

## My First Night as DX

Becoming DX is a dream that comes over those that pursue the weak and watery long-path wisps of signals that haunt the low end of 20 meters late at night or at certain other times, depending on the favored path.

Twenty-five years ago, it was harder to find a way to get to a rare DX location. So, when I became one of only 150 hams in West Malaysia, a country half a world away, and was given a house, complete with coconut palm long wire, two-meter stacked beams and a twenty-meter dipole, I thought I must be dreaming.

Now this was before the days of transceivers and instant stations, and Heathkit was perhaps the only affordable DX equipment on the local economy. My predecessor had left an ancient, but rebuilt RCA 88D receiver from World War lend-lease and had scraped up a Heath DX-20 that had been relieved of its rock-bound crystal dependence by the shotgun wedding of a Heath VFO hard-wired to the already strained power supply.

I had not expected this much, but had brought my surplus J-38 hand key, mobile log book and an assortment of crystals just in case. A 240-pound baggage limit did not allow for much more!

It had been a curious experience to go to the local equivalent of our Federal Communications Commission and pick my call from a school spiral notebook of all possible 9M2 two-letter combinations.

Now I was on my own! I attempted to tune up the pin-network on the 400-foot long wire. A nasty RF burn from the ground side of the key was my reward, so the dipole was it! It was tied between the chimney and a one-by-two board only five feet over the tiled roof of the single story government quarters. However, it was angled to favor Europe.

Today, there are various books giving directions for working DX, but then, there were none (at least for BE-ING DX).

My slim ARRL Operating Guide suggested a three-by-three style of calling. Finding a clear spot was easier in those days, so I unlimbered my mighty 50 watts into the dipole, called CQ three times, and signed 9M2SM three times. The dead band suddenly erupted into a cacophony of calls spilling out of the external speaker tied to the old RCA: JA1, 2, 4, VU2, UW1, UA3 SP6, YO4, UW9, YO8, UA6, HA5, LA5 and all calling ME! It was bedlam. Try as I might, with crystal filter notch and phasing, I could not distinctly pull just one complete call out. The turmoil continued, grew and assumed a life of its own, like the feeding frenzy of sharks! Meckly and with great embarrassment at what I had caused, I quietly QSY'ed up the band and call a one-by-one CQ. I never tried multiple calling again!

de Stuart, KSKVH ex 9M2SM

## Camera Amateurs

We started the March meeting of the Austin Amateur Television Club with a program on ATV and skydiving. Pat, WA8PLR, showed a video tape taken from Bob Moore - KB5OUD's "Helmet-Cam" as he was skydiving.

A couple of weeks ago, Pat accompanied Bob to San Marcos where Bob frequently skydives. Bob was equipped with a small video camera secured to his jumping helmet fed into a 1248 MHz FM ATV transmitter. The one watt transmitter, battery and quarter wave antenna were contained in a belt pack. The pictures started inside the plane, walking out on the wing strut, free falling, and a nice, easy parachute ride to the ground (soft landing). The picture quality was close-circuit quality, parts of which were even received by Frank, W5VDS in Wimberly. Pat received the signal from an area close to the landing zone.

Ron, KG5BZ, announced that he had received the satellite broadcast of the ICOM sponsored ham video and had taped it.

Pat, WA8PLR, said that he had gotten the all important transmitter crystal that we have been waiting for and that the ATV repeater should be back on the air this weekend.

Joe, K5EJL, plugged ARES, the Public Service Communications Manual and reminded everyone about the SKYWARN class at 3M.

Next ATV Meeting: April 16th, 7:30pm, Sirloin Stockade 8828 Research.

de Jon Penner, N5MHI

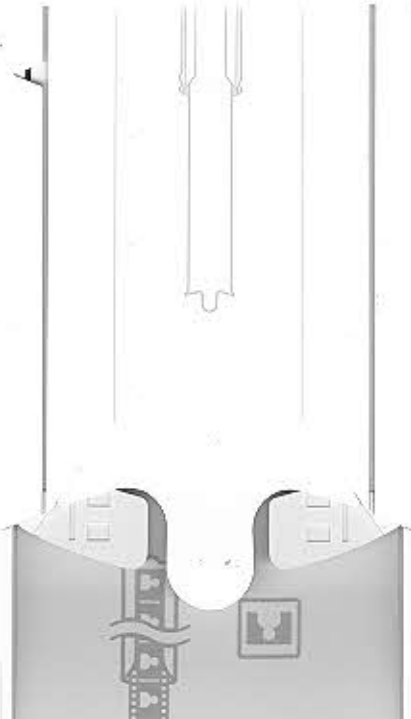
## 'Volunteer' Is Not a Town in Albania

AARC seeks a point of light. We need someone who will pick up the AARC Over from the printer, prepare it for mailing, and deliver it to the post office. This position is valuable to the club and is called the Publications Coordinator. Volunteer by calling any officer of the club.

## Bert Renfro to Speak on GPS

Bert A. Renfro, a research scientist associate of Applied Research Laboratories, The University of Texas, will speak at the April 9 meeting on The Global Positioning System (GPS).

GPS uses a system of earth satellites for both navigation and precise military navigation. This system proved invaluable during the gulf crisis where large numbers of GPS receivers were used to provide precise positioning in the desert.



# AARC Over

## Operating Aids Available from The AARC Over

Operating Aid	Number of Sheets
10-10 Information and Awards	4
AARC 1991 Budget	2
AARC 2/91 Minutes of Meeting	Free
Blank Schedule, 24 hours by 7 days	1
Custom Station Log Sheet	1
Radiogram 2 per sheet	1
Squelch Modification for TS-940S Transceiver	3
States listed by Call zone	1

To order operating aids, send a self-addressed, stamped envelope and a list of the desired titles to: Mason West, Box 9705, Austin, Texas 78766. Include printing charges of 5 cents per sheet.

## Crossword Puzzle

de Ben Thornton, W5SHLS

### Across

- Shares some HAM frequencies
- The best price
- Hertzian \_\_\_\_\_
- Mode for remote printing
- Device that stores static charge
- Character code for computers (acronym)
- RTTY test patterns

- Unit of binary data
- Range of frequencies for fast scan TV (abbr.)
- Simplest binary modulation
- Filter used to remove specific QRM
- Transmitters produce this
- Pi \_\_\_\_\_

### Down

- XMTR Hunt principles
- Cap insulation
- Best sideband on 40 meters
- Duplexer component
- Unit of magnetic flux
- Organized QSOs
- Cathode \_\_\_\_\_ illuminate screens
- Components of tuned circuit (abbr.)
- Wear this on your hat at hamfests
- FCC power out units for repeaters (abbr.)
- Finals on the way out
- American measure of length
- Source of aurora energy
- Select coax to minimize \_\_\_\_\_
- Carries positive charge in silicon
- Tube used for alphanumeric displays (abbr.)
- Fast RF switch diode
- CW familiar pronoun (abbr.)

The crossword puzzle grid is 10 columns wide and 10 rows high. The starting positions for the clues are as follows:

- Across: 1 (row 1, col 1), 8 (row 2, col 1), 11 (row 3, col 1), 16 (row 4, col 1), 18 (row 5, col 1), 26 (row 6, col 1)
- Down: 3 (row 1, col 3), 4 (row 1, col 4), 5 (row 1, col 5), 6 (row 1, col 6), 7 (row 1, col 7), 9 (row 2, col 3), 12 (row 3, col 4), 13 (row 3, col 5), 14 (row 3, col 6), 15 (row 3, col 7), 17 (row 4, col 4), 19 (row 5, col 2), 20 (row 5, col 4), 21 (row 5, col 5), 22 (row 5, col 6), 23 (row 6, col 4), 24 (row 6, col 5), 25 (row 6, col 6), 27 (row 6, col 3), 28 (row 6, col 4)



## AARC Over

sought for the sake of controversy, but the AARC Over will not hesitate to report news of local interest.

### Statistics from the Roster

As of this March, a peek at the AARC roster reveals that 209 of our 300 members (70%) are ARRL members. And 25 of these are lifetime ARRL members.

Our license classes indicate a much higher level of experience than the national overall distribution of license classes.

CLASS	#	AARC %	Nat'l %
Novice	10	3	19
Technician	58	20	25
General	63	21	24
Advanced	95	32	21
Extra	68	23	11
Foreign	1	-	0
TOTAL	295	99	100

Source for national license class percentages: 1991 Radio Amateur Callbook, North American Listings.

### Minimizing Noise

[Beginning with this issue, Jim Strohm joins the AARC Over as Technical Editor for better coverage of the engineering side of amateur radio. — Ed.]

Some decades ago, a perceptive ham noted that "you can't work 'em if you can't hear 'em."

This article describes some of the more obvious ways to help you hear 'em. Some things you can change, and some you can't. So we'll alleviate some noise, fix some problems, and find what noise can't be cut.

Experimentation is good — don't fix anything you can't unfix. Some things you can do to enhance your receiver: Make sure your rig's power supply is adequately filtered. 60 Hz hum can be eliminated easily. Ground your rig. (It may also prevent stray RF bite.)

Better filters. If you can't change the IF filters, you can add an outboard audio filter that will help cut down on the audio garbage.

The sensitivity of some receivers can be enhanced and the noise floor lowered by replacing the mixer diodes with Schottky diodes. Limit your manmade noise. Possible sources: fluorescent lights; aquarium heaters; waterbed heaters; RF and neon lighting; light dimmers; solid-state switcher supplies that can be found in TV sets, home computers and video games; electrical appliances that have motors, such as air conditioners, fans, and washing machines. Anything with electromechanical switching can be a possible noise source, such as an old coffee maker.

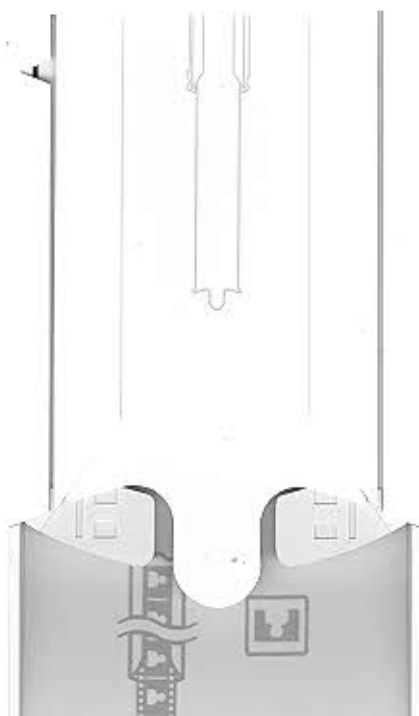
Some lawn mowers and other small gasoline engines can cause a great deal of electrical noise from their unshielded ignitions.

Noise sources in the shack should be bypassed and filtered as well as possible. When adding new shack gadgets, test them beforehand if possible noise. Computers are a big potential offender here. My Macintosh is noisy enough that I cannot do any serious HF work with it turned on; a Leading Edge PC clone was occasionally \$9 + 50 on a Radio Shack HTX-100 I once owned. Work with your local power utility to limit noise sources — in the future, we will publish notes on how to locate and resolve electrical transmission noise. (A caveat: don't be a pest with the City of Austin, or they will refuse to cure any power line noise problems for anybody.)

When planning a new antenna system, keep in mind that horizontally polarized antennas are said to be less susceptible to manmade noise. My experiences tend to bear this out; this is not a universal truth. (Nothing in this hobby is universally true, it seems.)

Buy and install 100 percent shielded coax where possible, and especially in your shack, which is probably electrically noisy. Coax connectors should be properly installed and the braid soldered as required. In some cases, an antenna tuner can serve to attenuate out-of-band garbage. If you are using a tuner now, it's worth experimenting. In addition, receivers that are matched to their antenna work better. Get a good ground system. Yes, you've heard it before. This time, reread the literature and note what's said about grounding and soil conductivity. Generally speaking, the local soil conductivity is not especially good, and it is not especially easy to drive ground rods. If you have a ground system based on a ground rod, you can enhance soil conductivity by adding metal salts at the ground rod — if you're not in an environmentally sensitive area, or where the salts might leach into the water table or local ground water. Unfortunately, this excludes much of the Central Texas area. One alternative is to install an extensive ground field, possibly a difficult project around these parts. Another alternative is the old ham standby — the cold water pipes. Check to see that you have metal pipes throughout your house, or you may be grounding to PVC pipe, which tends to leak RF. Also, just twisting the end of 20 feet of #16 stranded hookup wire to a cold water pipe does NOT constitute a ground. If feasible, get rid of potential problems with rusty metal rectification, such as old unused tin sheds and barbed wire fences. You may not be causing an RFI problem for your neighbors, but they might be causing one for you.

de Jim Strohm, N6OTQ



# AARC Over

## The AARC Over: Monthly Newsletter of the Austin Amateur Radio Club

### Officers

Mike Kellam, AA5JP, President..... 836-7688, 919  
 Stuart Rohre, K5KVH, Vice President..... 255-3932, 918  
 Amado Ramirez, N5PCP, Treasurer..... 280-1879, 916  
 Joe Canfield, N5HPC, Secretary..... 258-4761, 917  
 Gary Pickens, WX5Z, Activity Manager..... 454-3230, 915

### Committees

Joe Fisher, K5EJL, Emergency Coordinator. 926-4689, 119  
 Joe Fisher, K5EJL, W5KA Trustee..... 926-4689, 119  
 Ed Golla, K3AHS, Technical..... 255-4818, 111  
 Pete Jordahl, K5GM, Labels and Roster..... 454-7889, 913  
 Jim Strohm, N6OTQ, Technical Editor..... 835-1167  
 Mason West, N5RYL, Editor..... 323-6915, 914

Numbers after the call signs are phone number and autodial number on the 146.78 MHz repeater.

Address submissions to Mason West, Box 9705, Austin, Texas 78766. Submissions are also accepted through the Mind's Eye BBS at 323-9111.

Deadline for the May issue is April 25. Late material will be saved for the following month.

We grant permission to reprint AARC Over articles provided that you credit the author, reference AARC Over as your source, and mail two copies to the editor (we will forward one copy on to the article's author).

We cheerfully accept commercial ads for only \$15 for a full page or \$10 for a half page. Members may advertise ham-related For Sale or Wanted ads free if space is available.

The AARC Over is available on audio cassette by sending a standard tape and a self-addressed stamped mailer to the editor, Box 9705, Austin, TX 78766.

## Letters to the Editor

### To the editor:

We, the undersigned members of the Austin Amateur Radio Club, encourage the passage of the following resolution at the April meeting:

**Whereas** the Austin Amateur Radio Club has approximately 300 members among whom approximately 209 are also members of the American Radio Relay League (ARRL), and

**Whereas** a signed agreement between the Federal Communications Commission Field Operations Bureau

and the ARRL commits the ARRL to maintaining the Amateur Auxiliary, and

**Whereas** the commitment to maintain the Amateur Auxiliary should be honored above and beyond even the social obligations of a volunteer, and

**Whereas** the Amateur Auxiliary provides the primary monitoring services within amateur radio, and

**Whereas** the amateur radio operators of the Austin Amateur Radio Club recognize the urgent need for the monitoring of the amateur bands,

**Let it be known** that a majority of the quorum present at the April 9, 1991, meeting of the Austin Amateur Radio Club voted for the following resolution:

**Resolved** that the Austin Amateur Radio Club encourages all radio amateurs, the elected ARRL officials of South Texas, and their appointees, to foster a spirit of volunteering that creates exemplary recruitment, leadership, and participation within the Amateur Auxiliary and all programs of the ARRL within South Texas.

Signed,

Cal Barton, N5RNL  
 Larry Gensch, K9MBB  
 Ron Hawkins, N5OWD  
 Emila Koenig, KA9RNN  
 Richard Koenig, KA9ORW  
 Stuart Rohre, K5KVH, AARC Vice-President  
 Fred A Schlabit, WB5CVE  
 Ben Thornton, WD5HLS  
 Mason West, N5RYL, AARC Over Editor

## From the Editor

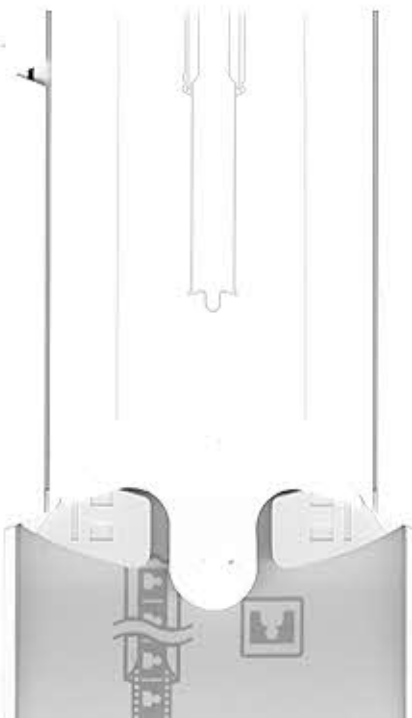
The world wrote much history since the last issue of the humble AARC Over. We have again affirmed the strength that springs from our freedom and the responsibility that comes with it. May we never dread to look the truth in the eye.

Ten years ago in the April, 1980, *AARC Over*, G. Nyus, WH0NOW, reported on new scientific processes for miniaturization by the shrinking of atoms. Attempts to apply the process to biological specimens, the article reported, "have been less than successful." We suspect editor Carol Heiser, N5CBQ, and friends had tongues firmly in cheek.

## Busy Month at Manchaca

This month there are two events of interest at the Manchaca Fire Hall. AARC's semi-annual Swapfest at the Fire Hall will be held April 20 from 7 a.m. to about 2 p.m. Talk in on the AARC repeater on 146.78.

Tables cost \$3. Empty your garage, attic, and shelves. Make the XYL happy! Give your ham shack some elbow room or add that unique piece of equipment you've always wanted.



## AARC Over

The pasture next to the fire department is open for parking. Leave the front parking area free for tailgaters. Do not use McCoy's lumberyard across the street.

The Central Texas PC Users Group Swapfest will also be at the Manchaca Fire Hall on the 27th of April from 10 a.m. to 4 p.m. Admission is free, tables are \$5.

### Hints & Kinks: A Quick and Dirty Hand

There are times while soldering that hams might need a "third hand" in the process, especially in soldering wire or cable. I realize that there are various types of holders available, but several years ago I discovered something that was quick and seemed to work very nicely.

I simply got a pair of fairly good-sized pliers and double or triple-looped a rubber band and wrapped it around the handles of the pliers. This makes a quick and easy holder for tinning wire, soldering cable, small switches, etc. Note, if the cable is too heavy, sometimes I place a heavier object on the plier handles to stabilize it.

Francis Albert Dohanich, WB5PUB

### QUA: Random Receptions

Effective March 16, the 80 meter novice band has moved down 25 kHz. The novice band now is between 3675 to 3725, and higher class operators should remember that the 200 watt power restriction now applies within this new range.

Local activities increase with bird- and bee-like fervor as Spring springs. In addition to the Manchaca Hamfest described above, April includes the MS150 Bike Tour, a bicycle race starting on April 20th in Houston with an overnight in La Grange and then a grueling run to the finish in Austin on the 21st. Amateurs in La Grange serve mightily since the overnight stop tends to separate the bikes from the trikes, but many amateurs from Austin are needed for the leg of the race extending beyond the range of even La Grange's inspirational volunteers.

Another bicycle tour, the Sierra Club 100 Mile Bike Tour on May 5 features "fun in the country." And from May 13th through the 19th, amateurs with a handy talkie and an earphone can watch as many days of golf as they like at the Legends of Golf at Lakeway. HT volunteers can bring a friend.

To volunteer for any of these, contact Larry Gensch, K9MBB, at 984-3784 (work) or 259-1517 (home), and be sure to leave a message if you reach a recording.

Safari '91 will be on the weekend of April 27-28 at West Zilker Park, west of Mopac. Safari runs from 10 a.m. to 6 p.m. on Saturday and noon to 6 p.m. on Sunday. Admission is \$2 for adults, \$1 for children. Co-sponsored by the Natural Science Guild and the Austin Parks and

Recreation Department, the nature and science fair offers a variety of exhibits and activities for children and adults. This would also be a splendid opportunity for the AARC to provide a demo booth to acquaint and recruit young members to the hobby. For more information, contact Sandra Scalco, 328-2170.

The 12-page, 8½x11-inch Central Texas Traffic Net Newsletter has outdone us! Filled with articles and, in the March-April issue, a hurricane tracking chart, the publication is now available on audio cassette. For more information on the CTTN Newsletter, contact Ron Hawkins, N5OWD, 837-7387. For information about the CTTN Newsletter on Audio Tape, contact Quinn Farrabee, N5OWQ, 209 Broadmoor, Fredricksburg, 78624 or at (512)997-7492.

Trying to keep up as we can, the AARC Over will now also be available on audio cassette to anyone sending a self-addressed, stamped mailer to Mason West, Box 9705, Austin, Texas 78766. Or to make special arrangements, call Mason at 323-6915.

ARRL reports that ballots have been counted in recent Section Manager elections. In North Texas, W.W. Dan Dansby was declared the winner. Contested elections were also held for the Arkansas and Wyoming sections. Candidates in the Arizona, Kentucky, Mississippi, Montana, Orange, and Iowa Sections ran unopposed and were declared winners by default. The new Section Managers begin their terms on April 1.

Signal Drift: TV Marti, the Voice of America's pro-West television signal beamed to Cuba, went off the air in mid-January after its blimp blew away. The blimp normally supports the transmitter and antenna at an altitude of 10,000 feet over Cudjoc Key, Florida. After strong winds broke the mooring cable, ground controllers were able to deflate the blimp by remote control and bring it down in the Everglades. Upon completion of repairs, the blimp was expected to resume operation in late March.

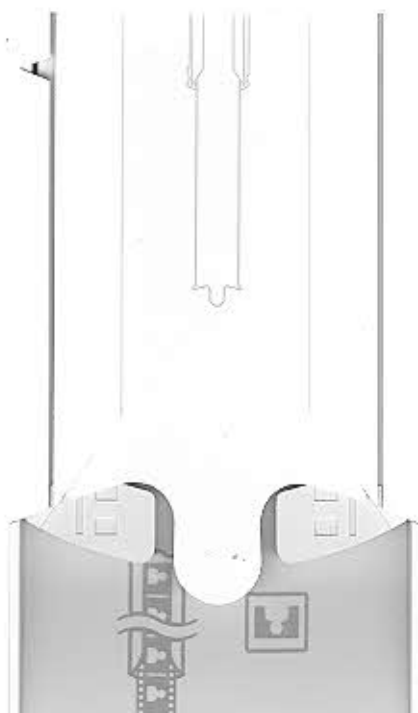
Thanks to Miles Abernathy, N5KOB; Larry Gensch, K9MBB; Ron Hawkins, N5OWD; Sandra Scalco; Ben Thornton, WD5HLS; and the helpful ARRL news people.

### The March Meeting

President Mike Kellam, AA5JP, called our March 12 meeting to order at 8 p.m. Among the visitors were Mary Bledsoc; Roy and Doris from Dallas; Jerry, who wants to get his license; Gary, WD5EQX, in town for a few months; Steve, KG5LH; Terrie, KG5VQ and one or two that I could not hear.

After welcoming the guests, the officers read their reports. The minutes were accepted as printed in the AARC Over.

Mason West, N5RYL, requested articles for the newsletter.



# AARC Over

The Treasurer, Amado, N5PCP, states \$2895.32 in the checking account. Amado noted that we have had only about 8 responses from a test mailing of 601 newsletters to nonmembers.

Ed Golla, K3AHS, Technical Committee Chairman, reported no known repeater or autopatch problems.

Mike, AA5JP, reminded us that the next Manchaca Swapfest is April 20.

We approved applications for these new members: Joe Thiel, who has passed his Technician exam and the written portion of the General but has not received a call; Catherine Wolff, who passed her Technician exam last Saturday; Todd Bowen, KB5OVM; Gerald Clugh, WB5JEO, from Lockhart; Ed Damen, N5KBA; William Garner, Sr., W5JND; David Penrose, AA5QL, who went from no license to Extra Class in one exam session several months ago; Fred Proctor, N5FQQ; and Henry Middlebrook, who has also passed his Technician exam and has no call at this time. There was no old or new business.

There were several announcements. Dave, KG5ND, has a few give-away demo copies of the DX-Base logging program.

Dave, N5RNE, reminded us that the 80 meter Novice CW band will move down 25 KHz on March 16.

Joe, W5EBJ, announced the Skywarn class at the 3M center on March 23rd; there is an impressive lineup of instructors.

Joe also noted that the Midland Swapfest and Winter Meeting of the Texas VHF Society will be on March 16 and 17.

The next W5YI exams will be on April 13th at The School for the Blind.

Vice-President Stuart Rohre, K5KVH, introduced the speaker, Joe Fisher, K5EJL. A year ago, Joe volunteered to be our Emergency Coordinator. Joe stressed that radio amateurs are sanctioned by the government and allowed a large portion of the radio spectrum because of volunteerism. One volunteer function is emergency service.

Joe outlined the organizational setup of the national and local (South Texas Section) of the Amateur Radio Emergency Service. For this to be a success on a local level, we need you as a volunteer.

These minutes are respectfully submitted by Joe Canfield, N5HPC, AARC Secretary.

## Classified Ads

Professional writer, computer expert, and tutor for hire. Mason West, 323-6915.

## Ham License Examinations

Here are the results of the February 9, 1991, W5YI VEC exams:

Name	Call	Upgrade
Brian R. Cooper.....		Novice
Ronald Clayton.....		Technician *
Adam P. Coronado.....		Technician *
William R. Hale.....		Technician *
Frank Hinkle.....		Technician *
William E. Kammer.....		Technician *
Burt Kaufman.....		Technician *
John E. Nodler.....		Technician *
Brian E. Waldecker.....		Technician *
Catherine L. Wolff.....		Technician *
Todd P. Bowen.....	KB5OVM	Technician +
Lonnie D. Gilliland.....		Technician +
Nguyen N. Ngo.....	KB5OEN	Technician +
Martin L. Porter.....		Technician +
Jason M. Robbins.....		Technician +
Kenneth E. Nordhauser.....	KB5OZI	General
Joseph G. Poeppelmeyer.....	N9BSJ	General
Ray F. Irwin.....	N5RUV	Advanced
Ralph Encarnacion.....	N5PAJ	Extra

\* indicates code free technician, + indicates technician plus. The new code free technician license went in effect on February 14, 1991. Congratulations to the above.

I would like to thank the VEs that came out to help: Barry Davis, AA5GN; Joe Makeever, W5EBJ; Larry Gunter, WB5BEK; Roy Miller, W5FOZ; Gene Hinkle, K5PA; Bob Redouty, KF5KF; Les Lewis, AA5AK; Alex Vrenios, KX9I.

The next exams will be at the Texas School for the Blind, 1100 W 45th Street, at 11:00 am on April 13, 1991. Please arrive by 10:30 am and be prepared for the exams to last until 2 or 3 pm.

If you have any questions about the upcoming exam, please contact Bill Wehling at 272-8233.

de Larry Gunter, WB5BEK

## Weekly Events

**SwapNet**, Sunday, 9 pm, 146.94 MHz. Immediately followed by **Newsline**, courtesy WA5RON.

**LunchNet**, Thursday at Burger Tex, 5420 Airport Blvd.

**Quarter Century Wireless Association Net**, Thursday, 8:15 pm, 147.18 MHz.

**DX Net**, Thursday, 9 pm, 147.08 MHz.

**Saturday Breakfast**, Simon David Deli at the Arboretum.

