



BVARC BEACON



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

JANUARY 2020

VOLUME 44 ISSUE 1

January Annual Banquet and No General Membership Meeting

Because of the Annual Banquet in January, there is never a General Membership Meeting in January.

The BVARC Annual Banquet takes place on January 31. See the complete information inside this issue.



December Meeting Report – Homebrew Night

Thanks to Daphne and Kellie for the delicious cookies and wasel. The prize for the best home brewed project went to Paul Easter for his elaborate transmitter, made from many salvaged parts. Good work Paul, and the soldering was just fine.



The Prez Says

A new year is just a few days away and BVARC starts another new chapter. The club is hovering around 200 members but there is still so much to do for the club. We need to: has done so much over the years that it is becoming difficult on what to do next. A few ideas I have for the future are:

1. A membership drive would help the club in many ways. With new members, we have new ideas and that is a good thing. I think we should have a new member night in the near future to help increase the membership and the brain trust of the club. We now offer \$5 membership for people passing their license exam and that has added about 20 members.
2. The BVARC picnic needs to be started again. What more can you say to that!
3. Beside the annual membership meeting swap with TDXS, I think a general meeting road trip is needed. Maybe we all can meet at Mission control at NASA!

That's just a few ideas that should be looked at for the new year.

The BVARC banquet is only a few weeks away on Friday January 31st, 2020. We will be meeting the Bayland Community century this year so it should be easy for everyone to park and make it to the banquet. Tickets will be available on the BVARC web site and will be limited to 60 people. Get your ticket early since we need to have a head count by January 24th. Don't forget to recommend your candidate for the awards by January 20th. For more information on the awards, go to the BVARC website at <http://bvarc.org/home/awards-banquet/>

And the clock is ticking on the Greater Houston Hamfest. With less than 3 months to go, the work for the Hamfest is really gearing up. There are still a ton of things that need to be done to make the Hamfest successful so if you are interested in helping out, contact either Jimmy Vance, or myself or anyone on the BOD. There are several Hamfest meetings coming up so keep checking your e-mail.

As I mentioned last month, the club needs to look toward the future. The club still needs to bring in younger members to make the club survive. We do not want the club to end up like it was 15 years ago with only about 20 active members (the club had 85 members at that time but there were only 20 active ones). So, reach out in your neighborhoods, schools, churches and see who might be interested in becoming a ham. You might be surprised.

If you have ideas for programs for the general meetings, contact Jon Noxon, KF5TFJ. I know Jon would be glad to have fresh ideas for the club's program (I tried Jon).

Hope to see everyone at the banquet.

73, N5VCX



BVARC members give a Christmas Gift to the two primary waitresses at IHOP during the weekly Saturday Morning Breakfast.

The following is an excerpt from an e-mail sent by Tom Morton, W5TOM, to include in the newsletter.

Both Sandy and Martha received a signed card and \$145.00 as a Christmas present from the Saturday morning BVARC crew. That is a generous \$290 from us.

2019 BVARC Awards Banquet Menu

Pan Seared Catfish
or
Grilled Chicken Breast
Garlic Mashed Potatoes
Sautéed Green Beans
Garden Salad w/Mixed Greens
Ranch and Italian Salad Dressing
Rolls
Dessert
Iced Tea

Join us for an evening of fellowship and fun at the BVARC annual banquet. This year the banquet is being held at the Bayland Community Center, 6400 Bissonnet Street, Houston, 77074.

The banquet will be held from 6:30 pm to 9:00 pm. Dinner service will start at 7:15 pm and will be buffet style. Cost will be \$30 per club member and \$30 for one guest. For non-members it is \$40 dollars per person. Admission will be limited to 60 people. Tickets will be available on the BVARC web so get your tickets early. Due to regulations at the community center, there will be no alcohol service.

The banquet programs will begin at approximately 8:00 pm. The programs will be a guest speaker (a special surprise) and award presentation.

So, mark it on your calendar and come out to the BVARC annual banquet!



Mark your calendars!

We are going to have a 50s theme for the February BVARC General Membership Meeting. There will be great food, a couple of games and a "show and tell" table. So bring your antique HAM equipment or anything else you might like to share! See y'all then!

A reprint of the June 2016 Beacon – inspired by Pete, KD5QPX, SK.

The Radio Hotel – Antenna Efficiency

by Rick Hiller – W5RH

Pete, KD5QPX, and I were enjoying lunch at What-a-Burger while discussing various topics. One topic being his new copy of EZNEC 6.0 recently supplied by Ol' Saint Nick. Pete had been using another modeling program, but they went out of business. He needed an alternate modeling application and I had suggested EZNEC. At lunch, Pete asked the long time EZNEC user, me, where EZNEC displays the modeled Antenna Efficiency. I responded that EZNEC does not display it as a simple value. He then proceeded to show me that his older modeling program shows you a discrete "Calculated Antenna Efficiency" value. Nice capability. EZNEC does it a bit differently, but first.....

What is Antenna Efficiency? To plagiarize from the EZNEC User Manual—*"Antenna Efficiency is defined as the fraction of the applied power which is radiated. The remainder of the applied power is lost as heat in lossy parts of the antenna structure. System efficiency can also include the effect of ground, feedline, and matching network loss."* Our desire is to have all of the power put into the antenna system to be radiated. If any power is lost due to heat or coupling with the surrounding environment, you want that power loss to be minimal.

Efficiency is simply a ratio involving Power Radiated and Power Not Radiated. Power Radiated is what is actually launched into free space and Power Not Radiated is that power lost due to the antenna wire resistance (heat), lost thru a counterpoise or the ground itself used for a verticals return currents (actual earth or a car body if mobile) and other environmental type losses like coupling to your house siding, etc. From a practical standpoint, do everything you can to reduce the amount of Power Not Radiated, thus improving the efficiency. Use quality antenna wire, use the appropriate coax for your power level and frequency, use good quality insulators, ensure good connections on the TL/coax to the antenna and, lastly, locate your antenna as much in the clear, away from surrounding objects, as you are able. If you are using a vertical, the ground/counterpoise side of the antenna system is VERY important. Maximize your wire on the ground. Recent studies point to "on ground" (or even elevated) insulated wire radials being the preferred deployment. A poor vertical ground system reduces the antenna efficiency, thus reducing the strength of the radiated field, but, note, not the shape of the far field antenna system generated pattern.

You can measure antenna efficiency, albeit difficult, and one of the current ways to measure it is with a Wheeler Cap. However, doing so at 7 MHz, or any HF frequency would be a task. Why? Google: "Wheeler Cap" to read about it. "Antenna under Glass" might be a layman's description. So it might be best to stick with the modeling estimates.

Back to EZNEC: the way to model for efficiency within EZNEC is in 5 steps: 1) set all of the loss type parameters to zero (i.e. wire loss, ground type, etc.); 2) run the model calculation and see the results on the 2D pattern/gain plot. Then, 3) set all the loss parameters to their normal lossy settings; 4) run the model calculation again; and, finally, 5) compare the 2D pattern/gain results of this second run with the first run. Note the dB difference of the radiation pattern maximum gain between the two runs. This will give you a reasonable indication of efficiency. RF Café has a chart noting dB loss versus efficiency – go to:

<http://www.rfcafe.com/references/radio-craft/decibel-level-gain-may-1936-radio-craft.htm>

Another way to look at efficiency within EZNEC is to note the Average Gain Figure, but I will leave you to research that on your own, as it requires a further understanding of the use of EZNEC, which requires much more room to explain than I have been allocated by Sr. Editor--IZO. A full explanation of both of these methods of efficiency modeling can be found in the EZNEC manual, available on line.

GL ES 73 DE W5RH Enjoy your hobby.

Next time....Building Antenna Elements – Working with Aluminum



BVARC Monday Night Public Service Net Updates

As this issue goes to press, this article is not available. Look for it next month to include this month's info.

December VE - FCC TESTING SESSION RESULTS

For the Saturday's December 7th test session: We had 8 candidates.

New Licensees:

Mechura, J. (General)
Town, R. (Technician)
Brown, A. (Technician)
McCay, D. (Technician)
Rodriquez, J. (Technician)

Upgrades

KI5HAO (Extra)
K5LOC (General)
WA4RSZ (Extra)

Congratulations to all!

A great thank you to the VEs in attendance – K5LJ, K5GOL, K5IZO, N5EKW and N5DTT. Also, a thank you to Franz Lagerman (k3FL) for spearheading the session in my absence.

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/

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



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Cutting Through the Static – A Column for Newbies

JP Pritchard, K5JPP

Refining My Ham Shack

I'm taking a different approach – taking on an issue that's common to both seasoned hams and newbies. Rather than exploring the thousands of ways to build or rebuild a ham shack, I'm taking a more self-indulgent path by laying out my own plan to improve my amateur radio space, in hopes that you'll find something useful in it.

I've been a ham for a few short years now and I am acutely aware of the inadequacies of my shack, or as my YL calls it, my "ham cave." The 11'x11' room started out as my "office." The desktop is a 72"x30" folding banquet table (with a pressed wood top.)

The room morphed into a ham shack when I purchased my first transceiver. Since then, the tabletop has also accommodated a collection of additional radio gear, plus three computer monitors.

Trouble is, with all that gear aboard, as well as three 11"x7"x4" concrete blocks supporting a pine board shelf, the table is seriously heavy and I can't move it to get behind it. As a result, any modification means gear is going to have to be disconnected and pulled. It's really a pain.

Needless to say, there's also a messy nest of wires, cables, wall wart power supplies and usb multi-port adapters on the floor beneath the desk.

So, using suggestions from BVARC pals W5RH Rick, W5VOM Bill and WW5PA Paul, here's my plan to make it better.

It all begins by removing everything from the desk, while labeling all wires and cables so I can put it all back together properly.

I'll attach a 36" wire cable tray at the back edge of the table top, and above that'll I'll use plastic standoffs to mount a 6 foot length of copper pipe along the edge of the table top above the cable tray. And finally, I will position a new six-foot-long pine board shelf, supported by three wooden uprights on the desktop.

The cable tray will facilitate a much neater collection of cables and wires and the copper pipe will serve as a common connection point for a ground wire that goes outside to the ground stake. The new shelf will provide additional surface space to accommodate components and computer monitors.

This is a project I can really get behind (HI HI), so the table will be positioned two feet from a parallel wall to allow for easy backside access. Of course, other furniture will also have to be repositioned in the room. There's a rack for computers and a printer, a bookcase and a small desk that I hope will provide enough work surface for electronic projects.

I Plan (hope) to have this project finished by the end of February, and I will post an update in my column in the March Beacon, so please stay tuned...



K5JPP desk as it is now. I'll publish a photo of the new version in an update. Please let me know if you have suggestions or additional ideas at K5JPP@arrl.net



BVARC Rag Chew Net

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

11/27/19, K5LKJ (NCS), W5VOM, WW5PA (M), K5IZO, W1BG (Katy), W5TKZ, N5VCX, K2MPP, WA5CYI, KB3YHR/5 (Sugar Land), KD5CDM, KD5PPX, AA5OA (Fort Smith, AR), WD5CBM, K5LJ, KF5ONT, KG5VBR/5 (Willis), (18 Check-Ins) Solar Cycle 24: SFI = 71, SN = 0, A = 11, K = 1 / Band Rpt: Fair

12/04/19, K5LKJ (NCS), K5IZO, N5EKW (Katy), K5LJ, WW5PA, W5RH, W5VOM, KB4KTF (Austin), W1BG (Katy). (9 Check-Ins) Solar Cycle 24: SFI = 69, SN = 0, A = 4, K = 1 / Band Rpt: Fair

12/11/19, K5LKJ (NCS), W5VOM, K5LJ, K2MPP, K5JPP, W1BG (Katy)(R), KN5USO (FL), KJ5Y (RCS)(Angleton). (8 Check-Ins) Solar Cycle 24: SFI = 71, SN = 0, A = 4, K = 0 / Band Rpt: Fair to Poor

12/18/19, K5LKJ (NCS), K5LJ, WW5PA (M), AA5OA (Fort Smith, AR), AA0ST (Dickinson), W5VOM (R). (13 Check-Ins) Solar Cycle 24: SFI = 70, SN = 0, A = 1, K = 1 / Band Rpt: Good to Fair

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

Net conditions have been fair to good this month. Tune up and tune in to learn what others are doing and share in the experiences. Come join in the conversation each Wednesday evening. Regards.
John K5LKJ

MINUTES
Board of Directors Meeting
Brazos Valley Amateur Radio Club

December 7, 2019 9:00 AM
Bayland Park Community Center
6400 Bissonnet, Houston, Texas

Board Members Present:
Mike Hardwick N5VCX (President)*
Jon Noxon KF5TFJ (Rec. Secretary)
John Chauvin K5IZO Parliamentarian

Jeff Greer W5JEF (Cor. Secretary) via
telecon
JP Prichard K5JPP (incoming Director
2Yr)
Scott Medbury KD5FBA (Director 2 yr)

Donovan Bali KG5BDZ (Treasuer
outgoing)
David Ely N5EKW (Treasuer incoming)

Recorded by Jon Noxon, KF5TFJ Recording Secretary

- 1) Call to Order: The President called the meeting to order at 9:14.5.
- 2) Establishment of Quorum: A business quorum was established. (Five of eight officers and board members present.
- 3) Approval of Agenda: The Agenda was approved
- 4) Club President's Opening Statement: The President thanked those present for attending the meeting.
- 5) Emergency Business: Appointment of David Ely as treasurer for two year confirmed by board of directors effective January 1
- 6) Approval of Minutes from Previous BOD Meeting: The Board approved the minutes for the November 2019 BoD meeting.
- 7) Approval of Treasurer's Report: The Board tabled the Treasurer's Report, pending resolution of an issue with the Certificate of Deposit cash out QuickBooks entry. Current bank balance is about \$18000.00.
- 8) Corresponding Secretary: (verbal report) PO box rental fee (\$204) is due. Reimbursement for payment by Cor Sec authorized. Cor Sec has been trained on process for creating mailing labels.
- 9) Old Business:

General Membership Meetings scheduled as follows, with topics not listed to be determined:

December 12, 2019 - Home Brew/Makers Night. Kf5tfj to host. Visa card approved for purchase and reimbursement.

January 31 Banquet

February 13 SKYPE meeting "across Africa" with Janzer's friend.

March 12 Raspberry Pi (Jeff Greer)

Discussion regarding the January Club Awards Banquet. Speaker to be selected. Corresponding Sec. will attempt to recruit Forrest Mimms to speak.

Status of donations to Stewart (A/C and electrical improvements). Emphasis needed to get Cavalla antennas working. Mobilization party to be determined.

Topics suggested for future meetings:

Raspberry Pi and Linux programming.

SDR radio receivers.

Antenna modeling.

DMR "Hot spots"

"Marty Blaise" list of potential topics (to be reviewed)

Other speakers via SKYPE or other social media. (TBD)

- 10) New Business:

For GHFF, will share FBC Fair Grounds with Innovation-Spark (the term "Maker's Faire" cannot be used due to legal problems. Event tentatively called **Greater Houston Ham Fest and I-Spark Convention**. Coordination is ongoing with Mike Hardwick taking the lead. Dates are March 6 & 7 2020.

- 11) Cost Saving Measures:

Status Continue looking into this on an on-going item.; Storage Locker is the one remaining major expenses. Banquet costs will be reduced with selection of Sharon Moore to cater the banquet. Suggestion to reduce Beacon issue to bi-monthly discouraged by the President.

- 12) Next BOD meeting date: January 4, 2020

- 13) Comments:

- 14) Adjournment: Meeting adjourned at 10:04 am

Awards to Win

Ron Litt, K5HM

WAZ, DXCC, WAS, IOTA; certificates of achievement that are clear testimony to your operating prowess. Chasing awards is a niche segment of amateur radio; some might call it a cult, to aspire to capturing every possible certificate.

After reading up on various awards available, I learned of several unique awards that fill in some blank spots. For Example:

WOTA – Wal-Marts On The Air. Requires proof of QSO's with amateur radio stations operating from at least 400 Wal-Mart locations. Individuals or clubs may activate an individual Wal-Mart location at any time and notify WOTA authorities by registering the activation in the WOTA worldwide data base. The WOTA committee will issue a unique WOTA number for the location. Each QSO submitted for credit must be a current activation at the time of contact. There are over 6,600 Wal-Mart locations worldwide. Good Luck.

Contact with Sam's Club locations do not count for WOTA credit. The WOTA committee is contemplating offering a separate award for Sam's Clubs on The Air (SCOTA) later this year.

FFOTA (Fast Food On The AIR) announced in 2013. There are special endorsements for MDOTA (McDonalds On The Air), JIBOTA (Jack In the Box On The Air) and KFCOTA (you can probably figure this one out for yourself).

Academy Award Award – Given for contact with hams in cities where a movie filmed in that location won the Academy Award for Best Picture. The same city cannot be used multiple times. Only one city per film. Sorry, extraterrestrial locations such as Remulak, Vulcan and other mythical locations cannot be used for this award. In addition to the certificate, each award includes a package of microwave popcorn.

Special 78th anniversary Commemorative Casablanca Award – Commemorates the 78th anniversary of the Humphrey Bogart film. The award is earned for contacts with hams in the area of the former French Morocco whose first names are: Rick, Ilsa, Victor, Louis, Heinrich, Sascha, Carl or . . . Sam (as in "Play it again Sam")

Ring of Fire Award – This award is given to hams who have contacted portable operations located on the rim of at least five active volcanoes. Considering the element of danger for the expedition operators, this is the only award in the world that is reciprocal. A person may earn this for themselves by going to five different volcanoes and contacting at least one other amateur before running for their life. Note – There is no power limit for this award although Ring of Fire expeditions favor lightweight QRP gear in order not to hinder their need for a rapid departure!

And, my personal favorite:

The Next Year Award – This is the most prestigious of all amateur radio awards because the standard of achievement is quite high. Off hand, I can't recall a single person, who has won this award. It is given to amateurs who have delayed, put off or deferred making or completing any changes in their equipment, operating skill, club participation or license class. The amateur eligible for the award must apply themselves. Of course, by doing so, one is automatically disqualified for the award, having accomplished something in the process.

Good Luck Award Hunter!

2 Nights Before Christmas

Ron Litt, K5HM

Two nights before Christmas and up at the shop,
Santa was checking his sleigh for the big hop.

His APRS was already on line,
So, the gang down at NORAD could track him 5 – 9.

The new HF rig was tuned up on 20.
He knew that 100 watts would be plenty.

“I’ll be on VOX for this flight”, he said in his head.
I have to be able to look straight ahead.”

So, sideband it is for the big night tomorrow.
I hope the CW guys won’t be too full of sorrow.

The two-meter rig was already encoded,
With every repeater that could be uploaded.

They’ll know when Santa’s near; they won’t be surprised,
And make sure the kids have all closed their eyes.

He stopped for a moment then gave a big start,
When he suddenly realized he was missing a part.

“Of course!”, he shouted. “its my laptop PC!
I won’t get far without it on my knee.”

“Its got my log and my list and my flight plan too,
Though I always have Rudolph to guide me through.”

He pulled out his wallet once more to check,
That his FCC license was there for the trek.

“Well, it looks like I’m ready”, they heard him declare,
“I’ll be single op unassisted for the entire affair.”

“I better get some rest now before the big night,
So, I can be ready for the long flight.”

And they heard him exclaim as he walked off to bed,
“CQ, CQ, CQ . . . QRZed?”

Merry Christmas Y’all

73,
Ron, K5HM

2019 Officers:

President (2018-2019)
Michael Hardwick, N5VCX
n5vcx@att.net

Vice President (2019-2020)
Mark Janzer K5MGJ
k5mgj@yahoo.com

Recording Secretary (2018-2019)
Jon Noxon KF5TFJ
jon@noxon.cc

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

Treasurer (2019-2020)
Donovan Balli, KG5BDZ

2 Year At-Large Board Member A: (2020-2021)
Rick Hiller, W5RH

2 Year At-Large Board Member B: (2019-2020)
Scott Medbury KD5FBA
smedbury@windstream.net

1 Year At Large (2019)
JP Pritchard, W5JPP

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

Board of Directors Meeting

The Saturday before the 2nd Thursday, 9:00 AM (For Sept., check website)
Bayland Park Community Center
Bayland Park, 6400 Bissonnet, Houston.

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.

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

Advertising in the BVARC Newsletter

Rates are as follows; \$25 per month for 1/2 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

SATURDAY MORNING BREAKFAST

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

OTHER HAM GROUPS:

WEDNESDAYS – WEDNESDAY LUNCH BUNCH

LUBY'S CAFETERIA, 10:30a.m. to 12:00Noon +,
South Post Oak Road, just south of the I-610 Loop in
Meyer Park Shopping Center.

WEDNESDAYS – AMSAT & QRP GROUP

PAPPAS BARBECUE. 11:30a.m., SW corner
Westheimer & Gessner.

Hamfests

(typically within 200 miles of Houston)

Hamfest info for the next few months. More information at:

<http://www.arrl.org/hamfests.html#listing>

01/10/2020 | [Radio Fiesta 2020](#)

Location: Schertz, TX

Type: ARRL Hamfest

Sponsor: San Antonio Radio Club

Website: <http://w5sc.org>

02/21/2020 | [Orange Hamfest 2020](#)

Location: Orange, TX

Type: ARRL Hamfest

Sponsor: Orange ARC, Jefferson Co. ARC, Beaumont ARC

Website: https://www.qsl.net/w5nd/index_files/HAMFEST%20NFO/hamfest%20info

03/06/2020 | [Greater Houston HamFest](#)

Location: Rosenberg, TX

Type: ARRL Hamfest

Sponsor: Brazos Valley Amateur Radio Club

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

Club meetings are normally held on the 2nd Thursday of each month at 7:30 p.m. at the Imperial Park Sugarland Recreation Center at 234 Matlage Way, Sugar Land TX, 77478. Check the above website for any possible changes.

BVARC amateur radio testing has resumed. It 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 p.m. on the 146.94 (minus offset, PL 167.9 tone) repeater.

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, n5vcx@att.net

Newsletter Editor, John Chauvin, K5IZO, k5izo@yahoo.com

Newsletter Printing, Assembly and Mailing: Daphne Rawlinson, K5VQY, daphne_rawlinson@hotmail.com.

Cameron Mitchell, K5CAM, k5cam@arrl.net ; Mike Teers, KG5SXG, miketrs@windstream.net

JP Pritchard, K5JPP, jppnews@comcast.net; Esther Pritchard, elop@comcast.net

NOTE: Officers, advertising and eating schedule are on the website. They will only be published in the Newsletter every few months.

VOLUME 44, ISSUE 1

JANUARY 2020

**BRAZOS VALLEY
AMATEUR RADIO CLUB
P.O. BOX 2997
SUGAR LAND, TX 77487-2997
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FIRST CLASS POSTAGE

**January 31, Annual BVARC Awards Banquet
There is NO General Membership Meeting in January**



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