



BRAZOS VALLEY AMATEUR RADIO CLUB



AMATEUR RADIO FOR SOUTHWEST HOUSTON AND FORT BEND COUNTY

JULY 2017

VOLUME 41 ISSUE 7

BVARC JULY GENERAL MEMBERSHIP MEETING

Thursday, July 13, 2017 7:30pm, 421 Eldridge

Nizar Mullani- KONM- will tell of his recent trip to Tanzania – including his mini-DXpedition. We'll have a report and subsequent debriefing/discussion on this year's BARC Field Day.



Report on the June General Membership Meeting

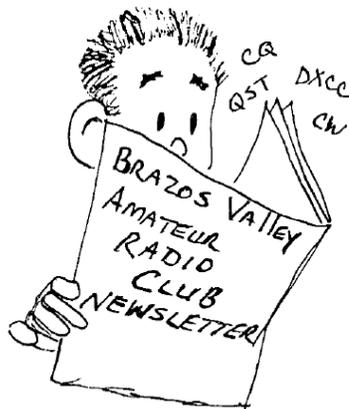
We discussed the planning for this year's upcoming Field Day, there was a report on the recent Museum Ships Weekend. We also had several non-Hams visiting, to whom newly licensed Hams imparted their advice on how to study for the tests.



BVARC's First Club Picnic by Allen Mattis, N5AFV, Club Historian

It has often been said that BVARC is as much an eating society as it is a ham radio club. The club was founded in March 1978. The second club newsletter published for January-February 1979 mentioned food.

BVARC's Activity Chairman at the time was Dale Williams WD5AJC. Dale announced plans for a club picnic. He stated "When the weather conditions get better we should plan a club picnic so that the club members, wives and harmonics can get together."



Prez Says

The month of June is over and it is not a minute too soon. With Museum Ships Weekend, Irving Hamcom and Field day, it has been one busy month for BVARC and amateur radio. Hopefully you were able to make it to one of the events this month. If not, here is a quick summary.

Museum Ships was a great success (minus the short rainout on Sunday) over the three days. Over 15 people were there on Saturday with several spending the night on the ship that night. Two radio rooms were set-up on the Stewart as well as one on the Cavalla. It was one of the largest MSWE for BVARC in some time. It was a great turnout and everyone had a great time. For more information on MSWE, check elsewhere in the newsletter.

Field Day was also a great success this year. Over 60 different individuals came out to help set-up, operate and visit the four club event over the three days. In fact we had approximately 80 people come out on Saturday to help (it couldn't have been the food that brought them out). Katy Amateur Radio Society, the newest member of the group, had a large turnout of members come out to help over the three days. A more detailed article on Field Day is in the newsletter.

I want to thank Mark Janzer, K5MGJ & Scott Medbury, KD5FBA for their hard work on MSWE and Field Day. There are so many people that worked hard on both events that I cannot begin to name them all so I would like to thank them here for helping BVARC and the amateur radio hobby. It couldn't happen without your participation.

Hamcom appeared to have a great turnout this year. I was only there for a short time on Friday but did manage to see a few old friends and a few new ones. Now that HamCom has passed, it is time to start working on the Greater Houston Hamfest. There will be an organizational meeting in July so keep your eyes open on your e-mails.

It is official – BVARC is #2 in the state. Or at least a couple of its functions are. According to John Stratton, N5AUS, ARRL West Gulf Vice Director, in a no-so-scientific study BVARC has the second largest Field Day and second largest hamfest in Texas. His words of wisdom about the ranking of the events was “why aren't you #1?”. So I believe that is a challenge to keep working on the hamfest and Field Day to make them the largest in the state. Who wants to help?

As I mentioned last month, BVARC will soon have its own testing group. There will be an organization meeting this month for the new group so if interested in getting involved, please contact me and let me know. Getting the new group together will take some time but I want to make sure that everything is done correctly so we will have a solid foundation for the group.

Don't forget the ice cream social coming up in August. We still need a coordinator for the event so if you would like to “dish it out”, contact the BVARC BOD and let them know.

73, N5VCX



Antennas, The Beautiful

(Sung to the tune of “America, the Beautiful”)

Oh beautiful, for phased arrays
With gobs and gobs of gain.
For vertical tower majesty
Above a grounded plane.
There's Tennadyne and Isotron
Force 12 and Stepp IR.
Match to the feed with open lead
From Z to resonant Z.

We have a poet
And he doesn't know it
He can make a rhyme
Any ole time.

His call is W5RH

Museum Ships Weekend

BVARC had about 20 people on board for Museum Ships Weekend. All in all, everyone seemed to have a good time. The Undersea Warfare folk were very appreciative of our presence. We did have a scout troop aboard Saturday night. We were able to show the scouts a bit of our operation.

We had the SS Selma station, inside the back part of the USS Stewart, in the bunk and kitchen area. We were comfortably able to run in transmission lines for the trailer mounted tower and also for an EFHW wire antenna. Power was available here, so generators and mosquitos were absent.

HF SSB and Digital stations were set up (see photo). The USS Stewart HF station with an Elecraft K3 and inverted V antenna proved to be the stalwart operation, with those on it putting in yeoman's service through Saturday night. We also participated in a 2m net Saturday afternoon, including Galveston's Elissa and solicited local contacts on the Tidelands ARC repeater

We found that 20 meters was the most active and conditions on the other bands were marginal to poor. We did get a South American station on 17 meters though. Operations were interrupted several times by passing storms (especially Sunday morning) We made close to 200 QSOs despite the conditions.

We had pizza delivered on Friday night, with a hearty BBQ dinner (from Leon's) on Saturday afternoon. Sunday morning, during the extended storms, we munched on Kolaches.

We had about 8 people sleep aboard the Stewart in the "Officer's Country", both Friday and Saturday night. Many thanks to all the volunteers and YL's that attended.

We're developing a lessons learned and wish list for next year. There are several significant items we'll want to work on for the next event, including getting the Cavalla's antennas in ship shape condition.





Newsletter Naming Contest

BVARC is having a Newsletter Naming Contest. There had been several attempts to name the newsletter over the years, but none were successful.

Many clubs have names for their newsletters. Others just say "Newsletter" or don't say anything (Like BVARC) and just say the club name.

Examples include (some are really corny; we can do a lot better than this):

NARS	-	-	-	-NARS NEWS
NASA JSC	-	-	-	-THE UPLINK
Austin ARC	-	-	-	-AARC-OVER
TDXS	-	-	-	-BULL SHEET
Longview/East TX ARC	-	-	-	-LETARC PROPOGATION
San Antonio Radio Club	-	-	-	-BEXAR WIRE
Temple Amateur Radio Club	-	-	-	-Bulletin of the Temple Amateur RC
Pikes Peak Radio Amat. Assn.	-	-	-	-Zero Beat
Arlington Amateur Radio Club	-	-	-	-Communicator
North Alabama DX Club	-	-	-	-The LongPath
Central Texas ARC	-	-	-	-The Wavelength

You get the drift!

Just submit your suggested newsletter name to the Editor (John Chauvin, K5IZO@Yahoo.com) before July 31.

The Newsletter regular contributors, Newsletter team and other interested members will select the name/winner. Those so participating in the selection may submit a suggestion, but are not eligible for the gift certificate



BVARC will award a **\$100** Gift Certificate to the winner.
This winner will be announced at the August 10 General Membership meeting.

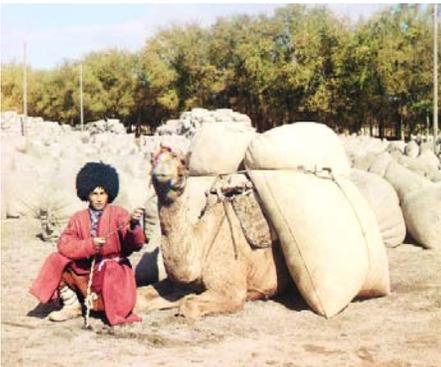
Think "out of the box" and Good Luck!

Where in the world is . . .
Turkmenistan (EZ)
CQ 17 ITU 30



It stands 17th on Club Log's World's Most Wanted DXCC list. Turkmenistan is a country in Central Asia of almost 6 million inhabitants. Mostly desert, its western boundary meets the Caspian Sea. Most of the country is covered by the Karakum (Black Sand) desert, beneath which are some of the largest natural gas reserves in the world.

The country's shape follows the famous Silk Road of medieval times, eastward through Central Asia. Along the great caravan route, stood cities like Merv, one of the great cities of the Islamic world and an important stop on the trade route to ancient China.



Annexed by the Russian Empire in 1881, Turkmenistan became a republic of the Soviet Union and independent upon the dissolution of the Soviet Union in 1991. Today, it remains one of the most autocratic regimes in the world, with its population impoverished.

Countries like Turkmenistan always seem to have leaders with unpronounceable names. For example, the current president, Gurbanguly Berdimuhamedov has ruled Turkmenistan since 2007 when he succeeded life-long president Saparmyrat Niyazov. Following in his predecessor's footsteps, Berdimuhamedov has built a personality cult. Officially titled the "Arkadag" (The Patron), he

is also prime minister and commander-in-chief of the country's armed forces.

The traditional life of the Turkmen is that of nomadic shepherds, though some have been settled in towns for centuries. The country is known for its fine carpets (one is even featured in its flag) and horses.

Turkmenistan is one of just two Stalinist countries in existence (the other being North Korea) and the government is in firm control of nearly everything, although, surprisingly, tourism is welcomed as long as you don't discuss politics or the omnipresent police or military.

QRZ.com lists less than 150 hams in the country.

Reporting from the Dark Side,

Ron, K5HM



Field Day – June 24-25
BVARC Quad Club 2017 Field Day – BVARC, TDXS, ECHO, & KARS
Pecan Grove Volunteer Fire Department – June 23-25

I wish to thank each and every person who helped set up, operate and break down this year's FIELD DAY OPERATION. You are truly amazing! And without you, it could not have happened.

Rain delayed some activities on Saturday morning in getting some of the antennas up and thunderstorms early Sunday morning caused a stoppage in making contacts. The rain failed to dampen spirits or enthusiasm



We began making contacts at 1pm local time and operated as 8a with a GOTA station. CW, SSB, digital modes were utilized with all operating positions filled with enthusiastic operators from BVARC, TDXS, ECHO and KARS who were at the ready to help those who are just beginning their ham radio journey. As this is being written, final totals are being examined. The CW, SSB and digital operators using RTTY and PSK did a great job.. According to ARRL, this may be the first time that 4 clubs have come together to put on a single field day event. It may have them look at the record books.



The Field Day station was visited by representatives of ARRL, and Jason Johnson of Ham Radio 2.0 (Grapevine Amateur Radio). Jason flew his drone over the site making a video to be uploaded to Youtube.com soon. He was impressed with the array of antennas and creativity in getting them in the air

The team under the guidance of WB5TUF was able to make a contact with one of the Leo satellites. This is often difficult during field day due to the sheer numbers of stations trying to make a contact.



GOTA station once again had a number of QSO recorded and on Sunday was visited by several youth ranging in age from 5 to 16 who were able to make their first HF contacts.



Scott-KD5FBA and Kelli – KG5QJE help a Webelo Scout with a QSO with a Missouri station.



Travis Burgess, K5HTB, set up his solar station for a demonstration geared to the youngsters and their parents outside on Sunday.



Our next club president?

Everyone ate well with our “Executive Chef” Dave Elsner keeping everyone supplied with his great burgers.

A tip of the hat is in order to Bill Cordell (W5VOM), and the guys who erected antennas, supplied feed line, computer workstations and networking (WB5TUF), generators and all of the support. Without this, all would not have been possible.

BVARC, TDXS, ECHO, and KARS members are the greatest and I am honored and humbled by the efforts that you put forward in making this event an enormous success. You epitomize the best in Amateur Radio.

Photos by K5HTB, KD5FBA, and KG5BMS



The Radio Hotel- Dissecting Series #2

A look inside those encased, potted, sealed, multi-layered, "things" we use on a daily basis.

Inside the Cushcraft R-Series Vertical and its' Black Box

by Rick Hiller -- W5RH



One of the more popular antennas over the past many years is the Cushcraft R-series verticals. Starting out as the R3 for 20, 15 and 10 meters, then adding bands to get the R4, R5, R6 and R7 (the most popular, a 7 band version). Currently they have the R-8000 and most recently the R9000. The benefit of this antenna system (at left) is that it is a self-contained, self-resonant vertical system requiring none of the traditional vertical $\frac{1}{4}$ wl counterpoise/radials. How this all works is that it is an electrical $\frac{1}{2}$ wl vertical dipole on each band and fed off-center thru a matching network (literally -- the "Black Box"- see right). So the system is designed to have an unbalanced input feed Z of 50 ohms on all of the bands. In order to get the higher off-center feed Z from a 50 ohm input, Cushcraft designed a matching network and placed it inside "the black box" .

The network, inside the black box, has a 1:1 Guanella balun (black core) for choking RF destined for the feed coax shield outside, followed by a 1:1.2 ratio toroid transformer (red core) to give the impedance transformation.....there are coupling capacitors that help with the matching and DC isolation along with a 50 uH coil that provides a high impedance path to ground for bleeding off static charges when they get too high. So really nothing special, just basic antenna and feedline magic put together in a unique configuration.

Modeling -- When I modeled a 10 meter version of this antenna -- the easiest band to model -- you end up with an off-center-fed dipole. The feedpoint is further out the antenna length from the center high current loop making the feed impedance greater than 50 ohms (See TRH BVARC Newsletter May 2015 -- The Antenna Pt.3)

For reference, if you calculate a full $\frac{1}{2}$ wl on 28.500 you get 196 inches. The vertical portion of the R7 on 10 meters is 137" or 135 electrical degrees. The remaining 45 degrees (dipole has 180 degrees) will be handled by the end loading -- the seven radials spread out at the bottom. The feed Z at the bottom of the 135 degree vertical section is nominally 60 ohms, due to these seven 49" horizontal radials. (Note: Modeling a full length vertical dipole and feeding it in the same spot -- calculates to about a 110 ohm feed Z, which is more typical for an OCF dipole.) With each band addition you get a longer vertical element (with a constant end loading radial structure) and that moves the feedpoint further and further out from the antenna's electrical center. The coils in the higher band traps add cumulatively to the total antenna loading, making, for example, the 40 meter loaded antenna length about 23 feet (certainly short for 40 meters).

R-Series Vertical Performance -- Cushcraft instructs you to place the antenna base at 10 feet off the ground. This height provides a main lobe launch angle of about 17 degrees -- nice for DX. Even when mounting the antenna at increased heights, the launch angle remains around 17 degrees. The benefit of mounting it higher, if you can, is that it is above the surrounding buildings and trees and away from most of the locally generated noise. Some folks swear by a top of the tower vertical to receive (and transmit) in all directions. In that situation it might just tie into being a second antenna for the beneficial purpose of diversity (see TRH January 2017 BVARC Newsletter).



Enjoy your hobby. GL ES

73 DE W5RH

Next time.... The Other Antenna Attributes

TAVCO

Specialists in:
Wide-Format Color and Black & White Plotters
Well Log Printers
3D Desk-Top Printers

Canon

Océ



bluebeam®
No Limits®

formlabs

Offering Sales, Supplies, Support and Service

Contact: Rick Hiller – W5RH rick@tavco.net cell:713-591-4792



BVARC Rag Chew Net

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

05/24/17, K5LKJ (NCS), W5TKZ, KG3JPP, KF5TFJ, WW5PA (M)(R), W5HFF, KE5OBY (R), KD5O, K5LJ, KF5OXF, AA5OA, AA0ST (Dickinson), W5RH, AF5T, KD5HHD/5 (Robbins), W5VOM, KF5ZAC (T), K5FAB, KG5AUM (San Antonio), W1BG (Katy). (20 Check-Ins) Solar Cycle 24: SFI = 77, SN = 47, A = 8, K = 1

05/31/17, K5LKJ (NCS), KG3JPP, W5TOM, KD5O, W5TKZ, K5LJ, W5VOM, KE5OBY (R), W5RH, AA0ST (Dickinson). (10 Check-Ins) Solar Cycle 24: SFI = 73, SN = 0, A = 7, K = 0

06/07/17, W5TKZ (NCS), KG3JPP, KF5ONT, W5HFF, KF5TFJ, K5IZO, K5LJ, K5LKJ/5 (Conroe), W5TOM, W5VOM, AA0ST (Dickinson), AF5XL. (12 Check-Ins) Solar Cycle 24: SFI = 74, SN = 13, A = 4, K = 1

06/14/17, W5RH (NCS), W5TKZ, K5JPP, KF5TFJ, K5LKJ/5 (Conroe), K5LJ, AA0ST (Dickinson), W5VOM, KF5ZAC (T), KG5QQI, KG5LRP (Katy). (11 Check-Ins) Solar Cycle 24: SFI = 74, SN = 11, A = 6, K = 1

06/21/17, K5LKJ (NCS), K5JPP, K5IZO, W5TKZ, KF5TFJ, W5VOM, WA5CYI, W5HFF, K5LJ, W5TOM, AA0ST (Dickinson), AF5XL, W5RH, K8DIJ. (14 Check-Ins) Solar Cycle 24: SFI = 75, SN = 34, A = 3, K = 1

(M) = mobile (P) = Portable (R) = Relay (RCS) = remote controlled station (T) = telephone check-in
Net conditions have been Fair to Good this month. Put your station to the test.
Come join in the conversation each Wednesday evening.
Regards. John K5LKJ

*Minutes of the June 7, 2017 Board of Directors meeting of the Brazos Valley Amateur Radio Club
(Via Teleconference)*

Board Members Present:

Mike Hardwick N5VCX (President.)
Mark Janzer K5MGJ (Vice President)
Jon Noxon KF5TFJ (Rec. & Cors. Secretary)
Scott Medbury KD5FBA (2yr @ Lg Dir)
Donovan Bali Kg5BDZ (Treasurer)
Jo L. Keener KE7NSB (2yr @ Lg Dir)

Non-voting attendees:

Jerry Muller K9GEM

A business quorum was established.

Discussions Minutes

- 1) Call to Order: 7:05 PM
- 2) A Quorum was established.
- 3) Agenda was approved.
4. Club President's Opening Statement: Thanks to those present for attending.
5. Emergency Business: None.
6. Minutes from Previous BOD Meeting:
 - The Minutes for the April Bod Meeting were approved.
 - The Minutes for the May Bod Meeting were approved.
7. Treasurer's Report: The Treasurer's report distributed to the BoD by email from Donovan Balli, Club Treasurer was approved.
- 8 Old Business:
 - 8a Hamfest: Next meeting is scheduled in June. The date was not available during the meeting.
 - 8b ARRL Field Day (June 24-25 2017):
 - 8b-1 Scott Medbury, KD5FBA, is BVARC's 2017 Field Day Coordinator.
 - 8b-2 The Pecan Grove VFD location approved by Fire Chief.
 - 8b-3 FD will be a four-club event; Echo and TDXS on board, and Katy Amateur Radio Society will be included this year for the first time.
 - 8b-4 Our Antenna Guru is Bill Cordell.
 - 8b-5 The Volunteer/Scheduler/Coordinator is Allen Brier.
 - 8b-6 "Chef" Dave Elsner on board
 - 8c. General Membership Meetings:
 - June 8 CW by Nizzar and a bit about Field Day
 - July 13 TBD but suggestions include Club Field Trip and Club project build night.
 - August 10 Annual Ice Cream Social
 - 8d. Mike is to call the Masonic Lodge regarding the promised extra key.
 - 8e. Newsletter naming contest status: No progress reported
- 9 New Business: none, but suggestions were made regarding certain club donations to the Undersea Warfare Center in support of future MSWE activities. To be discussed at the next BoD meeting.
- 10 Next BoD meeting dates:
July 8, August 5, September 9, October 7, November 4, and December 9
- 11 Comments: none
- 9 Adjournment
The group concluded the meeting (adjournment time not recorded)

Hamfests

(typically within 200 miles of Houston)

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

07/08/2017 | Texas City/Tidelands ARS Hamfest

Location: Texas City, TX

Type: ARRL Hamfest

Sponsor: Tidelands Amateur Radio Socitey

Website: <http://tidelands.org>

08/04/2017 | South Texas Section Convention (Austin Summerfest)

Location: Austin, TX

Type: ARRL Convention

Sponsor: Austin ARC & Texas VHF-FM Society

Website: <http://www.austinsummerfest.org>

10/07/2017 | HamEXPO

Location: Belton, TX

Type: ARRL Hamfest

Sponsor: Temple Amateur Radio Club

Website: <http://tarc.org/hamexpo/>



BVARC Monday Night Public Service 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 Rick, w5rh, if you are interested. Here are recent check-ins with control-ops:

3/13 - 9 - Steve, kf5yyz	4/17 - 18 - Jo, ke7nsb	5/22 - 21 - Clint, kf5ndf
3/20 - 17 - Jo, ke7nsb	4/24 - 18 - Clint, kf5ndf	5/29 - 17 - Terry, k5pgf
3/27 - 21 - Clint, kf5ndf	5/1 - 24 - Dave, k5ekw	6/5 - 25 - Dave, k5ekw
4/3 - 36 - Dave, k5ekw	5/8 - 16 - Jo, ke7nsb	6/12 - 12 - Dave, k5ekw
4/10 - 18 - Dave, k5ekw	5/15 - 10 - Jo, ke7nsb	6/19 - 16 - Jo, ke7nsb

BVARC QUICK STATS

Date	Members	Newsletters	Life Members
6/25/17	189	182	67



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 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 Sugar Land Masonic Lodge, 421 Eldridge Rd, Sugar Land, 77478. Check the above website for any possible changes.

BVARC amateur radio testing is being reorganized. Check upcoming newsletters or the BVARC website for developments.

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., Mike Hardwick, N5VCX, n5vcx@att.net

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

Newsletter Printing, Assembly and Mailing, Cameron Mitchell, K5CAM, k5cam@arrl.net

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

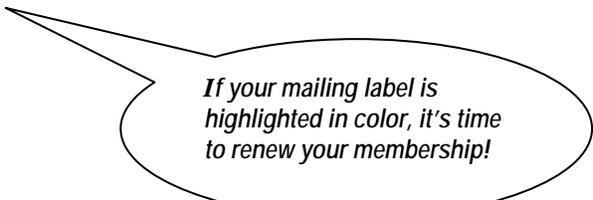
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JULY 2017

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

BVARC General Membership Meeting – Thursday, July 13



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