



AARC COVER

Keeping Austin Wireless for Over 90 Years!

Bulletin of Austin Amateur Radio Clubs

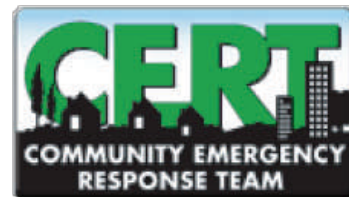
ISSN 1067-0262

May 2009

Issue 5-2009

Training for CERT Members Available

Travis County Search & Rescue is hosting a "Wide Area / Light Disaster Search Training" on **Saturday, May 16th thru Sunday, May 17th**. This training is intended to be a collaborative opportunity for a variety of Agencies and Responders to work together to improve the Operational Readiness for this unique Search and Rescue environment.



A **superb cadre of instructors** has been compiled, in order to provide the most interesting and relevant information available. Instructors come from a variety of Agencies; including Travis County Search & Rescue, Austin/Travis County EMS, Austin Fire Department, Williamson County EMS, Texas Task Force 1, etc. Please do not miss the opportunity to work with and learn from these dedicated individuals.

Objective / Audience:

This course is designed to provide participants with the knowledge, skills, and abilities to conduct basic Search Operations in the "Light Disaster" environment, typical of tornadoes, hurricanes, etc. in which light (wood) framed structures are compromised. This training will provide participants with an introduction to the Disaster environment and cover such topics as Safety, Building Assessment, Hazardous Materials, etc. Finally, the course will conclude with a full-scale exercise, designed to test and improve the skills of all participants.

Registration:

The cost of this training is only **\$30 per participant**, with lunch being provided each day for participants and instructors.

(Continued on page 3)

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	11:30 a.m.	Lunch, Waterloo Ice House	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+

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Ham Radio Exams Results

The following are the results of the ARRL VE Test Session held on April 4th, 2009 at the Bethany United Methodist Church:

Technician Class Licenses Processed

Joshua M. Albers, KF5AKH

Elisa J. Gravis, KF5AKK

Jason A. Koliba, KF5AKF

Leah M. Olson, KF5AKD

Kevin W. Burnett, KF5AKL

John L. Jones, KF5AKN

William R. Mire, KF5AKE

Dustin L. Walker, KF5AKI

Steven K. Gaskin, KF5AKG

Sheehan Khuu, KF5AKM

Adnan A. Muhammad, KF5AKJ

General Class Licenses Processed

Bruno E. Lesage, KF5AKO

Robert L. Sharp, KE5ZVX

Examiners Participating in this Test Session

Tony Davee, KM5JH

Gene Hinkle, K5PA

Curt Goodson, W4QBU

Joe Makeever, W5HS

Larry Gunter, WB5BEK

Joe Thiel, N5SMN

Next ARRL VE Test Sessions

May 2nd - Bethany United Methodist Church, Disciple Bldg. Room 213

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

NOTE:In 2009, all ARRL VE test sessions (with the exception of the August session held in conjunction with **AUSTIN SUMMERFEST** at the convention hotel) are being held at the Bethany United Methodist Church, 10010 Anderson Mill Road, Austin, TX78750. There is a set of directions on how to get to the exam room and a map inset in PDF at <http://www.austinhams.org> for your convenience.

TNX ES 73 DE W5HS

Joe

4-18-2009

The South Austin W5YI VE team heartily congratulates all of the following people who earned new or upgraded amateur radio licenses at our April 18th session:

Extra Class –

John J. Vaglica, KE5ZIR

General Class –

Gregory B. Morrow, new

Technician Class (all new) –

Lalwani Aryn

Joseph Garcia

Andrew D. Littlejohn

William D. Meredith, III

Stephen R. Seegmiller

Our administering volunteer examiners were:

Hugh Brown, NT5O

Lloyd Goehring, Jr., N5TO

Jim Greenwood, AB5EK

Anthony Lanni, AE5JQ

Jimmy Mercer, N5WDH

Gary Popp, AE5JR

Our next two amateur radio exam sessions will start at 2 PM on May 16th and June 20th in room 106 of Fleck Hall on the campus of St. Edward's University.

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 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>

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ARRL Travis Co. Emer. Coord.	Don Dudley	AC5YK		ac5yk@arrl.net
TC ARES PIO	Steven Polunsky	KE5GDR		tcares-pio@gmail.net
90th Anniversary Chair	Alan Russell	KE5DTR	851-1806	ke5dtr@arrl.netlcra.org

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	No	Most popular, WX, Swapnet & Newsline
224.800	No	
444.100	No	
146.480/+1.0	No	2m D-Star Repeater (Cedar Park Area)

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

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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.

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“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 .

Please see the attached documentation for additional information and the Registration Form.

The **attached Registration Form and Payment** should be submitted no later than **Friday, May 8th**; in order to allow adequate time for class preparations. Upon receipt of Registration, a confirmation email, with final class / meeting location directions will be provided to each participant. (If you do not receive this email, please contact me by Wednesday, May 13th).

It would be **our pleasure** if you could join us for this training. If there are any questions, please do not hesitate to contact me. (Note; total student count is limited, so please submit your Registration soon.)

Please **feel free to forward this announcement** on to other Responders who may benefit.

Thank you and I look forward to working with each of you,

Casey E. England
Travis County Search and Rescue
Chief of Operations

The Seasons of Emergency Communications

By Stuart Rohre, K5KVH

Have you ever thought about the seasons locally, as it applies to Emergency Communications? What should you be prepared for? If you study the local weather patterns, or community, you will find certain factors that really do show a season related to emergencies, and emergency ham radio needs in particular.

For example, it has been stated that California has Four Seasons: Fire, Floods, Earthquakes, and Riots. Maybe they make an easy subject since their emergencies repeat almost on a yearly seasonal rotation, for Fire and Floods (Mudslides). But, it makes a good point that should have us thinking how ARES should prepare, and how individual hams should prepare, in Central TX.

One of our recurring emergencies is flooding on Lake Travis, and the Highland Lakes and Colorado River Basin. How many remember the floods of 1991, and others after that, in spite of our now low lake levels?

Another annual experience are tornado weather conditions at various times in the year. Tornadoes can be expected in the outlying areas of the path of any Coastal hurricane that sweeps inland to Central TX, and has come onshore as a major category storm. Hurricanes could need ham radio communicators as go teams to impacted areas, as well as affecting our home area.

Flash Flooding deserves its own category, as Centex is also known as Flash Flood Alley. The hill country and its edges are noted for low water bridges, and fast rising streams that go from a trickle to a torrent in minutes. Large areas can flood at rush hours, and create very serious risks.

A rising concern is the Urban -Wildland interface, and fast moving brush fires in drought years. Think of all the hill top expensive homes sprouting on the west side hills of Austin, and its suburbs. New unfamiliar roads, and limited access all spell trouble to evacuation and communications. Our repeater sites are in a direct path of these threats with but one exception.

Another factor in our operating area is the possibility of mass injury situations. We have several colleges, many high schools, and large sports complexes where thousands of people gather for games and entertainment from Fall to Spring. While we might not be required to communicate from such a scene, the hospital communications task reaches saturation in such an event. Nearby, we have a popular baseball stadium, with limited access, only East and West.

With the expansion of high traffic highways, and limited access toll roads, another emergency risk arises in a potential Hazardous Materials incident. The major North South Railroad of this part of Texas splits Austin, and now 3 railroad companies or more traverse this corridor. Count the tank cars passing your nearest railroad crossing, and read the placards of the complex chemicals that could spill in a derailment. Centex was lucky just East of Round Rock some years ago, in that the chemicals completely burned out, but evacuations were needed. The rise of commuter rail transecting the major railroad line adds to the risk once it reaches capacity.

With Fort Hood having grown to being the largest air mobile Army base in the USA, in terms of troops, and with the major airport in Austin, disaster from the air is always a risk. Existing small airports are being squeezed by housing expansion in their approach and take off zones, adding to the risk, especially in the suburbs.

The emphasis on downtown housing has resulted in growth of high density residences. That has added to the large fire risks. One recent new apartments fire displaced people from four buildings, and 98 were without homes. When such an event happens at rush hours, normal emergency communications could well be overwhelmed and emergency communications might be needed.

When it rains, it pours, could be said about many rain events in Central TX in the Spring. Fast rising creeks may need flood watchers at low water flood gauges to assess the risk to City Emergency Management. That might mean you are on mobile radio duty at fixed location for an extended period. Supplies you might need would be a full gas tank, snacks or field rations, drinking water, and rain gear, in addition to your communications go kit.

Probably some study will reveal other Emergency Communications seasons to you. The any season unknown is terrorist actions, which could be applied in any of the locations that are in the other seasonal risks.

Be prepared is not just a motto for the Boy Scouts but reminds us to be vigilant and proactive.

-Stuart Rohre, K5KVH

Bill Hickox, K5BDZ - SK

We have lost Bill Hickox, K5BDZ, of Houston, on April 20, 2009, after a battle with cancer. Bill Hickox served Austin Summerfest as a QRP Forum Organizer in earlier years. It was upon his foundation that several of us from Houston and Austin then expanded the forum and introduced the popular door prize drawings and expanded presentations. I am sorry to hear of his passing, I did not know he had been in declining health for awhile.

Bill is also remembered for putting out one of the early and popular QRP transceiver TEJAS KITS, and a number of accessory kits for a number of years. His products included a tuner, a CW reader, and other pieces such as enclosures. His Tejas Kits helped start the resurgence of QRP kits in general, and the tradition of QRP kit makers providing support to new kit building interests.

Thanks Bill for your support of QRP over the years, and for awakening our building skills with your kits.
Stuart Rohre
K5KVH

Multiband Matching Network Design using ARD

"FARS - The FARS Relay -- Volume 30, Number 10 - October 2000"

The GM3HAT dipole of delight is a multiband dipole antenna that is resonant on 40, 20, 15, and 10 meters but not 80 meters. The VSWR is below 1.62 on these bands; while on 80 meters, it exceeds 11:1. [Cf. Ham Radio magazine, pp. 69-78, May 1987 and U.S. Patent No. 4,518,968.]

I decided to see if I could design a matching network that would match 80 meters while not destroying the matches on the other four bands. The solution turned out to be remarkably easy. First, determine an L network that gives the desired match on 80 meters. Second, add bypass stubs: Put a quarter wave open-circuit stub in series with the shunt arm of the L, and put a quarter wave short-circuit stub in parallel with the series arm of the L. The L operates normally on 80 meters, but the stubs bypass the L on the harmonic bands.

I programmed the circuit in ARRL Radio Designer, and, as predicted, it worked great. As a final step, I ran the optimizer on all of the network parameters. I was particularly interested in whether the optimizer could reduce the 1.62 VSWR. The optimizer ran at blazing speed on my 500 MHz PC - over 64,000 iterations in minutes. The peak VSWR was reduced to 1.46:1 on 40 meters. The final network is beautifully simple - just four components.

If any one needs a multiband antenna, they might look seriously at the four-band GM3HA dipole of delight and give it a fifth band with an inexpensive fixed network - no expensive antenna tuner required!

- Steve, K6OIK

Over the WWWaves...

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

<http://www.engadget.com/2009/04/16/new-atomic-clock-claims-title-of-worlds-most-accurate/>

Wow. That's accurate. I doubt that relic will be around in 300 million years, when it has lost a second. Nor will I. Rick Herndon, K5FNI

Finding Small Quantities of Electronic Parts in Austin

By Stuart Rohre, K5KVH

From time to time, the typical ham may want to repair his gear, build a new widget, or just plan what to do when needing components for future projects.

In Austin, there are no longer several electronic component houses, quite a number if you are a manufacturer buying hundreds of resistors, ICs, etc. Just look under Electronics... in the yellow pages. However, many of these do not have walk in storefronts with a warehouse of parts locally for the small buyer.

The places that stock components for small quantity purchases Fry's, but selection is limited. There are surplus sources and the main one is Howard's Electronics off Longhorn, and just south of the South gate road to Pickle Research Campus, (Gate not now in service). (Longhorn is off burnet Rd. less than a mile north of 183 and Burnet).

The main stocking new parts distributor is Bantam Electronics. This was an outgrowth of the Tinkertronics organization that was on Airport and later on McHale Ct.

Bantam Electronics is at 4616 W. Howard Lane, west of Mopac and Wells Branch Parkway intersection, past Abbott Labs. Going west on Howard turn North at the County Rd. alongside an industrial Park. Continue North to the back of the park, Building 5, Suite 550 is Bantam Electronics about 3 doors west of end of building with small sign beside door.

Bantam sells to hams under an Account set up under Austin Amateur Radio Club to get around their \$25 minimum purchase. Bantam stocks replacement semiconductors, computer parts and cases, wire and cable, electronic tools and instruments, some Velleman kits, wire mold, shrink tubing, and a wide assortment of Gel Cell batteries.

Howard's is one of the last of the old time surplus electronic outlets. If you

can find it, Howard probably has it. Racks and shelves of components, and a few assembled items are his forte. There are old computers inside for sale, generally a few free monitors out front. He has many obsolete transistors and ICs. Most small capacitors, and a limited number of electrolytics.

There are boxes of many, many small micro sized IF cans of unknown characteristics and in a couple of sizes. There are some ferrite products. Occasionally, you can find a small box or chassis of use. Relays, hardware fasteners, nameless widgets, and resistors round out the offerings. Howard's is a place that you want to visit a couple of times to get a flavor of what he has, and where it is in the store, by just walking the aisles and observing.

They occasionally rearrange things, but for as long as I have known the store; as you enter, the semiconductors are straight ahead. ICs have now overflowed to the second aisle to the right, since they added a computer dept. at the rear of the first aisle. You can find some computer accessories toward the front of the store among the middle aisles. Further back are resistors and pots. Along the right wall are the capacitors, at least this was the layout the last time I was there, a couple of months ago, in Fall 2007.

Serious constructors will probably order by mail or phone from out of town sources. One with no minimum at present is Mouser Electronics headquartered in Mansfield TX, in the south. Worth/ Arlington suburbs. They are a full line components distributor, with a large hard copy catalog you can request on the web. If you order early one day, during the week, you can have the part by 10 AM the next morning by some of the parcel services.

Mouser has other warehouses across USA, but most things are available from Mansfield HQ.

Some things might be found at Digi Key, Newark, Allied, or some of the other national listed in the yellow pages or on the web. But, most of these have minimum orders, thus hams probably need to combine orders, or

do serious stocking of a junk box with each order to the large wholesale houses.

Some places I have left out may also carry other not strictly electronic parts items. Carlton Bates was one such place, but they have not sent me a current catalog.

I have left off some surplus places that sell to hams, but are very proud of what they have. Yet, occasionally, only such a place as Surplus Sales of Nebraska may have an old high voltage knife switch or other artifact for a particular vintage project. A place with a military concentration is Fair Radio Sales on the web.

QRP rig builders have found some hard to get components at Ocean State Electronics on the East Coast, but they are sometimes slow to respond.

A scarce ham component are variable capacitors. If you don't take advantage of ham swap meets, you can find Owen Elliot capacitor company still making variables. They had replacements for Heath capacitors that were prone to losing plates.

Some other transmitting grade capacitors are found by web search. At one time, Cardwell was still in the variable capacitor business. Today, the sources of small quantities of ham components are a moving target. Recently, we lost one of the largest old parts and equipment stocking surplus stores, with the death of the owner of Nortex Electronics in Ft. Worth.

Surplus electronics stores tended to cluster around airplane service facilities, thus at one time San Antonio hosted a number of interesting aviation electronics surplus stores. Most were around Kelly Field, or scattered from near the international airport to near the Lone Star Brewery along the San Antonio River south of downtown. Sadly, that historic ham location is long gone, although a historic mill is only a block south of the former warehouse. San Antonio has one ham store near the International Airport and

(Continued on page 7)

above Hwy 281. There was also a surplus parts branch of Altex, separated as Atex last I was there, and only a couple blocks from the Ham Store.

If ever you need a wide range of components, kits, old test equipment, wire, cable, parts, hardware, even such as bicycle handle bar handles, visit Electronic Parts Outlet on Fondren in west Houston. EPO for the rabid builder, is probably worth a trip to Houston, and is even open part of Saturday. (If you also like steak, you can plan on dinner at the upscale Churasco's off Westheimer, an Argentinian steak restaurant, also in West Houston, and inside Beltway 8, as is EPO.)

Last but not least, most Austin hams have discovered our own local ham store, Austin Amateur Radio Supply.

They stock the ARRL books, ham radio magazines, coax and feedlines, insulators, coax connectors, accessories, weather stations, and of course radios and antennas. They are mainly open during the week, but you can call for latest hours. They are part of a mail order ham store consortium, so if a particular model radio is not in stock, they may be able to arrange to have it sent to you. They don't stock individual

circuit parts, but are one stop shopping if you are buying a ready built station.

New hams of today may not be able to enjoy what I had as a young ham, and that was stores such as Reeves Radio Supply in El Paso where they had every component needed to build a transmitter or receiver, spread out in bins on tables throughout a store front. They also stocked some of the popular transmitters or receivers of the day, and probably took trade ins of rigs.

However, there were no computers, monitors, keyers, packet modems, laser pointers, kits, gel cell batteries, or other wonders of modern ham radio. No design software nor keyboards. No CDs of study guides for FCC ham exams.

If you are into vintage radios restoration, you should know about some national resources: Antique Electronics Supply, <radiosandmore.com>; Playthings of the Past; and many others you may search via keywords and Google.

I have always told new hams to get all the free catalogs of distributors of part-

sy you can; and a lot about what parts are available by reading these.

To augment what you learn in a ham class, or self study, buy a used copy of "Basic Electronics" by Bernard Grob, (McGraw Hill), and therein are illustrated the schematic symbol and the picture of most individual electronic components. Half Price Books typically have several in each store along with the lab workbook that goes with the text. Grob is now in the Eighth edition or more. I first became aware of it in 1965, and used it as a text for classes I taught in the vocational schools of Malaysia. It is one of the classic books for learning electronics.

There are probably many other parts sources I have left out, and perhaps others might send the AACOVER their favorite sources, especially if you find a stash in Austin.

-Stuart Rohre
K5KVH, 9M2SM 1965 to 1968.

Club Minutes

Minutes of the AARC meeting April 7

A special meeting, held at LCRA's Dalchau Service Center was called to order at 7:05PM by president Lee Cooper W5LHC.

Of the 57 in attendance many visitors (~17) were recognized. Most notably, representatives from the National Hurricane Center and the ARRL.

David Woolweaver K5RAV, Director of the West Gulf Div, announced Lee Cooper as being selected as Assistant Director for Emergency Communications in the West Gulf Division.

Ham Of The Month went to "Uncle" James N5OUJ for his tireless service in the National Traffic System.

The meeting presentation was a sideshow featuring the Amateur Radio National Hurricane Conference presenters.

Meeting was adjourned at roughly 9PM.

Jeff Schmidt N5MNW

AARC Meeting Info.

Waterloo Icehouse

8600 Burnet Rd. South of 183

Officers Meeting

May 19th 6pm Waterloo Icehouse

Drop on in Early and Grab a Bite to Eat!

Regular Business Meeting

Special Meeting Location See Pg 1

May 5th - Roy Walker, WA5YZD, will be discussing various digital mode of ham radio.

2008 Upcoming Amateur Exams

ARRL VEC- May 2nd and June 6th 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- May 16th and June 20th 2p.m. in room 106, Fleck Hall, St. Edwards University. Contact Jim Greenwood, AB5EK arrl.net, (327-6184) <http://texasparadise.com/w5yi-austin> for more info.

@

2009 Calendar of Events

May 9 7290 Net Picnic Riverbend Park Smithville, Tx

May 14-17 Dayton Hamvention www.hamvention.org/

May 16 Smithville Hamfest (permanent change for 2009 and onward) Riverbend Park 145.350(-)114.8Hz 443.750(+)114.8Hz www.bcarc-hams.org/

May 30-31 Tour De Cure SA-San Marcos-ATX Bikeride Benefits American Diabetes Association and is sponsored by Valero SA Ham volunteer contact- Lee N5NTG lee@besing.com Hays/Caldwell Ham volunteer contact- David KD5MML david@nwwin.com AustinHams volunteer contact- Jeff N5MNW@arrl.net

May	June	Austin Meetings/Happenings
5	2	AARC Meeting Waterloo Ice House* 7:00 p.m.
9	13	Austin QRP, Alvin's Sandwich Shop 11:00 a.m.
12	9	ARES Training -CTECC 6:30 p.m.
27	24	HSMM/Packet SIG at Red Cross \$ 7:00 p.m.
19	16	ATV Club Mtg. Mangia Pizza 6:30 p.m.
16	20	QCWA IHOP 183 Near Duval 1:00 p.m.
25	22	Travis Co. REACT Denny's on Burnet 7:00 p.m.
26	23	Travis County A.R.E.S., ARL Aud. 7:00 p.m.

**AARC Business Meeting is at Waterloo Ice House 8600 Burnet
Come early and grab dinner before the meeting.
\$ Correction to this meeting has been made*

Return Service Requested
May 2009
Austin, TX 78765-4739
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Austin Amateur Radio Club
AARCOVER