



# BARS Billerica Amateur Radio Society

NEWS FOR AND BY BARS MEMBERS

MAY 2020

## From the President's Desk

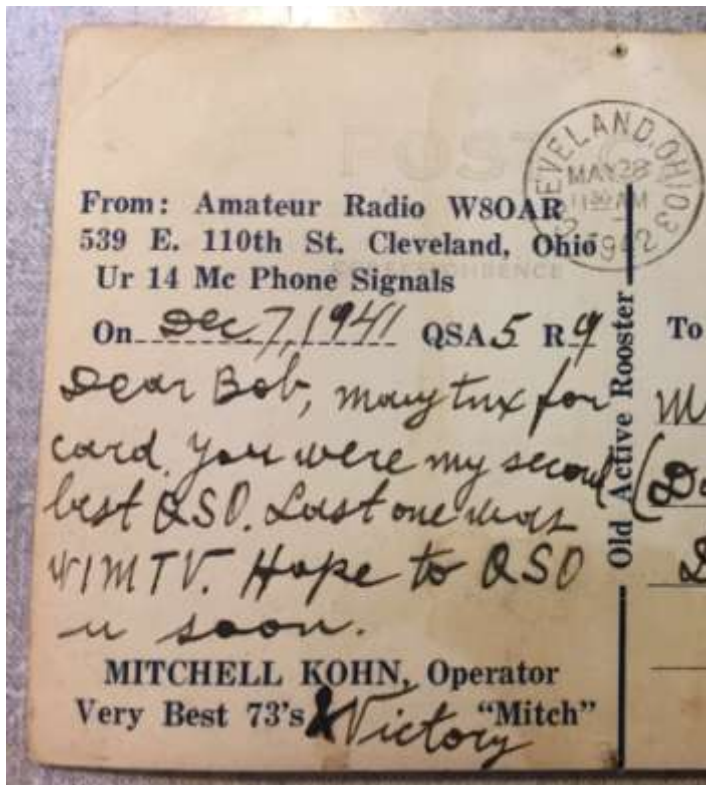
from the President of BARS, Andy Wallace, KA1GTT

One of my projects lately is to go thru W1HH's QSLs which date from 1940-2006 and sort them by year and file them in album pages. I found this one from W8OAR, Mitchell I. Kohn. I'm amazed at the photo of his shack and family. Today it is hard for me to relate to hams expending \$6,000-\$12,000 on high end transceivers from the big three (or four) companies that make such things. (Look up the Icom IC-7851 and the Kenwood TS-990S.) But when I look at Mitchell's shack I note he is using a National HRO Sr, or perhaps HRO-5, a National oscilloscope, what looks like a VFO, and he stands near almost six feet of a commercial AM/CW transmitter. In the early 1940s I am sure the cost of all that was comparable to a 7851 today. Note also the chicken picture and the moniker "Old Active Rooster." And the ship's wheel and gears protruding through the wall are certainly for rotating some kind of directional antenna above! (By the way, I also found out Mitchell passed in 1984 according to the QCWA website, and I also found a later photo of him at the Cleveland State University website. He remained well-heeled. The transceiver is a National NCX-5 with mechanical digital readout, coupled with an NCL-2000 linear amplifier.)



But what strikes me the most is seen on the back of the card. This man, and my dad, had a QSO on December 7<sup>th</sup>, 1941. Mitchell also noted "& Victory" on the back of the card as he mailed it months later in 1942. My father was tight-lipped about his experiences living through the Great Depression and WWII in which he served as Army radioman. So I can only speculate the disruption these men experienced in their lives. Pearl Harbor was attacked at 1:25 PM Eastern time, and this QSL has no time noted but the fact that it was a 20m contact tells me the QSO probably happened in the daytime. Was it before or after the news came to the masses? I can't know.





Many similarities exist between the COVID-19 societal health crisis we are all experiencing in 2020 and the war our fathers or grandfathers lived through. This has meant unpleasant change and BARS is not immune. We have had to suspend our in-person club meetings, VE exams, and the breakfast get-together lots of us enjoyed each week. But like the rest of society, BARS needs to adapt and persevere.

As I write this, the BOD is trying hard to set up a videoconference for our May 6, 2020 meeting date. We know not all members may have the capability to join in but the winds of change affecting other ham clubs blows over us too and we should get with the program. There are concerns over which platform may be best but it is likely that we will use Zoom. This newsletter gets published in advance of the meeting date so I intend to alert people of our meeting by our [w1hh.org](http://w1hh.org) website or our email list or both. Ideally, Zoom attendance is supposed to be nearly automatic by just clicking a link and your browser will install and configure the necessary add-ins. A microphone and webcam are not necessary if you want to attend/observe. We are working on a speaker presentation now and I also hope to allow audience participation. Doing this will make us ALL feel more connected and human, I am sure.

So watch for the meeting announcement, and stay optimistic about our future!

Andy, KA1GTT  
President, BARS

## Next BARS meeting: Wednesday May 6 at 7:00 PM “The BARS Meeting for May Will Be Virtual”



Everyone, the need for health safety has caused us to postpone club meetings at the church, our VE sessions, and our Saturday morning breakfasts. I am sure all of you are unhappy and miss getting together as a club. Me, too!

The Board has discussed the idea of virtual meetings and we have decided that next Wednesday, our normal club meeting date, we will hold a VIRTUAL ZOOM MEETING with members. I am happy to say that Phil Temples, K9HI, ARRL Assistant Eastern Massachusetts Section Manager, will help us on our maiden flight with Zoom. I am trying to line up a speaker for the meeting as we speak – likely it will be regarding Field Day 2020 during changing situations regarding stay-at-home advisories.

I will announce the link to join the Zoom meeting before the meeting date, 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](mailto: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 participate. We will likely have some sort of roundtable where folks can catch up.

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 next Wednesday. This will be a fresh experience for us. I can’t believe we only cancelled the April meeting – it feels like it’s been 12 months and I really want to reconnect with ham friends.

Andy, KA1GTT  
President, Billerica Amateur Radio Society

## A Message From the Editor

from Marla Wallace, WA1GSF

Wow! This month's issue of the bars Newsletter is *huge*. The biggest newsletter yet during my tenure as editor at **sixteen** pages. A great big thank you to all the wonderful contributors.

I haven't been getting the newsletter from past years, but I suspect that this issue is bigger than any prior one. Let's see if we can exceed this in our June edition. I'm proud to be able to be a part of making the public face of BARS outstanding.

## Product Review: DIY Calculator Kit

By Andy Wallace, KA1GTT

### WHAT'S SIXTY-EIGHT KILOHMS IN HEX?

Recently, I had a cheap solar calculator die on me and I wound up buying a calculator kit from ebay, similar to this:

<https://www.ebay.com/itm/DIY-Calculator-Counter-Kit-w-Acrylic-Case-LCD-Display-Electronics-Computing-A9X1-/322868569722>

I am a natural for geeky electronic kits. In fact, this same thing (like most Chinese products) is sold in several flavors including this one from [banggood.com](http://banggood.com):

[https://www.banggood.com/DIY-Calculator-Counter-Kit-Calculator-DIY-Kit-LCD-Multi-purpose-Electronic-Calculator-p-1340065.html?cur\\_warehouse=CN](https://www.banggood.com/DIY-Calculator-Counter-Kit-Calculator-DIY-Kit-LCD-Multi-purpose-Electronic-Calculator-p-1340065.html?cur_warehouse=CN)

Why would I spend \$14 on a calculator that I had to put together? Well – first of all, it's fun to build things, and secondly, this calculator has a secret which you will learn about shortly.

It took me awhile to realize the name, Geekcreit, is probably a twisted way to say "geek create." Anyway I was shocked upon arrival to see it actually had English instructions and a schematic, placement diagram, etc. The page also had a QR code to make you surf automatically to complete instructions on the Web, which was very helpful with step by step diagrams. You will still need good eyes to handle and install the through-hole components. And tiny fingers to handle the minuscule metric hardware. And you may need a toddler's help to cut and place the keycap labels inside the clear plastic caps. Luckily, they give you two sets. Cut carefully!



The calculator basically goes together in three stages: the logic board, the LCD, and the clear acrylic case. If you have built these kinds of Chinese kits before, you may be familiar with how the plexi pieces are assembled with tab/slot and captive nut features. It really is clever. Explore the [banggood.com](http://banggood.com) website for other kits like tiny oscilloscopes and signal generators, etc.

For me, the difficult part was bending the leads of the LCD display to mount at an angle to the logic board. The instructions don't tell you the angle, but the photo gives you a good idea. What I wound up doing was placing a side panel on the base and doing trial bends until the angle looked correct. It all fit together pretty well once I sorted out the hardware. Like most kits, they supplied extras of a few resistors, spacers, and screws, in case one flies off into the unknown under your soldering bench.





I installed two 3V coin cells in the holders, and presto – it lives! Now, what’s special about this calculator is it has the following functions, some of which your Casio probably does not:

- Numeric operations (add, subtract, multiply, divide)
- Resistor color band decoder (3+tol and 4+tol)
- LED dropping resistor calculation
- DEC<->HEX and HEX<->DEC conversion

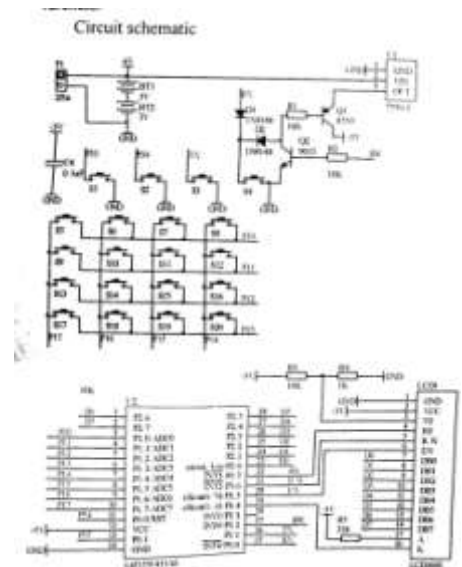


The numeric mode is unfortunately limited to 7 digits, but good enough for 468/f(MHz). The LED dropping resistor calc asks you for the value of the supply voltage minus the voltage dropped inside the LED, and the desired current in milliamps. Hex input is made through the keys along the lower right corner (keycaps

show dual functions). The hex mode is limited to 5 digits so you can’t convert DEADBEEF to decimal, oh well.

The resistor color code mode is nice if you have some precision resistors hanging around. It will decode four bands plus tolerance. You can also switch between four band and normal three band resistors. But a big lack here is you can’t go from value to color. That’s too bad, since most of us don’t know a 470k set of bands off the top of our heads. Or do we?

The LCD is bright and easy to read but an annoying quirk is that the calculator powers down after only THIRTY SECONDS of inactivity. So keep a pencil and paper handy if you are doing complicated calculations!



So I thought you would find this little kit semi-ham-newsletter-friendly and if you get one, let me know how the build went. The silly end to my story is I found the clicky inexpensive “tactile” switches and 30 second shutdown inconvenient for balancing my checkbook so I threw good money after bad and got a nice TI-1795SV calculator from Amazon for less than \$11. The Geekcreit calculator will live on in the shack, at least until the button cells give up the ghost and I have to disassemble the whole case to replace them.

## Product Review: RTL-SDR Software Defined Radio Kit

By Marla Wallace, WA1GSF

This is a first-impressions review of the RTL-SDR Blog V3 Software Defined Radio Kit. They call it a kit, but it’s really just a box full of things which together make a complete SDR that plugs into your computer.



**RTL-SDR Blog V3 R820T2 RTL2832U 1PPM TCXO HF  
Bias Tee SMA Software Defined Radio with Dipole Antenna  
Kit**

What you get (from top to bottom):

- The SDR USB Dongle
- Short telescoping antenna rods
- Long telescoping antenna rods
- Dipole rod holder with balun and short feedline
- Long feedline and splice
- Suction cup mount
- Mini tripod mount

I recently purchased the RTL-SDR kit shown above from Amazon for about \$30. I've never been big on SWL, but the idea of a radio whose features were defined by software was intriguing and this seemed to be the cheapest option. The company that makes the product is called RTL-SDR BLOG. Their web site (for the version 3 dongle I bought) is <https://www.rtl-sdr.com/tag/v3>. Be sure to explore this site; there's a lot of good information here.

I have found that the RTL-SDR is fun to play around with on VHF/UHF but has some issues. Having a multi-mode receiver that covers twelve meters to eighteen centimeters is nifty. The radio can also be coerced into receiving from 600 to 12 meters, but at significantly reduced performance.

For Windows, the software of choice is SDRSharp by AirSpy, a free download at <https://www.airspy.com/download>. I installed the Community Package with Plugins, which has a nice collection of features such as a scanner and a frequency memory.

Following the setup instructions on the rtl-sdr site, I was quickly able to get my Windows 10 laptop to recognize the dongle and was receiving FM broadcast stations (the easiest targets) within an hour.

SDRSharp has an awkward UI for things like setting frequency. I can't just enter a number. It seems to be optimized for exploring the panadapter display rather than tuning a known station.

SDRSharp has some nifty plug-ins. If I ever come across amateur tv, there is a ntsc decoder (b&w only, since the sdr is only able to get 2.4MHz of the signal). And the magic eye display representing signal-to-noise is cute (you can even choose which magic eye device you want). Another plug-in is a scanner. There's even a CTSS squelch plug-in, which I set to 103.5 Hz and used for the BARS net.

I haven't got a suitable antenna for HF, so I have only done a limited amount of exploring frequencies below 50 MHz. But the spec for the V3 device says it covers 500 kHz to 30 MHz in baseband mode. I was able to hear one or two AM broadcast band stations, a couple of local hams and a few shortwave broadcast stations. The sensitivity in this mode is not very good.

There are some birdies and artifacts, especially from strong FM broadcast stations. I may invest in the \$15 notch filter for the FM band, as WCRB is extremely strong here.

Speaking of, the reception on the FM broadcast band is quite good – about like a commercial FM stereo receiver.

Aircraft radio reception is intriguing. I have heard many aircraft and some ground stations. I have logged four of the 2m repeaters and the reception of those is comparable to my 2m rig. I can also receive police and fire transmissions from the surrounding towns.

It would be nice if the telescoping dipole antenna was marked in some way so I could adjust it to the proper wavelength without needing a tape measure. (More about the supplied antenna below.)

If you have linux, there is a software package called gnu radio which lets you design your own sdr algorithms by stringing together processing blocks like they were Legos. When I get the rtl-sdr running on the Raspberry Pi, I may play around with that.

The telescoping dipole antenna (rabbit ears) that came in the sdr kit has two sets of telescoping rods. The longer set resonates between 71 and 287 MHz. The other set resonates between 448 and 933 MHz. (That's when the elements are fully horizontal; Making the elements form a vee lowers the resonant frequency by a few percent.)

Without using the baseband tuning option, the rtl-sdr dongle covers 24 to 1700 MHz. So the antenna supplied doesn't cover the lowest two and highest octaves of the tuning range and has a one octave gap in the middle, more-or-less.

Some of the missing coverage can be recovered by using the 3/2-wave dipole configuration. (Recall that a dipole is equally good at  $f$ ,  $3f$ ,  $5f$ , ...) In that mode, the long rods cover 213 to 861 MHz and the short rods cover 1344 to 2799 MHz, leaving only the 24

to 71 MHz spectrum without an efficient antenna provided. However, the 3/2-wave antenna trick exacerbates the FM broadcast band interference problem in the 264 to 324 MHz band, which may make covering 287 to 324 MHz problematic. And the short rods will pick up the digital TV band signals, yielding similar difficulties throughout much of the highest octave (the UHF TV signals' third harmonic being 1410 to 2100 MHz).

So realistically, the antenna supplied can be effectively used from 71 to 287 and 324 to 1410 MHz. Good enough to experiment with, anyway.

All in all, you can't get a cheaper SDR package, but like everything else, you get what you pay for. Still, I'm having fun.

## Feature Article: Memories of NEARFEST

By Steve Wedge, W1ES/4

My first time at Deerfield was after Bert (W1IHN - now N4CW) and Everett (AJ1I, SK) had told me about it. I followed them, along with Al (KA1FBY, at the time, later KD1ES, SK) to the fairgrounds. I remember that SHARP right-angle turn, as we headed towards the fairgrounds on NH Rte 43. I was NOT prepared for the amount of STUFF! that was available there.

For those who weren't hams in the 1980's there's no way of describing what it was like! There were probably 4000-5000 people there and sellers crammed in everywhere! I was overwhelmed! I don't even remember what I bought there on that first visit -- probably a Heathkit O-1 scope and a couple of other bits to play with. I was curious then and everything was NEW! to me.

My second visit was interesting, as well. I found out that people came on Friday and stayed overnight. Being in my late 20's, I sensed a PARTY when I saw it, and brought up my camper. There was some guy there, who I never saw again, who called himself "The Colonel" who had a large quantity of beer and Yukon Jack, and I woke up in the morning, wondering what hit me! I brought home an R-388 and some other boat anchors and talked on the repeater all the way home (from the tollbooths, anyway -- where I could finally hit the repeater!).

After that year, Hosstraders became a biennial event. I continued to bring my camper, which, over the years, morphed from a 17' Sunline to a 23' Prowler to the BARSTOOL -- my 23' motorhome. As those years went by, my camper started to become the gathering point for BARS and I happily accepted it!

We all endured the times through Kingston (horrible -- but I bought some good stuff there, including the Tektronix 465B that I STILL own today!) to Rochester (lots of good times and the peak of the jam sessions!). through Hopkinton.

I moved to North Carolina in 2006 and drove up to Hopkinton (by way of the BARS meeting at the Mason's Hall) for the last Hosstrader's in October 2006. I missed the first NEAR-Fest the

next year but managed to get there in 2007. I still have a photo of Stan, N1TT (SK), Ed, N1IWV, Twoof (K1TWF) with our red Solo Cups. The Sox won their second World Series shortly thereafter.

I remember making the 2006 run in 10 1/2 hours from my driveway in NC to the Mason's Hall in Billerica. Saab Turbos were wonderful high-speed cars!

The size of these gatherings started to dwindle in the 1990s, but the fun was still in grand supply! I can remember setting up the canopy with the usual crew, plus Mike, N1IW (SK) and others. Pat, Stan's widow, even came to Deerfield to sprinkle some of Stan's ashes at the garden there. I was there last October, and stopped to say "hey" to Stan, as I paused. The Fest is a ghost of its former self but those who attend are still hale and hearty and celebrate the twice-a-year gathering that makes us what we are.

Being in the South now, I rarely miss the Shelby Hamfest, and any of you who want to experience it are welcome to contact me for free room and board and a ride to it. The fest is about 2 hours or so from me (not a bad drive here -- we do about 80 the whole way!) I was planning on being at Deerfield this spring, until the COVID Crud (TM) called all merriment to a halt.

Perhaps, this autumn, I'll make another run.

## Feature Article: An Introduction to JTAAlert

By Scott Ginsburg, K1OA

If you're using WSJT-X to operate FT8 you should consider trying the companion HamApps JTAAlert software. JTAAlert communicates with WSJT-X and provides visual and audio alerts when a decoded callsign meets any number of criteria, such as a needed DXCC country, state, prefix or grid. This comes in handy for example if you are in your shack decoding FT8 signals but performing some other activity and want to know when a station appears that you need for an award. JTAAlert also makes it easy to initiate a contact with those stations.

You can download JTAAlert from <https://hamapps.com/>. The software may require you to update your Microsoft .NET framework and a link is provided on the HamApps website. There are installation files for the sounds and callsign database which adds the capability for JTAAlert to display attributes of a station such as their participation in Log Book of The World (LOTW).

After you've installed the program, sound files and callsign database, start WSJT-X then JTAAlert. JTAAlert requires WSJT-X to be running and if it isn't, you will see a message pop-up saying it is waiting for WSJT-X to be running. The title bar displays various information such as the software version, the band you're on, the digital protocol you're using, and whether or not you have audible alerts enabled. It will also let you know if there is a newer software version available for download by displaying "(!)".



Click on Settings from the title bar to bring up the configuration menu. Select “Manage Settings”, then Station Callsign. Enter your callsign, grid square and zone information. Click on “Logging” to connect JTAAlert to your logging program.

Supported programs are Ham Radio Deluxe (HRD), DXLab DXKeeper and LogOM. As WSJT-X is decoding callsigns, it sends those callsigns to JTAAlert via UDP messages. JTAAlert will then communicate with your logging program to determine if they match any of the alert filters you have configured. For example, if your log does not include a confirmed contact with Nevada on 30m, and WSJT-X decodes one, JTAAlert will query your logger and generate an alert.

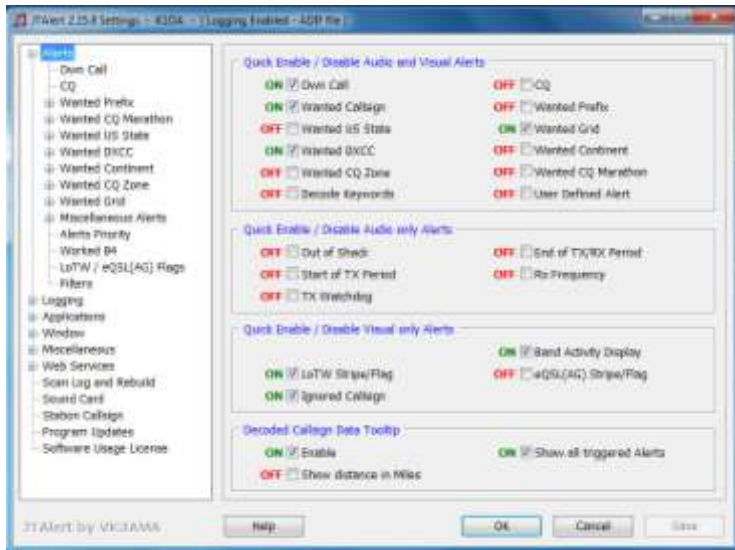


Figure 1 - Configuration Window

If you are not using a supported logging program the process for keeping JTAAlert in sync with your logger is a bit clunky. First, export your log into an ADIF file from your logging program. Then point to that ADIF file from JTAAlert (see Figure 2). JTAAlert will read that file at start up and use it to compare against your needs. Note that when you make an FT8 contact JTAAlert will append new contacts to this file so you don't want to use your wsjtx\_log.adi or logging program log file. You will need to regularly sync up JTAAlert with your logging program, as you may work a station on a needed band but using a different mode, such as CW. My process is to import new WSJT-X contacts into my logging program (DX4WIN) and periodically re-export my log to the file read in by JTAAlert. It's a minor inconvenience in order to use the capabilities offered by JTAAlert.

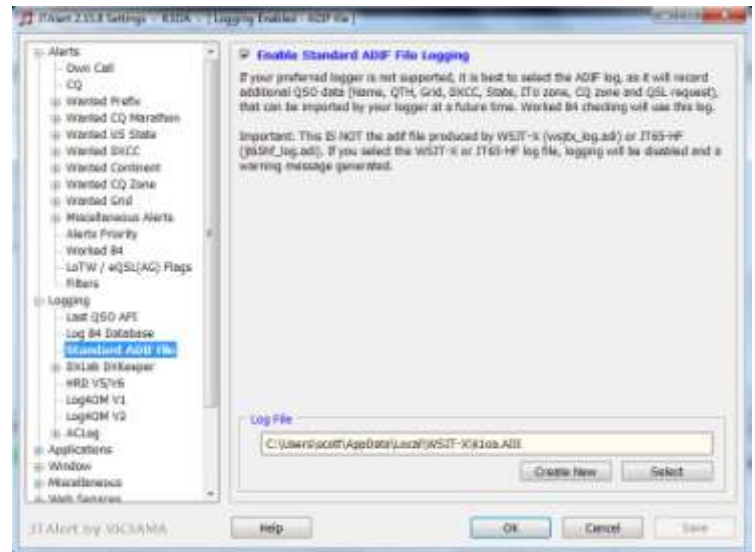


Figure 2 - Logging with ADIF File

Click on “Alerts” to display the many choices for alert functions. Each section allows you to configure the alert color for visual alerts including the background color. This is where you set the .wav file for audio alerts and the volume for the alert. Each section has a sub-menu for selecting the bands and modes to choose as well. One of my most used alerts is “Wanted Callsign” under the “Miscellaneous Alerts” menu. I load this up with the callsigns of various DX stations that I am chasing. It also comes in handy when there are so many decodes in a given FT8 15 second cycle that some of them will scroll out of view on the WSJT-X Band Activity window. WSJT-X will color the wanted callsign in its Band Activity window using the same colors as JTAAlert. You can then scroll back through the window to see a history of the callsigns that met your JTAAlert alert criteria.

Visual alerts are displayed in the alert window for a single 15 second cycle. While the alert is displayed you can double click on it and it will signal WSJT-X to start calling that station. Figure 3 - Populated Alert Window shows an alert for DK9KW which I configured as a wanted callsign. If configured, the receive signal level and country name are displayed. If you hover over the callsign a pop-up appears with additional details on the station, including a bearing which you can use to point your rotor.

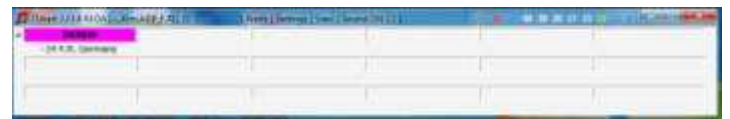


Figure 3 - Populated Alert Window

See Figure 4 for a screenshot from JTAAlert during a fantastic 6m Sporadic E layer opening into Europe in August 2018. Needed countries are highlighted in yellow and needed grids are in red. Stations already worked have “- B4” appended to their callsigns. The stations without colorization are calling CQ, which is another setting that can be controlled through configuration. As you can see there were a lot of targets of opportunity that day on 6m and JTAAlert presented them in a way that made it easy to know which

ones were needed and only a double click away from putting into my log!



*Figure 4 - August 2018 6m Opening*

One very cool feature is the Text Message function. JTAlert connects to a central server which allows you to send short text messages to other users who are also connected. Hitting function key F5 brings up the text window where you can enter the callsign of the last station you worked for example and if that person is also on-line their status will say as such and you can send them a message. I've used this to thank DX stations for an FT8 contact.

The software includes embedded documentation and there is an active groups.io mailing list called HamApps where you can obtain additional assistance.

## Feature Article: NEQP 2019 Contest With a Surprise!

By Jon Turner, AC1EV

I have been a ham for a little over two years now. In that short time, I have had a chance to try out many of the different things one can do. One exciting thing to do is to participate in a contest. Many of us have seen pictures and read articles of serious contesting stations and may even drool a bit for all the high-end hardware and giant antenna farms. I plead guilty myself. As a new ham, my station has, for the most part, been a basic one. I have an excellent radio in the IC-7300, which priced to be available as a high-end entry-level radio. At this stage in my ham radio adventure, I am not sure I can appreciate the advanced features found in the higher end radios, yet. In the beginning, using my IC-7300 and an Off-Center Fed Dipole and running 100 watts many of the stations I was able to contact were contesting stations. Their great antennas and sensitive receivers could pull out my signal with ease. Time passed and my station is improved, now with 500 watts and a hex beam or wire antenna up over 45 feet high and I can compete for attention in a pile up in a contest.

Unless things are quiet or slow due to the hour, I haven't had great results running on a frequency in a contest, but search and pounce, where the operator finds a station and replies to their CQ, works well and I am often heard first try. Just that bit is loads of fun and satisfying. I enjoy seeing how my radio performs and contacting people in different places, so entering a contest is fun, even though I know I am not going to be competitive. It is obvious, but I will say it anyway, there are lots of people on the air during a contest. That means it is a great time to make QSOs, even though you are not going to rag chew or be a contender.

I had a chance to operate from a contest grade station last year for around 4 hours during a CQ WW SSB contest. Thanks to AB1OC Fred and AB1QB Anita for their generosity.



Their station had stacked SteppIR antennas and 1500 watts of power so when I talked, people heard me!



In those 4 hours I made 99 QSOs on SSB and got 78 different countries! 6 new ones for me, too! It was exciting, so when the North America QSO Party contest came around, I decided I would see how I could do on my own station in the same amount of time. It turned out that I was able to make 100 QSOs and 76 multipliers in 4 hours for that contest, which I thought was respectable given the difference between our stations.



Band	QSOs	Pts	Cty	Pt/Q
14	87	261	63	3.0
21	13	39	13	3.0
<b>Total</b>	<b>100</b>	<b>300</b>	<b>76</b>	<b>3.0</b>

Score: 22,800  
1 Mult = 1.3 Q's

As I described above, I only dabbled a bit with contests, yet I had lots of fun. I strongly suggest that you try it out for yourself. I also strongly suggest that you participate fully and submit an official log to the contest when it is over. The first reason is that it makes your QSOs count for the people you contact and the other is that you might be surprised and get a certificate! For new hams you might be able to submit as a rookie and then you are competing against other rookies and not the big guns. Some contests have other “side” contests in their scoring, so you might pick up something there. Last year I spent around 9 hours in the New England QSO Party contest from my second house, which is in Carroll county, New Hampshire. There are only 147 licensed hams in Carroll county and only 4 entered the contest.

New Hampshire					
N1WXQ	BELNH	NH	SOLP	0	12
WA1Z/m	BELNH	NH	SOLP-m	65	2
K1GQ	CARNH	NH	SOHP	597	0
AC1EV	CARNH	NH	SOHP	0	83
N1GN	CARNH	NH	SOLP	81	0
KAZKON	CARNH	NH	SOLP	0	53
AE1P	CHENH	NH	SOLP	4	247

You can see in the tables below the populations of licensed hams by county. Middlesex county, Massachusetts has the largest amount of licensed hams in New England! I admit I did not know that, but after thinking about it, it is not surprising. The next largest county is Hartford, CT and it is only half of Middlesex. If you are trying to win a ham radio contest from one of these counties, you will need a serious station and be willing to spend lots of time in the chair.

State	County	5-letter abbreviation	Licensed hams (as of Nov 2018)
<b>Connecticut</b>	Fairfield	FAI CT	1434
	Hartford	HAR CT	1861

Massachusetts			
Barnstable	BAR MA		656
Berkshire	BER MA		335
Bristol	BRJ MA		967
Dukes	DUK MA		30
Essex	ESS MA		1300
Franklin	FRA MA		200
Hampden	HMD MA		705
Hampshire	HMP MA		331
Middlesex	MID MA	➔	3973
Nantucket	NAN MA		25
Norfolk	NOR MA		1151
Plymouth	PLY MA		876
Suffolk	SUF MA		406
Worcester	WOR MA		1690
New Hampshire			
Belknap	BEL NH		287
Carroll	CAR NH	➔	147
Cheshire	CHE NH		275
Coos	COO NH		94
Grafton	GRA NH		280
Hillsborough	HIL NH		1565
Merrimack	MER NH		528
Rockingham	ROC NH		1118
Strafford	STR NH		343
Sullivan	SUL NH		153

When you operate in a contest you enter your station information in the logger and that is how your location is determined. My home QTH for my license is in Tewksbury, MA but the contest logger needs to have the location of the station you are operating for the contest. When I participated in the NE QSO Party in May 2019 I setup N1MM+ logger like this:

**Edit Station Information**

Call: AC1EV  
 Name: Jon Turner  
 Address: [Empty]  
 City: Mirror Lake State: NH Zip: 03583  
 Country: UNITED STATES  
 Grid Square: FN43P CQ Zone: 5 ITU Zone: 8  
 License: Extra Latitude: 43.6364 N Longitude: 71.2765 W  
 Station TXRX: IC 7300 Power: 500  
 Antenna: 8010 EFHIV Ant. Height: 50 a.s.l. 550  
 ARRL Section: NH  
 Rover QTH: [Empty]  
 Club: Nashua Area Radio Society  
 Email address: [Empty]

Buttons: Ok, Help, Cancel

I was not trying to win the contest. I thought it would be a good opportunity to make lots of contacts and when you encounter someone you contacted in the contest in a future QSO, you have a good start on beginning a rag chew.

Here are the results of the 2019 NEQP. It may be worth looking at previous years' results for contests you want to compete in to

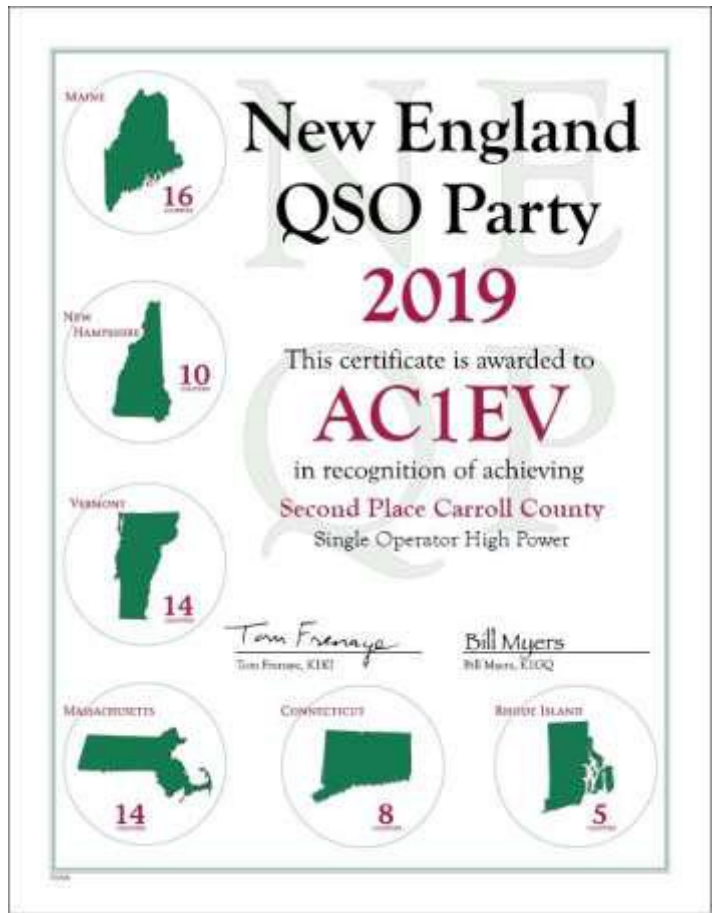
see how the top finishers scored. If you can choose the location you will operate from, this can help as well.

### New England QSO Party



Call	QTH	State	Category	CW/Dig Q80c	SB Q80c	Total Q80c	Multipilers	Score Operator(s)
<b>Multi Operator Single Transmitter</b>								
W1XX	WASRI	RI	MS	711	1334	2045	98	272,844 +K1XA, oprs
NE1QP	BERMA	MA	MS	1019	450	1469	104	258,752 W1TO K1MK NJ1F K1T7T, oprs
KZLE	BENVY	VT	MS	718	266	984	94	159,988 +W1VE, oprs
W1DD	OXFME	ME	MS	855	0	855	73	124,830 K1ESE W1HIS, oprs
WW1DX	WNHVT	VT	MS	453	364	817	70	88,900 KXIX W1PY K1NZ KR1W NT1K WD1S N1FJ AA1YW, oprs
W1NVT	GRAVT	VT	MS	235	468	703	69	64,722 W1SJ K1BIF KB1FRW AB1DD, oprs
N1SOH	MIDMA	MA	MS	341	69	410	45	33,795 +W1FM, oprs
W1AW	HARCT	CT	MS	110	293	403	46	23,598 W1NSK NG1R W1JGM KC1BR AB1WV, oprs
N1FD	HILNH	NH	MS	0	363	363	52	18,876 AC1DC AB1BY, oprs
KC1HVR	NLNCT	CT	MS	0	280	280	49	13,720 +KE1U, oprs
W1DP	PRORJ	RI	MS	0	291	291	47	13,677 W1MEE WA1UWU, NE1Y, KZ1K, K1DT, oprs
N1TRK	ADDVT	VT	MS	0	315	315	40	12,600 +WB2BCD
A1HTT	NEWRI	RI	MS	123	54	177	42	12,600 W1WBB W1MBF, oprs
W1SRG	MIDMA	MA	MS	10	88	98	37	3,896 AG1C, K1RDD, K1MT, oprs
W1AQ	PRORJ	RI	MS	0	235	235	41	10,455 NZRDF, KB1PGP, KB1VY1, oprs
KC1DJ	ORLVT	VT	MS	32	1	33	18	1,170 +K1LI, oprs
K1MYY	DUKMA	MA	MS	0	20	20	13	260 K1WDY KB2MZH, oprs
WB2BCD	ADDVT	VT	MS	0	19	19	13	247 +N1TRK, oprs
<b>Multi Operator Single Transmitter Mobile</b>								
NZ1Um	30 city	m	MS-m	964	0	964	57	109,896 W1UJ N1WK KB1EBC, oprs
K1RQm	9 city	m	MS-m	245	0	245	44	21,560 K2XA N1F, oprs
<b>Single Operator High Power</b>								
K1ZZ	TOLCT	CT	SOHP	1216	480	1696	87	282,464
AA1DN	MIDMA	MA	SOHP	827	497	1424	83	195,133
AK1W	WORMA	MA	SOHP	859	440	1299	87	187,746 K5ZD, opr
K1RO	SULNH	NH	SOHP	806	403	1209	85	171,275
NR1X	WINCT	CT	SOHP	1016	0	1016	77	156,464
W3EP	NLNCT	CT	SOHP	823	196	1019	81	149,202
W1FJ	ESSMA	MA	SOHP	935	0	935	69	129,030
K1JB	CUMME	ME	SOHP	590	464	1054	72	118,368
NC1CC	NEWRI	RI	SOHP	681	206	887	69	108,192 WA1BXY, opr
K1GQ	CARNH	NH	SOHP	597	0	597	67	79,998
AE1T	GRANH	NH	SOHP	540	0	540	68	73,440
W2DAN	NEWRI	RI	SOHP	0	1003	1003	64	64,192
N1KPF	HARCT	CT	SOHP	20	893	913	62	57,846
K11QR	BARMA	MA	SOHP	448	3	451	69	56,637
K1RV	PLYMA	MA	SOHP	476	0	476	59	56,168
K1SND	HMPMA	MA	SOHP	380	0	380	54	48,640
K1DM	NLNCT	CT	SOHP	416	0	416	58	48,256
K1RM	HARCT	CT	SOHP	346	0	346	62	42,904
W1CTN	NHVCT	CT	SOHP	82	475	557	59	37,701
W1RM	HARCT	CT	SOHP	296	0	296	58	34,336
K3IU	NEWRI	RI	SOHP	313	0	313	62	32,552
WX1S	STRNH	NH	SOHP	105	266	371	63	29,988
W1TC	WORMA	MA	SOHP	221	40	261	56	26,592
KB1W	BERMA	MA	SOHP	196	158	354	45	24750
K1KA	HILNH	NH	SOHP	28	395	423	51	23,001
W1WU	PRORJ	RI	SOHP	0	425	425	53	22,525
AA4AK	CUMME	ME	SOHP	236	0	236	47	22184
W1WEP	HARCT	CT	SOHP	208	0	208	51	21,216
K1TH	PLYMA	MA	SOHP	150	0	150	43	12,900
WB2VVV	PRORJ	RI	SOHP	0	195	195	48	9,360
NB1U	KENRI	RI	SOHP	116	0	116	36	8,352
N1ELZ	BARMA	MA	SOHP	0	142	142	51	7,242
W1HS	SULNH	NH	SOHP	0	158	158	40	6,320
NF1O	SULNH	NH	SOHP	69	1	70	32	4,448
K1GMM	RUTVT	VT	SOHP	0	148	148	38	4,144
W1JZZ	BARMA	MA	SOHP	0	96	96	32	3,072
AC1EV	CARNH	NH	SOHP	0	0	0	69	3,266
K1MC	MIDMA	MA	SOHP	58	0	58	20	2,320
K1EIC	FAJCT	CT	SOHP	46	3	49	23	2,185

Here is the surprise I received from the 2019 NE QSOP, which prompted this article.



### Feature Article: My First Antenna Build

By James Orsborn, KB1SEQ

This is my first article for a Ham newsletter. My intention is to cover an antenna project that I thought might be of interest to other new Ham operators. I would welcome any positive inputs, ideas and/or suggestions related to this article or suggestions for other topics.

#### Introduction:

I passed my Technician test at a BARS exam held in the Billerica Library in 2009 and then went back the following month to take the General test. I've never really been a practicing Ham. After letting my license briefly lapse, I renewed my FCC license in January 2020. The FCC allows a generous grace period for license renewals; so all I needed to do was check into the FCC Website, register a new FRN for my information, pay the renewal fee, and I am now good for another 10 years. I built this antenna because I hope that my latest adventure with this hobby will be a bit different.

For my new attempt at the hobby, I decided to purchase an ICom ID-51A as my first radio. I'm still not quite ready for a Base Station radio. I could have probably made a better choice, but the D-Star features and programmable settings on this radio seemed to be attractive. I've only limited experience with a hand-held radio, so I hoped that this radio would be a good starting point. I



called HRO in Salem to place the order, and two days later the radio was in my hands.

My experience programming this radio might be the subject for another article but suffice it to say that I needed help. I contacted another Ham in my neighborhood, and he put me in contact with someone who discovered that I had set the correct PL frequency, but I had not set the radio to actually enable the PL Tone feature when transmitting. I also felt I was not getting enough radiated power from this small 5-watt transmitter. I sought advice from another Ham and he pointed me towards an article in the January 2020 issue of ARRL's **On the Air** magazine (page 16, Extend Your Handheld's Range with a Simple Ground-Plane Antenna). He even sent me a copy of the construction article, and that antenna build is the subject of this article.

#### Order the Parts:

The new dipole antenna design calls for solid (not stranded) #14 AGW wire and some short pieces of PVC pipe; as well as a chassis mount SO-239 connector. I made a list of parts to order from HRO: (the SO-239 connector, a 15' length of RG-8 coax with PL-259 connectors on both ends, a PL-259 to SMA adaptor cable and a Diamond SX-400 meter). I still needed some solid wire for the antenna elements, so I went to O'Connor Hardware and picked up 7' of #14 solid wire. I had decided on 7' because I knew that I needed a total of five pieces that were just over 18" each. This was my first mistake; they say you should always "Measure twice and cut once." Well the elements are actually 19+", and the instructions suggest adding a small loop (instead of a cut off point) at the end of each wire. I believe I should have purchased almost 9' for wire instead of just 7' to allow for trimming each wire. I tried to make things work by cutting the main element to 19 3/4" and then I divided the remaining wire into four equal lengths, of about 18" each. So my final antenna has ground plane elements that are shorter than specified and the main element is almost an inch longer than any of the ground elements – not exactly a center fed antenna design. I wonder if it might work better if I start over?

#### Antenna Construction:

After cutting the wire, the rest of the construction went pretty smoothly. I stripped about 3/8" of outer covering from each wire so I could make good solder joints to the SO-239 connector. The main element goes in the center pin and the four ground plane elements are soldered to the mounting hole at each corner. I found a 5' piece of PVC pipe laying around the house and even found a short piece of 1/2" PVC that fits nicely inside the outer PVC mast. The coax cable fits nicely inside the 3/4" PVC and I used a band clamp around the 1/2" PVC and the PL-259 connector. I used a broad tip, 40-Watt soldering iron for all of the joints.

I used my Dremel to make a small notch at the bottom of the PVC mast. This was so the PVC pipe could sit flush on the ground, and the coax could come out the side without being pinched. As suggested in the article, I fashioned a balun out of three small loops of cable where the coax came out of the PVC and secured this loop of cable to the mast with a Velcro strap.

The remaining coax and the PL-259 to SMA adaptor cable gives me about 10' of coax between the HT radio and the antenna – just enough cable to use the HT in the living room with the antenna outside on the deck.

Figure 1 includes a photo of the antenna mounted to the fence around my back deck. Detailed shots show the solder connections to the SO-239 connector and how it is attached to the 1/2" PVC pipe at the top of the mast. The final photograph shows the small balun loop at the bottom of the mast where the coax exits the PVC conduit.



**Figure 1. Photographs of Monopole Antenna Assembly**

(Three photos show the antenna located on the back deck, the wires connected to the SO-239 and the small balun loop near the bottom of the mast.)

#### SWR Measurements using a Diamond SX-400 Meter:

Other than the mistake with the wire length, I think the antenna came out looking pretty good. So it was time to make some antenna measurements with a suitable SWR meter. I didn't have one so I began looking for an SWR meter by searching the



Internet for product ideas. Several MFJ meters came up first because I was looking for a low-cost option. There are both single needle and dual needle versions. There are also several different operating bands to consider. I did not believe that I needed a full HF to VHF (three-band) model so I limited my search to dual-band models that matched the transmit frequencies on my transceiver. I finally decided to purchase the Diamond SX-400 model from HRO because it met my two-band (2m and 70 cm) requirement and the specifications said it only needed 4 watts for an accurate SWR measurement. The function switches on the instrument and the general appearance were an improvement over the similar MFJ model.

For my first set of measurements, I positioned the antenna in a bedroom closet and connected the SWR meter and HT to the coax lead. I programmed the HT to use 9 different test frequencies that were evenly spread across both the 2 m and the 70 cm bands. By pre-programming the HT it was extremely easy to select a frequency and I could easily repeat a measurement when needed.

The SX-400 instructions said I should start with a set of Forward and Reverse power readings each test frequency. These were quite easy to accomplish, and everything went smoothly as I moved up and down the two bands. I found it easy to transfer these readings into an Excel spreadsheet in preparation for being able to graph my measurements. What I found difficult was following the next set of steps to make an SWR reading. These initial power measurements confirmed that the ID-51A transmit power levels were good, and that the Reverse Power levels were not too high for the radio to operate safely.

The additional SWR instructions called for setting the meter to the "Calibrate" position and then using the potentiometer knob to adjust the needle for a Full-Scale reading on the meter. Once calibrated you switch to the "SWR" position, key the radio again and read the SWR value on the appropriate scale. I found it difficult to adjust the calibration knob for a Full-Scale reading, because the needle seemed to make big movements even with small adjustments. The SWR readings are on a logarithmic scale and this made it difficult to make readings especially at low values on the scale. I felt that I needed to look for a better approach.

What I found was that SWR values can be calculated by using just the two Forward and Reverse power readings that I had already measured. The formula that I found is:

$$SWR = [ 1 + \text{Sqrt} ( \text{Power-rev} / \text{Power-fwd} ) ] / [ 1 - \text{Sqrt} ( \text{Power-rev} / \text{Power-fwd} ) ]$$

This formula was entered into my Excel spreadsheet and voila, I had immediate SWR values as soon as I recorded the two Fwd and Rev Power readings. My initial measurements show that the Calculated SWR values match very closely with the SWR readings that I recorded using the SX-400 instructions.

As can be seen on the graphs and in the Excel numbers (See Tables 1 and 2), the SWR values on both the 2m and the 70 cm bands were under 2.0:1 for all of the initial measurements. I believe that these SWR values are acceptable, but I also believe they are skewed a bit because the antenna was located in a spare bedroom closet that contained a wire shelving unit and other miscellaneous items. This is obviously not a preferred location for the antenna to be used on a permanent basis.

Antenna:	Monopole		Location: Robin's Closet			14-Apr-20			
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
Frequency	144	144.5	145	145.5	146	146.5	147	147.5	148
Fwd Power	5.1	5.1	5.1	5.1	5	4.9	4.8	4.8	4.8
Rev Power	0.12	0.2	0.25	0.3	0.3	0.3	0.4	0.5	0.5
SWR			0.6		1.7		2		2.1
Calc SWR	1.4	1.5	1.6	1.6	1.6	1.7	1.8	2.0	2.0

Table 1. Excel Data for Initial SWR Readings for 2 m Band

(The table and graph show low Rev Power levels and SWR values under 2.0:1)

Antenna:	Monopole		Location: Robin's Closet			#####			
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
Frequency	430	432.5	435	437.5	440	442.5	445	447.5	450
Fwd Power	3	3.9	4.9	3.75	2.3	2.1	3	3.5	2.1
Rev Power	0.05	0.2	0.7	0.6	0.3	0.1	0.1	0.22	0.4
SWR			2.1	2.5		1.5			
Calc SWR	1.3	1.6	2.2	2.3	2.1	1.6	1.4	1.7	2.5

Table 2. Excel Data for Initial SWR Readings for 70 cm Band

(Shows two dips in the Transmit power on this band, but Calc SWR is still under 2.0:1.)

After several days of considering the options and waiting for some good weather, I decided to relocate the antenna to the back-deck position shown in the earlier photograph. I repeated the SWR measurements in this new location and used the readings to "tune" the main antenna element to a slightly shorter length. The new/Final SWR readings for the 2 m Band (before and after trimming the main antenna element) are shown in Tables 3 and 4. As can be seen, the SWR readings have improved and are now below 1.3:1 across the band. I am still concerned because I have not seen a minimum SWR value anywhere on either band.

Antenna:	Dipole Wh		Location: Out on Deck			19 3/4" Main elemer		19-Apr-20	
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
Frequency	144	144.5	145	145.5	146	146.5	147	147.5	148
Fwd Power	4	4.2	4.4	4.6	4.8	4.9	4.9	5	5
Rev Power	0.02	0.02	0.02	0.02	0.02	0.02	0.075	0.09	0.1
SWR									
Calc SWR	1.15	1.15	1.14	1.14	1.14	1.14	1.28	1.31	1.33

Table 3. New SWR Readings (Before trimming)

Antenna:	Dipole Wh		Location: Out on Deck			19 1/2" Main elemer		19-Apr-20	
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
Frequency	144	144.5	145	145.5	146	146.5	147	147.5	148
Fwd Power	4	4.1	4.1	4.5	4.7	4.8	5	5	5
Rev Power	0.05	0.01	0.01	0.01	0.01	0.02	0.05	0.07	0.08
SWR									
Calc SWR	1.25	1.10	1.10	1.10	1.10	1.14	1.22	1.27	1.29

Table 4. Final SWR Readings (After trimming)

**Conclusions:**

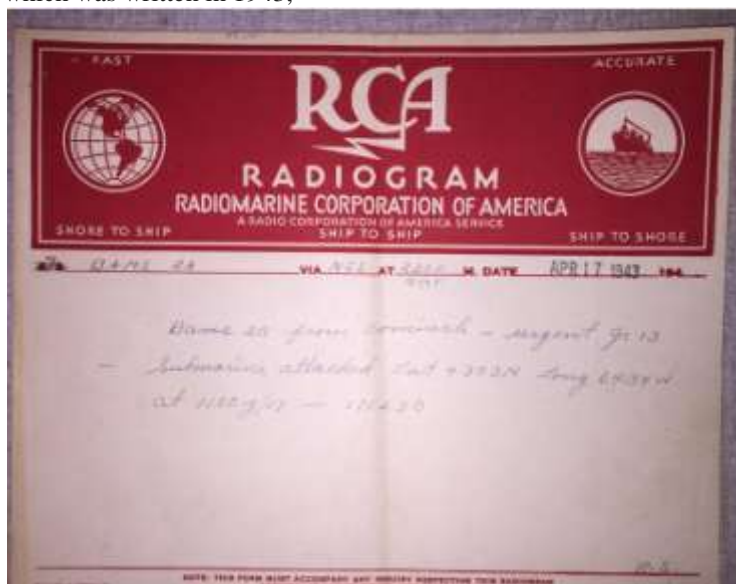
I have used this antenna to participate in recent Net Meeting on the BARS repeater. I seem to have a clear signal and I've had no trouble reaching any of the local repeaters, even with the radio set to operate at lower transmit power levels.

## Feature Article: U-Boat Sighting Radiogram Found

By Henry G. Christle, Sr., WA1VAB

My curiosity was aroused by a document found by Andy Wallace inside a 1940 copy of Ghirardi's RADIO PHYSICS COURSE purchased at Marlboro Radio Club flea market in 2020. This unexpected bonus document from 1943 is an example of the vital role RF radio signals played in systematic global relays of ship to ship and ship to shore communications, enabling the Maritime fleet to survive German submarines. Navigation, command, and tracking of under-surface and surface sea military machines was vital to winning the war in Europe.

Andy's book contained the authentic RCA Radiogram below which was written in 1943,



Today 77 years later, thanks to digitizing of public records and the internet, it is possible to learn much of how the Allies avoided being decimated by the 1,162 German U-boats, which sank 2,779 ships until U-boats were driven from the seas by systematic location and tracking enabled by radio through the tens of thousands of wireless messages which were relayed. While global communications at sea varied with distance, season, time of day, and simply propagation, this was achieved by precision radio relay stations. This Radiogram is just the beginning of the story.

Source links can be found at the bottom of this article for your further reading interest.

What can we learn analyzing the words in this Radiogram? Beginning with first word BAMS:

**BAMS - Broadcast to Allied Merchant Ships** was a protocol and system of broadcasts for Allied Merchant Ship convoys that was used during World War II to provide for the transmission of official messages to merchantmen in any part of the world. The

BAMS system was designed for communication by the best employment of radio stations available.

### 2A - BAMS Merchant broadcast service into 20 zones, all merchant ships in 2A

2A	Commander in Chief, Canadian North-west Atlantic.		Lewisburg.....	All Canadian stations.
	COM 100. Fleet, C & R.	Washington.....	Washington.....	Annapolis. Boston. Charleston. Norfolk.

### NSS - Annapolis, Naval Communications Station Washington, D.C. Transmitter

NSS Annapolis was officially known as Naval Communications Station Washington D.C. Transmitter and was used for global communications on VLF (for submarines) and VHF.

The station was constructed and began operating in 1918 using parallel 500KW Arc transmitters, and during the time of wireless technology breakthrough in 1931 was updated to a 300KW vacuum tube transmitter. broadcasting shortwave on 500 Khz to 14 Mhz. Naval comms broadcast to relay network stations from NSS via VLF at 500 Khz for submarine comms using Morse code. With an antenna farm only a government could afford, Annapolis neighbors only complained about AM radio interference, but it makes me wonder why we fear low power cell phone repeaters.

By the end of the cold war NSS was rendered obsolete by satellite technology and ceased operation (a big mistake I think). It was demolished in 1999.

NSS STATION TRIBUTE/HISTORY FROM Jim Hawkins WA2WHV and other HAMS is a must see, go to:

<http://j-hawkins.com/nss.shtml>

#### The Message:

**DATE – APR 17, 1943 (lets bow our heads.)**

#### MESSAGE TEXT:

Bams 2a from cominch BT urgent gr 13

BT Submarine attacked Lat 4303N Long 6434W

At 1100z/17 BT 171230

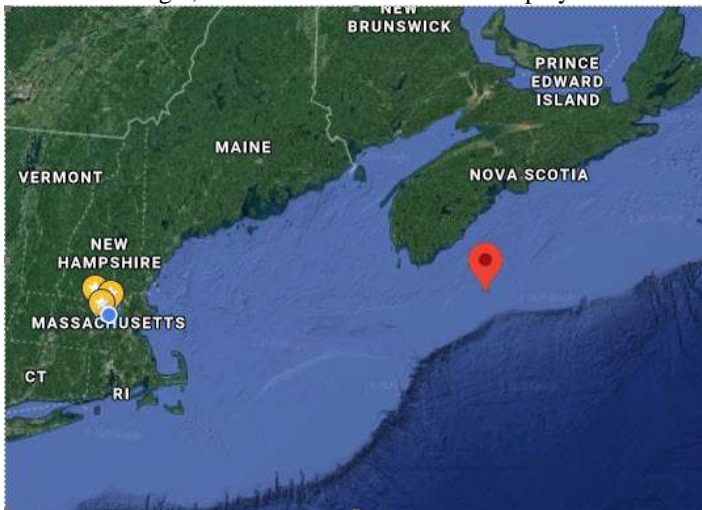
#### MESSAGE TRANSLATED:

**BROADCAST TO ALLIED MERCHANT SHIPS  
CANADIAN NORTHWEST ATLANTIC (via)  
NSS\ANAPOLIS\BOSTON\LEWISBURG FROM  
COMINCH (Commander in Chief United States Fleet)  
BT URGENT GR 13 (maybe codename for merchant  
ship or group)**

**BT SUBMARINE ATTACKED LAT 4303N LONG  
6434W**

**AT 1100Z/17 BT 171230 (signature)**

Thanks to Google, we find the attack location displayed below:



Indications are the original message was received by Canadian radio and sent directly to NSS/Annapolis and relayed to all ships in the North Atlantic. The longhand is excellent, but doubtfully copied at 35 wpm CW. Messages were normally typed for speed. The German U-boats were close to New England, and it was vital to locate and monitor their position on the globe with respect to the Maritime fleet, which required updating Allied vessels with every sighting including LAT, LONG and GMT. These messages were relayed by radio using Morse Code, much like NTS messages are relayed today.

This highly organized and successful relay system is alive today, maintained by volunteer Radio Amateurs, operating within the ARRL National Traffic System, relaying CW traffic independent of propagation conditions, satellites, and computers. I enjoy working with the folks on today's NTS traffic nets, where the precision and efficiency of relays is practiced 7 days a week.

There is a lot of knowledge related to the subject of WW2 military radio below.

[https://en.m.wikipedia.org/wiki/Broadcast\\_to\\_Allied\\_Merchant\\_Ships](https://en.m.wikipedia.org/wiki/Broadcast_to_Allied_Merchant_Ships)

[https://en.wikipedia.org/wiki/NSS\\_Annapolis](https://en.wikipedia.org/wiki/NSS_Annapolis)

<http://j-hawkins.com/nss.shtml>

[https://en.m.wikipedia.org/wiki/Wireless\\_telegraphy](https://en.m.wikipedia.org/wiki/Wireless_telegraphy)

<https://www.archives.gov/research>

I extend my thanks to KW1U, Marcia Forde, STM in our ARRL Section for her contributions on this effort, and I thank each of you for reading.

## Strays

Our June meeting will be on June 3, 2020. This date is significant for Andy and Marla, as it would have been their father's 100<sup>th</sup> birthday. In the June issue of this newsletter, they will share some memories of Bob Wallace, W1HH (formerly W1MQV).

(from the April 2020: EASTERN MASSACHUSETTS (EMA) SECTION NEWS):

### NORTHEAST HAMXPOSITION / NEW ENGLAND DIVISION CONVENTION POSTPONED

Bob DeMattia, K1IW, writes:

After long consideration, the convention committee has decided to postpone the 2020 convention to the week of November 6 through 8.

There are several reasons for this, the first and foremost is the health and well-being of our attendees. In addition, there are many logistical problems with holding the convention in July, even under the most favorable conditions of the pandemic emergency being over by then.

1. We believe it is unlikely that the state's ban on large gatherings will be completely lifted by the end of July.
2. Even if it were, we believe attendance will be severely impacted due to lingering (and quite appropriate caution).
3. Almost all of our exhibitors are unwilling to commit to anything prior to June.
4. The convention is subject to penalties for cancellation. The penalties increase as we get closer to the convention date. By moving to November, we move out the schedule on these penalties. This will allow us to reassess the viability of the convention in early August. By then we will have further insight into prevailing conditions.
5. The November weekend was the only one available to us—and could be lost to another group if we did not act on it.

We know that many look forward to attending each year, and have probably grown weary of all the cancellations of events like these. However, given the reality of the situation, we believe it is in everyone's best interest to postpone.



## BARS May 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
<b>May 2-3</b>	<b>New England QSO Party **</b>
May 2-3	10-10 Int. Spring Contest, CW
May 2-3	Delaware QSO Party
May 2-3	Indiana QSO Party
May 2-3	7 <sup>th</sup> Call Area QSO Party
May 9-10	Arkansas QSO Party
May 16	Hamvention QSO Party
<b>May 24-25</b>	<b>Day of the YL's Contest **</b>
	Note: Read about this contest on the blog by BARS Member Niece KA1ULN. Let's all support Niece! <a href="https://ka1uln.blogspot.com/p/the-day-of-yls.html">https://ka1uln.blogspot.com/p/the-day-of-yls.html</a>
<b>May 30-31</b>	<b>CQ WW WPX Contest, CW**</b>

### \*\* 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>

## Secretary's Reports

from Scott Ginsburg, K1OA, Secretary

**There was no April BARS General Meeting.**

**There was no BARS Board of Directors Meeting.**

## BARS Membership

Bruce, W1LUS, our BARS Treasurer reports that as of May, 2020 we have 110 total members.

## 2020 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 31<sup>st</sup>. Any renewal or new membership made after September 1 will be valid until December 31 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

from Bruce Anderson, W1LUS, Treasurer

### May 2020 Treasurers Report

Reminder: 2020 Dues were due starting January first.

So far 48 members have renewed for 2020.

Through mid April we had one renewal and three new members for \$60 income. Plus a \$20 donation. PayPal expenses were \$2.96 We now have \$423.68 in the Bank and \$490.06 in our PayPal account for a total of \$913.74

## 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 Andy, KA1GTT

## Wednesday Night Net

**Note: because we will be holding our virtual General Meeting, there will not be a net on May 6<sup>th</sup>.**

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

**NOTE: Physical Club meetings are suspended until the COVID19 Emergency has passed.**

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 \(map\)](#)

## VE Sessions

**NOTE: VE sessions are suspended until the COVID19 Emergency has passed.**

VE sessions are held 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 \(map\)](#)

## Club Breakfast every Saturday

**NOTE: The Club Breakfast is suspended until the COVID19 Emergency has passed.**

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 \(map\)](#)

## Future Meetings

**NOTE: Club meetings are suspended until the COVID19 Emergency has passed. The 5/6 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](mailto: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](mailto:bars@w1hh.org)

## BARS Leadership Team

President: Andy Wallace, KA1GTT

Vice President: Kayla Creamer, W2IRY

Treasurer: Bruce Anderson, W1LUS

Secretary: Scott Ginsburg, K1OA

Net Coordinator: Chris Lobdell, KC1IUK

Newsletter Editor: Marla Wallace, WA1GSF

BoD: Mike Raisbeck, K1TWF

BoD: Henry Christle, WA1VAB

Ex Officio: Tom Walsh, K1TW