

BRAZOS VALLEY AMATEUR RADIO CLUB



AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT BEND COUNTY

OCTOBER 2014 VOLUME 38 ISSUE 10

BVARC OCTOBER GENERAL MEMBERSHIP MEETING

7:30 PM, Thursday, October 9, 2014 2511 Eldridge Rd, Sugar Land, 77478, Eldridge Park Conference Center

Hey Bidder

Last year the club tried something new and put together an auction. The auction was a great success with some great gear going to new homes. This year we will be doing the auction again. The rules for this year's auction have been changed up a bit from last year. This year, the sale of the items will be split between the seller and the club. Please visit the website – www.bvarc.org – for the latest auction rules.





September Meeting Recap – KK5W Listening

During our September meeting, Robert, KD5YVQ, came by to give the club an excellent presentation on some of the local repeaters. In particular, Robert gave us some great info on our favorite repeater, the nine-four machine. If you missed this meeting, you not only missed Robert's plans for the nine-four's future, but you missed hanging out with some of Houston's greatest amateur radio operators.

Be sure not to miss this next meeting. You just may find a great new piece of equipment to bring home to the XYL. She'll love it, take our word on it.





From the President, Bill Stone, WS5H

Greetings and welcome to the BVARC Newsletter,

As was anticipated last month's meeting presentation of the 146.940 repeater given to us by Robert KD5YVQ, was very interesting and well attended. Much was learned about maintenance, repairs, upgrades, and operator procedure for repeaters.

This month of October's general membership meeting we will begin the autumn season with the popular BVARC Auction. This meeting event was well received last year and many members went home with worthy used gear and new projects. See the details in this issue of our Newsletter.

At the time of this article submission most with HF privileges are gearing up with final preparations to participate in the famous Texas QSO Party (TQP). I look forward to see our club KK5W mobile rover results and also hear our member's brag file that setup in various rare counties and the operators that worked the home QTH station to attempt working all the Texas counties.

As per VHF operations keep your self posted on the local county area VHF simplex contest to work as many cities as possible. VHF simplex is a lot of fun and the newer Hams will be amazed with the results.

Speaking of newer Hams and VHF I have spent much of late night the past 2 weeks on the 94 repeater chatting with new KF call signs. Many of our new Ham BVARC members have purchased less expensive Hand Held (HT) radios and are very pro efficient on self manual programming of the new radios. Many others are experimenting with home brew antennas too. By popular New Ham demand I will Co- Chair with other new Hams a "New Ham Night". Thus far one of the focus of the meeting will be bring your HT for HT's tips and tricks of manual and software programming and operations. BVARC has a waiting list for presentations so this meeting topic will present March or April 2015. Looks like some of the older time members will have time to get that old HT out of the drawer. Recharge the battery and relearn how to program a new repeater.

A small bit of info is the 1.5 meter 220 MHz band is alive and doing well. My antenna is an old Ringo 220 vertical only up on a 15-ft pole I just set up yesterday and can hit the repeaters on low power 5 watts. If you have 220 MHz capabilities I have found 5 active repeaters I can hit in my SW Houston area. One of them is the 224.960, 1.6 negative offset, tone 88.5. This repeater is set up connected with All-star nodes 27, 133, 29332, IRLP node 9109, and Echo Link 9191 per info given by K5WID Houston station that was the Thursday Net Control (NC) of the Alaska Morning Net 12 PM Houston local time While I was in the net, UPDATE: @17:55 UTC 9-25-14 - A 6.1 Earth Quake reported on the net in Anchorage. 97 Km NNW near Willow Alaska. A pause was given for Emcom traffic. No life or property loss reported. HAM RADIO WORKS IF YOU WORK IT

On a final note we need to get set and be thinking of and keeping an eye open for nominations of the 4 open BOD positions to be filled and what chili will be made by the members and served up at the November Chili Supper Election night meeting. A past BVARC President Rick W5RH will head up the election committee. What project to bring at the December Home Brew Night and Where and what's on the menu for the January Banquet. Thus far it looks like a large steak house with seating for 100. Need to get the Banquet ball rolling so send your suggestions.

CU soon and Have Fun In Amateur Radio 73 Bill Stone WS5H





Two Meter FM Challenge October 4, 3014 1PM – 5PM Texas Time

Ed: Submitted by Ron Litt, K5HM

A brief four hour jaunt on two meters, sponsored by the Katy Amateur Radio Society. For newcomers to Amateur Radio, this is a chance to dip your toes into the world of Ham Radio contesting (Radiosport). For experienced emergency communicators, a contest is the closest thing to a real emergency environment and good training.

Make as many contacts as you can in four hours from as many cities as you can in the Houston Metro area. NO REPEATERS! This is simplex only; mano a mano.

You don't need anything more than a hand held transceiver to play. If you have a VHF rig in your car or your shack, even better. Find yourself a piece of high ground, like a 10 story parking garage and go for it.

You can be a rover. Earn score multipliers for each city/town you operate from.

For the makers among you, there's still time to build a 2 meter antenna like a j-pole or a portable yagi.

For a copy of the rules, visit, http://www.katyars.com/wp-content/uploads/2014/09/KARS-2M FM Challenge Rules1.doc

Get ready to have fun!





Radiosport Items of Note for September 2014

For a complete list of contests click the link below: http://www.hornucopia.com/contestcal/contestcal.html

QSO Parties – An easy way to try a contest for the first time. State QSO Parties are relaxed events. If you happen to need these states for WAS, they are a great way to work states to work states you can't easily find on the bands otherwise.

- California QSO Party Oct 4th 5th
- New Jersey QSO Party Oct 4th 5th
- Arizona QSO Party Oct 11th 12th
- Pennsylvania QSO Party Oct 11th 12th
- New York QSO Party Oct 18th 19th
- South Dakota QSO Party Oct 18th 19th
- Illinois QSO Party Oct 19th 20th

Mixed Mode Contests

- RSGB 21/28 Mhz Contest Oct 5th
- Worked All Germany Oct 18th 19th
- ARRL School Club Round Up Oct 20th 24th

SSB Contests

- Oceana DX Contest, Phone Oct 4th 5th
- CQ WW DX Contest SSB Oct 25th-26th
- CW Contests Oceana DX Contest, CW Oct 11th 12th
- Stew Perry Top Band Challenge Oct 18 19th

Digital Contests

• Russian WW Digital Contest Oct 4th – 5th

VHF/UHF

• 432 MHz Fall Sprint Oct 8th

Selected Special Event Activities

W!AW portable operation – Work toward W1AW WAS by working W1AW portable in every state.

Special note for October: Three Special QTH's go on the air in October foe one time only. W1AW/3 – District of Columbia, W1AW/KH0 – Marianas Islands and W1AW/KP2-U.S. Virgin Islands. While these don't count for WAS, it would be really gratifying to have them on the wall of yourshack.

States shown with an asterisk (*) are in their second rotation. This is your last chance to work these states. . Scheduled in October week beginning are:

District of Columbia W1AW/3 - 10/1

- *Alaska 10/1
- *California 10/1

Marianas Islands W1AW/KH0 - 10/8

- *Virginia 10/8
- *Missouri 10/8

Marianas Islands W1AW/KH0 - 10/15

- *Michigan 10/15
- *Alabama 10/15
- *Nevada 10/22
- *West Virginia 10/22

U.S. Virgin islands W1AW/KP2-10/29

- *Wyoming 10/29
- *Massachusetts 10/29

Rocket Boys Festival – October Sky 10/2 - 10/5 W8R.If you haven't seen the movie, rent it for your kids. Good for adults too.

Albuquerque Balloon Fiesta 10/4 – 10/12 W5B The Big One

Lunar Eclipse Oct 4-Oct 8 K0L Emporia State University, Kansas

25th Anniversary of the 1989 San Francisco Quake - W6Q (get it?)- Oct12-20

75th Anniversary of US Coast Guard Auxiliary - 10/17 -10/19 - Various locations

And, the ever popular

2nd Annual Boggy Creek Bigfoot Festival Oct 25 – Fouke, Arkansas WE7GV

For details on every Special Event in August, go to http://www.arrl.org/special events/search/page:3/Date.start:2014-09-01/Date.end:2014-09-30/model:Event

Reporting from the Dark Side, Ron, K5HM



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Minutes of the September 2014 Board of Directors meeting of the Brazos Valley Amateur Radio Club

Bill Stone called the monthly Board of Directors meeting for the Brazos Valley Amateur Radio Club to at 7:11 PM on September 4 2014 at Bayland Park Community Center, 6400 Bissonnet, Houston 77074. Attending were:

Bill Stone WS5H (Pres), Michael Wrenn K5WRN (V.P.), Bob Tomlinson N5JSL (Cor.Sec./Treas.), Michael Monsour ACØTX (Rec.Sec./Quart.), Ron Litt K5HM (2yr At-Large Dir.& Radio Sport), Jerry Muller KF5EYC (2yr At-Large Dir.), Eddie Runner NU5K Webmaster, Suzanne Runner KF5GWZ, John Chauvin K5IZO Newsletter Editor Parliamentarian, Nathan Vessey N5NYV, Stephanie Vessey K5SFV, Norma Stone KE5NDN

Announcements:

- 1.1 Jo. L Keener KE7NSB is now co photographer with Travis Burgess K5HTB
- 1.2 Ron Litt K5HM is now ambassador to a visiting ham radio operator from Poland.
- 1.3 Jerry Mueller KF5EYC has volunteered to be backup Treasurer for financial services regarding the Hamfest

Reports:

- 2.1 Michael Monsour AC0TX: The August minutes are in the Newsletter. The Ice Cream Social cost was \$260 that came within a budget of \$300. Every year, ice cream scoops seem to completely disappear but this year the utensils are secured in the storage locker. Two donations were given to the club, one a tool case by Jerry Mueller KF5EYC and a Cushcraft R7 by Bob Tomlinson N5JSL, which is under going renovation. A motion was and passed to accept the Secretary's report for the August minutes.
- 2.2 Bob Tomlinson N5JSL gave the financial report; a motion was made and passed to accept the Treasurers report.

Old Business:

- 3.1 A consideration of increasing the prudent reserve is tabled till April 2015
- 3.2 Question of obtaining new QSL cards came up and is being looked into.
- 3.3 Michael Monsour ACOTX gave a report of a possibility of a larger meeting site. Two main negatives: The meeting place is not available till 8PM and also this building is on the edge of four baseball fields and when baseball is on, only about 20 to 30 parking places are available, even though parking across the street might be available. This will not be considered. New Business:
 - 4.1 Nathan Vessey N5NYV and Stephanie Vessey K5SFV gave a report on the multiyear plan for the Hamfest. Stephanie gave presentation on the different proposals on the Hamfest. Expansion to an additional building is seriously being considered where there would be more activities and groups and room for non-revenue exhibits.
 - 4.2 There was an appreciation request for John Chavin because of his Hamfest efforts. There was motion by the Board to award John Chauvin K5IZO a [honorary] lifetime membership. This was passed. This is not an easy to obtain reward as the precedent, John was chairman for eight Hamfests, which is the main income for the club.
 - 4.3 Texas QSO party: BVARC will donate money for plaques to Texas QSO Party, not to exceed last year's donation.
 - 4.4 Astronomy Day November 8: In the past a radio station was setup. BVARC costs will be around \$50.
 - 4.5 Chili Supper Michael Monsour volunteered to be Chili Supper chairman but different ideas will be implemented to encourage more chili pots.
 - 4.6 Banquet locations were discussed. Expenses need to be contained
 - 4.7 Last year an auction was done in October.

The meeting was adjourned at 8:36PM

Submitted by Recording Secretary, Michael Monsour ACØTX





Hamfests

(within 200 miles of Houston)

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

10/04/2014 | HamEXPO

Location: Belton, TX

Sponsor: Temple Amateur Radio Club Website: http://www.tarc.org/hamexpo/

11/08/2014 | 16th Annual South Texas Hamfest

Location: Aransas Pass, TX Type: ARRL Hamfest

Sponsor: South Texas Amateur Radio Club (STARC)

Website: http://www.southtexashamfest.org

01/10/2015 | San Antonio Radio Club Fiesta

Location: Schertz, TX Type: ARRL Hamfest

Sponsor: San Antonio Radio Club

Website: http://w5sc.org





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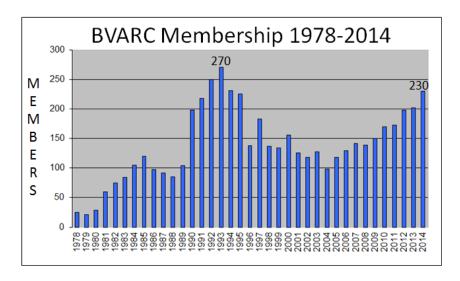




BVARC Historical Vignettes – Fluctuations in BVARC Membership Through Time

Allen Mattis N5AFV, Club Historian

Approximately five years ago I took a look at how membership in the Brazos Valley Amateur Radio Club has fluctuated since the first roster was published in the club newsletter in 1978. Since that time I have been able to fill in the gaps for years where we had no data and add new data for the past five years.



Membership fluctuates throughout the year and the numbers on the graph come from whatever month rosters and newsletter data reflecting membership were available. As a result, the graph does not necessarily show the highest membership for any given year, however, the trends shown on the graph are reliable.

On the graph, the period from 1990-1995 that some have referred to as the "Golden Years" of BVARC clearly stands out. But so does the period from 2012 to the present. The graph suggests that we may be experiencing another period of "Golden Years" and have not yet realized it.



Results of the September 9th 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 9, 2014 at HCC's Scarcella Science & Technology Building here in Stafford, TX.

MEMBERS OF THE VE TEAM:

Larry Jacobson, K5LJ John Moore, KK5NU George Ontko, KM5VP

One examination element was administered during the evening to one applicant. One upgrade to Amateur Extra class license was attained with the total number of elements passed being 1. The overall "pass rate" for the evening was 100%.

Congratulations to the following who attained a license and/or passed an exam: William D. Garfield - WB9FOP - 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.



Monday Night NET Updates

Don't forget the Monday Night Public Service Net starts at **8 pm** on 146.94 (167.9). The order of check-ins start 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 any officer of BVARC if you are interested. Here are recent check-ins with control-ops:

6/16 - 25 - Ron, k5hm	7/21 - 26 - Ron, k5hm	8/25 - 19 - Pete, kd5qpx
6/23 - 24 - Pete, kd5qpx	7/28 - 33 - Pete, kd5qpx	9/1 - 18 - Cam, k5cam
6/30 - 20 - Bill, ws5h	8/4 - 27 - Cam, k5cam	9/8 - 25 - Rick, w5rh
7/7 - 20 - Cam, k5cam	8/11 - 20 - Rick, w5rh	9/15 - 17 - Ron, k5hm
7/14 - 22 - Rick, w5rh	8/18 - 35 - Ron, k5hm	9/22 - 22 - Pete, kd5qpx



THE BVARC Rag Chew Net

September Check-ins

08/27/14, K5LKJ (NCS), W5HFF, W5TKZ, WA5CYI, KF5TFJ, K5IZO, AF5T, K5LJ, WS5H, W5RH, KE5OBY, AA0ST (Dickenson), N5ASH (Victoria), KC5JAR, KF5PHA. (15 Check-Ins) Solar Cycle 24: SFI = 128, SN = 81, A = 21, K = 4

09/03/14, K5LKJ (NCS), W5TKZ, W5HFF, WA5CYI, KF5TFJ, KE5OBY, AA0ST (Dickenson), KK5IS (Rosharon), W5TOM, AA5OA, AF5T, W5RH, KE5HDF, WA5KXG. (14 Check-Ins) Solar Cycle 24: SFI = 138, SN = 105, A = 10, K = 1

09/10/14, K5LKJ (NCS), W5HFF, W5TKZ, KF5TFJ, WS5H, K5LJ, AA5OA, K5IZO, AA0ST (Dickenson), W5RH. (10 Check-Ins)

Solar Cycle 24: SFI = 159, SN = 162, A = 8, K = 3

09/17/14, K5LKJ (NCS), W5HFF, W5TKZ, KF5TFJ, AA5OA, K5LJ, W5TOM, KE5OBY, WS5H, K5IZO, K0NM, W5RH, , AA0ST (Dickenson), W5FZ, KG5CIK (Bartlett), WN5A, KB5TXS (Point Comfort), KE5HDF, KC5JAR (Katy).

(19 Check-Ins)

Solar Cycle 24: SFI = 133, SN = 85, A = 7, K = 2

09/24/14, K5LKJ (NCS), AA5OA, W5TOM, W5TKZ, K5IZO/5 (Jasper)(P), WS5H, KF5TVQ (Spiro, OK), K5WRN, AA0ST (Dickenson), W5FZ, W5RH, WA5KXG. (13 Check-Ins) Solar Cycle 24: SFI = 138, SN = 90, A = 11, K = 3

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

Come join us each Wednesday evening. Regards. John K5LKJ





The Radio Hole -Matching within the Antenna System Rick - W5RH

The whole premise of paying attention to the antenna system's SWR is to lessen the losses within the antenna system and, therefore, provide the maximum amount of power out (and reciprocally, reception strength in).

On most Ham Radio antenna systems you have an antenna that is nominally 50 ohms feed Z, coax that is nominal 50 ohms characteristic Z and a transceiver that has been designed to output into a 50 ohm system. All components are then closely matched, providing a nominal 1:1 SWR. Recall that, even in a perfectly matched condition that there are "matched" system losses. For one, coax is inherently lossy. Just how lossy is dependent on the coax type. (Google: coax attenuation chart W4RP)

As seen last month (TRH Sept 2014), even within the confines of 80 Meters the SWR can vary widely. Also, depending on the antenna feedpoint location the SWR can be very high. For example, with a ½ wl end fed wire, the antenna feed Z is greater than 1K ohms creating a 20:1 SWR. Another example is a center fed, multi-band dipole that is used on the second harmonic or other non-resonant bands. The feed Z could vary between 10 ohms and 2K ohms and be very reactive, hence generating a 50 ohm SWR of greater than 40:1. For all of these examples, some type of impedance "matching" is required.

Matching can be provided anywhere along the TL (transmission line). This matching is accomplished by a network of lumped inductive and capacitive components. (*Google: impedance matching*). The network could be a manually adjusted L, Pi or T network or it could be a fully automatic ATU "Antenna Tuning Unit" (or Coupler) operating remotely at the antenna feedpoint. (*Google: antenna tuner and antenna coupler*) Matching right at the antenna feedpoint is best, as it causes the TL to see a load that is matched to its' characteristic impedance (i.e 50 ohms for coax, 600 ohms for open wire line, etc.), so maximum transfer of power happens and only the matched TL loss is incurred (plus a bit of loss within the matching network itself).

You could move the matching network down the TL toward the transmitter to some physically convenient point (like on the ground) or, as most Hams do, move it all of the way back to shack end of the TL. But if you do, then the effect of the feedpoint mis-match will cause increased loss due to a higher SWR on the TL between the matching network in the shack and the antenna feed point at the other end of the TL. (Note: This is why Hams, implementing this "in shack" configuration, will use open wire or parallel wire transmission line between the ATU and the antenna – open wire line has much lower loss than coax.)

If the ATU provides a match of 1:1 right at the transmitter, then the transmitter will see 50 ohms and it will dump full allotted power into the matching network, which will then transfer most of that power into the TL (some loss in the matching network will occur). This power will then travel on the TL to the antenna, see the feedpoint mis-match and reflect a portion of the Forward power (see TRH May). The Reflected wave heads back to the matching device in the shack and is then, due to complementary wave mechanics, reflected back toward the load. All the while, losses will occur on both the forward and reflected waves traveling back and forth, hence the increase in loss, over the matched TL loss, when a greater than 1:1 SWR is on the TL. Matching in the shack is common practice and can be made efficient with the use of the proper TL/feedline and the properly sized matching network.

Understand antenna system characteristics (i.e. antenna feed impedance and matching network type and location within the system) and their affect on TL losses is most important for implementing the best system for your particular situation. This is what **The Radio Hotel** is trying to accomplish; to provide you with a baseline knowledge about the TL--transmission line. TL's can be a bit of a gray area for some Hams. Let's hope after the past few months that it is less gray.

Next month -- The last piece to the SWR/Matching puzzle.

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. Detailed information will be published in the newsletter every 3 months.

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 Eldridge Park Conference Center, 2511 Eldridge Rd, Sugar Land, 77478. Check the above website for any possible changes.

BVARC also administers amateur radio license exams on the 2nd 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

Other contacts include:

President:, Bill Stone, WS5H, dragntow@wt.net

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

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OCTOBER 2014

FIRST CLASS POSTAGE

BRAZOS VALLEY AMATEUR RADIO CLUB P.O. BOX 2997

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ADDRESS SERVICE REQUESTED

2M FM Challenge – October 4. October General Membership Meeting – October 9.

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