

# AARC COVER

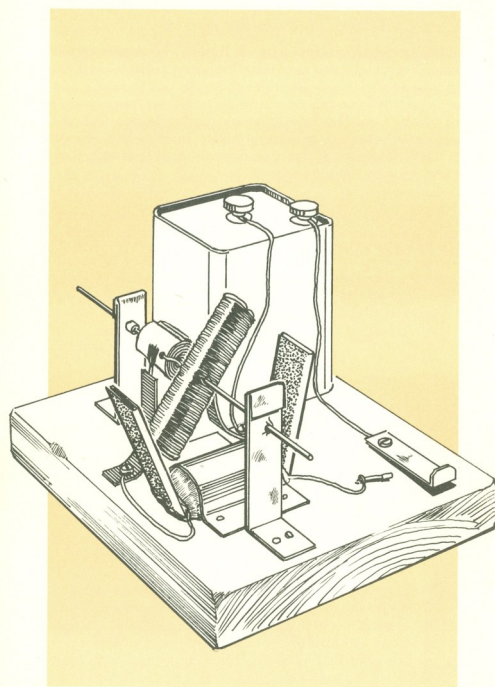
Keeping Wireless Austin for Over 90 Years!

Bulletin of Austin Amateur Radio Clubs

ISSN 1067-0262

November 2010

Issue 11-2010



## A Simple Speedy Electric Motor

From: How to Build 5 Useful Electrical Devices

A Publication of the Thomas Alva Edison Foundation Copyright 1967

One of the most practical and work-saving devices ever developed is the electric motor. Motors do just about everything for us. Billions of them exist in an endless variety of shapes, sizes, ratings and types. And although we seldom realize it, they are all around us. You could probably count more than twenty in your home...in electric clocks, can openers, carving knives, tools, toys toothbrushes, hair dryers, shavers, and in many other implements and appliances.

Building a motor is easy. In addition to being fun, it's the best way to acquire some feeling for what a motor is and how it works.

### What Makes a Motor Run?

Basically a motor is a simple machine. The one we are going to build, which is a direct-current motor, has four parts: field, armature, commutator, brushes. It operates on the principle that when two magnets or electromagnets are brought together, the unlike poles will attract each other and the like poles will repel each other.

*(Continued on page 4)*

## Periodic Events

Sun	7:30 p.m.	Travis ARES net	147.36 MHz + (131.8)
Sun	8:00 p.m.	Travis ARES Packet	145.73 MHz -
Sun	8:00 p.m.	Williamson ARES net	146.64 MHz - (162.2)
Sun	9:00 p.m.	ARO Swapnet	146.94 MHz -
Sun	(After Swapnet)	Newsline	146.94 MHz -
Mon.	7:30 p.m.	STX ARES Net	3.873 MHz
Tues.	7:30 p.m.	Hays ARES net	444.150 + (114.8)
Tues.	8:00 p.m.	Bastrop ARES Net	443.750 + (114.8)
Wed	11:30 a.m.	Ham Social Luncheon, Jim's	146.94 MHz -
Thu	9:00 p.m.	2m SSB Net	144.250 (USB)
Thu	11:00 a.m.	Lunch, Pokey Joe's 183&Great Hills	444.1 MHz+
Fri	8:00 p.m.	6m SSB Net	50.230(texasvhf.org/)
Sat	7:00 - 8:30a.m.	Breakfast @ Waterloo Ice House	444.1 MHz +
Sat	9:00 a.m.	Chapter 67 QCWA QSO Net.	3.920 MHz LSB
Daily	6:30 p.m.	Central Texas Traffic Net	147.14MHz+

## In This Issue

Story	Page
New Hams in the House!	2
Big Bend Ultra Needs Hams	3
Over the WWWaves	7
Club Minutes	7
Hams Needed	8

## Ham Radio Exams Results

The following are the results of the ARRL VE Test Session held on October 9th at Bethany United Methodist Church :

### General Class Licenses Processed

Roger L. Hinton, KC5EGM

Mark J. Nulter, KF5HXT

Jeffrey K. Whisnant, KF5IRS

### Examiners Participating in this Test Session

Howard Glueck, K5ZUA

Larry Gunter, WB5BEK

Joe Makeever, W5HS

Chris Salles, NK5U

Jack Stankus, W2JS

Kees Talen, K5BCQ

### Next ARRL VE Test Sessions

November 6th - Bethany United Methodist Church, Disciple Bldg. Room 213

December 4th - Bethany United Methodist Church, Disciple Bldg. Room 213

TNX ES 73 DE W5HS

Joe

## 10-16-2010

The South Austin W5YI VE team heartily congratulates all of the following people who earned new or upgraded amateur radio licenses at our October 16<sup>th</sup> session:

### Extra Class –

-none-

### General Class –

George R. Hanson

### Technician Class (all new) –

Daniel E. Graves

Christine L. Kyle

Kenneth W. Scoggins

Our administering volunteer examiners were:

Craig Bean, AC5KW

Jim Greenwood, AB5EK

Tony Lyon, KJ5XF

Jimmy Mercer, N5WDH

Gary Popp, AE5JR

Robert Shirey, KF5DMS

Our next two amateur radio exam sessions will start at 2 PM on November 20<sup>th</sup> and December 18<sup>th</sup> in room 118 of Fleck Hall on the campus of St. Edward's University. All sessions are walk-in and the exam fee is \$14.

For additional information regarding our amateur radio examination sessions, please contact Jim, AB5EK at (512) 327-6184 or by e-mail to [hamradioexams@hotmail.com](mailto:hamradioexams@hotmail.com) or visit our web page at [hamradioexams@hotmail.com](http://texashams.org/w5yi-austin/) or visit our web page at <http://texashams.org/w5yi-austin/>

Austin Amateur Radio Club, Inc., PO BOX 4739, AUSTIN TX 78765-4739, Web site: <http://www.austinhams.org>

President	Paul Gilbert	KE5ZW		president@austinhams.org
Vice President	Mike Brumleve	KC8VSE	513-850-8585	vice-president@austinhams.org
Treasurer	Jay Hoffman	KA5OST	388-4404	treasurer@austinhams.org
Secretary	Alan Russell	KE5DTR	851-1806	secretary@austinhams.org
Editor, AARCOVER	Mitch London	KD5HCV	326-3096	AARCover@austinhams.org
Technical (Repeater Contact)	Stuart Rohre	K5KVH	255-3932	k5kvh@arrl.net
ARRL Travis Co. Emer. Coord.	Don Dudley	AC5YK		ac5yk@arrl.net
TC ARES PIO	Steven Polunsky	W5SMP		tcares-pio@gmail.net

Please contact a club officer, attend a meeting, mail us to join the organization, you can also join or renew online.

**The Austin Amateur Radio Club, Inc. (AARC)** has annual membership dues of \$20.00 per person or \$30.00 per family. AARC maintains the following repeaters:

FREQUENCY	AUTOPATCH	USE
146.780	Yes	General
146.880	Yes	General
146.940 107.2 PL Tone	No	Most popular, WX, Swapnet & Newline
224.800	No	
444.100	No	
146.480/+1.0	No	2m D-Star Repeater [W5KA C]
1293.200/-20	No	23cm D-Star Repeater[W5KA A]
1248.200	No	23cm D-Star DD (data, simplex/reversible) [W5KA A]

Persons using the repeaters are asked to join the club to help support these valuable resources. To use the autopatch, announce your call sign, press \* and dial the phone number then release the PTT. When finished, press # to hang up the phone. Dial 911 (no \* needed) for emergency services.

**AARCOVER Information:** ISSN 1067-0262, CODEN AAOVE3. ©Austin Amateur Radio Club, Inc. Published monthly by the Austin Amateur Radio Club, Inc.

Viewpoints expressed in the AARCOVER do not necessarily reflect those of any club, or of its members, directors, or officers. Material quoted from the ARRL Letter is supplied by the American Radio Relay League, Inc.

Members and other readers are encouraged to submit material for publication. Call Mitch London, if mailed submissions are required. Electronic files are encouraged! Submissions may be edited for publication. **Deadline is the 20th of the month.** Material may be used in a later issue. Unless otherwise noted, permission is granted to reprint AARCOVER articles, provided you credit the author and the AARCOVER.

"NOUJR and His Friends" is reprinted with permission by Greg Trook, Trook Enterprises. Cartoons may not be reprinted without written permission. For information: <http://incolor.inebraska.com/n0ujr>.

"XYL" is printed with permission by Carolyn Canfield, KE5DTS. Cartoons may not be reprinted without written permission.

**For Changes in your ADDRESS, PHONE NUMBER or CALL SIGN:**

See Jay Hoffman, KA5OST (512) 388-4404 ka5ost@arrl.net

**Jay handles all changes for membership information .**

## Big Bend Ultra Marathon Looking for Amateur Radio Volunteers

**WHAT:** 2011 Big Bend Ultra Run  
**WHERE:** Big Bend National Park  
**WHEN:** Sunday, 1/16/2011 (MLK Weekend)  
**WEB SITE:** <http://www.sahams.org/alamosag/2011BB50-About.html>  
**HOW TO JOIN:** <http://www.sahams.org/alamosag/2011BB50-Join.html>



### ABOUT THE 2011 BIG BEND 50 ULTRA RUN BIG BEND NATIONAL PARK

\* What is the Big Bend Ultra Run Big Bend National Park?

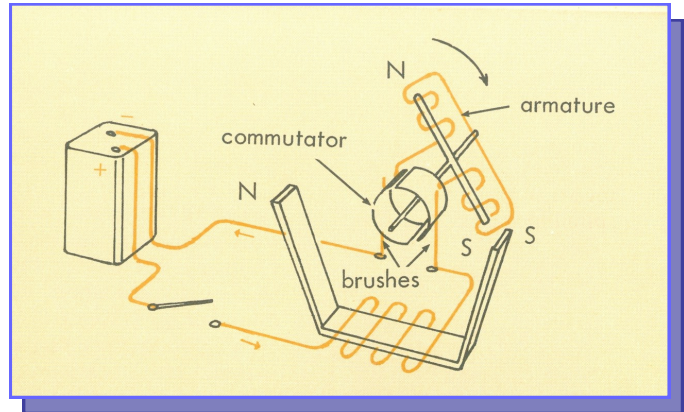
Also known as the Big Bend 50, or BB50 for short, this is a trail run through the desert of Big Bend National Park. Originally it started as a 50 mile run, then got shortened to 50K and 25K races. This year they have added a 10K run. The last time the race was held was 2007 so after a 3 year hiatus the run returns. See the "Who Says Deserts Are Hot and Dry?" story in the Feb. 2007 issue of the AARO newsletter ([http://www.sahams.org/alamosag/2011BB50-AARO\\_Newsletter\\_Feb\\_2007.pdf](http://www.sahams.org/alamosag/2011BB50-AARO_Newsletter_Feb_2007.pdf)).

(Continued on page 9)

### Field and Armature Are Electromagnets:

In our motor, the field is one of the two electromagnets. It remains stationary. And the armature is the other electromagnet. It rotates. As the circuit diagram shows, the commutator consists of two separated curved terminals attached to the ends of the armature wire. Bearing against the commutator are two fixed conductors called brushes. They allow current to enter and leave the armature when contact is made.

Note the way the battery is connected and the direction of the windings on both the field and the armature. Also note the position of the armature. Closing the switch will send current from the + terminal of the battery through the field coil, in and out of the armature, and back into the battery. Flow of current in this direction causes the magnetic poles to form as indicated. (NOTE: To find which end of an electromagnet is the north pole, grasp the electromagnet with the right hand so that the fingers curl in the direction of current flow (current is considered to flow from a + to -). The thumb will then point to the north pole. Reversing the direction of current flow also reverses the poles). As a result, the south-south poles repel each other and push the armature in a clockwise direction. A quarter turn later, the N-S attraction takes over.



### Commutator Reverses Poles:

But when the armature reaches a horizontal position, the nonconductive separations between the commutator terminals line up with the brushes, breaking the circuit. With the current thus stopped, both electromagnetic fields collapse. Coasting, however, enables the armature to bring different commutator terminals in contact with the brushes. Immediately the magnetic fields rebuild and the poles reappear. Only this time, since the current in the armature is flowing in the other direction, the armature poles are reversed (the field poles remain unchanged). Now the armature and field poles are once again alike. The like-poles of course repel each other, adding another clockwise kick to the armature. A quarter turn later, n-s attraction again takes over. As long as the commutator is positioned to reverse the armature poles at the right time, the motor will continue spinning merrily till the battery gives out.

### Materials Needed to Build the Motor

- ◆ Tin-can sheet metal for field magnet, 4½" x 6"
- ◆ 100 feet #24 magnet wire (try a hobby shop, an electrical store, or a motor repair service)
- ◆ 4 feet of tape, any kind, 1" wide
- ◆ Two 16-penny spikes for the armature (this spike is about 3/16" in diameter.)
- ◆ Rod from 3/32" coat hanger for motor shaft, 6" long
- ◆ 2 tin-can strips for commutator, ½" by 1"
- ◆ 2 tin-can strips to support shaft, ¼" by 3½"
- ◆ 2 tin-can strips to hold brushes, 3/8" by 2 3/8"
- ◆ Copper strand lamp wire for brushes, 4" long
- ◆ Base Board, 6" by 6" by ¾"
- ◆ Tin-can strip to mount field magnet, 1¼" by 2¼"
- ◆ Tin-can strip for motor switch, ½" by 2½"
- ◆ 6- volt battery

### How to Build the Parts

#### Making the Field Magnet:

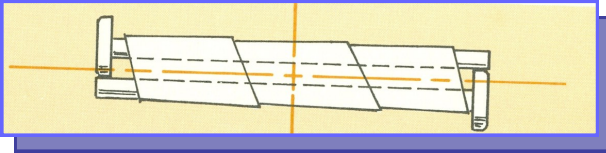
We're going to need a vise to construct the field frame. Our goal here is to fold the large piece of sheet metal eight times so that the final dimensions are ½ inch wide by 6 inches long by whatever the thickness turns out to be. Each time you bend the metal, tap the fold with a hammer. When you have finished the folding, measure two inches in from the end. Then with the last fold of sheet metal facing down, bend these two-inch sections upward until they are about 3 inches apart.

(Continued from page 4)

Leaving six inches of wire for final connections, start winding the magnet wire along the two-inch base of the field frame. Put on about 400 turns, winding back and forth as many times as required and finishing at the end opposite the one you started from.. Wrap some tape around the windings to keep them in place and protect them.

### The Armature Assembly

This assembly includes the armature and motor shaft. The two 16-penny nails provide the backbone for the armature. Saw each of them to a 2½ inch length, measuring from the top of the head down. Tape them as shown below.



As accurately as possible, find the midpoint of the nails. Insert the shaft, right through the tape, so that two inches protrude from the rear. Next comes the winding.

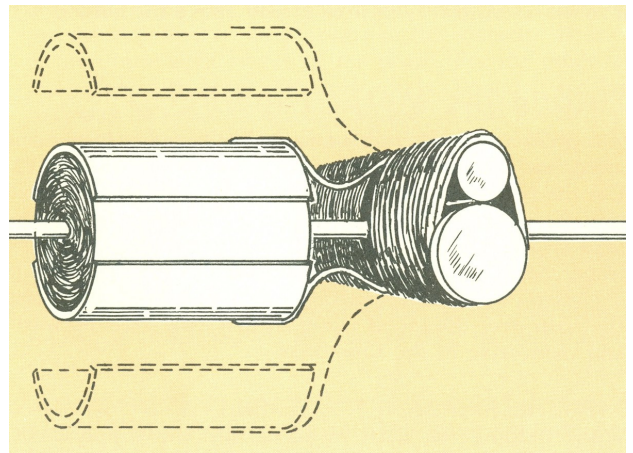
We will be putting on four layers of wire. Begin on either side of the armature, next to the shaft.. Leaving two inches of wire for connection, wind neatly toward the nail head. Keep each turn of the wire close to the preceding turn. Upon reaching the nail head, double back toward the shaft. Then make another trip to the same nail head, and return again to the shaft. At this point we cross over to the other side of the armature without changing our coiling direction, and repeat the entire procedure. Two wire ends should now be extending from the center of the armature. Cut them down to about 2 inches, and scrape the tips bare for connecting to the commutator terminals.

NOTE: Magnet wire has a deceptively clear insulation on it, which must always be scraped off when making a connection.

### The Commutator

Shape the ½" by 1" commutator terminals around any kind of ½" diameter (or slightly smaller) cylinder. The length of the terminals should be parallel with the length of the cylinder. Then, if you can, solder the armature leads to the ends of the terminals. Otherwise, pierce each terminal with a small nail, loop a scraped armature lead through the hole, and twist.

Now we must build up the shaft diameter to hold the commutator terminals. We do this by wrapping tape near the armature on the longer end of the shaft. Keep wrapping until a ½ inch diameter cylinder is formed. After looping the slack around the armature, place the commutator terminals on the rolled tape as shown. The space between the terminals on both sides should be equal and facing the nail heads. Put a thin strip of tape around both ends to keep it together. This completes the armature-commutator-shaft assembly.



### Forming the Shaft and Brush Supports

For the shaft supports, fold each 1¼" by 3½" strip lengthwise, making it 5/8" by 3½". Bend a ¾ inch segment 90° for the base, and fold over about ¼ inch at the top for added stiffness. Stand the support vertically on a flat surface, and measure two inches upward from the surface. Either drill or punch a hole at this point just big enough to receive the motor shaft. While you're at it, put a couple holes in the base for mounting.

To make the brush supports, merely bend a ½ inch segment of each 3/8" by 2 3/8" strip for the base, and put a screw hole in the middle of the base. Two pieces of copper strand wire will serve as the brushes. If you can solder the brushes to the holders, cut the wire one inch long. Remove the insulation from ½ inch of one end, and solder the wire to the holder. Attach it near the top of the holder, on the side that will face the armature. Then pull the remaining insulation off. If you don't have a soldering iron or gun, wrap a longer piece of the bare wire around the holder and tape it in place. Allow ¾ inch to extend above the holder.

### Putting the Motor Together

A good motor deserves a switch. We're going to put our motor switch on the base board as shown on page

(Continued from page 5)

1. Use the front four inches of the board for the motor. Position the center of the field magnet on a point a little more than two inches from the right and two inches from the front. Secure the magnet to the board with the 1¼" by 2¼" metal strip. After piercing two holes in each end, form the strip over the taped winding, bend the ends outward, and drive in the four tacks.

### **Installing Shaft Assembly and Brushes**

While holding the shaft by hand, slip the supports on. Keep them about ¾ inch from the commutator and armature. Now lower the assembly so that the armature will rotate without interference inside the field magnet. Tack the supports in place. Spin the assembly by hand to check for ease of rotation, balance, and spacing between armature and field. It should spin freely. A drop of oil in each shaft bearing will help. Make the armature-field gap as small as possible by bending the field poles. Also, to keep the shaft from moving to the left or right, wrap a thin strip of tape a few times around the shaft at both ends, just inside the supports.

When lining up the brushes, curve the holders until the copper strands are vertical. Also fan out the strands slightly for better contact. Use screws to mount the holders. But be careful the holders don't touch the field magnet clamp. Otherwise they may become short circuited. You will be better able to determine how much pressure the brushes should exert on the commutator after you start the motor and make adjustments.

### **Connecting the Series Circuit**

A simple slide contact switch makes a very handy device. You don't need a switch, of course. But should you decide you want one, use the 1½" by 2½" strip as one of the contacts. Locate it at the upper right corner of the board. For the other contact, a one-inch brad will work nicely. Pound it in about half way. We will be bending it over so that the strip can wedge under it. But before bending, take one of the wires from the field magnet, scrape the end clean, and loop it once or twice around the base of the brad.

After bending the brad, continue with the circuit by looping the other field wire around the screw of the adjacent brush holder. Then run a line from the opposing brush holder to the - terminal of the battery with the screw on the open switch.

Now, let's keep our fingers crossed as we close the switch. You may have to give the armature a little push. If all the connections are good and nothing is binding the shaft, the motor should respond briskly. Try adjusting the pressure on brushes for maximum performance. You might try putting a small wooden spool, an erector-set wheel, or a propeller on the long end of the shaft to see how much work the motor can do. ■

## **Club Dues for 2011—Get Them in Early!**

Please send your payment of \$20 for individuals or \$30 for family (hams in same household)  
Be sure include any change of contact/license info.

You can pay online here - <http://www.austinhams.org/join.htm>

Print form to mail can be found at

[http://www.austinhams.org/Docs/AARC\\_ARRL\\_Membership\\_Form\\_%202008.pdf](http://www.austinhams.org/Docs/AARC_ARRL_Membership_Form_%202008.pdf)

And mail to:

The Austin Amateur Radio Club  
PO Box 4739  
Austin, TX  
78765-4739

## **AARC Meeting Minutes:**

October 5, 2010

**Meeting called to order:** 7:08pm by President Paul Gilbert, KE5ZW.

Meeting started with a welcome to all and quick look at the agenda.

We had 46 in attendance, 2 visitors, and 1 new member. No upgrades reported.

Treasurer Jay Hoffman, KA5OST, reported club's 501c3 status with IRS is current, 229 members, 4 life members, and bank account totals. He discussed anyone wanting badges can order from "The Sign Man" and gave details about the Christmas Party.

**Minutes:** last meeting's minutes approved as written in AARCOVER.

Editor Mitch London, KD5HCV, had paper copies of newsletter and needs articles.

Tech Committee reported the .94 is still out, but being replaced by Midland Radio. The old .78 repeater will be shut down Dec. 1<sup>st</sup>, but a new .78 will be brought up that will give better coverage to South Austin.

ARES reported their SET will be held Nov. 6<sup>th</sup> in conjunction with the MARS Field Day; and for EmComm purposes, listen to the .94 repeater first.

President Paul asked for door prizes for the Christmas Party. He also reminded everyone officer elections are November, so please consider running. He, however, will not be.

**Ham of the Month:** ESD#6 Tower Job Crew & ESD#6 Quint Crew.

**Door Prize:** Tom Hole, KF6KYD, won a Battery Pack & level screwdriver.

No old or new business was discussed.

**Items for the good of the Club:** Jay Hoffman discussed the Texas Amateur Radio EmComm Fund (TAREF), its purpose, and some of its work so far. John Stratton, N5AUS, discussed the ARRL election, its ballot process, and timeline. There was a quick discussion of some new equipment out on the market, and another reminder of next month's elections. Be sure to check out items, other upcoming events, and scheduled presentations that are listed in the AARC Swapnet newsletter, at [www.austinhams.org](http://www.austinhams.org), and on the Yahoo user group.

**Meeting Adjourned:** 7:40pm

**Presentation:** "Mobile HF Operations" by Lew Thompson, W5IFQ/AAA6TX.

## **Over the WWWaves...**

A Collection of Various Websites sent in your friendly neighborhood hams...

The Great Radio Spectrum Famine

<http://spectrum.ieee.org/telecom/wireless/the-great-radio-spectrum-famine/1>

From Scott McMullen, W5ESE

A video clip of the complete restoration of an 800 pound Model TBL Navy transmitter from WW II.

<http://www.youtube.com/watch?v=3oHLYkhQVuU>

From Rick Herndon, K5FNI

For many pocketbooks and some self-purchases, these might look good under the tree:

<http://www.k0bg.com/neat.html>

From Rick Herndon, K5FNI

## **Hams Needed for Communications During Marathon**

Where: Hill Country State Natural Area - Bandera County Texas

When: January 8 and 9th, 2010

What: Tejas Trails - Bandera 100k Ultra Marathon

This event is three races in one, a 25k, 50k and 100k that incorporates nearly every trail on the 5400 acres of Hill Country State Natural Area. This is a unique situation to train and test EmComm abilities in a remote environment, provide a service, as well as enjoy the Texas Hill Country! Participation for this event is expected to be over 800 runners!

**Duties:** This is a 24 hour all weather event! Amateur operators man the Aid Stations and duties are basically like any other bike or running event (BP150, MS150, River Safari, etc.), relaying supply needs, runner counts and times, and coordinating the Horse Patrol with Safety and SAR operations! Operators support Race Control, Aid Stations and the HCSNAP Coordinated Horse Patrol! We are encouraging everyone to actually set-up stations within the Aid Station tent, or within a few feet utilizing a pop-up shelter or tent. Most Aid stations are situated in a manner, to which we could attach and additional EZ-up type canopy to facilitate station set-up! Operators will be required to stay in constant touch with the Aid Station Captain and/or Race Recorder, in order to keep the Database up-to-date.

**Needed:** Usually we need 10 or so license Amateurs to assist with this event. A repeater will be set up on a high ridge, 50 watt dual band portable/mobile EmComm type set-ups required in case we need to go simplex, if the repeater fails to produce. Most communications will be done with 5 watts or so through the hilltop repeater, but just in case of a catastrophic failure of the repeater, we can go to simplex. All the Aid stations allow close proximity of your vehicle, so proper crossbanding can be utilized!

We will also be utilizing the Packet Program again this year at each Aid station. There is a test and tune session planned for November 13th, 0800 hrs to 1200 hrs. Location to be determined (it will probably be in somewhere between SA, New Braunfels and Seguin). Note: you are not required to have packet to assist with the event. Those without packet will be teamed with those that do!

Individuals and Teams (Organizations ) encouraged to participate! The scenario presented by this event creates some unique training and testing opportunities! Several of our operators have worked some great HF DX in the less busy times of the event.

The Amateur Operators, coordinating with the Horse Patrol have been instrumental the last couple of years in extracting injured runners from remote areas of the trail, tracking lost ones, and of course, peace of mind to the staff and participants that if something goes wrong, we are there to help!

**Additional Volunteers:** We are also in need of several more riders for the Horse Patrol. Sorry, I cannot supply horses, you must have your own. Also, do to the increase of participants, there will be a need for additional support staff at each of the Aid Stations. If we can get firm commitment from enough individuals, the Amateur Radio community can adopt and aid station. The race coordinator will provide an experienced person to assist in set-up and operation.

**Other quick details:** Camping: yes, at all the Aid Stations - no charge to our volunteers! Generators will be allowed in most areas, for this event only! <Questions - call or e-mail K5STX

**Food:** Several Meals are provided to the Volunteers by the event management! Rumor has it, that there will be a big pot of something Saturday night! No telling what Charlie-KC5NKK will come up with this year! Thanks Charlie

**Weather/Environment :** From wild to mild! Anything that Texas can dish out is possible! Hill Country State Natural Area is just that, a natural environment, not changed much since it's donation to the state by Louise Merrick.

The 2010 event experienced what was a rare and unusual occurrence with the extreme low temperatures. Normally the lows are in the high 40's and low 50's, highs in the 70's. But, it is Texas winter, so anything can happen!

Looking forward to working with those that have supported this event in past years, and the new operators coming on board. Thank you from myself and the Tejas Trails event management!

Links of Interest:

HCSNA Park Information: <http://tinyurl.com/o99sw>

Hill Country Trail Runners: [www.tejastrails.com/Bandera.html](http://www.tejastrails.com/Bandera.html)

Hill Country State Natural Area Partners: [www.hcsnap.org](http://www.hcsnap.org)

Other details will be placed on my web page in the near future! Link tba

To volunteer or if you have other questions, please contact K5STX at [trlrider@gvec.net](mailto:trlrider@gvec.net) cell phone - 830-305-2889.

Louis Upton - K5STXBandera 100k Communications Coordinator (coordination provided through Hill Country REACT)

Cactus Rose and Bandera 100k Horse Safety Patrol Coordinator

(Continued from page 3) Big Bend Ultra

The run is organized by Carroll Voss, of Fleet Feet Sports (<http://www.fleetfeetsanantonio.com/index.php>) in San Antonio and benefits Friends of Big Bend National Park (<http://www.bigbendfriends.org/>).

What we do is provide communications for the event. Out in these wilds there are no cell phones, radio is the first and last means of communications. This is a legendary Texas amateur radio event! The communications support is provided by two groups, amateur radio operators from the San Antonio/Central Texas area and the Big Bend Amateur Radio Club (BBARC) (<http://www.bigbendarc.com/>). The organization of the San Antonio/Central Texas hams has been organized by Charlie Land (KC5NKK). This year Charlie has asked me Milton Johnson (N5HMJ) to assist. The web site <http://www.sahams.org/alamosag/2011BB50-About.html> is part of that effort.

\* Sounds ambitious, how many volunteers will be required?

Right now it look like we will be covering about 22 stations. These stations include start/finish line, transportation vehicles, race official shadows, base camp and aid/break points.

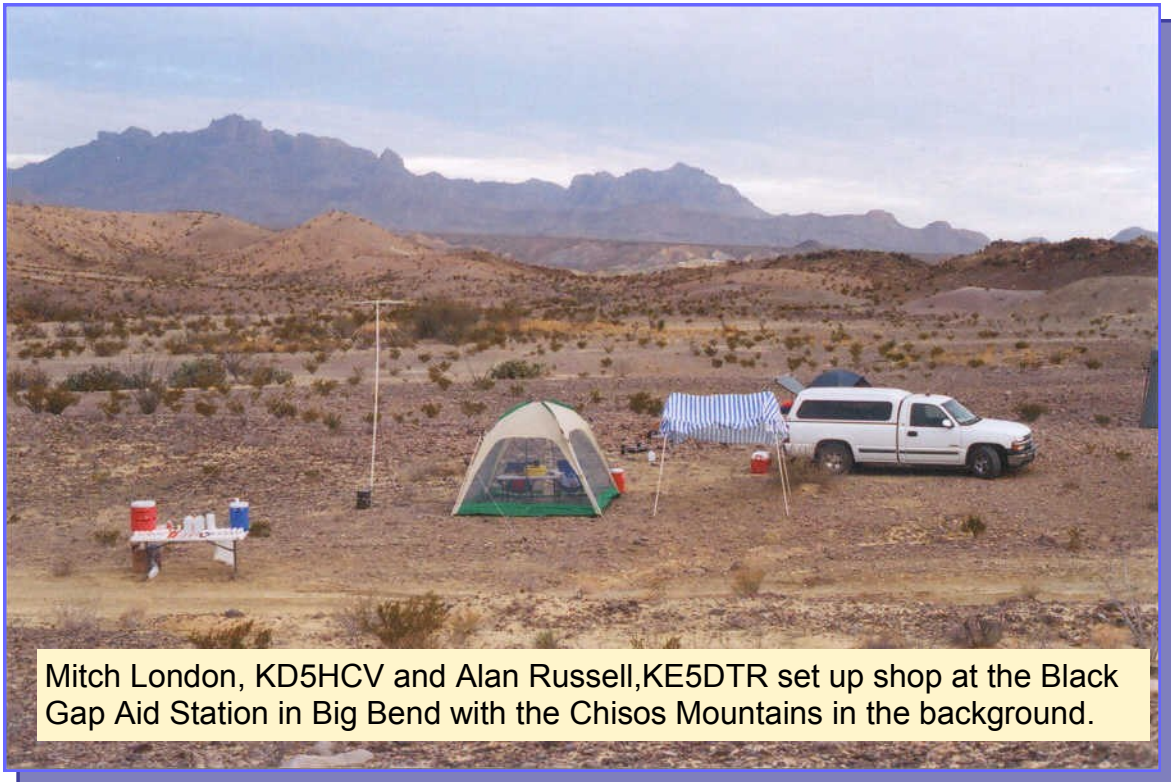
\* It's pretty remote, what's required?

**RADIO EQUIPMENT:**

VHF mobile units with ~50 watts output are the minimum requirement. HTs cannot be counted on. A good antenna on a mast for non-mobile stations is also pretty much required. For mobile units a good mag mount is required. You will also need to supply your own power (think batteries, generators, etc.).

**TRANSPORTATION:**

All volunteers will have to furnish their own transportation to Big Bend, approximately 400 miles from San Antonio. Depending on your assignment and desire you may be able to car pool with other volunteers. Volunteers assigned to aid stations located on the trail have the option of camping out at the aid station the night before the run. The rough terrain requires having a high clearance vehicle.



Mitch London, KD5HCV and Alan Russell, KE5DTR set up shop at the Black Gap Aid Station in Big Bend with the Chisos Mountains in the background.

**SHELTER:** You really need to furnish your own. Forms of shelter that have been used range from tents to recreational vehicles. Most volunteers stay at the Rio Grande Village campgrounds. The RGV campgrounds have multiple choices for accommodations as detailed below under "PARK ENTRY AND CAMPING FEES". Remember that this is January and the weather can vary from hot and dry to freezing and very wet. Be prepared is the motto!

**FOOD AND WATER:** A couple of community meals are provided at the base camp (the Rio Grande Village campground). Beyond that you provide your own food and water. Remember - this is desert country - have adequate containers to take water with you wherever you go.

**PARK ENTRY AND CAMPING FEES:**

We realize that all volunteers will incur substantial costs to travel this far. The Amateur Radio operators do have one event to raise money to help defray some of the costs. On Saturday night Charlie Land puts on a pre-race dinner. The runners buy their dinner and it is free to volunteers (radio operators and others) and the profits from that dinner are

(Continued on page 10)



(Continued from page 9) Big Bend Ultra

divided among the Amateur Radio operators that help prepare and/or server the dinner. In the past operators have designated their shares for donation to the Big Bend Amateur Radio Club (which incurs some expenses to get repeaters set up for us) or to the friends of Big Bend Park (the non-profit group that raises money for park improvements), but there is also a choice to use it to defray a portion of your travel costs. This year we'd like to reimburse the park entrance fees for radio operators, and let those helping with the meal decide individually what to do with the rest. We could see as much as \$1000 total profit if the weather is good and all of the runners who have reserved a meal show up. But you know how that can go. So please let us know if you can help with the meal and wish for good weather.

1) **Park Entry Fees:** This year the park is charging an entry fee for volunteers of \$20/vehicle for a seven day pass. You pay at any park entrance station or visitor center (covers all passenger in the vehicle). If you have a valid National Park Pass it should cover this fee.

2) **Camping Fees:** "Tent Camping" at Rio Grande Village Campgrounds has no charge for volunteers.

3) **RV Choice 1:** Rio Grande Village RV Campground ([http://www.nps.gov/bibe/planyourvisit/rgv\\_hookups.htm](http://www.nps.gov/bibe/planyourvisit/rgv_hookups.htm))

-This is the ONLY campground with hookups in the park. It is a concession operated trailer park.

-25 sites. 20 sites are available for reservation, 5 are held for first come, first serve campers.

-Register at the Rio Grande Village Store/Service Station.

-Although there is no size restriction, periodically a few sites may not be available for a 40' or longer RV due to the size of the parking lot and orientation of the spaces, which may prevent traffic from passing between two 40' rigs.

-There are no restrooms thus your vehicle must be equipped with water and electrical hookups as well as a three inch sewer connection.

-Register at the store. The cost is currently \$29 (double) with a \$3 additional per person charge.

Make your reservation via the phone number at [http://www.nps.gov/bibe/planyourvisit/rgv\\_hookups.htm](http://www.nps.gov/bibe/planyourvisit/rgv_hookups.htm)

4) **RV Choice 2:** Rio Grande Village Campground ([http://www.nps.gov/bibe/planyourvisit/rgv\\_campground.htm](http://www.nps.gov/bibe/planyourvisit/rgv_campground.htm))

-This is your typical campground for "vehicle camping".

-You get a paved pad, water, picnic table & grill. Some have "overhead shelters".

-If your RV, pop-up camper, etc. will fit on the pad you can use it.

-No hookups.

-\$14 per night (\$7 per night for bearers of applicable passes).

-You make your reservation via the link/phone number at

[http://www.nps.gov/bibe/planyourvisit/rgv\\_campground.htm](http://www.nps.gov/bibe/planyourvisit/rgv_campground.htm)

5) **Back Country Camping:**

-Backcountry-use permits - Big Bend offers a variety of primitive camping and backpacking options.

-A backcountry use permit is required and can be obtained in person at park visitor centers up to 24 hours in advance of the trip.

-The permit may be issued for up to 14 consecutive nights in the backcountry.

-See regulations and safety information for required information regarding backcountry use.

-Permit Fee - A backcountry use fee of \$10.00 per permit will be charged for all overnight use, with all revenue being used for backcountry-related projects.

\* OK, I am stoked! What do I do to become a member of The 2011 BB50 Communications Team?

Complete information on how to join can be found at <http://www.sahams.org/alamosag/2011BB50-Join.html>

Thanks,  
Milton - N5HMJ

## 2010 Calendar of Events

### AARC Meeting Info.

#### **Waterloo Icehouse**

8600 Burnet Rd. South of 183

#### **Officers Meeting 7 pm**

**November 16 - Waterloo Ice House**

#### **Business Meeting 7pm**

**November 2** - Being discussed: Officer Elections for 2011, 2010 Holiday Party and more!

Keep an eye on [www.austinhams.org](http://www.austinhams.org) for the latest information and on the austinhams Yahoo! Group.

### **2010 Upcoming Amateur Exams**

ARRL VEC— November 6th & December 4th 9a.m. at Bethany United Methodist Church. Contact Joe Makeever, W5HS (345-0800) or Joe Thiel, N5SMN (832-0450) for info. \$15 fee.

W5YI VEC—November 20th & December 18th 2p.m. in room 106, Fleck Hall, St. Edwards University. Contact Jim Greenwood, AB5EK@arrl.net, (327-6184) for more info.

**<http://texasparadise.com/w5yi-austin>**

#### **Nov 6 *Enid Hamfest***

Enid Amateur Radio Club  
<http://enidhamfest.com>

#### **Nov 6 *PARC Tailgate Sale Pearland***

Last one Tailgate for the year  
7AM 4717 Bailey Rd ~  
Parking lot of Old Dawson School,  
Just past Veterans Rd on Bailey RD  
Take Hwy 35 to Bailey (Light @ High School)  
Turn right over RR & thru intersection of Veterans Rd & Bailey.  
Parking lot on right after Ag Barn

#### **Nov 13 *NCTECH 2010 Hamfest***

Azle, TX  
Tri-County Amateur Radio Club  
<http://www.wc5c.org>

## **Upcoming Meetings...**

### **Nov. Dec. Austin Meetings/Happenings**

<b>Nov.</b>	<b>Dec.</b>	<b>Austin Meetings/Happenings</b>	<b>Time</b>	<b>Address</b>
2	7**	AARC Meeting Waterloo Ice House*	7:00 p.m.	8600 Burnet Rd.
13	11	Austin QRP, Alvin's Sandwich Shop	11:00 a.m.	12200 Research Blvd.
16	21	HSMM/Packet SIG at Red Cross	7:00 p.m.	2218 Pershing
20	18	QCWA IHOP 183 Near Duval	1:00 p.m.	11654 Research Blvd.
9	14	ATV Club Meeting Mangia's Pizza	7:00 p.m.	12001 Burnet Rd.
23	28	ARES Training -CTECC	6:30 p.m.	5010 Old Manor Rd.
22	27	Travis Co. REACT Jim's 183 & Burnet	7:15 p.m.	9091 Research Blvd.
23	28	Travis County A.R.E.S., ARL Auditorium	7:00 p.m.	10000 Burnet Rd.
25	23	CERT Meeting CTECC	6:30 p.m.	5010 Old Manor Rd.

\*AARC Business Meeting is at Waterloo Ice House Come early and grab dinner before the meeting.

\*\* Holiday Party! Details announced at the next meeting!