



NEWS FOR AND BY BARS MEMBERS

BARS Billerica Amateur Radio Society

MARCH 2021

BARS physical meetings are on hiatus until further notice.

The decision to resume in-person club meetings and breakfasts at Stellio's will be made entirely by the Board based on the outlook of this medical emergency. The safety and well-being of our membership is important to us.

Meanwhile, virtual club and breakfast meetings using Zoom have proved an enjoyable substitute. Please ignore the sections, below which give directions and schedule for in-person meetings.

VE License Exams are also virtual – see the VE section near the end of the newsletter for details.

--BARS Management.

From the President's Desk

from the President of BARS, Doug Bruce, KC1MJK

Greetings All,

I hope that everyone is staying safe and healthy. The pandemic may be over soon with the advent of the vaccines, but we must not let our guard down now, as we are so close to the proverbial light at the end of the tunnel. Ham radio has gotten many of us through this pandemic tunnel with fellowship and "over the air" contact with other humans, which is so vital, be it in person or virtually. Stay "B.A.R.S. Strong" everyone, so we can once again have our in person meetings and the oh so important Saturday Breakfasts at Stelios! Here's to a nice big plate of eggs, bacon, sausage etc with some of the finest ham radio operators out there! On another note, the Board discussed the possibility of doing a Special Event Station for the 100th Anniversary of WBZ AM 1030. Any suggestions are more than welcome as we discuss how The Club wants to proceed towards this end. Please feel free to

email me with any suggestions for our next Board Meeting in March.

Getting back to the proverbial light at the end of the tunnel theme, I am seeing the light at the end of the tunnel with my office/ham shack renovations. I would like to share a synopsis of my project here with the hope that it may inspire you to take a good look at your shack and freshen it up a bit, or in my case, "take it down to the studs" and rebuild it from scratch.

There is significant planning that I did prior to construction which will enable me to use the shack for many years to come as improvements and other ideas come to me during my ham journey.

First, I set up the electrical layout of the shack. I have a 4 plug outlet on the left side of the desk on separate phases. All of my radios will be on one 20 amp breaker to minimize RFI. I will be using a Yellow Bee 8 outlet power strip as my "Station Master Switch". This will provide one switch to turn off the whole station when I am done for the day/night. This power strip has surge protection and a 15 amp circuit breaker built in. I will not be making the mistake again of running my whole station and office on two orange extension cords!

Next to the 4 plug outlet (going left to right across your radio dial and ham radio desk, will be a combination two plug outlet and cable tv jack. I will be installing a 45 inch tv in front of this combo outlet and I will also use the TV as a computer monitor for my Ham Radio Deluxe (a superior ham radio software package) and other ham related computer functions. I will hook up my laptop with an HDMI cable to the TV.

Next to the combo jack will be a 240v 20 amp outlet with four wires (two hots, a neutral and a ground) for my future linear amplifier for my FTDX 3000 HF rig. Again, my set up has an eye towards the future.

Next to that, at the far right side of the desk 18 inches above the floor will be an open electrical box, which will allow me to run my coax and other cables to the desk top.

The desk top will be a 32x80 hollow core door with an knob hole pre cut. I will place the door on top of my desk, which has a “junk drawer” in the middle for my stuff. I will cover the door with indoor/outdoor carpet to make it look sharp. I will then install two 2x4’s to rest the door on against the wall, which will allow me to pull the desk out 12-14 inches to have a writing surface at the front of the desk, with the radios etc on the door. I will run my antenna coax etc through this hole and to the radios. All of the outlets that I describe are above the desktop so I won’t have to bend down under the desk to unplug things as the need arises. I will also be installing an 8 outlet 6 foot long power strip just above the desktop to plug in other radios, a soldering iron, etc.

I will be using one of the ground rods installed by the electrician to ground my station. The ground wire will run to my antenna switch and to an MFJ lightning arrestor for safety.

Lastly, the whole station will be covered in ferrite to reduce RFI. I went from an S9 noise level to an S1 noise floor using the ferrite. Ferrite is your friend as a ham radio operator!

I hope that everyone can take a look at their shack and station installations and maybe take one of my ideas to better your station so that you can better enjoy your ham radio experience.

Until Next Month...

Stay B.A.R.S Strong and stay healthy!

Next BARS Zoom meeting: March 3 at 7:00 PM “Fusion Digital Technology (from Yaesu)” Presenter: Brian Gudzevich, WO1VES

Come join us for an informative presentation on the Fusion digital mode by Brian WO1VES. Brian runs the growing Wolfpack Repeater Network featuring the System Fusion digital technology by Yaesu. This is a must see presentation so please mark this on your calendar!



We will announce the link to join the Zoom meeting before the meeting, but it will be posted to the BARS email list and should not be shared outside our Club. Are you on the email list? If not, please send an email to bars-subscribe@w1hh.org and then simply reply to the robot response from the server and you will be subscribed.

Observing our Zoom meeting requires only a web browser and headphones/speakers. You do not need a webcam or microphone unless you want to speak or be seen.

Before our meeting date, please go to <https://zoom.us/test> and see if it will function for you. If you have problems, we can try to assist – feel free to ask questions on the BARS email list.

I am looking forward to “seeing” many of you on Wednesday 3/3 here at 1900.

Doug, KC1MJK
President, Billerica Amateur Radio Society

A Message From the Editor from Marla Wallace, WA1GSF

If you have not yet checked into our Saturday morning “virtual breakfast”, why not give it a look? Discussion is not limited to ham radio (or even to electronics); we recently were treated to a rant about how hard it is to ship stuff to the Turks and Caicos Islands.

I managed to inject into a recent session a discussion about an electronic musical instrument invented in the earliest days of vacuum tube technology called a Theremin. You have likely heard it – for awhile, it was a mandatory part of the sound track of movie and TV science fiction. Well, the device can be analyzed as a direct conversion receiver with an AGC circuit.

Antennas have been on the menu. As have GPS-based or WWVB-based time standards. (I’m hoping for an article on Will Smith’s GPS and Raspberry Pi time server project.) We’ve also talked about space weather and astronomy.

So check out the Zoom breakfast Saturday mornings at 8:30 until 10:00. See Bruce’s reminder in the club email reflector.

Feature Article: Calling All YLs By Niece Haynes, KA1ULN

When I saw Marla’s email asking for articles for the March Newsletter, I immediately mailed her back and told her I would write something but it would have YL overtones.

There are many more YLs on the bands now. There are many YL nets and YL groups.

[List of YL nets and more](#)

Also, see my blog (ka1uln.blogspot.com). It has all current contests, and sprints. There are also many pages with YL information.

I have been a BARS member for over 20 years. I wish there were more YL's (Young Ladies). Can you tell I am a huge proponent for YLs?

I have realized/proven that if there is a YL VE in a test session, the YL taking the test is much more comfortable. I have proven this over and over. In fact, when I went to Dayton (just to do the VE sessions), many YLs came up to me and expressed they felt very comfortable before, during and after taking the test... AND they pass! I will continue to go to Dayton for the VE sessions. (Just as an aside: I gave a test to a blind person and I read the entire test to a 5-year-old. They both passed.)

Many OM's (Old Man) never heard the term YL and I am more than happy to tell them. In fact here is information about the first article written by a YL in QST when the term YL came to be: [First article in QST was by a YL](#)

Finally, the Zoom meetings we have been having are incredible. Very good, Doug!

33/73 Niece/KA1ULN

PS: please log all QSOs and give precedence to YLs.

Strays Found on the Web

Using amateur radio to track space weather by the behavior of the ionosphere:

<http://www.eos.org/features/ham-radio-forms-a-planet-sized-space-weather-sensor-network>

--de Marla Wallace, WA1GSF

Wow. I just discovered this huge list of ham related kit suppliers. Enjoy!

<http://fofio.blogspot.com/2015/07/radio-kit-guide.html>

--de Andy Wallace, KA1GTT

Why 50 Ohms? There's an interesting Youtube video by KE0OG explaining why ham gear has an antenna jack that wants to see a 50 Ohm transmission line. See [Why is Coax 50 Ohms? \(#340\) - YouTube](#)

--de Marla Wallace, WA1GSF

Making ZOOM available to Elmers

In this time of social distancing we have been using Zoom for our monthly club meetings. I have been thinking that Elmers could also be using Zoom to coach new hams instead of actually going to visit with them. Elmers could perhaps help with programming a new radio with the new ham sharing their computer screen and the Elmer helping to walk them thru the process. An Elmer could have Zoom on their cell phone and show a new ham how their shack was setup. Use your imagination and see how you might use this tool. If you would like to use Zoom for this, contact Bruce, WILUS@hotmail.com, with a date and a time and a meeting will be setup for you. You may also contact Bruce if you would like training on using Zoom to Elmer someone.

--de Bruce Anderson, WILUS

Upgrading Your License? Here's a Resource

If you are thinking of upgrading your license using one of the Online exam sites. I recommend that you take some free practice exams on HamStudy.org. I recommend it because the software used to generate practice exams on HamStudy.org is the same software that is used to create exams for online tests. By doing that when you take an online upgrade exam the test question format will be familiar. With HamStudy.org practice tests you should use the keyboard to select the answer, A,B,C, or D and not your mouse as that is how online exams are run.

--de Bruce Anderson, WILUS

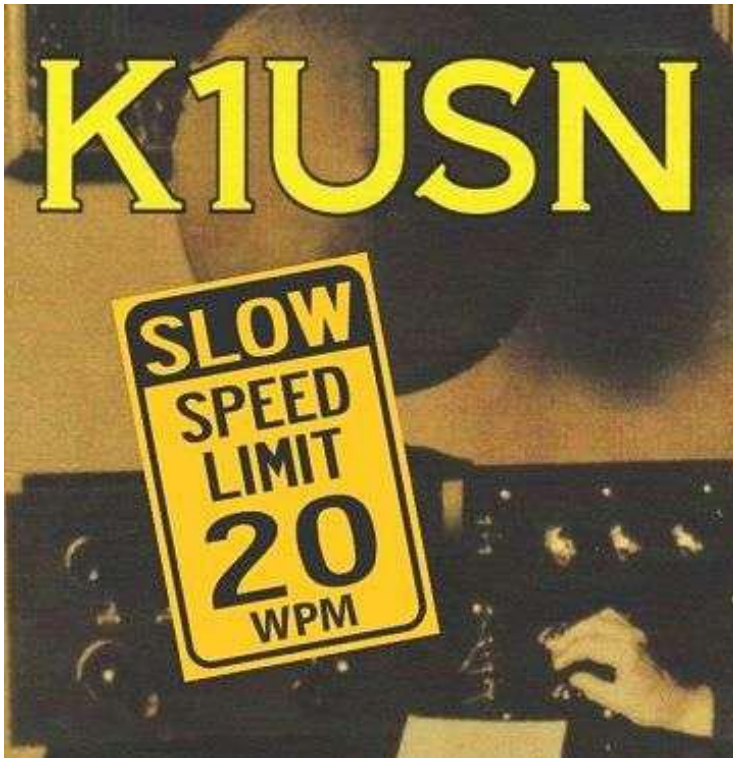
Weekly Sunday Night CW Slow Speed Contest

There is a weekly slow-speed CW contest run by the local K1USN guys. This is a good way to polish up your CW skills. See <http://www.k1usn.com/sst.html> for details.

Someone asked me when Novices were allowed to use VFOs. When I got my license in 1981 I could, so I was curious. Turns out it was 1972. Here's an interesting compilation of licensing milestones courtesy of Eastern MA ARRL:

[A History of Amateur Radio License Changes – Eastern Massachusetts ARRL](#)

--de Andy Wallace, KA1GTT



-- de Tom Walsh, K1TW

Secretary's Reports

from Scott Ginsburg, K1OA, Secretary

BARS General Meeting Feb 03, 2021

President Doug Bruce, KC1MJK called the Zoom virtual meeting to order at 7:07 PM.

Donna Halper, a noted Boston historian and radio consultant, presented "How the Amateurs Created Boston Radio".

KC1MJK presented the idea of the club hosting a WBZ 100 year anniversary special operating event. A discussion ensued and members shared their thoughts and ideas.

KC1MJK mentioned the idea of club members presenting their shack at future club meetings. There was general interest in the concept.

There were 35 attendees. KC1MJK closed the meeting at 8:34 PM.

BARS Board of Directors Meeting, Feb 18, 2021

Board Members present: KC1MJK, W1LUS, KA1GTT, WA1VAB, K1TWF, K1OA

The Board discussed details of a potential WBZ 100 year anniversary special operating event. KC1MJK will investigate

getting the station owner to sanction the event and grant whatever permission is necessary. Doug will also reach out to the ham club that organized a similar event for KDKA to get ideas.

Future meeting topics were discussed up through May of 2021.

Field Day 2021 was again discussed and the Board again agreed that June will be too early for an in person event.

Virtual shack tours during monthly general meetings was again discussed and KC1MJK volunteered to kick these off with a tour of his newly remodeled shack when it is completed.

BARS Membership

Bruce, W1LUS, our BARS Treasurer reports that as of 3/1/2021, we had 106 members. To date 78% of 2020 members have renewed for 2021

2021 BARS Member Dues

The BARS Board has changed the policy on member dues. A \$15 annual BARS membership now runs from January 1st and expires on December 31st. Any renewal or new membership made after September 1 will be valid until December 31st of the next year. Memberships allow us to

- Pay our bills;
- maintain our great web page;
- fund field day;
- and bring the membership a great variety of informative meetings and speakers.

Treasurers Report for March 2021

from Bruce Anderson, W1LUS, Treasurer

For February our expenses were Zoom \$15.93, \$119.40 for hosting the W1HH web site for one year, \$50 for donation to Donor Choose and a PayPal fee of \$7.40 We had 13 new/renewals for an income of \$185.00 plus donation of \$2.72. We now have \$381.61 in the Bank and \$1080.81 in our PayPal account

Donna Halper requested that we make a \$50 donation to Donors Choose as payment for her talk. There were many, many requests from all across the country to choose from. This is the one that I chose:

Mrs. Purinton's Grades PreK-2 Math Skills and Practice
Federal Street Elementary School
Greenfield, MA

Nearly all students from low income households

My Students

My class is full of creative, caring, and hard-working students. These are kids who are willing to work hard despite coming from

difficult home situations. Going remote will be a semi challenge for some kids, and I would like to give them all the tools they need to be successful!

My Project

This self checking math activity is the perfect thing for remote learning. Each student would get their own kit to have at home. These would be used as a center or an "I'm done" activity. Due to it being self checking and correcting, the students will be able to see immediately what they are doing correctly and what they might need more work on. It has been hard to check students work at home, and be able to give them immediate feedback. This would be one tool the students could engage in where they are immediately rewarded in seeing what they know! Thank you for this opportunity!

Bruce Anderson, W1LUS
Treasurer

BARS Needs You!!!

We are looking for a few good hams to act as net control on the regularly scheduled Wednesday night nets! All it takes is one night a month; if you are interested contact Chris, KC1IUK. Also, the club needs volunteers for light tasks of ~ 1 hour a month. Are you able to pitch in? Contact Doug Bruce, KC1MJK.

Wednesday Night Net

Join us on the Billerica Repeater for the weekly BARS net each Wednesday at 8:00 PM (except on the first Wednesday of the month which is club meeting night).

Repeater info:
147.12 MHz
+600 kHz (normal) offset
Encode CTCSS 103.5 Hz

Club Meetings

When we resume in-person meetings, they will be held on the first Wednesday of the month at 7:00PM at Chelmsford Bible Church, 128 Gorham St., Chelmsford MA
Park in back and enter by rear door
[Chelmsford Bible Church Hall, 128 Gorham St, Rear Door, Chelmsford MA 01824-3220](#)

VE Sessions

We started doing only online exams in December. Our next online exam session will be on March 11th. If you are interested in participating in these sessions as a candidate or as a VE, please contact Bruce at W1LUS@hotmail.com to register for this online exam session.

Eventually, we hope to resume holding VE sessions as before, every month on the 2nd Thursday at 7:00 PM at Chelmsford Bible Church, 128 Gorham St., Chelmsford MA. Park in back and enter by rear door. [Chelmsford Bible Church Hall, 128 Gorham St, Rear Door, Chelmsford MA 01824-3220 \(map\)](#)

February 2021 VE Session

On February 11 we had our third online VE Exam session. We had two people signed up and both passed their Technician exam. Our next session will be on March 11, 2021. If you are interest in taking an online exam or assisting with an exam contact me at w1lus@hotmail.com.

I would suggest that anyone considering taking an online exam use the exam prep site HamStudy.org for practice as that is the same site that is used to generate the online exams.

Thanks to Scott, K1OA, Andreas KC1NTL, and Niece KA1ULN, for their help in running the session.

I am looking for more VEs to help run the online exams. With more VEs we can run more than one session a month. Since most exams are for Technician, General VEs can participate. And there is a possibility for non VEs to participate. Contact me for more information.

Bruce Anderson, W1LUS

Club Breakfast every Saturday

On Saturday mornings around 8:15AM, we also meet weekly for a casual, social breakfast at Stelio's restaurant. [Stelio's Family Restaurant, Billerica, MA](#)

Future Meetings

The 4/7 meeting will be held via Zoom.

Subscribe to the BARS Mailing List

To subscribe to the BARS email list, send a blank email to bars-subscribe@w1hh.org and watch for an automated reply. Note that bars-subscribe is all one word.

Reply to that message from the list server and you are then subscribed.

To post to the list, address your email to bars@w1hh.org

BARS March Suggestions - Get-on-the-air Events

BARS is a “get-on-the-air” (GOTA) club. We encourage members to participate in the varied events on HF and VHF. Here are some popular suggestions for this month:

Date	Event
Mar 1, 3 (CW) 15, 17 (SSB)	Winter 2021 Classic Exchange http://www.classicexchange.org/announcements/Winter_2021_CX_Rules.pdf
Mar 6-7	ARRL International DX Contest, SSB ** http://www.arrl.org/arrl-dx
Mar 6-14	Novice Rig Roundup http://www.novicerigroundup.org/
Mar 13-14	Straight Key Century Club (SKCC) Weekend Sprintathon https://www.skccgroup.com/operating_activities/weekend_sprintathon/
Mar 1, 8, 15, 22, 29	K1USN Slow Speed Test (0000-0100Z) http://www.k1usn.com/sst.html

** Top Recommendations for this month

Details on each contest above and more events can be found every week on the WA7BNM contest calendar at :

<https://www.contestcalendar.com/weeklycont.php?mode=custom&week=current>

BARS Leadership Team

President: Doug Bruce, KC1MJK
 Vice President: Kayla Creamer, W2IRY
 Treasurer: Bruce Anderson, W1LUS
 Secretary: Scott Ginsburg, K1OA
 Net Coordinator: Chris Lobdell, KC1IUK
 Newsletter Editor: Marla Wallace, WA1GSF
 New Member Outreach: John Fisher, KC1FTJ
 BoD: Mike Raisbeck, K1TWF
 BoD: Henry Christle, WA1VAB
 Ex Officio: Andy Wallace, KA1GTT