



# AARC OVER

## Bulletin of Austin Amateur Radio Clubs

Austin Amateur Radio Club  
Austin Amateur Television Club  
Austin Repeater Organization

December 1992

### Club Meetings

#### Austin Repeater Organization

Will meet Tuesday, December 1, 7:30 to 8:30 PM, at Luby's Cafeteria on North Loop (about a block west of Burnet Road). While the official start time is 7:30, most folks get there early and eat supper together. Topic: To Be Announced. See the ARO Monitor on page 3.



#### Austin Amateur Radio Club

Will meet Tuesday, December 8, same time and location as above. Topic: To Be Announced. All AARC functions are Non Smoking. Remember, the Zilker Clubhouse Banquet takes the place of the January meeting.



#### Austin Amateur Television Club

Will meet Tuesday, December 15, same time and location as above. Call Jon Penner, N5MHI, at 335-0220 for information.



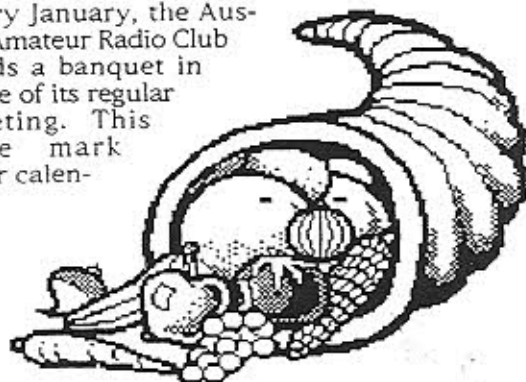
### Stray Currents

**Fee Up:** The FCC has announced that the maximum reimbursement for Volunteer Examiners increases to \$5.60 in 1993, up from \$5.44 in 1992. The ARRL VEC will apply this fee to Tech and higher exams. (de ARRL HQ via Jim Greenwood, AB5EK)

**Wish Granted:** Joe Fisher's wish for 100 members in Travis County Amateur Radio Emergency Service (ARES) in 1992 has been granted. Membership reached 103 in November. ARES meets Sundays at 6:30 PM on 146.94 MHz & 8:30 PM on 146.78.

### AARC Banquet

Every January, the Austin Amateur Radio Club holds a banquet in place of its regular meeting. This time mark your calendar for Saturday, January 9, 1993, 6 to 9 PM. As usual, we will dine at the Zilker Clubhouse, situated on a hilltop west of MoPac with a beautiful view of the downtown skyline. The fare is expected to be BBQ, with the usual excellent door prizes.



Please pre-register to help Gary Pickens, WX5Z, have an accurate idea of how much food to order. Send in this coupon, or the same information on a piece of paper, to AARC Banquet, POB 13473, Austin, Texas 78711. Enclose \$7 per person, and make your check out to "Austin Amateur Radio Club." Put your callsign on the check.

Name(s) \_\_\_\_\_  
Call(s) \_\_\_\_\_  
How Many? \_\_\_\_\_  
Deadline is December 26.

Name(s) \_\_\_\_\_

Call(s) \_\_\_\_\_

How Many? \_\_\_\_\_

Deadline is December 26.

*Jan 9 1993 new class starts.*

*August 6, 78, 1993  
Summerfest.*

## Iambic Keyer Kit

We are now taking orders for the KA5MRP electronic keyer kit. This keyer is designed around the popular Curtis keyer chip. This keyer features adjustable speed, adjustable side tone pitch and volume, iambic paddle input, straight key input, and positive and negative keying output. The kit includes the printed circuit board, all components, and case.

We will be offering a kit building class for those who wish to purchase and build one of these keyers. We must receive at least 20 orders in order to get quantity pricing. The cost is \$45.00 which includes sales tax on the components and parts (This price represents cost. There will be no net proceeds from this project).

If you are interested, please mail the information below and a check for \$45.00 (payable to Austin Repeater Organization) to ARO Keyer, P.O. Box 4763, Austin, TX 78765. Deadline for orders is December 15, 1992. If we do not receive the minimum number of orders, checks will be returned. The project building class will be scheduled after the order deadline.

Name: \_\_\_\_\_

Call: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Zip: \_\_\_\_\_

Evening phone: \_\_\_\_\_

de Charles Eichenbaum, WB5HOI

## QCWA

No, those letters are not the Q-signal for "I am transmitting from central Washington state." The Quarter Century Wireless Association (QCWA) is an organization open to anyone who held a ham license 25 or more years ago. Note that you need not have been licensed continuously for all that time, you just have to have been granted a ham license in 1967 or earlier.

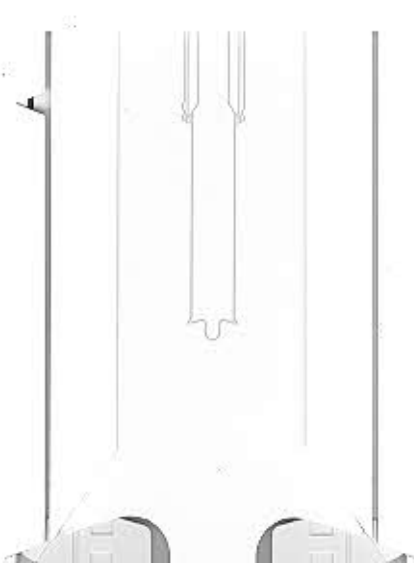
The local QCWA chapter meets third Saturdays at 11:30 AM at Wyatt's Cafeteria in Hancock Center, for a meeting that is typically over by about 1 PM. The December program is to be announced, and the January program may be on taxes.

Visitors and potential members are always welcome. For more information, contact Jim Bennett, WB5IMB, at 453-0040.

## Stray Currents

**Pen Pals:** Hams are worldly people, so it makes sense that their children are also. To get a foreign pen pal for your child send a business SASE and \$3 to World Pen Pals, 1694 Como Ave., St. Paul MN 55108 (tel. 612-647-0191). Tell your child's name, age, sex, foreign languages spoken and any countries where s/he already has a pen pal. Expect a reply in about 3 weeks. WPP has been in business since the '50s.

**"Key" To Success:** From InfoWorld, October 12, 1992: "I sat for an hour last week with Mickey Schulhof, the very un-Japanese guy who runs Sony's U.S. operations....The best part of sitting with the guy who bought CBS Records and Columbia Pictures was learning what it really takes to get to the top at Sony. You have to be a ham - an amateur radio operator. When we think those guys are playing golf or plotting world domination, they are actually down in the basement, warming up their two-kilowatt rigs and practicing Morse Code. I'm not kidding." (thanks to Robert Barron, KA5WSS)





PO Box 4763, Austin, Texas 78765  
*Operator of Voice Repeaters on 146.28/88Mhz.,  
 146.34/94Mhz., 223.20/224.80 Mhz. and  
 449.1/444.1Mhz.*  
*Packet Digital Repeater 145.01Mhz.*  
*Sponsor of Central Texas Weather Net,  
 ARO Transmitter Hunt and Swapnet*

**Club Officers**

President - Phil Steinbach (WB5SUR) 258-3215  
 Vice President - Jeff Schmidt (N5MNW) 255-6753  
 Secretary - Paul Parker (N5ZLX) 267-7070  
 Treasurer - Tenia Kinney (KASTXK) 442-8427  
 Editor - Anne Click (KB5RHA) 451-7667

RECOGNITION OF SERVICE and appreciation are extended to the 1991 - 1992 ARO officers: Charles Eichenbaum, President; Mike Pendley, Vice-President; Phil Steinbach, Secretary; Tenia Kinney, Treasurer; and Clovis Womack, Editor. Special thanks to Charlie who served as President for the last three years and gave the ARO a great deal of his time and energy. We do understand, however, the need to cut back such exhaustive activities as he celebrated his 47th birthday on November 20.

CONGRATULATIONS to the newly elected ARO officers (listed at the top of this page). Getting out this first

newsletter gave me an awareness of Clovis Womack's large contribution to the ARO as Editor for the past three years. Our sincere thanks and laudatory pat on the back, Clovis. (Condolences, Miles, you're stuck with me, now).

UPCOMING NEWSLETTERS will be expanded. Members' ideas and contributions are welcomed whether I use them or not, but I might! Talk to me! (CQ, CQ, CQ!!)

JOYOUS HOLIDAYS and 73.  
 de KB5 Royal Highness Anne.

TRANSMITTER HUNT - Dec. 5, 7 P.M.

**AUSTIN REPEATER ORGANIZATION DECEMBER MEETING**

Luby's on North Loop - TUESDAY, DECEMBER 1, 1992 -- 7:30 PM

**PROGRAM: TO BE ANNOUNCED LATER**

## Minutes of November AARC Meeting

Meeting for November 10, 1992. The meeting was brought to order at 7:30 PM by President Jim Neely, WA5LHS.

**VISITORS:** The visitors and rare attenders tonight included: Al, KB5VHM; Allen, KB5VJW; Bob, N5RRL; Nevil and Pat who have no license yet; KK5B; Fred, WB5CDE; Doc, W5TXP; WB5NXX. Welcome to all and please come again.

**MINUTES:** The minutes of the October 13th meeting were approved as printed in the AARC/OVER.

**OFFICER REPORTS:** The AARC Treasure, Dave, KG5ND, reported a checking account balance of \$2,134.45 and a postal account balance of \$72.50. Ed Golla, K3AHS, the Technical Committee Chairman, has noted no problems with the repeater itself. He has noted some misuse of the repeater. This includes unidentified operators, music, and an occasional call to a business for information. The Activities Manager, Gary, WX5Z, announced that we came in 103rd out of 480 stations in Class 2A. Gary also reminds us that the annual Bar-B-Que will be on Saturday, January the 9th. The next AARC/OVER will have the details.

**OLD BUSINESS:** None.

**NEW BUSINESS:** John Adams, W5SYT, the chairman of the nominating committee, read the following list of new officer nominees: President: WA5LHS - Jim Neely; Vice President: W0NDS - Rod Moag; Secretary: KF5OY - John Weber; Treasurer: KF5ND - Dave Marschall; and Activities Chairman: KB5RSY - Steve Sparks. Jim reminded everyone that the floor will be open for nominations during the election. The

purpose of the nomination committee is to ensure that there is a full slate of officers who have agreed to do the work. Jim also reports that progress with the Scholarship Fund is slow - we are waiting for the lawyers to get their work completed.

**ANNOUNCEMENTS:** Joe, K5EJL, handed out a number of local level net certificates for the Travis County ARES Net. Jim, WB5IMB, announced the next meeting of the QCWA will be on November 21st at Wyatts in Hancock Center. Ron, WD5ERG, is back in the hospital. Jeanna, KG5QV, is out of the hospital.

**PROGRAM:** The program tonight was presented by Jim George, N3BB. Jim talked about designing and using an antenna system to adjust the angle of radiation. This angle sets the number of hops (reflections and bounces) that your signal takes to reach selected DX areas. Jim states that the most important aspect of an antenna system design is selecting the angle of radiation for the ideal number of hops. It directly affects the strength of your signal in the desired area. Jim relaxes by chasing DX and by working contests, sometimes solo. He designed and built a four tower system with stacked pairs of Yagi antennas to aid him in this hobby. The angle of radiation is controlled by using either the stacked combination or the top or bottom antenna alone. Jim briefly summarized the theory involved, the computer programs used to determine the design, the system he built, and several references books he used. The information given by Jim can aid any serious DX chaser in improving their system.

Respectfully submitted by Joe Canfield, N5HPC, AARC Secretary.



## HUCK'S COUNTRY STORE

### That Magic Metal

Solder: The wonder metal that makes electronic connections like magic! In our ham radio construction we take for granted the ease with which we solder our circuits together. It's so easy to use and no other connection has such wide-spread use. What would we do without good old solder?

There was a time, about 50 years ago, when we had no solder. When German and Japanese submarines cut off our imports of tin from the outside world, the supply of solder ceased. The same situation cut off the solder source in all of Europe.

When the war in Europe ended, everyone was trying to build a radio and some ham equipment. I had a big pile of parts salvaged from crashed airplanes. But the big problem was solder...namely, none! Try that out for a program stopper! German equipment had most connections welded together, and solder in American gear was scant. I spent days trying to salvage solder from parts at hand. A Medic provided a little bottle of spirits of turpentine that became the flux; it didn't work too well but I was thankful for it.

Yes, we built radios, ham transmitters and many other projects. Most were very crude, but never underestimate what a ham radio operator can do when faced with no resources!

Each time I solder a connection, a smile comes over my heart as I see that wonder metal make a magic connection! Truly we are now in a time of vast resources. Let's grasp the opportunity to expand our minds and develop products for the betterment of all people.

de Ex M-Sgt. J. M. "Huck" Huckabee, ex D4AER, now AA5BU

## NEW HAM CORNER

### Can I Use This Repeater?

*There seem to be MANY 2-meter repeaters in this area. Are regular visitors welcome on open repeaters? If I use them, I should support them, right? But, I can't pay dues to ALL those clubs. How does this work?*

Well, the definition of an "open" repeater is one that anybody is welcome to talk on, whether they "belong" or not.

And as far as clubs themselves are concerned, that's a good way to meet people, too. Just about all the clubs I know about welcome newcomers to sit in on a few meetings of the club before joining, just to give you a chance to see if the "atmosphere" of the club suits you. [This is certainly true of the AARC, the ARO, and the AATVC!] If you like it — great, maybe you'll join! And if not, well, at least you got a chance to meet some of the local hams face-to-face, so when you hear them on the local repeater, you can say "thought I'd say hello, we met at the last club meeting". There's no rule that says you have to join every club you visit (heck, there's no rule saying you have to visit every club you join, either — I have a friend who joined our local club last spring just because he liked the folks who hung out on the repeater!)

de Faith M. Senie, N1JIT

[A list of open Austin-area repeaters appears on pages 18-19 of the 1992 Combined Roster of club members. Additional copies of the list are available for an SASE from Austin Repeater List, 3216 Park Hills Drive, Austin TX 78746.]

Clarification: The UT Net, an on-the-air meeting of the UT Amateur Radio Club, happens Thursdays at 7 PM. The "521 Trade and Technical Net" meets Saturdays at 9 PM. Both are on the (open) 145.21 MHz repeater. (thanks to Buddy Brannan, KB5ELV)

## Extra Exam Sessions, Many New Hams

The W5YI-VEC held two additional examination sessions in October, one for the Austin Repeater Organisation's Fall Ham Class, and the other at the request of several students.

On October 10th, 5 people took exams and these obtained new licenses -

<u>Name</u>	<u>License class</u>
Frank Edwards .....	Technician
William Vallely .....	Technician

In addition two people upgraded -

<u>Name</u>	<u>Call</u>	<u>License class</u>
Charles Eichenbaum .....	WB5HOI	Extra
Bob Moeser .....	N5RRL	Extra

**Congratulations!**

On October 31st, 31 people sat for exams at the end of the ARO ham class. Many congratulations to the following who qualified for new licenses -

<u>Name</u>	<u>License class</u>
Reginald Allen .....	Technician Plus
Robert Basinger .....	Technician Plus
Louis Bocchini .....	Technician
Ronald Cichocki .....	Technician
William Collier .....	Technician
Gloria Crittenden .....	Technician
Patricia Elliott .....	Technician Plus
Steve Fridley .....	Technician Plus
Kenneth Gilliam .....	Technician Plus
Margaret Glueck .....	Technician
Paul Griffiths .....	Technician
Chuck Heard .....	Technician
Diana Heath .....	Technician
Nancy Kiefer .....	Technician Plus
Nancy Middlebrook .....	Technician
Marina Navarrete .....	Technician Plus
Randall Nieman .....	Technician
Mamie Quan .....	Technician
Robert Sneed .....	Technician
Lalita Sudarshan .....	Technician Plus
William Watson .....	Technician

Three candidates passed one or more elements but did not upgrade or qualify for a new license.

The overall pass rates for all examinations at these sessions was -

	October 10	October 31
CW	67%	
Theory	83%	82%

Many thanks to the following VEs who gave their time -

Jim Huckabee	AA5BU	October 31
Susan Johnson	KJ5AM	October 31
Bill Montgomery	AB5HP	October 10
Carol Thiel	N5TLY	October 31
Joe Thiel	N5SMN	Both sessions
Roy Walker	WA5YZD	October 31
Keith Watson	WB9KHL	October 10

The next regular exam session at Murchison will be on Saturday, November 7, 1992, and run by the ARRL-VEC. The next regular W5YI-VEC examination session will be Saturday, 5 December.

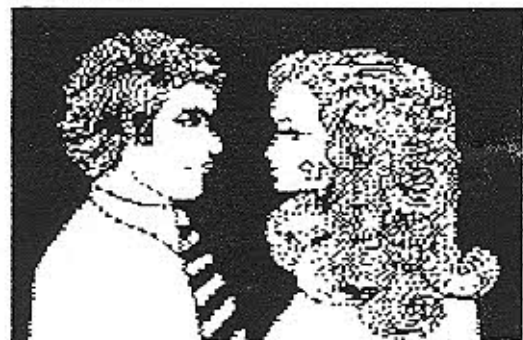
For information on the ARRL-VEC session call Larry Gunter, WB5BEK on 473-3526 (work) or 345-7281 (home). For information on the W5YI-VEC session call Mark Johnson, KJ5AN, on 335-4327 (home).



South Austin W5YI VEC exam sessions will be held in rooms 101 and 109 of Fleck Hall (the Science Bldg.) at St. Edwards University. Start time is 2 PM. Sessions are scheduled for January 23, February 20, and later. For further information call Ken Hollan, K5IQ, at 892-2640 (leave message). (thanks to Jim Greenwood, AB5EK)

## All In The Family

How can you get your wife interested in amateur radio? Try anything. Let her see how great it is to have access to an autopatch with your 2m mobile. Let her talk to folks in Australia or Grenada or American Samoa on HF. Go camping with her and take your HF rig and a marine battery, throw a wire over a tree with a slingshot, hook it up to an antenna tuner, and talk to the world with her from the wilderness. Whatever turns her on. Let her in on the fun. Let her call CQ, as third party, with you as control operator. You know your wife...you can figure out what would be fun to her.



Most of all, make sure that you give her plenty of attention, so that she does not resent ham radio as the "other woman" in your life. If she is getting her needs met with you, she will be much more likely to look favorably on ham radio.

I guess I sound more like a marriage counselor than a ham! Actually, when I got my ham license, my husband was much more amenable to walking away from the rig (sometimes at my request), because he knew now that I was not an enemy of ham radio. It really can be very helpful and lots of fun to share the hobby.

de Ginger McCausey, N5LTH

## ARRL / VEC Exams

At the November 7 exam session at Murchison School, these fortunate persons obtained or upgraded their license:

NAME	CALL	UPGRADE
Jack D. Bryant	N5RBI	Extra
Howard W. Glueck	K5ZUA	Advanced
William Sepulveda	N5EIF	Advanced
Darryl W. Clutter	KB5QNO	General
Jerome M. Chamkis	-	Tech Plus
Frank M. Edwards	-	Tech Plus
Sakae Obara	-	Tech Plus
Hans J. Slawik	-	Tech Plus
Mark E. Asbill	-	Technician
Jerre G. Butler	-	Technician
Robert J. Caldwell, Jr.	-	Technician
Lisa L. Dario	-	Technician
Robert M. Day	-	Technician
David M. Gentry	-	Technician
Phillip K. Green	-	Technician
Sally P. Johnson	-	Technician
Mickey R. McInnis	-	Technician
Jim M. Seiders	-	Technician
Juan G. Vinton	-	Technician
Aaron R. Grassi	-	Novice

There were a total of 31 candidates taking exams. Besides the above upgrades, 7 candidates passed one or more exam elements, but did not upgrade their license.

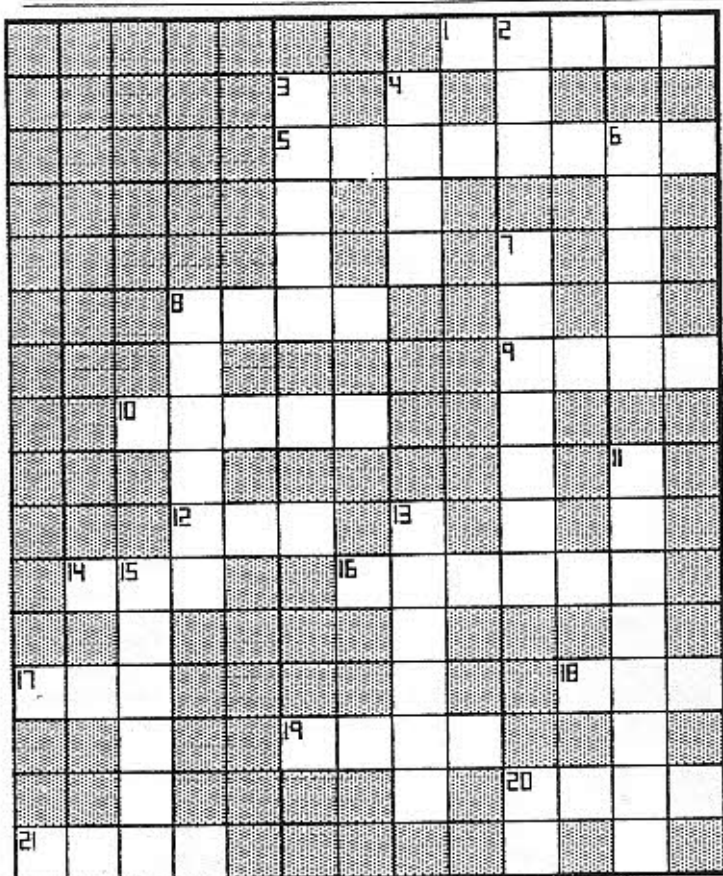
### VE EXAMINERS

Joe Makeever	W5EBJ
Roy Miller	W5FOZ
Bob Redouty	KP5KF
Joe Thiel	N5SMN
Ronnie Hughes	N5CSE
Jim Huckabee	AA5BU
Jim Greenwood	AB5EK
Larry Gunter	WB5BEK

The next ARRL / VEC exams will be held at Murchison Middle School, 3700 North Hills Drive, in northwest Austin, on Saturday, January 9, 1992 @ 9:00 am (please arrive by 8:30 am) If you have any questions about the exam, please contact me at 473-3526 (work) or 345-7281 (home).

de Larry Gunter, WB5BEK

Clues



ACROSS

1. Mfgr of FT-23
5. Club newsletter
8. VEC
9. 454-2994
10. Leader of Travis Co. ARES
12. \_\_\_ radio
14. National Traffic System
16. Best city in Texas
17. Acknowledgement
18. 2 meters, for example
19. Newington station
20. \_\_\_'s Country Store
21. Emergency group

DOWN

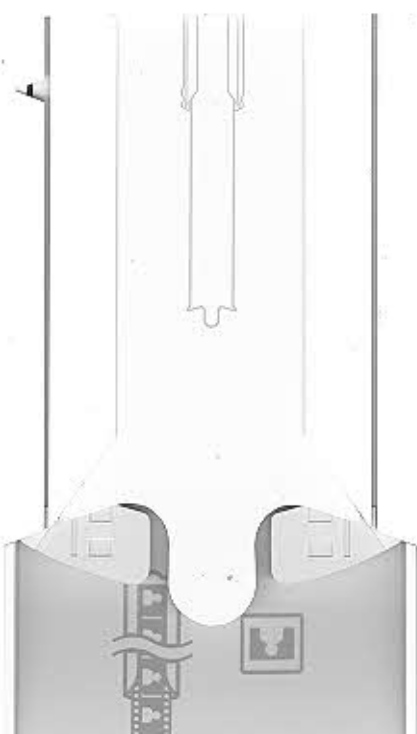
2. WB5HOI's group
3. Famous AZ amateur
4. Group founded by Hiram
6. Teacher for newcomers
7. Sundays, 9 PM
8. TexNet guru
11. Place to make a deal
13. QSL via the \_\_\_\_\_
15. Handy-\_\_\_\_\_
20. Up to 30 MHz

Stray Currents

Don't be surprised if you get a little extra range on the 145.21 MHz repeater. It occasionally is linked to 10 meters, which can go anywhere in the world when conditions are right (and won't get past the city limits when they aren't)

The same 145.21(-) repeater also has a new simplex link to 1294.0 MHz. When you talk on 144.61 MHz, your signal is re-transmitted on both 145.21 and 1294.0 MHz. Conversely, when you transmit on 1294.0, your signal is re-transmitted on 145.21 (but not on 1.2 GHz.). Antenna height is 200 ft. This is an open repeater, available for general ham usage. (thanks to Bob Nagy, AA5PB)

A communications satellite slated for launch in mid-1994 (Hughes Communications DirecTV 2) will carry a "time capsule," an optical disk containing poems, songs, stories, drawings, photos and essays by thousands of children and adults. The geosynchronous satellite carrying the SpaceArc disk is expected to remain in orbit just about forever. For an archival form, send \$7.95 to SpaceArc, POB 1480, Rochester NY 14603. If your sights are higher, you may wish to wait for the next time capsule, to be carried on a solar sail bound for the moon, Mars, and solar orbit. SpaceArc is a non-profit project of the Rochester Museum and Science Center.



**Some Electronic Kit Vendors**

(The terse "Note:" descriptions are from the ARRL Kit List courteously supplied by Ed Hare and Mike Gruber at the ARRL.)

A&A Engineering

2521 W. LaPalma, Unit K  
Anaheim CA 92801  
(714) 952-2114

Kits, some components, some books. S&H \$4.50, catalog is free with SASE (2 oz. postage).

Antique Electronic Supply

6221 S. Maple Ave.  
Tempe, AZ 85283  
(602) 820-5411

Note: Broadcast receiver kits

Circuit Board Specialists

P. O. Box 951  
Pueblo CO 81002  
(303) 542-4525

As the name implies, they specialize in circuit boards; they have circuit boards for a variety of QST articles and ARRL Handbook construction articles. They also have partial kits for most of their boards. The catalog is free, but I had to request it a couple of times.

C.M. Howes Communications

Eydon, Daventry,  
Northants NN11 6PT  
England

Phone: +44 327 60178

Note: QRP, transmitters, receivers, misc.

Communications Concepts Inc.

121 Brown Street  
Dayton, Ohio 45402  
(513) 220-9677

Note: kits for Motorola Applications Notes

Dick Smith Electronics

P.O. Box 468  
Greenwood, IN 46142  
(317) 888-7265

Note: General kits

Down East Microwave

Box 2310, RR#1  
Troy, ME 04987  
(207) 948-3741

Note: Microwave preamps

Hamtronics, Inc.

65 Moul Road  
Hilton, NY 14468-9535  
(716) 392-9430

Note: Amateur, general interest

Lake Electronics

7 Middleton Close  
Nuthall  
Nottingham NG16 1BX  
England

Note: Amateur

Mercury Systems

15 Lakeside Dr.  
Marlton, NJ 08053  
1-609-596-3304

Note: the ARRL Kit list didn't say what they carry; I don't (yet) know either.

Penntek Electronics

14 Peace Dr.  
Lewistown, PA 17044  
(717) 248-2507

Note: The Neophyte Receiver, QST

Ramsey Electronics

793 Canning Parkway  
Victor NY 14564  
(716) 924-4560

Amateur radio and hobby kits. The ham kits are all pretty simple and pretty inexpensive, and you get about what you pay for.

de John F. Woods via Rick Herndon, K5FNI

(And, of course, don't forget that store in your neighborhood that sells electronic kits, components, even ham rigs, seven days a week, 52 weeks a year...Radio Shack)

## AARC & AARC/OVER Information

Austin Amateur Radio Club, Inc.

### Officers

Jim Neely, WA5LHS, President ..... 442-4812  
 Rod Moag, W0NDS, Vice Pres. .... 467-6825  
 Dave Marshall, KG5ND, Treasurer .834-1779  
 Joe Canfield, N5HPC, Secretary ..... 258-4761  
 Gary Pickens, WX5Z, Activity Mgr ... 454-3230

### Committees & Positions

Ed Golla, K3AHS, Technical ..... 255-4818  
 Joe Fisher, K5EJL, ARES Coord. .... 926-4689  
 <vacant>, AARC/OVER Editor .....  
 Hal Henegar, W5MDL, P.I.O. .... 836-2012  
 <vacant>, Official Greeter .....

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

The Austin Amateur Radio Club, Inc., maintains a repeater with open autopatch and emergency power on 146.78 MHz, and an emergency HF / VHF station at the American Red Cross Building. Membership dues are \$6 per calendar year (\$10 for a family). Dues for new members are pro-rated, so the cost for the rest of 1992 is only \$1.50 for an individual, or \$2.50 for a family. Please contact an officer if you would like to join the club, and come on down to the next meeting.

Viewpoints expressed in *The AARC/OVER* do not necessarily reflect those of any club or its members, directors, or officers.

Members are encouraged to submit material for publication...mail to AARC/OVER, 3216 Park Hills Drive, Austin 78746, or call Miles at 327-1310 if it is in computer format. Submissions may be edited for format, style and suitability. Deadline for the next issue is the 14th of this month. Late material will be saved for next month.

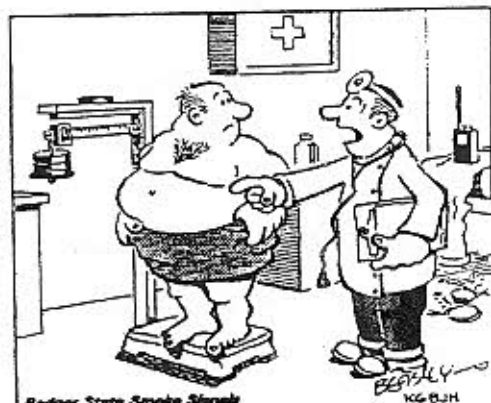
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## Stray Currents

Recently discovered at Home Depot is the answer to a ham's prayer: Inexpensive light-duty antenna masts. Look in the building materials section for 10 ft. x 1-3/8 inch 20-gauge galvanized tubing with tapered ends, \$4.33 each. They are designed for use as the top railing of chain-link fences. If you fit them together, you will need to drill a hole for a bolt between sections to prevent rotation, and they will need guying. (discovered by Dick Kriss, KD5VU)

While you are at Home Depot, take a look at the Oatey magnetic-base air conditioner deflectors in the Plumbing section. They work great for those who have rigs with the speaker on the top, to reflect the sound toward the front. Price \$1.39.

AMSAT North America needs volunteers to monitor and control the large fleet of amateur radio satellites. Ground stations interpret telemetry data so the satellites can be kept in good health. "All of us involved in the health of satellites started out knowing nothing about it. A little reading, some of your time and a commitment to help the Amateur satellite program are all that is needed." For info, send an SASE to Bruce Rahn, WB9ANQ, 410 Coronado Trail, Enon OH 45323.



*Bedger State Snake Signs*  
 YOU'VE GOT QUITE AN SWR NODE THERE, ---- I'D SUGGEST YOU TRIM BACK ON THE OLD FEEDLINE!

## Guest Editorial

## Ham Radio &amp; Cellular

We are approaching 10 million cellular telephone users in the United States. They can use voice, modem and fax modes for communicating with local authorities and handling other emergency traffic. Is there still a need for amateur radio? Here are my ideas on the advantages that amateur radio operators continue to enjoy in the area of emergency preparedness:

**Training:** Amateur operators have developed an on-the-air discipline; they also learn by attending meetings and reading books.



**Preparation:** From practice to actual emergencies, weather spotting and reporting, special events and Field Day, amateurs have experience.

**Equipment:** Hams own the whole system, and they have the knowledge to install, troubleshoot, repair and update their equipment.

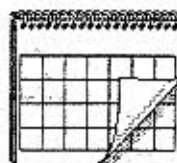
**Versatility:** When a frequency gets crowded, hams can change to a clear channel, use packet radio or handhelds or repeaters, and can fabricate innovative antennas. Amateurs can coordinate between various agencies that might be on different frequencies. Amateurs are communication volunteers who work for free, yet enjoy helping.

Amateurs are ready to serve the community in times of need. They are reliable, professional communicators who have been helping for many years, and will continue to be a vital communications resource.

de Rich Regent, K9GDF, via Badger State Smoke Signals

## Calendar

Dec 1...Austin Rptr. Organization meets  
 Dec 4-6...160-meter contest  
 Dec 5...Ham exams, 8:30 AM, Murchison  
 Dec 6...Swapfest, 5730 Mobud, SAT  
 Dec 8...Austin Amat. Radio Club meets  
 Dec 12-13...10-meter contest  
 Dec 15...Austin Am. TV Club  
 Dec 19...QCWA, 11:30, Wyatt's  
 Dec 29...ARES meeting @ Luby's  
 Dec 31...Straight key night  
 Jan 2-3...RTTY Roundup  
 Jan 5...Austin Rptr. Organization meets  
 Jan 9...Ham exams, 8:30 AM, Murchison  
 Jan 9...AARC Banquet @ Zilker Clubhouse  
 Jan 12...NO AARC Meeting  
 Jan 16...QCWA, 11:30, Wyatt's  
 Jan 19...Austin Am. TV Club  
 Jan 23...South Austin W5YI Exams  
 Jan 23-25...ARRL VHF Sweepstakes  
 Jan 30-Feb 7...Novice Roundup  
 Feb 8...School Club Roundup  
 Feb 20...QCWA, 11:30, Wyatt's  
 Feb 20...South Austin W5YI Exams  
 Feb 20-21...Intl DX Contest, cw  
 Mar 6...Skywarn '93 @ 3M  
 Mar 20...South Austin W5YI Exams  
 Mar 30...ARES meeting @ Luby's  
 Apr 22-25...Robot Olympics, Toronto  
 Jun 4-6...Ham-Com 93, Arlington  
 Jun 26-27...Field Day  
 Calendar updates to Miles @ 327-1310.



## Weekly Events

ARES Net...Sundays, 6:30 PM, 146.94 MHz  
 ARES Net...Sundays, 8:30 PM, 146.78 MHz  
 SwapNet, NewsLine...Sun., 9 PM, 146.94  
 Lunch...Thursdays @ Holiday House #4  
 U.T Net...Thursdays, 7 PM, 145.21  
 QCWA Net...Thursdays, 8:15 PM, 147.18  
 Breakfast...Saturdays, Simon David deli.  
 521 Trade/Tech Net...Sat., 9 PM, 145.21  
 WeatherNet...as needed, 146.94 MHz

