

# AARC OVER

**Bulletin of Austin Amateur Radio Clubs**  
 Austin Amateur Radio Club  
 Austin Amateur Television Club  
 Austin Repeater Organization

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February 2006

New Meeting Location See Back Page

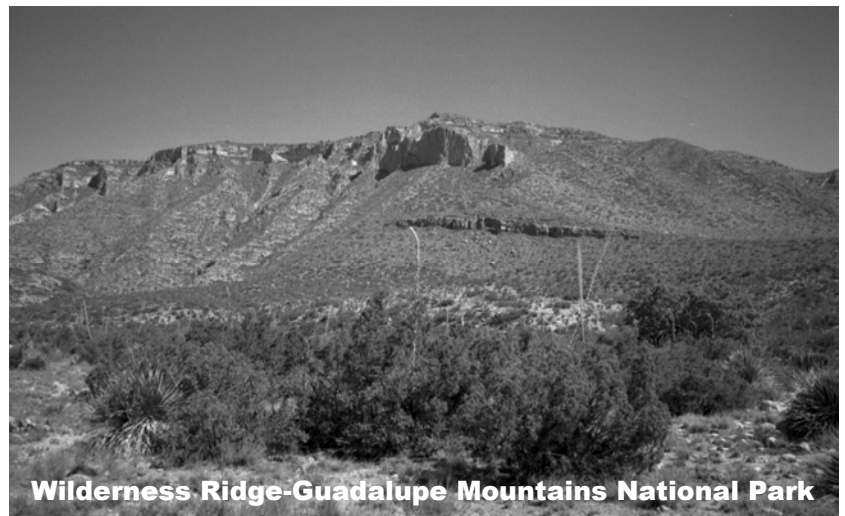
Issue 2-2006

## Wilderness QRP

By Scott McMullen, W5ESE

One of my favorite aspects of Amateur Radio is taking a QRP rig along on backpacking trips; a kind of "sub-hobby" that I like to refer to as "Wilderness QRP". I hadn't tried this aspect of the hobby for myself until a few years ago, though I've been licensed since the mid-70's.

Requirements for a transceiver intended for extended primitive camping trips include compact size, low weight, robust physical design, and very low current consumption. Radios of this type have been called "Trail Friendly Radios" or "TFRs". When considering a transceiver to take on a long backpacking trip, I try to look for a unit that draws less than 40 mA when receiving and 800 mA when transmitting. A unit with these specifications can provide several days of casual after-dinner QSOs from a lightweight pack of AA cells. It is fortunate that there are many units available today that meet these requirements. Most are relatively inexpensive, sold in kit form, and are available from suppliers such as Elecraft, Small Wonder Labs, and Wilderness Radio. These units are an excellent fit for "Wilderness QRP".



Wilderness Ridge-Guadalupe Mountains National Park

*(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	6:45 p.m.	Hays ARES net	147.10 MHz -
Tues.	8:00 p.m.	Bastrop ARES Net	443.750+ (114.80)
Wed	8:00 p.m.	Code Practice	146.94 MHz -
Wed	11:30 a.m.-1p.m.	Ham Social Luncheon, Jim's at 183 & Burnet Rd.	837-1119
Thu	11:30 a.m. - 12:30p.m.	Lunch, Waterloo Ice House	444.1 MHz+
Sat	7:00 - 8:30a.m.	Breakfast, Waterloo Ice House, 8600 Burnet	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+

**ARRL CAUTIOUSLY OPTIMISTIC ABOUT  
PENDING TEXAS BPL DEPLOYMENT**  
From The ARRL Letter  
Vol. 25 No. 2

The ARRL is taking a cautious, but hopeful, stance following the recent announcement of a commercial broadband over power line (BPL) deployment by the largest electric power utility in Texas. TXU Electric Delivery and BPL manufacturer Current Communications Group have partnered to establish "the nation's first broadband-enabled Smart Grid" that will cover most of TXU's service area. That includes some two million homes and businesses in the Dallas-Forth Worth area as well as other Texas communities.

"If TXU is going to install a BPL system, the ARRL is glad that TXU has chosen Current's system--which avoids using spectrum allocated to the Amateur Radio Service--in preference to one that has proven to be problematic," commented ARRL CEO David Sumner, K1ZZ.

It was another story altogether when TXU operated a pilot BPL project in Irving, Texas, in 2004 and early 2005 using Amperion hardware. The system generated such interference on Amateur Radio frequencies that the League filed a formal complaint with the FCC in support of a Texas radio amateur seeking the system's shutdown and fines for the operator. Within two weeks of the League's filing, TXU dismantled the BPL trial, and the ARRL withdrew its complaint.

Sumner says the League is not expecting history to repeat itself when TXU and Current begin installing their "Smart Grid" BPL system later this year. As he pointed out in his "It Seems to Us . . ." editorial in August 2005 QST, Cinergy Corp's deployment of the nation's largest BPL system in the Cincinnati, Ohio, area so far "has proceeded without major interference problems." The Cinergy system also uses Current Technologies equipment.

"Current has avoided putting high-frequency energy on the medium-voltage lines by using low-band VHF (30-50 MHz) instead," Sumner wrote. Additionally, he noted, Current's system uses Homeplug modems, which avoid all ham bands except 60

*(Continued on page 4)*

**Ham Radio Volunteer Exam Results**

**ARRL VEC** – The following are the results of the ARRL VE test session held in the LCRA Colorado Room on January 7th, 2006:

**Technician Class Licenses Processed**

Kevin R. Hooper, KE5GYU William F. Lucas, KE5GYS  
Stephen B. Peck, KE5GYV  
Mohd Redzuan Mohd Esfarul, KE5GYR  
Malcolm E. Robertson, KE5GYW  
Herbert H. Searcy, KE5GYX Lee W. Snedaker, KE5GYT

**General Class License Processed**

Jeffrey D. Peabody, KE5GYY

**Element 3 Credit - CSCE Issued**

Daniel P. O'Neil, KG4ZEX Molly A. O'Neil, KD8AKT

**Extra Class Licenses Processed**

Edward J. Behrman, KD5NSH Craig E. Boegler, W5TSN  
Sammy J. Clark, WA5DTY

**Examiners Participating in this Test Session**

John Fisher, K5JHF Larry Gunter, WB5BEK  
Jerry Jackson, N5UJ Joe Makeever, W5HS  
Tom Nevue, W2MN John Stott, AC5ZT  
Joe Thiel, N5SMN

**Next Two ARRL VE Test Sessions**

**February 4th** - LCRA Colorado Room

**March 4th** - LCRA Colorado Room

TNX ES 73 DE W5HS

Joe

**W5YI-VEC - 1-21-2006**

The South Austin W5YI VE team congratulates all of the following people who earned new or upgraded licenses at our January 21<sup>st</sup> session:

**Extra Class –**

<none>

**General Class –**

<none>

**Technician Class (all new) –**

Peter J. Brunet

Another applicant earned element credit w/o upgrading.

Our administering volunteer examiners were:

Jim Allen, KE5AMB Lloyd Goehring, N5TO  
Hugh Brown, NT5O Jim Greenwood, AB5EK  
John Fisher, K5JHF Jimmy Mercer, N5WDH  
Roger Pfluger, AC5IP

Our next two sessions will start at 2 PM in room 109 of Fleck Hall on the campus of St. Edward's University on **February 18<sup>th</sup> and March 18<sup>th</sup>**. 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 <http://texashams.org/w5yi-austin/>

**Exam fee is \$14.00**

**Please bring two forms of identification  
plus your social security number.**

**Sessions are accessible to handicapped  
applicants.**

**No pre-registration is required.**

**Walk-ins are welcomed.**

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

President	John Suchyta	KG5O	261-4931	kg5o@arrl.net
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ARRL Travis Co. Emer. Coord.	Don Dudley	AC5YK	301-8745	ac5yk@yahoo.com
ARRL Public Information Officer	Roger Wines	W5WIA	453-2193	w5wia@arrl.net

Please contact a club officer, attend a meeting, or mail us to join the organization.

**The Austin Amateur Radio Club, Inc.** has a membership dues of \$20.00/calendar year (\$30.00 family to the same address)  
**The Austin Amateur Radio Club, Inc.** AARC maintains the following repeaters. An open autopatch and emergency power on 146.78 MHz and an emergency HF/VHF station at the American Red Cross building. Persons residing or working within the coverage area are expected to join the club, if they use the autopatch. Non-residents on short visits are welcome to use this autopatch. 146.88MHz (-600) with autopatch; 146.94 MHz (-600) used for Weather Net when called, and Travis County ARES. It is also used for Swapnet and Newline @ 9p.m. Sunday; 224.80 MHz (-1.600); 444.10 MHz (+5); & 145.01 <MHz packet NetROM node (KB5PM-1 or alias AUS). Persons residing or working within the coverage area are expected to join the club, if they use the autopatch. Non-residents on short visits are welcome to use this autopatch. **The 146.78 and 146.88 repeaters have open autopatches.** Please transmit your call **before** sing the phone patch. Press \* and dial the phone number to place a call. Do not unkey after the \*. When finished, press # to hang up the phone. Dial 911 (no \* needed) for emergency services.

### AARCOVER Information

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Viewpoints expressed in the AARCOVER do not necessarily reflect those of any club, or of its members, directors, or officers.

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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 15th 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.

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**Thanks to Jerry Jackson, N5UJ, who mails the AARCOVER each month!**

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

**See Jerry Jackson, N5UJ (512) 832-5663      jerry@gaj.com**

**Jerry handles all changes for AARCOVER mailing labels & membership information & roster questions.**

### **Wanted: Public Information Officers and Reporters**

**Do you like to write? Are you interested in working with the media?**

**I have a number of ideas and projects I want to pursue in 2006 and I am looking for members that can help me “tell the story” or work with me on some special projects.**

**If interested contact Lee w5lhc@arrl.net or see me at one of the meetings.**

### **Over the WWWaves... A Collection of Various Websites sent in by members.**

Do you have a computer? To listen to a Podcast, you don't need an iPod. You can listen to them on your computer, using any of the following software iTunes, available for FREE from <http://www.apple.com/itunes/> iPodderX, available for a FREE 30 day trial, then \$24.95 at <http://ipodderx.com/> ipodder, which is cross platform (including Linux) available at [http://sourceforge.net/project/showfiles.php?group\\_id=118306](http://sourceforge.net/project/showfiles.php?group_id=118306).

If you do have an iPod, then you can also listen to the shows on it.

The following are available as Podcast:

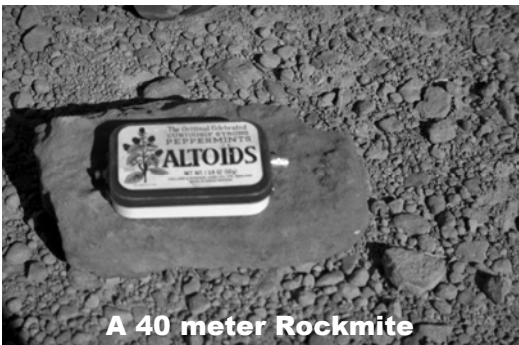
This Week in Amateur Radio at <http://www.twiar.org/>

AR Newline by <http://www.arnewline.org/> at <http://www.ke5asu.com/podcast/arnesline.xml>

ARRL Audio News at <http://www.arrl.org/arrlletter/audio/>

From Bill Eastman, KE5ASU

(Continued from page 1)



**A 40 meter Rockmite**

A fun and inexpensive way to begin experiencing "Wilderness QRP" is with an easy-to-build Direct Conversion crystal controlled QRP transceiver, the Small Wonder Labs "Rockmite". The Rockmite is available as a board kit for only \$27. It's printed circuit board was designed so that it can be housed in an Altoids (or similar) mint tin, and it is available in versions for the 80, 40, 30, and 20 meter bands. The transceiver includes an iambic keyer, so a small set of paddles, "walkman" type earphones, power source, and antenna are all that must be added to have a complete station. The transmitter generates about 500 mW from a 2N2222A power amplifier.

Most of my "Wilderness QRP" activity takes place in the evening, after making camp, having supper, and bear-bagging the food, so I prefer bands that offer good propagation after sundown. I also sometimes operate a little while before breaking camp in the morning. Since it's helpful to have an antenna that is not too large, most frequently I use 40 or 30 meters.

What can be used for an antenna? If a tuner is not available, a lightweight dipole made with 26 gauge wire and fed with coax can provide good results. With a tuner, an end fed halfwave wire (EFHWA), twinlead fed doublet, or inverted L fed against a few radials are options, too.

Where to go? My favorite place to go backpacking in Texas is Guadalupe Mountains National Park, in a remote part of west Texas south of Carlsbad, NM. This park includes a small mountain range that towers over the Chihuahuan desert floor. Most of the park is only accessible on foot. In addition, we are lucky in central Texas to have many fine state parks with primitive camp sites available. A non-exhaustive list includes Bastrop, Lake Somerville, Inks Lake, Colorado Bend, Pedernales Falls, Lost Maples, and Enchanted Rock State Parks, and Hill Country State Natural Area near Bandera.



**A Complete Wilderness QRP Station**

A group of amateur radio enthusiasts with an interest in "Wilderness QRP" banded together and formed an online group known as the "Adventure Radio Society", which can be found on the web at <http://arsqrp.com>. And locally, the Austin QRP Club has several members who enjoy building and using "Trail Friendly Radios". Perhaps you would enjoy giving "Wilderness QRP" a try?



(Continued from page 2) Texas BPL

meters, to connect individual customers. Limited testing of the Cinergy BPL deployment suggested its interference potential is minimal relative to Amateur Radio facilities.

While Sumner won't rule out some occurrences of RF interference in the TXU rollout, he says the League anticipates a low-enough probability to deal with it on a case-by-case basis. ARRL Laboratory Manager Ed Hare, W1RFI, says he's discussed with engineers at Current Technologies the sorts of interference issues that might arise.

"While they are taking the position that they will wait until problems actually occur, then determine what is needed to fix them, their open dialogue with ARRL will be an important part of the process," he said. "The opportunity for dialogue exists for all of the BPL companies, although not all of them want to work on solutions to the interference problems that have plagued this industry."

(Continued on page 7)

## **CLUB Minutes**

AARC Meeting January 3rd, 2006

The first AARC club business meeting of 2006 was called to order at 7:10PM by our President, Jeff Schmidt N5MNW. Our first time club officer and Vice President, Thomas Visel NX1N started off the new year with a prayer for the club.

### **Visitors, New Members, and New Calls:**

We had two visitors tonight. One was Mark Dudley, the son of Don Dudley AC5YK. The other was Walden George KG4LQX, our newest member, and he has also joined the TCARES organization.

### **Officer and Committee Reports:**

Jerry Jackson N5UJ gave the treasury report and summarized the 2005 statistics. There were 25 new members bringing the total to 165, and the club revenue was \$5387.

Stuart Rohre K5KVH gave the technical committee report. As has been happening for a while now, the id tone on the 146.94 repeater advertises its need for attention every 10 minutes. Also, the 444.1 repeater has been kerchunking itself with no apparent signal on the input side.

### **Old and New Business:**

The old business covered the letter to Viacom regarding the new tower for the 146.94 repeater. It is nearing completion and should be ready in a couple of weeks. There was no new business this time around.

### **Announcements and Reports:**

**Mitch London KD5HCV** gave a wrap up report of last month's Christmas party. Unlike our last fundraiser, in this one we actually came out \$75 ahead!

**Joe Fisher K5EJL** was recruiting help for the Feb. 13-17 ARRL School Club Roundup. Rules for the event are on page 108 of the December QST. Stay tuned to the Austin\_TX\_FD Yahoo group for details.

**Glenn Currie KD5MFW** announced the successful transfer of a 10 megabyte file over a 10 mile 802.11 wi-fi link. Rick Kirchof KD5ABM and myself, AD5OO were participants in that exercise.

**Don Dudley AC5YK** brought up the lack of any membership drive activity. A suggestion to improve on this by carrying application forms with you was made by Roger Wines W5WIA. This way anyone interested in any of the local ham activities will be encouraged to join the club and already be halfway there by having an application in their hands.

The club loaner equipment that is currently loaned out are the MFJ-259 antenna analyzer to Kevin Kane AD5RA, and the MFJ Deluxe Versa Tuner II to myself, AD5OO.

The door prize, a digital multimeter, was won by **Betty Wiley KD5DTC**. That should be a measurable addition to the Wiley collection of gear.

### **Ham of the Month and Year**

Jim Greenwood AB5EK nominated **Ronnie Risinger KC5EES** for ham of the month for his above-and-beyond efforts given to the local FCC exam sessions.

Jeff Schmidt N5MNW nominated **John Suchyta KG5O** for ham of the year for his numerous contributions to the club during his 2005 tenure as President.

### **Upcoming Events:**

The usual array of upcoming meetings were announced. Most notably, the first Tuesday business meetings are now held at Mangia Pizza at the intersection of Gracy Farms Ln and Burnet Rd. Also, the formerly bi-monthly TCARES meetings will now be held the fourth Tuesday of every month at the ARL Labs at 10000 Burnet Rd.

Anyone interested in volunteering for the 3M Half Marathon was urged to visit <http://www.3m.com/races> for information regarding that event.

**Stuart Rohre K5KVH** suggested upgrading to a Tech+ license by taking the Element 1 Morse code exam to gain HF privileges before the FCC makes any licensing changes which may eliminate that license class.

**Jeff Schmidt N5MNW** adjourned the business meeting at 8:00PM.

From your other first time club officer, **David Rivenburg, AD5OO**, Secretary

## Logbook of the World Program

An Explanation by Ed Cox, KE3D

A few years ago the ARRL started an electronic QSL program aimed at supporting the ARRL managed awards. The first award program supported by the Logbook of the World (LotW) is the ARRL's premier series of DXCC awards. Currently the ARRL is working to support their Worked All States program. This award will be supported some time in the first half of 2006. CQ magazine is also currently accepting a limited amount of Logbook of the World QSLs for several of their HF awards.

The Logbook of the World currently has more than 11,000 active users with over 17,000 callsigns registered. More than 88.5 million QSOs have been entered in the LotW system which has produced over 4.5 million QSLs. The LotW system is a "secure" system which at first glance seems complicated. Its not really that complex especially with many hams using electronic logging at home on their computer. Any logging program that can export the log data in the ADIF format can send data to be entered into LotW.

So how does one use LotW? For US hams it is very easy. First download the LotW software called Trusted QSL. With this software, one sends a digital request for a digital certificate from ARRL using the TCERT program portion of the LotW software. The ADIF file is processed by the LotW software (TQSL) and digitally signed. This file is then uploaded or emailed to ARRL's LotW server. You then get an electronic confirmation of the log data.

The LotW user logs on to the LotW web site with their password. They can then view and or print any confirmations, The ARRL server also shows award credits possible resulting from those QSLs. A QSL results when a log entry uploaded by you matches a log entry by another ham who has upload their log data. Neither of you can "fudge" by tweaking a call or a log entry time since you can't see the other ham's log data. The data is secure because the public key cryptography file signing ensures that you and only you have sent your stations data. Some logging programs entirely automate the LotW process like the freeware Dxlab's Suite DXKeeper program. Merely tell the program to upload QSOs and it makes the ADIF file, processes it thru TQSL and uploads it to the LotW server. In a few minutes, one can check the upload, and see if any QSLs resulted. I have received QSLs for contacts within minutes of signing off with another ham.

There are drawbacks. The system produces no "paper" QSLs. No pictures to look at drooling over some exotic locale. If you like the IOTA award, then you still need paper QSLs, because they only accept paper QSLs. The LotW QSL will show the county, state, province, ITU zone, CQ zone, DXCC country, date and time (if the other ham entered all that data into his certificate). If the QSL doesn't advance you toward any award, you lost no money and had fun. So why use LotW and not use EQSL? EQSL is a interesting program that lets you exchange QSLs card images electronically. It is also fast and cheap. You do get to print an image of the QSL. But very few award programs accept EQSL for their award because it is fairly easy to "cheat" with EQSL. Not that any of us would cheat, but ARRL and CQ awards think they have a high standard to uphold.

A LotW QSL is free, until you apply for an award. The ARRL awards programs like DXCC and WAS have fees associated with the award based on the number of QSLs submitted for the award. The LotW cards have a similar fee but the fee is lower and can be paid electronically. Some hams have earned DXCC via an all electronic submission. Even a 160 mtr DXCC has been done via LotW. In fact a five band DXCC has been earned electronically.

The LotW system got off to a slow start as many regard it as too complicated. But, that is changing. As many DX stations begin to find that it saves them a ton of money and time. Here are some quick stats from y lot book:

Year Period	HF QSOs	LOTW QSLs	% return
2004-2005	1375	316	23
2003-2004	412	35	8.5
2002-2003	309	10	3.2
2001-2002	254	7	4.3
1979-2001	6075	3	0.05

So LotW participation is actually taking off. This is a better return rate on QSLs via the QSL Bureau. The 23% return rate is lower than QSLs sent directly but still fairly good for little or no effort. And it costs nothing until you want to apply for an award.

For more information on LotW go to:  
[HTTP://WWW.ARRL.ORG/LOTW/](http://www.arrl.org/lotw/) and have more fun on the air!

CU on the air Ed KE3D (ex K3SWJ)

## **The Dipole, Should I Cut Mine to Resonance?**

By Stuart Rohre, K5KVH

Remembering a great friend of amateur radio, George, W5YR: On the topic of cutting a dipole to resonance for the band you use: George hit it on the head. There are more reasons to use non resonant antennas fed with parallel line than to worry about measuring and cutting them to resonant length. You will be using the transmatch to make that unneeded. That is how the non resonant dipole can match your rig at 50 ohms.

Many handbooks and introductory texts start out talking about resonant dipoles just as a way to teach the basic theory. But that does not mean they are more efficient than a transmatch and parallel line fed doublet of some length. That early introduction to resonance gets misinterpreted by new hams as giving resonant dipoles some magical property over non resonant lengths. The resonant dipole is an advantage only on a single frequency, and you need a transmatch everywhere else, so why bother with measuring to resonance? Who works only a single spot in the band? Or a single band? The non resonant dipole is just as efficient as resonant dipoles. You cannot measure a difference in signal if they are nearly the same length. If the non resonant dipole is much longer than the resonant band dipole, it will even have gain over the half wave dipole, and be a bigger advantage to you when fed with low loss parallel line.

A resonant antenna is higher Q, and might spike the impedance such that the transmatch has to be adjusted if you try to cover another frequency in the same band that is nearby. With a broadly tuned doublet that is not resonant on any band you are using, except perhaps the lowest, you can move around not only on frequencies in a band but from band to band with some easily determined settings of the transmatch, that can be returned to when you QSY.

A simple chart sets you up to return to any spot on any band. A few settings work over any one band for our Field Day big loops and Double Zepps we have used in the club competition for some years.

The losses of parallel line are much lower feeding broad coverage doublets than if you tried to use coax for multiband use on a single length antenna. The measurement of doublets for many bands is simply as George said, "have wire to stretch from one support to the other. Fold it in half to find the middle, and cut it there and insert feedpoint insulator, and your feeder." That way you do not need to carry a long tape measure to Field Days, or emergency set up locations.

If your doublet is long enough at a given band, you can realize gain over a dipole. It is the truly multipurpose antenna.

Stuart K5KVH

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*(Continued from page 4) Texas BPL*

In October, the ARRL petitioned the FCC to issue a Further Notice of Proposed Rule Making modifying the Part 15 BPL rules it adopted a year earlier and sharply reduce BPL's potential to cause interference. In exchange, the League said it would withdraw its still-pending Petition for Reconsideration in the BPL proceeding, ET Docket 04-37.

"It is no longer the case that all BPL systems inherently radiate high levels of RF energy on amateur allocations on overhead medium-voltage power lines," the ARRL said in its petition. "Thus, not all BPL architectures have similar potential for harmful interference to the Amateur Radio Service (and to other licensed services)."

The League's petition cited BPL systems by Current Technologies, IBEC and Corridor Systems as being among those that meet the additional requirements it's proposed. The ARRL also has cooperated with Motorola in testing the interference potential of that company's Powerline LV BPL system. Results so far have been very encouraging.

Judging from TXU's news release, BPL's ability to provide broadband service to individual customers and businesses take a back seat to its potential to monitor the utility's power grid, preventing and detecting problems and outages and enabling automated meter reading. ■

**AARC Meeting Info.**

**Business Meeting**

**7:00 pm at Mangia Pizza**

**\*\*\*NEW LOCATION!!!\*\*\***

**120001 Burnet Rd. (North of 183)**

**January 3rd** - the first Tuesday (business) meeting will be held at Mangia Pizza at Gracy Farms and Burnet Rd. Topic- First of 2 presentations on 802.11 networking with Dave Rivenburg AD500

**7:00pm at ARL Labs**

**10000 Burnet Rd. North of 183**

**January 10<sup>th</sup>** - Topic- Second presentation on 802.11 networking with Dave Rivenburg AD500

**Upcoming Amateur Exams**

**ARRL VEC- February 4th & March 4th**

**\*New Location\*9a.m. at LCRA Complex 3700 Lake Austin Blvd. Contact Joe Makeever, W5HS (345-0800) or Joe Thiel, N5SMN (832-0450) for information. \$14 exam fee.**

**W5YI VEC- February 18th & March 18th**

2p.m. in room 109, Fleck Hall, St. Edwards University. Contact Jim Greenwood, AB5EK@arrl.net, (327-6184)

<http://texasparadise.com/w5yi-austin> for more info.

**Calendar of Events**

**Feb 3-5 HLARC Ham Slam Class-** Marble Falls Library Sanford W5FIT [www.hlarc.org](http://www.hlarc.org)

**Feb 11 8th Annual STAR Flight Landing Zone (LZ) Safety Training Class** 9AM-12noon

Location: Shoreline Christian Center 15201 Burnet Rd. Admission is FREE. Register at [www.mset-tx.org](http://www.mset-tx.org) or e-mail Barry [kb5emt@pio@mset-tx.org](mailto:kb5emt@pio@mset-tx.org) 438-5154

**Feb 12 Georgetown Sunday Swapfest** 10AM-3PM Show Barn, San Gabriel Park, Georgetown, TX Tailgate Swapfest in the Show Barn - Free Admission -- \$1 Raffle Tickets To reserve a Inside Tailgate space, call/email Rick W5RHT 512-863-2428 [w5rht@arrl.net](mailto:w5rht@arrl.net)

**Feb 18 BCARC Smithville Swapfest at Riverbend Park in Smithville, TX** 8AM-? [www.bastrophams.org](http://www.bastrophams.org)

**Feb 19 Freescale Marathon** [freescaleaustinmarathon.com/home.asp](http://freescaleaustinmarathon.com/home.asp)

Feb.	Mar.	Austin Meetings/Happenings	
7**	7**	AARC Meeting ARL Auditorium	7:00p.m.
11	11	Austin QRP, Alvin's Sandwich Shop	11:00 a.m.
14	14	Hands on Hamming ARL Auditorium	7:00 p.m.
21	21	*ATV Club Mtg. Mangia Pizza	7:00 p.m.
18	18	QCWA Denny's on Burnet Rd.	2:00p.m.
27	27	Travis Co. REACT Denny's on Burnet	7:00 p.m.
28	28	Travis County A.R.E.S., ARL Aud.	7:00 p.m.

*\*ATV Club now meets at Mangia Pizza on Burnet Rd, North of the ARL Labs. Go North until you almost hit 1325, Mangia's on right.*

*\*\*AARC Business Meeting is at Mangia Pizza 120001 Burnet Rd..*

Visitors are welcome whether they are licensed hams or not. Other meetings or activities are listed under the headings for Calendar.

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