



AARCOVER

Bulletin of Austin Amateur Radio Clubs

Austin Amateur Radio Club
Austin Amateur Television Club
Austin Repeater Organization

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ARES / REACT in Waco

By Lee Cooper, W5LHC

With contributions by Charlie Land, KC5NKK

The State Division of Emergency Management held its 45th annual training conference for emergency managers in Waco from the 7th through the 10th of March. Travis County ARES, Travis County REACT and the State RACES had a booth setup for the conference. Among local hams in attendance were Lori Schmidt, KM5MQ, Charlie Land, KC5NKK, Joe Canfield, N5HPC, Joe Thiel, N5SMN, David Haun, KB5UGN and myself, W5LHC.

Larry Eblen and Gary Woodall were there representing the National Weather Service and we also ran into Steve Collier, Pete Baldwin and Ben Avidikian from the Austin Travis Country Office of Emergency Management. There were talks by Judge J. Kimbrough, the Director of the Texas Department of Homeland Security and the Director of FEMA region 6, of which Texas is part of.

This year the conference moved to the Waco Convention Center, which appears to be a good thing as attendance was up greatly this year from last. Jack Colley, the State Coordinator for the Division of Emergency Management, stated that over 1075 registered attendees and over 100 vendors were present. Along with the paid emergency managers were a large number of Volunteer Organizations who had equipment on display, including the American Red Cross, Salvation Army and The Men's Baptist Kitchen.

There were some outrageously equipped communications vans. Red Cross had a Ford Excursion that had been outfitted with every radio known to man. The Baptist Men had a similar van (that actually looked

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Periodic Events

Sun	6:45 p.m., Bastrop ARES net	145.35-(114.8)/443.75 + MHz
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	145.13 MHz -
Sun	9:00 p.m., ARO Swapnet	146.94 MHz -
Sun	(After Swapnet) Newslines	146.94 MHz -
Mon	6:45 p.m., Hays ARES net	147.10 MHz -
Wed	8:00 p.m. Code Practice	146.78 MHz
Wed	11:30 a.m.-1p.m., Travis County ARES lunch @ Jim's	
	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	CTTN Central Texas Traffic Net, 6:30 p.m.	147.14MHz+

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Repeater Info.

Forwarded by Stuart Rhore, K5KVH

This afternoon Gerald Richmond, N5ZXJ, made some modifications to the new 147.140 (PL 123) repeater on the KCEN tower at the 1600-foot level. The preliminary reports are very good to outstanding with coverage from San Saba to the west, Franklin to the east, Hillsboro to the north and Buda to the south. Several other stations in the adjacent counties to KCEN checked in with full quieting. The repeater was heard in Fort Worth but the station could not hit it. We will be monitoring for stations to verify the full coverage.

The station was funded with a Texas Health Department grant to be a wide coverage amateur radio emergency backup in the event of a bio-chem event and loss of other communications facilities. KCEN management and owners made the space available on the KCEN tower. Bell County Officials graciously accepted the responsibility of managing the funds and equipment.

The Bell County EOC (and Its Volunteer Reserves group) is the official owner of the machine but its charter is to be available to all amateurs in the area, especially those involved with emergency operations and NOAA (SKYWARN) I strongly encourage all amateurs interested in emergency communications to verify their capability to hit the repeater.

I have been working with the National Weather Service in Fort Worth for the past year or so to establish EchoLink connections with them. We will be testing this out shortly to verify all is well. With the wide area capabilities of the repeater and EchoLink, we, Central Texas, should be able to have, for the first time, real time communications with the NWS.

We have also already had full quieting communications with a mobile rig near the DPS Emergency Operations Center in Austin and thus another significant EC leg is possible.

Any amateur radio organization that wishes to hold nets or other emergency related practice sessions on the machine please contact me for scheduling.

In the event of a real emergency, the net control of the repeater will be determined by the amateur radio operators at the Bell County EOC and passed to the group in most need of its capabilities.

This appears to be a great tool for the amateur radio community, please use it.

Ham Radio Volunteer Exam Results

ARRL VEC – The following is a summary of the ARRL VE test session held at Murchison Middle School on March 6th, 2004:

Technician Class Licenses Processed

Roger A. Banks Mildred J. Graham
Erec B. Hillis Samuel A. Morgan

General Class Licenses Processed

James F. Allen, KE5AMB Charles F. Dear, KB5YKJ
Donald G. Jones, W5DGJ Gerry R. Rapp, KD5QHX
Michael H. Singerman, KE5ABI

Extra Class Licenses Processed

David E. Broockman, KD5ZNC
Richard W. Chapman, K5RIK
Michael J. Goin, W5GIC

Element 3 (General Class Written) Credit

Edward J. Graham, KD5ZNE
Damon W. Johnson, KD5TFJ

Examiners Participating in this Test Session

Larry Gunter, WB5BEK Jerry Jackson, N5UJ
Joe Makeever, W5HS Jimmy Mercer, N5WDH
Tom Nevue, W2MN George Shamblin, WA5CSH
Joe Thiel, N5SMN Roy Walker, WA5YZD

Next Two Test Sessions - Murchison Middle School

April 3rd & May 1st
TNX ES 73 DE W5HS Joe

W5YI-VEC – 2/25/04

The South Austin W5YI VE team heartily congratulates all of the following people who earned new or upgraded amateur radio licenses at the February 25th special session:

Extra Class — (none) **General Class** — (none)

Technician Class (all new licensees)

James F. Allen
One other applicant earned element without upgrading.
Our volunteer examiner were:
Jim Greenwood, AB5EK Sam Stimson, N5WU
Jimmy Mercer, N5WDH Joe Thiel, N5SMN

3/20/04 The South Austin W5YI VE team heartily congratulates all of the following people who earned new or upgraded amateur radio licenses at our **March 20th** session:

Extra Class – (none)

General Class - Ronny D. Risinger, KC5EES

Technician Class (all new licensees)

Mario A. Benavides William E. Eastman, II
Davis S. Piland
Another applicant earned element credit without upgrading.

Our volunteer examiner were:

Hugh Brown, NT5O Jimmy Mercer, N5WDH
Lloyd Goehring, N5TO Dennis Murphy, W5KQF
Jim Greenwood, AB5EK Roger Pfluger, AC5IP
Rick Trommer, W5RHT

Our next two sessions: April 17th and May 15th, 2004 at 2 PM in room 109 of Fleck Hall on the campus of St. Edward's University.

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Please contact a club officer, attend a meeting, or mail us to join either or both organizations.

The Austin Amateur Radio Club, Inc. and The Austin Repeater Organization have combined membership dues of \$20.00/ calendar year (\$30.00 family to the same address)

The Austin Amateur Radio Club, Inc. AARC maintains a repeater with 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.

The Austin Repeater Organization ARO maintains the following repeaters: 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 Newsline @ 9p.m. Sunday; 224.80 MHz (-1.600); 444.10 MHz (+5); & 145.01 <Hz 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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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.

“N0UJR 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>.

Thanks to Smokey Wiley, K5RDJ, and his wife, Betty Wiley, KD5DTC, who mail the AARCOVER each month!

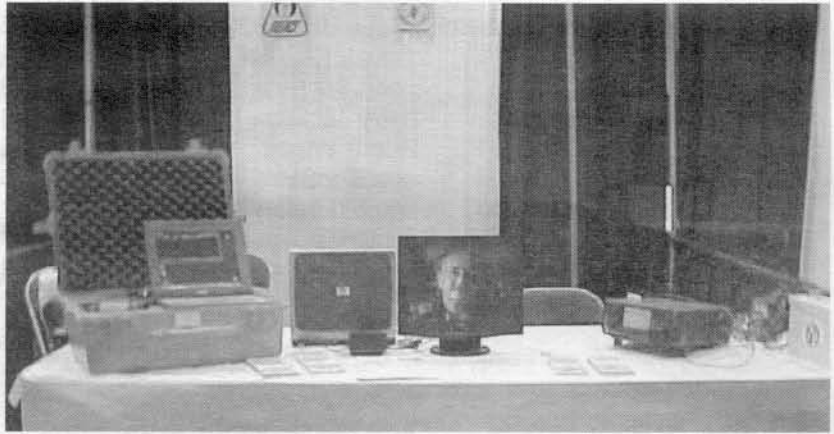
For Changes in your ADDRESS, PHONE NUMBER or CALL SIGN:

See Roger Wines, W5WIA (512) 453-2193 w5wia@arrl.net

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

(Continued from page 1)ARES/REACT

like it had been used) as did the Texas Dept of Natural Resources. All of these have satellite phone access so that they were not dependent on local communications infrastructure. Looking woefully under-equipped was also the Texas Severe Storms chase vehicle.



Our booth was setup with two HF Radios that had a 40 meter dipole and VHF omni attached along with a second 40 /80 meter vertical antenna attached to the second radio. Joe Thiel setup a tracker unit and we also had an ARES Jump kit on display that showed the tracker on an APRS screen. We also had other laptops setup and played the ARRL Amateur Radio Today video.

We met, and talked with, a number of emergency managers that are hams, a number that are not and wanted as much information as they could get, along with a number of other ham volunteers during the three days. There was a wide representation throughout the state in all three categories. One of the reasons I was there was that the DEM has asked Joe Thiel and I to participate in an Amateur Radio panel as one of the formal presentations. The room set aside for us would hold around 75 people and I think we came close to filling it. The primary topic for the presentation was divided into two parts: What is Amateur Radio and how can it help the emergency manager?, and the status of the State RACES program. Part of the presentation was on various tools or applications available to the EM via ham radio and I am happy to say that the Travis County ARCHES program drew the largest amount of questions and discussion.

Regarding the State RACES program, Kevin Lemon – the current DEM State RACES Officer – stated that the RACES program had been in neglect but he was dedicated to reviving the program and making it a better program. Kevin, Joe Thiel and I have talked about future changes including a possibility of more integrated RACES /ARES program at the State level. Joe currently has new applications for RACES and would be more than happy to get you signed up. Currently, the State RACES program requires HF privileges to become a member but.....well stay tuned.

Other highlights from the show:

Those federal agencies that are funded to give out grants have a lot more money than in prior years. Most grant budgets are about double what they were a few years ago. They still get more grant requests than they have money for, but the lines are shorter. Teams with emergency management/disaster relief functions should be writing grant proposals.

To put terminology in place – we all know what an emergency is – where some event threatens or has caused loss of life, serious bodily injury or major property loss. A disaster is an emergency that overwhelms the local emergency response resources.

One of the hot new volunteer activities is CERT – Community Emergency Response Training. The purpose of CERT teams is to provide disaster relief/mitigation after a disaster or terrorism strike occurs until the regular emergency response agencies can respond. CERT is organized along with neighborhood watch, and are volunteer teams that have been trained to help their neighbors in the event of a disaster – loss of power for an extended period of time, mass casualty event, such as a hail storm at an outdoor event (such as what happened near Fort Worth), a bombing (like in Spain this week), contamination with a toxic substance, etc.

Texas A&M has funding to put on “Train the trainer” courses which last about 3 days. These courses will

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be put on anywhere enough interest can be found (15 to 35 students) and are intended to train individuals who then would train the CERT teams. Ideally, they would form training teams. For example, the “train the trainer” course would teach teams how to teach first aid, but the ideal first aid trainer would be someone experienced in medical/first aid who can use their background, knowledge and training, along with the CERT “train the trainer” training, to teach the first aid portion of the CERT training.

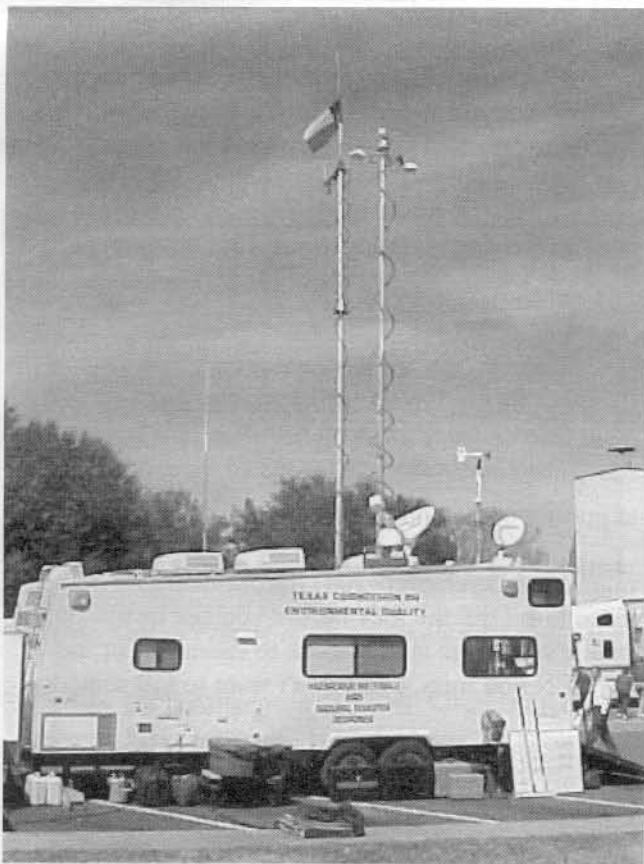
There is grant funding available through the Texas Department of Emergency Management to fund equipment or other needs for CERT teams. Like other grants, they get more requests than they have money for, and they require submission of proposals, but they do release a lot of funding. Their average grant is a few thousand dollars. Grant requests must be signed off by the local Mayor or County Judge.

The Division of Emergency Management was demonstrating its industrial data base – every industrial site that is a potential for release of toxic substances has to register with a federal data base. This permits response agencies to prepare for various problems that are possible and to have ready access to current data when responding.

We also saw a trailer that is designed to be attached to an ambulance for response to a mass casualty event. The average ambulance is equipped to deal with a couple patients. This trailer had supplies to care for up to about a hundred patients.

Texas A&M also has grants to help communities put on WMD (Weapons of Mass Destruction) training and exercises. They come to a community with equipment and materials to conduct a mock WMD attack. Apparently many of the attack scenarios they put on assume two or more attacks/incidents, and thus assume that some of the emergency response capability itself has been disabled – testing the diversity of resources and backup capability.

Many of the emergency management professionals are amateurs. Some admitted that they weren't



regularly practicing the hobby, but recognized that during the performance of their jobs, using ham radio would likely be a need. All of the communications vans we saw had ham radios.

One Conclusion – as more funding is made available for disaster and emergency management, there will be less dependence on ham operators and their equipment. However, all of these operations are still highly dependent on volunteers. It appears that there is formalized training for the functions that these volunteers are asked to do, and anyone who wants to be part of a response team should seek out and take that training (and it is free in most cases – and travel expense is even reimbursed in some cases). The role of ham radio operators is changing – from that of hams that know radio and have not had other training, to hams who know how to use the equipment owned by the agencies and who have taken the training to know the agency's roles and procedures when it is called out.

Whether or not this is where ham radio is heading there is one thing that is certain. Here in Travis County, and in all of our neighboring counties, the local emergency management and medical response agencies recognize

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the value of ham radio to meet the backup

communications needs **so much** that they are now encouraging their own staff to become licensed so as to be available to use amateur radio when needed. **THIS IS WHY** the average ARES member today can no longer get licensed and then sit back and wait for something to happen and then expect to be called upon to help. Specialized training and team participation is now paramount to your being of use when needed. Charlie is correct that the volunteer is still VERY much needed, and the amateur volunteer brings unique skill sets to the mixture, BUT working with the hospitals by being an ACTIVE member of your assigned ARCHES team, working with Disaster Ready Austin and CERT, assisting at the Red Cross or Salvation Army is not only also of importance, but imperative!

Many of you became hams for the same reason I did, to participate in the Emergency Services and community volunteer part of the hobby. This is a good thing. The ARES role in ham radio is still the same as it has been for 100 years, but it is also changing rapidly to meet the needs of today's volunteer supported and, in many cases, volunteer oriented emergency responder agency. Get involved –stay involved.

It was an interesting 3 days in Waco. This conference occurs annually – usually in Austin. Rumors are it may occur in Waco again next year. ■

Questions and Answers...

I was answering a ham newbie's questions today. He asked them on one of the Yahoo discussion groups on ICOM radios. This is how the Q&A went:

He said that he had a solid-state transceiver and an antenna tuner from the old tube days. He asked:

“Will this old technology cause any problems? Any feedback would be appreciated.”

Just be sure you tune the antenna with reduced power to the transmitter. Remember that using SSB says you won't have any output power till you modulate it. Try turning down the power and using AM, FM, or CW mode switch to do the antenna tuning. Another suggestion: write down the frequencies you will be using and log the antenna tuner settings on paper, so you can pre-tune the antenna each time you go back. Make sure you switch your SWR measuring device back and forth during your tuning and don't forget which way it is turned. Trying to minimize SWR and realizing you're really minimizing your FORWARD power is embarrassing and may injure your equipment, if it is not built with SWR protection.

He built his own antenna launcher. He asked:

“Any advice using a wrist rocket antenna launcher? I built one out of inexpensive parts for about \$25.00. I've never used one, so I guess I should take it someplace safe and practice.”

Since I have some large bit of practice since moving to Bastrop at putting up antennas, I offered this advice:

Practice, practice. Don't shoot your finger (really!). Make sure you use low-strength (~10#) line, so you CAN break it, when it is necessary without bloodying your hands. Don't forget to turn OFF the lock before you fire away<g>. Buy some extra weights. Watch the line dress, before you fire to make sure there are no loops to catch you or the slingshot. And, most important, look where your weight will fall WHEN you miss. (You don't want to kill someone or cause property damage!)

Hope this helps,
Rick, K5FNI

K5FNI Bastrop County Report

By Rick Herndon, K5FNI

Hot topics:

Our Bastrop county discussion group on Yahoo and the 442.750 MHz repeater (114.8 Hz tone, accessible from most of Austin) have been full of information and conversations about tuning mobile antennas. Tuning mobile HF antennas is a subject that you won't find a shortage of opinions. Anyone who has ever used one and most who haven't have their sage advice to add. Kelly, K5KTD, has been working in his 'full-tilt-boogie' way to get his mobile HF station installed and working to its best advantage (?) in his small-size pickup truck. Everyone sends daily updates and he tells us his results of trying different things. Maybe we can get him to write a future article for the AARCOVER on his experiences. Meanwhile, we invite all the area hams who can reach us (pretty easy) to come on over and join in the fun on the UHF repeater.

Operating news:

I've just gotten a replacement for the single-lever Vibroplex Vibrokeyer paddle that Duke Campbell gave me years ago. In our 2001 move to Bastrop, the original got misplaced. I liked it so well, I got a replacement. Getting back into the swing of 16-22 WPM CW is giving me a joy. If you haven't tried CW lately, no matter what your speed, give it another try.

Bastrop County ARES news:

We had a local version of the larger Travis County weather spotting class. Larry Eblen didn't know that I didn't know about it until about two days before the class happened. I put out QST announcements here. We got at least one reported taker on it: Bill, W5GVE, was in attendance. He reported liking the experience. We heard these folks heading in for the 3M annual course: Terry, KC5EFD, Pat, KD5ZRH, Pat's wife Tamie, no call, Tools, KD5TUP, and Alec, N0YHO.

Experimentation:

The latest solder and wire experiment here is working toward building an adapter for the second cable from my ICOM SM-8 microphone to plug into my Yaesu FT-2700RH VHF/UHF transceiver that I use on UHF/VHF in my shack. I did due diligence research on the Web and found NOTHING on this topic. I tried several of the ICOM Yahoo groups that I'm a member of to no avail. So, I got out the schematic information and I'm working in that direction. If I find a good solution, I'll send it in to the AARCOVER, as well as post it on the Web. Any inputs from the crowd (please send my way)?

Over the WWWaves

A collection of interesting websites found and submitted.

Efficient Multiband Vertical for 160 through 20 Meters *By Kuehl, AC7A*

<http://www.cqham.ru/ftp2/QSToct98.djvu>

Note that this is in the compressed format djvu. You will have to get the unpacker to view it. You can get it at: http://www.lizardtech.com/download/dl_options.php?page=popular

When loading Lead-acid batteries, this circuit looks really neat for use monitoring:

http://www.cqham.ru/pic/battery_20monitor.htm

Warning: this is a build-it project.

There are LOTS of do-it-yourself projects at: http://www.cqham.ru/projects/hamradio_projects.htm

Cheap Yagi Antennas for VHF/UHF by Kent Britain, WA5VJB

<http://clarc.org/Articles/uhf.htm>

For those who don't recognize the name, Kent is one of the premiere VHF/UHF experimental builders/designers.

We all know that a rubber duck antenna is little more than a poor dummy load. You know what a dummy load is don't you? Well, it is a very poor radiator of radio frequency energy. You can work on the transmitter without bothering anybody. If you want to talk from point A to point B and can't with the equipment you have, then we need to get creative.

A 5/8 wave vertical will give you 3 decibel (dB) of gain and the effect is to double your power. That is the reason you don't see many mag-mount rubber ducks on vehicles I have a saying that real hams don't use rubber ducks. Hopefully I haven't offended anyone because it was said in jest.

As a rule of thumb, let's say that RG-8 type coax has about 1.5 dB of loss per 100' (there is loss in all types of coax) so let's look now at RG-58 coax. Its loss will be approximately 3dB per 100'. Whether your coax is as small as a pencil or as large as a silver dollar, you still have loss. I'm telling you this so you can minimize your loss up the tower to your antenna. Technically speaking, if you go twice as high, you can gain 3dB. However if you use a high loss coax getting to your antenna, you could lose what you are trying to gain. A better way to get gain than by going higher is to stack antennas.

There are many multi-element antennas available from two element to 24 element, from 1.5dB to 16dB, from directional to non directional, from horizontal polarization to vertical polarization. A brief note here would be to say that most CW & SSB work is done on VHF & UHF with horizontal polarization. FM work is better done with vertical polarization, the reason for this is because FM distance is better accomplished with repeaters. Omni directional antennas are used because the repeater should expect a signal from any direction.

Enough already! You have a rig with "X" number of watts, a tower of say 50', a vertical yagi of 12dB, and you still can't talk from point A to point B. Your signal is on the ragged edge of S 5, now what would you do? The next thing would be to stack another identical antenna with a co phase kit. By doing this you don't wind up with 24 dB, but 15dB. You only get 3dB by adding the 2nd Antenna. Now hear this, say your rig puts out 5 watts. The first 3 dB of your 15dB effective radiated power (ERP) makes your 5 watts look like 10 watts. You now have 12dB left. The second 3 dB makes your 10 watts look like 20 watts. You now have 9dB left, the third 3dB makes your 20 watts look like 40 watts you now have 6dB left, the forth 3dB. makes your 40 watts look like 80watts,you now have 3 dB left, the fifth 3 dB makes your 80 watts look like 160 watts. this is an over simplified idea of how ERP works, so a larger antenna is a lot cheaper than expensive equipment.

Most hams try to buy the ultimate in real estate by locating on a high hill with stacked antenna and high power, large hard line coax and no architectural constraints. We, however buy what we can and equip our stations with what we can afford. Spend a lot of time planning your station and you will save a lot of grief. Ask those who know, for their opinion.

73 Smokey K5RDJ

Join the ARRL through AARC!

Please see Roger Wines, W5WIA, to help out the club financially and help yourself by becoming an ARRL member.

You can have a life membership by paying 15 times a single year's dues over 8 quarter-yearly installments.

Blast From the Past

By Rick Herndon K5FNI & Bill Byrom

I know at least SOME of you were into phono oscillators. The article at

http://www.smec.org/broadcasting_from_the_home!.htm goes into several models of them. I owned the later KnightKit version and had lots of fun with it. I'd put my records on the changer, hook it up to this unit, and drive around the neighborhood (after setting one of my radio buttons on the frequency). I learned that, if I hooked the antenna connection to one of the unused telephone wires coming into the house, that I could hear it for a couple of miles, every time I'd go under a telephone wire. (Don't do this today! <g>)

Ah, what fun you could have with 2 50C5 tubes and a 12AX7! Then, a bunch of us were trying to build the same thing, but with early transistors. It was really hard to get them to oscillate at AM broadcast frequencies! And, they certainly could not put out as much power as a 50C5 did.

-Rick

I never had a tube broadcast band transmitter. But in the mid-1960's I had one of the early transistor electronic experimenter kits.

I think it was made by International Rectifier and my dad probably purchased it at Hargis-Austin, along with a very small low power DC motor designed to work with the space-age hit of the kit - a SILICON SOLAR CELL mounted in a small burnt orange <g> plastic case. In fact, the plastic case with the spring-clip breadboard was orange. It came with the FCC Part 15 sticker for the case.

So I could use a couple of C cells or the solar cell to run my AM broadcast band transmitter. This kit used a slug-tuned coil, CK722 or similar transistors, and a crystal earphone/microphone. By experimentation (I didn't have a clue as to how it worked - I was about 10 years old) and the use of other items I found, I could 'bug' a room with high audio gain, or set it up on the verge of super-regenerative audio oscillation. This allowed me to tell if anyone even approached the doorknob I was monitoring, as a tone similar to a Theramin would be heard on the Channel Master AM transistor radio (complete with CONELRAD tuning triangles on the dial).

I don't think I ever transmitted further than 100 feet on the AM broadcast band. I was intrigued by tape recorders, so I must have played recorded music, voice, or other sounds through the AM transmitter. I had a very cheap 3 inch open reel battery powered tape recorder, complete with rheostat speed control - I'm sure it was too cheap to be capstan drive.

Those were the days, my friend - I thought they'd never end.
<Lyrics from a song of the era>

-Bill

Club Minutes

ARO Meeting, March 2, 2004

The meeting was called to order at 7:02pm by President Jeff Schmidt, N5MNW, at the Marimont Cafeteria on 38th at

Guadalupe.

Visitors: Noah Kalish, KD5VDO, Allen Kalish, KD5YDO, Ronnie Risinger, KC5EES, and Paul Gilbert, KE5ZW, visited with us tonight.

Monthly Drawing Winner: Fred Neuenschwander, W5FQR, won the door prize, a case of blank CDRs.

Minutes: The February 2004 ARO meeting minutes were approved as published in the AARCOVER.

Treasury Report: Treasurer Roger Wines, W5WIA, reported a bank balance of \$3178.53.

Technical Committee: Nothing to report.

Old Business: None.

New Business: None.

Web Site: The web site now has a .pdf version of the AARCOVER. Get new information to Lee Cooper, W5LHC, or Mitch London, KD5HCV, for posting on the AustinHams.org web site.

A poll of the attendees was conducted to see how many members would get the newsletter on-line versus the mailed copy. Less than half were in favor. When asked who definitely would only like a paper copy, only 2 hands were raised.

Ham of the Month: President Schmidt named Franco Davis as Ham of the Month. Frank is a long-time ham who now lives in San Marcos. He would appreciate a ride to our meetings if anyone lives out that way.

Equipment Loaner Program: The club's MFJ259B antenna analyzer is available. The Yaesu FT530 dual band HT is on loan. The Kenwood TS120 HF rig is available. Contact Lori Schmidt, KM5MQ, to reserve equipment and make suggestions for new equipment.

Announcements: Rick Kirchof, KD5ABM, asked that members send presentation topics to him, Jerry Jackson, N5UJ, or Lew Thompson, W5IFQ. He announced that the next "Hands-on Hamming" topic will be "Check Your Rig's TX" by Jeff Schmidt.

President Schmidt mentioned that the Capital 10K will need volunteers for the last Sunday in March. Contact Mike Pendley to volunteer. Jeff also said that the MS150 bike race needs volunteers.

Ronnie Risinger gave a short update on the progress in the Big Project at LBJ High School. They now have an Icom 706 and an antenna. The informal club at LBJ has 5 licensed students who are looking for Elmers. Ronnie said they are preparing to have classes next year. He also

(Continued on page 10)

stated that he is working with Jerry Jackson, N5UJ, and Joe Fisher, K5EJL, to get a tower put up at the school for the club.

Editor Mitch London, KD5HCV, announced that the AACROVER look is changing.

The business meeting was adjourned at 7:40pm.

Program: Lewis Thompson, W5IFQ, gave a presentation on WINLINK2000. This PC software, when coupled with an HF transceiver and a terminal node controller (TNC), allows you to send email from remote locations.

Information on WINLINK can be found at winlink.org.

The WINLINK email system is made possible by 39 volunteer stations around the world. After registering at WINLINK, you can send and receive email at yourcall@winlink.org. Lew demonstrated how he composed email on his laptop and contacted the internet gateway stations from the AirMail program.

The challenge of HF digital communications is apparent in modes like CW and RTTY where there is no error correction. Better modes, like PSK31 QSPK and MFSK16, have forward error correction. For guaranteed data delivery, the best modes are PACTOR, CLOVER, and packet.

Lew said that the HF mode used with this system is one of the 3 versions of PACTOR. PACTOR 1 uses FSK with a 200Hz shift at 200 baud. PACTOR 2 is more secure at 700 baud or 1200 baud with compression. PACTOR 3 uses a 2.4KHz bandwidth at 5200 baud with compression. The popular frequencies for PACTOR are in the 20m band. Given that all TNCs do not run PACTOR, he said that the TNC is specialized and expensive.

Lew also mentioned that WINLINK can be used in emergency communications. Communicators can access the internet via WINLINK2000 and reach thousands of nodes. The AirMail program allows keyboard to keyboard and AirMail to AirMail communications. It allows personal bulletin boards (BBS) so that no computer is needed (only a keyboard & monitor).

Additionally, Automatic Position Reporting System (APRS) can be accomplished using a GPS as the message source.

Submitted by John Suchyta, KG5O
ARO Secretary

AARC Meeting, March 9, 2004

The meeting was called to order at 7:14pm by President John Suchyta, KG5O. The meeting was held at the ARL labs on Burnet Road.

Visitors: John Oppenheimer, KN5L, and Robert Barnes, KC5SLV, visited with us tonight.

Monthly Door Prize: Oops! No door prize this month.

February Meeting Minutes: The February 2004 AARC meeting minutes were approved as published in the AACROVER.

Officer Reports: No officer reports. However, President Suchyta handed out a Field Day survey to gauge interest and participation among those present.

Committee Reports: Stuart Rohre, K5KVH, gave a short presentation on Field Day. Last year's point total was 1775, plus 1600 bonus points, for a grand total of 3375 points. This was over the 16 hours that the bands were open. Stuart said that the 2004 Field Day will begin on June 25 with setup after 1pm. Operating will be June 26 & 27 from 1pm to 1pm. Teardown will begin at 1pm on June 27. He said that we could always use more people.

Stuart also gave a report on a continuing problem at the Red Cross. It turns out that a part of the coax shield had oxidized due to lightning. He also demo'd one of the plastic insulators that was destroyed by UV exposure.

Jerry Jackson, N5UJ, reported that they found an antenna site at LBJ High School, and are now doing measurements and working with the school district to place the tower on the roof.

Old Business: None.

New Business: None.

Announcements: John Oppenheimer, KN5L, gave a short pitch on the upcoming HamCom in Arlington on June 18 & 19. The expanding agenda includes a Boy Scout merit badge class. The entry fee is \$10 or \$8 if you register on the web link. Keynote speaker this year is FCC official Riley Hollingsworth, K4ZDU, and ARRL President Jim Haynie, W5JBP.

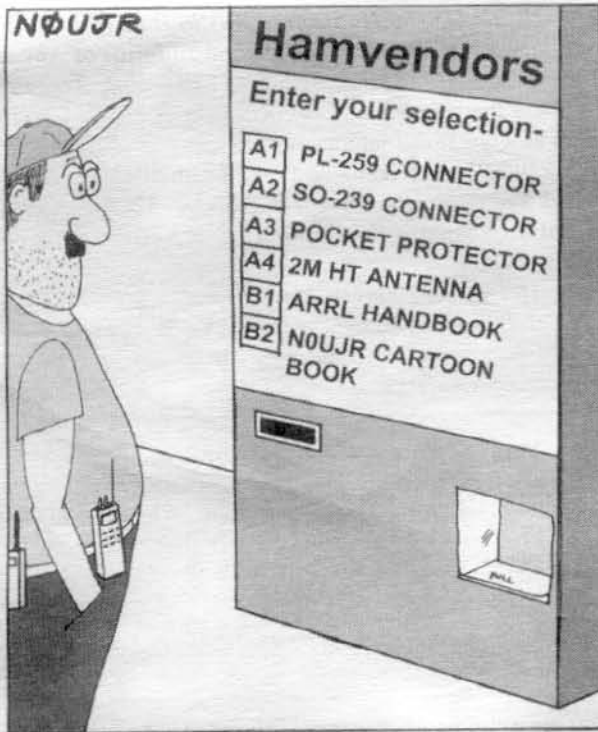
Stuart Rohre also mentioned that the Austin QRP group is holding an event at McKinney Falls State Park this Saturday in lieu of their regular lunch meeting.

Mike Hardwick, N5VCX, announced that the MS150 bike race still needs more volunteers. The race, benefiting Multiple Sclerosis, is the 20th anniversary of this ride, and about 12,000 riders are expected. This race will begin in Houston on April 17 and finish at the State Capitol on April 18.

Hands-on Hamming: The activity this month was "Check Your Rig's TX" by Jeff Schmidt, N5MNw. Jeff brought an HP8921A communications analyzer. He gave an overview of the tool and then demonstrated the effect of frequency deviation on receive quality, showing that FM is best when not over-modulated. If someone can't hear you, talk quieter.

Jeff then checked the frequency deviation and transmit power of various transceivers that members brought in, from VHF HTs to HF base stations.

Minutes taken by JP Sugarbroad, KD5ZVR and submitted by John Suchyta, KG5O



Vending machines for hams...only at Dayton



When the grandkids come to visit, Fred gets out his special "super noise reduction" headset.

Contest Time!!!

By Mitch London, KD5HCV

The AARCOVER is holding a ham shack photo contest! There are 2 categories: **Neatest Ham Shack** and **Messiest Ham Shack**. If you feel your ham shack fits either of these categories, then take a picture of your ham shack; either film or digital photos only, and send them to :

Mitch London
5601 Lewood Dr.
Austin, Texas 78745
or
kd5hcv@arrl.net

Digital photos should be at least 300 dpi. Print pictures will be scanned (and returned if asked to do so provided a SASE is enclosed). Prizes will be awarded to the first place winner in each category, and the winning photos will be printed in the AARCOVER. Make sure the name of shack owner is included with your submissions. Good Luck!

Barton Replaces Tauzin

From The ARRL Letter
Vol. 23 No. 11

Texas Republican Rep Joe Barton was named the new chairman of the House Energy and Commerce Committee <http://energycommerce.house.gov/> on February 25. He replaces Louisiana Republican Billy Tauzin, who announced last month that he was stepping down as chairman and would not run for re-election in November. Energy and Commerce is the parent committee of the House Subcommittee on Telecommunications and the Internet, which is considering two Amateur Radio-related bills: HR 713, the Spectrum Protection Act of 2003, and HR 1478, the Amateur Radio Emergency Communications Consistency Act of 2003.

Barton also serves on the House Subcommittee on Telecommunications and the Internet, but he has not yet signed on as a cosponsor of either HR 713 or HR 1478.

ARO/AARC Meeting Info.

Austin Repeater Organization

4/6/04 ARO meeting will be a report of the Waco conference covering emergency responders and related topics. Lee Cooper, W5LHC and Joe Thiel, N5SMN will give us a sample of what was presented and report on what happened at the conference.

Austin Amateur Radio Club

The AARC meeting on 4/14/04 at the ARL labs will be a Coax, antenna switches, adapters and fittings test session. Rick Kirchhof, KD5ABM will take a look at the signals passing through these devices using a Time Domain Reflectometer (TDR). This is a "bring your parts" meeting giving members a chance to get those unknown coax devices checked out for use on the higher frequencies.

Upcoming Amateur Exams

ARRL VEC- April 3 & May 1

9a.m. at Murchison Middle School on North Hills Drive
Contact Joe Makeever, W5HS (345-0800) or Joe Thiel, N5SMN (832-0450) for information. \$12 examination fee.

W5YI VEC- April 17 & May 15

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 information.
\$12 examination fee.

Calendar of Events

Apr 17 WCARC Picnic- Arbors in San Gabriel park
www.wcarc.com

Apr 17-18 BP MS150 Houston to Austin Bike Ride (20th anniversary!) 110 operators needed and all forms of Amateur Radio are used- HF to UHF, APRS to ECHOLink, Repeaters in cities along the way Mike N5VCX@arrl.net 713-771-4625
Sign up at www.houstonhams.org

May 1 7290 Picnic Riverbend Park, Smithville

May 1-2 Key City ARC Swapfest- Abilene, TX
www.qsl.net/kcarc/hamfest.html Peggy KA4UPA@cox.net
325-672-8889

May 12-15 Dayton Hamvention

May 22 Belton Ham Expo - Mike LeFan, WA5EQQ
254-773-3590 hamexpo@tarc.org Register on the website!
www.tarc.org

Apr.	May	Austin Meetings/Happenings	
6	4	ARO Meeting, Marimont Cafeteria	7:00p.m.
10	8	Austin QRP Club, Owens on I-35 N	11:30 a.m.
13	11	AARC Meeting, ARL Auditorium	7:00 p.m.
20	18	ATV Club Meeting, Marimont	7:00 p.m.
17	15	QCWA Meeting Owens Restaurant	11:30a.m.
26	24	Travis Co. REACT Denny's on Burnet	7:00 p.m.
No	25	Travis County A.R.E.S., Marimont	7:00 p.m.

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

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