

SPARKS

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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}

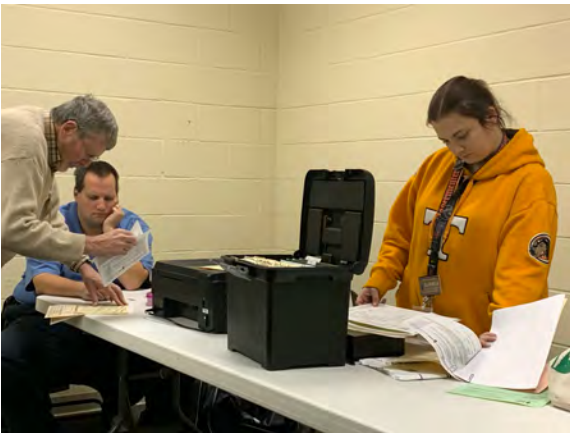
144.390 Digipeater *Fusion

This month's meeting begins at 6:30 pm on January 14, 2020, at Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Highway 64 /Stage Road).

Program: **3-D Printing**, What is it and how can it benefit you as a ham radio operator.

By Shawn Thomas KN4WKF

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.

NOTE: Jeff is looking for a VE Liaison replacement. If you are interested, please contact JEFF @ AJ4GY@comcast.net or 901-301-6776.

New and upgraded hams from the 11/12/19 VE test:

James Ham KN4ZES, Tech to General; Floyd Yancey KN4ZLL, General to Extra;

Peter Gee KN4ZET, Tech to General

NO TESTING at the DECEMBER meeting.

President's Corner

Submitted by Steve Frazier, KK4VPT

Once again the rush of the end of one year is behind us and the opportunities and adventures of a new year are in front of us. This is a good time to remind you that a great resource for ham radio events and other information is <http://www.hamcalendar.com>. Thanks to Ray Miller AA4UK for providing everyone with this valuable resource.

I am writing this while we are all preparing for what sounds like will be a major storm that will pass through the area. During times like this, one thing we do is monitor the 146.82 repeater which is used for Skywarn. As we all know, the 146.82 repeater has been keeping Barry McDonald W5CJ and his helpers busy with some recent issues. Barry has been doing a great job keeping the repeater on the air and is continuing to do what needs to be done to return the repeater back to where it has served us best for so many years and will continue to do so again soon.

While you are able to submit your Membership Application Form anytime of the year, we would appreciate you using January to start or renew your membership to Delta Club if you have not already done so for 2020. This may also be a good time to look at joining ARRL or if you are already a member it would be a good time to review your membership to know when you will need to renew your ARRL membership.

I look forward to seeing you at the meeting on Tuesday. And don't forget to join us every night at 8:00pm on the 146.820 repeater net. Thanks to our dedicated net control operators the nightly net is a great way to stay updated and in contact with fellow amateur radio operators in the area.

73

Steve

KK4VPT

Treasurer's Report Submitted by David Jackson KM4SEC
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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.

12/31/2019

Checking Account:

 Beginning balance: \$16,042.97

 Deposits: 1

 12/13/2019: (club memberships) \$100.00t

Balance: \$16,142.97

Checks: 4

12/05/2019, club web site. (\$92.19)

12/09/2019, Ellendale church donation. (\$300.00)

12/12/2019, club food. (\$37.23)

12/12/2019, Christmas Party food (\$58.02)

Total: (\$487.44)

Ending balance: \$15,655.53

Petty Cash: \$50.00

CD-0028: interest rate: 1.590%. Maturity date: 10/19/2022. Balance: \$10,488.53

CD-8041: interest rate: 2.230%. Maturity date: 01/14/2020. Balance: \$10,905.83

Proposed Budget for 2020					2019		2020
Donations (cash)					50		50
Consignment Donated Gear					0		0
Membership (Jan. thru Dec.					2,000		2000
Club Patches					10		0
Estate Sale					750		800

Advertisement					0		0
Huntsville Trip					2,500		2,500.00
Total Projected Income					5,310.00		5,350.00
					0		
Tn. Annual Report					-40		-120
Meeting Space Donation					-300		-300
Training					-50		-50
Meeting Refreshments					-500		-550
Food (Dec. Meeting)					-100		-100
Door Prizes					-500		-500
PO Box (Annual Rental)					-185		-210
Liability Insurance					-200		-200
Equipment Insurance					-182		-220
Repeater System Upgrades					-1000		-2,000.00
SouthEastern Repeater Assn.					-35		-35
Field Day					-250		-250
DARC Board Discretionary Fund					-2,000.00		-1000
Huntsville Trip					-2,500.00		-2500
Free Fest Donations					-200		-200
Projected Total Expenses					-8,042.00		-8,235.00
Checking Account Balance					15,655.53		
Projected Net Operating Results (income-expenses)					-2,732.00		-2,885.00
Projected Checking Balance, Year end					12,923.53		
Certificate of Deposit 0028					10,488.53		10,654.53
Certificate of Deposit 8041					10,905.83		11,148.83
Total of CD's					21,394.36		21,803.36
Gain on CD's					405.95		409.00
Projected DARC End of Year Asserts					34,317.89		

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

January 7, 2020, submitted by Mary Jean Hall KN4FBL

Attendees: Steve Frazier KK4VPT, Bob Van Keuren KM4SEB, Mary Jean Hall KN4FBL, David Jackson KM4SEC, Joe Lowenthal WA4OVO, Bob Vawter KW4RJ, Scott Adams KM4PMU and Barry McDonald W5CJ.

Absent: Ian Lucas KN4OEK and Len Grice W4MKS.

Steve F. called the meeting to order at 6:33 p.m. at the Ellendale Church of Christ.

David J. read the Treasurer's Report. The board discussed the certificate of deposit that is maturing on January 14, 2020 and the proposed 2020 budget. Mary Jean H. made a motion to roll the money from the maturing certificate of deposit to the club checking account. Bob V. K. seconded the motion. The motion unanimously passed.

Joe L. gave an update on the status of the Presidents' jackets. Bob V. K. said that the potluck dinner during the December meeting went well and all prizes were claimed. Steve F. gave an update of the Swamp Stomper race logistics. The board then discussed upcoming FreeFest (and similar) events.

Barry M. informed the board about the progress of fixing the 146.820 repeater. For the time being, the repeater is currently located at Methodist North and the 147.360 repeater is shut down. He is working diligently on the issue and, as he has been doing, will continue to update the club with his progress. Mary Jean H. said that she is working through the 2020 membership applications to send out the 2020 membership cards. She hopes to have those emailed to everyone within the next week or so.

Joe L. said that seven students are in the current Extra Class. He has received approval to hold a Technician Class at the Memphis Police Department Applying Farms Station Training Room from February 22, 2020 through April 4, 2020, with the exception of March 14. He also discussed the number of licenses issued by the different VECs, and reminded everyone to be thinking about the bus trip for Huntsville Hamfest.

The board discussed the review of memberships per the club's bylaws.

Without objection, Steve F. adjourned the meeting at 7:43 p.m. The next Board of Directors meeting is scheduled for Tuesday, February 4, 2020 at 6:30 p.m. at Ellendale Church of Christ.

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

DARC Meeting Minutes for December 10, 2019
Submitted by Mary Jean Hall KN4FBL

Call to Order and Opening Remarks

Club Vice President Bob Van Keuren KM4SEB called the meeting to order at 6:32 p.m. at the Ellendale Church of Christ and welcomed everyone to the meeting. Everyone then introduced themselves by name and call sign. 47 members and one guest were present for the meeting.

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. Jeff Krause AJ4GY seconded the motion. The minutes and the Treasurer's Report were unanimously approved by the club.

YL News

Linda Laseter KJ4CTX thanked everyone who donated money at the November meeting, which was when the YLs collected money to sponsor an 11-year-old boy through the Fayette County Carl Perkins Center for the Prevention of Child Abuse. She told the club about all of the toys, clothes and other supplies that were purchased to help give the child a generous Christmas.

Swamp Stompers

Ken Laseter KI4AOH announced that the Swamp Stompers race has arrived. The race, which is held rain, snow or shine, is not being held on a Sunday this year. Instead, the event will be held Saturday, January 18, 2020 at Shelby Forest State Park. He is not sure which repeater will be used for race communications, though someone will test out the 146.820 repeater before the event. Steve Frazier KK4VPT will be coordinating the race communications this year, too. Lunch is provided to volunteers. Anyone interested in volunteering or getting more information can contact Ken Laseter KI4AOH or Steve Frazier KK4VPT.

Announcements

Bob Van Keuren KM4SEB reminded everyone who won the large prizes at last month's meeting to pick them up or they will be put back in for another drawing. He also thanked Ian Lucas KN4OEK for putting together the slide show for tonight's meeting.

Bob Van Keuren KM4SEB announced that the 2019 Ham of the Year is Ham Hilliard W4GMM, who received a certificate for the honor. Congratulations, Ham!

HAM 101

Ham Hilliard W4GMM said that he needs ideas for Ham 101 starting in January, and those ideas can be emailed to him at W4GMM@bellsouth.net. Ham 101 is at 5:30 p.m. before the Delta Amateur Radio Club meeting upstairs in the Ellendale Church of Christ Fellowship Hall.

Training

Joe Lowenthal WA4OVO said that the current General Class will finish up on December 19 with testing. An Extra Class is planned to start January 4, 2020 and last through February 15, 2020. It will be offered every Saturday, 9 a.m. – 1 p.m., with the exception of January 25 and be offered at the Memphis Police Department Applying Station Training Room. He is working on a Technician Class from February through April, and those details will be announced soon.

Closing Remarks/Potluck Dinner

Bob Van Keuren KM4SEB made a few announcements about the potluck dinner, which will be held after the business portion of the meeting. Without objection, the meeting was adjourned at 6:44 p.m. The next Delta Amateur Radio Club meeting will be Tuesday, January 14, 2020 at 7:00 p.m. at the Ellendale Church of Christ.

Delta Club HAM pot luck - December 2019



No, I get to make a motion to accept the treasurers report!



Ham of the Year – Ham Hilliard W4GMM



Ready to eat!



Hmmm, I should have gotten TWO plates!



We went for desert FIRST!



I want cheese!

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 2019 from Delta Classes

40 Technician

18 General

6 Extra

The year 2019 was a success in new ham training as well as upgrades. From the 40 Technicians there were 37 men, 2 women and one boy. From the Generals there were 17 men and one woman. From the Extras there were five men and one woman.

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.

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.

SCHEDULED CLASSES

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

Tech Class 2-20 is proposed to start February 22nd on six Saturdays except March 14th from 9am to 1pm if there are ten students registered by February 13th. The location will be at the Memphis Police Department Appling Farms Station precinct, 6850 Appling Farms Pkwy. Preregistration is required to wa4ovo@gmail.com with Subject Line: Tech Class and the students name, cellphone number and email address in the text.

CURRENT CLASSES

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

Extra Class 1-20 began on January 4th with seven students for six Saturdays from 9am to 1pm at Memphis Police Department Neighborhood Watch training room at Appling Farms Station, 6850 Appling Farms Blvd. There will NOT be a class on January 25th which is the Jackson MS hamfest date.



Dean N2LAZ demonstrating Left Hand Rule. Photo by Joe WA4OVO

The instructors are Joe WA4OVO, Paul KA9VAU, Dean N2LAZ, Barry W5CJ, Dave AD4Q, David W4DWW and Pat W4OQG. The FCC testing will be provided by the Delta Club ARRL VE team led by Jeff Krause AJ4GY.

COMPLETED CLASSES

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 who earned his Technician and General licenses. Five others will test later.



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 KN4ZNJ, 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.



Entrance at Germantown Police Department for Tech Class 3-19 Photo by Joe Lowenthal WA4OVO

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.

General Class 4-18 November 1 – December 13, 2018

General Class 4-18 was held from 6:15-9:30 on six Thursday nights from November 1st to December 13th excluding November 22nd at EMHC Ambulance Company training room, 6972 Appling Farms Parkway. Fourteen students began the class. Ten students finished the class with six upgrading to General Class.

Congratulations to Steve Beale KM4AEO, Carrie Blackwell KN4LCU, Bill Johnsen KM4VXW, Jim Martin KD4FUU, Robert Murry KN4OEF, and Bob Waters KN4PDW. I'm sure the other four will get their upgrade soon. Also testing during the class test session, congratulations to William Womble KI4CRC for earning his Technician license and Rick Armstrong KN4IKP and Carolyn Horne KN4QNV for upgrading to General.

The instructors were Joe Lowenthal WA4OVO, Pat Lane W4OQG, Len Grice W4MKS, Barry McDonald W5CJ, Perry Hayes N4PSH and John Reiners KN4BVH. The Delta Club VE team led by Jeff Krause AJ4GY provided the FCC testing session at 7pm on December 13th. Thanks also to Ham W4GMM, Stacy Krause KJ4MDA, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Bill Stevens WC9S and Tom Ungren KK4ZZZ

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.

January we will discuss "**GO BOXES**"

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

YL News

submitted by Linda KJ4CTX

YL NET – Please join us each Saturday night at 8:45 p.m. on the 146as820 repeater for the YL Net. We enjoy hearing from you.

YL LUNCHEON – As is our usual custom we did not have a luncheon in December due to all the parties and luncheons scheduled during this very busy month. Our first luncheon of 2020 will be as follows:

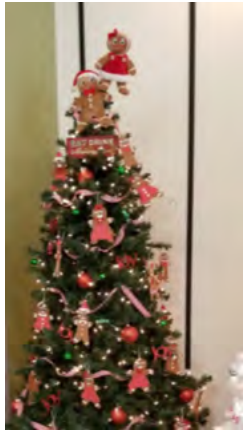
11:00 A.M.

Saturday, January 25, 2020

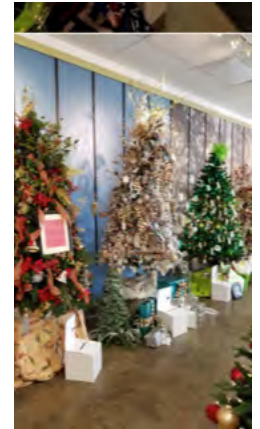
Ellendale Church of Christ meeting hall

We will be serving a light lunch. This will be a business meeting to discuss the events the YL's would like to participate in this year. We hope you will join us. Not only do we need your participation, but we could also use your ideas.

GENERAL NEWS – Several of the YL’s volunteered to work the Carl Perkins Center Festival of Trees in Oakland during the month of December. There



were 63 trees decorated and on display. If you did not attend, you missed an opportunity to see some very beautiful trees and some unusual trees. There were several strikingly beautifully traditional trees, a Darth Vader tree, a tree made of white cones of paper, a tree made of Pizza Hut boxes, a unicorn tree, trees with paint brush ornaments, and even a tree in the shape of an elf hat just to name a few.



The first-place tree winner for the third year was the Blackwell Sisters with an elegant modern-day tree adorned with checked ribbons, twigs, and huge gold pinecones. Second place went to Faith United Methodist Church of Oakland which was trimmed in cute little gingerbread girls and boys made by the church’s youth, and third place went to the Garden Club whose tree was beautifully decorated with owls, woodland creatures, colors of red, and a lovely antique type angel topping the tree.

The YL’s are considering decorating and providing a Christmas Tree this year in the Center’s Festival of Trees. This is a very worthwhile event as the money raised goes to The Carl Perkins Center for Abused Children. We sincerely hope you will place this event on your calendars for December. It is usually held the first two weeks in December.

Linda KJ4CTX

Sunspot report

The K7RA Solar Update
01/03/2020

Sunspots appeared recently, all indicating cycle 25 due to their polarity, opposite from spots in cycle 24. Sunspots appeared December 24-26, and it looks like a new cycle 25 spot on January 1. NOAA did not report it (too weak?) but Spaceweather.com reported a sunspot number of 11 on January 1.

On January 2 NOAA reported the new spot with a sunspot number of 23.

Sorry, but the final propagation bulletin of 2019 was not sent out due to a misunderstanding on my part, so the usual paragraph of numbers at the bottom of this bulletin has an additional paragraph for last week.

Predicted solar flux for the next 45 days is higher than recent forecasts. Solar flux is predicted at 72 on January 3-10, 70 on January 11, 72 on January 12-25, 70 on January 26 through February 7, and 72 on February 8-16.

Predicted planetary A index is 5 on January 3-13, then 12 on January 14-15, 5 on January 16-25, 8 on January 26-28, 5 on January 29 through February 9, 10 on February 10-11, and 5 on February 12-16.

Amateur Hardware Update

Submitted by James Butler, KB4LJV



Many times with equipment we build and/or bought equipment, we want indicator lights for functions and power. On older equipment this was done with small light bulbs. These got dimmer as they got old and also burned out. Beginning in the late 1970s LEDs or solid state light emitting diodes were developed and started to be used in electronic equipment. Starting with red ones engineers developed different colors over the years. The LEDs run on voltages from 1.2 to 2.7 volts DC for power. A proper value resistor of the proper power rating is used to allow LEDs to be used on most any equipment. The good news is LEDs have gone down in price over time and now we can use them for light up indicators. On Ebay cost have come down to under 2 cents each. An assorted package of multiple sizes and colors in a case can be bought for under \$3.00 with free shipping. If you are looking to use LEDs in your projects do an Ebay search for “assorted LEDs”.

Amateur Packet Update

Submitted by James Butler, KB4LJV

In order to use our equipment we use transmission lines to connect radios and antennas. One vendor that offers these products is ABR Industries. They offer coax cable cut to custom lengths with coax connectors attached. ABR also have other coax products like protective end caps, adapters, and coax seal to protect connections from the weather. They even have a special Teflon water proofing product for coax connections called “STUF”. ABR even have a section with data sheets on the coax they sell so you can select the type that meets your needs, If you are looking for new coax check out ABR Industries. Their web address is <https://abrind.com/>



<p style="text-align: center;">HONEY recipes revisited By: Rosalinda Melena WN2V</p>

A FEW HONEY INFUSION RECIPES . . .

By: Rosalinda Melena WN2V

Delta Amateur Radio Club

May 2013 Sparks

ARMING SPICE HONEY

1 cup honey

3 cinnamon sticks

1 teaspoon whole cloves

3 pieces star anise

6 cardamom pods

1. Bring honey and spices to a boil, then reduce heat and simmer for five minutes.
2. Remove from heat and let sit for up to 24 hours.
3. Reheat, strain and cool.

ROSE PETAL HONEY

Use fresh rose petals, but be absolutely sure that the flowers have not been treated with pesticide. You can

also try this recipe with dried lavender flowers —use 2 tablespoons dried lavender buds in place of the rose petals.

1 cup honey

1/2 cup fresh rose petals

1. Bring honey to a boil, remove from heat and stir in rose petals.
2. Let sit for four hours, return to a boil, then strain and cool.

GINGER LIME HONEY

1 cup honey

8 slices fresh ginger

2 limes, zest only

1. Bring all ingredients just to a boil in a small saucepan, then reduce heat to low and simmer for five minutes.
2. Remove from heat and let sit for ten minutes. Strain and cool.

TART FIG HONEY

1 cup apple cider vinegar

1 cup honey

2 cups dried figs, quartered

1. Combine ingredients in a saucepan and bring to a boil.
2. Reduce heat to a low simmer and cook for 30 minutes, stirring occasionally.
3. Remove from heat, cool, and strain.

HOT PEPPER HONEY

1 cup honey

2 jalapenos, quartered, or 2 teaspoons crushed red pepper flakes

Combine ingredients in a saucepan and bring to a boil.

2. Reduce heat to a low simmer and cook for 30 minutes, stirring occasionally.
3. Remove from heat, cool, and strain

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 7-8	MS-150 Bike Ride	Darrell Sheffield KK4D
Oct 3	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
March 28 - 29	April Fool Hamfest in Corinth, MS
April 11	Memphis FreeFest in Bartlett, TN
May 15 - 17	Hamvention in Xenia, OH
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

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.

Lel Nicholson

If you're interested please give me a call @ **901 46096**.

Alinco vhf/uhf twin band Dr 735 (new in the box) \$260

Alinco EDS 30 (new in the box) \$45

2 speakers kit HSN4039 pictures 1 and 2 (new in the box) \$40

Kenwood THK20 (new in the box) \$115

Galaxy Blue light digital frequency counter (new in the box) \$40

Kenwood charger (new) \$25

Ray Parks

WB4ZHI

Interested mainly in getting his 95' tower taken down; willing to pay someone
Also has some ham equipment for sale.

When you contact him be sure and tell him you are with Delta club.

PARKS, RAYMOND M

2625 GALAXIE

MEMPHIS, TN 38134-4623

raymphs@bellsouth.net

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)



Joe Miller
Owner

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