



NEWS FOR AND BY BARS MEMBERS

BARS Billerica Amateur Radio Society

JULY 2024

Stop the Presses!

The July meeting has been postponed to Wednesday, July 10th because July 3rd would conflict with the Independence Day holiday. Please ignore any references to the date of the meeting elsewhere in the newsletter.

--BARS Management.

BARS meetings are now “hybrid” – the meeting will be held at the Chelmsford Bible Church and available simultaneously on Zoom.

The safety and well-being of our membership is important to us. Those members who feel uncomfortable attending in person can continue to join us over Zoom.

--BARS Management.

A Message from the President By Doug Bruce, N1WRN

Greetings Fellow Members,

I hope all is well with everyone as we get into summer. Summer means that Field Day happens on the fourth rainy weekend in June, as us hams say. BARS had our 2024 Field Day this past Saturday and Sunday at the Billerica EOC on 67 Alexander Road in Billerica.

First, I want to thank Kevin Fallon, KB1KTR for his stick-to-itiveness in securing this great venue for our Club. Kevin did yeoman's work starting with helping get the 80-40 meter dipole up

for us on Friday night. Kudos to Kevin for his skillful use of his trusty slingshot to get that rope high over the trees at the other end of the parking lot. Kevin provided his expertise with regard to guiding the Team, along with Ken, WO1N, in installing the tower for the tri band beam that was utilized.

Next, I want to thank Ken Caruso, WO1N, for his skills at setting up the network that enabled the logging programs to work flawlessly during our operating time. Ken was a driving force in getting all of us on the radios and operating, with the end result of 923 Q's, which Ken said is a new “recent memory” record for our Club. We look forward to having Ken on the BARS Field Day Crew for a long time!

Next on my thank you list is Mark Nelson, KA1INE BARS Vice President, for another fantastic job as Field Day Chairman. He is the glue that holds the entire Field Day operation together. He is great at making on the fly decisions that allow Field Day run seamlessly for anyone who decided to join us for our event. I look forward to having Mark as the Field Day Chair as long as I am President!

Next, I want to thank Tim, K1DC, for his outstanding work helping Ken set up the logging network and keeping the radios operating as much as possible to make as many QSO's as possible. Tim's easy-going nature makes him a natural to be an integral cog in the BARS Field Day Operation. We look forward to many more Field Days with Tim on the Team.

I am sure there are others who deserve my thanks and praise and are too numerous to list in this space. You all know who you are and what contributions you made to the 2024 BARS Field Day. As President, I am very proud of everyone who showed up and made the effort to help set up, operate and take down after the event ended. That is what makes our Club so good. The people in this Club all fit into their own special niche, doing their own individual thing for the Club. Field Day is all about comradery and good ham radio fellowship. Here's to many more great BARS Field Days in the future.

Field Day showcases our Club motto of “Get on the Air” very well. After all, getting on the air is what this great hobby is all about.

Until next time,

73,
Doug
N1WRN

Next BARS Zoom meeting: July 10 at 7:00 PM - “HF Propagation”

Presenter: Bill Mader, K8TE

I am pleased to announce that Bill Mader, K8TE, will present to the Club on HF Propagation Fact vs Hype and Misunderstanding. Here is Bill's BIO from his QRZ page:

Presenter's Bio:

Appointed to a third term as ARRL Section Manager for New Mexico, I am honored to serve in that capacity. I attended the annual meeting for Section Managers in 2017 where we met the staff and key players. Your ARRL is in good hands! I enjoy meeting hams and attending clubs' meetings and hamfests in NM (and elsewhere) and look forward to meeting many more of you. Please add K8TE@ARRL.org to your club's newsletter. Although I have been an ARRL Life Member since 1976, I continue supporting ARRL as a Diamond Club member.

I give lots of presentations to local clubs, at hamfests across the southwest, and on-line. I plan to give five new presentations at QuartzFest 2024. I like to share what I have learned for others to enjoy the varied aspects of our great avocation. If you need a club program, contact me and I'll provide the list of my presentations. Do you want to know more about a particular subject, let me know. I probably have a presentation ready or one I can update for you.

I was first licensed in Feb 1960 as WV2RBF then upgraded to General in Oct to WA2RBF. I changed to WA8WWM in 1967 when I moved from Syracuse NY to Detroit MI to manage the first Radio Shack in that State. In 1973 I joined the USAF and received KZ5WA at my first duty station in the (then) Panama Canal Zone in 1974. My career field was Ground Radio Maintenance, 304X4, of all things! I operated an FT-101D into a Collins 237B log periodic for occasional contesting, obtaining my first SS Clean Sweep mug, easier as a KZ5.

I was the leadoff “professor” at DX University at the Duke City Hamfest/ARRL Rocky Mountain Division convention in Albuquerque for Aug 2014, Contest Academy lead "professor" for 2015, gave another presentation at DX University for Ham-Con Colorado in May 2016, presented several times at Ham-Com, and did eight presentations at HF University at the DCHF 2017, 2018, and again in 2019. I gave eight more presentations at QuartzFest 2017 on various subjects and did ten more in 2018. I, along with

AK6R and K3LR, led off the IDXC 2018 presentations Friday afternoon. I returned as a presenter at Ham-Com 2018 and 2019 in Plano TX. We have run three years of HF University at the DCHF and hope to do more for 2024. I presented again in Visalia at the IDXCC for DX University in 2023.



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 there on Wednesday 7/10 at 1900.

Doug, N1WRN
President, Billerica Amateur Radio Society

From the Editor's Desk By Marla Wallace, WA1GSF

I admit that being an engineer, I'm biased. But I feel that every ham should understand the electronics that makes his equipment work. And nowadays, that means a fully cognizant ham must also understand the principles of programming, if not the details of the code in his rig.

Juan Jiménez has submitted a nice article describing a project he built around a cheap microcomputer development system. It's a morse code keyboard keyer customized for multiple languages. Which, as far as I know, does not exist as anybody's product. So

if you are fluent in multiple languages and want to use CW to work a non-English-speaking station, you're reduced to pounding brass.

In true ham fashion, Juan saw a need (if only his own) and built a solution. Please have a look at his write-up. I know I'll be searching out the GitHub project soon.

Feature Article: "Making a Simple Bluetooth-Enabled CW Keyer"

By Juan Jiménez, K1CPR

Ever since I was a teenager, I have been fascinated by Morse Code and how it was used, particularly in WW2. I didn't have the money to get into the hobby then, but it always stuck in the back of my mind that I would like to learn it. This was back in the late 60's and early 70's.

During the mid-1970's I developed an interest in computers, and was lucky to attend a private parochial school that had one of the first minicomputers, a Digital Equipment Corporation PDP-8e with a whopping 4k of core memory, a tape drive and two ASR-33 teletype terminals with paper tape units. I learned how to use it by taking the programming class as an elective in my junior year, and then helped teach the class in my senior year. I always loved to impress the girls by firing up the "refrigerator," which required programming the bootstrap code in octal on the front panel, which would trigger loading of a program on paper tape, which then loaded the operating system on magnetic tape and after a many lights and funky sounds, you would be rewarded with a ding from a little bell on the terminal and... a dot. That was it. It was the prompt for PIP, the operating system.

Even though I loved programming, I was still much more fascinated by the inner workings of the computer, which seemed like black magic at the time. I attended a BsEE program in college for a year – mostly to please my dad – but soon found I had no interest in spending four long years with a bunch of drunk kids who made drugs in a chem lab and ran an escort service from the brand-new women's dorm. I dropped out, and made the best decision of my life – I joined the Marine Corps.

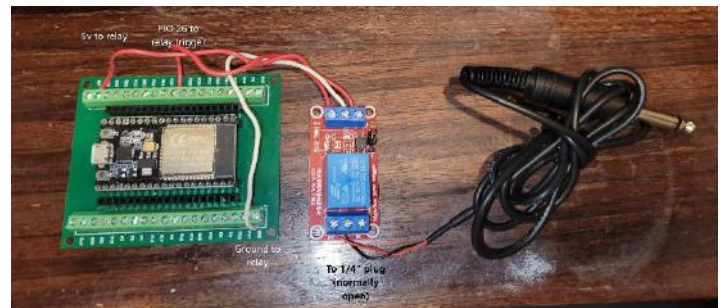
Well... I should say the decision was made for me by the fact that the Army, Air Force, Navy and Coast Guard all rejected me because I was overweight, but the Marines took one look at my ASVAB score (I aced the test) and said "Sure! We'll take ya!" So I joined on a guaranteed avionics tech job, and after months of training – and getting in the best shape of my life – I ended up in a little squadron in Cherry Point, NC called SOES. We only had three Search and Rescue helicopters, so I got really good at Spades and Hearts. It's the reason the squadron was nicknamed "Same Old Everyday S**t".

The avionics training closed the circle for me and gave me an understanding of the theory of what happens inside the computer,

which was a huge advantage for me when I left the Corps and within a year was hired as a Member of the Engineering Staff at Hughes Aircraft Company's Radar Systems Group. It was my job to compare self-test code for the upgraded radar on the F-14 Tomcat and ensure all circuits and components were tested.

Fast forward to February 2023, and I found myself with the means and time to dive into the HAM world. I bought a Yaesu FT-840, and in short order got my Technician, General and Amateur Extra tickets. Obviously, the Marine Corps training helped. I attended my first hamfest, and bought an old but nicely restored WW2 flameproof CW key. I still, however, found learning CW daunting.

I decided I would build myself a keyer that I could drive from my computer, to help me learn CW. As a platform I chose an Arduino ESP32 development system with Wifi and Bluetooth. When I received it from Amazon, I marveled for a moment at how far technology had come since the days of the PDP-8e. I set it up with a micro-USB cable and powered it up. To complete the setup I bought a small 5v relay and used the normally open connections to wire it to the ¼ plug. To drive the relay, I used one of the PIO pins (in my case, number 26). I then sat down to write the code.



The Raw Project Ready to CW a Storm

The result is 300 lines of C code, generously commented. It is available for anyone to download and use as one of my GitHub Gists at <https://gist.github.com/flybd5>. After initializing itself, it is a simple state machine that waits for lines of text to be entered through the Bluetooth serial connection. You can use a terminal emulator or the console on the Arduino IDE. The keying speed is adjustable by changing the value of a dot from the default 50ms.

Because I am fluent in several languages, I implemented the full international Morse Code character set, except for the digraph "ch" which was deprecated from the Spanish language some time ago but is still used in some languages. Unfortunately, Windows has no way of keying it, not even using Alt-codes.

[What about using the Alt-code for the Greek letter χ (chi, 0x03C7), Juan? Can you key in Alt-1707? – ed.]

The project was fun, and I still use it when I can. I hope you enjoy it as well.

Announcements

Parks on the Air – First Week of July

Greetings BARSians,

Back in 2022 when I was a freshly minted ham the 13 Colonies Event was my first exposure to 'special event stations' (SES). I was excited by the chase for all 16 stations (the original 13 US colonies plus 3 bonus stations) and was able to get a clean sweep! It was my first paper certificate so it, and the event, holds a special place in my heart.

This year I'm honored to be one of the stations operating as K2H representing Mass. during the 13 Colonies event. The event runs from July 1st through the 7th with operations on all HF bands (excluding 60m), as well as 2 and 6 meters simplex. I don't yet have a schedule for my freqs & modes (I'll be doing SSB & digital including RTTY).

More details are available at <http://13colonies.us/>

I hope to catch you on the air!

Tim - K1DC

And

My favorite, as well. It's a great event. I highly recommend it. Are the start and stop times 9:00 AM Mon 7/1 and 12:00 Mon 7/8 (for all practical purposes 11:59 PM Sun 7/7)?

2024 Event Dates:

July 1 9AM EDT to July 7 Midnight EDT
(July 1, 1300 UTC to July 8, 0400 UTC)

- You do not need all 13 colonies to get the certificate
- You do not need to get the 2 bonus stations for a clean sweep

John W1MVD

And

I found this info.

<http://13colonies.us/certificates>

BillP WZ1L

Northeast HamXposition Press Release, June 1, 2024:

ROBUST LINEUP OF VENDORS AND SPEAKERS AT THE 2024 NORTHEAST HAMXPOSITION

For more information, visit: <https://hamxposition.org>

Plans are shaping up for the 2024 Northeast HamXposition and New England Division Convention on August 22-25, 2024 in Marlborough, Massachusetts. This year's convention will be held at the Best Western Royal Plaza Hotel & Trade Center, 181 Boston Post Road W, Marlborough, MA 01752. This venue is located off of I-495 on Route 20 west. It offers many amenities and lots of nearby family-friendly attractions and dining options.

The festivities kick off on Thursday evening, August 22 with entertainment provided by nationally known comedian Juston McKinney. Seating is limited to 250 people. Tickets are just \$35, and also available as part of the "Convention Plus" package.

Join your fellow hams for a delicious DXCC/Contest Banquet on Friday night with Yuri Onipko, VE3DZ, as he recaps his 50 years of DX and contesting activities and shares his operating experiences from a variety of locations around the world.

Steve Goodgame, K5ATA, will present the keynote on Saturday morning. Steve leads ARRL's Education and Learning Department. He has a passion for youth outreach, and works constantly to find ways to engage more youth in wireless technology and help teachers ELEVATE their STEM programs.

The Saturday evening Grand Banquet will feature special guest Dr. Tamitha Skov, WX6SWW. Known as "Space Weather Woman" in social media, Dr. Skov forecasts and analyzes space weather processes – in the heliosphere and exosphere.

Several new vendors will have their wares on display at the convention this year: FlexRadio, Elecraft, and SteppIR Communications Systems. We'll also feature Halibut Electronics, Club Gear Online, Reliance Antennas. Remote Ham Radio, VE2DX Electronics, Gold Medal Ideas, AG Custom Gifts, and others.

New for 2024 is "Mini-Contest University," based on K3LR's popular Contest University. CTU has been featured at the Dayton Hamvention since 2007 and has been presented in 15 countries to over 10,000 participants. Mini CTU is a series of contest-oriented talks and presentations offered at HamXposition all day Friday.

HamXposition is pleased to offer a Parks On The Air (POTA) track featuring presentations designed for both newcomer and experienced POTA operators alike. There will be a functioning portable station operating on the hotel grounds designed to show beginners how to "chase" POTA contacts. In addition, an actual POTA activation will occur in a nearby state park following the prize drawing and closing ceremony.

This year, volunteers will staff a special "Get On The Air" station, W1XPO, to mentor and assist newcomers in making their first HF contact.

Our popular EmComm track will be back for 2024. Veteran emergency communicators will share their knowledge and experience to help others to "up their game." In addition to talks

and presentations, convention goers will get to see operational emergency communications vehicles on display in the parking lot.

As always, the Northeast HamXposition will feature a robust flea market, open to tailgaters on Friday, Saturday and Sunday.

No major convention would be worth its salt without great prizes. Along with hourly drawings, we're pleased to announce that one lucky person will receive the grand prize—an Icom IC-705 QRP all-in-one transceiver. Second prize will be a Xiegu X6100 QRP HF/6m transceiver. The third prize will be an Icom ID-50A VHF/UHF/D-Star handheld. Tickets can be purchased in advance by visiting <https://ticketing.hamxposition.org>.

The ARRL Diamond, The National Association for Amateur Radio, Amateur Radio Emergency Service, ARES, ARES logo, National Traffic System, NTS, and NTS logo are either registered trademarks or trademarks of American Radio Relay League, Inc.

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Strays

Becoming an ARRL member or is your membership up for renewal?

One of the benefits of being an ARRL Affiliated Club is a commission for recruiting new ARRL members and securing timely ARRL member renewals.

Each new ARRL member earns the club a \$15.00 commission. New members are defined as never having been a member or a returning member that has not been a member for two years. Each renewal earns the club a \$5.00 commission. There is no limit to the amount a club can earn in this program.

Multiyear memberships earn only one commission. Life, Family, International, Blind, and Student memberships are not eligible for a commission. The member will not be eligible to receive a gift or incentive if the club collects a commission on the membership.

Currently at least 82 BARS members are also ARRL members. If we all renewed through the club, we could potentially receive \$410 per year from the ARRL.

If you are interested in renewing your ARRL membership through the club fill out the following form [ARRL Affiliated Club Membership Application \(pdf\)](#). Then forward it to W1LUS@hotmail.com

Is your Email address on the FCC site up to date?

§ 97.23 Mailing and email addresses.

Each license grant must show the grantee's correct name, mailing address, and email address. The email address must be an address where the grantee can receive electronic correspondence. Revocation of the station license or suspension of the operator license may result when correspondence from the FCC is returned as undeliverable because the grantee failed to provide the correct email address.

[85 FR 85533, Dec. 29, 2020]

I recommend that you log on to the “your FCC Registration” at <https://apps.fcc.gov/coresWeb/updateRegistrationPre.do> to make sure that your email address is up to date. Also, in the future should you change your home address, or your email address be sure to remember to update it on the FCC site.

[The \$35 FCC application fee applies to new, renewal, rule waiver, and modification applications that request a new vanity call sign. The fee will be per application.]

Administrative updates, such as a change of name, mailing or email address, and modification applications to upgrade an amateur radio licensee's operator class or to request a sequentially issued call sign, are exempt from fees. – ed.]

--de Bruce, W1LUS

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 through the process. An Elmer could have Zoom on their cell phone and show a new ham how their shack was set up. Use your imagination and see how you might use this tool. If you would like to use Zoom for this, contact Bruce, W1LUS@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 in using Zoom to Elmer someone.

--de Bruce Anderson, W1LUS

Friday and Sunday Night CW Slow Speed Contest

Every Friday and Sunday night, 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. Currently, the schedule is:

Fridays 20:00-21:00 UTC (3-4pm EST) and
Mondays 00:00-01:00 UTC (7-8pm EST Sunday).

Wednesday Night Net

Join us on the Westford 146.955 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**). *Note: Thanks to the Westford Police Amateur Radio Team (PART) for their generous act of making their repeater available to us.*

Repeater info:

W1GOF

146.955 MHz

-600 kHz (normal) offset

Encode CTCSS 74.4 Hz

Reminder: “kerchunking” the repeater is not only impolite, it’s illegal. It constitutes an unidentified transmission. If you need to check that you’re making the repeater, say something like “This is <your call> standing by on the frequency.” Thanks for your courtesy.

Club Meetings

Club meetings are held in person (weather permitting) and via Zoom. A link will be sent via the BARS email reflector to all currently paid-up members who might wish to attend via Zoom.

Club meetings are held on the first Wednesday of the month at 7 PM Eastern time.

VE Sessions

Our VE sessions are held in-person at the Chelmsford Bible Church. Pre-registration for our in-person exams is suggested. Contact w1lus@hotmail.com for registration information.

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 \(map\)](#)

VE Session Report for June 2024

We had nine people show up for the June 13th VE exam session. We created one new Technician: KC1UZQ and one new General: KC1UZR, along with two General upgrades and three Extra upgrades. Be sure to greet them if you hear them on the air.

Our next exam session will be on July 11 at 7:00 PM at the Chelmsford Bible Church.

Thanks to Gary, W1GFF, Perter, N1ALO, and Bill, W1ZL, for helping run this exam session.

While walk-ins are still welcome it speeds the process up if you pre-register for your BARS VE exam session at <https://HamStudy.org>.

--de Bruce Anderson, W1LUS

BARS Does breakfast every Saturday.

On Saturday mornings at 8:15AM, we meet for a casual, social breakfast at Stelio’s restaurant in Billerica.

[Stelio’s Family Restaurant, Billerica, MA](#)

Future Meetings

The August meeting will be on 8/7 and will be hybrid – in person and 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

July Get-on-the-Air Suggestions from Scott Ginsburg, K1OA

BARS is a “get-on-the-air” (GOTA) club. We encourage members to participate in the varied events on HF and VHF.

Here are the popular suggestions for this month:

<u>Date</u>	<u>Event</u>
Jul 6-7	Marconi Memorial HF Contest http://www.arifano.it/contest_marconi.html
Jul 13-14	IARU HF World Championship ** http://www.arrl.org/iaru-hf-world-championship
Jul 20-21	North American QSO Party, RTTY https://www.ncjweb.com/NAQP-Rules.pdf
Jul 27-28	RSGB IOTA Contest https://www.rsgbcc.org/hf/rules/2024/riota.shtml

**** Top recommendation for this month**

Recurring Events – visit webpage for exact times and dates:

K1USN Slow Speed Test - Every Friday 20:00 UTC / Every Monday 00:00 UTC <http://www.k1usn.com/sst.html>

Straight Key Century Club (SKCC) Weekend Sprintathon – the Saturday following the 6th of every month at 1200 UTC

http://www.skccgroup.com/operating_activities/weekend_sprintathon

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

OFFICERS:

President: Doug Bruce, N1WRN

Vice President: Mark Nelson, KA1INE

Treasurer: Bruce Anderson, W1LUS

Secretary: Marla Wallace, WA1GSF

BoD: Bill Poulin, WZ1L

BoD: Steve Wedge, W1ES/4

Ex Officio: Gary Frascarelli, W1GFF

VOLUNTEERS:

Net Coordinator: Doug Bruce, N1WRN

Newsletter Editor: Marla Wallace, WA1GSF

New Member Outreach: John Fisher, KC1FTJ

Field Day Chair: Mark Nelson, KA1INE