

# The Ham Arundel News



Providing Fellowship and Community Service through  
Amateur Radio since 1951



November 2020

42nd Year of Publication



Keith Miller, AE3D

**Prez**

**Sez**

This month is your last chance to step forward and become a member of the Anne Arundel Radio Club's 2021 Board of Directors. Now I know everyone remembers those movies where they ask for volunteers, and everyone but one poor sap backs up a step. Oops!

The truth is, you like to come down to the club house, and you like shooting the breeze on Zoom. You like to spend time talking about your hobby with people who understand it. You like planning things and then seeing them happen. I also know you have some idea of what you want done, and how to do it, and you hate it when someone else does it and you think it turned out poorly. So come on, step up, and become a part of the solution. Join the Board.

Generally we have several kinds of people who don't volunteer, and no, the first group isn't 'live people'. There are those who say 'no' now, mostly to avoid the rush later. It's the "I'm afraid of being sucked into doing a bazillion things" defense. Funny how those who say 'no' so well now, are afraid they won't be able to say 'no' at

all, later. Then there are those who don't believe they can handle the job. Really? What? Mostly the job is sitting through meetings, and trying to apply common sense. So is it the sitting that's the issue? You are a licensed ham radio operator, smart enough to pass difficult government exams. Do you actually think you lack common sense? There are also those who say they don't have the time, and yet somehow think everyone else does. Many who tell us they have no time, then try to prove it by attending every single meeting. Please. You don't have to attend every meeting. Ask any past or present Board Member about that.

You will get out of this amateur radio club pretty much what you put into it. Being a Board Member is a chance to make new friends, learn more about your hobby, and to create the kind of club you want to be part of. And you want to miss out on this because?

You may not know it, but a ham radio club literally runs on fun. If it's fun for you, it will bring you hundreds of hours of pleasure. If it's not, it won't be long before you find other ways to spend your dues check. At one time, a repeater was all it took to have fun and win loyalty. Today every club has one. Heck we have four and a half of them. So if that's all we do well, we're doomed. Turn on your HT and listen. While our membership roster is up, the percentage of our time actually spent on repeaters is down. So clearly, considering we are still growing, we must be doing something

else right. We need to build on that something else if we want to continue to grow and prosper.

Over the past years I've seen our club do a huge number of things not related to repeater usage. First we provide some super operating events, from Field Day in Winter, to the bigger Field Day in June, to the Maryland DC QSO Party in August. We have a picnic, a holiday party, and 23 meetings a year with presentations on a huge variety of topics. We hold kit building workshops, and series of classes from getting licensed, to getting upgraded, to learning Morse Code. We provide communications for special events. We have provided everything from work projects for Eagle Scouts to high school STEM programs. All of this takes work, and work takes volunteers. And all of it is fun, but only if you take part.

And we are constantly trying to expand the fun. Over the past two years we have created a ham shack for members to come use both as a cohesive club group, and as individuals. But to make the whole thing totally usable we need antennas to allow us to operate every band 160 meters to 70 centimeters. That's 14 bands worth of antenna folks. No, antennas aren't free. But they sure are fun to put up and see work. And no antenna means no fun. So we'll need your approval to spend some money, and we'll need your time and effort to make it all happen. Remember the fun is in making it happen. Volunteer. We need you. And we want you to be part of the fun.

When I first joined the AARC at the beginning of the 1980s, the vast majority of our members owned single family homes in places without housing covenants. I remember when I first bought my Bowie home, I put up an antenna and I built a workshop in the garage with outlets and table heights especially for working

on station equipment. So I not only had space to erect my own antennas, I had a workshop to work in. Now, every year the percentage of our membership with that kind of luxury goes down.

Ham radio is synonymous with 'do it yourself'. If you've tried doing it yourself without a workshop, I think you already know where I'm going with this. It quickly becomes a "'You can't get there from here'" proposition. Knowing this, the AARC is trying to create a workshop for you to use, complete with parts. A place where you can not only build it or fix it, but where you can hang out with your friends while you do it. If that's not a fun improvement, I don't know what is. But again, it takes money, and it takes volunteers. And again, the volunteer part is the fun part of ham radio.

So when someone says volunteer, remember..... when you work for someone else doing something they want you to do, it's called work, and they pay you for it. When you work with your friends doing something you want to do, it's called fun. So I'm not asking you to work. I'm asking you to have fun. Volunteer! We need you, and you know what... you need it too. Isn't it fun the reason why you joined?



## Slate of Proposed AARC Club Officer for 2021



As prescribed by the AARC bylaws, and as chairman of the nominating committee for 2021 officers, it is my duty to inform you of the slate of proposed officers and directors for the 2021 board of directors:

Slate Of Proposed Officers And Directors For The 2021 Board Of Directors

President - Eric Berman, KC3GDV

Vice - President - none

Secretary - none

Treasurer - Rick Steer, AB3XJ

Board - Russ Hewitt, WO3Q

Board - Bernarr Coletta, NK3PS

Board - Bill Ryan, N3RY

Here's a copy of the bylaws to remind us what comes next:

*By no later than the last Thursday in October of every year, the Nominating Committee shall present a slate of proposed Officers and At-Large Directors to the Board of Directors, and shall present such a slate to the Membership at the November business meeting and through the Corporation's newsletter. Additional nominations may be made by Members at the November business meeting. Nominations will be closed at the end of the November business meeting. The November newsletter shall be distributed to Members after the November business meeting, and no later than November 15. The President shall notify all Members not less than ten (10) days before the Annual Meeting for the names of the candidates, the date, time and location of the meeting.*

73

John Bowes, KB3YLY

Chairman of the Nominations Committee

## Congratulations to New and Upgraded Licensees

Geoffrey Chin, KC3PNZ, General  
Eddie Bryant, KC3PZL, General  
Casey Ingram, KC3QFT, Technician  
Glendon Bartlet, KC3QFU, Technician  
Regan Beeman, KC3QFV, Technician

Aaron Kliewer, KC3QFW, Technician  
Richard Libbey, KC3QFX, Technician  
James Smyth, KC3QFY, Technician  
Eric Palmer, KC3QFZ, Technician  
Adam Lee, KW3CID, General

## Facebook FAQs

I am a member of several Facebook groups for amateur radio enthusiasts. There are a few questions that frequent the pages from new (and even some experienced) amateur radio operators.

Question: I don't hear a lot of activity even on the repeaters. What is wrong?

Answer: the best times for traffic on the repeaters are generally around rush hours and during nets. This doesn't mean people may not be listening, they may respond if you state you are listening or asking for a radio check.

Question: How do I program my radio?

Answer: the easiest way is to use Chirp from danplanet.com and to follow the instructions to make table entries into the radio. It's also best to have the RepeaterBook app to identify local repeaters that are available to you as some are digital. Also, some of your fellow hams may be willing to share their channel image, particularly if they have the same radio.

Question: how can I program repeaters into my radio along a route for a trip I am taking?

Answer: the internet version of RepeaterBook <<https://www.repeaterbook.com/repeaters/travel.php>> gives you the ability to locate repeaters along specific routes by state. You can identify any repeater or just wide-area repeaters.

Editor

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## Net Control Operators Needed

AARC is seeking members who are willing to volunteer to run the two premier nets:

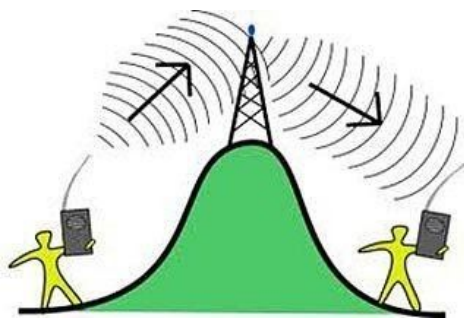
The Holly Net is named in memory of Holly Bevan who ran the morning net for many years. It runs from 7 - 9 am Monday thru Friday, except for holidays. Email [holly.net@w3vpr.org](mailto:holly.net@w3vpr.org) to volunteer.

The Wednesday 2-meter Net is conducted weekly starting at 8 pm. For information contact [wednesday.night.net@w3vpr.org](mailto:wednesday.night.net@w3vpr.org)



# REPEATER FREQUENCIES

Davidsonville	Millersville	Glen Burnie	Annapolis
147.105+		147.075+	
223.880-	224.560-		
444.400+			442.300+



**PL 107.2 is active for all repeaters**  
**The 147.105, 147.075 and 444.400 repeaters are frequently linked. Please allow 2-3 seconds after the courtesy beep to allow for the link to reset.**

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## NETS



**The "Holly Net" - Weekdays - 7-9 am**  
**Wednesday Night Talk Net - Wednesday - 8 pm**  
**Both on the 147.105 and 147.075 repeaters**

### Other Amateur Radio Nets

| Name                          | Frequency             | Day         | Time          |
|-------------------------------|-----------------------|-------------|---------------|
| AA County ARES Net            | 147.805- MHz PL 107.2 | Sunday      | 2000          |
| Anne Arundel – Annapolis CERT | 442.300+ MHz PL 107.2 | 3rd Tuesday | 1900          |
| BaltimoreTraffic Net          | 146.670- MHz          | Daily       | 1830          |
| Maryland Emergency Phone Net  | 3.820 MHz             | Daily       | 1800          |
| MD-DC-DE Traffic Net          | 3.557 MHz             | Daily       | 1900 and 2200 |
| Maryland Mobileers Net        | 146.805 MHz PL 107.2  | Monday      | 1930          |
| Maryland Slow Net             | 3.563 MHz             | Daily       | 1930          |
| REACT Net                     | 146.805+ MHz PL 107.2 | 1st Sunday  | 1930          |

**The Ham Arundel News is the official  
publication of  
The Anne Arundel Radio Club**  
(ARRL Club No.0484)

Davidsonville Family Recreation Center  
3789 Queen Anne Bridge Rd  
Davidsonville, MD 21035

**Editor: Phil Nelson / NO3N**  
Send newsletter articles, information and  
questions to: [newsletter@w3vpr.org](mailto:newsletter@w3vpr.org)

**Mailing Address:**  
Anne Arundel Radio Club  
Post Office Box 308  
Davidsonville, MD 21035-0308

**Meetings:**  
Business Meeting 1st Thursday at 7:30 PM  
Program/Activity 3rd Thursday at 7:30 PM  
Board Meeting - see calendar

**Notice**

On October 1, 2020, the membership approved a proposal to accept donations designated for specific causes related to AARC (for instance new antennas, equipment, tower repairs, etc) during the fiscal year received or up to one year after the donation. Donations can be anonymous if requested.

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**Visiting AARC**

Visitors are welcome at all meetings and on all nets.

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

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

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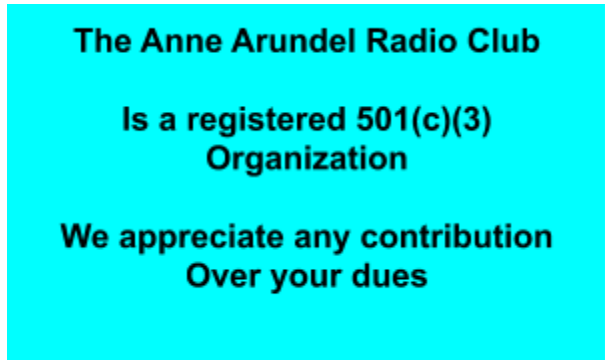
**Dues:**

\$30 per year, payable December 1st  
Discounts available for family members and students

World Wide Web: [www.w3vpr.org](http://www.w3vpr.org)

AARC supports the Maryland Slow Net:  
3.563 MHz CW 7:30 PM

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**Ham Arundel News  
December Deadline**

The deadline for the December 2020 issue of the newsletter will be Saturday, November 21. If you have something you wish to share or contribute, please email [newsletter@w3vpr.org](mailto:newsletter@w3vpr.org)

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**News to Share?**

Other members may appreciate hearing of your experiments, projects and ideas. While you may have shared these on the Holly Net or the Wednesday 2-meter net, others may be inspired by your story.

## AARC Staff - 2020

### Officers

<b>President</b>	Keith Miller / AE3D president@w3vpr.org	240-758-0423
<b>Vice President</b>	Jim Wallace / N3ADF vice.president@w3vpr.org	
<b>Secretary</b>	Bernie Colleta / NK3PS secretary@w3vpr.org	
<b>Treasurer</b>	Will Mooney / KA3UQQ treasurer@w3vpr.org	
<b>Director A</b>	Eric Berman / KC3GOV eric.board20@w3vpr.org	
<b>Director B</b>	Doug Ellmore / NA1DX doug.board20@w3vpr.org	
<b>Director C</b>	Scott DeMatteo / W3GTR scott.board20@w3vpr.org	

### Support Staff

<b>Membership Secretary</b>	Lambert Matiss / KK3WOW
<b>Information Orricer</b>	Ed Santilli / KB3YMU info.officer@w3vpr.org
<b>Safety</b>	John Bowes / KB3YLY 443-760-1066 safety@w3vpr.org
<b>Security</b>	Tom Provenze / N3HLD security@w3vpn.org

### Representatives

<b>ARES/RACES</b>	John Bowes / KB3YLY ares.races@w3vpr.org
<b>DFRC Rep</b>	Milford Craig / N3WYB 391-218-8867 dfrc.rep@w3vpr.org
<b>Fox Hunt</b>	Jim Wallace / N3ADF fox.hunt@w3vpr.org
<b>Joint 440 Comm</b>	Gordon Davids / WJ3K 410-647-2956 joint440@w3vpr.org
<b>MD Slow Net</b>	(TBA)
<b>MDC Section Mgr</b>	Martin Pittenger / KB3MXM arrl.sec.mgr@w3vpr.org
<b>Public Relations</b>	Ed Santilli / KB3YMU 301-261-6551 pr@w3vpr.org
<b>Resident Agent</b>	Justin Leidhmsn / KC3BJT ra@w3vpr.org
<b>Trustee</b>	Dick Mayo / WW3R trustee@w3vpr.org

### Committees

<b>APRS</b>	Jon Graefe / AE3JG aprs@w3vpr.org
<b>Beverage Supply</b>	Jim Myrich / W3JLM beverage@w3vpr.org
<b>Club Sale &amp; Auction</b>	Ike Lawton / W3IKE club.sale@w3vpr.org
<b>Club Picnic</b>	Jim Myrich / W3JLM picnic@w3vpr.org
<b>Digital Networking</b>	Ted Ruddy / KC3LMV net.leader@w3vpr.org
<b>Facilities</b>	Eric Berman / KC3GDV facilities@w3vpr.org
<b>Field Day</b>	Brian Mary / K3HMX field.day@w3vpr.org
<b>Station Manager</b>	(TBA) station.manager@w3vpr.org

<b>Holly Net</b>	Jim Wallace / N3ADF holly.net@w3vpr.org	
<b>HAMM-MESH</b>	(TBA) hamm.mesh@w3vpr.org	
<b>Kit Building</b>	'Raven' Weiland / KB3MUV kit@w3vpr.org	203 948 5369
<b>MDC QSO Party</b>	Jim Wallace / N3ADF mdcqsop@w3vpr.org	301 538 6233
<b>Newsletter</b>	Phil Nelson / NO3N newsletter@w3vpr.org	
<b>Photography</b>	Ed Santilli / KB3YMU photo@w3vpr.org	
<b>Presentation</b>	Jim Wallace / N3ADF presentation@w3vpr.org	
<b>Public Service</b>	Erick Graves / WA3G public.service@w3vpr.org	410 987 7670
<b>Repeater Ops</b>	John Williams / K8JW repeater@w3vpr.org	410 647 7406
<b>Rules</b>	Chuch Tanner / W3ACT rules.chair@w3vpr.org	301 464 2667
<b>Service Hours</b>	Jim Wallace / N3ADF service.hours@w3vpr.org	301 538 6233
<b>Tower</b>	(TBA) tower@w3vpr.org	
<b>Training</b>	Keith Miller / AE3D learn@w3vpr.org	240-758-0423
<b>VE Team</b>	David Rawley / N3AT ve.team.leader@w3vpr.org	
<b>Video</b>	Ed Santilli / KB3YMU video@w3vpr.org	
<b>Webmaster</b>	Mike Bova / W2PAW webmaster@w3vpr.org	240 274 6294
<b>Wed. Nite Net</b>	Mike Waterson / K3MAW wednesday.night.net@w3vpr.org	
<b>Winter Field Day</b>	Rick Steer / AB3XJ winter.field.day@w3vpr.org	
<b>Workshop</b>	(TBA) workshop@w3vpr.org	

### Groups

<b>Board of Directors</b>	board20@w3vpr.org
<b>Kit Building Committee</b>	kitbuilding@w3vpr.org
<b>Rules</b>	rules@w3vpr.org





# Calendar

## AARC

Due to social distancing requirements, club meetings are being held on Zoom and there have been some changes. The meeting schedule for November - February is:

November 5 - Membership Meeting, 7:30 PM,  
Agenda: Nominations for 2021 Board

November 19 - Membership (Presentation)  
Meeting, 7:30 PM

December 3 - Membership Meeting, 7:30 PM,  
Agenda: Election of Board

January 7 - Membership Meeting, 7:30 PM

January 21 - Membership Meeting, 7:30 PM

February 4 - Membership Meeting, 7:30 PM

February 18 - Membership Meeting, 7:30 PM

Invitations to the membership meetings will be emailed to the membership before the meetings. You must request meeting information from the President for Board meetings or the Rules Committee Chairman for the committee meeting.

## SkyWarn Online Basic Classes

November 2, 7-9 pm, Washington County

Registration:

<https://www.eventbrite.com/e/skywarn-basics-washington-county-md-tickets-119829666759>

November 16, 6-8 pm, Warren County, VA

Registration:

<https://www.eventbrite.com/e/skywarn-basics-warren-county-va-tickets-118395828109>

November 17, 6-8 pm, Garrett County, MD

Registration:

<https://www.eventbrite.com/e/skywarn-basics-garrett-county-md-tickets-12596753930>

November 18, 6-8 pm, Cecil County, MD

Registration:

<https://www.eventbrite.com/e/skywarn-basics-cecil-county-md-tickets-125966907411>

November 19, 6-8 pm, Calvert County, MD

Registration:

<https://www.eventbrite.com/e/skywarn-basics-calvert-county-md-tickets-118396235327>

Classes are open to all interested persons regardless of residence

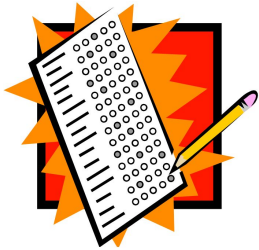




# Calendar

(continued)

## VE Testing



November 14 - Anne Arundel Radio Club, Davidsonville Family Recreation Center at the Shack, 3789 Queen Anne Bridge Rd, Davidsonville, MD. Registration starts at noon; testing at 1:00 PM. Contact David Rawley/AE5Z

by e-mail ([testing@w3vpr.org](mailto:testing@w3vpr.org)) for more information and to pre-register

November 21 - Laurel Amateur Radio Club, Women's Club of Laurel building, 384 Main St., Laurel, MD. Registration at 9:00 AM. Contact John Creel (WB3GXW) at 301-572-5124.

November 24 - Maryland Mobileers, National Electronics Museum, 1745 West Nursery Rd, Linthicum, MD, 6:00 PM. Arrive **no earlier** than 5:45 PM. contact Mike Montrose / KA2JAI 443-310-4907 web site is [tinyurl.com/marylandmobileers](http://tinyurl.com/marylandmobileers)

Summary of what to bring to your exam session:

- 1) A government-issued photo ID.
- 2) FRN if you have one, or SSN if you do not. FRN must be used if you have one.
- 3) Valid CSCE issued at a previous exam session if the exam results have not been processed by the FCC yet.
- 4) Acceptable material if claiming exam credit.

**Please check current testing status due to social distancing restrictions or closures.**

## Contesting

November 7-9 - ARRL November CW Sweeps; info at <http://arrl.org/sweepstakes>

November 21-23 - ARRL November Phone Sweeps; info at <http://arrl.org/sweepstakes>

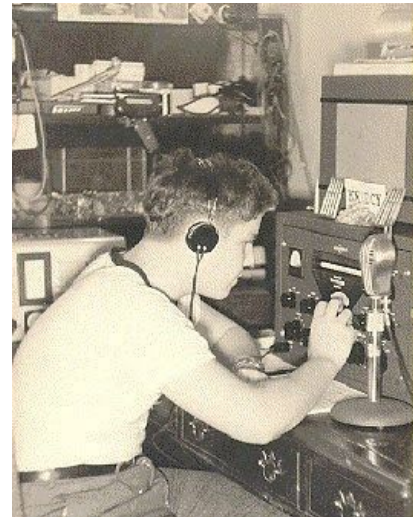
November 28-29 - CW Worldwide CW; info at <http://arrl.org/sweepstakes>

\*- Sweeps: 100+ contacts by an operator qualifies him/her to receive a pin.

December 4-6 - ARRL 160 Meter; info at <http://www.arrl.org/160-meter>

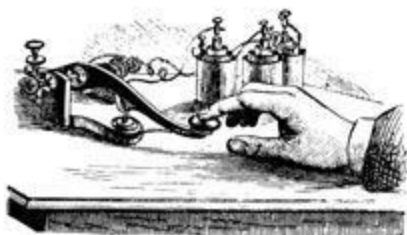
December 12-13 - ARRL 10 Meter; info at <http://www.arrl.org/10-meter>

December 20- ARRL Rookie Roundup CW; info at <http://www.arrl.org/rookie-roundup>



## Getting Over the 10 WPM Code Speed Wall

How do you get over that 10 word per minute wall and train your ear to translate at a conversational level? Here's how I did it.



In the early fall of 1979, I obtained my Technician's license with 5 wpm code. Then I began practicing for the General Class

license. By the summer of 1980, I was close to the 13 words per minute requirement, took the test and barely passed.

I was on the air nightly with my little 30 watt CW rig, but I just couldn't force my mind to jump to the next hurdle of 20 wpm.. In desperation, I asked a club member for help. Ex-Navy Radioman, Bill Irwie-WA3ZMY (SK), let me in on the secret.

"Listen to W1AW High Speed Code Practice," Bill said.

"What? They start off at 35 words per minute. That's just noise to me."

"Yes, listen to the High Speed Code Practice from the beginning at 40 wpm," he continued, "and close the shack door. Turn the rig sound up so loud it can't be ignored. DON'T even try to copy it, just listen. Clean the shack, organize the shelves, whatever."

"Go from my 10 wpm to 35 wpm just like that?" I said.

Bill explained the procedure. "Have patience, Grasshopper. The code practice starts at 35 wpm, then every 8 minutes, it drops the speed by increments of 5 wpm. Finally, when it slows to 20 wpm, you might start recognizing some characters. That's when you sit down and try to translate it. You'll miss many letters, but if you only get one out of five

words correct, you're on the road to copying at a higher speed. Continue copying as it drops to 15 and 13 wpm. You'll be amazed how much easier it is to copy."

"Wow. That sounds intense."

"Make it a habit for 14 days straight," he instructed. "No missing days. No getting on the radio and making contacts. You will just do the Code Practice! Of course it will be intense. But you will break the barrier."

Well, I tried it and it worked. After two weeks of practice with the High Speed Code Practice, I was coping 20 wpm almost solid. When got on the rig and could copy almost anyone sending on the Amateur Extra bands.

In the summer of 1981, I went with a friend to the Baltimore FCC Office. I carried my little cassette player and headphones with me. I had recorded the W1AW High Speed Code Practice from the night before. While waiting for all the Novices, Techs, Generals and Advanced go for their upgrade tests, I sat in the waiting room and played my cassette tape. I was tuning up my ears and brain for 20 wpm by listening to much higher speeds. Finally after almost two hours of waiting, they called for the 20 wpm code test.

"Jim, you're up. Let's see if you can do it?" I muttered to myself.

They gave me a set of headphones, a test sheet and a pencil. Then the code started. It turned out to be a regular QSO. So I started writing down what I heard in cursive. I wasn't missing any letters. When the code stopped, the man said to answer the 10 questions on the paper about what we heard and turn in the test.

Here was a sample of the questions: Who was the person sending? What was his call sign? What was the other ham's name? How high was his antenna and what kind was it. So I easily answered the questions and turned in the paper.

The man from the FCC came over to me,  
“Have you ever taken this test before?”

“No Sir. This is the first time!”

“Well, you copied it 100 percent, and you got all the questions correct,” he exclaimed with astonishment!

I went home that day with the call sign of N3ADF/BT.

If you are serious about upping your code speed, this method will do it. Remember, **No radio except W1AW High Speed Code Practice for 14 days straight, every day.** It only takes about 30 minutes of your time each day. Any more than that and your brain will rebel.

Jim Wallace – N3ADF

### **Nationwide Red Cross Emergency Communications Drill Set for November 14**

The nationwide American Red Cross Emergency Communications Fall Drill, a joint exercise with ARRL Amateur Radio Emergency Service (ARES®) groups, is set to take place on November 14. This exercise evolved from the highly successful spring drill that attracted hundreds of participants from some 40 states and Puerto Rico.

The fall drill will be a Winlink-specific event with these goals: (1) pass traditional American Red Cross (ARC) forms from as many states and as many radio amateurs as possible to one of six division clearinghouses, and (2), bring as many radio operators as possible up to a "basic" level of Winlink proficiency. A series of Winlink Workshops is held each Thursday at 0100 UTC on Zoom.

*ARRL Letter*, October 22, 2002

### **FCC Headquarters has moved.**

The new address is 45 L St. NE, Washington, DC 20554. The change is effective immediately. The FCC announced plans to move last spring, but the transition was delayed by the COVID-19 pandemic.

The FCC, like many federal agencies, has its own ZIP code, so there will be no disruption in mail delivery sent by USPS to the former address. The FCC still prohibits the delivery of hand-carried documents, and all COVID-19 restrictions or instructions regarding access to FCC facilities remain in place at the new location.

*ARRL Letter*, October 22, 2002

### **ARRL Learning Network Webinars**

ARRL members may visit the Learning Network website to register for upcoming sessions and to view previously recorded sessions. The schedule is subject to change.

How to Get Started in Amateur Radio Contesting:  
Anthony Luscre, K8ZT

Why do hams contest? How would I benefit from contesting? What do I need to get started in contesting? What are good contests for beginners? Where can I learn more? This session will answer all of these questions and more.

Tuesday, November 3, 2020, 10 AM PST/1 PM EST (1800 UTC)

Learn and Have Fun with Morse Code: Howard Bernstein, WB2UZE, and Jim Crites, W6JIM

Morse code, or "CW," is a popular ham radio operating mode. Learning CW does not have to be an arduous or lonely experience. Learn, practice, and enjoy CW with the methods used by the Long Island CW Club.

Thursday, December 17, 2020, 5 PM PST/8 PM EST (0100 UTC on Friday, December 18)

*ARRL Letter*, October 22, 2002

## **WSJT-X Developer Expresses Puzzlement over FT8 Contest Use**

WSJT-X co-developer Joe Taylor, K1JT, recently expressed puzzlement over the use of FT8 in contests -- rather than FT4, which was designed for contesting.

"I fail to understand why anyone who uses FT8 in a contest would fail to use FT4 for much of the time," Taylor said. "FT4 is about 3 dB less sensitive than FT8, but it's twice as fast."

Taylor offered the comment in the Mt. Airy VHF Society's October 2020 Cheese Bits, regarding the September ARRL VHF Contest. Taylor said a large fraction of stations that are worked with FT8 are much more than 3 dB above the FT4 decoding threshold.

"With FT4, you can still work anyone that can be worked with CW, and near the CW threshold, you'll do it faster using FT4," he said. "And with FT4, you can work stations that are far weaker (by ~20 dB) than what's necessary for SSB. When I did work other stations with FT4, I did it by transmitting the FT8 message 'K1JT FT4 318.'" Taylor said he'd then move to 50.318 MHz FT4, and several contesters followed him there. "Many more would have made it much more fruitful," he said.

"For speed, flexibility, and ease of running the bands, yes, you should use SSB and CW when there are stations to work," Taylor said in summary. "When you run out of those, use FT8 and especially FT4."

Taylor also remarked, "In my 80th year, I can no longer call on my past stamina for contesting."

**ARRL Letter**, October 22, 2002

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## **IARU Administrative Council Addresses Wide-Ranging Agenda in Virtual Meeting**

The International Amateur Radio Union Administrative Council (AC) met in a virtual session on October 8 - 10. Consisting of the three IARU international officers and two representatives from each of the three IARU regional organizations, the

council is responsible for IARU policy and management. The meeting, which had been set to take place in Novi Sad, Serbia, was conducted via the internet because of coronavirus pandemic travel restrictions.

Recently appointed EMC Coordinator Martin Sach, G8KDF, reported on work being done to address the need for reasonable standards to limit the proliferating threat of radio spectrum pollution from digital devices and wireless power transmission.

IARU Beacon Project Coordinator Peter Jennings, AB6WM/VE3SUN, reported on the status of the NCDXF/IARU beacon network, explaining recent and planned upgrades, as well as the network's many applications.

In his report, Satellite Advisor Hans Blondeel Timmerman, PB2T, described the work of the Satellite Frequency Coordination Panel. He reported that steps are being taken to address the growing number of non-amateur satellites that use amateur satellite spectrum.

Special Advisor for Emergency Communications Rod Stafford, W6ROD, explained his work representing the IARU in the ITU Development Sector (ITU-D), particularly with regard to disaster communications, and preparations for the World Telecommunication Development Conference next month. He highlighted an opportunity to promote amateur radio in ITU-D as a training platform for youth.

Preparations are already under way for World Radiocommunication Conference 2023 (WRC-23) of the International Telecommunication Union (ITU), currently expected to be held in 2023. A team of some 20 IARU volunteers from all continents is engaged in the preparatory processes of the ITU and the regional telecommunications organizations. The AC reviewed a draft of IARU's positions on WRC-23 agenda items of concern.

A committee was formed in 2019 to address growing pressure on amateur spectrum, particularly secondary allocations, at 144 MHz and above. The panel reported on its work to date in defining present and future spectrum requirements. Additional

information will be sought from the amateur community on how this spectrum is being utilized.

Taking note of the many ways that the global amateur radio community has responded positively to challenges posed by the pandemic, the AC agreed to develop a related theme for World Amateur Radio Day next April 18.

The council expressed the hope that an in-person meeting can be held in October 2021. Read more.

ARRL Letter, October 15, 2020

FCC Orders Amateur Access to 3.5 GHz Band to "Sunset"

Despite vigorous and continuing opposition from ARRL and others, the FCC has ordered the "sunset" of the 3.3 - 3.5 GHz amateur radio secondary spectrum allocation. The decision allows current amateur activity on the band to continue, "grandfathering" the amateur operations subject to a later decision. The FCC proposed two deadlines for amateur operations to cease on the band. The first would apply to the 3.4 - 3.5 GHz segment, the second to 3.3 - 3.4 GHz. The FCC will establish the dates once it reviews additional comments.

"We adopt our proposal from the Notice of Proposed Rulemaking to remove the amateur allocation from the 3.3 - 3.5 GHz band," the FCC said in its Report and Order. "[W]e adopt changes to our rules today that provide for the sunset of the secondary amateur allocation in the band, but allow continued use of the band for amateur operations, pending resolution of the issues raised in the Further Notice."

The Report and Order (R&O) and Further Notice of Proposed Rulemaking in WT Docket No. 19-348 adopted on September 30.

ARRL Letter, October 8, 2020

Editor: the band chart in this issue does not reflect the 3.3 - 3.5 MHz decision.

The Logbook of The World (LoTW) Committee worked with *WSJT-X* developer Joe Taylor, K1JT, to harmonize the designation of FST4 among *WSJT-X*, the ADIF standard, and LoTW. At present, FST4 is only supported in a **recently released beta version** of *WSJT-X*. The committee's action was to avoid the sort of confusion that cropped up among LoTW users logging contacts in FT4 when that protocol was first included in *WSJT-X*. In the case of FST4, the committee acted proactively to help users avoid difficulties and obtain the maximum number of contact matches. The ADIF standard has been updated to support FST4 as a sub-mode of MFSK, and configuration file CONFIG.xml for LoTW has been updated to version 11.13, accordingly, to support FST4. Users will be offered the update when they run TQSL.

Again, FST4 is only available in *WSJT-X*. An ADIF file emitted by *WSJT-X* should properly identify FST4, so that contacts will upload smoothly into LoTW, *provided* the CONFIG file has been updated. — *Thanks to Greg Widin, K0GW*

ARRL.org, 10/19/2020

### KDKA 100 Year Anniversary

**Nov 1-Nov 30, 0000Z-2359Z, W8XK, K3A, K3D, K3K**, Pittsburgh, PA. KDKA 100 Group. 14.260 14.030 7.260 7.030. Certificate & QSL. Special event stations Celebrating 100 years of KDKA as the 1st commercial broadcast station located in East Pittsburgh, Saxonburg and Hampton Township Pennsylvania. The special event operation is for the entire month of November. Work all four call signs and obtain a special commemorative certificate. (W8XK will QSL to W3WN. K3A. K3D and K3K will QSL to K3MJW.) SEE QRZ PAGES FOR QSL INFORMATION. radiofreebob@gmail.com www.qrz.com/db/w8xk

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**ARRL Logbook of The World Harmonizes Designation of FST4 Protocol**

## Special Event Stations

For additional information, contact the sponsor organization or go to [www.arrl.org/special-event-stations](http://www.arrl.org/special-event-stations).

### USCG Auxilliary 81st Anniversary

**Nov. 1-8, 0800Z-0621Z, W2G**, Freeport NY  
14.200 10.118 7.190 3.885

**Nov. 6-8, 0001Z-2359Z, W1H**, Elkins NH  
14.301 7.195 3.941

**Nov. 6-8, 0000Z-2359Z, N2G**, Copiague NY  
7.247

**Nov. 6-8, 1400Z-2200Z, N1A**, Plainville CT  
14.295 7.265

**Nov. 6-8, 1400Z-2200Z, W8C**, Rochester MI  
21.335 14.275 7.275 3.975  
<https://uscgauxnational.blogspot.com/2020/06/81st-anniversary-of-the-us-coast-guard.html>

**Nov. 6-8, 1400Z-2200Z, N6Z**, San Jose CA  
14.074 21.074 7.074 14.225

These following events operate under various titles.

### Veterans Day

**Nov 1-Nov 14, 0000Z-0000Z, N5VET**, Cleburne, TX. Club KC5NX. 14.235 14.270 14.045 7.235  
<https://www.dxwatch.com/dxsd1/dxsd1.php?f=0&c=N5VET&t=dx>

**Nov 1-Nov 15, 0000Z-0000Z, N5V**, Cleburne, TX. Club KC5NX. 14.255 14.045 7.240

**Nov 1-Nov 15, 0000Z-0000Z, N5V**, Cleburne, TX. Club KC5NX. 14.255 14.045 7.240

**Nov 11, 1500Z-2100Z, W4D**, Sevierville, TN. Sevier County Emergency Radio Service. 7.180 LSB; 7.080 PSK31

**Nov 11, 1800Z-2359Z, N9V**, Indianapolis, IN. The American Legion Amateur Radio Club. 20

meters, 14.275 MHz 40 meters, 7.225 \*CROSSRDS\* EchoLink Conf Node IRLP Node 9735

**Nov 11-Nov 12, 2200Z-0400Z, K0TAL**, Colorado Springs, CO. The American Legion CO Post 209 Amateur Radio Club. 14.265 7.265

**Nov 11, 1600Z-2130Z, W5KID**, Baton Rouge, LA. Baton Rouge Amateur Radio Club. 14.250 14.035 7.225 7.035.

**Nov 14, 1700Z-2359Z, N16IW**, San Diego, CA. USS Midway (CV-41) Museum Ship. 14.320 7.250 14.070 (PSK31) D-STAR

### 45th Anniversary, Sinking of the Edmund Fitzgerald

**Nov 2-Nov 16, 0000Z-2359Z, W8F**, Livonia, MT. 14.260 14.040 7.240 7.040

**Nov 6-Nov 8, 1500Z-2355Z, W0JH W0F**, Stillwater, MN. 21.360 14.260 7.260 3.860. Certificate. Via email , only to, EdFitzgerald2020@radioham.org.

### Other

**Florence Nightingale Bicentenary 2020**  
**Nov 7-Dec 4, 1800Z-2000Z, GB200FN**, Romsey, UNITED KINGDOM. RSGB. 14.210 3.665. [www.qrz.com/db/gb200fn](http://www.qrz.com/db/gb200fn)

**Mooseheart Founders Day Celebrating 107 Years, Nov 7, 1600Z-2300Z, K9M**, Mooseheart, IL. Fox River Radio League. 21.265 14.265 7.265 3.815. [www.mooseheart.org](http://www.mooseheart.org) [www.frri.org](http://www.frri.org)

**157th Anniversary of Lincoln's Gettysburg Address, Nov 10-Nov 20, 1100Z-0500Z, W04L, W1G**, East Berlin, PA. W04L. 18.155 14.275 7.180; FT 8 all.

# W1AW 2020 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 91 in the March 2020 issue of QST or on the web at <http://www.arrl.org/w1aw-operating-schedule>.

Used with permission ARRL Bulletin 8

# 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          |





# US Amateur Radio Bands

Operator license classes: **E** = Amateur Extra **A** = Advanced **G** = General **T** = Technician **N** = Novice  
 CW operation is permitted throughout all amateur bands. Except as noted, all frequencies are in megahertz (MHz).

■ = RTTY, data, phone, image   
 ■ = USB phone, RTTY, data and CW   
 ■ = RTTY and data   
 ■ = phone and image  
■ = SSB phone   
  = CW only

## LF – Low Frequency band

**2200 Meters (135 kHz) E,A,G**  
 1 W EIRP maximum

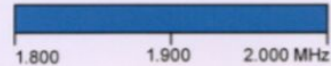


## MF – Medium Frequency bands

**630 Meters (472 kHz) E,A,G**  
 5 W EIRP max, except in Alaska within 496 miles of Russia where the limit is 1 W EIRP



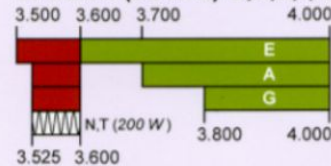
**160 Meters (1.8 MHz) E,A,G**



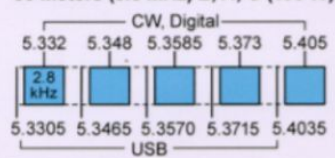
Amateurs wishing to operate on **2200 or 630 meters** must first register with the Utilities Technology Council online at <https://utc.org/plc-database-amateur-notification-process/>. You need only register once for each band.

## HF – High Frequency bands

**80 Meters (3.5 MHz) E,A,G,T,N**

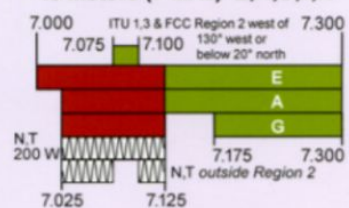


**60 Meters (5.3 MHz) E, A, G (100 W)**



Gen, Adv, and Extra licensees may operate on a secondary basis with a maximum ERP of 100 W maximum.

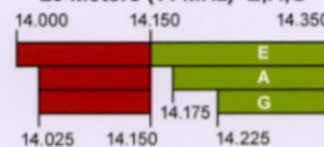
**40 Meters (7 MHz) E,A,G,T,N**



**30 Meters (10.1 MHz) E,A,G**



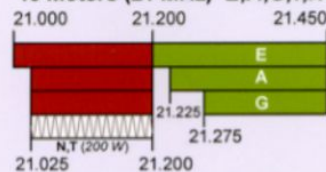
**20 Meters (14 MHz) E,A,G**



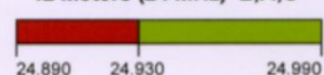
**17 Meters (18 MHz) E,A,G**



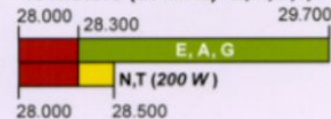
**15 Meters (21 MHz) E,A,G,T,N**



**12 Meters (24 MHz) E,A,G**

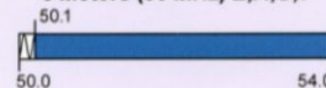


**10 Meters (28 MHz) E,A,G,T,N**

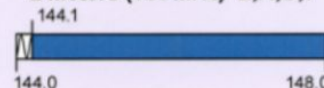


## VHF – Very High Frequency bands

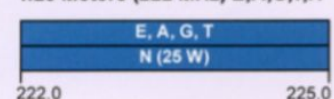
**6 Meters (50 MHz) E,A,G,T**



**2 Meters (144 MHz) E,A,G,T**

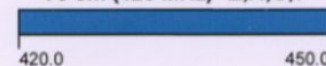


**1.25 Meters (222 MHz) E,A,G,T,N**



## UHF – Ultra High Frequency bands

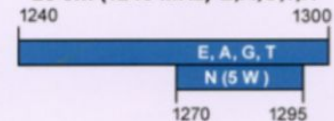
**70 cm (420 MHz) E,A,G,T**



**33 cm (902 MHz) E,A,G,T**



**23 cm (1240 MHz) E,A,G,T,N**



## SHF&EHF – Super and Extremely High Frequency bands

All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz    3300-3500 MHz    10.0-10.5 GHz    47.0-47.2 GHz    122.25-123.0 GHz    241-250 GHz  
 2390-2450 MHz    5650-5925 MHz    24.0-24.25 GHz    76.0-81.0 GHz    134-141 GHz    All above 275 GHz

See [www.arrl.org/band-plan](http://www.arrl.org/band-plan) for detailed band plans.

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