

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}

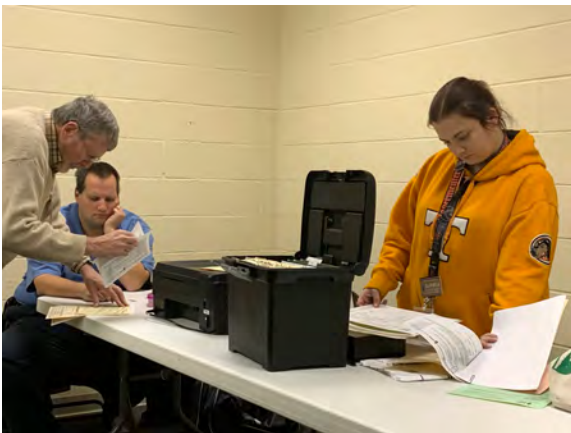
224.420^{-107.2}

144.390 Digipeater *Fusion

This month's meeting begins at 7 pm on June 11, 2019, at Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Highway 64 (Stage Road)).

Program: Arduino: Where Do We Go From Here? by Glenn Popiel

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.

President's Corner

Submitted by Steve Frazier, KK4VPT

I would like to start by saying Thank You to everyone who helped make the W4M Special Event happen last month. As we all learned, there is a lot of work that goes into doing a special event but we had a lot of help to get it done. I apologize in advance to leaving someone out, but to name a few - Ed Taggard "captured" the W4M QRZ page from the Marine group that had the page, Steve Evans has been mentioned by several people as suggesting the Welcome Center for the public location, Barry McDonald has figured out the process of setting up W4M on Logbook of the World, Ray Miller designed the QSO card and Certificate, Mary Jean Hall has been very active in several areas. We still have work to do to wrap this up but I am sure we will finish as strong as we started.

Next up is Field Day which will be June 22 - 23. Once again we have a lot to do, but many of you have stepped up to get ready. Now we need you to join us at Field Day to ensure this will be another success.

Keep in mind that Field Day is a great opportunity to share your hobby with family and friends and we encourage you to invite them to join you.

Remember that the net each night on the 146.82 repeater is a great way to stay updated with everything we have going on and to keep in touch with fellow hams. If you are on Facebook, check out our Facebook page - Delta Amateur Radio Club.

73 to all

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: <http://deltaclub.org/documents/application-15-3.pdf> 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.

Checking Acct.

05/01/2019, Beginning balance/credits:		\$14,866.94
3-deposits/credits		
2-deposits 2019 memberships:	\$168.00	
1-deposit Huntsville bus trip:	\$350.00	
Total of deposit:	\$518.00	\$15,384.94
2-checks/debits: (\$105.00)		
Ending Balance:		\$15,279.94

Small Business CD's

CD-0028: interest rate, 1.590%. YTD interest: \$40.55. Maturity date: 10/19/2022. Balance: \$10,363.63
 CD-8041: interest rate, 2.230%. YTD interest: \$119.25. Maturity date: 01/14/2020. Balance: \$10,784.58

DARC Board of Directors Meeting Minutes
June 4, 2019 -- Submitted by Mary Jean Hall KN4FBL

Attendees: Steve Frazier KK4VPT, Mary Jean Hall KN4FBL, David Jackson KM4SEC, Joe Lowenthal WA4OVO (via phone), Bob Vawter KW4RJ, Scott Adams KM4PMU, Barry McDonald W5CJ, Len Grice W4MKS and one guest
Absent: Bob Van Keuren KM4SEB, Ed Taggard K7EDT

Steve F. called the meeting to order at 6:30 p.m. at the Ellendale Church of Christ.

David J. read the Treasurer's Report. All appropriate forms have been filed, including the charitable solicitation form. He let everyone know that since we showed a small profit from the consignment/estate items, we had to pay an \$80 fee this year.

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

The board discussed making a donation to ARRL in memory of David Campbell. Barry M. made a motion to donate \$100 to ARRL in memory of David Campbell. Bob V. seconded the motion and the board unanimously approved it.

Barry M. discussed the problems with the .82 repeater. Rick Tillman WA4NVM has been helping him identify the problem. Barry said that they believe the issue is with the antenna, which is 20 years-old. The antenna signal would drop during severe weather but has recently started dropping and having issues when it is not raining, too. After discussing different options, the board unanimously decided to purchase a Sinclair SD224 series antenna to replace the one on the .82 repeater. The antenna cost \$1,200 and the installation cost is yet to be determined.

Barry M. also informed the board about potential backup options for the local repeaters, which stemmed from the club voting to approve up to \$3,000 in available funds during the May 14, 2019 meeting. He found some duplexers that would cost \$1,000 for the pair. They could be switched out on different frequencies as needed. He mentioned that the duplexers (for backup) and the antenna (replacement) should still fall within the \$3,000 budget to give the club backup options for having working equipment.

Bob V. said that Glen Popiel KW5GP would discuss Arduino for the June program.

Joe L. (via phone) said that seven people had already signed up for the Technician class.

Steve F. asked the board to think about whether we wanted to do a W4M event each year or not.

Without objection, Steve F. adjourned the meeting at 7:48 p.m. The next Board of Directors meeting is scheduled for Tuesday, July 2, 2019 at 6:30 p.m. at Ellendale Church of Christ.

Minutes of Last Month's Club Meeting

May 14, 2019 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 and welcomed everyone to the meeting. Everyone then introduced themselves by name and call sign. 56 members and four guests were present for the meeting.

Steve Frazier KK4VPT let everyone know that David Campbell KD4NOQ was now a silent key. "If anyone had a voice for radio, it was David Campbell," he said before he called for a moment of silence.

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. Dan Wehner KN4FBJ seconded the motion. The minutes and the Treasurer's Report were unanimously approved by the club.

VE Testing

Bill Stevens WC9S said that several individuals tested tonight.

YL News

Betsy Freeman KD4KOM announced that the monthly YL luncheon would occur this Saturday at 11:30 a.m. at the Ellendale Church of Christ. The potluck luncheon will feature a retired police officer speaking on self-defense techniques.

Training

Joe Lowenthal WA4OVO said the next Technician class will start July 8, from 6:15 p.m. - 9:30 p.m. each night and last for six weeks at the Germantown Police Department Training room. Anyone interested in attending the class should email Joe at WA4OVO@gmail.com with the subject line "Tech class" and your name, email and phone number in the body.

Huntsville Hamfest

Joe Lowenthal WA4OVO discussed logistics for the Huntsville Hamfest bus trip in August. The board decided on a two-tier ticket system. Anyone who pays to reserve his or her spot in May-June will pay just \$70, and anyone paying after July 1 will pay \$85. The bus will leave Germantown Baptist Church at 6:30 a.m. and return later in the afternoon. The ticket includes the entry ticket, two breakfast biscuits, snacks and drinks on the bus, and the bus ride down. The bus will park at the back of the Von Braun Center by the door, so it is convenient to go back to the bus throughout the day to sit for lunch, rest your feet, store goodies and other big items. Sign up with Joe or David Jackson, DARC Treasurer. Checks can be made to "Delta Amateur Radio Club."

Announcements

Barry McDonald W5CJ said that the .82 repeater is temporarily shut down. According to him, someone has been keying their mic for several hours, so he encouraged everyone to go home and check their radios.

Pat Lane W4OQG thanked everyone who helped out during the Armed Forces Day Communications Test with him, as well as Ham in Millington.

Dan Lasley NE7JN congratulated Ian Lucas KN4OEK for passing his General exam last Saturday.

Ham 101

Ham Hilliard W4GMM said that they will discuss Field Day and logging during the June Ham 101, and then take a summer break for July and August. Ham 101 starts at 5:30 p.m. before the monthly Delta Club meeting upstairs above the fellowship hall. Anyone with ideas for when he picks us back up in the fall should email him at w4gmm@bellsouth.net.

W4M

Steve Frazier KK4VPT said that Ray Miller AA4UK had proposed some designs for the QSO card. After some discussion, he showed three different cards for the club to vote on after the break. The on-site event is Saturday, May 25 at the Welcome Center.

New Business

Bill Stevens WC9S voiced concerns about the repeater going offline and strongly encouraged the club to invest in a backup for .82. He made a motion that the club approve Barry McDonald W5CJ to spend up to \$3,000 on a backup for the .82 repeater. Richard Martin K4DXF seconded the motion and Ed Taggard K7EDT called previous question. With no opposition to the main motion, the ayes prevailed and the motion passed. Chapter Treasurer David Jackson KM4SEC let the club know that there was still \$1,000 in the budget for equipment that was available.

Break/Presentation

Steve Frazier KK4VPT called for a break from 7:34 p.m. to 7:50 p.m. The club voted on the three QSO cards. The card featuring the Memphis Belle won. Rick Tillman WA4NVM discussed “Getting Started with Amateur Satellites” for the May program.

Closing Remarks

Len Grice W4MKS moved to adjourn. With no objection, Steve Frazier KK4VPT adjourned the meeting at 9:01 p.m. The next Delta Amateur Radio Club meeting will be Tuesday, June 11, 2019 at 7 p.m. at the Ellendale Church of Christ.

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.

HQ 101 will meet at **5:30** pm on June 11, 2019

Field operation and the logging program will be our discussion on June 11.

Delta Ham License Training, 2019

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

19 Technician

2 General

6 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.

If you know anyone interested in a class, send an email to wa4ovo@gmail.com with the Subject Line for the class they want and name, email address and cellphone number in the text. If a ham, add callsign to the text.

SCHEDULED CLASSES

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

Tech Class 3-19 will be held on six Monday nights from July 8th thru August 12th from 6:15-9:30pm The location will be at the Germantown Police Department training room, 1930 South Germantown Road. To register for the class, send an email to wa4ovo@gmail.com with the Subject Line; Tech Class and name, email address and cellphone number in the text.

PROPOSED CLASSES

A General Class license class will probably start in early November.
An Extra Class license class will probably start in early January 2020.

COMPLETED CLASSES

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 Class 2-19 taking their FCC exam.

Photo by Joe Lowenthal WA4OVO

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.



Extra Class 1-19 from l to r: Jerry KX4QE, lead instructor Joe WA4OVO, Carolyn KX4QF, Scott KM4PMU, Robert KN4OEF, and Bob KN4PDW
Photo by David Webb KV4QI

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.

Amateur Hardware Update

Article and image submitted by James Butler, KB4LJV

Many times when using our older or QRP radios we are missing the digital frequency readout. Older equipment like short wave receivers or radios did not include this option. The good news is you can now add a digital readout to your radios for a reasonable price. The LED frequency readout can handle frequencies up to 65 MHz. You can even select the color of the LED readout. Red, green, blue, and yellow are available. The small unit is



already built and ready to put in a box or to build into your equipment. The input of the frequency meter



is very sensitive allowing hookup to low level oscillator signals in the radio. The most important feature is a memory that allows you to select the amount of offset plus or minus the actual frequency it sees. This allows a universal ability to hook to most radios. The best part is a price for under \$8.00 on Ebay. Go to Ebay and do a search for "PLJ-6LED-A RF Signal Frequency Counter". You can also search Youtube to see all the amazing things this littler counter can do.



Amateur Packet Update

Submitted by James Butler, KB4LJV

We are seeing more and more radios using Software Defined Radio technology. One high end unit is made by NSI Radio called the "ColibriNANO". This allows you experiment with dual diversity receive. The radio hooks up to a USB port on you computer. You can use the receiver for remote operation on the internet. You can also use the receiver as a spectrum analyzer. You can use ExpertSDR2, Legacy, SDRSharp, or HDSDR. Many modes of communication are supported. If you are looking for a high end SDR with lots of features check this one out from NSI Radio. The web address to see all this unit does is

<https://nsiradio.com/ColibriNANO-01-55MHz-receiver-p81566523>

James Butler - KB4LJV

Digital Voice Modes **With a Memphis Area Accent** By Hugh Wardlaw, WB4SLI

About three years ago I was first introduced to Digital Voice when my son, Eric WB4SLK, and I were at the Huntsville HamFest. He had expressed an interest in D-Star so we went nuts and bought two Icom ID-51A Plus HT's. There are four repeaters that support D-Star. They are WB4KOG 442.037 and 144.940 and W4LET 443.9875 and 145.060. Buying the HT does not put one on D-Star. One has to register locally then register with a transceiver. The end result was that I had a transceiver capable of crystal clear audio regardless of the signal strength. When on the margin the audio becomes scrambled and is referred to as R2D2. This is common among all three modes with which I have worked. At this point I became curious about the other modes. There are things that all modes have in common.

One's voice is encoded in the transceiver, transmitted as data, received as data at the other end, and is decoded into an analog signal in the receiving transceiver. The encoding and decoding are done by a vocoder (voice coder/decoder) device.

There are places to which one connects to qso via the local repeater. In D-Star they are called Reflectors. In DMR they are called Talkgroups, in C4FM or Yaesu System Fusion they are Wires-X or FCS they are Nodes or rooms and sometimes called reflectors as well. This is similar to entering a building and going to a room to talk with the people in the room. One announces one's presence with callsign and the reflector or talkgroup used. The reflector or talkgroup is accessible via the internet. If the repeater has no internet connection then it is a local-contacts-only repeater, much like a vhf/uhf FM repeater.

The transceivers, with one exception, which I have used displayed at a minimum the callsign of the station transmitting on the radio. In some modes the information is more detailed with qth, name, and other information.

The display on a DV HT is generally much larger than a FM HT.

A quick key (on FM we would call it kerchunking) is used to announce one's presence or to check into a DV net. This is actually very efficient.

There are differences between D-Star, DMR, and C4FM.

With DMR one must register in a similar fashion to D-Star to obtain a DMR ID.

My D-Star HT (ID-51A Plus) and Mobile (ID-5100A) repeaters' information can be downloaded and placed on an SDHC card, placed in the transceiver, and loaded. When travelling one can look for nearby repeaters based upon the GPS position the transceiver has captured. The transceiver looks this up in the repeater file it loaded. One selects the repeater and begins operating. This is handy.

My C4FM ht (FT-70DR) can be preprogrammed for the anticipated repeaters to access. If not programmed the vfo and menus can be used to configure for the desired repeater. It is not as slick as D-Star but better than DMR.

My DMR HT when travelling, one should preprogram the desired repeaters that could be used in what is called a codeplug. A codeplug holds much information. There are steps that must be done for one to be able to operate a repeater. They are: a talkgroup has to be created, a channel has to be created with the talkgroup, frequency, color code, and timeslot, a zone must be created that contains the channels. Needless to say one does not want to have to do all of this while mobile.

That hits on the main differences between the modes. Locally the W4LET DMR repeater has a very good receiver and transmitter with an antenna up a few hundred feet. It is located near the intersection of Trinity Common and Germantown Road. I have successfully initiated a qso on Highway 72 below Goodman Road on an HT inside of the vehicle. Yes, I used the rubber dummy load antenna.

I mentioned timeslot when referencing DMR. There are two timeslots on a frequency. The transmitter toggles between transmitting and not 30 times per second. This allows two qso's on the same frequency concurrently.

There is another piece of DV equipment with which I have enjoyed playing. This is generically referred to as a hot spot. It can support D-Star, DMR, C4FM, NXDN, and P25. I can configure the hot spot to employ one of the modes, set it for a simplex frequency, configure the requirements for the mode and connection to the wifi network. With this I do not have to worry with a repeater. My transceiver communicates with the hot spot. I can indicate which reflector I want to access and ID. At this point I may connect with another ham anywhere in the world. While mobile I can have my cell phone configured to be a wifi hot spot to which the DV hot spot can connect. I then have mobile capability to talk with the world while mobile. This is not all inclusive on DV, but an effort to provide some explanation of what one needs to know to employ one of the modes.

SharkRF Openspot2 Review

By: Hugh Wardlaw, WB4SLI

I have killed a couple of pi-stars using them mobile. The trip to Dayton did in the second one. While driving back I thought I have spent a couple hundred dollars on two devices that have suffered death at my hands. I could have bought an Openspot2 for the same money. SharkRF is no Johnny-come lately in the hotspot arena. The first QRZ Review of the original Openspot was in September of 2016. The Openspot2 does not have an antenna hanging out to put stress on the boards when pushed. I thought about it on the return from Dayton and decided to go ahead and buy one.



I went online and wound up on the SharkRF website in Estonia (<https://www.sharkrf.com/products/openspot2/learn-more/>), pulled out my credit card and ordered the Openspot2. Well, in a few days, literally, the unit arrived. I had downloaded the user guide and read it a few times before the device's arrival. I opened the box. It contained the hotspot, power supply, usb C cable, and collection of four different international plugs for the power supply. The plugs are interchangeable on the power supply. I followed the instructions and made my first pass at configuring the device. That was the first of several first passes. I went to the internet describing my issue and low and behold it said to move

the device closer to the hotspot. It turns out wifi signals is not its strong suit. Once I moved the device to a better location I began again. Wow! I could configure the device.

There are options that are not available on the pi-star. I stuck to the default or selected the first option in most cases. There were regional options which required selecting from a list. Did I mention that the device does not have an external antenna? It does not have an external antenna. I thought that if the wifi was somewhat limited maybe the Openspot2 would have the same issues with UHF or VHF RF signals. Well, I walked around the yard (it is 1-3/4 acres) and could work the Openspot2 from anywhere with the device indoors. It was about 300 feet at the most distant point.

There are things that set it ahead of the pi-star:

- It has no external antenna
- It is very small – even smaller than the pi zero w based pi-star
- It is 3-1/4 inches long, 2 inches wide and 5/8 inch thick. It will fit in my jeans watch pocket. It has no self-contained battery.
- There is no display. There are color LEDs that inform you as to what is happening.
- I have a D-Star and DMR profile that run one at a time. I can connect to a specific talkgroup or dial a DTMF number and change profiles from D-Star to DMR and visa-versa
- I can select a certain talkgroup in DMR or send a DTMF B in D-Star to have the Openspot2 announce its IP address.
- Power up takes 40 seconds.
- Everything is devoted to being a hotspot in the Openspot2.
- The Openspot2 will update firmware daily at 4:00 am local time. There is no special procedure to get an update. The time for the update is configurable.

In summary I think that this is a good product and it answers all my needs for a hotspot that I feel comfortable using mobile. The total cost of the unit plus shipping was \$224. Even though it came from Estonia it arrived second day which I thought was pretty good. I would heartily recommend that someone considering acquiring a Digital Voice hotspot consider the Openspot2.

YL Information

Submitted by Linda KJ4CTX

YL NET – IMPORTANT NOTICE!!!! Due to problems the 146.820 repeater is experiencing and several YL's being unable to hit the 146.820 repeater recently we have decided to move to the 146.940 repeater until further notice. We will continue to check-in at 8:45 p.m.

YL LUNCHEON — Our program for May was Self Defense. It was a very interesting and informative program and we would like to thank Dan Miller and his wife Mary Ann for joining us and teaching us some life-saving tips. We all learned several moves we could use should we be attacked.

Remember the police are called after a situation occurs and are not there to defend you when trouble strikes. So be aware of your surroundings and for those of us who learned those defensive moves be ready to use them!



MARCH FOR BABIES

— The YL's provided communication this year for the March of Dimes March for Babies with the assistance of four OM's. We enjoyed the beautiful weather and the camaraderie. It was a relatively quiet day as far as communications with net control only answering about ten 10 calls. Although I did not get to hear them Sylvia KN4OEJ and Ian KN4OEK I understand they were recruited to sing on stage. We never know what hams will find themselves doing at some of the events we participate in!

Left to right in picture:

Mary Jean KN4FBL, Linda KJ4CTX, Doris KJ4THA, Ian KN4OEK, Sylvia KN4OEJ, Carrie KN4LCU
Jane KN4FBI, Pam KN4SLN, Sean KM4CFN, Photo by: Ken KI4AOH. Not pictured: Roger WR4R

June Luncheon

June 8, 2019

11:30 A.M.

Saturday

Long Horn Steak House

8324 Highway 64

Bartlett, TN



Pictured left to right – Cindy Foster, Doris KJ4THA, Gale KI4VDI, Linda KJ4CTX, Betsy KD4KOM, Barri WB4SWP, Sylvia KN4OEJ and photo by Ken KI4AOH. FREEFEST 2019

FIELD DAY 2019
June 22-23

Field Day planning has begun. On Monday night April 1st, the Memphis area clubs met at Germantown Fire Station #4 to start the planning. Field Day will be held in Germantown at 7771 Poplar Pike in Morgan Woods Park in front of the Horse Show Arena on June 22-23, 2019. The actual FD contest begins at 1pm on Saturday and runs for 24 hours until 1pm Sunday. We will start set up Saturday morning about 8:30. Some workers gather at Piccadilly at 7:30 for breakfast. The YLs have volunteered to coordinate the meals. For the setup workers, lunch will be at 11:30am. Saturday evening we will have Lance Morris' chicken supreme. At 1pm Sunday will be tear down. Help is needed on all three activities: setup, operating, and tear down. See you at Field Day.

HUNTSVILLE HAMFEST BUS TRIP - AUGUST 17, 2019
Submitted by Joe Lowenthal WA4OVO, Director of Training

DARC is sponsoring a 50-passenger bus trip to go to the Huntsville Hamfest on Saturday, August 17, 2019. The fare is \$70 if paid by June 30th and \$85 after June 30th. A spouse or child living at the same address can accompany a full fare rider for \$50. The fare includes the \$10 HamFest entry ticket. There will be biscuit sandwiches, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back. There are no refunds, but you can sell your seat to someone else if you can't go. Let me know.

Cash or checks will be accepted for payment. Make checks payable to Delta Amateur Radio Club. You can pay at a meeting or at Field Day. You can also send your check to Joe Lowenthal WA4OVO, 6675 Ashbridge Cove, Memphis, TN 38120. Please include your name, callsign, cell phone number, email address and whether you want bacon, ham or plain biscuits.

Reservations will be on a first come first paid basis.

The bus will leave Germantown Baptist Church, 9450 Poplar Avenue at Johnson Road, Germantown, TN at 6:30am. The bus will leave Huntsville immediately after the 4pm door prize drawing and return to Germantown Baptist Church approximately 7:30pm.

Germantown Baptist Church has asked us to park in the back on the northeast side of the church so there will be security cameras on the cars.

The Huntsville Hamfest website is www.hamfest.org.

W4M
Celebration of Memphis 200th birthday

On Saturday, May 25 several hams gathered the Tennessee State Welcome Center at 119 N. Riverside Dr. next to the river. The purpose was to set up a ham radio station and make contacts on 7.240, 14.255, or 146.82 under the call sign W4M. Ed K7EDT and Steve KK4VPT were there with radios to man the event, along with several other hams. Rick WA4NVM was also there working satellites. I'm unsure if many contacts were made on any frequencies, but I am sure that everyone attending had a good time. I had never been to the Memphis visitors center by the river and it was nice to tour the facility. By Bob KW4RJ





We have received cards from N8EGZ, N2JU, W8BJF, KC9MEG, W7DMC, KN4PSS, KB43SOU, W7AMC, AC6BW, W9GQA and others.

SPARKS Newsletter & 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.

2019 Date	Event	Contact Information
Jan. 20	Swamp Stompers 50K/25K Run	Ken Laseter KI4AOH
May 12	MARS contacts	
June 22-23	Field Day @ Morgan Woods Park, G'town	
Sep 7-8	MS-150 Bike Ride	Darrell Sheffield KK4D
Oct 5	Bluff City Blues Bike Ride	
Dec 7.	St Jude marathon	Roger Schlichter

Hamfests in the Southeast area

2019

January 25-26	Capitol City Hamfest in Jackson, MS
February 8-10	HamCation 2019 in Orlando, FL
February 16	LCARC's 2019 Winterfest in Hoxie, AR
March 1-2	BirmingHamfest 2019 in Birmingham, AL
March 9	MTARS Hamfest Tullahoma, TN
March 23	Ides of March Hamfest in Union City, TN
March 30-31	April Fool Hamfest in Corinth, MS
April 13	Memphis FreeFest in Bartlett, TN
May 17-19	Hamvention in Xenia, OH
July 27	Greater Nashville & Middle TN HamQuest in Lebanon, TN
August 17-18	Huntsville Hamfest in Huntsville, AL
October 18-19	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

Delta Club sponsored Nets are shown in red.

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

DELTA CLUB ADVERTISEMENTS



MID-SOUTH AMATEUR RADIO SUPPLY (MSARS)

6631 Vallendar Cv., Bartlett, Tennessee 38135

tel: 901-371-9700 • fax: 901-266-3374 • web: www.msars.com

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Base Station	Roof Mount	SMA	RG-58
HF	Window Mount	BNC	450 & 300 Ohm
Wire	Swivel Ball	RCA	Rotor Cable

**Owners/
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**Steve
W5VAA**

**Rosalinda
WN2V**

**Ham
W4GMM**

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Remote Tuners	Power Poles	Coax Seal
Brand Specific Antenna Tuners	Antenna Switches	Fuse Holders
Baluns	SWR/Power Meters	Remote Tuner Boxes
Ununs	Mic Holders	Dog Bone Insulators

Mid-South Amateur Radio Supply, (MSARS.COM) is owned and operated by local hams who are dedicated to promoting the hobby and providing help to anyone interested in ham radio. We actively support the local amateur radio clubs and are ARRL members.

MSARS offers free antenna building classes each year and help many new hams with guidance on their first radio, setting up a ham shack, programming a radio and much more. We are proud to be a part of the ham radio community and are *here to help you*.

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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**Advertisement forms can be downloaded
from our website –
<http://deltaclub.org/aboutUs.html>**