



# BRAZOS VALLEY AMATEUR RADIO CLUB



AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT BEND COUNTY

OCTOBER 2015

VOLUME 39 ISSUE 10

## BVARC OCTOBER GENERAL MEMBERSHIP MEETING

7:30 PM, Thursday, October 8<sup>th</sup>, 2015

421 Eldridge Rd, Sugar Land, 77478, Sugar Land Masonic Lodge

I bet most of you have always wondered what a repeater looks like

Well they do not look like much. However, they sure do a lot of things. They have multiple clocks and timers, they sometimes have more than one receiver, and they operate on wall power as well as batteries. They do lot things. To help explain just what they do, Jeff Scott, W5JSC, will do a presentation that could be called "Repeaters 101". In fact, it is called Repeaters 101 that should answer everyone's question on how a repeater operates and functions. Make sure you come out to the meeting to learn just how repeaters work.



### September Meeting Recap – Now You Should Know How Your Antenna Works!

TBVARC's own antenna guru, Rick Hiller, W5RH, did it again. He did a wonderful presentation on finer points of antennas. He explained how to design, use and troubleshoot various antennas designs. Rick proclaims he is not an expert but he should did fool me (of course I am easily fooled). Rick has been building and designing antennas to the point that he almost has all the answers when someone has a problem. If you missed the program make sure you visit the BVARC website and download the video.



### Upcoming Meetings

Below is a list of upcoming BVARC meetings. Mark your calendars so you won't miss out.

November 12 <sup>th</sup>	Elections & Chili Supper	
December 10 <sup>th</sup>	D-Star	Alan, Isaachsen, KB2WF
January 15 <sup>th</sup> , 2016	BVARC Annual Banquet	Confirmed
February 11 <sup>th</sup> , 2016	Emergency Communications – Go Kit Building	Kerry Mallory, AE5JY

More ideas are still needed for the general meetings. Remember, the general meetings belong to the membership and topics are needed. If there is a program you would like, let me know so it can be scheduled for a meeting.





## The Vice Prez Says

Fall is finally upon us and I am ready for it. With the cooler temperatures, everyone should be able to install their HF antennas without getting heat stroke. Now is the time to start getting your HF station ready for the CW and Phone sweepstakes in November. If you need help on setting your HF stations check with other club members on how they did things.

If you missed Rick Hiller's program last month on antennas, check the BVARC website for the video. The program was extremely informative and it answered many questions that I know everyone had. If you have questions, I bet Rick will even answer them if you send him an e-mail.

John Chauvin, K5IZO and Jim Burroughs, W5DTT, did a wonderful job on the letter writing campaign for HR1301 and S1685. With those two and John Stratton ARRL Vice Director, I bet BVARC will be the most active club participating in the campaign.

Coming up in the October meeting will be Repeaters 101. Jeff Scott, W5JSC, will describe the ins and outs on how repeaters operate and function. Jeff is owner of a two-way radio service shop and a large radio system covering southeast Texas. He has nearly 30 years of experience in the radio industry and will be able to answer any questions you have (or at least lie about it).

Make sure you put on your calendar the following contests:

October 19 -23 - School Club Roundup

October 31 through November 1 – EME 50 MHz to 1296 MHz (for those who are really adventurous)

November 7-9 - CW Sweepstakes

Don't forget that Club Elections will be coming up in November. The club needs your help to manage and coordinate all of the aspects of running the largest amateur radio club in Houston. If you would like to help the club by volunteering your time to be on the board of directors, please contact Rick Hiller, W5RH, and let him know you are interested in running for office. You can also nominate someone from the floor if you want to but make sure you talked it over with them so there are no surprises. The positions that will be open are: president, recording secretary, two year director, one year director. Please consider running for one of the positions on the BVARC board of directors.

73,  
Mike  
N5VCX





**ASTRONOMY DAY – October 24**  
**The Synergy of Amateur Astronomy and Amateur Radio**  
**George Observatory, Brazos Bend State Park, Saturday, Oct. 24 from 3 to 10PM.**

Many BVARC members have an interest in Amateur Astronomy as well as Amateur Radio. At least one has his own private observatory. Others have various reflector and refractor telescopes. Several belong to one of the local amateur astronomy clubs.

Each year, the Houston Museum of Natural Science holds Astronomy Day at George Observatory located in Brazos Bend State Park, about 15 miles South of Sugar Land. BVARC sets up a live HF station on the deck for the typically 3000 people that attend to see. These attendees range from 5 years old to 80 years old, with the median age probably around 30-35. It is a select group of people, because, they are interested in a scientific activity (astronomy). There is an incredible synergy between the two hobbies and a poster lists many of these at the display.

Astronomy Day itself opens at 3PM and goes until 10. Our setup takes place around 1:30 or 2:00 and we go until 8 or 9 depending on various variables. Not only can you help run the station and meet a lot of interesting people, but you can also see all the other astronomy displays and look through the 36” telescope.

Kirk Kendrick, KK2Z, and John Chauvin, K5IZO are co-chairing this BVARC presence. If you wish to help in any way, even if for just 1 or 2 hours, please contact one of them. If you can't be sure until the last minute, just show up and you will be in for a fun afternoon/evening. Contact info is on the roster on the BVARC website, [www.bvarc.org](http://www.bvarc.org). Kirk or John can give you the information where you won't have to pay park entrance fees.



**BVARC Monday Night NET Updates**

Don't forget the BVARC Monday Night Net starts at **8 pm** on 146.94 (167.9). The order of check-ins starts with mobile units first then fixed stations. If you have something for the net, make sure you let Net Control know about it when you check in. We are looking for Net Control Operators. Contact Mark, [mark@mcgrath-co.com](mailto:mark@mcgrath-co.com), if you are interested. Here are recent check-ins with control-ops:

6/15 - 22 - Terry, k5pgf	7/20 - 15 - Ron, k5hm	8/24 - 27 - Pete, kd5qpx
6/22 - 24 - Pete, kd5qpx	7/27 - 28 - Rick, w5rh	8/31 - 31 - Terry, k5pgf
6/29 - 22 - Ron, k5hm	8/3 - 29 - Rick, w5rh	9/7 - 16 - David, n5ekw
7/6 - 20 - David, n5ekw	8/10 - 29 - Rick, w5rh	9/14 - 28 - Rick, w5rh
7/13 23 - Rick, w5rh	8/17 - 35 - Ron, k5hm	9/21 - 26 - Cam, k5cam





# BVARC November Elections

## Looking for Candidates in all the Right places

On the ballot at our November 12th meeting are open slots for BVARC **President**, **Recording Secretary**, **2 Year-at Large** and **1 Year-at-Large** Board of Directors members.

If you, or someone you know, would like to join the current BVARC Board of Directors in running the club for 2016 and 2017, please, contact me, **Rick Hiller – W5RH** at [rhiller@sdicgm.com](mailto:rhiller@sdicgm.com) or **832-474-3713(cell)**.

3 former BVARC Presidents (Kirk, KK2Z and Mike, N5VCX) and I make up the 2015 Election Committee.

We look forward to hearing from you.



### BVARC Rag Chew Net

08/26/15, K5LKJ (NCS), W5TOM, W5TKZ, KF5TFJ, W5TOM, W5HFF, K5IZO, AA5OA, W5RH, AF5T, K0NM, KE5OBY, KC5JAR. (12 Check-Ins) Solar Cycle 24: SFI = 125, SN = 61, A = 9, K = 4

09/02/15, K5LKJ (NCS), W5TOM, W5TKZ, KF5TFJ, K5IZO/5 (Jasper), K5LJ, W5HFF, AA5OA, K0NM, N5DDT, AA0ST (Dickinson), KB5VQQ, KC5JAR (Katy), AF5T. (14 Check-Ins)  
Solar Cycle 24: SFI = 88, SN = 49, A = 6, K = 2

09/09/15, K5LKJ (NCS), W5RH, W5TOM, KF5TFJ, W5TKZ, K5IZO, K5LJ, W5HFF, KD5FBA, AF5T, AA0ST (Dickenson), AA5OA, K0NM. (13 Check-Ins) Solar Cycle 24: SFI = 82, SN = 40, A = 29, K = 4

09/16/15, K5LKJ (NCS), W5TKZ, K5WRN, KF5TFJ, W5HFF, KC5JAR (Katy), AF5T, K5LJ, W5TOM, AA5OA, W5RH, KD5O, AA0ST (Dickenson), KF5PHA. (14 Check-Ins)  
Solar Cycle 24: SFI = 107, SN = 66, A = 18, K = 3

9/23/2015, W5TKZ (NCS), KF5TFJ, W5HFF, AA5OA, KE5OBY, K5IZO/5 (P) (Jasper, TX), K5LJ, W5RH, AF5T, AE4DJ, W5TOM, K5LKJ, KD5O.  
(13 Check-Ins) Solar Cycle 24: SFI = 107, SN = 79, A = 14, K = 2

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

Come join in the conversation each Wednesday evening. Regards. John K5LKJ





**Results of the September 8<sup>th</sup> BVARC Amateur  
License Examination Session by:  
John Moore, KK5NU**

B-VARC sponsored and administered the ARRL's Amateur Radio Examination session that was held on Tuesday, September 8th 2015 at HCC's Scarcella Science & Technology Building here in Stafford, TX.

**MEMBERS OF THE VE TEAM:**

Richard Goldy, K5GOL  
Larry Jacobson, K5LJ  
John Moore, KK5NU  
George Ontko, KM5VP

Congratulations to the following who attained a license and/or passed an exam:

Steve P. Friedman II - KF5YYZ - General  
Byron G. Tatum, Jr. - WA5THJ - Amateur Extra

Many thanks to all the Team Members and Assistants who volunteer their valuable time and effort each month. All of us at B-VARC again thank everyone at HCC Scarcella Science & Technology Building for making these excellent classroom facilities available to us for our exams each month.

....73....



**Hamfests**

(within 200 miles of Houston)

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

**10/03/2015 | [HamEXPO](#)**

**Location:** Belton, TX  
**Type:** ARRL Hamfest  
**Sponsor:** Temple Amateur Radio Club  
**Website:** <http://www.tarc.org/hamexpo/>

**10/31/2015 | [South Texas Hamfest](#)**

**Location:** Aransas Pass, TX  
**Type:** ARRL Hamfest  
**Sponsor:** South Texas Hamfest Association  
**Website:** <http://www.southtexashamfest.org>

**01/09/2016 | [San Antonio Radio Club Fiesta](#)**

**Location:** Schertz, TX  
**Type:** ARRL Hamfest  
**Sponsor:** San Antonio Radio Club  
**Website:** <http://w5sc.org>





**Where in the world is . . .**  
**KP2RUM – U.S Virgin Islands**  
**IOTA NA-106**

KP2RUM is the club call of a loosely knit group of rum loving amateurs. Some members are located on St. Croix in the US Virgin Islands, while others visit to enjoy the beauty, and of course the rum(!), of St. Croix. The club members' penchant for Jimmy Buffett songs inspired the club name of "It's 5 O'clock Somewhere". Their club meetings are usually held before major contests at, where else, "Cheeseburgers In Americas' Paradise", or "Cheesies".

As we prepare for contests, nearby residents can watch us try and stand in a football huddle and scream our club motto: MULTS Rrrrrr! We're not all serious contesters as our most favorite holiday is September 19th. Why September 19th you may logically ask? Why of course it's because that's International Talk Like a Pirate Day! You think we're crazy? Check it out...

[http://en.wikipedia.org/wiki/International\\_Talk\\_Like\\_a\\_Pirate\\_Day](http://en.wikipedia.org/wiki/International_Talk_Like_a_Pirate_Day)

To exemplify the importance of rum to the economy of St. Croix, in many contests requiring a name in the contest exchange, "RUM" is utilized so that operators do not have to remember their own names. It also makes it easy since we don't have to remember to change operator names in our contest logging program.

An early alcoholic drink, rum has been around since ancient times. Though it wasn't first distilled in plantations until the 17th century, rum is believed to have existed thousands of years prior in the form of brum, a drink made by the Malay people.

An alcoholic drink determined to have a place in history – even the dark parts of history - rum was involved in the slave trade, as slaves, molasses, and rum were part of the triangular trade. When this trade was interrupted because of the 1764 Sugar Act, another straw was thrown on the American colonists' back. Thus, bottles of rum can often be overheard bragging to bottles of wine and bottles of whiskey that they were the reason for the American Revolution.

More than any other alcoholic drink, rum was associated with pirates (yo ho ho and a bottle of rum, anyone?). This initially started when English privateers began trading it. As some of these men eventually became pirates, they carried with them their liking of rum. Works of literature that coupled rum and piracy perpetuated this notion.

Technically, rum is a distilled beverage made from sugar cane by-products such as molasses and sugar cane juice. It is first fermented, then distilled and aged in barrels. Shades range from light to golden to dark and some rums are also infused with spices or fruit flavours. Most of the world's rum production takes place in the tropics, close to where sugar cane grows, especially in the Caribbean and South America, but it is also produced in Australia, Fiji and India, as well as other places around the world.

The rum industry has historically been vital to the USVI economy. There are two major brands of rum that are produced on St. Croix. Cruzan has the home court advantage as they've been here for several generations. Although Cruzan is technically owned by Suntory (JA land), it is still managed & operated by the Nelthropp family, just as it always has been.

Captain Morgan is the new kid on the block having commenced production in 2012. Owned by British parent company Diagio, Captain Morgan relocated from its former production facility in Puerto Rico amid significant controversy.

Over the years sugarcane ruled St. Croix and at one time as much as 85% of the island was covered with sugarcane fields. The mid 1700's saw a peak in production through the mid 1800's. It was at the beginning of this era, in 1760, that the Nelthropp family started the Cruzan tradition. The name for the brand is derived from the term "Crucian," which refers to the people who live on the island.

Reprinted with the permission of the "It's 5 O'clock Somewhere Amateur Radio Club", KP2RUM

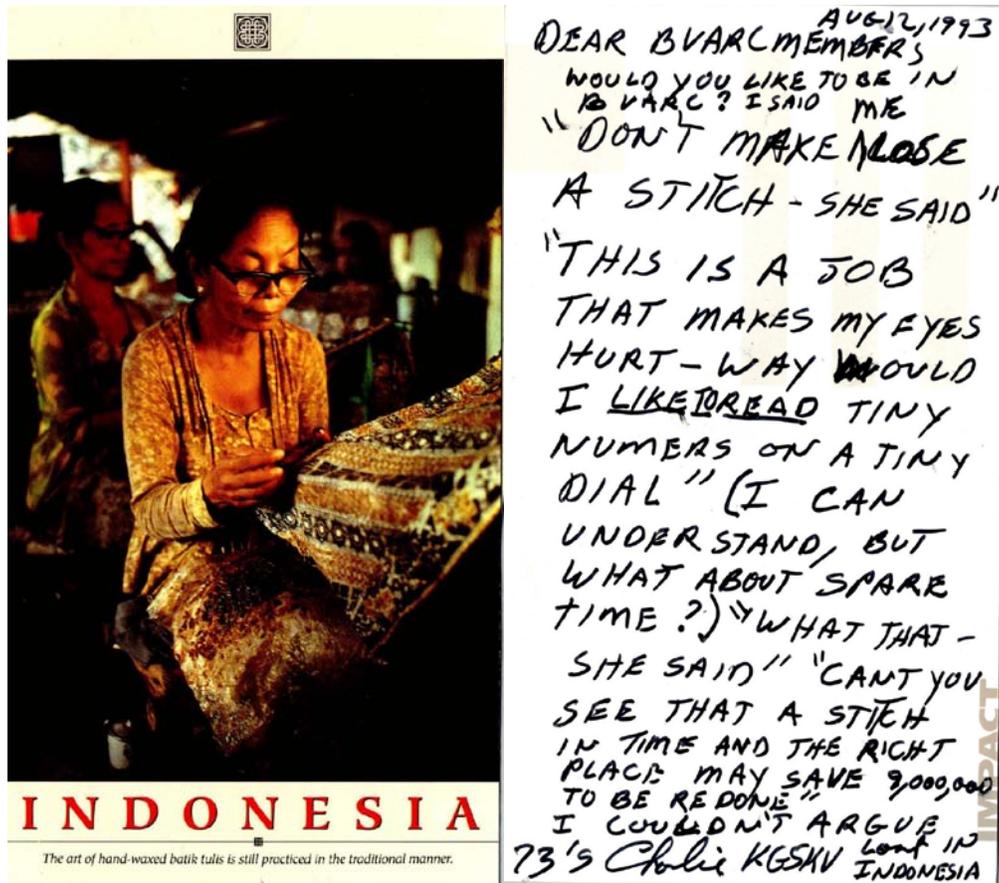
Reporting from the Dark Side,  
Ron, K5HM



## BVARC Historical Vignettes – KG5KV Lost in Indonesia – Part 2

Allen Mattis N5AFV, Club Historian

As mentioned in last month's Historical Vignette, BVARC member Charlie Prochaska, KG5KV, an engineering consultant, accepted a one month contract to work in Indonesia in August 1993. Charlie was a regular attendee at the BVARC Saturday morning breakfast. While in Indonesia, Charlie mailed a post card every week and these post cards were passed around at the Saturday morning breakfast. Most of the post cards mentioned something about amateur radio and also displayed Charlie's keen sense of humor. A special thank you to BVARC member Carl Hacker, WC5WM, for providing me with six post cards that Charlie sent from Indonesia.





## Minutes of the September 5th, 2015 Board of Directors meeting of the Brazos Valley Amateur Radio Club

Mike Hardwick called the monthly Board of Directors meeting for the Brazos Valley Amateur Radio Club to at 10:11 AM on February 5<sup>th</sup>, 2015, at Denny's, 8199 Southwest Freeway, Houston 77074. Attending were:

Mike Hardwick N5VCX (V.P.), Bob Tomlinson N5JSL (past Treas.), Michael Monsour ACØTX (Rec.Sec./Quart.), Stephanie Vessey K5SFV (Cor. Sec, QSL Manager), Scott Medbury KD5FBA (2yr At-Large Dir), Jerry Muller K9GEM (2yr At-Large Dir.), Eddie Runner NU5K Webmaster, Ron Litt K5HM (Radio Sport), Nathan Vessey N5NYV, Jon Noxon KF5TFJ

### Reports:

- 1.1 A motion was made and passed to accept last month's minutes.
- 1.2 Bob Tomlinson presented the Treasurer's Report from Donovan Balli who could not make the meeting. A motion was made and passed to accept the Treasurer's report.

### Old Business:

- 2.1 Bill Stone's memorial, which is September 19, at 14540 Minetta, Houston, 77035, at 10am to noon.
- 2.2 Masonic Lodge contract: everything is going smoothly.
- 2.3 Hamfest meeting: right after the BVARC Board meeting today. The Hamfest will be two days March 18 and 19 with Friday being hands on activities.
- 2.4 General Meetings: September 10<sup>th</sup> antenna design, use and troubleshooting. October 8<sup>th</sup> repeater 101 by Jeff W5JSC. November 12<sup>th</sup> Chili Supper/contest and elections. December 10<sup>th</sup> D-star. January 15<sup>th</sup> Banquet, February 11<sup>th</sup> Emergency Communications, March 10<sup>th</sup> Home Brew Contest.
- 2.5 ARRL, West Gulf Awards: may be too late to do anything this year.
- 2.5 Facilities Committee is formed up with Pete Sauermilch KD5QPX and Scott Medbury KD5FBA.
- 2.6 Membership Committee: There was much discussion as the people on it are busy with other duties. One event coming up is the Makers Faire only a limited amount of people (four) can be accomodated. A suggestion is to ask for help at the next meeting for the Membership Committee. Nathan is going to have a meeting of the Membership Committee to present at the next Board meeting a list of some objectives.

### New Business:

- 3.1 Donation Committee. Three ways of scholarships: Donating money through ARRL, donating money through Houston Community College as we use their facilities for testing or the club does it on their own or perhaps a combination of all three. A suggestion was brought up for a donation to the ARRL, for the Amateur Radio Parity Act, this will be researched further.
- 3.2 Marketing Czar: keeping the Web site up to date, keeping things entered on the calendar perhaps on social media sites as well.
- 3.3 Stephanie received cash from a new member and this member is not on the roster yet.
- 3.4 Les Jones W5KRN SK, a BVARC Life Member a 21 year employee of EPO provided prizes to BVARC, Sept 12 1924 to July 28 2015.

Meeting adjourned at 11:08

Submitted by Recording Secretary, Michael Monsour ACØTX





# The Radio Hotel<sup>®</sup> - The Antenna - Part 8 by W5RH

## Getting All Choked up about Feeding and Matching

Resonance – when there is no reactive element in a measured impedance. In antennas, it can be also when the antenna reactive component is minimal, as it will never be an absolute zero.

Matched—when the impedance of one circuit element equals that of another circuit element. In Antennas it is when the varying antenna feedpoint impedance matches the fixed TL (transmission line) characteristic impedance.

Truth be told: when an antenna is resonant it does not mean it is matched, and when an antenna is matched (to the feedline) it is not necessarily resonant. They are 2 different conditions. But our preference is that our standing wave antennas be resonant AND matched.

Most Hams find that using a resonant antenna that is matched to the TL is the easiest way to make things work. A resonant half wavelength dipole has a current loop (physical midpoint) feed impedance of approximately 50 to 70 ohms depending on height above ground and the surroundings. So connecting 52 ohm coax to the nominal 60 ohm feed point would be fairly closely matched at about a 1.15:1 SWR...good enough for using our solid state finals. Now, as soon as we turn our VFO knob that highly sought out resonant/matched condition goes slightly out of favor, but in most bands, remains in the range of SWR that our solid state finals can handle (SWR under 2:1), so no power reduction.

Some antennas, Yagi-Uda's for instance, have a feed impedance that is lower than our coax's impedance. Feed Z is down around 12 ohms, due to the parasitic element interaction. Matching to the coax's 50 ohms can be accomplished by using Gamma Matches, Hairpins, Half folded dipoles or LFA- Loop Fed Arrays. (Google all of them) For higher impedances above 50 ohms and even into the K's of ohms, you can use coaxial transformers, un-uns or bal-uns of varying Z transform ratios, etc. (Google them too). Most of these are single band devices, so for feeding and matching a single antenna on multiple bands you should resort to antenna couplers and variable antenna matching networks/ antenna tuning units (ATU's). (Google SGC Couplers and ATU's). These provide an automatic matching condition utilizing a *u-processor* controlled L-network of switchable lumped C's and L's.

Once you have a matched condition and are feeding your antenna with maximum power, it is time to get a bit choked up about your success.....no, I don't mean that you start sobbing with relief because you actually got it to work, but choking in the "stopping CM/common mode RF" sense. The signals from/to our transceiver flow quite nicely within the coax because of our good work in getting it matched, etc. RF is our friend, but RF can also spoil your party by getting into everything electronic. One thing RF will do is ride along on the outside of the coax shield (due to the "skin effect" - Google that). If these CM antenna currents or noise currents are not stopped they will cause havoc in your shack, on your radio or on your ancillary gear. Chokes should be placed at the antenna feedpoint and at the shack entry point. Your feedline should run from the antenna to the ground and along the ground, if at all possible. Even then, chokes are desirable to eliminate any CM/receive garbage noise. (Google: Common Mode Chokes by W1HIS). Chuck's article is a great start in understanding the ins and outs of chokes and eliminating shack noise potential. And with that, I will stop and eliminate this noise HI. Enjoy and 73....W5RH

### Next time.... The Antenna Series: C'est tout! – Guidelines for Learning More

*The purpose of **The Radio Hotel** is to give you a practical kickstart into exploring the workings of antenna systems. It is a series, so go back and read the previous columns to get the whole picture, as one month relies on the previous month's information. Google the buzz words and find out what they mean. Read up on antenna system theory to see how it all works together. You will be glad you did.*



# BRAZOS VALLEY AMATEUR RADIO CLUB

This newsletter 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 newsletter 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 2<sup>nd</sup> Thursday of each month at 7:30 p.m. at the Sugar Land Masonic Lodge, 421 Eldridge Rd, Sugar Land, 77478. Check the above website for any possible changes.

**BVARC** also administers amateur radio license exams on the 2<sup>nd</sup> Tuesday of each month at 7:00 p.m. at the Houston Community College's Scarcella campus in Stafford.

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, contact the club's "Elmer," Ross Lawler, W5HFF at 281-701-7602 or see the BVARC website: [www.bvarc.org](http://www.bvarc.org)

Other contacts include:

Acting President:, Mike Hardwick, N5VCX, n5vcx@att.net

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

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**BRAZOS VALLEY  
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FIRST CLASS POSTAGE

**October General Membership Meeting – October 8**



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