

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 64 * May 2021



Delta Amateur Radio Club (DARC)

Sparks Newsletter

Website: <http://deltaclub.org>

Facebook:

<https://www.facebook.com/darcmem>

W4BS

REPEATER SYSTEM

146.820 ^{-107.2}	* 147.360 ^{+107.2}
146.625 ^{-107.2}	443.200 ^{+107.2}
224.420 ^{-107.2}	443.700 ^{+107.2}
144.390 Digipeater	*Fusion

We plan to meet this month via "ZOOM."

Topic: May 2021 Member Zoom Meeting
Tuesday May 11 at 7pm

Join Zoom Meeting

<https://us02web.zoom.us/j/6317803269?pwd=N21XbHNuc3lxSnhoaTNoQ1VOdGNtQT09>

Meeting ID: 631 780 3269

Passcode: 843647

Program: "Audio for Ham Radio" by Bob Heil, K9EID, of Radio Audio Systems

For Ham License testing information: Contact Jeff Krause, AJ4GY at AJ4GY@comcast.net or call at 901-301-6776 for information. If enough testers are identified, Jeff will hold a special testing session.

Announcements

We will be assessing the interest level for the usage of Wires-X at the club level.

Field Day will be June 26 – 27 and will be closer to normal this year! More to come.....

President's Corner

Submitted by Steve Frazier, KK4VPT

During the May Board of Directors meeting, we discussed when we thought we could start having in person meetings. With the number of people vaccinated increasing and the number of COVID cases decreasing, it was looking promising that we could meet in person in June. Later that night on the local news, it was announced that Shelby County was planning to relax mask requirements and other restrictions that had been in place due to COVID. We will review the new guidelines and get your feedback during the upcoming May meeting to make decision about the June meeting.

One reason we would like to do the June meeting in person is because it looks like Field Day this year will be similar to past Field Days. I had a meeting a few weeks ago with representatives from MARA and the Nashoba Amateur Radio Club and Delta Club will be joining them for a combined Field Day on June 26 - 27. This year the location will need to be changed to the Germantown Municipal Park which is south of The Great Hall Conference Center and north of Germantown City Hall. There is a large pavilion there that we can use and several trees in the area that should work for hanging antennas.

I will have pictures and video to share at the May meeting. And if we are able to have an in person meeting in June, that would give us a chance to finalize everything before Field Day.

We have been able to continue most of our usual activities and actually grow as a club during these challenging uncertain months that seemed to be never ending. We have been able to do this thanks to your help and your devotion to Delta Club.

As always continue to keep in touch using our nightly Net at 8pm on the 146.82 repeater and when you do, be sure to thank the Net Control Operators who make the Net possible.

73,
Steve Frazier

Treasurer's Report
Submitted by Jim Martin, KD4FUU

Please renew your membership right away, so you won't forget about it! The membership application may be downloaded from our website (for both renewals *and* new members) at:

<https://deltaclub.org/membership>

Annual membership fee is \$20 per individual or \$25 per family. Completed applications and payment may be mailed to:

Delta Amateur Radio Club
PO Box 342768
Memphis, TN 38134-2768

If you prefer you can print and bring the completed form, along with the membership fee, to any in-person meeting. Please contact Jim Martin KD4FUU at kd4fuu@gmail.com with any questions or concerns regarding application submission and/or payment of annual dues.

LIFEGREEN CHECKING FOR BUSINESS
April 1, 2021 through April 30, 2021

SUMMARY			
Beginning Balance	\$20,130.51	Minimum Daily Balance	\$20,130
Deposits & Credits	\$635.00 +	Average Monthly Statement Balance	\$20,312
Withdrawals	\$0.00 -		
Fees	\$0.00 -		
Automatic Transfers	\$0.00 +		
Checks	\$0.00 -		
Ending Balance	\$20,765.51		

DEPOSITS & CREDITS			
04/02	Deposit - Thank You		115.00
04/26	Deposit - Thank You		270.00
04/27	Deposit - Thank You		130.00
04/29	Deposit - Thank You		120.00
Total Deposits & Credits			\$635.00

DAILY BALANCE SUMMARY					
Date	Balance	Date	Balance	Date	Balance
04/02	20,245.51	04/27	20,645.51	04/29	20,765.51
04/26	20,515.51				

SMALL BUSINESS CD *0028

Available Balance	<u>INTEREST RATE</u>	<u>YTD INTEREST</u>	<u>INTEREST EARNED NOT PAID</u>
\$10,698.48	1.590 %	\$41.84	\$21.46
▼ View More Details			

Applications Received – April 2021

(2) New Members	\$80.00
(2) Renewals	\$40.00
Total Received	\$120.00
Deposits from Franklin Estate Sales	\$400.00

DARC Board of Directors Meeting Minutes

Submitted by Carolyn Horne, KX4QF

DARC Board of Directors Meeting Minutes for May 4, 2021

Attendees: Steve Frazier KK4VPT, Mary Jean Hall KY4FB, Carolyn Horne KX4QF, Jim Martin KD4FUU, Joe Lowenthal WA4OVO, Mike Harrison KM4MRW, Ian Lucas KN4OEK, Ray Cole KX5RC, Scott Adams KM4PMU, and Barry McDonald W5CJ.

Absent: Len Grice W4MKS.

Guests: None

The regular monthly meeting of the Delta Amateur Radio Club Board of Directors was held on Tuesday, May 4th, 2021 at 6:30 PM on a Zoom video conference call, with the President serving as chair and the Secretary being present. President Steve Frazier KK4VPT called the meeting to order. Due to the COVID-19 Pandemic, the board met online to abide by state and local guidelines.

Joe Lowenthal said he is negotiating prices for the Huntsville Hamfest Bus Trip with Cline Tours. Regarding training, he is looking at starting a Tech Class either the last Thursday in June, two days before Field Day, or July 8th, and finishing August 12th. Junk-in-the-Trunk netted about \$90-100. He sold some of Bill Stevens equipment. Joe Lowenthal said we will have tables at the Huntsville Hamfest and items will all be marked and priced. Ellendale Church of Christ had full services Sunday for the first time since the lockdowns so we may possibly have in-person meetings there beginning in June or July. Scott Adams said we have snacks left but questioned whether we should serve them since people would have to remove their masks.

Ian Lucas said Bob Heil K9EID is booked to do a Zoom presentation on Ham Radio Audio at the May Membership Meeting. The June program has historically been centered around Field Day topics such as logging programs. Steve Frazier said he will put together a video on Field Day activities.

Steve Frazier discussed the prospective venue for Field Day 2021 in the park behind Germantown City Hall.

Barry McDonald reported that a DARC member has suggested we look into running WIRES-X 'Wide-coverage Internet Repeater Enhancement System' on the old Bellevue Repeater at Brunswick Tower. The Club would need to invest in a Yaesu FTM300DR radio and an extra antenna and mast to run remotely from someone's home QTH, where it would connect to a Yaesu HRI-200 WIRES-X internet to RF linking system. The total investment would be just over \$1000. The Board discussed the merits of adding another WIRES-X repeater in the area. Barry McDonald wanted to know who would be responsible for running and maintaining the system. Steve Frazier said if there is enough interest from Club members, we will follow up on it.

Carolyn Horne read the new and renewed membership requests. She made a motion to accept them. Ian Lucas seconded the motion. The motion to approve these members passed. She printed a reference copy of the W4BS FCC license to abide by the Club's by-laws and saved a digital copy as backup. The Board addressed the issue of a member not receiving SPARKS and Zoom link emails where the email address on the membership list is correct. Mike Harrison said he will verify this when he sends out the May edition. Carolyn Horne noticed in the October 2020 QST magazine pages 80-82 are dedicated to recipients of various ARRL Foundation scholarships. She wondered if the Delta Club would be interested in starting up a Delta Amateur Radio Club Scholarship Fund run by the ARRL Foundation. It may be a way to generate interest in Amateur Radio among area youth and put our Club's name out there. All recipients must hold valid FCC Amateur Radio licenses. See www.arrl.org/arrl-foundation and www.arrl.org/scholarship-program .

Jim Martin read the Treasurer's Report. We took in \$120 for memberships this month. Jim Martin said he still needs to set up a meeting with Steve Frazier and the bank to change the name on the club's account since he will need to issue some checks soon. Joe Lowenthal made a few deposits for Franklin Estate sales. In total \$635 was added to our account.

Jim Martin received four membership application forms in our P.O. Box and forwarded pdf versions of them to Carolyn Horne for processing. Of the applications, two were new and two were renewals.

The Board agreed that about half of our excess cash-on-hand should be moved into a CD.

Mary Jean Hall is working on updating our by-laws. The board held a special ad-hoc meeting on Thursday, April 22 at 7 PM. Another meeting is scheduled for Thursday, May 13 at 6:30 PM. She mentioned getting Club shirts made up again. Steve Frazier said he will bring it up at the members' meeting.

Mike Harrison is working on the current issue of SPARKS. He asked if the Board wanted to run any special announcements this month such as Field Day, June 26-27 1 PM – 1 PM. He received info from Bob Vawter KW4RJ, Joe Lowenthal and others to include in this month's edition. The website will be updated for the next meeting. Steve Frazier mentioned that he is still getting regular emails from register.com about our web domain. He said we are in good standing for another few years, until 2023.

Steve Frazier adjourned the meeting at 7:33 PM. The next regular Board of Directors meeting is scheduled for Tuesday, June 1, 2021 at 6:30 PM either in person or on Zoom.

Respectfully submitted by Carolyn Horne KX4QF, Secretary

Minutes of Last Month's Club Meeting

Submitted by Carolyn Horne, KX4QF

DARC Meeting Minutes for April 13, 2021

Call to Order and Opening Remarks

The regular monthly meeting of the Delta Amateur Radio Club was held on Tuesday, April 13, 2021 at 7:00 p.m. on a Zoom video conference call, with the President serving as chair and the Secretary being present. Club President Steve Frazier KK4VPT called the meeting to order and then welcomed everyone to the meeting. Due to the COVID-19 Pandemic, the club met online to abide by state and local guidelines, marking one year of officially doing this online. At least 55 members and guests were present for the meeting. Steve Frazier KK4VPT addressed the question of when we would be able to meet again in person. He referred us to the President's Corner article in SPARKS, which said we need to follow the CDC's guidelines.

Minutes and Treasurer's Report

Ham Hilliard W4GMM moved to "approve the Treasurer's Report and Minutes as published in Sparks." Len Grice W4MKS seconded the motion. The motion was adopted by the club without objection.

Announcements

John Reiners KN4BVH said that the April ARES meeting is in two weeks and he is sending out the Zoom link for that. He will be going over the SKYWARN Storm Spotter training which took place in March through the NWS. He said he hoped everyone got to take in at least the basic class. He will also be discussing the organizing module, Spotter Network Operations. The NWS 2021 training modules will be available on YouTube and he will send out the links to them.

Barry McDonald W5CJ said that the Methodist North repeater and APRS digipeater located there were both down due to severe storms and lightning strikes. One antenna blew apart but he and Rick Tillman WA4NVM were able to retrieve some parts and put them back together using other parts from another project. They are both back in service. Barry McDonald W5CJ shared some photos that Rick Tillman WA4NVM took at the site, demonstrating what lightning can do to an antenna!

Rick Tillman WA4NVM reminded us that there is a Junk-in-the-Trunk taking place in the parking lot of the Ellendale Church of Christ on May 1 from 9 AM to 1 PM. He also

reminded people that as we enter the severe weather season make sure your batteries are charged for your go-kit.

Joe Lowenthal WA4OVO announced that at the Tech class 2-21 test session on April 5th twelve students passed. Three got General. One student, Park Dodge AI5CY, got Tech, General and Extra. In March, one student, Ina Wiehl KY4GA, ran the table for her Tech, General and Extra as well. Thirteen out of eighteen students got a license. Several will be testing later. Three others tested, including two from CBU, and got their Tech license, so all nine in the CBU Tech Review Class this semester have passed. Bob White's AI4GI grandson, Jacob White KO4OWM got a Tech License. The next Tech class is starting in late June to early July. Joe Lowenthal WA4OVO will announce the schedule sometime in May. He noted that classes take about six months of work with prep, getting the instructors, teaching, testing, and licensing activities. We sure thank Joe for all his hard work.

Joe Lowenthal WA4OVO discussed the upcoming Huntsville Hamfest. If anyone is interested let him know. Seventeen people are interested with three more from his class saying it was a possibility for them. We need thirty-five on the bus to make it worthwhile, so we are about halfway there. The cost will be \$70 or \$75 each. Steve Frazier KK4VPT encouraged everyone to get the experience of going to Huntsville. It's a big deal and we are lucky to be located so close to such an event. Joe Lowenthal WA4OVO said if you plan on going to send an email to wa4ovo@gmail.com with the subject 'Huntsville Hamfest' with your email, name, and cell phone number. The bus will leave at 6:30 AM from Germantown Baptist Church and arrive about 9:45 AM at the Von Braun Center loading dock. The fee will include two Danver's breakfast biscuits (ham or bacon), drinking water, soda, biscuits, cookies and crackers, and some fruit available on the way down and back and during the day. He will give you event tickets and buttons at the bus. You need to fill out that ticket to put in the barrel for the prize drawing. The bus is available for stowing your gear and provides a nice comfortable seat in which to rest. Steve Frazier KK4VPT said that not only are there good vendors but some good seminars are offered on a variety of interesting topics. He said he has taken the bus and driven himself and he found the drive back was tiring after a long day at the Hamfest. He would recommend taking the bus.

Ham Hilliard W4GMM asked if there was any talk about Field Day. Steve Frazier KK4VPT said Fred Miller, one of our main contacts for doing events in Germantown, phoned him, and told him we will not be able to do it at Germantown Park because of the Horse Shows. He is going to find out if we can do it at the Park behind Germantown City Hall and will get back to him about that. There is a pavilion and restrooms, along with some trees in which to string up antennas. It's where the July 4th fireworks are set off.

Bill Flanagan KK4VPS said there is a gazebo there, which would provide some relief from the direct sun. Fred Miller said that because it's outside he thinks it's going to work, amid COVID restrictions. For more information on Field Day, June 26-27th, see [Field Day \(arrrl.org\)](http://arrrl.org).

Barry McDonald W5CJ added that he had fixed the time-out issue on the 146.82 repeater. The repeater had a time-out programmed for two minutes, while the controller was set at three minutes. This caused the repeater to cut out with no warning if the two minutes was surpassed without the repeater being reset. The controller does give a warning. So, he set the time-out to four minutes on the repeater, explaining that he didn't want to remove the time-out from the repeater entirely in case something knocked out the controller, causing the repeater to transmit continuously, which happened in the past on another repeater.

Discussion / Program

Ian Lucas KN4OEK gave a presentation on 'VHF, UHF and Microwave Propagation', a YouTube video by Dave Casler KE0OG. This was a session from Dave's online Amateur Extra class, Lesson 10-4.

There was a lively discussion from seasoned Delta Club Ham's like Pat Lane W4OQG, Rick Tillman WA4NVM and Damon Runion WA4HFN, who had quite a bit of experience in propagation using auroras, meteor scatter, moon bounce and the like. They encouraged us to investigate further as the video just served up enough to whet our appetite.

Steve Frazier KK4VPT opened the floor for any questions. Park Dodge AI5CY had two questions 1) Barry mentioned repeater drop-out. What does that mean? 2) Dave Casler KE0OG mentioned meteor scatter using FSK441 and the Extra test mentioned using MSK144 for that. What is the difference and is that something in the radio hardware or software based? Barry McDonald W5CJ answered the first question by saying that it's just a timing issue, the controller will give a tone which he calls the 'kerchunk' and after that you will hear the repeater stop transmitting, which is the drop-out. You must wait a second or two after the tone to reset the repeater. Ian Lucas KN4OEK and Rick Tillman WA4NVM answered the second question. These modes are software based and are available by downloading Joe Taylor K1JT's Weak Signal Communication Software 'WSJT-X' suite from [WSJT Home Page \(princeton.edu\)](http://princeton.edu). Earlier version WSJT incorporated FSK441, while WSJT-X is a later development that incorporates MSK144, both of these protocols being used for meteor scatter operations.

Joe Lowenthal WA4OVO said that May 8th is Armed Forces Communications Day. The ARRL puts out the military frequencies where Hams can listen. Ham Hilliard W4GMM said there was an article in the May 2021 QST magazine about these MARS programs. They will release a list of the participating stations after April 19th. Also, during the 1st week of the month until the end of the year they will be transmitting on 5Mhz, Channel 1 voice mode to regular Hams. MARS liaisons will pass on a list of those contacts to the military. The military will give operators a frequency they will listen to on the Ham bands in sort of a crossband exercise. From Sunday thru Wednesday, it will be Air Force MARS, then Thursday thru Saturday Army MARS.

Ian Lucas KN4OEK reminded us of the Museum Ships weekend event the 1st Saturday in June. There are about fifty participating ship stations. He will send a link to Mike Harrison KM4MRW, to publish in SPARKS. Joe Lowenthal WA4OVO talked about being a special event operator in Maine at the USS Thrasher Memorial during Ships on the Air that honored the submarine that was lost in 1963 during a training exercise. He made contact with a station who knew some members of the Thrasher crew and a naval pilot who was part of the search at sea operation.

Closing Remarks

Steve Frazier KK4VPT said that this Zoom membership meeting will be available on YouTube this week. To get to our YouTube channel search for Delta Amateur Radio.

Ian Lucas KN4OEK announced that Bob Heil of Heil Audio [Heil Amateur Radio - Ham Radio Receivers - Mics - Headsets - Accessories \(heilhamradio.com\)](http://heilhamradio.com) will give a presentation on Configuring and Optimizing Your Audio for Ham Radio.

Delta Club President Steve Frazier KK4VPT adjourned the meeting at 8:24 p.m.

The next Delta Amateur Radio Club meeting will be Tuesday, May 11, 2021 at 7:00 p.m. via Zoom. Check the current edition of SPARKS or the Delta Amateur Radio Club Facebook page just before the scheduled meeting time for more information on the Zoom link for the meeting.

Respectfully submitted by Carolyn Horne KX4QF, Secretary (2021)

Delta Ham License Training, 2021

Submitted by Joe Lowenthal, WA4OVO, DIRECTOR OF TRAINING

There is no charge for classes, but the student is responsible for the purchase of the license manual and the \$15 ARRL FCC examination fee. The FCC will implement a \$35 application fee in 2021.

If you want to take a class, send an email to Joe at wa4ovo@gmail.com with the class name; ie, Tech Class, General Class, or Extra Class, on the Subject line and name, callsign if you have one, email address, and cellphone number in the text.

Licenses Earned in 2021 from Delta Classes

23 Technician

5 General

4 Extra

Note:

Coming soon will be a \$35 FCC application fee for new hams, renewals, upgrades, etc except for address or email changes.

The current Technician ARRL Ham Radio License Manual Fourth Edition with question pool that became effective July 1, 2018 for four years. This is the new question pool.

The current ARRL General Class License Manual is the Ninth Edition with question pool that became effective July 1, 2019 for four years.

The current ARRL Extra Class License Manual is the Twelfth Edition with question pool that became effective July 1, 2020 for four years.

As of September 3, 2015 there is no longer any charge for Vanity callsigns.

As of late 2019, expired Amateur Radio license holders can get their license back by taking the current Technician exam and show proof of their previous license class. A previous Advanced Class licensee will only be able to get a General Class license.

PROPOSED CLASSES

All classes will be 3-1/4 to 4 hours long for six sessions; one per week on a week night 6:15pm-9:30pm or Saturday day 9am-1pm.

After February the next Technician license class will probably start in late June or early July.

The next General license class will probably start in early November 2021.

The next Extra Class license class will probably start in early January 2022

SCHEDULED CLASSES

None at this time

CURRENT CLASSES

None

COMPLETED CLASSES

Tech Class 2-21 – February 22 – April 5, 2021

A Technician license class was held one night a week via Zoom from February 22nd thru April 5th on Monday or Thursday nights. Twenty-two students started on the 22nd with 19 finishing the training. An in-person class was held on March 29th for review and opportunity for FCC exam at Ellendale Church of Christ, 7365 Hwy 70 (Summer Ave) in Bartlett.

Sixteen students tested and all passed.

Congratulations to Wallace Bell KO4OWD, Park Dodge AI5CY, Michael Engelken KI5PDQ, Arie McClanahan KI5PDR, Scott McDermott KO4OWE, Terrell Naylor KO4OWF, Craig Owen KO4OWG, Adam Shirley KO4OWH, Don Swindoll KO4OWI, Diane Thomas KO4OWJ, Anthony Tribo KO4OQK, and Bruce Swindoll KO4OWN. Additional congratulations to Michael KI5PDQ and Scott KO4OWE for upgrading to General. An extra congratulations to Park AI5CY for running the table to Extra Class. Congratulations also to Ina Wiehl KY4GA for running the table to Extra Class at the Atoka TARS test session on March 15th. Congratulations to Mike Murell KO4QBT for earning his Technician and General licenses at the Olive Branch ARRL test session on April 20th.



Tech Class 2-21 test session left side Photo by Joe Lowenthal WA4OVO



Tech Class 2-21 test session right side Photo by Joe Lowenthal WA4OVO

Also, two CBU students tested. Congratulations to Jose Bonafasi KO4OWL and Will Clayton KF0EYO.

Additionally, nine year old Jacob White KO4OWN earned his Technician license.



Photo back left to right:: 9 year old Jacob KO4OWN and proud grandpa Bob AI4GI;
front left to right: VEs Perry N4GJ, Bobby KD5BS, Jeff KJ4GY

Thanks to the Laurel VEC team of Joe WA4OVO, Perry N4GJ, Jeff AJ4GY, Barry W5CJ, Bobby KD5BS, Rick WA4NVM, and Eric WD5FTA for administering the FCC test session.

The instructors were Paul KA9VAU, Perry N4GJ, Len W4MKS, John KN4BVH, Barry W5CJ, Pat W4OQG, and Joe WA4OVO. The equipment demonstrators were Rick WA4NVM and Richard K4DXF on Satellite, Rick KJ4QNWQ on APRS, John KN4BVH on Digital, and Joe WA4OVO on Repeater Basics.

CBU Tech Review Class 3-21 – February 24, 2021

A Technician license review session was held in Dr. Eric Welch (WD5FTA)'s junior level Introduction to Unmanned Aerial Vehicle class for nine Christian Brother

University students on February 24th . Congratulations to Cesar Mireles KO4NFT, Allison Sorette KO4NFU, Brennan Griffin KO4NFV, Michael Longo KO4NFW, Jose Villa Hidalgo KO4NFX, Novy KO4NFY and Sean Williams KI5OEI, who earned their Technician licenses.

Thanks to the Laurel VEC Team of Barry W5CJ, Perry N4GJ, Jelly N4HLT, Rick WA4NVM, Eric WD5FTA and Joe WA4OVO for providing the FCC test session.

EXTRA Class 1-21 – January 4 – February 25, 2021

An Extra Class license class was held one night a week via Zoom from January 4th thru February 25th on Monday or Thursday nights from 6:15-9:30pm. The Zoom classes met on January 4, 14, 21, 25, February 1, 11 and tested a week late on the 25th due to snow on the 18th. The students were Carla KO4FVX, Ransom KO4FVZ, Russell KO4ASW, Jason KO4DOH, Mary Jean KN4FBL and David KN4BXI.

Congratulations to Mary Jean Hall KY4FB (formerly KN4FBL) and David Wilson KY4FH (formerly KN4BXI) who passed their Extra exam on the 25th.

The instructors were Joe WA4OVO, John KN4BVH, Dean N2LAZ , Barry W5CJ, Dave AD4Q, Paul KA9VAU and Pat W4OQG.

Thanks to the Delta Club ARRL VE Team of Jeff Krause AJ4GY, Stacy KJ4MDA, Warren KC7ND, Tom KK4ZZZ, Barry W5CJ and Joe WA4OVO for providing the FCC test session.

In addition to the Extra Class students testing, congratulations to Brian Kelly KO4KAO for upgrading to General. Also, the following earned their Technician licenses: Dan Currey KO4NGZ, Rob Currey KO4NHA, Wilson Langford KO4NHB, Ebben Raves KO4NHC, David Wolford KO4NHD, Garrett Robinson KO4NHE, and Steven Porter KO4NHF.

General Class 4-20 – October 26 – December 7, 2020

General Class 4-20 was held via Zoom with five students. It was held on five nights on Monday and Thursday nights from October 26th to December 7th from 6:15-9:30pm. The nights were Monday October 26, Monday November 2nd, Thursday November 12th, Monday 23rd and ARRL FCC testing Monday December 7th.

Congratulations to Ransom Bowen KO4FVZ and Elliot Pope KO4DER for upgrading to General on December 7th. Also, congratulations to Carla Andrews KO4FVX for upgrading to General on December 21st at the Tipton County ARS (Atoka) test session.

The others will test later. Congratulations to Kevin Kelly KO4KAO who earned his Technician license during the Delta Club test session.

Thanks to the ARRL VE Team of Jeff Krause AJ4GY, Warren Zimmer KC7ND, Tom Ungren KK4ZZZ, Dan Columbus AA4HV, Barry McDonald W5CJ and Joe Lowenthal WA4OVO for providing the test session.

The instructors were Perry N4GJ, Barry W5CJ, Paul KA9VAU, Len W4MKS, John KN4BVH, Pat W4OQG, and Joe WA4OVO.

Tech Class 3-20 – June 25 – August 13, 2020

Tech Class 3-20 is being held starting June 25th on six Thursday nights from 6:15-9:30pm on a combination of Zoom online and planned in person classes. There are twelve students in the class. One of the students is eight years old. Both of his parents are in the class. The classes are being held on June 25, July 2, 9, 23, 30 and August 13. The Zoom classes continued thru the July 23rd class. The Laurel FCC test session was held in the gym at Germantown United Methodist Church, 2323 West Street, using social distancing.



Tech Class 3-20 Test Session Photo by Rick Tillman WA4NVM
Congratulations to Carla Andrews KO4FVX, Ryan Bednar KO4FVY, Ransom Bowen KO4FVZ, David Harkleroad KO4FWB, Phillip Green II KO4FWC, Brian Richards KO4FWD, Cynthia Spain KO4FWE, and Philip Thomas KO4FWF for obtaining their Technician licenses. Additional congratulations to Ryan KO4FVY and Cynthia KO4FWE for also upgrading to General. Thanks to Joe WA4OVO, Perry N4GJ, Barry W5CJ, Jelly N4HLT and Rick WA4NVM for providing the Laurel VEC test session.



Laurel VEs Jelly N4HLT, Joe WA4OVO, Perry N4GJ, Barry W5CJ with photographer Rick WA4NVM.

The instructors were Joe Lowenthal WA4OVO, Paul Roberts KA9VAU, Len Grice W4MKS, Perry Hayes N4GJ, John Reiners KN4BVH, and Pat Lane W4OQG.

On August 13th the class met via Zoom for some of the equipment demonstrations. Rick Tillman WA4NVM gave a very informative instruction on satellite operations. Rick Pellicciotti KJ4NWQ informed the class on APRS. Joe WA4OVO presented more detailed information on Repeater Basics. The HF Wire Antennas by Pat W4OQG and programming handhelds has been deferred until we can meet. John KN4BVH provided FM digital instructions on DMR, Fusion, and D-STAR during an earlier class. Barry W5CJ provided earlier demonstrations on Echolink and information on Allstar.

General Class on Zoom – March 24 – April 10, 2020

Working with K1ZG in Massachusetts, I helped provide instruction with an online General license class on the Zoom platform. This General class was offered to the

Tech Class 2-20 students. One student did participate from 1-2:30pm on week days. Students were from Massachusetts, upstate New York, Indiana, Texas and Tennessee. Barry W5CJ and Ed KV4LF were also instructors.

When FCC testing resumes, we will see how well the students retained their learning. Congratulations to Kyle KD2TCA for upgrading on April 3rd at a drive-thru test session. Congratulations to Debra Johnson from the Tech 2-20 for earning her General as noted below.

Tech Class 2-20 – February 22 – April 4, 2020

Tech Class 2-20 was held from February 22nd to March 21st on four Saturdays except March 14th from 9am to 1pm. The first three sessions were at the Memphis Police Department Appling Farms Station precinct, 6850 Appling Farms Pkwy. Due to the coronavirus the last instructional class was held online on GoToMeeting. While the order for 10 or less people in a meeting was active, we had arranged to have the Laurel VE team provide testing at a student's shop with only five students testing at a time. However, the Safer at Home order cancelled those plans.

Congratulations to Jennifer Boardman KX4YG for Tech, General and Extra; Deborah Johnson KO4DEP for Tech and General; and Thomas Clark KO4DEQ, Elliot Pope KO4DER and Marc Tester KO4DES for Tech. Thanks to the Tipton County ARS VE team led by Bob AI4GI with Ronny WA4RW and Bill KI4BIY for offering the test session. On July 30th with Tech Class 3-20 testing Michael Ehrhardt KO4FWA earned this Technician license.

Congratulations to Chris Smallwood for earning his Technician license on May 18th at the Tipton ARC test session. FCC testing for the others will be in the future after the Safer at Home declaration is lifted.



Tech Class 2-20 on first day of class. Photo by Joe Lowenthal WA4OVO

The instructors were Paul Roberts KA9VAU, Pat Lane W4OQG, John Reiners KN4BVH, Perry Hayes N4GY, Len Grice W4MKS, and Joe Lowenthal WA4OVO. There were no demonstrations for this class. Joe WA4OVO did cover the Repeater Basics at the end of the fourth class.

HOW TO PRINT YOUR FCC LICENSE

1. Go to <https://wireless2.fcc.gov/UlsEntry/licManager/login.jsp>
2. Enter your FCC Federal Registration Number (FRN) and Password
 - a. If you do not know your FRN, go to Search box and click on License
Click on Amateur; Enter your callsign in Callsign box;
Your FRN is in center of page after your name
(If you do not know your Password, click on Contact Tech Support after Forgot your Password)
3. In When My Licenses screen comes up, click on **Now** in the green line reading “Change your paper authorization preferences [here](#), or download your official electronic authorizations now”
4. In Under Download Authorizations screen, highlight your callsign in the My Authorization area at the bottom left.
5. Click on ADD to right of the highlighted callsign.
6. Highlight your callsign in Authorization to Download and then click on Download on bottom right of screen.
7. If pop-ups are blocked, click on Allow One
8. Click Open at bottom and Print your License.

Links from the April presentation
By: Ian Lucas KN4OEK

VHF/UHF/Microwave Propagation by KE0OG - <https://www.youtube.com/watch?v=vhEtaLhm7kM>

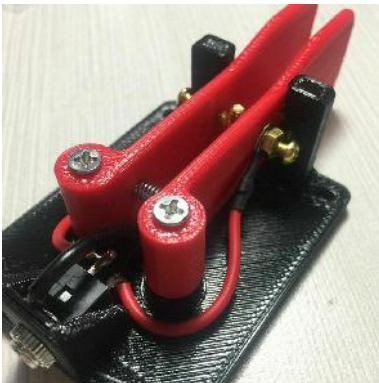
HF Propagation by KE0OG - <https://www.youtube.com/watch?v=414uDYCGbql>

Museum Ships on the Air - <https://www.nj2bb.org/museum/>

Amateur Hardware Update

By: James Butler KB4LJV

One of the new ways to make parts is with 3D printing. Companies are now using 3D printing to make parts for sale. One new item that is now for sale are 3D printed Morse code paddle kits. These are sold in kit form with all the parts included. They need to be assembled to make them operational. They have three different sizes you can buy. The two larger sizes have magnets on the case bottoms to attach to a steel plate or radio. The kits just require mounting parts and soldering wires to the output jack. These make a nice addition to you portable equipment to operate Morse code. The price is also good at under \$10.00. Go to EBAY and search for “cw key automatic key”.



Packet Update
By: James Butler KB4LJV

When operating we can use many types of antennas. One type we use is a wire antenna. We have different kinds of wire antennas. One type is the off-center fed antenna. This type of wire antenna can cover multiple bands. Buckmaster offers the “DX-OCF” 7 band antenna. The unit covers 80,75,40,20,17,12,10, and 6 meters. Buckmaster builds the antenna with heavy duty wire and connectors for a long life in the weather outdoors. They offer a 300 watt and a 3000 watt version. The antenna is completely assembled and ready to install. The antenna is 135 feet long. They also have the balun at the feed point ready to attach to your coax. You can read about off-center fed antenna on the internet. To look at this one from Buckmaster go to their website. The web address is <https://www.dxengineering.com/parts/bmt-dx-ocf-hp>

**FCC Auto-Registration Feature for
Exam Applicants to be Discontinued**
Submitted By: Bob Vawter KW4RJ

Auto-registration in the FCC Commission Registration System (CORES) amateur radio exam for candidates using a Social Security number will be discontinued on May 20, 2021. Applicants must use an FCC Registration Number (**FRN**) for all license transactions with the FCC. Examinees must **register in CORES** and receive an FRN *before* exam day. Starting on May 20, electronic batch filed applications that do not include a candidate’s FRN will be rejected. The Social Security/Licensee ID Field will be disabled. An **instructional video** provides step-by-step instructions on how to establish a CORES account, which is necessary for licensees to make administrative updates and download electronic license authorizations. After June 29, all filers **must provide an email address** on all applications. When an email is provided, applicants will receive an official electronic copy of their licenses once granted (allow incoming email from **authorizations@fcc.gov**). If no email is provided when filing on or after June 29, applications will be rejected. ARRL VEC suggests that those without access to email to use the email address of a family member or friend. Licensees need to log in to the Universal Licensing System (ULS) to **download their authorizations**. The FCC no longer issues paper copies. — *Thanks to the FCC*

<http://www.arrl.org/news/fcc-auto-registration-feature-for-exam-applicants-to-be-discontinued>

ARRL Benefits

ARRL amateur radio community. When you renew, a few of the benefits you will enjoy are:

- Your choice of a print magazine. Eligible US-based ARRL members can elect to receive QST, the official membership journal of ARRL or On the Air, aimed at helping new and emerging radio communicators get active and on the air.
- Digital access to all four ARRL publications -- QST, On the Air, and now QEX, covering topics related to radio communications experimentation, and National Contest Journal (NCJ), covering radio contesting.
- Access to ARRL's Technical Information Service to assist with technical problems and help with your projects.
- Free FCC license renewal and modification service.

To secure these amazing members-only benefits and many more in the coming year, visit www.arrl.org/join/WE1 to renew or call us toll-free at: 1-888-277-5289 (US Only) , Monday-Friday, 8 a.m. to 5 p.m. ET. International members call (860) 594-0338.

Amateur Radio Emergency Service (ARES) Emergency Coordinator (EC) - John Reiners KN4BVH

If you are interested in joining Shelby County ARES, complete an application at <https://www.tnares.com>. Click (do not pull down) on INFORMATION on the top right of the page. Next, go to TN ARES Membership and Appointment Application Forms and then click on ARES Membership Application: FSD-98. Complete the form and click SUBMIT at the bottom of the page. You should get an acknowledgment soon after submitting.

YL News
Submitted by Linda KJ4CTX

YL NET – Please join us each Saturday night at 8:45 p.m. on the 146.820 repeater for the YL Net. We enjoy hearing from you.

Logbook Of The World (LOTW) User Guide

If you are a new user or planning to use "Logbook of The World" (LoTW), Gary, ZL2IFB, has put together an easy step-by-step guide or should we say manual (about 33 pages with pictures) to help you use LoTW.

The PDF file is available for download at:

https://www.g4ifb.com/LoTW_New_User_Guide.pdf

73, W4WTN

New Repeater in West Memphis & Buy/sell Facebook Group

There is a new System Fusion repeater in West Memphis.

The frequency is 442.400 with a PL Tone of 107.2 for non System Fusion users.

Also, Marc says there is a Buy and Sell Facebook Group for the Memphis Metro Area. The link is:

www.facebook.com/groups/memphismetroareahamradioswapshop

73, Marc Gwin AG5QY

Sparks Newsletter and Delta Club Information

SPARKS is published monthly by the Delta Amateur Radio Club and emailed to club members. All information published in this newsletter is provided as a service. While every reasonable effort has been made to ensure accuracy, neither the Delta Amateur Radio Club nor its officers assume any liability resulting from errors or omissions. All correspondence may be mailed to:

Delta Amateur Radio Club *P.O. Box 342768 * Memphis, Tennessee 38184-2768

Please note that you must provide your name and call sign if you're requesting specific actions or personal follow-ups, and also be aware that any profane or mean-spirited comments will be unceremoniously discarded without consideration.

Delta Club Members Can Like Us/Follow Posts On Facebook!

Go to <https://www.facebook.com/darcmem>.

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Repeater Trustee

Barry McDonald W5CJ
W5CJ@ARRL.NET
901-853-0510

Upcoming Events

ARRL Field Day – June 26 – 27

Huntsville Hamfest – August 21 – 22

MS Rockn' Bike Ride – September 11 – 12

BCB 100 Ride to Fight On – October 9

For more information go to <http://hamcalendar.com/>

Tennessee Amateur Radio License Plate Submitted by Joe Lowenthal, WA4OVO

As of October 2018, all you need to renew your ham tag is to provide a copy of your FCC license with a copy of your last year's registration or a renewal notice, if you received one, and your payment. The State of Tennessee is again making Amateur Radio License Plates since reconstruction of the building that was demolished by the tornado in Nashville in February 2020. The link below is for information and instructions about Tennessee ham radio call sign Emergency/Safety automobile license plates: [Vehicle Titling & Registration \(tn.gov\)](http://www.tn.gov/vehicle-titling-and-registration) The application can be found at this link: Application for Special Amateur Radio License Plates [in.pdf](https://www.tn.gov/content/dam/tn/revenue/documents/forms/titlereg/f1312601Fill-in.pdf)

Memphis Area VHF/UHF Nets

Name of Net	Freq. MHz	Offset/Tone	Local Time	Day of Week
Delta Club Information Net	146.820	- (107.2)	8:00p	Daily
YL Net	146.820	- (107.2)	8:45p	Sat
Mid-South Bullfrog Net	146.535	[simplex]	7:30p	Daily
Elmer Net	444.175	+ (107.2)	9:00p	Sun
MedMERS Net	146.820	- (107.2)	12:00p	Wed
ARES Training Net	146.850	- (107.2)	9:00p	Thu
Sunday Super Niner Net	927.6125	- (146.2)	8:30p	Sun
TN Statewide DMR Net	Digital – DMR		8:00 p	Friday

TENNESSEE HF NETS

Net Name	Freq. MHz	Local Time	Day of Week
Tennessee CW Net	3.563	7:00p	Daily
Tennessee Slow CW Net	3.682	7:30p	Tue-Sun
Tennessee Alternate Phone Net	7.238		As needed
CUSEC	3.810		As needed
CUSEC	7.180		As needed
(Center for United States Earthquake Consortium)			

3980 kHz – Tennessee Phone Net

Mon-Fri - 5:40 AM, 6:45 AM & **5:30 PM** (5:30 pm beginning Nov. 9 evening)

Saturday - 8:00 AM & 5:30 PM

Sunday - 8:00 AM only

Holidays - 8:00 AM only

DELTA CLUB ADVERTISEMENTS

DELTA AMATEUR RADIO CLUB

P.O. Box 342768
Memphis, TN 38134-2768

DARC Meeting: Second
Tuesday of every month
at Ellendale Church of Christ
7365 Hwy 70, Bartlett TN



W4BS REPEATER SYSTEM
146.82- 147.36+ (107.2Hz tone)
224.42- 443.20+ (107.2Hz tone)



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Owner

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