



# BVARC BEACON



Newsletter of the Brazos Valley Amateur Radio Club  
AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT  
BEND COUNTY

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FEBRUARY 2022

VOLUME 46 ISSUE 2

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## February General Membership Meeting Thursday, February 10, 7:00PM

BVARC February general meeting, via Zoom, takes place on Thursday, February 10 at 7:00pm. This presentation will be about the George Observatory at Brazos Bend State Park. It should be an interesting topic for amateur radio operators in that the observatory and the park has a history of a lot of camaraderie, activities and synergy with Amateur Radio.

The featured speaker will be Hannah Lange, Program Manager, George Observatory.

Also included will be several BVARC members talking about both historical and current specific amateur radio activities at the park and at the observatory.



## The Prez Sez

By the time everyone reads this, one month of 2022 will be behind us. Trying to keep track of time is difficult when time seems to move so fast. So, all we can do is the best we can and hang on. Hopefully everyone is ready for another year of the “new normal” and is ready for another “trip around the sun”.

I want to thank Anthony Luscre, K8ZT for a wonderful presentation on QRP. Anthony, who is the Ohio Assistant Section Manager for ARRL’s Education Outreach, had a ton of information about QRP operation and techniques. He really covered a wide range of information as well as a couple of side trips on ham radio and railroads. If you missed it, it will be available on the BVARC web site. Anthony also has a wide range of other presentations that he has done over the last two years that are available as well. In fact, Anthony has done over 125 presentations for clubs in 25 states and 3 countries. If you would like more information on Anthony’s presentations, go to his web site at [www.k8zt.com](http://www.k8zt.com). Thanks, Anthony for a great presentation.

Our February 10<sup>th</sup> presentation, which will be a ZOOM only meeting, will be about the George Observatory at Brazos Bend State Park. Make sure you tune into the ZOOM meeting to find out more about their centerpiece – a 36-inch Gueymard Research Telescope. It is one of the largest in the US the public has direct access to on a regular basis. There are also two other telescopes – an 18-inch reflector and 14-inch Schmidt-Cassegrain. So, make sure you log into the ZOOM meeting for this great presentation. As always, the ZOOM info will be published in the weekly e-mail blast and the website the week before the presentation.

Finally, the Great Houston Tailgate is still moving forward. The event will be finalized this month so stay tuned to the newsletter and web site. Remember it will be held on April 16<sup>th</sup> from 7 am to 3 pm at Duhacsek Park on Voss Road. If you have any questions, please contact the BVARC BOD.

The BOD meeting dates be posted on the web site in the coming week. Due to changes at the Bayland Community Center, confirmation has been slow on coming. The dates will also be posted in next months newsletter.

Hope to see everyone on the ZOOM meeting on February 10<sup>th</sup>.

Hang in there!

73, N5VCX



### **December VE - FCC TESTING SESSIONS RESULTS**

Bayland Community Center is open, they are currently back to 100% capacity, so no headcount limits.  
For Saturday, December 4th, we had 8 candidates and conducted 11 tests.

#### New Licensees:

W. Lewis II (General)  
H. Peirce (Technician)

#### Upgrades:

KG5ICR (General)  
KI5SSL (Extra)

Congratulations to all!

One of the attendees signed up as a new member of BVARC!

A GREAT, thank you to the VEs in attendance – K5GOL, K5LJ, and KI5EMP!

The next BVARC test session is **Saturday, February 5<sup>th</sup> at 10:30.**

**The testing fee is still \$15.** The date which this will change to \$15 test and \$35 license fee (totaling \$50), has not yet been determined, but is expected sometime early in 2022. Our current understanding is that VEs will collect \$15 at the test session and the \$35 fee will be collected directly by the FCC.

Examination sessions are held each month, usually on the same day as the Saturday BVARC Board meeting. These sessions are at the Bayland Park Community Center, 6400 Bissonnet St., Houston TX 77074  
Details for candidates are found at [www.bvarc.org/home/amateur-license/](http://www.bvarc.org/home/amateur-license/)

Call/Text Mark Janzer, K5MGJ at (832) 875-0526 or eMail: ([k5mgj@yahoo.com](mailto:k5mgj@yahoo.com)) to pre-register.

## **BVARC Member's Children's School Selected to Make a Contact with the International Space Station**

Jeff Greer, W5JEF, is thrilled to report that his kids' school has been invited to make an ARISS contact with the International Space Station this year (see press release below). Jeff will be reaching out via the reflector to look for appropriate loaner equipment once the equipment plan for the primary and backup stations is closer to finalized. Charlie KG5QNO is the STEM (Science, Technology, Engineering, and Mathematics) teacher at the school who penned the winning proposal.

Press release as received:

### **Eight US Schools Moved Forward in ARISS Selection Process**

January 11, 2022: Amateur Radio on the International Space Station (ARISS) is pleased to announce the schools/host organizations selected for the July 1 through December 31, 2022, time period. A total of eight of the submitted proposals during the recent proposal window have been accepted to move forward in the processes of planning to host a scheduled amateur radio contact with crew on the ISS. The primary goal of the ARISS program is to engage young people in Science, Technology, Engineering, Arts and Mathematics (STEAM) activities and raise their awareness of space communications, radio communications, space exploration, and related areas of study and career possibilities.

The ARISS program anticipates that NASA will be able to provide scheduling opportunities for the eight US host organizations during the July 1 through December 31, 2022, time period. They are now at work completing an acceptable equipment plan that demonstrates their ability to execute the ham radio contact. Once their equipment plan is approved by the ARISS Technical Mentors, the final selected schools/organizations will be scheduled as their availability and flexibility match up with the scheduling opportunities offered by NASA.

The schools and host organizations are:

Buehler Challenger & Science Center	Paramus, NJ
Eaton Public Library	Eaton, CO
Davis Aerospace Technical High School	Detroit, MI
St. Stephen's Episcopal School Houston	Houston, TX
Harris Middle School	Spruce Pine, NC
Kopernik Observatory & Science	Vestal, NY
Monroe Carell Jr. Children's Hospital at Vanderbilt	Nashville, TN
Canterbury School of Fort Myers	Ft Myers, FL



# The Radio Hotel— Re-learning Something Old

## Baluns and Chokes

by Rick Hiller – W5RH

My long time friend Rod, K5BGB, is always asking me probing questions about antennas, especially his. Now, there are 2 things I know about Rod. One – he doesn't own a microphone; and two -- being a physicist and a Ham he has probably forgotten more about practical radio theory etc. than I will ever know. (Both facts indicate that he has been a ham for a long time).

So recently, Rod asks me about a varying SWR problem on his G5RV antenna system. It is a typical G5RV implementation. 103 foot antenna wire fed with 300 ohm twin lead to a balun and then 50 ohm coax to the shack. Typical, as Sir Louis Varney would have wanted it. Now, I am not going to describe Rod's problem, but I will tell you that it led me to read (again) about baluns and chokes. I have always asked the question "**When is a choke a balun and when is a balun a choke?**" I think I finally have a reasonable, logical answer.

The key to the answer was to ask the question properly, as the answer is in the question.

**When does a choke function as balun?** Answer -- When it is applied at the correct position in the antenna system. The choke is a brute force device not allowing common mode, RF currents to flow.

**When does a balun function as a choke?** Answer -- I don't think ever. The balun's function does not allow errant current to be generated in the first place. (So I guess it is the ultimate choke – HI.) The best place for a true balun is at the antenna feedpoint where it is designed to create a smooth transition from unbalanced to balanced and inhibits the production of errant, shield traveling, L3 RF currents.

### Frequency response should be a concern

A balun, the transmission line transformer type, influences the actual signal RF. It modifies the TEM mode RF flow within the unbalanced coaxial transmission line; whereas an external choke only inhibits the flow of errant RF L3 or antenna currents on the coax shield. In a multi-band antenna implementation, like an EFHW or a G5RV, the frequency response of the balun transformer is extremely important in determining the antenna system's performance. The frequency response of the shield located choke is important too, but it will not hinder the desired RF going to and from the antenna. The shield choke simply hinders errant RF that is trying to flow back toward the shack on the shield's outside surface. Hence, measurement or knowledge of the balun transformer's frequency performance is imperative for knowing the antenna system operational conditions, especially on a multi-band antenna system. Utilizing the proper mix # of the ferrite cores plays a large part in the frequency range determination of both the ferrite based balun and choke.

With this, I think I have increased my understanding of chokes and baluns. I can now re-read Sevick's books on TLT's and Baluns, with a better basic understanding of what I really need. I always find it best to have a reason for reading a book other than just reading to gain knowledge. I find it best to be investigating an issue and digging for the answer. Hopefully now, I won't have to dig too deep to further learn something old.

References: Transmission Line Transformers -- Jerry Sevick, W2FMI

Building and Using Baluns and Ununs -- Jerry Sevick, W2FMI

Baluns: What They Do and How They Do It -- Roy Lewallen, W7EL

Be inquisitive. Enjoy your hobby – 73...Rick

# The Feed Point

Getting to know fellow members of BVARC

By Bill Cordell, W5VOM

I was 14 and I had failed the novice code test for the fifth time, when then Houston-area FCC chief of engineering Allen Cantrell gave me a quarter and told me to go get a Coke. I did and with all others gone from their testing at the Houston FCC office, I returned to Mr. Cantrell where he sat me down and said that I was going to pass the code test. He turned on the old tape player and told me to start copying. With that command, he left and went into his office. When he came back, he examined my work sheet and exclaimed that I had passed. He then laid down a magazine at an opened page and said start sending what's on that page, and he went back to his office. I was still very nervous but sent a page and a half. As I was sending, he leaned out the door of his office and said, "you missed that hyphen." I had no idea that he was listening. He returned and told me that I had passed the sending part.

The next challenges were the written Novice and Technician tests and I missed only one question on each. I was finally a novice and technician-licensed ham having the call WN5KXG and WA5KXG. I will never forget Mr. Cantrell and his kindness. This is how I started in Amateur radio.

With a tech license, I worked 6M for many years and enjoyed the massive openings in the 60's. I finally got my general and moved to HF. I had a lot of fun in the low bands, but college, work and family took their toll, and I received an Electrical Engineering degree and became a Registered Professional Engineer in the State of Texas.

I started work at a pipeline company, and subsequently worked in broadcasting for several years as an engineer. With some experience under my belt, I then decided to start an engineering company of my own. Working in the broadcasting industry, I constructed over 70 AM, FM and TV stations, and built more than four 1,000 ft. broadcast towers and two 2,000 ft. master FM tower facilities.

When working with the Harris County Office of Emergency Management, I focused on the new concept of "radio repeaters," now a main stay of mobile amateur service. I owned several repeaters on 2M, 440MHz and 1.2 GHz and I still have several repeaters on 440, analog and DMR.

I eventually moved to Richmond where I have a nice tower and beam and have been active on all HF bands – both SSB and digital modes, (as you already know, CW is not my best suit). Like DMR, digital modes are interesting, and they keep the hobby moving forward in technology. That appeals to my engineering instincts. Hopefully new digital strides in amateur radio stimulate the interest of newcomers to the hobby.

**Editor's note:** As you might expect, Bill did not mention his generosity and tireless work on behalf of BVARC, especially his engineering and setup work for BVARC's multi-operator Field Day events, as well as his efforts as a mentor (Elmer) to new hams, and sometimes for old hams as well.



## BVARC Rag Chew Net

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

12/22/21, K5LKJ (NCS), W5VOM, K5LJ, WW5PA/5, W5TKZ, W5ALW, KI5HOC, W5RH, K55PHA, AA5OA (Percy, AR), KG5ICR (T), W5SV. (13 Check-Ins). Solar Cycle 25: SFI = 140, SN = 147, A = 12, K = 3/Band Rpt: Fair

12/29/21, K5LKJ (NCS), W5TKZ, W5VOM, K5PGF, KG5SBA (Lake Charles, LA), N5VCM, W2WF, W5TKZ, KI5HOC, K5LJ, KI5NPM, KG5FQX, W5ALW, W5MMQ, KF5LJZ (Clear Lake), AA5OA (Percy, AR), W5RH, W5SV, W5LIC. (18 Check-Ins). Solar Cycle 25: SFI = 112, SN = 107, A = 8, K = 2 / Band Rpt: Good

01/05/22, K5LKJ (NCS), W5VOM, W5TKZ, WW5PA/5 (M)(R), KI5OYC (Cypress), K5JPP, W5ALW, N5VCM, W5MMQ, K5TNL (Spring), KI5HOC, KF5PHA, KG5FQX, AB4BU, (Marianna, FL), KD5YOU. (15 Check-Ins) Solar Cycle 25: SFI = 84, SN = 12, A = 6, K = 2 / Band Rpt: Good

01/12/22, K5LKJ (NCS), W5TKZ, KE4DRF, KF5YYZ (Pearland), N5VCM, K5PGF, K5LJ, KI5HOC, K5IZO/5 (Jasper), W2WF (Katy), KG5ICR, K5JPP, K2MPP, KF5PHA, AB4BU (Marianna, FL), AA5OA (Percy, AR)(T), W5VOM. (17 Check-Ins). Solar Cycle 25: SFI = 99, SN = 51, A = 5, K = 1/Band Rpt: Fair

01/19/22, K5LKJ (NCS), K5TNL, W5MWJ (Rosharon), K5LJ, W5RH, N5VCM, KG5ICR, KG5OZ (Wimberly), KI5HOC, AA0ST (Dickinson), AA5OA (Percy, AR)(T). (11 Check-Ins).  
Solar Cycle 25: SFI = 116, SN = 59, A = 18, K = 2 /Band Rpt: Fair

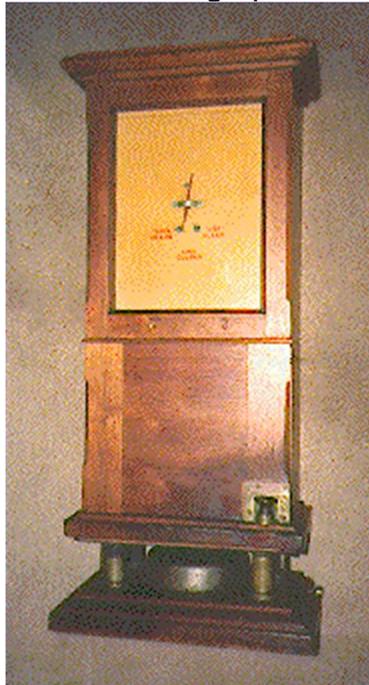
(M) = mobile (P) = Portable (R) = Relay (RCS) = remote controlled station (T) = telephone check-in

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



"Pre Morse Telegraph Device"



Prior to Morse's 1844 demonstrations, the British had been using "Needle telegraph" instruments with sensitive needle galvanometer indicators to signal railroad track conditions and to send messages from one post office to another. The three positions of the needle are labeled: TRAIN ON LINE/LINE CLOSED/LINE CLEAR.

# Cutting Through the Static

## Food for Thought

It is always a pleasure to see new hams passing their tests and joining or expanding their involvement in the world's greatest hobby.

But you may have a hard time interesting many new people in a hobby with a name like "Ham Radio." The very name Ham Radio conjures up images of a solitary soul wearing old fashioned headphones in an isolated space, huddled over a big box using a straight key. Everyone should at least realize that that in many instances these days it's a person in an isolated space huddled over a very SMALL box with a computer attached, Hi Hi.

Even with a more modern image in mind, the phrase "ham radio," to the outsider, brings to mind a small activity that could be replaced by a smart phone, an attitude that shuts down the conversation for an amateur radio operator trying to sell the hobby to a non-ham.

"Ham Radio" and "Amateur Radio" as descriptive phrases truly fail to portray the nature of our hobby to the world. And that said, I think it may be time for an overhaul of our most basic nomenclature.

Hams use radio to communicate in various ways with like-minded enthusiasts around the world. And part of the magic is in the phrase "various ways." It's not just Single Side Band or CW in their glorious simplicity, but it's repeaters and dedicated ham satellites, it's signals bounced off the moon or a swarm of meteors. It's television, email via radio (for when the internet goes belly up,) and it's weak signal connections that work when most other coms are kaput. There are also subcategories of activities under each of the aforementioned modes. And our involvement in these activities connects us to knowledge of ancillary technologies that help us to innovate, improvise and build upon the accumulated knowledge of a hobby that has been around for over a hundred years, engaged in public service all the while and repeatedly blazing new technological pathways.

Whereas much of what hams do are solitary pursuits, the hobby brings people together in social and fraternal ways that are otherwise lacking in most of our lives. Fewer and fewer people are involved with a church or synagogue. There aren't a lot of Elks or Moose Clubs anymore. While there are still Masons and Shriners who do a lot of good stuff, that world doesn't feel very accessible to most of us.

On the other hand, ham radio has been uniting men, and now women, for decades in club activities that are often as much social as they are science, technology, engineering and math. Amateur radio club activity unites us in positive ways, promoting learning, but also friendship. On top of all that, our hobby unites enthusiasts around the world as international friends.

So that is the basis of my argument for what might lead to a national "congress" of radio amateurs and later an international convention to work on new ways to offer up our hobby as an opportunity for others to take part.

"Ham Radio" is a much-loved name, but it conveys a very narrow understanding of what we do and who we are. So maybe we need a new name and a new imaging campaign? Or perhaps it just means we should do more to call attention to what we do. There are a lot of really smart people in our international fraternity, and I don't see how we go wrong by expanding the public's perception of ham radio and thereby attracting more people to our magnificent hobby.



**MINUTES**  
**Board of Directors Meeting**  
**Brazos Valley Amateur Radio Club**  
January 8, 2022 9:00 AM  
Via Videoconference

Members Present:

Mike Hardwick N5VCX (President)	Anthony Morones (2 yr at large director)	John Chauvin K5IZO (Parliamentarian)
Jimmy Vance NA5D (Vice President)	Jeff Greer W5JEF (Cor. Secretary)	Rick Hiller W5RH
David Ely N5EKW (Treasurer)	Scott Medbury KD5FBA (2 yr at large director)	

Recorded by Mark McGrath N5VCM Recording Secretary

1. Call to Order: The President called the meeting to order at 9:11 AM.
2. Establishment of a Quorum: A business quorum of Board Members was established.
3. Club President's Opening Statement: The President thanked those in attendance for taking the time to join the meeting.
4. Approval of Agenda: Agenda approved:
5. Emergency business: None.
6. Approval of Minutes: Minutes approved as submitted.
7. Approval of Treasurer's Report: Approved as presented.
8. Corresponding Secretary: Mailbox to be checked.
9. Old Business:
  - Warehouse space shut down.
  - Upcoming general membership meetings - January – QRP. February – George Observatory.
  - Possible future field trips.
10. New Business:
  - Greater Houston Hamfest 2022 cancelled. Greater Houston Tailgate 2022 on for April 16.
  - Possible new general membership meeting site.
11. Next BoD Meeting Date: February 5, 2022.
12. Adjournment: Meeting adjourned 10:18 AM.



## 2022 Officers:

President (2022-2023)  
Michael Hardwick, N5VCX  
[n5vcx@att.net](mailto:n5vcx@att.net)

Vice President (2021-2022)  
Jimmy Vance, NA5D

Recording Secretary (2022-20213)  
Mark McGrath -- N5VCM  
[mark@mcgrath-co.com](mailto:mark@mcgrath-co.com)

Corresponding Secretary (2021-2022)  
Jeff Greer, W5JEF  
[greerjw@hotmail.com](mailto:greerjw@hotmail.com)

Treasurer (2021-2022)  
David Ely, N5EKW  
[Davidely@prodigy.net](mailto:Davidely@prodigy.net)

2 Year At-Large Board Member A: (2022-2023)  
Anthony Morones, W5LIC

2 Year At-Large Board Member B: (2021-2022)  
Scott Medbury KD5FBA  
[smedbury@windstream.net](mailto:smedbury@windstream.net)

1 Year At Large (2022)  
Sheree Horton, WM5N  
[sher5456@gmail.com](mailto:sher5456@gmail.com)

### Regularly Scheduled Club Happenings:

#### General Meeting

Second Thursday each month, 7:30 PM  
Imperial Park Sugarland Recreation Center at  
234 Matlage Way, Sugar Land TX, 77478  
Due to COVID-19, as this goes to press, the meeting will be held  
online at 7:00PM. Check [www.BVARC.org](http://www.BVARC.org) for more current info.

#### Board of Directors Meeting

The Saturday before the 2<sup>nd</sup> Thursday, 9:00 AM  
Bayland Park Community Center  
Bayland Park, 6400 Bissonnet, Houston.  
Due to COVID-19, as this goes to press, the meeting will be held  
online. Check [www.BVARC.org](http://www.BVARC.org) for more current info.

#### Volunteer Examiner Program

The monthly ham testing session takes place on the same day and  
location as the BOD Meeting, but at 10:30 AM. However, please  
check the BVARC website for any last minute changes or updates.  
The meeting location is open, however please check the  
[www.BVARC.org](http://www.BVARC.org) for updates.

#### Rag Chew Net

3910 KHz +/-3KHz Wednesdays  
at 7:00 p.m.

#### Public Service Net

Monday night on 146.94 (167.9) at 8:00 PM

#### SPECIAL NETS during these COVID-19 times:

A breakfast net is held on Saturday mornings and a "Stir Crazy" net  
is held each weekday at noon. Check [www.BVARC.org](http://www.BVARC.org) for current  
info.

There is also a Simplex Net on 2M, however, this info is not available  
to the Editor at press time. Once provided, it will be put in the next  
edition of the BEACON.



### **Advertising in the BVARC Newsletter**

Rates are as follows; \$25 per monthly for ½ page, \$125 for six months  
and \$250 for one year. The rates for a full page are as follows; \$50 per  
month, \$250 for six months and \$500 for the year.



### **BVARC EATING SCHEDULE**

**Most of these events have resumed while complying to  
the Social Distancing and Mask requirements. Check  
with the respective entity to see the actual status.**

#### SATURDAY MORNING BREAKFAST

IHOP, 7:00a.m., SW Freeway inbound service road,  
near Kirkwood.

#### OTHER HAM GROUPS:

##### WEDNESDAY LUNCH BUNCH

This group has resumed meeting weekly at Luby's  
Cafeteria, W. Airport & FM-1092 (Murphy Rd). 11AM.

##### WEDNESDAYS – AMSAT & QRP GROUP

This too is not available at press time. If anyone has  
information on this, please let the Editor know.



### **Hamfests**

(typically within 200 miles of Houston)

#### **02/26/2022 - Orange Hamfest 2022**

**Location:** Orange, TX

**Type:** ARRL Hamfest

**Sponsor:** Orange ARC, Jefferson County ARC and  
Beaumont ARC

**Website:** [https://www.qsl.net/w5nd/index\\_files/HAMFEST  
T%20INFO/hamfest%20info](https://www.qsl.net/w5nd/index_files/HAMFEST%20INFO/hamfest%20info).

#### **03/04/2022 – 03/04/2022**

#### **Greater Houston Hamfest**

**Cancelled See Swapmeet below**

#### **04/16/2022**

#### **Greater Houston Tailgate or the GHT.**

**Location:** Duhacsek Park

**Sponsor:** Brazos Valley Amateur Radio Club

**Website:** [www.bvarc.org](http://www.bvarc.org)

7 am to 3 pm.

#### **06/17/2022 - 06/18/2022**

#### **Radio Fiesta**

**Location:** Schertz, TX

**Type:** ARRL Hamfest

**Sponsor:** San Antonio Radio Club

**Website:** <https://w5sc.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](http://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 \$25.00 per year, with student dues \$10.00 per year, additional family members \$5.00 per member per year.

Club meetings are temporarily virtual via ZOOM on the 2<sup>nd</sup> Thursday of each month at 7:00 p.m. If you have signed up for the reflector, you will receive notice and the attendance password, etc. It will also be on the website (above) a few days beforehand.

**BVARC** amateur radio testing has resumed. It takes place typically on the Saturday before the 2<sup>nd</sup> Thursday of each month at 10:30 AM. Location: Bayland Park Community Center, 6400 Bissonnet, Houston, 77074. BEFORE GOING, because of COVID and scheduling conflicts, please check the BVARC website for any changes. Masks and social distancing are required.

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

During COVID-19 a "Stir Crazy Net" is also held weekdays at 12 Noon on the same frequency as above.

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

To obtain information about joining **BVARC** or its activities, see the BVARC website: [www.bvarc.org](http://www.bvarc.org)

Other contacts include:

President:, Mike Hardwick, N5VCX, [n5vcx@att.net](mailto:n5vcx@att.net)

Newsletter Editor, John Chauvin, K5IZO, [k5izo@yahoo.com](mailto:k5izo@yahoo.com)

Newsletter Printing, Assembly and Mailing: Daphne Rawlinson, K5VQY, [daphne\\_rawlinson@hotmail.com](mailto:daphne_rawlinson@hotmail.com).

Jeff Greer, W5JEF, [greerjw@hotmail.com](mailto:greerjw@hotmail.com), Mark Brantana, N5PRD, [N5PRD@yahoo.com](mailto:N5PRD@yahoo.com)

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

FIRST CLASS POSTAGE

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February 10, 2022 – General Membership Meeting



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