

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 51 * April 2020



Delta Amateur Radio Club (DARC) Sparks Newsletter

Website: <http://deltaclub.org>

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

W4BS

REPEATER SYSTEM

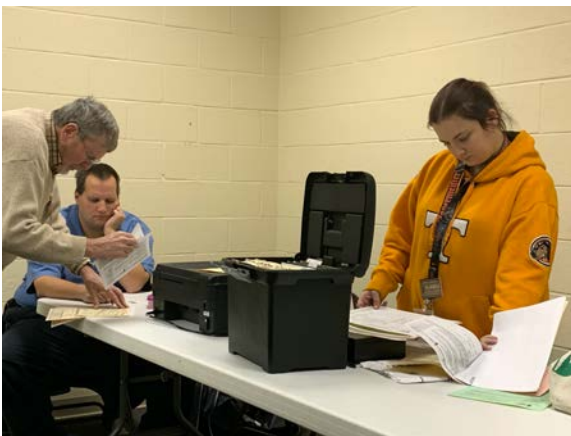
| | |
|---------------------------|-----------------------------|
| 146.820 ^{-107.2} | * 147.360 ^{+107.2} |
| 146.625 ^{-107.2} | 443.200 ^{+107.2} |
| 224.420 ^{-107.2} | 443.700 ^{+107.2} |
| 144.390 Digipeater | *Fusion |

This month's meeting is CANCELLED because of the “stay at home” order.

Program: none

TESTING SESSIONS are also CANCELLED for April.

Delta Club FCC testing sessions are held monthly except December. Registration begins at 5:30 PM; testing begins by 6:00 PM. Please bring a photo ID and another form of



identification, copies of existing licenses or CSCEs, and your FCC Registration Number (FRN) if one has been issued. Please be on time for registration to allow our Volunteer Examiner (VE) team to complete their work prior to the club meeting. The 2019 test fee is \$15 (cash or check). Individuals receiving their initial FCC license grant at a Delta Club test session or through a Delta Club training class will receive a complimentary individual club membership for the remainder of the current calendar year when they also show proof of ARRL membership. For more information, please email

our VE Liaison, Jeff Krause, AJ4GY at AJ4GY@comcast.net or call at 901-301-6776.

New and upgraded hams:

Shawn Thomas KN4WKF, General; James Brown KM4HAX, General; Tony Bulan, Tech; Elijah Matlock, Tech; Ty Thompson, Tech.

President's Corner

Submitted by Steve Frazier, KK4VPT

Before I write the President's Corner each month, I usually look back at the Sparks from prior years for the current month to get ideas and to be reminded of events for the current month that I may need to bring up again this year. I looked back over the April Sparks for several years and I could not find anything about what we are all dealing with this year. If I had seen it I am sure I would have thought it was a bad April Fools joke. Who would have thought national and local governments would be telling everyone to stay home for weeks and say that if we do go out that they suggest we wear a face mask?

During times like this, we all count on support groups that we have built over the years and hopefully you feel that the Delta Amateur Radio Club is one of your support groups. During the Board meeting this week we discussed how we could meet this month and still follow the stay at home requirements that are in place. We were using the Zoom app/website to do the Board meeting and decided we would like to try to use this for a virtual monthly Delta Club meeting. This will be a way for us to meet and keep in touch. If you have not used Zoom before now, you probably have heard about it and this will be a chance for you to see how it works. We will send out an email with a link so you can join the Zoom meeting. We will have the usual announcements and Delta Club business followed by a time for any of you to share and update the Delta Club. If you have not used Zoom, you can contact me and we can do a trial run before Tuesday. Like a lot of you now, I have plenty of extra time and would be happy to help you. I can be reached at 901-218-6385 or sfrazier1@bellsouth.net.

If you have not checked into the nightly net at 8pm on the 146.82 repeater in a while, this would be a great time to keep in touch with the Delta Club. Check in when you get a chance and let us know how you are doing. This is possible due to the dedication of our net control operators. I would like to say Thanks to all of our net control operators and you can join me in thanking them the next time you check in to the net.

73

Steve Frazier
KK4VPT

Treasurer's Report
Submitted by David Jackson KM4SEC

Please RENEW your Delta membership right away, so you won't forget about it! Download the new member or renewal form: <https://img1.wsimg.com/blobby/go/58124ffd-d6ca-4502-9af3-7fa04c033729/downloads/application-15-3.pdf?ver=1574454355059>

Membership for one is \$20 or family is \$25. You can fill out the form online and email to David Jackson KM4SEC. davidjackson@bellsouth.net

If you prefer you can print the form and bring the completed form, along with the membership fee to any meeting.

Delta Amateur Radio Club Treasurer's Report
03/31/2020
Submitted by H. David Jackson, club treasurer

Checking Account:

Beginning balance: \$27,857.51

Deposits: 4

\$190.00 Memberships

\$100.00 Equip. Sale

Total: \$290.00

Balance: \$28,147.51

Checks: 2

(\$100.93) Food/Club

(\$200.00) Donation FreeFest

Total: (\$300.93)

Ending Balance: \$27,846.58

CD-0028: Interest Rate: 1.590%. Mat. Date: 10/19/2022. Balance: \$10,530.09

Petty cash account: \$50.00

03/2020, IRS e-filing for 2019 has been submitted to the IRS.

DARC Board of Directors Meeting Minutes
Submitted by Mary Jean Hall KN4FBL

DARC Board of Directors Meeting Minutes
April 7, 2020, submitted by Mary Jean Hall KN4FBL

Attendees: Steve Frazier KK4VPT, Mary Jean Hall KNFFBL, David Jackson KM4SEC, Joe Lowenthal WA4OVO, Ian Lucas KN4OEK, Scott Adams KM4PMU and Barry McDonald W5CJ.

Absent: Bob Van Keuren KM4SEB, Bob Vawter KW4RJ and Len Grice W4MKS.

Steve F. called the meeting to order at 6:30 p.m. Due to the COVID-19 Pandemic, the Delta Amateur Radio Club Board of Directors held the meeting online through Zoom, which is a video conference platform.

Steve F. reminded everyone that MARA's FreeFest had been cancelled due to the Coronavirus Pandemic. The board discussed ARRL Field Day in June. Joe L. said that he would get a quote for a bus to the Huntsville Hamfest.

David J. read the Treasurer's Report.

Steve F. asked about having something offered during the normal meeting time, possibly on Zoom. After some discussion, the board decided to host an "open forum" for club members during the normal monthly meeting time on Zoom. This could be a chance for members to get to see everyone from the safety of their own homes and offer a chance for members to share any needs or concerns.

Ian L. asked about a May meeting. The board discussed options for having a May meeting online or in-person, though that decision will be made at a later date. Barry M. was still working on the repeater issue but said that progress had slowed due to the ongoing situation.

Joe L. said that the class was on hold for testing. He hopes to set the next class in June or July.

The board discussed the review of memberships per the club's bylaws. Joe L. made a motion to approve the Treasurer's Report. The motion unanimously passed.

Joe L. said that he is still selling tickets for FreeFest. The drawing will be held at 2:30 p.m. on Saturday, April 11, 2020. The drawing will be live-streamed at www.w5kub.com. Mary Jean H. asked about hosting something for ARRL Kids Day, which is the third Saturday in June. Steve F. said it would be worth looking into next month.

Mary Jean H. moved to adjourn. Barry M. seconded the motion. Steve F. adjourned the meeting at 7:17 p.m. The next Board of Directors meeting is scheduled for Tuesday, May 5, 2020 at 6:30 p.m. at Ellendale Church of Christ. Should that not be possible, the board meeting will be held online.

Minutes of Last Month's Club Meeting
Submitted by Mary Jean Hall KN4FBL

DARC Meeting Minutes for March 10, 2020
Submitted by Mary Jean Hall KN4FBL

Call to Order and Opening Remarks

Club President Steve Frazier KK4VPT called the meeting to order at 7:00 p.m. at the Ellendale Church of Christ Fellowship Hall and welcomed everyone to the meeting. Everyone then introduced themselves by name and call sign. 35 members and guests were present for the meeting. Steve referenced the current coronavirus situation and encouraged everyone to use common sense.

VE Testing

Joe Lowenthal WA4OVO announced that the following tested/upgraded tonight: two General and three Technicians.

Training

There are 16 students in the current Technician class. The class will test on March 28 and have the equipment demonstration on April 4. The next scheduled class will likely be a Technician class around the beginning of July.

ARES Update: Putnam County Request

John Reiners KN4BVH, the Shelby County ARES Emergency Coordinator, announced that Putnam County has officially requested amateur radio volunteers to assist with the tornado damage assessment. He received the request through an ICS 213 form yesterday. Putnam County ARES has requested at least 20 radio operators to assist with damage assessment, but if more show up, they will put them to work. They are unable to guarantee any lodging so volunteers must be prepared to be self-sustaining. They should be able to provide food and water, but it would be a good idea to bring your own. They are welcoming volunteers through this week, with the largest need on Saturday. Radio operators will head out with other volunteers on buses and radio in reports about the damaged areas. To volunteer you must be an ARES member and have submitted the FSD-98 Form (<https://www.tnares.com/index.php/information>).

Steve Kellett KF4SJU, the West Tennessee Assistant Section Emergency Coordinator for ARES, was on-hand to answer questions, too. He said that they plan to send radio operators with strike teams and other groups as well. He said this would be a good opportunity to go and see what it takes to respond to a disaster situation. Kellett encouraged the club to continue to work with local emergency management agencies to develop relationships that are needed before the disasters occur. "You can't wait until the emergency happens," he said.

Ian Lucas KN4OEK asked about the minimum equipment requirements. According to John Reiners KN4BVH, 2 meter and 70 centimeter will work. Steve Kellett KF4SJU said that handheld radios should be able to hit the repeater across the county.

Memphis FreeFest

Rick Tillman WA4NVM, announced that the Memphis FreeFest will be on Saturday, April 11, 2020. Tickets for door prizes are available for purchase. He also reminded everyone to check hamcalendar.com for a list of these events, including breakfasts. You do not need to be present to win the main prizes, which are the following: Icom IC-7300 HF Transceiver, Harbor Freight 2000 Watt Predator Invertor/Generator, Apple iPad, Yaesu FT-2980R Transceiver, MFJ 259C SWR Analyzer, Kenwood TM281A Transceiver, 20 AH Bioenno BLF-1220A LiFePO4 battery and charger, and a 40" RCA LED Full HDTV. There will also be hourly prizes that you must be present to win. Richard Martin K4DXF reminded everyone that the ticket proceeds will be donated to Le Bonheur Children's Hospital. Steve Frazier KK4VPT said to come to FreeFest hungry and consider purchasing from the kitchen. Food sold in the kitchen pays for the facility rental.

Special Service Club Award

Tom Vickers N4TV, the ARRL Assistant Section Manager for Tennessee, presented Delta Club President Steve Frazier KK4VPT with the ARRL Special Service Club Certificate. The ARRL describes a Special Service Club as "A club that exists to go above and beyond for their communities and for Amateur Radio.... They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs and actively pursue technical projects and operating activities." He also encouraged club members to consider joining ARRL since Delta Club gets money for each club members who is also a member of ARRL. (Ed. note: A club must collect the money only once a year to get the money from ARRL). Frazier then read the certificate aloud.

Secretary's and Treasurer's Reports

Ham Hilliard W4GMM moved to approve the previous meeting's minutes and the Treasurer's Report as published in Sparks. Richard Martin K4DXF seconded the motion. The minutes and the Treasurer's Report were unanimously approved by the club.

Announcements

Joe Lowenthal WA4OVO reminded everyone that the County Clerk Offices are now requiring those renewing the call sign emergency tags to present a copy of their current amateur radio license. Also, if your name is on the registration for one car but not the spouse's car, you must take a copy of your spouse's amateur radio license.

Dr. George Flinn K4EQO announced that he was running for Senate, but he wanted to share some concerns about the coronavirus. He recommended everyone wash hands, stay a safe distance from other people, take a shower immediately after flying, do not cruise, and to stay home if you present symptoms of the cold or flu. He also encouraged anyone with shortness of breath to go to the Emergency Room and get breathing treatments to hopefully prevent pneumonia from setting in.

Steve Frazier KK4VPT said that the board recently discussed the possibility of placing another shirt/polo order. He asked for a show of hands to see how many were interested in placing an order. He also asked for a show of hands for going with cotton shirts or synthetic material shirts. More members raised their hands for synthetic material. They will likely be the same colors as the last order. Anyone interested in possibly getting a shirt should sign up at the front. The board will discuss the possibility of a shirt order more at the board meeting and go from there.

Break/Presentation

Steve Frazier KK4VPT called for a break from 7:31 p.m. to 7:41 p.m. Director of Programs Ian Lucas KN4OEK led the program, which covered how to use the programming software, CHIRP. This program was a follow-up to last month's program, which covered how to manually program a handheld Baofeng radio.

Closing Remarks

Steve Frazier KK4VPT presented the Lithium Iron Phosphate 20 AH battery to Rick Tillman WA4NVM, MARA President. Delta Amateur Radio Club donated this battery as one of the main prizes for the Memphis FreeFest.

Tom Thibeault KN4SLP asked about the ARRL Field Day location. Steve Frazier KK4VPT said that we do not have a backup location for Field Day, which is June 27-28, yet. They are welcoming ideas for a possible backup location, but they remain hopeful that we will be able to use the location in Germantown without any conflict from another event.

Ham Hilliard W4GMM moved to adjourn. With no objection, Steve Frazier KK4VPT adjourned the meeting at 8:13 p.m. The next Delta Amateur Radio Club meeting will be Tuesday, April 14, 2020 at 7:00 p.m. at the Ellendale Church of Christ.

Delta Ham License Training, 2020

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.

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 2020 from Delta Classes

5 Technician

1 General

3 Extra

Note:

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 Eighth Edition with question pool that became effective July 1, 2015 for four years.

The current ARRL Extra Class License Manual is the Eleventh Edition with question pool that became effective July 1, 2016 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. The next class will probably be a Technician level class starting early July.

SCHEDULED CLASSES

None

CURRENT CLASSES

None

COMPLETED CLASSES

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 weekdays. 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.

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. FCC testing 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.

Extra Class 1-20 – January 4 – February 15, 2020

Extra Class 1-20 began on January 4th with six students for six Saturdays from 9am to 1pm at Memphis Police Department Neighborhood Watch training room at Appling Farms Station, 6850 Appling Farms Blvd. Congratulations to Bobby Stroud KK5PAC for upgrading early to Extra at the Jackson MS Capital City Hamfest on January 25th. Congrats to Brett Johnston KN4SMV for upgrading at the February 11th Delta Club test session. Congrats to Jim Harris KF5TPT for upgrading at the Olive Branch ARRL exam session on February 19th.



Dean Honadle N2LAZ demonstration left hand rule for Extra Class 1-20
Photo by Joe Lowenthal WA4OVO

The instructors were Joe WA4OVO, Paul KA9VAU, Dean N2LAZ, Barry W5CJ, Dave AD4Q, David W4DWW and Pat W4OQG. The FCC testing was available on February 15th by the Delta Club ARRL VE team led by Jeff Krause AJ4GY.



Tech Review for CBU – February 5, 2020

A Tech Review class was held on February 5th for five Christian Brothers University students in the Engineering Department upper division elective course, Introduction to Unmanned Aerial Systems. Dr. Eric Welch WD5FTA requires the students to earn their FCC Technician license for this course.

CBU Tech Review Class

Photo by Joe Lowenthal WA4OVO

All five passed with great scores. Congratulations to Judit Aubets Macia KO4BPP, Josue Bohorquez KO4BP, Hammontree KO4BPT, Oscar Mendoza KI5ICD, and Samuel Ruleman KO4BPS.

The Laurel VEC team provided the FCC exam session. The VEs were Bill Stevens WC9S, Barry McDonald W5CJ, Len Grice W4MKS, Jelly Thompson N4HLT, Eric Welch WD5FTA, and Joe Lowenthal WA4OVO.



CBU Introduction to Unmanned Aerial Systems Tech Class with professor Dr. Welch WD4FTA on left and instructor Joe Lowenthal WA4OVO on right.

Photo by Eric Welch WD4FTA

General Class 4-19 – November 7 – December 19, 2019

General Class 4-19 was held on six Thursday nights from November 7th thru December 19th from 6:15-9:30pm. The 11 students began with eight completing the class. The location was at the Germantown Police Department training room, 1930 South Germantown Road.

Congratulations to Rodney KN4WGV, Robert KN4KFL, Mike KM4MRW, Bobby KK5PAC and Robert KN4RBW who upgrade to General at the class test session. Congratulations of Russell Rutledge KO4ASW who earned his Technician and General licenses. Congratulations to Shawn KN4WKF for upgrading at Delta Club test session on March 10, 2020.

The instructors were Joe WA4OVO, Barry W5CJ, Paul KA9VAU, Len W4MKS, John KN4BVH and Pat W4OQG. The Delta Club ARRL VE Team tested on December 19th. Thanks to the VE team of Jeff AJ4GY, Stacy KJ4MDA, Barry W5CJ, Tom KK4ZZZ, Warren KC7ND and Joe WA4OVO for providing the testing opportunity.



Perry Hayes N4GJ introducing the aura of digital modes. Photo by Joe Lowenthal WA4OVO



General Class 4-19 ARRL FCC
Test Session Photo by Joe
Lowenthal WA4OVO

General for CBU - November 20, 2019

A General test session was held on November 20th for six Christian Brothers University students in the Engineering Department upper division elective course, Unmanned Aerial Systems Design. Congratulations to Matthew Donnelly KN4ZNI, Nicholas Ireland KN4ZNK and Zhaoliang Ni KN4ZNN for upgrading to General.

Tech Review for CBU - October 30, 2019

A Tech Review class was held on October 30th for eight Christian Brothers University students in the Engineering Department upper division elective course, Unmanned Aerial Systems Design. Dr. Eric Welch WD5FTA requires the students to earn their FCC Technician and General Class licenses for this course. There are 11 students in the class with three who had earned their Tech license last February in the Intro class.

All eight students earned their Technician license and five upgraded to General. Congratulations to Mat Donnelly KN4ZNI, John Clark KN4ZNI, Nicholas Ireland KN4ZNK, Jonathan Looney KI5GZS, Pablo Marin KN4ZNM and Zhaoliang Ni KN4ZNN who earned their Technician licenses. Congratulations to Riggs Markham KN4ZNL and Zach Yancy KN4ZNO who earned Tech and also upgraded to General. Congratulations to Josue Becerra KN4SQK, Ian Dover KN4SQQ and Bryce Whitfield KI5DLE who upgraded to General.

Dr. Welch WD5FTA is the Department Chair of Electrical and Computer Engineering. The Laurel VE Team of Dr. Welch WD5FTA, Joe Lowenthal WA4OVO, Bill Stevens WC9S, Barry McDonald W5CJ and Perry Hayes N4GJ administered the FCC test session.

Tech Class 3-19 – July 8 - August 12, 2019

Tech Class 3-19 was held on six Monday nights from July 8th thru August 12th from 6:15-9:30pm The location was at the Germantown Police Department training room, 1930 South Germantown Road. Eleven students originally registered for the class, two more became students, and two resigned. So, eleven students completed the class. There was one ham who audited the class.

Congratulations to Rodney Adams KN4WGV, Daniel Brieck KN4WGW, Robert Broom KN4WGX, David Cary KN4WGY, Jim Dollar KN4WGZ, Joshua Foster KN4WHA, Vicky Gamber KN4WHB, Lauren Martin KN4WHC, Matthew Massey KI5FYA, Jonathan Pesce KN4WHD, and ShawnThomas KN4WKF who earned their Technician licenses.

Congratulations also to Robert Broom and David Cary who also earned their General licenses, as well as, Mary Jean Hall KN4FBL who upgraded to General. Six more of the students tried for General but did not pass.

The instructors were Joe WA4OVO, Paul KA9VAU, Pat W4OQG, John KN4BVH, Perry N4GJ, and Len W4MKS. Barry W5CJ presented Echolink and Allstar information. John KN4BVH demoed DMR with information on D-Star and Fusion. On Monday, August 12th there was equipment demonstrations. Joe WA4OVO and John KN4BVH provided repeater basics and a CHIRP demo. The students checked into the Delta Net. Rick WA4NVM and Richard K4DXF made a live SO-50 satellite contact while Rick KJ4NWQ informed on APRS. Pat W4OQG showed off the non-FM side of ham radio with his Kenwood TS-2000 HF SSB setup with a long wire and talked about MARS.



Tech Class 3-19

Photo by Joe Lowenthal WA4OVO

The Laurel VE team of Joe WA4OVO, Bill WC9S, Jelly N4HLT, David W4DWW, Karen AG4CC, Barry W5CJ, Len W4MKS and Perry N4GJ administered the 20 exams.

Tech Class 2-19 – February 21-March 28, 2019

Tech Class 2-19 was held on six Thursday nights from February 21 thru March 28th. The location was the Germantown Police Department training room, 1930 South Germantown Road. Sixteen students signed up for the class with thirteen attending the first class and a self-study Tech auditing the class. Eight students earned their ham radio licenses.

Congratulations to Chuck Chow KN4TMR, Al Dyer KN4TMQ, Brian Hagood KN4TME, Andrew Humphreys KN4TMG, Thomas Humphreys KN4TMF, Bryan Parker KN4TMH, Mark Parrish KN4TMO, and Bob Stroud KI5DWP who earned their Technician licenses. Chuck also earned his General Class license. Since the class Chuck has upgraded to Extra as KX4RE. Congratulations to Tom Thibeault KN4SLP who audited the class and upgraded to General. Two others will test at a later date.

Thanks to the Laurel VEC team of Bill WC9S, Barry W5CJ, David KV4QI, Len W4MKS and Joe WA4OVO for providing the FCC test session.

Demonstrations were given on March 28th. John KN4BVH previewed DMR, Fusion, and Echolink. Joe WA4OVO instructed on programming FM radios and APRS while Pat W4OQG showed off HF and long wire antenna. Rick WA4NVM and Richard K4DXF made a satellite contact.

Tech Review for CBU February 20, 2019

A Tech Review class was held on February 20th for 11 Christian Brothers University students in the second Engineering Department upper division elective course, Introduction to Unmanned Aerial Systems. All 11 students earned their Technician license. The students were either Electrical, Mechanical or Computer Engineering majors. Dr. Eric Welch WD5FTA is the professor. He is Department Chair of Electrical and Computer Engineering. The Laurel VE Team of Dr. Welch WD5FTA, Joe Lowenthal WA4OVO, Bill Stevens WC9S, Barry McDonald W5CJ and Len Grice W4MKS administered the FCC test session

Extra Class 1-19 January 5 – February 16, 2019

Extra Class 1-19 began on January 5th through February 16th excluding January 26th (Jackson MS Hamfest) on six Saturdays from 9am-1pm at the Memphis Police Department Northeast Precinct, Appling Farms Station, at 6850 Appling Farms Parkway. Nine students began with seven completing the class.

Congratulations to Steve Evans KM4VYA, Carolyn Horne KX4QF, Jerry Kirkscey KX4QE, Robert Murry KN4OEF, and Bob Waters KN4PDW for earning their Extra Class license at the class ARRL FCC test session. Congratulations to Jim Martin KD4FUU who upgraded at the Delta Club test session on April 9th. The Delta Club VE Team of Jeff Krause AJ4GY, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Bill Stevens WC9S, and David Webb KV4QI provided the FCC test session on February 16th.

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.
9. Print your License.

USE OF CELLPHONE WHILE DRIVING

As of July 1st, it is against the law to hold a cellphone while driving. However, amateur (ham) radio is exempted per the below paragraph 1(a)3 of State of Tennessee House Bill 164. It might be wise to carry a copy of this document and a copy of your amateur radio license in case you get stopped by police and they are not aware of the exemption.

"Wireless telecommunications device" means a cellular telephone, a portable telephone, a text-messaging device, a personal digital assistant, a stand-alone computer, a global positioning system receiver, or substantially similar portable wireless device that is used to initiate or receive communication, information, or data. "Wireless telecommunications device" **does not include** a radio, citizens band radio, citizens band radio hybrid, commercial two-way radio communication device or its functional equivalent, subscription-based emergency communication device, prescribed medical device, **amateur or ham radio device**, or in-vehicle security, navigation, autonomous technology or remote diagnostics system.

<https://www.handsfreetn.com/files/pc0412.pdf?fbclid=IwAR3vZvmm5nPLyCeZg1gqUkgL0EaltPBt3sX9XSUpYpyFARjnYNuRu3fNbtU>

Here are the two weather service websites I spoke of in the ARES meeting.

preview.weather.gov/edd

<https://www.arcgis.com/apps/MapSeries/index.html?appid=5dfbf1be13b74f1097a93cd954a3c4f8>

Joe WA4OVO

HQ 101

Submitted by Ham Hilliard W4GMM

HQ 101 is for new hams, old hams, and hams that want to know more about their hobby. This class is for you and I need to know what you want to learn about, so if you have a subject you are curious about let me know and if there is enough interest I will offer it one month. Email me at w4gmm@bellsouth.net.

Ham 101 meetings are upstairs above the Delta Club meeting hall beginning at 5:30 pm just before the Delta Club meeting.

Ham 101 is on hold due to COVID-19. We will resume when the club resumes their meeting. I am still looking for ideas for programs after the one I had planned for April. If you would like to have something covered then e-mail me at w4gmm@bellsouth.net.

ARMED FORCES DAY 2020

Joint services have postponed the Crossband test until Fall due to Covid=19.

FALL, 2020 is the date of this years Armed Forces Day Cross band Communication Test. Due to the current restrictions I have not been able to recruit operators. WE will operate at NSA Mid-South at the MARS building N-100. We will operate from 1200z Saturday until 0100z Sunday. 6am till 8pm local time.

This would be a great time for those that are interested in HF but don't have the room or equipment to get some on air time. We will be operating two stations most of the day. If you can come for just an hour or two we would welcome the help. We will be joining with other stations operating from military locations. This is an important test as it gives the military knowledge that in an emergency it can enlist the help of Ham Radio operators across the country. It is not a contest except for bragging rights among the military stations.

Anyone interested may contact W4GMM at w4gmm@bellsouth.net.

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.

Amateur Hardware Update
Submitted by James Butler, KB4LJV

Today we have lots of equipment with video outputs. Different types of video signals include composite video, VGA, HDMI, S video, and DVI. These video standards require cable hookups between devices. The number of conductors and connector pin out and connector lay out defines these video standards. Quality of insulation and shielding of cables also is included in these video standards. The length of the video cable is also important as you need to be long enough to make the connection between the devices. One example would be hooking a computer to a wall mounted big screen TV to show digital mode software. All types and lengths of these video cables are available on Ebay at very reasonable prices. Ordering cables from off-shore Ebay vendors can save you even more money if you can wait a little longer for delivery. Do a search for “VIDEO CABLE” on Ebay to see all the types and lengths they have.



Amateur Packet Update
Submitted by James Butler, KB4LJV

The newest radios offer a big advantage when operating on the amateur bands. The radios have a spectrum display on a screen where you can see where signals are on the band along with the signal strength. MFJ Enterprises has come out with an adapter to allow you to monitor the band using their MFJ-1708SDR. The adaptor allows you to hookup your older radio and a SDR receiver to the same antenna. When in the receive mode the SDR is connected to your antenna allowing you to receive and display the whole band spectrum. When you key your radio to transmit, the adapter connects your radio to the antenna for transmitting and grounds the input to the SDR to protect it from radio RF. This is a great way to allow you to use your older radio and still be able to watch the band. The web address is

<https://www.mfjenterprises.com/Product.php?productid=MFJ-1708SDR>

Amateurs Making Face Shields

KSNB TV News reports on an Amateur Radio group that is pitching in to make face shields for healthcare workers

The news story says:

With a national shortage of personal protective equipment for healthcare workers, people are doing what they can to fulfill the orders. When they heard of the need, some members of the Amateur Radio Association of Nebraska looked at each other and found a way they could help. Now with people outside of the group helping, too, they are using 3D printers to create face shields.

Their 3D printers have been running all day for over a week now. Volunteers across the Tri-Cities are quickly making face shields for hospitals and clinics who need to serve the public. The shield is a simple frame design with a plastic cover. The cover can be quickly changed out or reused.

“Material-wise we have pennies on the dollar for these things so we want to make sure our healthcare workers and everybody involved in the field are safe and so we're doing what we can to help,” Amateur Radio Assoc. President Allen Harpham WD0DXD said.

The frames are printed, but the shield part is actually recycled overhead projector sheets from schools. They have gotten thousands of sheets donated to them from schools in central Nebraska who have no other use for them anymore.

Amateur radio fans also often have their hands in other kinds of tech. So that's why the idea came so easy to them.

“To be able to put that knowledge to use to help out is just great,” Harpham said. “I can't say enough about that and it's kind of the way for the amateur radio people that's the way we've always been.”

Watch the TV News report at

<https://www.ksnlocal4.com/content/news/Amateur-radio-group-pitches-in-to-make-face-shields-for-healthcare-workers-569367411.html>

What is Amateur Radio?

<http://www.essexham.co.uk/what-is-amateur-radio>

Essex Ham provide free online Foundation amateur radio training

<https://www.essexham.co.uk/train/foundation-online/>

73,

W4WTN

(**note:** I'm told Ian KN4OEK has made some of these same face shield frames with his 3d printer at home).

Radio Amateurs Team Up to Help University Design Low-Cost Ventilator

03/23/2020

Amateur radio volunteers from around the world have volunteered to assist University of Florida Professor Sam Lampotang and his engineering team in their quest to rapidly develop an open-source, low-cost patient ventilator that can be built anywhere from such commonly available components as PVC pipe and lawn-sprinkler valves. The amateur radio volunteers are developing Arduino-based control software that will set the respiratory rate and other key parameters in treating critically ill coronavirus victims.

Multiple volunteers responding to a call for help from Gordon Gibby, MD, KX4Z, included noted software developer Jack Purdum, W8TEE, and uBITX transceiver maker Ashhar Farhan, VU2ESE. University of Florida physicians are working to address the critical legal aspects as the design moves closer to fruition.

The ventilator's valves would precisely time compressed oxygen flow into patient breathing circuits under Arduino control, allowing exhausted patients with "stiff" lungs impacted by viral pneumonia to survive until their body can clear the infection. The software design team is also adding simple features such as an LCD display, encoders to choose parameters, and watchdog safety features. -- Thanks to Gordon Gibby, KX4Z

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

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

Public Service Events

If you are a coordinator for any of these events, please review the listed information. Please email corrections or additions to vawter.bob@gmail.com.

| 2020 Date | Event | Contact Information |
|------------------|---------------------------------------|----------------------------|
| Jan. 18 | Swamp Stompers 50K/25K Run | Ken Laseter KI4AOH |
| May 12 | MARS contacts | |
| June 27-28 | Field Day @ Morgan Woods Park, G'town | |
| Sep 12-13 | MS-150 Bike Ride | Darrell Sheffield KK4D |
| Oct 10 | Bluff City Blues Bike Ride | Ken Laseter KI4AOH |

Hamfests in the Southeast Area

2020

| | |
|-----------------|---|
| January 24-25 | Capitol City Hamfest in Jackson, MS |
| February 7-9 | HamCation 2019 in Orlando, FL |
| February 16 | LCARC's 2020 Winterfest in Hoxie, AR |
| March 6 - 7 | BirmingHamfest 2019 in Birmingham, AL |
| March 14 | MTARS Hamfest Tullahoma, TN |
| March 28 | Ides of March Hamfest in Union City, TN - cancelled |
| March 28 - 29 | April Fool Hamfest in Corinth, MS-- cancelled |
| April 11 | Memphis FreeFest in Bartlett, TN - cancelled |
| May 15 - 17 | Hamvention in Xenia, OH - cancelled |
| July 25 | Greater Nashville & Middle TN HamQuest in Lebanon, TN |
| August 22 - 23 | Huntsville Hamfest in Huntsville, AL |
| October 16 - 17 | Hamfest Chattanooga in Chattanooga, TN |

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 link below is for information and instructions about Tennessee ham radio call sign Emergency/Safety automobile license plates:

<https://www.tn.gov/revenue/title-and-registration/license-plates/available-license-plates/emergency-safety.html>

The application can be found at this link:

<https://www.tn.gov/content/dam/tn/revenue/documents/forms/titlereg/fl312601Fill-in.pdf>

The following link from the Tennessee Department of Revenue

<https://www.tn.gov/revenue/title-and-registration/license-plates/available-license-plates/emergency-safety.html> has the Amateur Radio auto tag information.

Memphis Area VHF/UHF Nets

Updated January, 2018

| 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 | 145.210 | - (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

As of January 2019
All times are Central Time

| 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 (Center for United States Earthquake Consortium) | 7.180 | | As needed |

3980 kHz – Tennessee Phone Net

Mon-Fri - 5:40 AM, 6:45 AM & 6:30 PM

Saturday - 8:00 AM & 6:30 PM

Sunday - 8:00 AM only

Holidays - 8:00 AM only

Used equipment for sale

Please ONLY contact the person offering the equipment.

If you would like to advertise equipment you have for sale, please email Bob. My email address is vawter.bob@gmail.com.

1. Alinco VHF/UHF Twin Band DR 735 (new in the box)
2. Alinco EDS 30 (new in the box)
3. 2 Speakers Kit HSN4039 (new in the box)
4. Kenwood THK 20A 144 mhz FM Transceiver (new in the box)
5. Galaxy Blue Light Digital Frequency Counter (new in the box)
6. Kenwood Charger (new)

If anyone is interested, please email me lelnicholson@gmail.com or call me @ 901-413-6096 Lel Nicholson

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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