



BVARC BEACON



Newsletter of the Brazos Valley Amateur Radio Club

AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT BEND COUNTY

VOLUME 48 ISSUE 10

OCTOBER 2024

General Membership Meeting October 10th at 7:30 PM

Community Volunteer Fire Department Community Center, 16005 Bellaire Blvd, Houston 77083

The program will be **DMR Radio Basics**: Rick Broussard, N5KJN, a DMR user for several years, will describe the ins and outs of digital mobile radio, also known as DMR. He will talk about the general way the radio works, how the repeaters are connected and how the repeaters are controlled by a "C-bridge." Rick will also go over some of the programming basics on DMR.

Rick has been using DMR radios for many years and is one of the C-bridge operators for a greater Houston network. Rick has over the years done several presentations about DMR as well as programming classes. Rick also does presentations on DMR at the Greater Houston HamFest.

So come on out to get answers to your questions about DMR radio!

November Club Elections – Soliciting Candidates

Come December 31st, a number of the current BVARC Board of Directors (BOD) members will finish their terms. Candidates are being solicited for 2025/2026 terms of office. The following positions will be open:

Vice President	Term – 2025 thru 2026
Corresponding Secretary	Term – 2025 thru 2026
2 Year at Large (B)	Term – 2025 thru 2026
1 Year at Large/Past President	Term – 2025

Should you have an interest in running for any of these positions or you have questions as to what is involved, please contact Chuck Hale – KF5UXP – tooloud61@gmail.com.

Remember, the club needs your help to keep the club running and supporting amateur radio.

Remember to attend the November 14th BVARC meeting and VOTE!

Net Control Operators Needed!

With 350 members, Brazos Valley Amateur Radio Club is the largest club in Houston and the second largest in Texas. A club of this size needs the support of its members to help with various functions to keep the club functioning. There are many positions that a member can do to help with the club from serving on the board of directors to coordinating events to helping with the Greater Houston HamFest. However, **one of the easiest ways to help** the club is to serve as NET control on the club's different NETS. If you are interested in helping



and being a NET control, please let me know. There are many openings on the Monday night NET, and the Stir-Crazy NET and I even bet John, K5LKI, would let you take a shot at the Rag Chew NET.

If you would like to be NET control, let me know so we can put you in the driver's seat.

There are many different time slots to choose from so throw your name in the hat to help now.

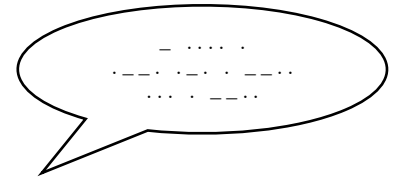
So set some time aside to help the club and support amateur radio. You can contact me at n5vcx@att.net or call me at 713-826-6917. 73, N5VCX

October 2024 – Amateur Radio Events Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
P: Pub Svc Net 8 PM Mondays R: Rag Chew, 3910 kHz, 7 PM Wednesdays		1 S	2 S	3 S	4 S Belton HamExpo setup, doors open 7 AM Saturday	5 VE Testing 10:30 AM Bayland Park
6 BVARC Board Mtg 5 PM Zoom	7 P S	8 Q S T Brews w/ BVARC 6-9 PM Talyard Brewing Sugar Land	9 R S	10 S BVARC Mtg 7:30 PM Food Team: Chicken Wings	11 S	12
13	14 P S	15 Q S T	16 R S	17 S	18 S	19
20	21 P S	22 Q S T	23 R S	24 S	25 S Wings Over Houston, 2 - 6 PM Ellington Airport	26 Wings Over Houston, 8 AM - 4:15 PM, Ellington Airport
27 Wings Over Houston, 8 AM - 4:15 PM, Ellington Airport	28 P S	29 Q S T	30 R S	31 S	S: Stir Crazy Net Noon Monday-Friday T: 10-10 Int'l Local SHOT Net, 8 PM Tuesdays	

The Prez Sez

If you made it to last month's program, you should be ready to do radio direction finding for stuck mics and interference. There is a lot of information on the Internet and the ARRL web site on RDF so if the meeting stirred your interest, check those locations for more information.



I also described some of the past issues that the club has had with jammers, more affectionally called "squirrels". Even though it was over twenty years ago, the "squirrels" did irreparable damage to the club over the years they were active. As I mentioned the club was just over three hundred members but as the "squirrel" issue grew, the membership dropped to just eighty-five members. Hopefully, nothing like that will happen again and if it does, the membership will work together to help with the problem.

The rest of the year will be busy. Starting on October 5th will be the Ham EXPO – The Belton HamFest. It is the premier ham radio tailgating event in central Texas. The Temple ARC does a great job putting the event on and you should attend the event to support the club and amateur radio. There may even be special ticket sales for the Greater Houston HamFest at Belton as well. Hope to see you there.

Coming up for the October 10th general meeting, we will have a presentation on DMR Radio Basics. Rick Broussard, N5KJN, will talk about the ins and outs of digital mobile radio, also known as DMR. The BVARC food team will be serving chicken wings and tasty things. So, make sure you drop Scott Medbury, KD5FBA, an e-mail to RSVP if you would like to eat at the general meeting.

Greater Houston HamFest will have a planning session on October 17th for the March 7th and 8th event. If you would like to be involved in one of the largest ham radio events in Texas, check in on the Zoom meeting on October 17th. The Zoom address will be posted on the BVARC and the Greater Houston HamFest websites a week before the meeting.

Our November meeting is the Chili Supper & Elections. There are several positions that will be open for the elections. This is the time for club members to step up and volunteer to help with the management of the club and support amateur radio. The club needs your help to do this and to keep the largest ham radio club in

Houston growing. If you would like to volunteer and be on the Board of Directors, please contact the election committee chairman: Chuck Hale, KF5UXP, tooloud61@gmail.com.

Come December, the popular Home Brew Night will be back. This is the best of the home-built equipment that club members can build. If you are interested in exhibiting your great work of art, drop me an e-mail so I can schedule you in the program.

Do not forget in January 2025 is Winter Field Day. It will be held on January 25th and 26th and at this time it will be scheduled at Duhacsek Park in Sugar Land, so mark your calendars. I am looking for a coordinator for Winter Field Day, so if you are interested in putting the event together, give me a call.



Do not forget other events in the area such as Parks on the Air, Brews with BVARC, Museum Ships Weekend, and ARRL Field Day. Check the BVARC web site for more info and dates.

If you want to get into EME work, here is the antenna that you can start with. It is a 2 meter, 224 element colinear array built by F5VHX/G8MBI, G8KBV, G4PCS, G4RGK and G1EGC, in the late 1980's. Think of the gain that 224 elements will give a 50 watt station!

See you at the meeting. 73, N5VCX

CW Training Classes

Over the last few months, there have been several club members talking about learning CW. Even though it is no longer required for an Amateur Radio license, many hams have an interest in learning it. So.....

I asked John Whiteman, K5LKJ, to do an informal poll on the Stir-Crazy Net to see how many people would be interested in learning CW. There were several people that expressed interest in learning CW, enough that I feel a CW class would be something the club should start up.

Before the class starts though, I want to check with the rest of the club and see if the interest is there with the rest of the membership. If you are interested in learning CW and would like to attend classes, please drop me an e-mail at n5vcx@att.net and let me know. If there is enough interest, a class can be organized and started around the first of the year.

So let me know if you would like to dive into the world of Morse Code!

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N5VCX

Greater Houston HamFest March 7th and 8th, 2025

Mark your calendars for the 22nd Annual Greater Houston HamFest in March, 2025. Planning for the event has started and I am looking for people to help at the event. If you would like to help, please contact me and let me know. The event not only supports BVARC but it supports amateur radio. I need about eighty volunteers to put the event on, so line up now before it gets too crowded.

Remember the GHHF is for you and the hobby. By helping out, the support you provide helps the club can the hobby continue. If you need more information, please drop me an e-mail at n5vcx@att.net or give me a call at 713-826-6917.

Thank you for your support.

Mike Hardwick, N5VCX, Event Co-Chair, Greater Houston HamFest

Waves & Coffee – The Small Dipole antenna

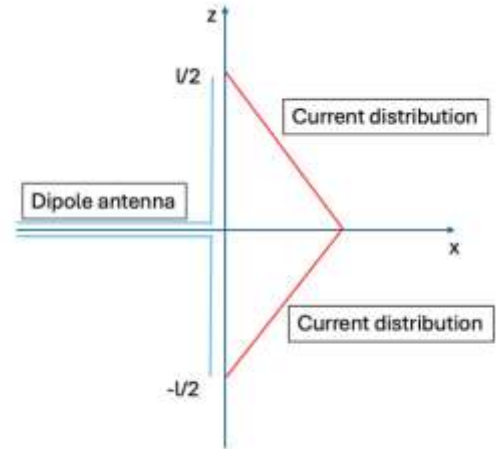
The next step from the Hertzian Dipole

By Stephen W2WF

In this installment of the series where we study the physics of dipole antennas, we'll replace the current source. Instead of using a constant I_0 , we'll see the effect of having a current that ramps up from one end of the dipole antenna up to a maximum positive value and then ramps down to the other end of our antenna. This "triangular current", $I(z)$, is more realistic than the constant current that we saw in the Hertzian dipole case last time.

We recognize that this is not the full treatment yet since we're not using the typical sinewave of a half wavelength antenna. This triangular current distribution is still an idealization; however, it'll be a good intermediate result that is suitable for Small Dipole antennas. By this we mean

antennas where the length from tip to tip "L" is of size $\lambda/50 \leq L \leq \lambda/10$. Let's map out how the Hertzian Dipole case leads us to this point in the journey:



Infinitesimal Dipole

Small Dipole

"Hertzian Dipole antenna" → "Small Dipole antenna"

$L \leq \lambda/50$

$\lambda/50 \leq L \leq \lambda/10$

Constant current

Triangular current

This Small Dipole antenna model may not be very useful to those interested in HF antennas; however, some folks may find it useful in the study of small portable antennas like those in cell phones.

	Name	Frequency (MHz)	Wavelength (m)
Cellular networks	4G/LTE	617	0.49
		5925	0.05
	5G	800	0.37
		1900	0.158
		2500	0.12
		28000	0.01
		39000	0.007
Data networks	WIFI	2400	0.12
	Bluetooth	5000	0.06

The usefulness of this approximation is then clear, so now let's do the physics.

For the rest of this article please access this link: <https://bvarc.org/home/tech-downloads/>.

Ham Radio Emergency Communications Guide

By Ham Radio Prep

Last month we started looking at Emergency Communications, from <https://hamradioprep.com/ham-radio-in-emergencies/>. Let's continue:

Which amateur radio frequencies are used in emergencies?

Any and all amateur radio frequencies may be used in an emergency. In Puerto Rico, amateur radio operators used HF frequencies to send and receive voice and digital messages. These frequencies were used because of the distances involved. Communication between Puerto Rico and the mainland is generally not possible on other amateur radio frequencies.

Other frequencies can be useful in other situations, however. VHF and UHF frequencies are generally used when the emergency or public service communications is to take place over a smaller area. For example, SkyWarn nets, which provide information on severe weather conditions to local emergency management agencies and the National Weather Service, are generally organized on a county-wide basis. That being the case, these nets generally use VHF or UHF repeaters.

For some types of emergency communications, amateurs use frequencies in the GHz range. One example of this are the digital networks that use Amateur Radio Emergency Data Network (AREDN – <https://www.arednmesh.org/>) hardware and software. These networks may operate in the 2.4 GHz, 3.4 GHz, and 5.8 GHz bands. The reason for this is that these frequencies allow higher bandwidths than the lower frequency bands, and that means that data communications are faster.

Which amateur radio license do I need for public service and emergency communications?

To get started, all you really need is a Technician Class license because most public service and emergency communications takes place on the VHF and UHF bands. Once you've gotten started as an emergency communicator, you'll want to upgrade to at least General Class. The reason for this is, as we've seen above, for some emergency situations, HF communications is necessary, and Technicians just don't have enough HF privileges for these operations.

I would recommend that your ultimate goal would be to obtain an Amateur Extra Class license. The extra frequency privileges may come in handy in some emergency situations, but the real benefit is the knowledge of electronics, antennas, and radio wave characteristics that you'll gain by studying for the Extra Class exam. This knowledge will make you a more effective communicator.

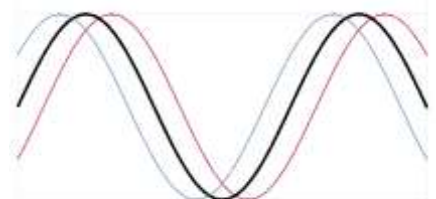
Note that in addition to obtaining your amateur radio license, emergency communications groups, such as ARES and RACES, require specific training in emergency communications operations. The basic courses aren't that difficult and may even be taken online.

More Emergency Communications next month!

Ham Exam Question

What is the phase relationship between the current through and the voltage across a series resonant circuit at resonance?

- A. The voltage leads the current by 90 degrees
- B. The current leads the voltage by 90 degrees
- C. The voltage and current are in phase
- D. The voltage and current are 180 degrees out of phase



Note: the BVARC Board of Directors did not have a quorum for the in-person meeting in September.

BVARC Rag Chew Net

Below is the BVARC Rag Chew Net check-in information:

08/21/24, K5LKJ (NCS), K5LJ, KG5ICR, KI5HOC, N5VCX, W5RH, KE5QY, W1BG (Katy), WB6RIG (Cedar Creek). (9 Check-Ins) Solar Cycle 25: SFI = 239, SN = 176, A = 8, K = 1 / Band Rpt: FAIR

08/28/24, K5LKJ (NCS), K5LJ, KG5ICR, W5ALW, K5JPP, KI5HOC, W5RH, W5TKZ, AI5KD (Pearland, N5VCX, W1BG (Katy).

(11 Check-Ins) Solar Cycle 25: SFI = 212, SN = 167, A = 28, K = 2 / Band Rpt: FAIR

09/04/24, K5LKJ (NCS), K5JPP, K5LJ, KG5ICR, KI5HOC, W5RH, KF5ONT (Conroe), N5VCX, W1BG (Katy). (9 Check-Ins) Solar Cycle 25: SFI = 262, SN = 151, A = 15, K = 1 / Band Rpt: FAIR

09/11/24, K5LKJ (NCS), K5LJ, KG5ICR, W5RH, AA5OA (Percy, AR)(R)(R), W5TKZ, KI5WXW, N5VCX, K5RBC (Lake Jackson), K5DBL (Manvel), W1BG (Katy). (11 Check-Ins)

Solar Cycle 25: SFI = 205, SN = 179, A = 12, K = 2 / Band Rpt: GOOD

09/18/24, K5LKJ (NCS), K5JPP, K5LJ, KG5ICR, KI5HOC, W5RH, K5RBC (Lake Jackson), W4SFZ (League City), N5VCX, W1BG (Katy), KA5LPH. (11 Check-Ins)

Solar Cycle 25: SFI = 165, SN = 106, A = 71, K = 2 / Band Rpt: GOOD

(M) = mobile (P) = Portable (R) = Relay (RCS) = remote controlled station (T) = telephone check-in

Net conditions have been FAIR to GOOD this month. Fire up the rig and learn what others are doing and share your experiences. Come join in the conversation each Wednesday evening.

Regards. John K5LKJ

BVARC EVENTS

Saturday Breakfast 6:30 AM, IHOP Stafford 12725 Southwest Fwy, Stafford, TX 77477

Wednesday Lunch Bunch 11 AM to Noon, Luby's Cafeteria 10575 W Airport Blvd, Stafford, TX 77477

Brews w/ BVARC Tuesday Oct 8, 6-9 PM, Talyard Brewing Company, 1033 Imperial Blvd, Sugar Land TX 77498



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NUSK - Eddie
KBSYTA - Dwayne
KBSOBB - Eddie Jr
KFSRKJ - Blake
WSLIC - Anthony

2024 Club Officers

President (2024-2025)

Mike Hardwick N5VCX n5vcx@att.net

Vice President (2023-2024)

Kori Rahman WX5KR kori113@gmail.com

Recording Secretary (2024-2025)

Sean Linkenheimer N5LNK sean.N5LNK@gmail.com

Corresponding Secretary (2023-2024)

Jeff Greer W5JEF greerjw@hotmail.com

Treasurer (2023-2024)

David Ely N5EKW davidely@prodigy.net

2 Year At-Large Board Member A (2024-2025)

Terry Leatherland K5PGF K5PGF@yahoo.com

2 Year At-Large Board Member B (2023-2024)

Drew Dasher N1ER adasher18@hotmail.com

1 Year At Large (2024)

Daphne Rawlinson K5VQY

daphne_rawlinson@hotmail.com

SEPTEMBER VE - FCC TESTING SESSIONS RESULTS

For the September 7th test session at Bayland Park - we had 3 candidates and conducted 7 tests

New Licensees:

Gruber, G (Technician) KJ5HYX

Little, C (Technician) KJ5HYC

Murphey, A (General) KJ5HYW

VEs in attendance – K5GOL, K4USN, K5LJ, and KG5ICR – **THANKS!**

Congratulations to All!

The next BVARC test session will be **Saturday, October 5th** at 10:30am.

Pre-registration is required.

For new licensees the testing fee, paid at the session is \$15. An additional \$35 license fee (totaling \$50), will be collected by the FCC separately for new, renewal and vanity calls. License upgrades **do not** pay the added \$35 fee, just the \$15 session fee.

YOUTH LICENSING INCENTIVE PROGRAM

The ARRL has created a youth program (18 and under) to defray the licensing costs to a total of **\$5** (deducting the \$35 increase and \$10 off the \$15 VE session fee). See: <http://www.arrl.org/youth-licensing-grant-program>

Also, BVARC is implementing it's own program for **youth** licensing.

We'll provide a **new VHF/UHF transceiver (Baofeng, limited supply)** at the VE session, to youth that successfully pass their Technician test. This is the result of a very generous donation (Dec. '23) from a BVARC member, THANKS!

Bottom line, a young person for \$5, can walk into a test session and walk out with a new radio and a pending license.

Examination sessions are held each month, most times the first weekend of the month and usually on the same weekend as the Sunday BVARC Board meeting. These testing sessions are at the Bayland Park Community Center, 6400 Bissonnet St., Houston TX 77074

Details for candidates are found at <https://bvarc.org/home/ham-radio-license-testing-houston/>

Pre-register to attend a test session at: <https://hamstudy.org/sessions/arrl/77008/inperson>

For questions, Email Mark Janzer, K5MGJ at (k5mgj@yahoo.com).



Advertising in the BVARC BEACON

Business card sized ads are \$10 per month or six months for \$50.

Half page ads are \$25 per month, \$125 for six months, or \$250 per year.

Full page ads are \$50 per month, \$250 for six months, or \$500 for a year.

Ham Exam answer: C, at resonance, the current and voltage are in phase.

Hamfests Near Houston

10/4/2024 (setup) - 10/5/2024

Belton HamExpo

Location: Temple, TX

Type: ARRL Convention

Sponsor: RV Radio Network

Website: <https://tarc.org/hamexpo-schedule/>

3/7/2025 - 3/8/2025

Greater Houston HamFest

Location: Rosenberg, TX

Type: ARRL Hamfest

Sponsor: Brazos Valley Amateur Radio Club

Website: <https://www.houstonhamfest.org>

BRAZOS VALLEY AMATEUR RADIO CLUB

This newsletter, the BVARC BEACON, is a monthly publication of the Brazos Valley Amateur Radio Club. For a full listing of officers and information about BVARC, please go to www.bvarc.org. Detailed information will be published in the BEACON every 3 or 4 months. Similarly, the "Eating Schedule" will be published every 3 or 4 months unless there is a change.

General membership dues are \$25 per year, with student dues \$10 per year, additional family members \$5 per member per year.

Club meetings are both in-person and via Zoom on the 2nd Thursday of each month at 7:30 p.m. If you have signed up for the email reflector, you will receive notice and the attendance password, etc. It will also be on the website a few days beforehand.

BVARC amateur radio testing takes place typically on the Saturday before the 2nd Thursday of each month at 10:30 AM. Location: Bayland Park Community Center, 6400 Bissonnet, Houston, 77074. **Before going** please check the BVARC website for any changes.

A Public Service Net is held each Monday at 8 PM on the 146.94 (minus offset, PL 167.9 tone) repeater.

A "Stir Crazy Net" is also held weekdays at 12 Noon on the 146.94 (minus offset, PL 167.9 tone) repeater.

A rag chew net is held each Wednesday at 7 PM on 3910 KHz +/- 3 KHz.

The QuestionAIR Net is held every Tuesday at 7:00 PM on the 146.94 (minus offset, PL 167.9 tone) repeater.

To obtain information about joining BVARC or its activities, see the BVARC website: www.bvarc.org

Other contacts: **BVARC President** Mike Hardwick N5VCX n5vcx@att.net, **Newsletter Editor** Donovan Balli KG5BDZ dballi@mail.com, **Editor Emeritus** John Chauvin K5IZO k5izo@yahoo.com, **Newsletter Printing, Assembly, and Mailing** Mike Hardwick N5VCX n5vcx@att.net, Jeff Greer W5JEF greerjw@hotmail.com, Gokhan Koralturk KG0KHN gokkor@gmail.com

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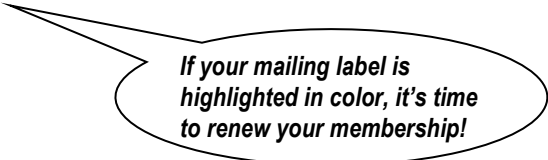
NOVEMBER 2024

**BRAZOS VALLEY
AMATEUR RADIO CLUB
P.O. BOX 2997
SUGAR LAND, TX 77487-2997**
ADDRESS SERVICE REQUESTED

FIRST CLASS POSTAGE

Board of Directors Meeting – 5 PM Sunday, October 6, 2024, via Zoom

General Membership Meeting – 7:30 PM Thursday, October 10, 2024, 16005 Bellaire Blvd, Houston 77083



If your mailing label is highlighted in color, it's time to renew your membership!