

# AARCOVER

Bulletin of the Austin Amateur Radio Club

February 1992



## Meeting

Your club's next meeting will be Tuesday, February 11, at in the back room of Luby's Cafeteria. The official starting time is 8 PM, although most folks get there early to have dinner together.



At press time, the meeting topic is uncertain.

All Austin Amateur Radio Club events are "non-smoking."

## Dues are Due

If you haven't paid your 1992 club dues, better do so quick to ensure that you "make" the new club roster. A year's membership is only \$6 for an individual or \$10 for a whole family. Can you think of a better bargain?

Membership entitles you to receive *The AARCOVER* every month, plus a copy of the 1992 club roster when it is published this Spring. Please send your check to Austin Amateur Radio Club, Attn: Treasurer, POB 13473, Austin TX 78711. Thank you.

## QUA

Imagined bumper sticker: They'll get my frequencies, when they pry my key from my cold, dead, fist!

## Project INSPIRE

Participate in a Space Shuttle VLF experiment!

In March 1992, the Space Shuttle (STS 45) will investigate the Earth's ionosphere by transmitting an 8 KW beam at frequencies of 50 Hz to 7.5 KHz. Since a large number of monitoring sites across the U.S. will be required, individuals and high school science classes are being invited to participate in receiving these signals. Articles giving the details of Project INSPIRE can be found in QST (Oct. 91, page 42), 73 Amateur Radio Today (Dec. 91), and QST (Feb. 92, page 47).

Anyone interested in participating in INSPIRE can receive more information by sending a SASE with two stamps to: Jim Ericson, KG6EK, 226 Charles St., Sunnyvale CA 94086.

I am interested in coordinating local participation in Project INSPIRE. Please give me a call if you want to participate or just want more information.

de Greg Walker, home 345-7668, work 331-3424

*[Note: This article was inadvertently omitted from last month's AARCOVER. If you are interested in participating in Project INSPIRE, contact Greg very soon.]*

*Among the crew of STS-45 will be Brian, N5WQW; David, N5WQC; and Dirk, ON1AFD. Look for them on 2 meters.]*



## Code Exam Hints

Here are five hints from "Huck" Huckabee, AA5BU, based upon his observations as a W5YI Volunteer Examiner. Huck has been on the air for 51 years, and operates 40+ wpm CW.

- Last-minute code practice before the examination may only get you upset. This is a time to be calm and set your mind to the task ahead. If your practice sessions indicate you can pass, it is important to exercise all the self-control that you can muster.
- Who told you to copy code in large block letters? Hang him to the yardarm until he is dead! You, and you alone, will be required to read your copy. Therefore, write in normal script; that will relieve some of the examination-day stress. Write small, which requires less effort and less lost time in line-returns.
- Don't dwell on a missed character, make a scribble, keeping your word characters connected. Most words with one or more characters missing can be read if you have used the scribble technique. Keep your word spacing pure. Nothing fouls up poor copy like unknown word endings.
- Listen to on-the-air QSO's. Understand the typical format. This helps to fill in missed items. Most exams will ask the call of both stations; you have two chances to get these items. Names, QTH, and other activity will be important.
- You will have ample time to study and re-write your copy, before it is graded.

Prove these techniques by having a friend blot out one or more characters from each word in a printed paragraph; then read it. Easy, right? The script, scribble, and word-spaced copy will be equally easy to read. Try it, you will like it!

de J. M. "Huck" Huckabee, AA5BU

## ARES News

Travis County Amateur Radio Emergency Service (ARES) continues to grow, with 58 members counted on January 26. Here is a list of upcoming events, with all dates and times subject to change:

February 11 - 14, evenings: "Heart to Heart" traffic-handling exercise at the Red Cross Building, about a block south of the main gate of Robert Mueller Airport. We will pass Valentines greetings via voice, cw and packet from Austin Red Cross to other states. This is a great way to learn this most important part of amateur radio.



February 22, 8 AM until noon: Wide-area weather exercise. This multi-county event will take place using 2-meter FM and HF digital modes. The goal is to determine if the WeatherNet can expand to bring in reports from a large area of Central Texas...maybe 10 or more counties. We also have the goal of establishing a digital link between the weather-bureau offices in Austin, Houston and San Antonio.

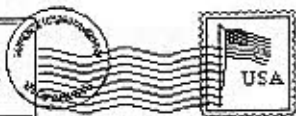
March 31: Meeting at Luby's Cafeteria on North Loop. This is our regular 5th Tuesday meeting.

April 26: Harris Branch bike race. Travis County ARES will be involved.

ARES promotes the public-service aspect of amateur radio, by providing emergency communications for served public agencies in Austin and Travis County. New members are welcome to ARES. There are no dues or license-class requirements. The dates of these events are subject to change, so please listen to the ARES net for latest information. The net meets every Sunday at 6:30 PM on the 146.94 MHz

*continued on page 5*

Letters to  
the Editor



## Why Not CQ?

In Jon Penner's, N5MHI, article "Repeater Etiquette" (12/91 AARCOVER) the newly licensed amateur is counseled to initiate a contact by transmitting, "This is N5xxx monitoring." This is, of course, the established practice as it has evolved. What has never made sense to me is why not say, "CQ, this is N5xxx listening." Do that on a repeater and eyebrows raise and people wonder, "who's that fruit cake?"

Well, CQ is a general call to an unspecified station and indicates you want to initiate a contact. It works below 30 MHz and there's no reason why it shouldn't work on 2 meters. It might even help some of the newcomers bridge the gap to HF.

Of course, you should just say it once (not "CQ, CQ, CQ") since the audience is there monitoring and not tuning.

Dick Foster, W2IE

## Ultimate Stealth Antenna

No need to worry about "no-antenna" deed restrictions, if you are willing to go high enough in frequency. The National Institute of Standards and Technology in Boulder has invented a spiral antenna for infrared radiation. The diameter of the antenna is about half that of a human hair...not much chance it will be spotted!

All previous infrared detectors sensed the heating caused by infrared radiation striking a surface; this new device is the first sensor to actually work like an electrical antenna. Materials are gold and niobium.

## Georgetown Swapfest

The Williamson County Amateur Radio Club will hold its first annual Winter Indoor Swapfest on Sunday, February 9, from noon until 5 PM. Location is the Georgetown Community Center in San Gabriel Park. Tables will be available for setup at 10:00 AM, but no selling until noon! Tables cost \$5, general admission is free.



All selling will take place inside the warm, heated building...in order to avoid a conflict with the City peddler-permit laws, tailgating will not be permitted. The Community Center has a snackbar. Contrary to earlier reports, exams will not be held.

Directions: Take Exit 262 off I-35, head east (1/2 block or so) until you get to the McDonald restaurant. Turn left at McDonald's, go about 50 yards to the San Gabriel Park entrance on the right. The Georgetown Community Center is next to the football stadium. Talk-in will be on the 145.13 and 147.08 repeaters.

For further information you may wish to call Tom Casey, WA5ACF, at (512) 869-1378 (home) or 244-6675 (work).



### Newly - Revealed Transmitter Hunters

As it turns out, humans may not be the first to use these micro-antennas. Certain insects have tiny structures that some scientists believe may act as waveguides or antennas for infrared.

de Miles Abernathy, N5KOB

## WAS Award for N5PLJ

Congratulations to Robert Batey, N5PLJ, of Austin!

On 11-Jan-92 I was pleased to verify Robert's QSL cards for the ARRL Worked All States (WAS) Award. Robert has earned the WAS with endorsements for SSB and



10 Meters by having 50 QSL cards confirming all states in SSB mode in the 10 Meter band. Robert is now trying to obtain the 10-10 WAS. He used a Kenwood 520 and plans to add wire to his dipole and start working on the 15 and 20 meter bands.

de Richard M. Kriss, KD5VU, ARRL Awards Manager, Austin, Texas

*[Dick is the person to contact once you have worked all the states. You can take him your QSL cards for verification, rather than trust them to the mail. Call him at 327-9566 for more information.]*

### ARES from page 3

repeater, and then again at 8:30 PM on the 146.78 repeater. Joe Fisher, KSEJL, is the Travis County Emergency Coordinator, and he may be reached at 926-4689.

de Miles Abernathy, N5KOB

## Ham Exam Results

The following individuals obtained or upgraded their license at the ARRL / VEC exam session of January 11, 1992, at Murchison Middle School:

NAME	CALL	UPGRADE
Darral W. Heustis	N5SBG	Advanced
Frank Hinkle	N5SZD	Advanced
Karl T. Nordman	N5PVD	Advanced
Roman L. Robles	N5RJC	Advanced
Alan T. Schauer		Tech. Plus
Ruhi Arslanoglu		Technician
Robert H. Bledsoe III		Technician
James P. Clayton		Technician
Michael J. Fuller		Technician
Dan Galewsky		Technician
John A. Johnson		Technician
Richard M. Rice		Technician
Richard E. Sepulveda		Technician
Garry D. Sitz		Technician
Mike D. Allen		Novice
Ronald B. Yokubaitis		Novice

A total of 24 candidates took exams.

### VE EXAMINERS

Gene Hinkle, K5PA; Alex Vrenios, KX9I  
Barry Davis, AA5GN; Curt Goodson, W4QBU  
Bob Redouty, KF5KF; Larry Gunter, WB5BEK

Special thanks also to Huck Huckabee, AA5BU for stopping by and helping out during the session and Roy Miller, W5FOZ for the use of his tape player. *[see article by Huck Huckabee on how to pass the CW exam, elsewhere in this issue]*

The next ARRL / VEC exams will be held at Murchison Middle School, 3700 North Hills Drive, in northwest Austin, on Saturday, March 7, 1992 @ 9:00 am (please arrive by 8:30 am).

If you have any questions regarding the upcoming exams, please contact me at 473-3526 (work) or 345-7281 (home).

de Larry Gunter, WB5BEK

## Short Vertical for Top Band

*Portions of the following article appeared in WorldRadio Magazine a couple of years ago.*

Short top loaded verticals for 160 are commonly used and their advantages are numerous. Conveniently, they need almost no ground. The nicest thing about top loaded verticals is their radiation pattern: The antenna radiates from the top instead of the bottom; thus allowing the signal to be projected from above ground where it does the most good.

### CONSTRUCTION

Using the remains of a telescoping push-up mast from Radio Shack, I bolted 24 ft. of vertical mast to the peak of the duplex on the west side of the house at the 20 foot level. Sandwiching a piece of plastic between the house bracket and the edge of the roof helped insure the antenna was adequately insulated. My telescoping mast was once about 40 ft. but only 24 feet remained after a 100 MPH plus wind storm - you use what you have.

Setting the mast on a block of wood, again using a piece of plastic for insulation, I planted the antenna. The braid, shield, goes to ground. Your ground can be, as in my case, a nearby chain link fence, or a ground rod, or even a metal cold water pipe. If there is room, lay out as many wires, no matter how short, as you can; and attach your shield to the wires. The larger the diameter of wire, the better. Yes, you can use insulated wire; in fact, it is preferred if you plan to bury it. The center conductor goes to the base of the antenna.

### TOP ASSEMBLY

The top of the vertical was made up of A:- 4 ft. of 1 inch aluminum tubing, B:- 3 ft. of 2.5 inch plastic tubing: PVC pipe, and C:- an additional 7 ft. of 1 inch aluminum

tubing. I used 2.5 inch diameter PVC for my coil form because I had no idea how large a 160 meter resonator should be. Later I discovered I could have gotten along with something smaller. Learning is what home brewing is all about.

I bolted both the 4 ft. and 7 ft. pieces of aluminum tubing to either end of my 3 ft. PVC pipe - a few inches down inside either end to insure structural strength - the 4 ft. length on the bottom and the 7 ft. poking out the top.

### RESONATOR

The coil, or the 160 meter resonator, was a winding of 14 gage insulated wire wrapped around the middle of my PVC pipe. How much wire did it take? I wanted my antenna to resonate near the bottom of the band, 1800 KHZ, since I was mostly interested in CW. A quarter wave at that frequency is 130 ft. The total length of my vertical, I judged, would be about 32 ft; so I wound the difference, 98 ft., around the plastic pipe and tied the ends of the wire to the bolts used to secure the aluminum tubing to the PVC coil form.

### HIGH VOLTAGE

The voltage on such a coil is very high. If high power is to be used, a heavier insulated wire, such as RG8U, should be used for the winding to prevent arcing. Some hams even use quarter inch copper tubing wound on a coil form when running a KW. My 100 watts, however, presented no such problem; thus the 14 gage insulated wire was satisfactory.

### CAPACITY HAT

After dropping my top assembly a foot or two down inside the 24 ft. vertical mast already bolted to the edge of the roof, and securing it with a U clamp, I hurried to the basement and fired up the transmitter. You guessed it...it didn't work! I found that not only would the antenna not load, but there was no resonant frequency anywhere on the band. I rechecked everything and made numerous adjustments

but the results were the same. I even added and subtracted wire from my coil, but nothing changed.

Sitting on the roof, contemplating my dilemma, I recalled that trapped verticals used capacity hats. Crawling over to my home brew 5 element 6 meter beam, which I had recently removed from the tower and left laying on the roof, I plucked off two elements. Quickly clamping these 2 aluminum elements in an X-formation to the top of my vertical, I dropped the entire assembly - now looking like a giant TV antenna - back down inside the 24 ft. vertical mast and tightened it down.

Hurrying to the basement, I once again tried to load the antenna. It worked! It resonated at about 1815 KHZ. Playing with various lengths, I was able to raise the resonant frequency enough to allow me about 50 KHZ of room before the SWR became too unreasonable. My capacity hat was over 9 ft. in diameter but without it, the antenna would not resonate.

### RESULTS

Just because an antenna can be made to resonate, does not mean it will radiate. This antenna, however, worked; and worked well.

I finished my antenna project in early May and operated almost nightly until mid-July when I pulled down everything to move to a new location. I made dozens of contacts during this period of time and worked both East and West coasts often. On sideband, I often received reports of 10 and 20 dB over S9 from W5, W6, and W7. Although the summer time conditions from Colorado are not the best for working the East Coast, due to high static levels, I worked a few [none out of the northeast, however] with reasonable reports on the better nights. Most think that 160 does not propagate during the summer because of the low frequency. Although this is certainly not true, you'd better plan on getting used to listening to

the static. Interestingly enough, the static level is almost nil a few minutes before sunrise each morning and the band goes long during that window opening.

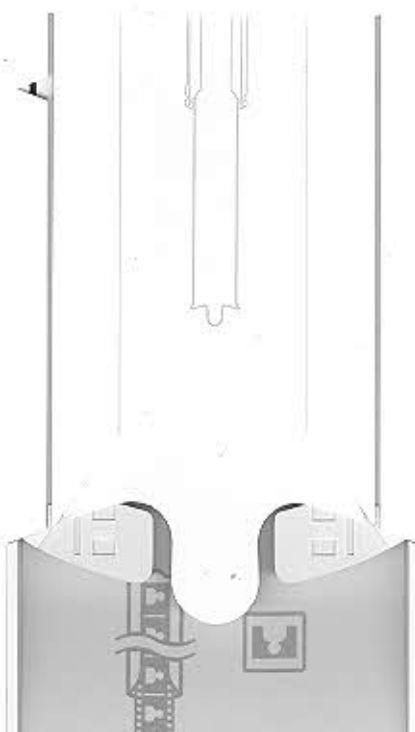
I found that the top loaded vertical is one of the most commonly used antennas on 160 meters and often are only 30-to-40 ft. in total length. Simple 30-to-50 ft. telescoping masts are often used for the vertical element which can be easily purchased from most radio and hobby stores. Capacity hats range from 3-to-10 ft. in diameter and sometimes even greater. A friend of mine has used 22 ft. diameter capacity-hats when using short verticals under 40 ft. in height; thus getting as much signal above ground as possible.

### GROUND SYSTEMS

On 160 meters the greater your ground system, usually the better your signal. This, however, is perhaps the greatest benefit of the top loaded vertical for the Top Band. I have worked hams on 160 who have been using 40 ft. push-up masts and 5 ft. diameter capacity hats with no more ground system than a single short ground rod driven in at the base of the antenna. Some use nothing more than a wire running over to a nearby cold water pipe. Top loaded verticals simply work well with little ground and signals from such antennae compare well with the larger base loaded antennas - shunt fed towers with large ground systems for example.

There seems to be one additional advantage to a short top loaded vertical on the Top Band over many other antennas. Because of its size, it has reduced signal capture area. This means, in high static conditions, the shorter antenna often is able to hear the weaker signals, - perhaps due to it being less resonant at the static frequency - compared to shunt fed towers for example. I know some will take issue with this statement, but I have personally observed this to be true. Many times,

*continued on page 11*



## Minutes

Here are the minutes of the January 18, 1992, meeting of the Austin Amateur Radio Club, which was our annual winter Banquet:

Approximately 60 members and guests enjoyed an evening of Bar-B-Que and fellowship at the Zilker Park Clubhouse.

There was no formal meeting. A number of new members and guests were introduced. Outgoing President Mike Kellam, AA5JP, introduced the old and new officers that were present.

Mike then thanked the membership for their help with special thanks to Miles Abernathy, N5KOB, for his help with publications and publicity. Mike also gave a special thank you to the area's volunteer examiners, especially Larry Gunter, WB5BEK, and Bill Wehling, KF5NB.



Gary Pickens, WX5Z, the Activities Director, then held drawings for the door prizes. We owe a special thanks to Johnny Paul, WA5BGO, and the Austin Amateur Radio Store for assisting with the prizes.

Ruth, the XYL of Gerald, WASPAC, selected a Call Book; Pete, K5GM, won an ARRL Handbook; Ruhi, no call (just passed his exam), got a two meter magnetic mount. Also John, KP5OY, a hot rod antenna; Fred, K5SIXT, a three band antenna; Jim, WA5LHS, passed but later took home a plate of Bar-B-Que; Rick, K5FNI, picked up an ARRL Antenna Handbook; Mickie, K5IOJ, has an antenna clip; and Alana (6-year-old harmonic of Miles, N5KOB) has a new book on easy to build antennas. WD5CDY, WD5N, WD5WPS took home extra Bar-B-Que dinners.

Will you believe that NO ONE brought a white elephant? Did the ten pound weight limit kill this?  
de Joe Canfield, N5HPC, Reporter

## QUA

Turnout for the first session of the Austin Repeater Organization's Winter license classes was a record 33 persons. Good luck to all!

Code getting rusty? Tune in to ARO's code practice broadcast every evening (except Saturday) at 8 PM on 146.94 MHz, until the end of February.

AMSAT reports that a recent computer analysis indicates that the OSCAR 13 amateur radio satellite will "deorbit" in late 1996. By that time they should have the Phase 3D super-satellite in orbit (see November AARCOVER, page 6).

Austin Amateur Radio Supply donated a pile of good door prizes for the AARC Banquet in January. We are very fortunate to have an 800- number discount ham store right here in River City. Reportedly, Houston has no ham store at all.

Human hearing of tones extends at least up to 108 kHz, according to Science magazine (5 July 1991, page 82). In related experiments, scientists translated human speech to 40 kHz SSB (upper sideband) and presented it to human volunteers at loud (up to 130+ dB) levels via bone conduction. They found that young, old, and even profoundly deaf persons could perceive the speech.

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## Basketball Microphones

For an idea of the difference between amateur and commercial radio, consider the microphone setup used in the commercial broadcast of a typical basketball game. The announcer usually has a headset mic, and the color man / woman needs one too. There is a microphone to pick up crowd noise, maybe hung outside the announcer's booth.



Next, there may be a technician with a shotgun mic in the bleachers, to capture the sound of the ball drib-

bling and shoe squeaks. If the station doesn't want to spend the money on a technician, they may place two or three mics around the boundary of the court, and hope they don't get stepped on.

There may be a pressure transducer attached to the floor, to pick up ball thumps. A mic hung above the court gives good sounds, too. Finally, they probably put a mic under each hoop to catch the basket sounds. All those mics are fed to a mono or stereo mixer.

de Bruce Bartlett, Jenny Bartlett, and Miles Abernathy, N5KOB

## Automatic Link Establishment

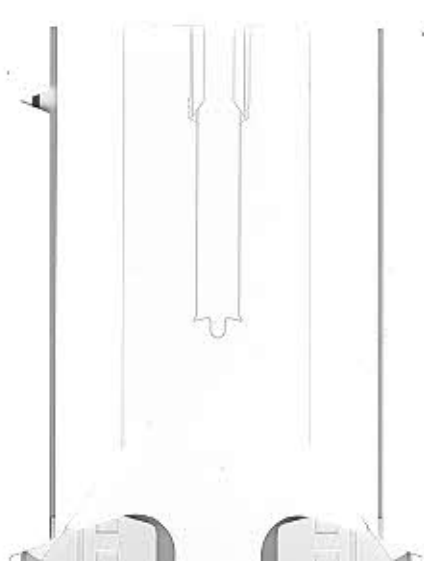
Federal Standard 1045 (FS 1045) defines Automatic Link Establishment or ALE as the capability of an HF radio to initiate a circuit between itself and another radio without operator assistance and usually under processor control. As the Federal community moves more toward ALE, not only will HF radio operations become more efficient, but the capability of shared HF radio resources (or SHARES) will be enhanced. A review of some of the basic features of ALE will demonstrate its potential.

An ALE radio is designed to continuously monitor an HF network or networks on up to 100 predesignated channels. Upon detecting an incoming call, ALE tunes the transmitter, sends a reply to the caller, and waits for an acknowledgement. Once the acknowledgement is received, the ALE sounds an alarm announcing the incoming call, activates the speaker, displays who is calling, on what frequency, in what mode, and waits for operator intervention. After the transmission is completed, the ALE units returns to monitoring the

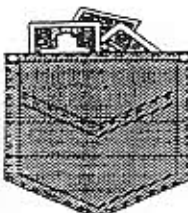
predesignated channels. If the incoming call is for data traffic, the controller automatically routes the call to a data terminal without operator intervention. For outgoing calls, the operator tells the controller the destination station or stations and the desired mode of operation. The controller picks the best available pre-programmed channel, completes all the tuning and handshake work and, when the link is established, waits for operator intervention. Besides simple network monitoring and linking, ALE also provides for linking all stations in a network with a single call; or automatically responds to a net, or multiple net, collective call.

With ALE, most of the work is efficiently done by the processor, leaving the operator free to do other things. As impressive as ALE is today, additional features are under development. These features include automatic networking, automatic message store and forward, anti-interference, privacy, automatic relaying, and automatic networking with other media.

de Nathaniel McMillian, NTIA / ITS  
[extracted from RACES Bulletin 192, October 1991]



## Bastrop Co. Swapfest



This year's Alum Creek swapfest will be Saturday, February 22. Look for the site at the Alum Creek Antique Center on Highway 71 between Bastrop and Smithville. Like other ham swapfests, this one starts earlier in the morning than most civilized folks are awake.

## Weekly Events

Code Practice...Sun—Fri, 8 PM, 146.94 MHz  
 AMSAT Net...Sundays, 5 PM, 224.14 MHz  
 ARES Net...Sundays, 6:30 PM, 146.94 MHz  
 ARES Net...Sundays, 8:30 PM, 146.78 MHz  
 SwapNet & NewsLine...Sundays, 9 PM, 146.94 MHz  
 UT ARC Net...Tuesdays, 9:30 PM, 147.18 MHz  
 LunchNet...Thursdays, BurgerTex on Airport Blvd.  
 QCWA Net...Thursdays, 8:15 PM, 147.18 MHz  
 Breakfast...Saturdays, Simon David deli.  
 SwapNet...Saturdays, 9 PM, 145.21 (-) MHz  
 WeatherNet...as needed, 146.94 MHz  
 Updates to Miles @ 327-1310.

## QUA

The Postal Service does not forward bulk mail, including The AARCOVER, even if you have left a forwarding order with the Post Office. Instead, they return mis-addressed AARCOVER's to the club and charge us 29 cents each. So if you are going to move, please tell the Label Chairman, Pete Jordahl (4540-7889), your new address well ahead of time.

"Knurd" is the correct spelling of "nerd" or "nurd" or "gnerd" or "gnurd" or "knerd" or whatever, since it is "drunk" spelled backwards.

## The AARCOVER

Monthly Newsletter of the Austin Amateur Radio Club.

### Officers

Jim Neely, WA5LHS, President .....	442-4812
Rod Moag, W0NDS, Vice President .....	467-6825
Pat Neff, NJ7R, Treasurer .....	836-2550
Rick Hendrickson, N5LJF, Secretary .....	345-2200
Gary Pickens, WX5Z, Activity Mgr .....	454-3230

### Committees & Positions

Ed Golla, K3AHS, Technical .....	255-4818
Joe Fisher, K5EJL, Emerg Coord'tor .....	926-4689
<vacant>, AARCOVER Editor .....	555-1212
Pete Jordahl, K5GM, Labels & Roster .....	454-7889
<vacant>, Public Info Officer .....	555-1212

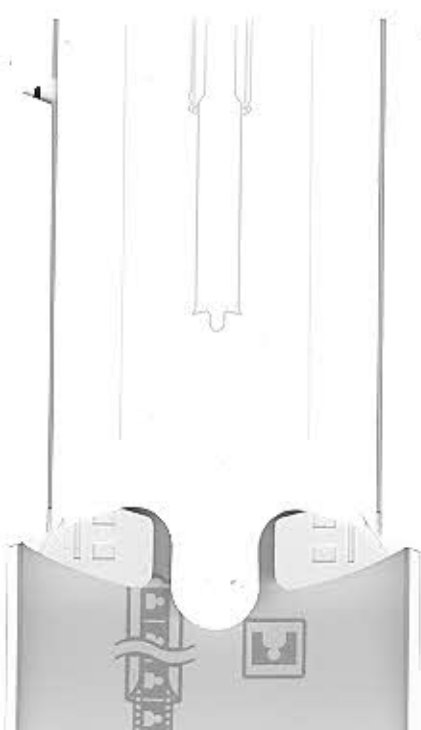
If you are willing to help with a vacant position, please contact any club officer.

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

Members are encouraged to submit material for publication...please call Miles at 327-1310 or mail to AARCOVER, 3216 Park Hills Drive, Austin TX 78746. Submissions may be edited for format, style and suitability. Deadline for the next issue is the 21st of this month. Late material will be saved for next month.

We grant permission to reprint AARCOVER articles provided that you credit the author and the AARCOVER.

The Austin Amateur Radio Club, Inc., maintains a repeater with open autopatch and emergency power on 146.78 MHz, and an emergency station at the American Red Cross Building. Membership dues are \$6 per calendar year (\$10 for a family). Please contact an officer if you would like to join the club, and come on down to the next meeting.



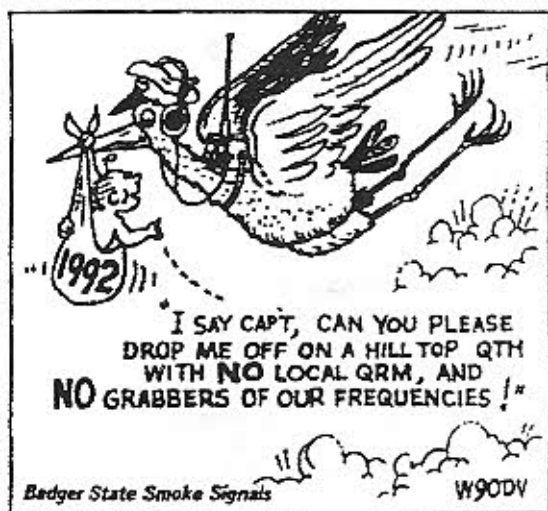
**Short Vertical from page 7**

when comparing incoming signals with local stations using larger antennas who have not been able to copy a weaker signal. I have, on the other hand, with the shorter antenna, been able to hear and copy clearly.

**CONCLUSION**


If you have a 160 meter position on your transceiver, now you can try it out. In recent years, the top band has become more popular with hams who have discovered that short antennas do work well at low frequencies. While winter conditions are the most favorable for 160 meter communications, you will find even the summer to be good for under 1,000 miles. An amplifier certainly helps on any band, especially during the noisy summer time, but I have no problem working the western half of the U.S. from Colorado even with 100 watts. If you want to try the top band but are short on money, space, and tower; try the short top-loaded vertical. You won't be disappointed.

de Phil Scovell, AFOH (thanks to Rick Herndon, K5FNI)

**ARL SIXTY - NEW YEARS DAY****ATV Club****Camera Amateurs**

Minutes of the Austin Amateur Television Club held at Sirloin Stockade, January 21, 1992:

President Bob Templin, W8ZSX, called the meeting to order at 7:35 p.m.

1) An extended discussion focused on the need for a cross-band ATV repeater with inputs in the 1.2 GHz band (FM) and output in the 420 MHz band (AM). Commercially manufactured equipment is readily available for such a project. The most important consideration at present is the need for a new tower site for the repeater. 

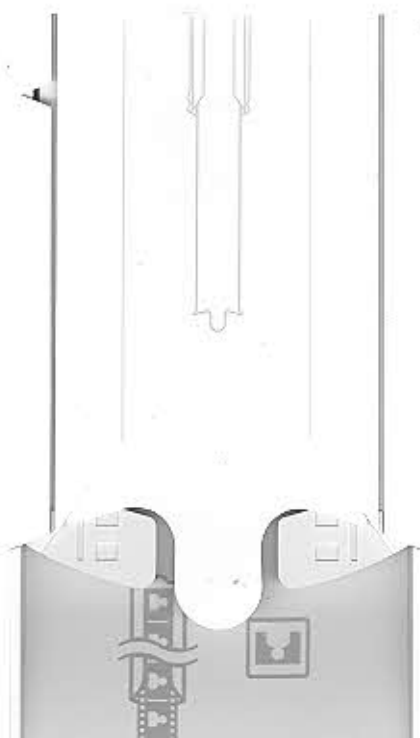
2) On motion of Pat McGuire, WA8PLR, seconded by Joe Fisher, K5EJL, it is resolved that AATC draft a proposal in conjunction with the Austin Repeater Organization to build and install an advanced "user friendly" second-generation repeater at a mutually agreeable site.

3) Announcement was made that coordination of the Monday night (9:00 p.m.) ATV activity has moved to 144.260 MHz SSB. This affords better opportunity for those outside the coverage any given voice FM repeater.

The meeting was adjourned at 9:05 PM. The Austin ATV Club meets 3rd Tuesdays at 7:30 PM at Sirloin Stockade, 8828 Research Blvd. Visitors are welcome! For more information, please call Jon Penner, N5MHI, at 335-0220.

de Joe Fisher, K5EJL

Anyone having equipment suitable for use by a school amateur radio club, or knowing of a school club needing such equipment, please contact the AARC Vice President or Secretary.



## Guest Editorial

## Police Hams

We have many "Police Hams" in our area, and I don't mean amateurs who happen to be police officers. I mean hams of the type that always discuss the legality of different uses of ham radio.

They always make it sound like their interpretation of the rules is the only one, and that they are speaking as Official FCC representatives. Sometimes they won't even let you call the AAA for automobile emergencies, even though the ARRL handbook says that the practice is OK.



We have many public service type things that we do around here, and most are said to be "illegal" by these "Police Hams". A

...the "Business" of the Red Cross...

proper reading of the rules, and modifying the operations to conform with the rules, is all that is needed in most cases.

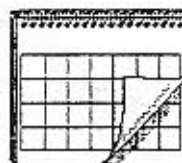
We even had one of these "Police Hams" say that hurricane shelter operations were illegal, because we work under the Red Cross, and the "Business" of the Red Cross is to provide emergency services, so our operators were helping their business...

I feel strongly that so many "Ham Police" have caused amateur radio to become degraded to the point where we can hardly do any public service work, because of people attaching "business interest" to what should be considered safety or health and welfare traffic. If what you are doing is a violation, the FCC will let you know that they want you to stop.

de Art Byrnes, KA4WDX

## Calendar

- Feb. 3 — Mar. 4...WARC 92, Spain  
 Feb. 4...Austin Rptr Organiz meeting  
 Feb. 8...Transmitter hunt, 7 PM, 146.52  
 Feb. 9...Georgetown Swapfest, noon  
 Feb. 10...Hays Co. ARES, 6:30 PM, 147.10  
 Feb. 10-14...School club roundup  
 Feb. 11...Austin Amat. Radio Club  
 Feb. 11-14...ARES Heart-to-Heart exercise  
 Feb. 15-16...International DX contest, CW  
 Feb. 18...Austin Amat. TV Club meeting  
 Feb. 20...U.T. Amateur Radio Club  
 Feb. 22...Alum Creek (Bastrop) Swap Meet  
 Feb. 22...ARES wide-area weather exercise  
 Feb. 29...Orange, TX, hamfest  
 Mar. 3...Austin Rptr Organiz meeting  
 Mar. 7...Ham exams, 8:30 AM, Murchison  
 Mar. 7...Transmitter hunt, 7 PM, 146.52  
 Mar. 7...3M Skywarn class  
 Mar. 7-8...International DX contest, phone  
 Mar. 9...Hays Co. ARES, 6:30 PM, 147.10  
 Mar. 10...Austin Amat. Radio Club  
 Mar. 14...STS-45 w/ INSPIRE launch (?)  
 Mar. 14-15...Midland-Odessa Hamfest  
 Mar. 17...Austin Amat. TV Club meeting  
 Mar. 19...U.T. Amateur Radio Club  
 Mar. 29...Harris Branch bike race (ARES)  
 Mar. 31...ARES meeting @ Luby's  
 Apr. 4...Ham exams, 8:30 AM, Murchison



- Apr. 5...Capitol 10K footrace  
 Apr. 6...144 MHz Sprint  
 Apr. 10-12...DX Convention (Visalia, CA)  
 Apr. 11...Manchaca swapfest  
 Apr. 14...222 MHz Sprint  
 Apr. 22...432 MHz Sprint  
 Apr. 24-26...Dayton HamVention  
 Apr. 25...Scout Expo  
 May 1...902 MHz Sprint  
 June 5-7...HAM-COM, Arlington  
 June 27-28...Field Day 92  
 Aug. 7-9...Summerfest @ Austin

Calendar updates to Miles @ 327-1310.