



NEWS FOR AND BY BARS MEMBERS

BARS Billerica Amateur Radio Society

MAY 2019

From the President's Desk

from the President of BARS, Andy Wallace, KA1GTT

If you have not noticed, your Board and I have been trying to give BARS the reputation of being an active club. Active means we DO things with our hobby. As I socialize at meetings and join our Wednesday net, I am really interested to hear what members are working on. Are you building a kit? Putting up a new antenna? Researching a piece of test gear? Speak up and talk about it. You can inspire others and get help from people who've been down that road before you! As I speak at our meetings please don't be shy. Raise your hand and offer to bring up what YOU have been doing with ham radio each month.

Another fun thing you can do to stay active is join someone else at their station or invite them to yours. On Saturday, April 6th, I invited two friends over to my shack to operate HF. One friend was very experienced and the other was less so. I knew we would all learn from each other in the process. Now with the sunspots down in the dumps you need to plan this sort of thing for when others are likely to be on the air. Consulting the WA7BNM Contest Calendar at

<https://www.contestcalendar.com/weeklycont.php>

I found that this day there would be QSO parties from Missouri and Mississippi, and even an SP contest from Poland. Great chance of contacts!

We started with lunch out at a great Indian buffet and came back to the house to operate a little after 1. Signals on 40 and 20 were decent and my modest 100W transceiver and wire doublet gave us pretty good luck at working people. My experienced friend started the ball rolling and quickly picked off some MS stations. My other friend eventually got behind the mic and did well too, even getting into the competitive spirit among the three of us and wanting to switch out at the mic and grab the same station the other two worked. One hilarious moment ensued when my friends each worked one station, who had already been making a pipeline into Massachusetts it seemed. I got on the mic after that and as I gave the "five nine, mike

alpha" I confessed that we were all sharing the same station. The other guy laughed and said he didn't mind that at all in fact we should order pizza and have more friends over. As we finished up I realized I could have used the club W1HH callsign for him as well, haha!

As 40m opened up for the night, lots of SP stations from Poland came on with their contest. Several made it into our logs! We broke for dinner and continued to operate past 10PM before shutting down. Lots of fun, lots of laughs, and a happy experience for all. Please consider having friends over to share the fun of what you do with ham radio. Don't worry if your shack is not the cleanest or your setup is not fancy. Fill the coffeepot, drag out your QSL collection, warm up the transceiver and HAVE FUN WITH OTHERS. Most of the time our hobby is about sitting alone at the radio and talking to others. Make it a point to socialize in the shack.

Thanks, everyone. Andy KA1GTT

Ham Radio Podcasts

from Scott Ginsburg, K1OA

Lifelong learning is a big part of our Ham Radio hobby. None of us can claim to know all there is to know about radio, electronics, propagation or any of the myriad of topics that make up Ham Radio. To further our understanding of these fun topics and more we've traditionally turned to books, magazines and our fellow hams. I'm guessing more than a few of you have at least one copy of the ARRL Handbook on your book shelf.

Computers and technology have exploded the opportunities for learning in new ways. How many times have you wondered how something works, or how to build a particular kind of circuit, etc., and found the answer on YouTube? Along with websites and videos, consider Podcasts. Created for the first time in 2004 to leverage portable music players like the iPod for distributing textual content in audio format, Podcasts (iPod + broadcast) have exploded in recent years to where Apple now offers over 500,000 Podcast shows on its iTunes platform.

What exactly is a Podcast? I think of it as an audio magazine you can listen to on your computer or smartphone. You typically subscribe to a Podcast with new editions becoming available on a regular basis, from multiple sources. If you're an Apple aficionado, you can subscribe and listen using iTunes on your computer or the podcast app on your iPhone which comes with IOS. There are numerous other services such as Stitcher and Spotify that carry Podcasts as well with apps available on both IOS and Android. I prefer the Podcast app on my iPhone and fill my commuting time with listening to my array of shows every day.

Here is a list of Ham Radio Podcasts that I listen to on a regular basis.

Ham Radio Workbench
(<https://www.hamradioworkbench.com/>)

Started in 2016 by KJ6VU, George, and KF7IJZ, Jeremy, their mission is to "serve as a means to introduce hams of all ages to the excitement and creativity of making in amateur radio". Their focus is on exploring Ham Radio technical projects and new technology such as Software Defined Radios, Arduino and Raspberry Pi based projects, and all aspects of creating and maintaining an electronics workbench. The hosts and guests are very knowledgeable about a wide variety of technical topics and you are guaranteed to come away with more than a few ideas of things to experiment with and explore. If you're just getting started building a workbench I recommend going back to their early Podcasts that focused on selecting tools and equipment. The shows are published every other week and can run long, often greater than two hours, but you will not be disappointed by any of the content.

QSO Today (<https://www.qsotoday.com/>)

Eric, 4Z1UG, is the creator and host of QSO Today which is a once a week interview with a Ham Radio operator. Eric is a very engaging interviewer and he uses a similar format for each interview, starting with how the person got started in the hobby, how it affected their career choice and family life, what excites them the most about Ham Radio, what concerns them about the hobby, and a few other questions. It typically runs about an hour long and his guests come from all over the world. Some are very well-known hams such as famous DXpeditioners like K4UEE and K9CT, but everyone has their own story to tell and along the way you are guaranteed to learn about aspects of the hobby you are not familiar with. Eric has interviewed over 200 hams so far including some familiar callsigns here in New England like K1KP, K1LI and N1DG.

Ham Talk Live (<https://www.spreaker.com/show/ham-talk-live>)

Hosted by Neil, WB9VPG, this weekly Podcast airs every Thursday night as a live show with guests. Topics are mostly devoted to operating activities and very light technical discussions. Some of Neil's recent shows have been devoted to Emcomm, youth contesting, operating Ham Radio abroad and satellite operations. Neil is a high school science teacher and

very active with the youth community and promoting young people in the hobby. He frequently hosts young hams on his show and it is encouraging to listen to these discussions.

The Doctor Is In (<http://www.arrl.org/doctor>)

This is a bi-weekly Podcast produced by the ARRL featuring QST columnist Joel Hallas, W1ZR, and QST Editor in Chief Steve Ford, WB8IMY devoted to technical topics. Running about 20 minutes in duration, The Doctor Is In dives deep into a single topic each show leaving you with a thorough understanding of whatever is discussed. Some recent episode titles are "The WSPR Heard 'Round the World", "SWR Simplified", "Log Periodic Antennas", and "RF Safety". W1ZR and WB8IMY do a great job with their explanations that make it easy to comprehend for a person at any skill level. They also spend a few minutes at the end of show answering questions emailed from listeners.

So Now What (<http://www.arrl.org/so-now-what>)

So Now What is a new Podcast from the ARRL geared to newly licensed hams, hosted by W1AW station manager Joe, NJ1Q, and ARRL communications content producer Michelle, W3MVP. This new Podcast debuted in January of this year and has a lot of promise for providing helpful information for new hams or those returning to the hobby after being dormant.

Ham Nation (<https://twit.tv/shows/ham-nation>)

Ham Nation is a live Internet video show that airs every Wednesday at 9 PM Eastern time featuring Bob Heil, K9EID, of Heil Sound, along with a cast of characters that includes Gordon West, WB6NOA. The group discusses a wide variety of technical and operating topics. The discussion is lively and fun, and packed with good information. A lot of video content is presented on the show but it's still worth your time listening to the audio Podcast version.

So fire up a Podcast and start enhancing your Ham Radio learning!

Scott - K1OA

BARS at Nearfest

from Jim Evans, N1HTS

Coming up two days after the May BARS meeting is the start of Nearfest. <https://near-fest.com> Nearfest is the New England Amateur Radio ham festival/flea market which BARS always has a presence at. We will have our two 10'x20' shelters along with tables for the club members to lay out their goods to sell.

The gates open at 9AM Friday with yours truly doing the prepaid parking starting at 6AM. Starting at 6AM the commercial vendors get in. At 8AM clubs with their 2 passes can get in. Currently Peter N1ALO and Paul K1VK hold those passes as Peter is trailering the shelters and tables and begins setting them up. At 9AM we let the overnight campers in first, then the

prepaid cars then the folks who bought their tickets while in line. We can generally start putting items on the tables a little after 10AM, depending on weather.

We sell until we turn the lights out in our site sometimes well pass 11PM. Next morning it starts again. Door prizes are picked at 2PM but selling pretty much stops at noon as folks start packing up. If you want to buy or sell, get there early. We will have a potluck supper Friday night starting around 5:30 +/- so please consider bringing a hot dish for the common table. No open fires allowed but small propane/butane stoves are ok along with crockpots. Plates, knives, forks, cups, etc. will be provided, and if for some reason we run out of food the vendors are there as well. Later on there could be some music depending on the weather.

What to bring? Well this is New England so plan on proper attire for wind, rain, cold and hot. We've had them all. It's been known to go below freezing in the mornings and t-shirt weather later on. Don't forget proper sleeping bags or blankets. Starting your car at 2AM will not go over well with the others :-)

Bring food for the common table, a chair to sit on, stuff to sell, a list of things to buy, bring cash including 1's, 5's and 10's. A hefty bag with handles will come in handy when you buy that special thing across the fairgrounds. An HT set for 147.12 simplex comes in handy with club members. What you don't sell you need to bring home. We'll talk it up at the meeting.

Jim – N1HTS

Configuring N1MM Logger+ for CWT Contest

from Henry Christle, WA1VAB

CWT CW QRQ contests are fun if you can eliminate the need to manually complete contact logs. N1MM Logger+ provides an excellent tool for auto logging this and other contests including FD. SSB logs have been automated also, but CW may require hundreds of log entries per hour so auto logging is especially useful.

Auto logging is possible with the simplest hardware: an SDR radio (like an ICOM 7300), a Windows 10 computer (I use an HP laptop 2.5 MHz, 8GB RAM), and a USB cable between the radio and computer. The software required is N1MM Logger+. Some radios might require two cables to connect the computer and a Morse keying.

The comprehensive N1MM Logger+ documentation contains 800 pages of detailed information. It took me months to distill the process and to configure hardware and software to produce automated logging. This process is what I want to share with the reader.

In the beginning, I believed that N1MM was reading the incoming CW, decoding it and writing it to the log and I wasted much time trying to determine how this was done. I was looking

for a CW reader sufficiently fast and accurate to achieve this and the best CW readers are not reliably up to this task.

Then I realized that the outgoing exchange message is from a text file in the computer coded to Morse in the 7300. The next jump was easy – the incoming contact, say W1AW, is looked up in an imported file from CWOps on my computer and displayed in the log field. The operator verifies this call matches what he hears in Morse by pressing the space bar and F2, which transmits the exchange and writes the contact call sign to the log. The only character typing required is the other station's call sign, like W1AW.

Assuming you have already established communications between your radio and N1MM Logger+, here are the details of what is required to achieve auto logging with an SDR Radio like the 7300. Other radios might require different configuration.

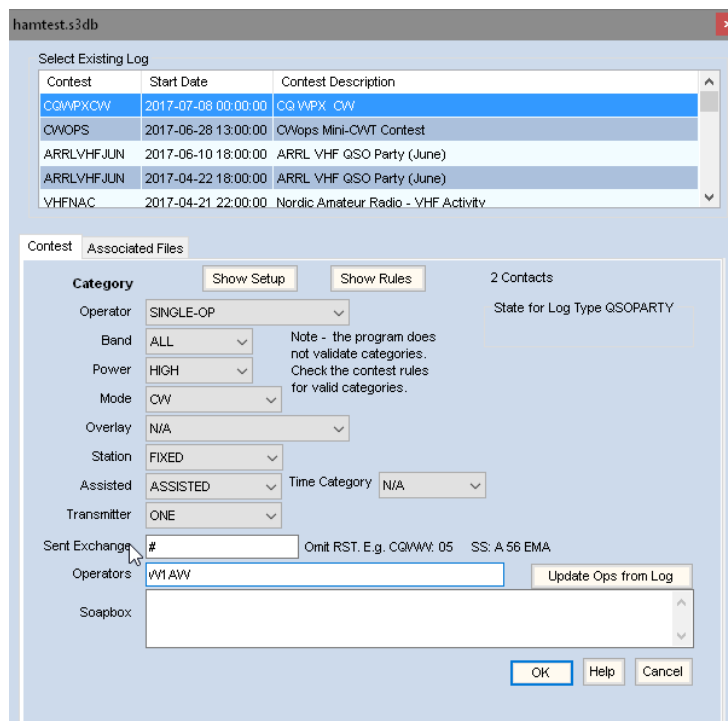
1. On the N1MM web site, select and download the Call History File for the contest you want to configure:

http://n1mm.hamdocs.com/tikilist_file_gallery.php?galleryId=27

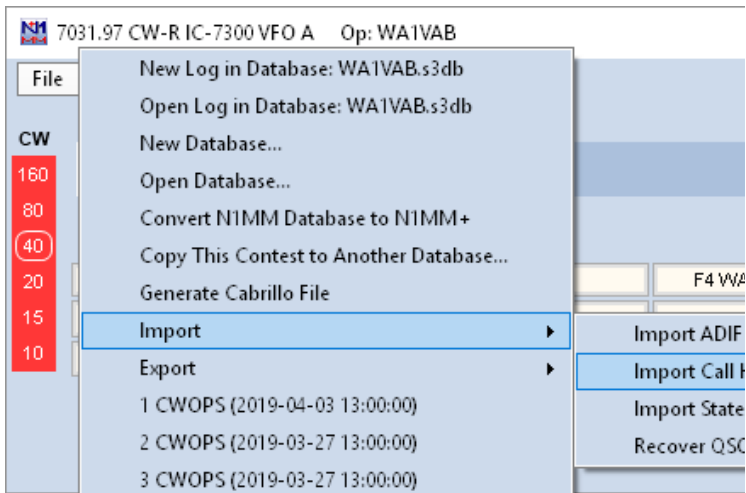
Here is an example CWT file:

http://n1mm.hamdocs.com/tiki-download_file.php?fileId=3269

2. Next in N1MM Logger+ click "New Log in Database" to open a new log for the contest and choose the appropriate log type, CWOPS for example, from the list in the popup and select OK. See Figure below.



3. Next select "Import Call History..." and choose the file formerly downloaded from the N1MM web site. See Figure below.



- Before the contest you should test that your configuration will successfully log. With TX disabled, enter a call from the call history file, press space bar and F2. The exchange data, name and CWT number should instantly appear. Enter your exchange information in a new contest log, in this example Henry 1839 is entered into the "Sent Exchange" field. If you hit OK, the QSO should be transferred to the Log book. See Figure below.

It's great fun logging CWT QSOs with N1MM Logger+. Now I'm a serious competitor and will earn my medallions. An experience is worth a million words: my first contest log was for only 20 minutes and I made 15 contacts for a score of 225 points! Why 225 points? Because single contact points are determined by squaring the number. If I had made 400 contacts, my score

would have been 160,000 points. This breaks the mystique of posted big scores.

I'm now looking for call lookup for NEOP contest but I haven't found it yet.

Henry – WA1VAB

Trip Report: Vintage Radio and Communications Museum of Connecticut

from Andy Wallace, KA1GTT

In March, I was heading to Foxwoods and was treated to a birthday surprise: a side trip to the Vintage Radio and Communications Museum of Connecticut! Located in a nice brick building in Windsor, CT, the museum houses what amounts to the complete timeline of radio and its offshoots. Our hobby is not mainstream nowadays and it is important to notice and appreciate groups who preserve our history and technology. You can see the history of the museum at <https://www.vrcmct.org/> including photos of the SIX different buildings it has used over the years. The museum is now located at 115 Pierson Lane, Windsor CT 06095 (860) 683-2903. It is open Thursday through Sunday and Adult admission is \$10 and 60+ a mere \$7. (Check for Groupons!) Staff is volunteered by hams and non-hams and there are guided tours. The location is easy to get to off Interstate 91 south of Springfield MA.



The Museum raises money by fixing gear and reselling it on ebay. See

https://www.ebay.com/sch/vrcmct/m.html?_nkw=&_armrs=1&_ipg=&_from=

for listings of gear for sale (none as of this writing, but there were around the time we visited). You can also donate and sponsor displays and they will show a card with your name.



The building contains a gift shop, classrooms, a very large display hall, and an enclosed ham shack for club station W1VCM. You could easily spend 1-2 hours inspecting and enjoying all the displays. Everything from early 1920s battery radios and crystal sets, 1930s and 40s wooden radios, transistor sets from the 1960s and beyond, military sets, and FM hifi gear of all ages, and reel-to-reel tape recorders. There are two working Tesla coils, 1920s movie studio gear, jukeboxes, Victrolas and Edison Cylinder phonographs, and even a full vintage recording studio. On the TV end, there is a TV broadcast transmitter, and televisions of many eras including Philco Predicta with the TV tube on a rotating gimbal mount, a Hallicrafters TV, and other novelty and miniature sets. They even have a collection of vintage TV remote "clickers"! A huge glass display case protects a large collection of vacuum tubes and boxes. There's a complete 1930s radio repair bench. On the communications end there are displays of typewriters, telegraph gear, teletypes, telephones, a telephone booth, a switchboard, and even a substation telephone switching rack 12 feet high! Finally, there's even a display of vintage computers including the Osborne 1 and Coleco ADAM.

Activities held at the museum include classes (the kids love building crystal sets), repair clinics, and even swap meets.

The ham station has everything from a complete Collins S-line



with linear, up to more modern transistor gear. They do allow hams with current licenses in-hand to operate but on this day I was told that there might have been an issue with the (only a few year old) main station transceiver so I was not able to try it out. They do have a vertical and a beam on the roof.



Please consider visiting the VRCMCT and supporting those who love radio. We really enjoyed the experience!

Andy – KA1GTT

Get-on-the-air Events

Longer hours of daylight should mean openings on 20-meters well after sunset, something we have missed during the winter months.

Highlights this month include our very own New England QSO Party and the huge CQ Worldwide WPX contest on CW to close out the month.

Don't forget, these are just suggestions. Check out May QST Contest Corral (Page 84) or WA7BNM (link below) to see the full range of May contests big and small.

Information via WA7BNM

<https://www.contestcalendar.com/index.html>

Date	Event	URL
0001Z, May 4 to 2359Z, May 5	10-10 Int. Spring Contest, CW	http://www.ten-ten.org/index.php/activity/2013-07-22-20-26-48/qso-party-rules
1300Z, May 4 to 0700Z, May 5	7th Call Area QSO Party	http://ws7n.net/7QP/new/Page.asp?content=rules
1500Z, May 4 to 0300Z, May 5	Indiana QSO Party	http://www.hdxcc.org/inqqrules.html
1700Z, May 4 to 2359Z, May 5	Delaware QSO Party	http://www.fsarc.org/qsoparty/rules.htm
2000Z, May 4 to 0500Z, May 5 and 1300Z-2400Z, May 5	New England QSO Party	http://www.neqp.org/rules.html
1400Z, May 11 to 0200Z, May 12	Arkansas QSO Party	http://www.arkqp.com/about/
1200Z, May 18 to 1200Z, May 19	His Maj. King of Spain Contest, CW	http://concurso.ure.es/en/s-m-el-rey-de-espana-cw/bases/
0000Z, May 25 to 2359Z, May 26	CQ WW WPX Contest, CW	http://www.cqwp.com/rules.htm

Enjoy and get on the air!

More events can be found every week on the WA7BNM contest calendar

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

BARS Membership

Bruce, W1LUS, our BARS Treasurer reports that as of April 27 we have 82 BARS Members,

2019 BARS Member Dues

The BARS Board has changed the policy on member dues. A \$15 annual BARS membership now runs from January 1 and expires on December 31st. Any renewal or new membership made after September 1 will be valid until December 31 of the next year. Memberships not renewed by January 1st have lapsed. Please renew now for 2019 if you have yet to do so.

Treasurers Report

Bruce, W1LUS, our BARS Treasurer reports that there were no changes to the treasury in April.

VE Report

2 New Techs

2 Techs who whose licenses expired before 1987, so they will upgrade to their old General class

2 New Generals

Total Candidates: 6

VEs: Team Leader, Gary (W1GFF), Rick (W1RJT), Antonio (KB1KDS), Robert (K1ED), Al (W1XH), Debbie (AB1IC), Geoffrey (W1GCF), Don (KA1MAP), Scott (K1OA), Kayla (W2IRY). Also present Tom Walsh.

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 John KC1FTJ harpman@aol.com. Also, the club needs volunteers for light tasks of ~ 1 hour a month. Are you able to pitch in? Contact Andy, KA1GTT

Wednesday Night Net

Join us on the Billerica Repeater for the weekly BARS net (except on 1st Wednesday of Month which is club meeting night)

Repeater info:

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

Club Meetings

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 \(map\)](#)

April Meeting Speaker

We are excited to announce that Brian Gudzevich, WO1VES, will be our speaker for May. Brian runs the "Wolf Pack Repeater System" in Stoneham and hosts the "Nut Net" on the Danvers repeater (145.47) at 11:15PM every day.

Brian explains his topic: "I will be presenting an introduction to digital voice hotspots for ham radio. These hotspots are designed to link digital radios to reflectors over the Internet and allow you to talk to people anywhere in the world without the use of a Repeater. They will work with almost any make, model and digital mode. I will also be giving a run-down of the various digital modes, reflectors, and terminology. Followed by a live demo. I hope to give people a full understanding of how these hotspots work."

If you only use an FM rig to talk on repeaters this could be really eye opening and may also be a way to "work DX" with your HT or computer!

In addition, the Near-Fest ham flea (May 3 and 4) and ARRL Field Day (June 22-23) are approaching fast and after Brian speaks we will have Club discussion about those events.

VE Sessions

VE sessions are held the 2nd Thursday of the month 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 \(map\)](#)

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 \(map\)](#)

BARS Leadership Team

President: Andy Wallace, KA1GTT

Vice President: Kayla Creamer, W2IRY

Treasurer: Bruce Anderson, W1LUS

Secretary: Paula Crock, KC1EDA

BoD: Mike Raisbeck, K1TWF

BoD: Henry Christle, WA1VAB

Ex Officio: Tom Walsh, K1TW

Net Manager: John Fisher KC1FTJ

VE Manager: Bruce Anderson W1LUS

VE Manager: Gary Frascarelli W1GFF

Website: Kayla Creamer W2IRY