

# **BVARC BEACON**

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



## FEBUARY 2021

## VOLUME 45 ISSUE 2

## **BVARC FEBUARY GENERAL MEMBERSHIP MEETING**

February General Meeting will be a Zoom Meeting on February 11<sup>th</sup> at 7:00PM (0100 UTC) with A presentation by W6SX, Hank Garretson, with the Northern California Contest Club, one of the premier clubs with a primer on Contesting and making it fun while following the rules. With all of the QSO Parties and other contests that will be held throughout the year, his presentation should have something for the new as well as seasoned contester. It makes no difference if you are a Big Gun, Little Pistol, Newby or Old Hand there should be something of interest for all.



## **BVARC January meeting wrap-up**

As this issue of the BEACON goes to press, this information is not available. Look for it to resume next month.



## January VE - FCC TESTING SESSIONS RESULTS

Bayland Community Center is open, though they still have a restricted headcount, limiting the number of people in the test room. For Saturday, December 5th, we had 8 candidates and conducted 10 tests.

<u>New Licensees:</u> Kiran R. (**General**) Braxton M. (Technician) Cherian C. (Technician)

<u>Upgrades:</u> Rahman S. KI5MKU (Extra) Scott D. KI5FHZ (Extra)

Congratulations to all! A GREAT, **GREAT** thank you to the VEs in attendance – K5GOL, KJ5EMP, W5GX, and K5LJ.

The next BVARC test session is Saturday February 6th, with two sessions at 9:00 and 10:30am.

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 <u>www.bvarc.org/home/amateur-license/</u>

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

## **The Prez Says**

The new year is moving fast with February already here. The start of the year went well for a few days and then the unbelievable happened in Washington D.C. Whatever your political belief, this was truly a horrible scar on the US and hopefully the country will soon put it behind us. I would much rather write something about the club than what happened on January 6<sup>th</sup>.

About the club though, five years ago, BVARC had over 80 people turn-out for the club's annual banquet making it the largest ever. Hopefully we can return to the annual banquets in 2022.

I want to thank Mark Janzer, K5MGJ, for doing a great program on Museum Ships Weekend and the shops that are represented in the Houston area. One item that Mark missed was that the USS Steward was built by Brown Ship Building, the forerunner of the Houston construction company Brown and Root. Thanks again Mark for a great presentation.

Normally at this time, planning would be hot and heavy for the Greater Houston HamFest. Unfortunately, due to the COVID-19 virus, there will be no HamFest in March. At one point with the release of the vaccine, it appeared that it we could reschedule the event sometime in June or July. This was a favorable idea now that the Plano HamCom has closed its door permanently. Fort Bend county fairgrounds had no reservation dates for June or July. A search around Houston for another location and one was found near Hwy 290. Unfortunately, the price was in \$20,000 range which is \$15,000 more than we pay for the Fairgrounds. Now if someone wants to donate \$20K to the club, we can still have a hamfest. Currently we are planning to have GHHF on March 4 & 5, 2022. More to follow later this year.

Coming up for the February ZOOM meeting will be a primer on Contesting. Check the web site and the BVARC reflector for more information as it gets closer to the date.

BVARC had its first monthly training session on January 23. We had three people come by to learn how to program their hand- held radios. Rick Broussard, N5KJN, went over the finer points on programming various radios. If you are interested in having a training session, let the BOD know.

Coming up in next few months will be a Sell, Swap and Trade Net on the 146.94 repeater. If you are interested in helping as NET control, contact me and let me know.

We will also be having a fund-raising drive for the 146.94 repeater. It has been nearly 10 years since there was a major fund drive for the repeater group and there are several things that the repeater is needing. Stay tuned to the newsletter and website for more information.

One final note, on January 30<sup>th</sup>, 2016, BVARC lost one of their long-time members, Bud King, K5CEK. Bud was one of the original members of BVARC and was one of the guiding voices for the club. Bud was extremely active in the club and was the guiding person on moving BVARC from the Missouri City Fire Station to the Sugar Land Community Center where we held meetings for over 25 years.

73*,* N5VCX

## January 23<sup>rd</sup> – First 2021 Monthly Training Session at Bayland Community Center

"Programming your HT" conducted by Rick Broussard, N5KJN was hosted by BVARC at the Bayland Community Center this past Saturday January 23<sup>rd</sup>. This was to show new hams points on programming handhelds, whether analog or digital. Participants brought the handheld radio (HT), that they wanted to program, along with a programming cable and a laptop computer with CHIRP programming software loaded on it.

BVARC will continue to conduct training, or activity, sessions through the year on the third saturday of the month. The subject matter is open for suggestions.

Contact Mark Janzer, K5MGJ at (<u>k5mgj@yahoo.com</u>) to make a suggestion and/or to pre-register.



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

12/23/20, K5LKJ (NCS), K2MPP, W5GDM (Slidell, LA), W5TKZ, W5VOM, K5LJ, WW5PA, KI5HOC, KF5PHA, W5RH, WA5ANF (T), KE5CDE (Belton), KD4OFN (Tiline, KY), WD5L (T). (14 Check-Ins) Solar Cycle 25:SFI = 87, SN = 11, A = 12,K = 2/Band Rpt:Good

12/30/20, K5LKJ (NCS), K2MPP, W5TKZ, AA0ST (Dickinson), W5RH, KG5LJZ (T), KG5BBF (T), WA5ANF (T). (9 Check-Ins) Solar Cycle 25:SFI = 84, SN = 26, A = 7, K = 2/Band Rpt: Good

01/06/21, K5LKJ (NCS), K5JPP, K2MPP, N5VCM, K5LJ, W5TKZ, N5VCX, KE4DRF, W5VOM, KJ5Y (RCS)(W5FMH (CLUB))(Angleton), AA5OA, Pearcy, AR (T), W5TOM, W5JEF, WA5ALW, K5TNL, KC5NNK (Pearl River, LA), W5RH, W5DRB (Brazoria), WD5L (T), KL7AX (Katy), K5HPD, KF5YYZ (Pearland), KI5HOC, AA0ST (Dickinson), KG5BBF (T), W1BG (Katy), KF5PHA. (27 Check-Ins) / Band Rpt: Good Solar Cycle 25: SFI = 75, SN = 0, A = 16, K = 1

(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 hear what others are doing and share your own experiences. Come join in the conversation each Wednesday evening. Regards. John K5LKJ

# The Radio Holel – Before the Nano VNA....

By Rick Hiller W5RH

Just think. We now have a very small handheld device that we can plug into our antenna systems and it will tell us SWR, Z and a few other S Parameters all for the cost of about \$50. Holy Toledo, do you realize how many pieces of electro-mechanical test equipment you would have needed 20 or 30 years ago to do the same thing? Yep, lots of devices and lots of \$. We are very lucky indeed. The **Nano VNA** has many pluses (and a few caveats), but in the long run all worth the \$50 and the time it took to understand how it works and what it was telling us. If I can have your attention for a few minutes, I will take you on a short trip back to the thrilling days of yester-year, when men were men and hams were hams with little in the way of antenna instrumentation. It started simple, but it always got better.

**<u>Field Strength meter</u>** – very simple – a short antenna feeding a diode and a meter circuit to show relative signal strength.

**<u>RF Ammeter</u>** -- back in the 30's, 40's and 50's Hams were using open wire line (OWL) and had little concern for the SWR on the line because we were using tube radios with adjustable networks on the exciter outputs. At best we would measure the RF Amperes occurring on the line to maximize output.

<u>Antenna Bridge</u> – required RF input from an exciter connected thru the bridge to the antenna. Balancing the bridge gave you the antenna system composite Z at the measurement point.

<u>GDO – Grid Dip Oscillator</u>. At a resonant frequency it provides a "dip" on its' analog meter. Of course, this dip would also occur at the resonant frequencies of all of the harmonics of that particular dipole, if tuned to those frequencies.

<u>SWR bridge</u> – many versions. From full manual to fully automatic, digital and cross needle versions. Warren Breune, of Collins Radio, invented the most popular configuration of sampling circuit that was used to drive manual and automatic meters.

**Noise Bridge** – used a wide band diode "noise" as a source. A dip in audio receiver hiss was the goal. Antenna impedance was read off the calibrated, tuning pointer scale.

**MFJ Antenna analyzer(s)** – a wide range of meters from a simple bridge to the popular MFJ 259/269 series. Showing SWR and R +-j impedance in numerical value across a tunable range of frequencies..

**<u>Rig Expert(s)</u>** and the SARK – Hand held -- Easy to understand graphical display of the SWR sweep as defined in the menu interface. Can be linked to a PC for plot generation

<u>**Telepost LP-100A Watt Meter**</u> is essentially a 50mW to 5 KW OIB (Operating Impedance Bridge) – At all power levels it shows power out, SWR and Return Loss. Also can show Impedance R +-j at power thus avoiding high RF environment interference. Links to a PC for plot generation.

Have a look at the BVARC Tech Page <u>www.bvarc.org/techpage</u> to get the full article with a few pictures and further explanations.

#### The Dark Side of Ham Radio May the Force Be With You!



Whang! Another swing with my brand new made in China three-pound sledgehammer and it's about a foot down. I'm trying to get my ground rod in the ground; eight feet of stubborn, heavy cantankerous metal. I'm sweating like a galley slave. This is Houston and it is about 4000% humidity. I am losing more water than the spillway at Hoover Dam.

I've been hammering for about an hour and the hard packed clay soil is winning. So is the ground rod. If I don't hit it squarely dead center the thing whips wildly back and forth. You must grab it with your free hand to keep it from knocking out a tooth!

WHANG! Another blast with my new sledgehammer. Only this time, I hit it off center, the hammer goes flying wildly through the air. I duck. Only to contact the ground rod as it recoils back at me. There s a big welt on my right ear which is swelling to twice its size.

OK, giving up on the hammer. Time to try the waterboarding approach. First a trip to the hardware store for a length of copper pipe

and a hose clamp. I don't really need a hose clamp. I have a dozen at home but on the off chance I need one this size I buy some assorted clamps. I used to work for NASA and learned their procurement slogan long ago. "Always buy two when one will do."



Back to the house. Cut off the brand-new brass fitting from the new garden hose I bought last week. ARGHH! Slip the pipe into the open hose end, slip on the clamp. I am ready. The water stream flies back in my face. I scream several expletives, that I haven't used since high school. I remember to tighten the clamp, jam it into the hole, turn on the water. I am drowning in muddy water. The clay soil gives up grudgingly. I am done. I need a shower and a beer.

Who said a ground rod must be eight feet long? Maybe it's better to have eight one-foot rods instead! Why does it have to go eight feet down? Wouldn't eight feet horizontally be just as good? Cover it with some dirt and let the grass grow over it. Just how far down do you have to go before you hit ground? After all, I am standing on it right now!



It's Saturday afternoon. 3 o'clock. I need a couple parts to finish this project. Forget about the fact that I did not check the parts against the project's part list before I started. Who does that? Whatever it is, if it involves as little as two parts I need to solder or screw together it is likely that I will not have one of them or the solder or screw. Or one or both is the wrong size, or I am running low on the type of solder or glue.

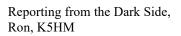
The number of unnecessary trips to the store will be directly proportional to the square of the number of parts needed. I better make sure I have plenty of gas in the car. I know from experience that I will make at least one

unnecessary round trip.

So off to Best Buy or Ace Hardware or EPO. No more Radio Shack! Oh well, there is still Microcenter but it's at least an hour's round trip. Got the wrong size? Rats! Didn't write it down before I left for the store.

That's how it begins. I find the part I need, hoping that I guessed the right size as I didn't write it down. Better include a few extra parts in case I guessed wrong. Let's see was the 10 Megohms or twenty; half watt or one watt? In addition, I pick up three or four kinds of glue or a five-pound roll of solder. I don't want to get back with the wrong kind of glue ot solder. Maybe I need that new variable heat solder station with the adjustable LED swivel light too. HMMM. \$90 later, I discover I left the credit card at home.

This is the part of Amateur Radio they don't talk about, The Dark Side. You won't find the Dark Side mentioned in the ARRL Handbook. Where is The Force when you really need it?





## **Cutting Through the Static**

If you're new to ham radio and wondering how to get started with your Technician License, here's how I got going. At the recommendation of another new ham who was just as green as I was, I purchased a Baofang HT (Handy Talkie). You can get a nice kit from Amazon for around 50 bucks.



Now keep in mind, these HT's are looked down on by more experienced hams. But I'm telling you, you can learn a lot and have a lot of fun with one, like I did when I first got my license. The experience I had with my little Baofeng gave me a chance to get on the air without spending a lot of money. You can talk through any number of repeaters to other hams in the Houston area, and if you tell them you're new to the hobby, they'll try to answer all your questions.

You can download programming software called Chirp. It's free at Chirp.danplanet.com and you'll find tutorial videos on YouTube that'll help you get your new HT all setup to communicate through Houston repeaters.

One of my favorite experiences with my Baofeng was to get on the Alaska Morning Net on the 443.300 repeater. If you do this, Just listen for a while for the etiquette and style and then politely jump in. I remember how thrilled I was to talk to a guy in London who was taking his morning walk through a park. It's

pretty neat to talk to folks in Alaska too. And you can jump right in to the BVARC Stir Crazy net Mon-Fri at noon on 146.940

I built my first antenna in an effort to make my little HT connect more reliably to Houston repeaters. You'll need a soldering iron, solder and a few welding rods fastened by screws to a chassis-mount so-239 uhf coaxial socket. Again, there are YouTube videos available that'll give you everything you need to know.

If you are new to ham radio, you'll learn a lot by engaging in this way, and you'll begin to get into the spirit of the world's greatest DIY hobby. In addition, it'll likely whet your appetite to study for a higher class of license and the HF rights that go with that. I know it did that for me.

And now a message for our sponsor -- The Brazos Valley Amateur Radio Club. What I experienced as a new ham several years ago was a sense of confusion. Where do I start? My stated purpose for writing this monthly column is to provide ham radio advice from experts for those feeling lost. That said, I have advice for those experts.

BVARC has made some strides in mentoring, but we need to do more. In the latest issue of QST, the official publication of the ARRL, there's an article entitled "New Ham Kit. A Way for Clubs to Help Get New Hams on the Air," a project of the East Greenbush Amateur Radio Association in New York. The article explains the contents of the kit (a set of documents) and specific suggestions on how any club can create its own kit. BVARC! Let's do this!

The kit provides "new hams with an overview of the equipment they'll need to get on the air, including a brief review of entry-level handheld transceiver radios," (see above). And this brings me to the ARRL. Please join! You might hear grumbling about our national organization, but I guarantee you can raise almost any subject among old time hams (OM) and you'll hear grumbling. Ignore it. It'll go away. If you decide to grumble about it yourself later on, that's up to you. The ARRL provides a king's wealth of information and services for hams. And when you join, you get a subscription to the aforementioned QST magazine.

The New Ham Kit is filled with starting level instructional information to help a newbie find their way and the originating club says the cost to the club is about a dollar per kit. Well worth it, when you think of all the new club members (new hams) who don't get any help and drop out of the hobby entirely.

Next suggest project? Organizing a stable of ham radio volunteer mentors (Elmers) from among BVARC members to answer an occasional phone call or email from a new guy or gal who needs a helping hand, or maybe even a little encouragement. I know we're all busy, but we're here to be in public service, so we ought to be willing to provide a little service to our fellow hams as well.

## The Feed Point BVARC Members, How We Got Here

John Whiteman – K5LKJ

We all get to ham radio in our own interesting ways. Mine started out in Tulsa, then growing up in the South Louisiana oilfields. When I was in the 3<sup>rd</sup> and 4<sup>th</sup> grades in Harvey, Louisiana, I became acquainted with a neighbor who lived about two doors down and was an amateur radio operator.

Michael La Fluor introduced me to ham radio. In 1960, I bought a Hallicrafters S38E shortwave receiver. There was an amateur named Otis on 40 meters AM and listening to him and others inspired me to build a Heathkit DX-20 transmitter (50 watts) and get a license. But alas, my family and I moved to Houston, where my attention was directed to school and the life of a teenager, finally graduating from Bellaire High School in 1962.

It was clear that my future would be centered on technical pursuits, and eventually business. I attended College at night and worked as a journeyman machinist, then as a purchasing agent for an oilfield equipment manufacturer. In 1964 I joined the Texas Air National Guard (147<sup>th</sup> Fighter Group) and went to tech school for aircraft hydraulics and pneumatics. I later cross-trained into aircraft mechanics and became a crew chief for the Corsair F-102.

And then the ham bug bit me again in 1970 and I bought a Hallicrafters SX-120 receiver and built a Hallicrafters DX-60B transmitter (90 watts) and got licensed once again with the help of an Elmer named Scotty (W5GPD). But career and family were to take precedence for quite some time. And yes, I let my license lapse again.

Then, in 1995 I met Wallace Mebane, KC5YEV (SK), a ham who lived in my own neighborhood. He was a member of BVARC and encouraged me to attend the meetings and get back into amateur radio. With the support and encouragement of various club members I was back in this wonderful hobby for good.

It is my own experience with the Brazos Valley Amateur Radio Club that has led me to encourage every ham or potential ham I meet to join a club. BVARC is just one of many ham clubs in the Houston area, and if you move away, you'll find amateur radio enthusiasts and clubs almost anywhere you go.

These days, I enjoy coordinating the Stir Crazy Net on the 146.940 repeater Monday through Friday, and as net control for the BVARC Wednesday night Rag Chew at 7 pm, on 3.910 MHz. Both of these pursuits keep me in touch with what's going on among active hams in Houston and what they're interested in. It also gives me a chance to learn from them while trying to inspire and motivate them to keep at it.

73, John Whiteman, K5LKJ

## **MINUTES** Board of Directors Meeting Brazos Valley Amateur Radio Club January 9, 2021 9:00 AM

Via Videoconference

## Members Present:

Mike Hardwick N5VCXMichael Monsour AC0TXRick Hit(President)(Quartermaster)large dJimmy Vance NA5D (ViceScott Medbury KD5FBA (2)JP PritePresident)yr at large director)Chris LDavid Ely N5EKWJeff Greer W5JEF (Cor.Mark Jac(Treasurer)Secretary)Recorded by Mark McGrath N5VCM Recording Secretary

Rick HillerW5RH(2 yr at large director) JP Pritchard K5JPP Chris Luppens KG5BBF Mark Janzer K5MGJ

- 1. <u>Call to Order</u>: The President called the meeting to order at 9:09 AM
- 2. Establishment of a Quorum: A business quorum of Board Members was established.
- 3. <u>Club President's Opening Statement</u>: The President thanked those in attendance for taking the time to join the meeting.
- 4. <u>Approval of Agenda</u>: The Board voted unanimously to approve the agenda as presented.
- 5. <u>Emergency Business</u>: No emergency business.
- 6. <u>Approval of Minutes</u> The Board voted unanimously to approve the minutes as presented.
- 7. <u>Approval of Treasurer's Report</u>: Approved. Noted establishment of savings account.
- 8. <u>Corresponding Secretary</u>: PO Box renewal in process.
- 9. <u>Old Business</u>:
  - Warehouse to be shut down.
  - Upcoming general membership meetings:
    - January: Museum Ships Program
    - February Contesting
  - President reminded all that Houston Hamfest 2021 has been cancelled. Discussed options for future event.
- 10. New Business:
  - March meeting No solid program yet. Possible topics discussed.
  - Possible membership drive discussed.
  - Promotion of virtual winter field discussed.
- 11. Next BoD Meeting Date: February 6, 2021
- 12. Adjournment: Meeting adjourned at 10:05 AM



## 2021 Officers:

President (2020-2021) Michael Hardwick, N5VCX <u>n5vcx@att.net</u>

Vice President (2021-2022) Jimmy Vance, NA5D

Recording Secretary (2020-2021) Mark McGrath -- N5VCM <u>mark@mcgrath-co.com</u>

Corresponding Secretary (2019-2020) Jeff Greer, W5JEF <u>greerjw@hotmail.com</u>

Treasurer (2021-2022) David Ely, N5EKW Davidely@prodigy.net

2 Year At-Large Board Member A: (2020-2021) Rick Hiller, W5RH <u>Rickhiller73@gmail.com</u>

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

1 Year At Large (2020) Sheree Horton, KF5LMJ <u>sher5456@gmail.com</u>

#### 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 7PM. Check www.BVARC.org for more current info.

#### Board of Directors Meeting

The Saturday before the 2<sup>nd</sup> Thursday, 9:00 AM (For Sept., check website) 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 <u>www.BVARC.org</u> 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 for updates.

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

<u>Public Service Net</u> 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 <u>www.BVARC.org</u> for current info.



#### 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. Masks and social distancing are required.

#### OTHER HAM GROUPS:

WEDNESDAYS – WEDNESDAY LUNCH BUNCH Due to COVID-19, this is currently not taking place. When it does, information will be posted in the BEACON, and sent to the BVARC Reflector.

#### WEDNESDAYS - AMSAT & QRP GROUP

PAPPAS BARBECUE. 11:30a.m., SW corner Westheimer & Gessner. Not meeting now, but some show up.



## Hamfests

(typically within 200 miles of Houston)

Hamfest info for the next few months. More information at: <u>http://www.arrl.org/hamfests.html#listing</u>

#### 03/06/2021 <u>Greater Houston Hamfest</u> Location: Rosenberg, TX CANCELLED

May 2021 Dayton Hamvention Xenia, OH CANCELLED

June 2021 <u>Ham-Com, Plano, TX</u> CANCELLED permanently

# **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 <u>www.bvarc.org</u>. 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

Other contacts include: President:, Mike Hardwick, N5VCX, <u>n5vcx@att.net</u> Newsletter Editor, John Chauvin, K5IZO, <u>k5izo@yahoo.com</u> Newsletter Printing, Assembly and Mailing: Daphne Rawlinson, K5VQY, <u>daphne rawlinson@hotmail.com</u>. Jeff Greer, W5JEF, <u>greerjw@hotmail.com</u>

## **VOLUME 45, ISSUE 2**

## BRAZOS VALLEY AMATEUR RADIO CLUB P.O. BOX 2997 SUGAR LAND, TX 77487-2997

ADDRESS SERVICE REQUESTED

February 11, BVARC General Membership Meeting

## **FEBRUARY 2021**

### FIRST CLASS POSTAGE

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