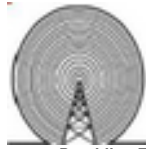


The Ham Arundel News



Providing Fellowship and Community Service through Amateur Radio since 1951



August 2020

42nd Year of Publication



Keith Miller, AE3D

Prez Sez

So far, it's been a pretty weird year. I started it with high hopes we would make big progress on antennas for the ham shack. Then the pandemic happened and the world changed. I was the first person I knew who got COVID-19. What a miserable 5 weeks that was. Since then nothing has been as easy as it was before. The residual effects are slowly going away even now. With Zoom meetings, two Technician license classes, a General class, a Morse Code class and Field Day I ran myself ragged. I don't have time to make contacts any more. My hobby used to be ham radio. Now it's running a radio club. I look forward to getting that simple pleasure back come January 1.

I am not the only one who has overextended himself for the club. Jim Wallace N3ADF, who is Vice President, Presentation Director, MDC QSO Party Team Leader, and the guy who keeps track of our service hours, and who is also heavily involved outside the club in PG ARES, finally knew when to say when and gave up running the Holly Net just recently.

This month I heard from Milford Craig N3WYG that he feels its time for him to pass the Ham Arundel News on to a new editor. I wish he'd stay, but, I get it. He's not giving up being DFRC Rep. but like so many others just needs to cut back. He's been Ham Arundel News Editor for years. He deserves to pass this job on to someone else.

The entire reason some of us are overextended is that others have not come forward to volunteer at all. I know at least some are afraid they will be sucked into volunteering for everything, and in turn will be overextended themselves. So they use slippery slope logic to keep themselves unentangled.

Years ago I was President of a 501(c)(3) that had a thing called a 'work fee'. They billed you for it with your dues. Then when you volunteered an appropriate number of hours for the club, they returned your money. Sadly some still didn't get the idea, just paid the money, and did nothing. It wasn't about the money, it was about the need for volunteers.

Just like that club, everything we do requires volunteers. We accomplish nothing without them. So if you want your club to stay active and grow, please step up.... and volunteer. I don't care what for. Pick something

small and easy if you want. Teaming up with someone else is OK too. Even Holly Bevan split the Ham Arundel News Editor's job with Di Helfridge back in the day. And that was before she took over the Morning Net. But of course if you would like to learn newsletter editing from Milford, think of becoming editor as the price of his free course.

And while we are on the topic of volunteers, the next and final big club event of the year in just ahead, the Maryland DC QSO Party. With the pandemic showing no signs of letting up, we will surely be forced to cancel the Club Picnic, and the Holiday Party likely won't happen either. So I am hopeful you will join in the fun on August 8th, either as a contestant, or better yet, by volunteering your home station for a few hours to act as W3VPR, giver of 50 bonus points per contact. I am sure our Trustee, Dick Maio WW3R, will be glad to give you permission to use the club's call sign during the event.

To volunteer please locate "Sign Up for the Maryland DC QSO Party" on the home page, and do the obvious when you see 'click here'. I realize that being W3VPR at home is not as much fun as going to the club house, hanging out with the gang, swappin' stories, and doing some group operating, but it's as close as we can get in 2020. Oh, and if you want to volunteer to help print, organize and send out the Certificates after it's over, we could use your help there too. The ARRL is telling us their State QSO Party Challenge is just about doubling the number of entries in QSO Parties nation wide this year. Our goal is to get all our Certificates and Plaques out the door within 30 days after we stop accepting entries, October 8th.

Before I get off the topic of volunteers, I want to thank two individuals who just recently signed up for two of our more difficult jobs. First let me thank Bill Ryan N3RY for accepting the job of Holly Net Team Leader. Finding volunteers for every non-holiday weekday of the year is no easy task. It may be a lot of work, but it's really worth doing, as it carries on the legacy of Silent Key Holly Bevin, a woman our club members should never forget.

Second let me thank Rick Steer AB3XJ for agreeing to become Assistant Treasurer. For those who don't know, we used to pay the full retail rate, the one any business would pay to use Quickbooks. This year as a 501(c)(3) we were able to get the same software through TechSoup for a fraction of the cost, but it required us to essentially rebuild the books from scratch. This is the job that Rick has agreed to do, and it's not at all simple. While he does it, Treasurer Will Muzziera-Mooney KA3UQQ, will

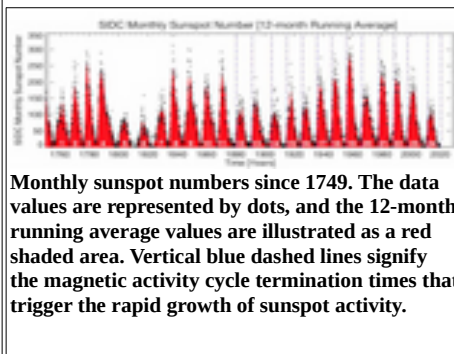
continue to keep the existing books intact till we can be sure the new books are accurate and up to date. Rick, meanwhile, will be preparing the Budget for 2021. If you want to view his handiwork, please ask for a Zoom invite to the August Board Meeting. I think you will be impressed.

AA

Newer Solar Cycle 25 Forecast Runs Counter to Consensus

Scientists associated with the National Center for Atmospheric Research, the University of Maryland, NASA Goddard Space Flight Center, and other institutions are offering a "bold prediction" on how Solar Cycle 25 will play out. In a [paper](#), "Overlapping Magnetic Activity Cycles and the Sunspot Number: Forecasting Sunspot Cycle 25 Amplitude," they assert that the next sunspot cycle will be of major proportions. The forecast stands in stark contrast to the consensus of forecasters who predict that the magnitude of the nascent Cycle 25 may not be much different from the current unremarkable solar cycle, which appears to have reach its low point.

"From the dawn of modern observational astronomy, sunspots have presented a challenge to understanding -- their quasi-periodic variation in number, first noted 160 years ago, stimulates community-wide interest to this day," the abstract points out. "A large number of techniques are able to explain the temporal landmarks, (geometric) shape, and amplitude of sunspot 'cycles,' however, forecasting these features accurately in advance remains elusive."



Monthly sunspot numbers since 1749. The data values are represented by dots, and the 12-month running average values are illustrated as a red shaded area. Vertical blue dashed lines signify the magnetic activity cycle termination times that trigger the rapid growth of sunspot activity.

The paper notes that recent studies have illustrated a relationship between the sun's 22-year Hale magnetic cycle and the production of sunspot cycle landmarks and patterns, but not

the amplitude of the cycle.

"Using discrete Hilbert transforms on 270 years of monthly sunspot numbers to robustly identify the so-called 'termination' events -- landmarks marking the start and end of sunspot and magnetic activity cycles -- we extract a relationship between the temporal spacing of terminators and the magnitude of sunspot cycles," the abstract explains. "Given this relationship and our prediction of a terminator event in 2020, we deduce that Sunspot Cycle 25 will have a magnitude that rivals the top few since records began. This outcome would be in stark contrast to the community consensus estimate of Sunspot Cycle 25 magnitude."



NASA's Solar Dynamic Observatory captured this image of a sunspot, with a core larger than Earth.

According to the paper, low-amplitude solar cycles appear to correspond with widely separated terminators, while larger-amplitude cycles correspond to more narrowly separated terminators.

"[O]ur best estimate for the [sunspot number] amplitude of Solar Cycle 25 is 233 spots, with a 68% confidence that the amplitude will fall between 204 and 254 spots," the paper posits. "We predict with 95% confidence that the Cycle 25 amplitude will fall between 153 and 305 spots."

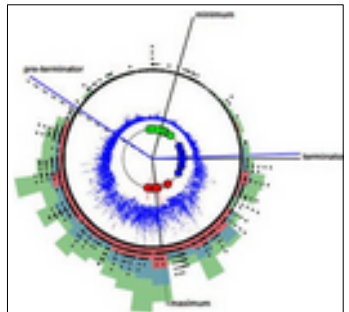
The researchers concede that their forecast is outside of the scientific consensus, based on different paradigms. "Over the coming months, as [Solar Cycle] 25 matures, it will become evident which of these paradigms is most relevant," the paper says. "Very early indications of the spot pattern are appearing at higher-than-average latitudes (~40°). Historically, high-latitude spot emergence has been associated with the development of large amplitude sunspot cycles -- only time will tell."

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AA

Researchers Use 200 Years of Sunspot Observations to Create "Sun Clock"

Researchers in the UK and the US have developed a new "sun clock" that quantifies extreme space weather and pinpoints distinct on/off times of high solar activity and space weather. The sun clock will assist in planning to protect space and ground-based infrastructure that is sensitive to space weather. The [study](#), "Quantifying the solar cycle modulation of extreme space weather," was published in *Geophysical Research Letters*. It explains that the sun clock uses the daily sunspot number record available since 1818 to map solar activity over 18 solar cycles to a standardized 11-year cycle or "clock."



Multiple solar cycles are mapped onto a regular solar cycle clock with increasing time reading clockwise. Circles indicate the cycle maxima (red), minima (green), and terminators (blue). The 10.7-centimeter solar flux (blue) and GOES satellite X-, M-, and C-class solar flare occurrence is plotted. Extreme space weather events on Earth seen in the aa geomagnetic index are shown as black dots arranged in concentric circles.

"Extreme space weather events can significantly impact systems such as satellites, communications systems, power distribution, and aviation," a Warwick University [news release](#) said, noting that these events are driven by solar activity. "By devising a new, regular 'sun clock', researchers have found that the switch on-and-off of periods of high solar activity is quite sharp."

The researchers' analysis shows that while extreme events can happen at any time, they are much less likely to occur during quiet intervals. The sun clock is aimed at helping scientists to determine more precisely

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Club Picnic	Jim Myrick / W3JLM picnic@w3vpr.org
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Facilities	Eric Berman / KC3GDV facilities@w3vpr.org
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Webmaster	Mark Bova / W2PAW webmaster@w3vpr.org	240 274 6294
Wed. Nite Net	Mike Waterson / K3MAW wednesday.night.net@w3vpr.org	
Winter Field Day	Rick Steer / AB3XJ winter.field.day@w3vpr.org	
Workshop	(TBD) workshop@w3vpr.org	

Groups

Board of Directors	board20@w3vpr.org
Kit Building Committee	kitbuilding@w3vpr.org
Rules Committee	rules@w3vpr.org

VE Testing Schedule

Second Saturday of each month

– Noon – AARC

David Rawley, N3AT testing@w3vpr.org

Third Saturday of each month –

9AM – Laurel ARC – John Creed 301 372 5124

Fourth Tuesday of each month – 4PM – MMARC –

Mike Montrose / KA2JAL 441 413 4907 web site is

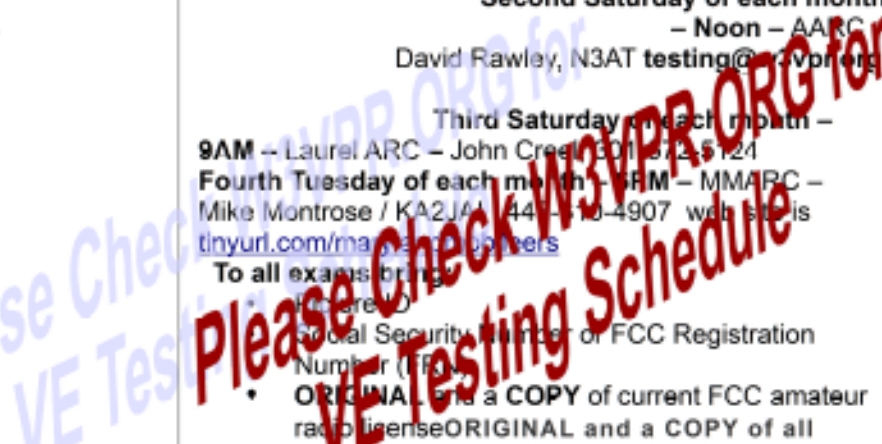
tinyurl.com/marcmembers

To all examinees bring:

- Photo 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)



DXCC Entities in Play as US Rejects China's Significant South China Sea Claims

To radio amateurs, Scarborough Reef or the Spratly Islands are DX locations, occasionally activated to provide needy DXers with "a new one." The Spratlys are #53 on the Club Log DXCC Most-Wanted List, but Scarborough Reef -- a much more difficult piece of real estate to access -- is #4. These South China Sea Islands are once again in the news, as the US has begun putting heat on China by rejecting nearly all of its significant land claims in the region. Secretary of State Mike Pompeo this week said that the US now regards virtually all Chinese maritime claims outside of its internationally recognized waters to be illegitimate.

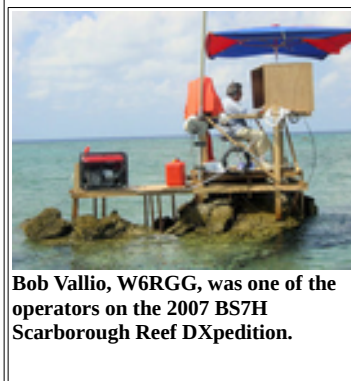
"The world will not allow Beijing to treat the South China Sea as its maritime empire," Pompeo said. "America stands with our Southeast Asian allies and partners in protecting their sovereign rights to offshore resources, consistent with their rights and obligations under international law. We stand with the international community in defense of freedom of the seas and respect for sovereignty and reject any push to impose 'might makes right' in the South China Sea or the wider region."

A 2016 ruling from an international tribunal discounted China's claims with respect to Scarborough Reef -- also known as Scarborough Shoal -- and the Spratlys, but it did not rule on the matter of sovereignty. In addition to China's claim, Malaysia, Taiwan, Vietnam, and the Philippines have asserted ownership of the Spratlys. Scarborough Reef is claimed by China, the Philippines, and Taiwan. The Permanent Court of Arbitration in the Hague ruled in favor of the Philippines in a dispute with China over Scarborough Reef. The tribunal said that although navigators and fishermen from China and other states have historically made use of South China Sea Islands, there was no evidence that China had historically exercised exclusive



control over the waters or resources. The tribunal said China had violated the Philippines' sovereign rights and had caused "severe harm to the coral reef environment" by building artificial islands and an air strip.

In 2015, a Chinese naval vessel "harassed a Philippine Air Force patrol flight in the Spratlys," one



Bob Vallio, W6RGG, was one of the operators on the 2007 BS7H Scarborough Reef DXpedition.

news account reported, by firing an illumination round. The incident postponed a Philippine Navy flight that was to evacuate an ailing participant of the then-just-ended DX0P

DXpedition. The Chinese Navy has also warned off private aircraft. DX0P was issued by the Philippines. Last week, China complained about the US conducting joint exercises with two US aircraft carrier groups in the region.

A May 2007 DXpedition to Scarborough Reef used the call sign BS7H, granted by China. DXpedition team members operated from wooden platforms mounted atop each of the reef's four rocks that were exposed during high tide. The ARRL Board of Directors voted in 1996 to add Scarborough Reef to the ARRL DXCC List.

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AA

Russian-Ukrainian Radio War May be Escalating

The [June newsletter](#) of the International Amateur Radio Union Region 1 Monitoring System ([IARUMS](#)) reports that what's being called "the Russian-Ukrainian radio war" continues apace.

"The Russian-Ukrainian radio war remained on a high escalation level also in June," IARUMS Region 1 Coordinator Peter Jost, HB9CET, said. "Almost every day, we heard the massive spiteful and provocative broadcasts. In June, they used more frequencies than before, affecting our bands very hard. It is a great annoyance and a big shame!"



Jost points out that the IARU Monitoring System has little opportunity to stop the on-the-air conflict. "Only national authorities can hopefully do something against international complaints," he said. "It is very important and very helpful that many other [IARU] member-societies also observe these frequencies and make complaints to their regulators. We have to coordinate this well within IARU and act together. This is the only way we have a certain power."

In May, Jost reported that the radio war has raged "for years" at 7055 kHz LSB (as well as on 7050 or 7060 kHz). Jost also reported continued daily transmissions from the Russian over-the-horizon radar known as "Contayner" in the 40- and 20-meter amateur bands and elsewhere. The Chinese "V" has been reported on 20 meters, from 14,246 to 14,256 kHz.

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W1AW 2020 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.

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

AA

The Anne Arundel Radio Club

is a registered 501-C3 charity.

We are pleased to receive any donations

over your yearly dues.

Maritime Mobile Service Network Comes to the Aid of Vessel in Distress

The Maritime Mobile Service Net ([MMSN](#)) on 14.300 MHz came to the assistance of a sailing vessel in distress on June 25. MMSN control operator Steven Carpenter, K9UA, took a call on 20 meters from Ian Cummings, KB4SG, the skipper of the *Mystic Lady*, then some 40 miles east of Florida. Cummings reported that his engine had failed as he was attempting to return to his home port of Stuart, Florida. He not only had insufficient wind, but a strong current was carrying the vessel out to sea.

Cummings had been unable to reach any station via his VHF marine radio, because he was too far from the coast. Assisting in the call was Robert Wynhoff, K5HUT, also an MMSN net control operator. Cummings said his vessel, with one passenger on board, was drifting northwest toward the South Carolina coast.

"A major concern was that the vessel was heading directly towards a lee shore," the MMSN reported. "Lee shores are shallow, dangerous areas which are a hazard to watercraft. Vessels could be pushed into the shallow area by the wind, possibly running aground and breaking up."

Carpenter contacted Cummings' family, who had already called the Sea Tow marine towing service. Sea Tow advised Carpenter to tell the captain to head closer to shore by sailing west, if possible. Carpenter told Cummings that if he was unable to get nearer to shore, he would notify the US Coast Guard, which was already monitoring the situation.

As the MMSN reported, "The *Mystic Lady* was able to make some headway, but it was very slow. Members of the MMSN made additional calls via landline to the captain's family as to the ongoing status of those on board. The family was concerned but relieved that communication was established and that all were well."

Several hours later, the captain advised that the wind had picked up, allowing him to head close enough to shore for Sea Tow to reach the vessel and take it back to port.

The Pacific Seafarers' Net, which monitors 14.300 MHz from the West Coast after the MMSN secures at 0200 UTC, kept in touch with the *Mystic Lady* into the night while it was under tow.

The tired, grateful captain later messaged the net, "A million thanks to everyone last night who helped rescue us on 14.300. Everyone chipped in as we drifted north in the Gulf Stream 60 miles headed to a lee shore. The MMSN net control and several others stayed with us for hours, phoned people, and were immensely helpful. The situation on board was dangerous. We are now safely under tow home. You folks are amazing!"



In operation since 1968, the MMSN monitors 14.300 MHz 70 hours a week to assist vessels and others in need of assistance. -- Thanks to MMSN Net Manager Jeff Savasta, KB4JKL

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ARRL Members to Lead New 30-Minute Amateur Radio Webinar Series

ARRL is launching a new webinar series to help introduce more members to the variety of activities and opportunities that radio amateurs enjoy. The [ARRL Learning Network](#) will offer live presentations by member-volunteers, for members. Like hamfest forums and radio club presentations, the webinars are intended to help participants get more active, involved, and engaged in amateur radio.

Presentations are 30 minutes each, making them easy to fit into a lunch break or as a short evening activity. A 15-minute question-and-answer period follows each presentation for those who can participate longer. The webinars will be hosted initially using *GoToWebinar*. Webinars will be recorded, and some presentations will be available for future viewing by members and ARRL-affiliated radio clubs as part of an ARRL Learning Network library.



A [running list](#) of upcoming live presentations is available. The web page is the place to register to attend each webinar and requires members to log onto the ARRL website. Some presentations:

Relay Stations and the Art of Traffic Handling
Aaron Hulett, K8AMH, Section Traffic Manager for ARRL North Texas Section

Tuesday, July 28, 2020, 10 AM PDT / 1 PM EDT (1700 UTC)

Fun with Digital Signal Modes FT4 and FT8
Anthony Luscre, K8ZT

Thursday, July 30, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

HF Wire Antennas
George Cooley, NG7A, ARRL Life Member

Thursday, August 6, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

Introduction to Digital FM Modes
Korey Chandler, Sr., WA5RR

Tuesday, August 11, 2020, 5 PM PDT / 8 PM EDT (0000 UTC on Wednesday, August 12)

Introduction to Computer Logging
Steven Lott Smith, KG5VK

Thursday, August 13, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

Capture the Magic of 6 Meters
Jim Wilson, K5ND

Tuesday, August 18, 2020, 10 AM PDT / 1 PM EDT (1700 UTC)

The Sport of Finding Hidden Transmitters on Foot

Robert Frey, WA6EZV, ARRL Amateur Radio Direction Finding Committee
Thursday, August 20, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

The webinars continue a string of new ARRL benefits introduced in 2020 that has included [On the Air](#) magazine, expanded member access to all ARRL digital magazines, and the new [On the Air](#) and [Eclectic Tech](#) podcasts.

"The ARRL Learning Network puts experienced member-volunteers at the forefront as a regular source of knowledge-sharing in amateur radio," ARRL Lifelong Learning Manager Kris Bickell, K1BIC, said. "We hope members participating in the ARRL Learning Network, including presenters, will find it particularly rewarding to share experiences and learning that will motivate more of our community toward lifelong journeys as radio amateurs."

Members who would like to be considered for future ARRL Learning Network webinars should have experience in delivering presentations, including familiarity with online webinar technology, live video, and screen sharing. Prospective presenters may complete a [Call for Speakers](#) form.

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AA

Tech Classes Move Online

By Dan Romanchik, KB6NU

I've been teaching ham classes for more than a dozen years now. My specialty has been the one-day Tech class. In this type of class, you review all of the questions in the question pool with the students over the course of six to eight hours, and then immediately give them the test before they can forget anything.

I would hold these classes three or four times a year and regularly have 20 – 30 students in each class. The pandemic, of course, has put the kibosh on these classes. The last one I taught was in January.

Frankly, I was wondering if I'd ever teach one again. A little over a month ago, however, I was approached by a fellow in Portland, Oregon about teaching an online class for some folks that he'd corralled there. After giving it some thought, I said yes.

So, now, in place of face-to-face classes, I'm teaching online Tech classes. There are pluses and minuses to this approach. One negative is that I miss the face-to-face interaction with the students. On the plus side, teaching online allows me to offer classes more frequently. My first was in June. Last week, I completed the second class, and in August, I will teach a third class.

I have had to make some changes to the format. Making people sit in front of a computer for six hours or more seemed like cruel and unusual punishment. So, instead of a one-day class, the online class consists of four, two-hour sessions, spanning two weeks:

- Session 1
 - Electrical Principles
 - Electronic Components and Circuit Diagrams
- Session 2
 - Radio Wave Characteristics
 - Antennas and Feed Lines

- Session 3
 - Amateur Radio Signals
 - Electrical Safety
 - Amateur Radio Practices and Station Setup
- Sessions 4
 - Station Equipment
 - Operating Procedures
 - Rules and Regulations

This seems to be working out pretty well. I'm using Zoom, and most people have been able to attend without too much hassle.

To simulate the whiteboard that I use extensively in the face-to-face class, I'm using the Autodesk Sketchbook program (<https://www.sketchbook.com/>) and sharing my screen with the Zoom meeting attendees. To write on the "whiteboard," I'm using a Gaomon M10K2018 drawing tablet.

Sketchbook allows me to build up a document in layers, and the result is kind of a hybrid PowerPoint presentation and whiteboard. I can make layers appear when I start discussing a particular topic and then write over them. For example, when I go over the questions that use Ohm's Law to calculate current in a circuit, I display the later with "E = I x R" and on a second layer, show how to calculate the answers to the questions

To take the test, students have to sign up for an online test session. Fortunately, several VE groups are offering online, remote testing. To sign up for one of these sessions, all students have to do is go to <https://hamstudy.org/sessions>. For the first two classes, the W5YI VEC scheduled a special test session.

I foresee teaching these classes monthly until the demand wanes. The next class will start on Monday, August 3. To register for the class, go to <https://www.kb6nu.com/product/next-online-tech-class/>. To find out when these classes will take place in the future, potential students can sign up for my mailing list by going to <https://landing.mailerlite.com/webforms/landing/m6l6t4>.

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not teaching ham radio classes, he likes to operate CW on the HF bands, go for long walks around Ann Arbor, MI, and volunteer for Rotary Club service projects.

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AA

Prominent Radio Amateur Helps to Lead US Convalescent Plasma COVID-19 Expanded Access Study



Well-known
contester, DXer, and
National Contest Journal (NCJ) Editor
Scott Wright, K0MD,
has been "substantially"
stepping back from ham
radio while offering his
expertise to the US
convalescent plasma
[COVID-19 Expanded](#)

REPEATER FREQUENCIES

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

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

Radio Amateurs Help Air Ambulance

Peru's Radio Club Peruano (RCP) reports that Guillermo Guerra, OA4DTU/XQ3SA, and the Peruvian Relief Net MHz assisted an air ambulance en route to Easter Island on July 9 after its satellite communication equipment failed. The aircraft was about 1,000 nautical miles from the continent, so the pilot tuned to the Peruvian Relief Net on 7100 kHz.

Net control station OA4DTU and Giancarlo Passalacqua, OA4DSN, were still on frequency, and communication was established with the aircraft.

The pilot detailed its tenuous connection and requested support to communicate via telephone with Ocean Air Control, a service of the Directorate General of Aeronautics of Chile, which watches over 32 million square kilometers of air space off the Chilean coast in the Pacific. Authorities were already on alert for the aircraft because of the communication loss, plus the HF at the Easter Island tower was inoperative.

About 10 phone calls were made to point out the aircraft's position and route schedule, as well as any additional information needed. Other hams in Peru were listening in and standing by. Guerra remained in contact with the aircraft until he was sure that it would reach its destination. At approximately 2330 UTC, the pilot reported making VHF contact with the Easter Island control tower for landing instructions. -- *Thanks to Radio Club Peruano*

Used with permission The ARRL Letter for July 23, 2020

Amateur Radio Emergency Service® (ARES)

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes.

Fill out the ARES Registration form and submit it to your local Emergency Coordinator (EC) or MDC Section Manager (SM).

<http://www.arrl.org/files/file/ARESRegistrationForm9-15.pdf>

Get started today, register via <https://arrl.volunteerhub.com/>

ARES Connect is a volunteer management system to help your ARES group manage their roster, create and staff events, and track nets and training. Together we are ARES!



ARES Task Book & ARES Connect for Amateur Radio Emergency Service® (ARES) -

<http://www.arrl.org/ares>

- Download the ARES Manual [PDF]
- ARES Field Resources Manual [PDF]
- ARES Standardized Training Plan Task Book [Fillable PDF]
- ARES Standardized Training Plan Task Book [Word]

Download your copy of the ARRL TASK BOOK at http://www.arrl.org/files/file/Public%20Service/ARES/ARRL-ARES-FILLABLE-TRAINING-TASK-BOOK-V2_1_1.pdf

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Wonderful Weather Words

Weather Safety - Originally published in CLIMATOGRAPHY OF THE UNITED STATES NO. 60 in November 1976 by the National Climatic Data Center via the UNIVERSITY OF MARYLAND's

"Thunderstorms are reported at a given station on an average of 30 days per year in eastern portions of Maryland and 40 days per year in western portions..." see the entire report at:

<https://www2.atmos.umd.edu/~climate/ClimatInfo/mdClimate.php>

Bookmark NWS websites:

Baltimore/Washington -

<https://www.weather.gov/lwx/>

Philadelphia/Mt -

<https://www.weather.gov/phi/>

Other Weather resources -

At 20:00(L) ET on Thursday is an informal Weather Net on 2m repeater 146.730- PL141.3, W3ICF, Frederick Amateur Repeater Group. This net is open to all stations via 2m RF and Echolink W3ICF-R or Node:14613 <https://frederickarc.org/repeaters/>

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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.*

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.

- adapted from the original Amateur's Code, written by Paul M. Segal, W9EEA, in 1928The Radio Amateur's Cod