



# BRAZOS VALLEY AMATEUR RADIO CLUB



AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT BEND COUNTY

SEPTEMBER 2014

VOLUME 38 ISSUE 9

## BVARC SEPTEMBER GENERAL MEMBERSHIP MEETING

7:30 PM, Thursday, September 11, 2014

2511 Eldridge Rd, Sugar Land, 77478, Eldridge Park Conference Center

### Let's Talk About Full Quieting

According to a recent survey, the BVARC general membership has a strong interest in VHF and UHF operation. Based on this data, and other data from the survey, there is an effort being made to offer presentations which will appeal to the group as a whole.

With this mind, the September presentation will be given by Robert, KD5YVQ, who will be speaking about our beloved Nine-Four repeater. Robert is planning to share the latest efforts to improve the repeater as well what it takes to put a repeater on the air. Robert will be happy to answer questions and discuss the future of repeaters in Houston.



### August Meeting Recap – Ice Cream, It's Unanimous

The August club meeting had the highest attendance of any club meeting this year, thus far. And, it's a good thing as we needed a quorum, approximately fifty-four members, in order to vote on the by law changes. The by-law changes passed with a unanimous vote, which allowed the ice cream to be promptly dished out. The newly updated by-laws will be available soon on the BVARC website.

Please come and join us in September for a great presentation and the best gathering of amateur radio awesomeness this side of Houston.



### From the President, Bill Stone, WS5H

Greetings BVARC members and the Amateur radio community

What can I say other than total success for a social event at our 2014 BVARC Ice Cream Social. Many newer and older and not seen for a while members made the meeting to include family and guests for the Ice Cream fun. Our proposed Bylaw amendment changes were all voted IN and FOR by the Quorum of BVARC members needed to bring the amendments to the vote. Thanks to all that came out to have fun and cast your vote. The Ice Cream selection and setup was real good thanks to Michael AC0TX as Chairman for the event.

As those who attended meetings noticed, we are having growing pains as per the size of our current meeting location. Your BVARC Board of Directors have been looking for a larger meeting space to double occupancy per the restrictions of our current location. I request the membership to forward some ideas to one of your BOD members of a location in the Sugar Land area. The one location, First Colony Conference Center that seemed to be the fix for this problem, may have some difficulties to set per our need of the 2<sup>nd</sup> Thursday 7:30 PM requirements that we need.

Looking forward into the September meeting on VHF and repeaters, the last quarter of 2014 and January 2015 shows BVARC continues to expand our Special Service Club recognition status with the ARRL. A special thanks to K5WRN Michael your VP/program director and those who stepped up to make the presentations have done a great job keeping us up to speed with newer technology advancements and membership requests in our monthly meeting presentations. A few of the many events and presentations to be mentioned in this issue of our newsletter are the BVARC membership involvement in the Texas QSO Party in September, BVARC Astronomy day event, November Chili Supper and BOD elections, December Home Brew Night that includes your favorite gear and projects. The BVARC / 10-10 SHOT chapter, involvement in the Ten-Ten Winter QSO Party is one of my favorites as also is our January BVARC Banquet/ Awards Night. Hmmm, what new large Restaurant location, menu selection and presentation will the membership request?

I suspect many articles will be submitted in this newsletter and also our Editor will insert much of the needed info from last month as we took much space to post the proposed and now voted for Bylaw changes in last months issue. I will say 73 now to save newsletter space and organize my notes and collect submitted comments, suggestions and requests you have sent to BVARC BOD members for listing as Agenda items in the September BOD meeting.

Thanks Team BVARC  
Bill Stone, WS5H, 2014-2015 BVARC President



## BLT-41 - THE BIG ONE

Andy MacAllister W5ACM

BLT-41 will certainly be one of my favorite balloon flights. We, The South Texas Balloon Launch Team, have been flying curious, experimental, amateur-radio payloads to the Edge of Space, since BLT-1 on December 8, 1992. Almost every flight over the years has included enough potential pitfalls to keep everyone guessing. For some reason, BLT-41 was one of the most relaxed events to date. After months of meetings, planning and construction, we flew from the Wharton Intergalactic Spaceport at 10:22 AM (just 22 minutes late) on Saturday, August 9, 2014. Some refer to the launch site as the Wharton Regional Airport, but they are obviously wrong.

Two factors made it fun, easy and for many, relaxing. One was the focus on fewer critical payloads. We had reasonable results with 910 MHz FM ATV last year on BLT-34, but there were loose ends. It could have been better. This year we used a new transmitter, a fully tested and tuned transmit antenna and took serious measurements prior to flight. On the ground, Tom K5SAF had multiple combinations of antennas, preamps and receivers wired and ready to go when the balloon headed up. Jerod W5JMK and Kirk KK2Z accommodated all of the gear and antennas with a fully-functional antenna control system. Some fantastic flight video was observed by all attending and recorded for later editing.

The always popular cross-band FM repeater was flawless. Pete KD5ELH actually has two identical HTs for this job, and a third if the first two are having problems. One of the “twins” was actually having curious issues the night before flight, so it got swapped out 12 hours before launch. It happens. After the thermal and pressure stresses that the gear is subjected to over the course of many flights, they tend to get intermittent. We have retired many transceivers, cameras, TNCs, computers, GPS receivers and other items over time. Even the smallest glitch can be an indicator that reliability is declining. However, reports on the cross-band repeater for BLT-41 indicate solid power output, minimal frequency drift (about five kHz on the 446 MHz input channel) and super-quality audio. It was a great performance. Stations all over Texas made flawless, full-quieting contacts via BLT-41. Pete was also responsible for the onboard still camera. It was programmed to snap a photo once every 15 seconds. It was still taking pictures when the payload was retrieved.

Not everything was perfect, but there are some things that come in pairs – just in case. The most important is our GPS beacon. We had two. One was an experimental PECAN APRS unit from Thomas KT5TK and the other was our somewhat antique W5ACM-9 with a small HT and Kantronics TNC. It worked great, but for some reason the digipeater system did not forward altitude data to the internet. Anyone monitoring W5ACM-9 on 144.39 got the altitude data, so we simply relayed updates via the cross-band repeater. The last packet I saw before burst was 109,698 feet. That was a record for us using “heavy” payloads (compared to other micro payloads). Unfortunately KT5TK-5 appears to have broken away from its antenna somewhere around 4000 feet on the way up, probably due to launch stress.

Other payloads that worked included the mini video recorder that was strapped onto the neck of the balloon, the audio beeper and the GoPro recorder that shared space in the main payload for this flight. The “burst cam” that we aim at the balloon to record burst did not turn on properly, so we did not get to watch the balloon pop. We did last year, so we were not seriously disappointed at the loss. The more cameras the better. We have lots of video to process for the final production of BLT-41.

The second factor that made BLT-41 high on my list of great flights, was the people and the high level of cooperation. Our friend and Airport Manager David Allen got us seriously hooked up with some fine folks with access to no less than three hangers this year. David also asked Dwayne at the Spaceport to help us any way he could, and he did. Larry David cleared out our favorite hanger, the one next to the office, and had everything clean, open and ready for balloon ops before we even showed up on Saturday morning. Our other potential benefactor was ready to give us free run of two other locations.

Kirk KK2Z kept everything legal and correct with the FAA before, during and after the flight. Tom K5SAF located and procured a full tank of helium. Darrell KC5JAR took possession of the helium and it set up and ready for the gas-up operation before we even had the balloon laid out. Walter K5WH was working out details for on-site streaming video. Payload Coordinator Mike WA5TWT ensured that all payloads were ready for launch, and then with help from Bill WA5VQH, Darrell KC5JAR and Teresa W5MOM, got BLT-41 into the sky. While we were getting the balloon with payloads going, Joe W5BSA was snapping aerial photos of the launch from his RC quadcopter. That gives us even more items for the final production. John AB5SS is already working on preliminary releases and further editing.

The chase team headed by Eddie Runner NU5K had quite a hike this year. The ground track was over 50 miles, almost due west. Suzanne KF5GWZ, Dwayne KB5YTA, Michael N5PTN, John AB5SS, Thomas KT5TK and Mike N5MT were part of that illustrious crew. They were in the second lunch shift at Mikeska’s BBQ in El Campo due to the arduous trek. The bad news was the loss of Hinze’s BBQ in Wharton. It was burned out just days before our flight. Hinze’s will be back though. A temporary location has been set up, but the final site might be a new one in downtown Wharton. We will be watching.

From a financial point of view, we started that Saturday morning with a \$400 deficit. Balloons, helium and other expendables are expensive. Donations from W5EZM, KF5HGU, K5SAF, AB5SS and KT5TK kept us going for the interim flights of BLT-35 through BLT-40. Today we are only \$150 in the “red” due to the further donations received at the site and subsequent meetings. Will we fly another BIG ONE next year? There is already talk of how to send digital, high-definition ATV to the Edge of Space.



**Results of the July 8 & August 12  
BVARC Amateur License Examination Sessions  
by: John Moore, KK5NU**

B-VARC sponsored and administered the ARRL's Amateur Radio Examination sessions that were held on Tuesday, July 8 and August 12, 2014 at HCC's Scarcella Science & Technology Building here in Stafford, TX.

**MEMBERS OF THE JULY VE TEAM:**

Louis House, W5DPT  
John Moore, KK5NU  
George Ontko, KM5VP

**MEMBERS OF THE AUGUST VE TEAM**

Jeff Fussell, KD5VGE  
Larry Jacobson, K5LJ  
John Moore, KK5NU  
George Ontko, KM5VP  
Robert B. Tomlinson, N5JSL

In July, Four examination elements were administered during the evening to four applicants. Four new Technician class license were attained; with the total number of elements passed being 4. The overall "pass rate" for the evening was 100%.

Ben R. Gaskamp - {KG5DEE} - Technician  
Christopher L. Harris - {KG5DED} - Technician  
Donald J. Wells Jr. - {KG5DEC} - Technician  
Katy E. Wells - {KG5DEB} - Technician

In august, five examination elements were administered during the evening to four

applicants. One new Technician class, one new and two upgrades to General class licenses were attained, with the total number of elements passed being 5. The overall "pass rate" for the evening was 100%.

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

Clayton H. Fritz - {KG5DPG} - Technician  
 Ben R. Gaskamp - KG5DEE - General  
 Kenneth J. Taylor - {KG5DPH} - General  
 Joseph S. Turkoski - KG5BMU - General

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.



## THE BVARC Rag Chew Net

### July and August Check-ins

07/02/14, K5LKJ (NCS), W5HFF, W5TKZ, K0NM, AF5T, K5IZO, W5RH, KF5TFJ, KD5CDM, AA5OA, WN5A, WS5H, KF5JMJ (Pasadena), KL7AX (Katy). (14 Check-Ins) Solar Cycle 24: SFI = 165, SN = 154, A = 4, K = 2

07/09/14, K5LKJ (NCS), W5HFF, K5IZO, WS5H, W5TKZ, K5LJ, AA5OA, W5RH, AF5T, KE5OBY. (10 Check-Ins)  
 Solar Cycle 24: SFI = 192, SN = 209, A = 6, K = 2

07/16/14, K5LKJ (NCS), W5TKZ, W5TOM, AF5T, AA5OA, K5LJ, KK5IS (Rosharon), AA0ST (Dickenson), K5IZO, KF5TFJ, KL7AX (Katy), WS5H. (12 Check-Ins) Solar Cycle 24: SFI = 93, SN = 25, A = 7, K = 1

07/23/14, K5LKJ (NCS), K5WRN, K5IZO, W5HFF, W5TKZ, K5CAM, K5LJ, AF5T, W5TOM, K0NM, AA0ST (Dickenson), AA5OA, WN5A, N5ASH (Victoris), WS5H, KF5JMJ (Pasadena). (16 Check-Ins) Solar Cycle 24: SFI = 97, SN = 40, A = 5, K = 1

07/30/14, W5TKZ (NCS), W5HFF, K5IZO, AF5T, K5LKJ, AA5OA, K5LJ, KE5OBY, WS5H, KK5IS (Rosharon), AA0ST (Dickenson), N5ASH (Victoria), WN5A. (13 Check-Ins) Solar Cycle 24: SFI = 142, SN = 160, A = 4, K = 1

08/06/14, K5LKJ (NCS), W5HFF, W5TKZ, K5IZO, K5LBU, K5LJ, WA5CYI, KE5OBY, AA5OA, WS5H, AA0ST (Dickenson), KK5IS (Rosharon), AF5T, WN5A, KC5JAR (Katy). (15 Check-Ins) Solar Cycle 24: SFI = 139, SN = 93, A = 10, K = 1

08/13/14, K5LKJ (NCS), K5LBU, K5IZO, W5TKZ, WS5H, W5HFF, K5LJ, K5CAM, W5TOM, AF5T, AA5OA, KC5JAR (Katy), W5RH, KK5IS (Rosharon), AA0ST (Dickenson), KE5OBY (R). (16 Check-Ins) Solar Cycle 24: SFI = 104, SN = 80, A = 12, K = 1

08/20/14, K5LKJ (NCS), W5HFF, W5TKZ, AA5OA, K5LBU, AF5T, WS5H, K0NM, W5TOM, K5LJ, AA0ST (Dickenson). \*\*\* (11 Check-Ins)  
 Solar Cycle 24: SFI = 111, SN = 84, A = 16, K = 1

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

Come join us each Wednesday evening. Regards. John K5LKJ



## 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 :

5/12 - 13 - Cam, k5cam	6/16 - 25 - Ron, k5hm	7/21 - 26 - Ron, k5hm
5/19 - 30 - Ron, k5hm	6/23 - 24 - Pete, kd5qpx	7/28 - 33 - Pete, kd5qpx
5/26 - 16 - Pete, kd5qpx	6/30 - 20 - Bill, ws5h	8/4 - 27 - Cam, k5cam
6/2 - 30 - Cam, k5cam	7/7 - 20 - Cam, k5cam	8/11 - 20 - Rick, w5rh
6/9 - 20 - Rick, w5rh	7/14 - 22 - Rick, w5rh	8/18 - 35 - Ron, k5hm



## BVARC Historical Vignettes – BVARC's Presidents

### Allen Mattis N5AFV, Club Historian

Previous Historical Vignettes have related how the Brazos Valley Amateur Radio Club was formed in September 1977. The president of the club has always played a major role in shaping the programs and activities of the club. Since our club was founded 30 individuals have served the club as president. The length of time each served varies from as little as one month (After serving as president for one month, Steve Yates, AA5TB, was transferred to Fort Worth by his employer in February 1988) to as long as six years (Mike Hardwick, N5VCX, served as president from 2002-2007).

The length of the president's term was initially set at one year when BVARC was formed. In 2002 the length of officer's terms was changed to two years to take effect with the 2003 officers.

## BVARC Presidents

Year	Name	Current BVARC Member	City	Comment
1978	Jerry Albright WD5HQU	No	Beeville, TX	License expired 1998. SK?
1979	Wade Eilers W5TEN	No	Carmine, TX	
1980	Bob Spradling W5UBD	No	SK	SK
1981	Richard Shankle N5KV	No	Brazoria, TX	
1982	Dick Bigelow W5IHS	No	Lady Lake, FL	
1983	Steve Gottlieb WA50EN	Yes	Pasadena, TX	
1984	Ron Bolyard KA5GYG	No	Kerrville, CA	
1985	Harold Parker ND5F	No	Houston, TX	
1986	Steve Schuster WA5G	Yes	Stafford, TX	
1987	George Jolly ND5E	Yes	Houston, TX	
1988	Steve Yates AA5TB	No	Fort Worth, TX	
1988	Dave Dyer AA5GA	No	Houston, TX	
1989	Jack Van Demark WN5A	No	Houston, TX	
1990	Bill Dessens AA5BD	No	SK	SK
1991	Al Mattis N5AFV	Yes	Houston, TX	
1992	Randy Pollard AK5G	Yes	Bellaire, TX	
1993	Betty Wilcox KAOTEN	Yes	Houston, TX	License expired 2011
1994	Doug Holley KE5SR	No	Missouri City, TX	
1995	Carl Cunert AB8CC	No	Canal Fulton, OH	
1996	Ron Grimes WA5SCE	No	Richmond, TX	
1997	Gailen Marshall N4SKR	Yes	Ridgeland, MS	
1998	Bruce Paige KK5DO	Yes	Alief, TX	
1999	John Moore KK5NU	Yes	Houston, TX	
2000	Larry Jacobson K5LJ	Yes	Richmond, TX	
2001	Kevin Foto KD5O	No	Sugar Land, TX	
2002-2007	Mike Hardwick N5VCX	Yes	Houston, TX	
2008-2009	Charles Frost K5LBU	Yes	Missouri City, TX	
2010-2011	Rick Hiller W5RH	Yes	Houston, TX	
2012-2013	Kirk Kendrick KK2Z	Yes	Richmond, TX	
2014-2015	Bill Stone WS5H	Yes	Houston, TX	

Of the 30 BVARC presidents, 23 live(d) in Texas. Dick Bigelow, W5IHS, the 1982 president lives in Florida, Ron Bolyard, KA5GYG, the 1984 president, lives in California, Carl Cunert, WB8SVR (now AB8CC), the 1995 president, lives in Ohio, and Gailen Marshall, N5GDM, the 1997 president, lives in Mississippi. Regretfully, there are two confirmed silent keys among the group - Bob Spradling, W5UBD, the 1980 president and Bill Dessens, AA5BD, the 1990 president. Jerry Albright, WD9HQU, the 1979 president is shown in Ham Call World-Wide with an expired license in 1998 and is possibly also a silent key.



### Radiosport Items of Note for September 2014

<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.

- Texas QSO Party Sept 27<sup>th</sup> – 28<sup>th</sup>
- Tennessee QSO Party Sept 7<sup>th</sup> – 8<sup>th</sup>
- Arkansas QSO Party Sept 13<sup>th</sup> – 15<sup>th</sup>
- Washington State Salmon Run Sept 20<sup>th</sup> – 21<sup>st</sup>
- FOC QSO Party Sept 13<sup>th</sup>

Mixed Mode Contests: No Mixed mode contests of note this month

SSB Contests

- All Asian DX Contest Phone Sept. 6<sup>th</sup> – 7<sup>th</sup>
- WAE DX Contest SSB Sept 13<sup>th</sup> – 14<sup>th</sup>

CW Contests

- CW Operators Club Open Sept 5<sup>th</sup>
- Scandinavian Activity Contest Sept 20<sup>th</sup> – 21<sup>st</sup>

Digital Contests

- DARC 10 meter Digital Contest Sept 7<sup>th</sup>
- CQ Worldwide DX Contest RTTY Sept 27<sup>th</sup> – 28<sup>th</sup>

VHF/UHF

- ARRL Sept VHF Contest Sept 13<sup>th</sup> – 15<sup>th</sup>
- ARRL 10 GHz and up Contest Sept 19<sup>th</sup>

### Selected Special Event Activities

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

States shown with an asterisk (\*) are in their second rotation. This is your last chance to work these states. .

Scheduled in August week beginning are:

- \*Tennessee – 9/3
- \*Oregon – 9/3
- \*Colorado – 9/10

- \*Texas – 9/10
- \*New Hampshire – 9/10
- \*North Carolina – 9/17

- \*Connecticut – 9/17
- \*New Mexico – 9/24
- \*Idaho – 9/24

Route 66 On the Air Sep 6<sup>th</sup> – 18<sup>th</sup> 18 stations on the air along the route of the famous Route 66, “The Mother Road”. Call Signs W6A – W6T

World War I Centennial Sept 6<sup>th</sup> - WW1USA

Bicentennial of the National Anthem – Sept 13<sup>th</sup> W3B

**And, the ever popular**

46<sup>th</sup> Annual National Hollerin’ Contest; Spivey’s Corner, North Carolina Sept 12<sup>th</sup> – 14<sup>th</sup> , KK4NC

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](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



## River Oaks Car Stereo

4129 Richmond (near Wesleyan) 713-626-7627  
Houston, Texas 77027



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- Dwayne - KB5YTA
- Angelo - KF5MJV
- Blake - KF5RKJ
- Patricia - K5PLR

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Where in the world is . . .

Georgia (4L)

CQ Zone 21



The nation of Georgia is a country of 4.5 million people that is surrounded by several historically hostile countries. Located in the Caucasus region of Eurasia, at the crossroads of Eastern Europe and Western Asia. It lies south of Russia and north of Turkey, Armenia and Azerbaijan. It borders the Black Sea on the east.

The name Georgia is an exonym. You'll have to look that one up. It means a name given to an ethnic group by another ethnic group, different than the name spoken in its native language. A more familiar example would be Germany, which is an English exonym for Deutschland.

Georgia is one of the most conquered countries in the world. It reached its peak of economic power in the 11<sup>th</sup> – 12<sup>th</sup> centuries. After which it was overrun by various large empires, including the Persians. In the late 18<sup>th</sup> century it formed an Alliance with the Russian Empire until 1801, when it was promptly annexed by its partner. Georgia enjoyed a brief period of independence after the Russian revolution in 1917, but was occupied by the Soviet Union in 1921



After the fall of the Soviet Union in 1991, Georgia became an independent nation again but was invaded by Russia in the Russo-Georgian War of 2008. A portion of its sovereign territory is still under Russian military occupation.

Today Georgia is a democratic republic. It has applied for membership in the European Union and NATO.

What used to be the principal trade route between Europe and China; the *Silk Road*, is now transited by Georgia Railways. It is the shortest link between Europe and Central Asia.



Ham radio operations flourish in Georgia. The National Association Radioamateurs of Georgia [NARG], was admitted to the IARU in 2003. There are approximately 400 licensed amateurs in the country in 2003, according to the IARU. Georgia is the 241<sup>st</sup> most wanted DXCC entity, according to Club Log.

Reporting from the Dark Side  
Ron, K5HM

# \$\$ CASH BUYER \$\$

- AUTOMOBILES: ANY YEAR, MODEL, CONDITION RUNNING OR NOT.  
(ALSO OLDER VINTAGE/ANTIQUÉ CARS)
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## The Radio Hotel - Antenna Bandwidth & SWR Rick – W5RH

Over the past 4 submissions of The Radio Hotel I have talked about SWR. What generates it, what it is and how it is measured. In all of these discussions I have stated that the SWR is an indicator of the differential of impedances at the junction of the TL - transmission line and the Load – the antenna (commonly known as the feed point). Since the TL is always of a predetermined surge impedance (i.e. 50, 75, 300, 450, 600 ohms), the antenna feed impedance (Z) is the most significant side of that equation. Our desire is to have the antenna have the same Z as the TL. Fine, but Ham's have bands of HF frequencies to work on and not just a single frequency. Because of this, a dipole being "resonant and a close match" in the middle of the band, will not be resonant or matched at the ends of the band.

Just what is the range of the feed Z of a dipole over a typical band of frequencies? And how does this "change in feed Z" influence the SWR? Let's take a look.

Using EZNEC, I modeled a full length dipole -- 1/2 wavelength off the ground and resonant at the middle of the band. I charted the feed Z and SWR at that center frequency and also at both ends of the band. The chart below shows the values for 160, 80, 40, 20 and 10 meters. (the other bands 30,17,15,12 are quite narrow and vary very little). The dipole is modeled with #12 solid wire, stretched horizontally above the Earth.

Band	Center MHz	Feed Z ohms	SWR	Low MHz	Z	SWR	High MHz	Z	SWR
160	1.90	71	1.4	1.8	65 -j93	4.53	2.0	77+j103	4.72
80	3.75	71	1.4	3.5	65 -j109	5.63	4.0	80 +j123	5.87
40	7.15	72	1.45	7.0	69 -j27	1.75	7.3	74 +j40	2.14
8									

20	14.20	72	1.45	14.0	70 -j12	1.49	14.35	74 +j24	1.74
10	28.50	73	1.51	28.0	70 -j13	1.5	29.1	75 +j35	1.99

You can see, as the frequency bands go higher, the narrower the bands and the less frequency change from band edge to band edge. The SWR “swing” has a diminishing width. 160 and 80 (with the most bandwidth change of any band) are the tough bands to match with a single resonant point system. Their SWR swing from the lowest frequency to the highest frequency is quite wide -- i.e. 5:1 thru 1.4:1 at mid-band and then back up to 5:1 again. To cover the whole 160 or 80 meter bands, some hams use open wire TL’s and an ATU, while others use wider bandwidth antennas like cage dipoles or multiple wires in parallel, each cut for different portions of the band.

The higher frequency bands, 20 meters and up, stay under 2:1 SWR for the whole band and are, therefore, easily matched with 50 ohm coax across the whole band. For these bands, you can just use an “in shack” tuner to trim the matching so the transmitter puts out the full tilt wattage for which it is built. Unmatched line loss remains fairly low at these low SWR ratios. Thank goodness.

The above cursory study is what happens with resonant wires on the band of design choice and use. But what happens on a single dipole that is used on other bands? The SWR goes wild at times, especially on the even harmonics. Matching networks/ATU’s are implemented. What happens in those matching networks and what happens on the transmission lines? That will have to wait until next month.

*Next Time: Matching, reflections and the magic of wave mechanics.*

*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.*



## Repeater Etiquette

By Robert Polinski KD5YVQ

As trustee of the 146.940 repeater in Houston, a short reminder of appropriate etiquette when using the repeater. Although most users use the repeater with no problems occasionally someone steps over the line. Please, if you think it is being misused or someone is not abiding by the following rules, let me know. If you are in a conversation and you feel one of the parties is stepping over the line, do not argue with him or her, just politely SIGN OFF.

1. Do not bash, or disrespect other Hams or their views. You may disagree, but always remain polite.

2. Criticize off-air

Remember that there is almost always someone listening to the repeater. Sometimes it's a fellow ham, sometimes it's a prospective ham listening to a scanner. If for any reason you feel that you have something to say to someone that you might not want someone to say to you over the air, don't say it on the radio. Instead, find a private communications channel (telephone, email, meeting in person) and work things out that way.

3 The 94 has a 1.1/2 minute timer. The timer only resets when the repeater completely drops (some reset when the input drops) Please try to avoid the repeater time out.

4. Remember to ID when you sign off and every 10 min.

5. Pause during long QSL to allow others to sign in or out.

6. If you do not like someone, or do not want to talk to that person, just sign off, be polite but just sign off. There are many other repeaters to talk on and if you cannot be polite and follow the rules, go somewhere else.

We have quite a few new hams lately, some quite young, I want to encourage their participation in the ham community.

Remember, as the trustee of the 94 I am responsible for maintaining that the repeater rules are followed and FCC rules are enforced. I do have the right, from part 97 of the FCC rules to ban or prohibit any ham from using the repeater. Although rare, I will enforce this rule. If you are aware of a banned person using the repeater, do not engage in a QSL or tell them to get off, just sign off. Let me know.

Have fun and enjoy the newly improved 146.940 repeater

I will be doing a repeater operators presentation at the September BVARC meeting, hope all the 94 users can attend, BVARC member or not.

Robert  
KD5YVQ



## Minutes of the August 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 7:07 PM on August 7 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.), John Chauvin K5IZO Newsletter Editor Parliamentarian, Mike Hardwick N5VCX, Nathan Vessey N5NYV, Stephanie Vessey K5SFV, Norma Stone KE5NDN

Announcement:

- 1.1 2015 Greater Houston Hamfest will host the ARRL Texas Convention

Reports:

2.1 The minutes have been published in the newsletter. A better meeting has been found that can hold a 100 people, except it is by four baseball fields and more research needs to be done as to when the fields are used. If it used, then meeting can start no earlier than 7:45. Where we are now at Eldridge, access is at 7:30. Perhaps, assuming the By-Laws gets passed having food at general membership meetings might be possible. A motion was made and passed that the minutes that are printed in the newsletter be accepted,

2.2 Bob Tomlinson N5JSL presented the Treasurers report

2.3 Ron Litt K5HM presented the Budget Report, which the budget is still on track. A motion was made and was passed to accept the Treasurers Report as well as the Budget Report.

2.4 Ice Cream Social, Michael Monsour ACØTX went to the membership rolls and copied all the E mail addresses and sent out an Email promoting the Ice Cream Social, there were only 10 E-mail bounces. Non-perishable goods have mostly been bought.

2.5 Discussion came up regarding checking for ineligible people who cannot vote for the By-Laws. The consensus is : Honor system, sign in at the door and having membership rosters for double checking.

Old Business

3.1 Membership Committee: The committee consists of Nathan Vessey, N5NYV, Ron Litt K5HM, Ross Lawler W5HFF, Eddie Runner NU5K, Cameron Mitchell K5CAM. Nathan Vessey agreed to be the committee chairman.

New Business:

4.1 A motion was initially made and passed that Nathan Vessey N5NYV and Stephanie Vessey K5SFV be made the 2015 chair people for the Greater Houston Hamfest. A motion was made and passed to include the years 2016 and 2017.

4.2 There is great appreciation for all the effort that John Chauvin K5IZO has put in the Hamfests all these years.

4.3 QSL cards for BVARC need to be ordered. Ron Litt K5HM will coordinate with Theresa Williams KE4MUX QSL Manager is researching QSL designs and costs.

Meeting adjourned at 741 PM

Submitted by Recording Secretary, Michael Monsour ACØTX



2014 Club Officers:

President:

Bill Stone, W5SH  
[dragntow@wt.net](mailto:dragntow@wt.net)

Vice President:

Michael Wrenn, K5WRN  
[michael.wrenn@gmail.com](mailto:michael.wrenn@gmail.com)

Corresponding Secretary / Treasurer

Robert Tomlinson, N5JSL  
[rbtswim@gmail.com](mailto:rbtswim@gmail.com)

Recording Secretary:

Michael Monsour, AC0TX  
[msirc@wildflower.net](mailto:msirc@wildflower.net)

2 Year At-Large Board Member A:

Jerry Muller, KF5EYC  
[gmuller885@aol.com](mailto:gmuller885@aol.com)

2 Year At-Large Board Member B:

Ron Litt, K5HM  
[k5hm.ron@gmail.com](mailto:k5hm.ron@gmail.com)

1 Year Past President Board Member

Nathan Vessey, N5NYV  
[n5nyv@att.net](mailto:n5nyv@att.net)

Club Happenings:

General Meeting

Second Thursday each month, 7:30 PM  
2511 Eldridge Rd, Sugar Land, 77478, Eldridge  
Park Conference Center (Check page 1)

Board of Directors Meeting

First Thursday of each month, 7:00 PM  
Bayland Park Community Center  
Bayland Park, 6400 Bissonnet,

Volunteer Examiner Program

BVARC administers Amateur License Exams  
on the 2<sup>nd</sup> Tuesday of each month at the HCC  
Scarcella Technology Campus, 10141 Cash Rd.  
in Stafford.

Contact John Moore, KK5NU  
[jwm@hal-pc.org](mailto:jwm@hal-pc.org)

Eating Schedule

See in adjacent column.

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.

NEW YORK COFFEE & BAGEL SHOP, 7:30a.m., 9720  
Hillcroft.

### 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

(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

**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>



EDITOR'S NOTE: Due to this quarterly extended boiler plate and the "catch up" from delaying material from last month and resulting space limitations, some formatting of some of the articles had to be compromised.



Monthly Publication of the Brazos Valley Amateur Radio Club.  
Serving Amateur Radio for Southwest Houston and Fort Bend County  
Club Call sign – KK5W  
BVARC Website: <http://www.bvarc.org>  
Editor: John Chauvin, K5IZO, [k5izo@yahoo.com](mailto:k5izo@yahoo.com)  
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**Brazos Valley Amateur Radio Club (BVARC)** was organized in 1977, primarily as an emergency communications group available to assist the communities of Missouri City and Stafford when required. Since that time, **BVARC** has grown and expanded its activities to become the most active amateur radio club in the Southwest Houston and Fort Bend County area. BVARC is a Non-Profit Corporation classified by IRS as 501-©-(3).

Today **BVARC** is truly a general interest amateur radio club with an impressive record of public service. The American Radio Relay League (ARRL) has recognized the club's commitment of service with the coveted status of Special Services Club. We are proud of our members who represent some of the finest in amateur radio. Membership is not limited to licensed operators, but is open to anyone with an interest in amateur radio. Club meetings are held on the 2<sup>nd</sup> Thursday of each month at 7:30 p.m. at the Eldridge Park Conference Center, 2511 Eldridge Rd, Sugar Land, 77478,

. . . General membership dues are \$25.00 per year, with student dues \$10.00 per year, additional family members \$5.00 per member per year and life membership \$250.00.

**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 Scarella 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 281-342-3340 or [w5hff@yahoo.com](mailto:w5hff@yahoo.com) or see the BVARC website: [www.bvarc.org](http://www.bvarc.org)

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

**FIRST CLASS POSTAGE**

- **General Membership Meeting – Thursday, September 11**

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