

AARC OVER

Bulletin of Austin Amateur Radio Clubs

Austin Amateur Radio Club
Austin Amateur Television Club
Austin Repeater Organization

ISSN 1067-0262

August 1996

Issue 96-8

Club Meetings

Austin Repeater Organization
Tuesday, August 6, 1996 7:30 PM.

Austin Amateur Radio Club
Tuesday, August 13, 1996 7:30 PM
Topic: George Fremin [WB5VZL] on Intro to Contesting

Austin Amateur TV Club
Tuesday, August 20, 1996 7:30 PM

All these organizations meet at Luby's Cafeteria on North Loop, about a block West of Burnet Rd. We meet in the back room, about as far from the cash register as we can get. Visitors are welcome, whether licensed hams or not.

Upcoming Events

ARES Meeting Tuesday, July 30, 7:30 PM.
Luby's Cafeteria, North Loop, 7 PM.

ARO Transmitter Hunt, Saturday, August 10, 7:00 PM. Coordination on 146.94, hunt on 146.52.

QCWA Meeting, Wednesday, August 28, 1996
Luby's Cafeteria, North Loop, 7 PM. Note: Date Change

AARC Field Day 1996

Many thanks to N5EM, Ed, for the idea to use Vee Beams for Field Day QRP!! Thanks to his co-

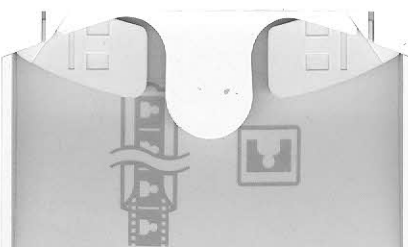
operators for telling me at Ham Com how long it takes to put up 330 foot leg Vee beams; they were right!!

It was a lot of work, accompanied by repeated visits by Edsel Murphy, but we got THREE sets, 330 foot legs, horizontal Vee Beams erected for use of the SSB station, oriented, NW, true North, and NE. Each beam had two 330 foot legs, and was bidirectional, thus 360 degree coverage was possible. That is a total of 1980 feet of #16 gauge copper wire, such as is used for grounding chandeliers. (I bought out two Home Depot stores to get the wire.) Feedlines were 450 ohm ladder line, and 300 feet of that was used, 100 on each Vee. Many thanks to The Wireman, Press Jones, who substituted more expensive product to get me the last 200 feet by Field Day, and rush UPS at his expense!

We consumed all of my 600 foot reel of #4 Nylon approximately 3/16 inch line, and went into my reserve of green Nylon twine from Academy Stores. This stuff, made in Louisiana, claimed a tensile strength of hundreds of pounds, and I doubted it would hold, but necessity is the mother of discovery, and it was used through several rain and wind storms and held every antenna, and was strong enough to take the entire end tension of 330 feet of copper!

The antennas were erected over a football field that runs true North and south. We tied off all Vees at the South Goal posts, and that made the NW and the NE tie to the uprights and the central Vee to the cross bar.

continued on Page 4...



Pres. On...

I have not yet gotten to tell you just how successful our 1996 Field Day was... As you know, we operated QRP (five watts or less) this year and even with the weather conditions, had the best turn-out ever. There were four stations operating; VHF/UHF, HF SSB, HF CW, and HF Novice/Tech. After counting up the number of contacts we made and doing a rough point estimate, we realized that the CW station alone made over twice as many points as the AARC made for the entire weekend last year! Stuart Rohre, K5KVH, has written a report that is published in this edition of the AARC/Over which will tell you all about the technical details.

I would like to recognize some of the people and businesses that made our Field Day such a wonderful success this year. First of all, I would like to personally thank Cherry Curry. Cherry is not a ham (yet) but was interested in our efforts and was instrumental in making the non-technical arrangements. I have included the list that Cherry and I have compiled of all of the businesses that helped us with Field Day 96. I hope that you will continue to patronize the businesses that you recognize, but also as you look over the following list, keep in mind that these folks have supported our efforts so please do what you can to help them out by way of giving them all the business you can. The following is in alphabetical order:

A-Z Rental	City Ice	KVET Radio
AES Computers	Cookies in Bloom	KVUE-TV Channel 24
Albertson's	Graphic Edge	Pepsi
Austin Amateur Radio Supply	HEB	Smokey Denmark Sausages
Austin Chronicle	John Springer, N5ZYG	Texas Rib Kings
Austin Wintronics	KLBJ Radio	Tinkertronics
Capitol Tent Rental		Wholesale Electronics

Many of you may not be aware that the AARC has issued our "official" T-shirt, that debuted on Field Day. They have been a big hit with everyone who has seen them. We still have some available at the astounding price of \$10 each. Send your check to: P.O. Box 13473, Austin, TX 78711 before they're all gone! Med., Lg., and XL first come, first served. If you don't wear T-shirts, these will make perfect gifts for anyone!

On a different topic, let me mention that the Central Texas Wing of the Confederate Air Force is going to hold it's annual Gathering of Memories Air Show on the weekend of August 17 & 18, 1996. This is the air show that features vintage aircraft from the WWII era. The admission is small and you are welcome to come out and see what is going on. David Sprague, KB5ZEG, and I are again organizing the communications effort for this CAF event. If you would like to volunteer for one of the days to help with communications, you can call David at 259-7282 for more details.

I look forward to seeing you at the next meeting. Call me any time.

My best regards to you all,

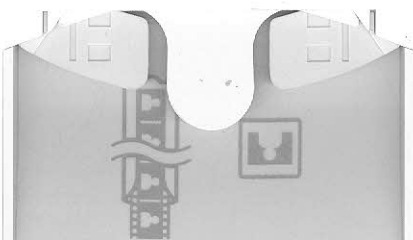
Gene Van Zelfden, KB5UGO
AARC President

AARC/Over Information

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Members and other readers are encouraged to submit material for publication. Mail to Mickey McInnis at 1519 Charolais Drive, Austin, TX 78758, or e-mail to mcinnis@austin.ibm.com (Internet), 339-0344. Submissions may be edited for format, style and suitability. Deadline for the next issue is the Thursday following the AARC meeting. Material may be saved for later months. Unless otherwise noted, permission is granted to reprint AARC/Over articles provided that you credit the author and the AARC/Over.



Austin Repeater Organization July 1996 Minutes

The meeting was held on July 2, 1996, at Luby's Cafeteria, North Loop, Austin, Texas. Vice President John Badger [KC5NXL], called the meeting to order at 7:39 PM.

Visitors

The organization welcomed visitors Carl Sosna [N7RMG] of Austin, Mark Brown [KE4LFV] who recently moved here from Canton, Georgia, and Tom Lawlor [KD4TVS], who recently moved here from Delray Beach Florida.

Minutes

The minutes for the June meeting as submitted by ARO Secretary Sam Mihalik [KB5SML], were approved as printed in the June 1996 AARC/OVER ARO Monitor with two corrections: The Dayton Amateur Radio Convention was incorrectly referred to as HamCom and the Secretary's name was incorrectly listed as Steve Mihalik.

Officer Reports

Treasury - Treasurer Bill Montgomery [K5ZSI] reported a balance of \$6,433.92. Technical Committee - Jon Dahm [WB5PCV] reported that the clubs voice repeaters appeared to be working fine. The 444.1 repeater, however, has a damaged controller and Jon does not have access to the site. Charles Rich [WA5ESR] is working on it and is expected to have it operational before the next meeting. The 145.01 digipeater has a significant malfunction and is being replaced. The committee had also received a report of a problem with the 224.8 repeater but it appears to be operating properly.

New Members

There were no new members.

Announcements

Michael Lay [N5PTN] announced that he had a few MS-150 buttons left for anyone who participated in that event. Roger Wines, formerly KB5VHN, reported that the FCC's vanity call sign program appears to be working. He was recently reassigned his call sign of many years ago, W5WIA. Roger reminded everyone that

membership in the Quarter Century Wireless Association (QCWA) does not require 25 years as a licensed operator. Anyone who was licensed 25 years ago or earlier is eligible to join, even if they may have let their license lapse for several years. He also mentioned that you don't have to be a member to participate in the QCWA. Meetings are held at Luby's at 7:30pm every third Tuesday of the month. The club also meets there for lunch at 11:30am every third Saturday. Roger Also announced that Hal Henegar [W5MDL] had recently been presented a gold pin recognizing Hal's 50 years in amateur radio.

Bill Pearson [W5RJA] announced that he has been having difficulty locating someone to repair his Yaesu FT101E and asked if anyone could help him out.

Old Business

There was no old business.

New Business

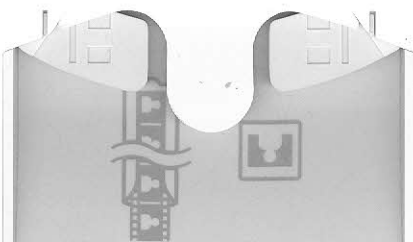
There was no new business.

The meeting adjourned at 7:50pm

Program

Joe Fisher [K5EJL] described the tremendous amount of work involved in planning, conducting and evaluating simulated emergencies such as the citywide emergency exercise conducted on June 25. The American Red Cross (ARC) is in the process of putting together a new disaster plan. Joe, who represents the Amateur Radio Emergency Service (ARES) on the ARC's local volunteer services committee, is very much involved in working on the plan. An ARC sponsored simulated emergency test is currently scheduled for November.

Joe recapped the June 25 exercise and passed along comments and thanks from Mac Cannary [KB5VYT], who coordinated the exercise from the emergency operations center (EOC). Joe reported that there were a total of 28 amateur radio operators who participated. Five voice operators were located on 5 of 7 city buses to coordinate simulated patient flow. Seven packet stations were also stationed at each of the seven participating medical treatment centers. According to Joe and Mac, the group met five of the six objectives and met or exceeded four out of



the six performance criteria. Of the 69 "victims", we recorded 67. All of the hospitals and everyone at the EOC were impressed with the professionalism of the hams who took part in the exercise. Amateur radio's ability to communicate during this exercise was superior to communications provided by their previous sources.

Austin Amateur Radio Club July 1996 Minutes

President Gene Van Zelfden. [KB5UGO], called the meeting to order at 7:40 p.m. on June 9, 1996. The meeting was held at Luby's cafeteria on North Loop.

Visitors

We welcomed four visitors.

Minutes

The minutes of the June meeting were approved as printed in the *AARC/Over*.

Officer Reports

Treasurer Stuart Rhore, [K5KVH], reported a checking account balance of \$1879.13.

Technical Report

No problems were reported with the repeater.

Activities Report

President Gene Van Zelfden thanked everyone who participated in helping make Field Day an enjoyable and successful event. Special thanks went to Cherry Curly who was responsible for getting all the wonderful publicity including a pre Field Day radio appearance by our President, and lots of other goodies needed to make Field Day a success.

Frank Edwards, KK5IA, Activity Manager reported that although the CW operation was 2 hours late getting started, and the phone operations were 4 hours late getting under way, due to stormy weather, that over 270 contacts were made via phone and over 240 by way of CW. The Novice/Tech station recorded 76 contacts operating strictly on 10 meters. All stations were operated at 5 watts, battery powered

in order to qualify for the 5 point multiplier, so this years score should be considerably ahead of last years.

Old and New Business

There was no old or new business.

Announcements

Joe Makeever, W5EBJ, provided a review of the program for Summerfest which is upcoming the first weekend in August.

Stuart Rohre, K5KVH, asked that if you worked at Field Day and have not already signed the log while you were there, please call him at 255-3932, and give him your name, so that he will have it for the records.

The meeting was adjourned at 8:00 p.m.

Program

If you missed the meeting and missed the program, you also missed the First Annual Post Field Day Bash, the 45 minute video of Field Day and the most delicious chocolate cake. But a good time was had by all who were able to attend.

Submitted with pleasure,

June Parchman, KK5AM
AARC Secretary

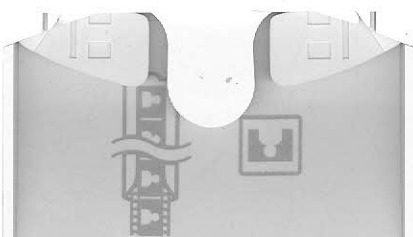
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AARC Field Day 1996

(Next time, will run Nylon between the uprights, so all vees will be at same elevation, we did find shading of the center one by the others.) It also suffered from emergency retensioning when one of the three or four storms we endured during set up, initial operation, and tear down, caused its end stay to loosen in a tree. This stay had been put up at the cost of ant bites to the tree climber, and we were not going to try that again. The density of the oaks precluded effective use of throwing devices on this tree and some others.

We put a side stay on it to restore its height to about four feet off the ground, and that closed the angle a bit from optimum. We had less than 30 degrees on the center Vee.

Some may raise their eyebrows at the heights used. We had only about the 20 feet at the top of the goal post at one end, and whatever tree limb we could throw over at the other end. The trees were 115 feet or more from the



end of the copper in all but one case. The sag in #16 in 300 feet is about 3 feet. The field is on the side of a hill with a severe slope down immediately North, and Northeast and east. That meant the eastmost leg was only five feet off the ground for 2/3 of its length going downhill, but it still loaded with the Dentron tuner, and worked like gangbusters. Its other side was tied eventually to a nylon line coming from the 20 foot North goal post upright to a Tee fence post temporarily put on the edge of the field. We had to keep all vees off the track around the field for it was constantly in use by joggers, firemen dragging six inch hose for exercise, and assorted other human hazards.

The Northwest Vee West leg actually went to a tree on a rise above the field. Another first here, not getting the line tied to a rock over the desired limb and back to ground, we were dragging it back from over two limbs, one beyond the desired, and the line snagged, then dropped the rock and rebounded to tie itself into a clove hitch on the desired limb! "How did it do that?!" I asked, "for we want it do all the rest just like that!". The best Vee performance seems to be with the vees legs at about the same height. This was not possible with the central Vee, thus we attribute its markedly different loading to that.

Three tuners fed three ladder lines each to the apex of a Vee. The tuners were two large Dentrons, and one Jr. Dentron tee tuner with balun to the ladder lines. The coax from each went to a three way switch. When hearing a station, you would rotate the switch to peak the signal, and give the station a call on the optimum lobe. We used hunt and pounce, not trusting that we could hold a frequency. (It turns out we could have.) We had rain delays with storms moving over at exactly 1 PM CDT and later; and the Veess were not finished until 5 PM Sat. We had started at 10:40 AM, having had a number of logistics problems getting the tower for the CW station beam, and crews of workers, and high heat and humidity on Fri. evening.

At 5:08 PM Sat., I put out the first answer to a CQ on 20 SSB, and he came right back, at 5:09 the rain started to intensify, and wind came up. At approximately 5:15 PM, I interrupted a completely successful run of stations, (working everyone I called, as fast as I could log), and pulled the big switch as the wind lifted a corner of the tent. Luckily, we had four of us there, and one went to each corner of the tent, as the frame pulled apart on one corner, and the corner pole lifted right out of the ground. We got the frame reassembled inside, and two of us ran to windward and leeward and added more nylon guys to the center front and back of the tent. (Actually, a screened "Gazebo", great for sun shade, lousy for rain driven by wind).

After an hour of rain, we finally got back on 20. Luckily, we did keep the rig dry, (a Yaesu FT-7 turned down to 5 W).

We claim a first. We ran 2A with bonus VHF, packet in a city bus, and Novice stations. All but bus, were powered by the new electric car batteries to be used on the new mini vans to be sold in CA in 1997. We only used one 12 V, 95 AH battery on each of four stations, the spare ones were not needed. Voltage started on the SSB one at 12.8V and dropped at end of FD to 12.6. We were impressed. Battery lighting was run from marine deep cycle batteries at each tent.

The electric car batteries are long and skinny, and weigh in at 45 lbs. or more each. They go in a tray under the van, and have horizontal plates, thus will operate right side up or upside down, being sealed. There is no free acid; they have some fiberglass sponge between the plates, (called a recombinant technology).

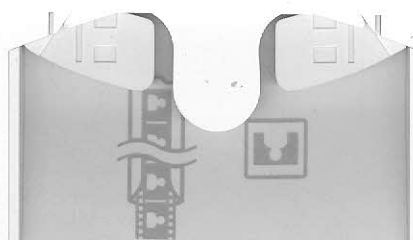
The CW station used my Ten Tec Scout, with power turned down to 5 Watts and checked on a Bird Wattmeter (as was done with the other stations). They were up the slope from the football field with a thirty foot tower (Rohn 25) and a triband, trielement beam turned by rope, with a ladder line fed dipole for 40 and 80M.

The CW station captain had some bad luck a few weeks ago on a visit to Manhattan, and stepped off a curb only to be hit by a taxi, breaking a leg in two places. He hobbled around on crutches, but managed a mixed crew included a left handed CW man, whose sight impairment required someone to operate the rig controls for him. The poor operator forgot to bring his paddle set up for "lefty" use, and had to make do with a right handed bug. (Only this morning, I learned what we should have done is gotten two books, and turned the bug upside down on them so he would have been more comfortable.) As it was, he had to reach over to operate the bug "Backwards" This lent an unusual swing to his fist, making it hard to lose in the QRM, and raised his QSO total and rate considerably! His captain reported he worked 'em as fast as he could send the reports. By the end of the night, he was ambidextrous with the bug by all accounts!

I have not seen their log sheets, but I am told they filled 14 pages at 20 contacts per page and started writing on the backs. That looks like over 280 CW contacts, probably over 40 to 15 meters. We had a phone-cw Novice Tech position handling 10M, and I heard they had 70 contacts from a young 12 year old, who lent his call. Of course, 10 meters was mainly a daytime band. They had a vertical, and a couple of dipoles for Novice bands.

The all modes for 2m and 6m and 440, had zero on 440, but 25 on 6M SSB, and the packet station made their bonus points, I do not have the 2m totals yet. Beams were used on VHF. They never got around to satellite with the storm situation.

As to the SSB totals, several of these band efforts were by one operator hand logging: 25 on 40m, 141 on 20m,



29 on 15m, and as I said, 25 on 6m. That looks to be about 220 X 5 for 1100 points before bonus points for total emergency power, public place, publicity on TV, etc. As it was a 4 hour late start, and a lack of relief operators, we are pretty amazed. For comparison, the CW station more than doubled the club score of the year before even counting bonus points! Somehow, looking at the above, I am sure the Activity Manager gave me a short total on the phone, for I know we did more on 40m than that. Oh well, like the title says, "Preliminary".

Now for those who complain that SSB is hard to do QRP, there were at least 5 or 6 operators on the Yaesu; all used hunt and pounce with usually a come back on first call. If you have to call more than three times, go to the next strong signal. We encountered not so much the other stations not hearing us or our call, but not having the listening skill to get the report clearly on the first over. But most did.

The vees really make a difference. One station in Maine made my Day Sat. evening. He said, "W5KA you have a really huge signal up here, what do you have?" My reply, "5 watts" 'FIVE WATTS!!', he said. We were laughing too hard to tell him the antenna. (Did I mention the rain?)

I think we worked more than one QRP station, but I did note down WK8G/2 1A battery. (That is a handicap, having all that to say.) With call signs spread out of the original areas, one never could assume from a call which Vee to use. Switching was the only way to tell. It was dramatic. On the NW one, you would hear one set of stations, and turn to the NE one, and a different set of calls on the same frequency. Early on we marched across the provinces of Canada, with easy QSO's. If anything, such an antenna has a tendency to skip out over adjacent states. I don't recall Louisiana, or Arkansas for example. But our time on 40 was limited, and QRN turned us away from 80 in the night. 80 seemed to have few stations on after midnight thirty, and we elected to hunt among the SW BC on 40.

The tuners tuned broadly on receive, and about then, while band changing on transmit tune up, we discovered the SWR meter ground had loosened, and was screwing up both reception and transmission. It was an old Radio Shack 3 meter job; and I suggest anyone having one of these, take it out of the tinfoil case for the pickup line, and put that into a diecast box. The ground of the original depends on the tightness of two nuts on the coax connectors, which came loose in the night. Edsel Murphy again. I have a new Ten Tec one on order, that should have been here, their kit one. Covers QRP and QRO, and HF and VHF. \$49. I think 40 would have been more productive or even 80, had we been quicker to realize the problem with the SWR meter. We did not retune much, so it is entirely possible we could have done better with retuning every so often, as we hunt and pounced all over the bands.

One thing we learned on 40m, there are a lot more stations you can work around the phone band even with SW BC QRM, if you turn on the DSP, (a Timewave DSP 9) and notch out the heterodynes. With it we were working stations that were only S5 to us, with a S9 plus 20 dB BC station next to 'em. Again all we had to do was give one call. Next to the MARS rhombic I once got to use, this is a most fun antenna. And two of these for 20m would fit in many yards.

The tuners make up for the low height we had. Sure, it is not as good as a Vee up on two tall poles, but a lot easier to erect, and if I were in a hurricane on an island, this would be an easy thing to do, when trees and light poles are broken and down, and few tall supports except any remaining buildings are available. Even with the rain, we saw little effect on the ladder lines. We used a Volleyball upright with a wood cross arm from the low hurdle stand to make our own little feedline telephone pole to keep the lines elevated from goal post to shack, without putting a strain on the weak tent frame. We did use high grade surplus ceramic airplane and brown ceramic hot dog insulators, not trusting plastic not to saw for such pull. We probably put 40 lbs. tension on the copper.

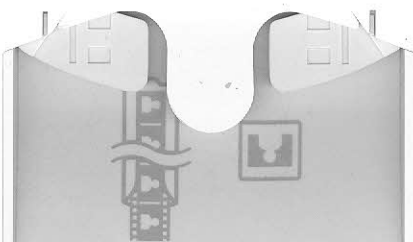
All wire was on reels, premeasured with a wire reeling machine. Unrolling, you have to tell inexperienced folks to not kink the wire; that is what caused three breaks in one leg before it was up. Upon examining the broken points, one of our engineers noted the remains of a kink in every case. That is part of why it takes a long time to put these up, you have to know how to unroll them without harm.

I would say on the whole, we had fairly inexperienced contest operators. One of the young officers of the club told me he had his doubts about going QRP, but was glad we did it, that it had worked beyond his wildest dreams. Another young officer said it was a privilege to operate Field Day with us. I think I see some converts around here.

It would be fair to say this is quite an achievement for a general interest club, which normally has trouble inspiring enough folks to show up to Field Day to cover all operating slots, unless you put on a picnic besides. The weather kept our turn out down, but the most faithful ARES members among our club did come, and saw what QRP can do. Guess what it would be if they contested enough to sharpen their listening skills!

Thanks to all on the list for inspiring me to ram this down the club Board; and thanks Zuni Loopers for mind boggling antenna efforts that were shown to the board from last years FD reports as bait. Hope to do it again!

73, Stuart Rohre [K5KVH]



Calendar

August

- 2-4 Austin Summerfest
(ARRL VEC ham exams are held at Summerfest, not at Murchison in August)
- 6 ARO Meeting @ Luby's 7:30 PM
- 10 ARO Transmitter Hunt 7 PM
- 13 AARC Meeting @ Luby's 7:30 PM
- 17 Ham Exams, St. Ed's 2 PM
- 22 CTDXCC Old Quarry Library 7 PM
- 21 QCWA Meeting @ Luby's at 7 PM (Date change)

October

- 5 Belton Swapfest, \$1 admission

Periodic Events

- Sun 6:30 PM Travis ARES net 146.94 MHz
- Sun 7:30 PM ARES Packet 145.73 MHz
- Sun 8:00 PM Williamson ARES 145.13 MHz
- Sun 8:30 PM Travis ARES net 146.78 MHz
- Sun 9:00 PM ARO Swapnet 146.94 MHz
- Sun (after Swapnet) Newslines 146.94 MHz
- Thurs 11:30-1:00 Lunch at Holiday House
- Sat 7-8:30 AM Breakfast at Simon David Deli on Great Hills Trail
- Storm WeatherNet 146.94 MHz

Most Austin radio club meetings are held at Luby's Cafeteria on North Loop.

The Austin Repeater Organization meets on the first Tuesday of each month at Luby's at 7:30 PM.

The Austin Amateur Radio Club meets on the second Tuesday of each month at Luby's at 7:30 PM.

The Austin Amateur TV Club meets on the third Tuesday of each month at Luby's Cafeteria at 7:30 PM.

The Quarter Century Wireless Association holds its business meetings on the **third Wednesday of each month at Luby's at 7:30 PM. Note: Date Change.** There is a fellowship meeting the third Saturday of each month at 11:30 AM at Luby's.

The ARO transmitter hunt occurs at 7 PM on the Saturday following the ARO meeting. The hunt frequency is 146.52, with coordination on 146.94. 8/10, 9/7, 10/5, 11/9, 12/7.

The AARC sponsors ARRL VEC ham exams at 8:30 AM on the first Saturday of each month at Murchison Middle School. 9/7, 10/12*, 11/2, 12/7, 1/11/97, 2/1, 3/1, 4/5, 5/3, 6/14*, 7/12. (* not normal week) (August exams are held at Summerfest.)

Ham exams will be held at 2 PM in Fleck Hall room 109 at St. Edward's University 3001 South Congress Avenue on the third Saturday of each month. 327-6184 8/17, 9/21, 10/19, 11/16, 12/21

The ARO swapnet is transmitted Sunday at 9:00 PM on the 146.94 repeater. Newslines, an amateur radio news program, follows the swapfest. The swaplist is copied to WB5GHJ's packet BBS shortly after the swapnet is over.

The Travis County ARES net meets every Sunday night at 6:30 PM - 146.94 MHz and 8:30 PM - 146.78 MHz. A packet session is held at 7:30 PM on 145.73 MHz (backup 145.79 MHz) unconnected mode.

The Travis County RACES net meets on the third Sunday of each month following the 6:30 PM ARES net on the 146.94 MHz repeater.

Face-to-face meeting ARES meetings are held on the fifth Tuesday of months with a fifth Tuesday at 7:30 PM at Luby's Cafeteria on North Loop 7/30, 10/29.

The CTDXCC Central Texas DX Contest Club meets at 7:00 PM at the Old Quarry Library off Far West on the 4th Monday of each month. 7/22, 8/19, 9/24, 10/28, 11/25, 12/23.

