AA3SB 100, WB3FTQ 100, AB3WG 82;

TFC: KK3F 1619, K3IN 240, WB3FTQ 102, W3YVQ 93,  
AA3SB 73, N3JET 59, AB3WG 33, NI2W 26

## HF PROPAGATION

MEPN: The net NVIS propagation was functional throughout August, 2019, with good signals after 1800L most evenings.

Due to the low solar activity, the afternoon propagation suffered which resulted in higher absorption and less effective NVIS propagation between 1730L and 1800L, often with the residual E layer from the daytime high sun angle obscuring the F1-F2 layers overhead. Signals tended to improve after 1800L. The MEPN DTS stations continue to also provide liaison with the national digital messaging services including DTN and Winlink.

MDD: NVIS propagation for local MDC stations on MDD early and late (and on RRI/3RN/C4 nets) was greatly improved. As August progressed, the higher sun angle allowed the MUF to remain above the net frequency on most nights. After 0400Z the MUF has been approaching 3 MHz some nights.

## CW OPERATORS NEEDED

Additional CW operators are needed for liaison to MDD and to the higher nets, and Net Control Stations are also needed on MDD and 3RN/C4. The evening NTS and RRI nets in Cycle 4 nation-wide are conducted on CW.

## MEPN/MDD/3RN ECHOLINK

MEPN representatives check for EchoLink check-ins starting at net call daily via the WB3GXW-L link node (or \*WASH\_DC\* conference node backup if the -L node is not available).

## MSN CW TRAINING

The MSN net continues to operate and serve nightly at 1930L on 3563 kHz. Ron, N3AEA, is stepping up to fill the Net Manager's role. Thanks, Ron. Show your support by checking in even if you do not take training. MSN needs NCS stations and liaison stations to early and late MDD. Ron could use your help.

## BTN LOCAL NTS TRAFFIC AND TRAINING NET

The BTN continues to meet on 145.33/R (no tone) daily at 6:30PM local time. The BTN was established to provide a welcoming place for newcomers to the Amateur Service, and their first exposure to directed traffic nets and

message handling. The NM, AB3WG, has initiated plans for broader cooperation between BTN and MSN to foster more awareness between operators using the respective modes. Instructive message swapping and liaison duties are in effect.

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Thanks to all the Section traffic net NCS stations, RRI/DTN and WL2K stations, liaisons, and traffic handlers for the continuing effort to keep the nets running and traffic moving.

Thank you for your continued support of MDC integrated ARES(r), RRI, and NTS operations.

73, W3YVQ, MDC ASM, STM  
w3yvq atsign arrl dot net  
w3yvq atsign winlink dot org from WL2K

Used with permission MDC Section News, Sept. 18, 2019

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## Digital Text and Images From Shortwave Radio

Get More Digital Text and Images via HF Shortwave Radio

Shortwave Radiogram transmission schedule -

Day	UTC/ET	Frequency	Site	
Thu	2330/ 7:30 PM	9265 kHz	WINB PA	
Fri	1300/ 9:00 AM	15770 kHz	WRMI FL	
Fri	1500/11:00 AM	15120 kHz	WINB PA	DRM*
Sat	0230/10:30 PM	9265 kHz	WINB PA	
Sun	0800/ 4:00 AM	5850 kHz	WRMI FL	
Sun	0800/ 4:00 AM	7730 kHz	WRMI FL	
Sun	2330/ 7:30 PM	7780 kHz	WRMI FL	

<https://swradiogram.net/>

Shortwave Radiogram transmits digital text and images on an analog shortwave broadcast transmitter. This weekend's show is in the usual MFSK32 and MFSK64, with text and pics.

Lineup for Shortwave Radiogram, Program #118

19-22 September 2019, in MFSK modes as noted:

- MFSK32: Program preview
- Synthetic Hall Effect achieves one-way radio transmission
- MFSK64: Volcano may explain recent purple sunrises\*
- This week's images\*
- MFSK32: Closing announcements\*
- \* with image(s)

Please send reception reports to [radiogram@verizon.net](mailto:radiogram@verizon.net)

<https://swradiogram.net/>

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AA











## Upcoming Hamfests

Saturday, October 5, 2019

### 7th Annual TailgateFest - Hollywood VFD

Talk-In: 146.64(-) PL 146.2  
Address: Hollywood Volunteer Fire Dept. Bingo Hall, 24801 Three Notch Road (MD Route 235)  
Sponsor: St. Mary's Co. Amateur Radio Assoc.  
Website: <http://www.k3hki.org>

Saturday, October 5, 2019

### Red Rose Repeater Assn. Hamfest - West Earl Community Park

Talk-In: 147.015(+) PL 118.8  
Address: 189 S. State Street, Leola, PA 17540 - near Talmage, PA  
Sponsor: Red Rose Repeater Association  
Website: <http://W3RRR.org>

Sunday, October 6, 2019

### CARAFest 2019 - Howard County Fairgrounds

Talk-In: 147.390(+) PL 156.7  
Howard County Fairgrounds, 2210 Fairgrounds Road, West Friendship, MD 21794  
Sponsor: Columbia Amateur Radio Association  
Website: <http://www.carafest.org>  
- Guest speaker, Tom W3TOM, Atlantic Division Director, 09:30 to 10:00, ARRL Amateur Radio Parity Act / HOA Restrictions / etc.  
- Cory Sickles from Yeasu presenting updated System Fusion and Wires-X, 11:30 - 12:00  
- HF GOTA for Scouts and New Hams  
- AMSAT promoting 50th Anniversary  
- VEC Testing  
- T-MARC Meeting  
- Glazey Days Donuts Food Truck  
- Eye-ball fellow Hams

Sunday, October 27, 2019

### Mason Dixon Hamfest - Sportsman's Hall Roller Skating Center

Talk-In: 145.410(-) PL 114.8  
Address: Sportsman's Hall Roller Skating Center, 15500 Hanover Pike, Upperco, MD 21155  
Sponsor: Carroll County Amateur Radio Club  
Website: <https://k3pzn.net/hamfest/>

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## 1921 Solar Event May Have Been Bigger than Carrington Event

*Scientific American* [reports](#) that, according to new data, the "New York Railroad Storm" of 1921 may have surpassed the intensity of the famous Carrington Event of 1859. In his paper published in the journal *Space Weather*, Jeffrey Love of the US Geological Survey and his colleagues reexamined the intensity of the 1921 event in greater detail than previously.

Although different measures of intensity exist, geomagnetic storms are often rated on an index called disturbance storm time ( $D_{st}$ ) -- a way of gauging global

magnetic activity by averaging out values for the strength



of Earth's magnetic field measured at multiple locations. Earth's baseline  $D_{st}$  level is about -20 nanoteslas (nT), with a "superstorm" condition occurring when levels fall below -250 nT. Studies of the very limited magnetic data from the Carrington Event peg its intensity at anywhere from -850 to -1,050 nT. According to Love's study, the 1921 storm came in at about -907 nT.

Peter Ward in his 2017 *New York History Blog* article "Strange Phenomena: The New York Railroad Storm" [recounted](#) that

theatre-goers in New York City "marveled at the spectacle" of an iridescent cloud that was brighter than the moon. "On the roof of the *Times* Building, reporters, having discovered the telegraph lines to be curiously blocked, gathered to watch the aerial kaleidoscope," he wrote.

As with the earlier Carrington Event, telegraph operators experienced wild fluctuations in the current on their circuits, while wireless propagation was enhanced. "The next day, papers reported that the Central New England railroad station (also home to the telegraph switchboard) had burned to the ground." Railroad officials later blamed the fire on the aurora.

According to Ward's article, the lights were visible in New York, California, and Nevada. Especially in rural areas, "the lights were said to be brighter, appear closer to the ground, and even move with a swishing sound."

Railroad and telegraph service were restored the following week, although one Western Union transatlantic cable showed signs of damage. "Delays and damage lead to some referring to it as the New York Railroad Storm," Ward wrote.

A dramatic [description](#) of the event on the SolarStorms.org website said, "At 7:04 AM on May 15, the entire signal and switching system of the New York Central Railroad below 125th Street was put out of operation, followed by a fire in the control tower at 57th Street and Park Avenue."

The short article said a telegraph operator reported being driven away from his station by flames that enveloped his switchboard and set the building on fire. "In Sweden a telephone station was reported to have been 'burned out,' and the storm interfered with telephone, telegraph, and cable traffic over most of Europe," the article said.

Used with permission The ARRL Letter for September 26, 2019

AA



## Festival of Frequency Measurement Set to Honor WWV Centennial

HamSCI and the Case Amateur Radio Club of Case Western Reserve University (W8EDU) will sponsor a "Festival of Frequency Measurement" on the day of WWV's centennial, October 1, from 0000 to 2359 UTC (starting on Monday evening, September 30, in the Americas). The event invites radio amateurs, shortwave listeners, and others capable of making high-quality



frequency measurements on HF to participate and publish their data to the HamSCI community on the [Zenodo](http://Zenodo.org) open-data sharing site.

"Changes in ionospheric electron density caused by space weather and diurnal solar changes are known to cause Doppler shifts on HF ray paths," the event announcement says. "HamSCI's first attempt at a measurement of these Doppler shifts was during the August 2017 total solar eclipse. We plan a careful measurement during the 2024 eclipse."

Some of the questions the research event is hoping to answer include how WWV's 5 MHz propagation path varies over a given calendar day, and how various measurement techniques for understanding the path variations compare. The objectives are to measure Doppler shifts caused by the effect of space weather on the ionosphere, and to use a specified measurement protocol available to Amateur Radio operators and other citizen-scientists. The experiment will use August 1, 2019 (UTC) as a control date.

"The recordings in this experiment are expected to show formations of the D-layer at stations' local sunrise and other daily events of the ionosphere," the announcement said. "Space weather varies day to day and some features may be prominent. We'll see what we get!"

[Full information](#) is on the Festival of Frequency Measurement website.

Used with permission The ARRL Letter for September 19, 2019

AA

## Scouting's 2019 Jamboree on the Air (JOTA)

[Registration](#) now is open for stations to register for Scouting's 2019 Jamboree on the Air (JOTA). JOTA will take place October 18 - 20. JOTA is Scouting's largest event in the world and always takes place over the third weekend of October. Click on "Sign Up Now" and register using your free Scout.org user id. Use the same site to register for the 2019 Jamboree on the Internet. Bill Stearns, NE4RD, has been named the Boy Scouts of America (BSA) National Jamboree on the

Air Task Force Chair. He has activated a number of JOTA and Scout Camp stations from the Montana Scout Council and served on the 2017 National Scout Jamboree K2BSA and 2019 World Scout Jamboree NA1WJ staffs. The NA1WJ Amateur Radio operation at the 2019 World Scout Jamboree in West Virginia [reported](#) that more than 3,000 Scouts took part in the ham radio demonstrations, logging more than 4,000 contacts in 86 DXCC entities.

Used with permission The ARRL Letter for August 29, 2019

AA

## 62nd JOTA - Jamboree on the Air

Friday thru Sunday, October 18-20, 2019 (held 3rd weekend in October)

World Jamboree — the very successful NA1WJ at World Scout Jamboree this past Summer

On-The-Air / On-The-Internet, see

<https://www.jotajoti.info/>

Scouting JOTA webpage

- <https://www.scouting.org/jota/station-registration/>

Check with your Local ARCs for activities in your MDC Section.

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AA

## A CubeSat, Taurus-1 Has Been Launched

**A CubeSat with an FM-to-Codec-2 transponder has been launched.** The Taurus-1 (Jinniuazu-1) CubeSat carrying an Amateur Radio FM-to-Codec-2 transponder was launched on September 12 from China's Taiyuan Satellite Launch Center. The CubeSat was developed by Aerospace System Engineering Research Institute of Shanghai for youth education and Amateur Radio. The transponder is similar to that used on the LilacSat-1 (LO-90) CubeSat and can use the same software, once frequencies are changed, receiving FM with 67 Hz CTCSS on 145.820 MHz and retransmitting it as Codec-2 9,600 bps BPSK digital voice on 436.760 MHz. The telemetry downlink is 435.840 MHz. In addition to the transponder, the satellite also carries a drag sail. For more information on the transponder type, see "[Digital Voice on Amateur Satellites: Experiences with LilacSat-OSCAR 90](#)," which appeared in the January/February edition of *The AMSAT Journal*. -- Thanks to AMSAT News Service

Used with permission The ARRL Letter for September 19, 2019

AA

## AARC Mesh Networking Group

1:00 to 4:00 PM monthly,

on the 3rd Sunday of the month

AARC Clubhouse, Davidsonville, MD

(Next Meeting will be Oct. 20, 2019.)

## AARC Repeaters and Nets

### 2 Meter Repeaters

Location	Frequency	Tone	Notes
Davidsonville	147.105+	107.2	AARC Repeater with morning traffic net.
Glen Burnie	147.075+	107.2	AARC repeater Located in Northern AA County.
BrandyWine	147.150+	114.8	SMARC Repeater.
Prince Frederick	145.350-	156.7	SPARC/CARC Repeater.
Laurel	147.225+	156.7	Laurel ARC Repeater.
Millersville	146.805-	107.2	Repeater.

### 1.25 Meter Repeaters

Location	Frequency	Tone	Notes
Davidsonville	223.880-	107.2	AARC 1.25M repeater *check to see if tied into 7.105...
Millersville	224.560-	107.2	AARC repeater Located in Northern AA County.

### 70cm Repeaters

Location	Frequency	Tone	Notes
Davidsonville	444.400+	107.2	AARC 70 cm Repeater.
Annapolis	442.300+	107.2	AARC 70 cm repeater
Laurel	442.500+	156.7	Laurel ARC 70 cm Repeater.
Millersville	449.125-	107.2	Maryland Mobileers Repeater.
Upper Marlboro	443.600+	103.5	SMARC 70 cm Repeater.

### Packet Stations

Location	Frequency	Call	Notes
Davidsonville	145.050	W3VPR	AARC Club packet node running JNOS
Davidsonville	145.010	W3VPR-5	Digipeter Relay to EOC Winlink
Millersville	145.010	W3AAC-5	Digipeter Relay to EOC Winlink
Glen Burnie	145.010	W3AAC-10	EOC Winlink system and digipeter

### Amateur Radio NETS

Name	Frequency (in Mhz)	Day	Time
The "Holly Net"	147.105+ PL 107.2	Weekdays	0700
AARC Talk Net	147.105+ PL 107.2	Wednesday	2000
AA County ARES Net	146.805- PL 107.2	Sunday	2000
Baltimore Traffic Net	146.670-	Daily	1830
Boating Net	146.805- PL 107.2	Wednesday	1930
Maryland Emergency Phone Net	3.920	Daily	1800
Maryland-DC-Delaware Traffic Net	3.643	Daily	1900 and 2200
Maryland Slow Net	3.563	Daily	1930
React Net	442.300+ PL 107.2	1st Sunday	1930

*We use **simplex 146.430 Mhz** frequently enough that you should probably program that into your HT or mobile. This is the go-to frequency for many 5K race/walk volunteering efforts, local communication, Field Day setup, and the like when we're not using a repeater.*



## REPEATER FREQUENCIES

<b>Davidsonville</b>	<b>Millersville</b>	<b>Glen Burnie</b>	<b>Annapolis</b>
<b>147.105+</b>		<b>147.075+</b>	
<b>223.880-</b>	<b>224.560-</b>		
<b>444.400+</b>			<b>442.300+</b>

**PL: 107.2 for all repeaters**

The 147.105 and 147.075 repeaters are frequently linked. Please leave an extra second after the courtesy beep to allow the link to reset as well.

*Visitors are welcome to all meetings and nets.*

*Meetings are held in the Clubhouse at the  
Davidsonville Family Recreation Center,  
Queen Anne Bridge and Wayson Roads off  
MD Route 214 near Davidsonville, MD.*

*For en-route directions, make initial contact on the 147.105 repeater.*

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### Wednesday Night Talk Net -- All are welcome

8PM, On the AARC Repeater 147.105

#### Other Amateur Radio nets

Name	Frequency	Day	Time
The "Holly Net"	147.105+Mhz PL 107.2	Weekdays	0700
AA County ARES Net	146.805- Mhz PL 107.2	Sunday	2000
Baltimore Traffic Net	146.670- Mhz	Daily	1830
Maryland Emergency Phone Net	3.820Mhz	Daily	1800
MD-DC-DE Traffic Net	3.557Mhz	Daily	1900 and 2200
Maryland Mobileers Net	146.805 PL107.2	Monday	1930
Maryland Slow Net	3.563 MHz	Daily	1930
REACT Net	442.300+Mhz PL107.2	1st Sunday	1930

# The Radio Amateur Operator is...

## **CONSIDERATE**

...He/[She] never knowingly operates in such a way as to lessen the pleasure of others.

## **LOYAL**

...He/[She] offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/[her] country, through which Amateur Radio in his/[her] country is represented nationally and internationally.

## **PROGRESSIVE**

...He/[She] keeps his/[her] station up to date. It is well-built and efficient. His/[Her] operating practice is above reproach.

## **FRIENDLY**

...He/[She] operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

## **BALANCED**

...Radio is a hobby, never interfering with duties owed to family, job, school or community.

## **PATRIOTIC**

...His/[Her] station and skills are always ready for service to country and community.