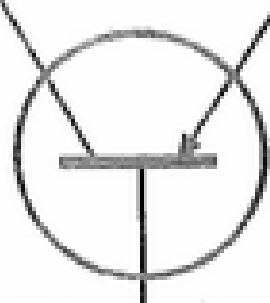


# CENTRAL OKLAHOMA RADIO AMATEURS COLLECTOR AND EMITTER



50¢

Volume 8 AUGUST 1982 Number 91

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## FEDERAL JUDGE RULES ANTENNA HEIGHT IS IN FEDERAL DOMAIN

Are municipal zoning ordinances that affect amateur radio antenna installations legal? There is a definite question about that! On June 25th, U.S. District Judge David L. Russell for the Western District of Oklahoma ruled that amateur radio antenna heights lie within federal jurisdiction. He dismissed a motion by the Oklahoma City Attorney that claimed federal courts had no authority in the matter. This is a major decision for the amateur community and could result in a landmark precedent setting decision! It all started when N5SW, Charles M. ("Chuck") Guschke, of Oklahoma City installed a 78 foot high antenna even though normal height limitations for residential property are 35 feet. The tower itself is self-supporting, unguyed and according to the manufacturer (Utility Tower, a local firm) has a wind survival rate in excess of 100 MPH.

Initial efforts in fighting the ordinance were aimed at obtaining a variance but the Board of Adjustment bowed to "intense neighborhood interest." An appeal procedure is specified by the Oklahoma Statutes to the local state district court, but since this would have been essentially a review of the Board's decision, it was decided to fight the ruling via a federal court suit..... particularly in light of the George E. Oelkers (W6QOL/Placentia, California) case. The Oelkers decision held unconstitutional ordinances violating an amateur radio operator's right to freedom of speech.

A federal suit was instituted in the United States District Court for the Western District of Oklahoma on June 11, 1981. A temporary agreement was reached between Chuck (N5SW) and the Oklahoma City attorney allowing the antenna installation at its present height during the litigation in federal court. Guschke's attorney, Mike Salem N5MS, filed a brief with the Court on March 30. The ARRL also prepared a "friend of the court" brief on Chuck's behalf during May of this year detailing, among other things that "radio transmissions, equipment and operation has been recognized by the U.S. Supreme Court to lie in the federal domain." The League said that a ruling was needed by the Court "to place municipal and zoning officials on notice that a compelling state interest must be shown before individual rights may be restricted. The Supreme Court has declared that a municipality may not infringe upon an individual's rights under the guise of zoning."

The federal court order said "Plaintiff (Chuck Guschke/N5SW) alleges that the zoning ordinances in question are unconstitutional because they deprive him of his constitutionally guaranteed right of free speech or have a chilling effect on that right, are vague,

overbroad and vast unlimited discretion in administrative officials; deny him Equal Protection of the laws in that they are selectively enforced; are preempted by exclusive federal regulation of amateur broadcasting; deprive Plaintiff of liberty and property without due process of law; are invalid as an exercise of state police power; are a burden on interstate commerce; and violate Plaintiff's right of privacy. Plaintiff also alleges the ordinances constitute a taking of Plaintiff's property without just compensation in violation of the Constitution of the State of Oklahoma. The facts pleaded by Plaintiff show he has erected an antenna under a federally granted license and that he has been cited by the Defendant city for violation of the ordinances in question which restrict the height of said antenna. Plaintiff alleges that a height in excess of the limit set by the city is necessary to the operation of his radio. Plaintiff alleges he has been denied a variance from the ordinances solely on the basis of aesthetics."

The Order issued by Judge Russell on June 24th specifically referred to the ARRL brief and said "This Court does not doubt that Defendant (Oklahoma City) may confine commercial radio operation to restricted areas. However, amateur radio operation is usually incidental to residential property use. If as Plaintiff (Chuck Guschke/N5SW) asserts, an antenna height in excess of the maximum allowed by Defendant is necessary for the federally licensed use, then Plaintiff's rights and the federal law may be in direct conflict with municipal powers....The Court finds that Plaintiff's complaint states a substantial federal question of the application of the Communications Act of 1934..... (and) is satisfied that Plaintiff has stated a claim upon which relief can be granted if questions of fact and law are eventually resolved in Plaintiff's favor."

The bottom line of all of this is that Guschke (N5SW) and his attorney, Mike Salem (N5MS) have established that this case deals with a federal question - rather than a municipal one. Amateur antenna heights have never been legally viewed as such before. Mike Salem said "....the Court's decision means that we are entitled to proceed to a trial on the merits of our allegation. The Order will be useful to other amateurs seeking to litigate antenna height restrictions in Federal Court. The trial on the merits will encompass the reasonableness of the city's ordinance, the necessity of height in the proper operation of an amateur radio station, and supremacy of federal regulations over state law."

"To that end," Mike commented, "it would be useful for me to have input from the amateur community regarding these factors and perhaps to have technically qualified witnesses who might be willing to testify for expenses regarding these issues. Witnesses who could relate instances of international

CONTINUED ON PAGE 2

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#### Tower Ruling (Continued)

good will that have occurred as a result of amateur radio as well as emergency communications during time of disaster would also be useful. I am interested in any input from amateurs regarding this case in general."

You can contact Mike Salem, N5MS, at: Rawdon & Salem, Attorneys & Counselors at Law, Suite #112 - West Oaks Office Park, 2215 W. Lindsey, Norman, Oklahoma 73069 (telephone 405-360-1302).

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#### Editor's Note:

Contributions to help with court costs and expenses may be sent to Oklahoma City Antenna Defense Fund, P.O. Box 32735, Oklahoma City, Oklahoma 73123.

**Can you wear**

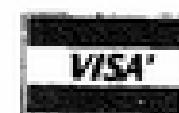
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#### CENTRAL OKLAHOMA RADIO AMATEURS, INC.

MEETS: 7:30 pm Fourth Tuesday (Except Dec.) Red Cross, Oklahoma City.

PR AD1S George Adkins 722-6195  
VP WD5JNT Ted Van Laningham 262-1675  
Se N5CIJ Frank Yohe 324-0772  
Tr K5GGL George Maschino 263-7614

#### 1 AERONAUTICAL CENTER ARC

MEETS: 8:00 pm First Friday at Flight Standards Bldg., FAA Aeronautical Center

PR AA00 Robby Runyon 373-1818  
VP N5ABL Holly Holcomb 799-2539  
Se WB5UHW Jim Seignious 751-6698  
Tr K5RJR Larry Vorheis 789-9629  
EDITOR: Bob Graham, WB5NSV 677-8685

#### 2 OKLAHOMA CENTRAL VHF CLUB

MEETS: 8:00 pm Third Friday, Red Cross Bldg., 10th & Hudson, Okla City

PR W5VCJ "Steve" Stevens 341-8486  
VP WD5IRB Ralph Bartow 521-8330  
Se K5JB Joe Buswell 732-0676  
Tr W5KE Ellard Foster 789-6702  
EDITOR: Joe Buswell, K5JB 732-0676

#### 3 MID-OKLAHOMA REPEATER, INC.

MEETS: 8:00 pm First Tuesday, Okla City EOC, 4600 N Eastern

PR KC5HD John Clement 943-2467  
VP W5HPR Don McDown 732-6749  
Se KA5ERZ Connie Boland 348-0123  
Tr W5K0Z Sid Gerber 737-1050  
EDITOR:

#### 4 OKLAHOMA CITY AUTOPATCH ASSOCIATION

MEETS: 7:30 pm Third Tuesday, Okla City Fire Dept Training Center, N. Portland

PR N5IH Henry Israel 722-3848  
VP AD1S George Adkins 722-6195  
Se KA5BJS Judy Macdonald 672-4947  
Tr K5GL Guy Liebmam 787-9545  
EDITOR: Henry Israel, N5IH 722-3848

#### 5 OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB

MEETS: 7:00 pm Second Tuesday 119 Wilson Center, 1334 S Jenkins.

PR KA5COI Peter Richeson 329-3217  
VP KA5LZN Greg Smith 325-2418  
S/T WA2YCA Mike North 325-5731

EDITOR: Greg Smith, KA5LZN 325-2418

#### 6 ALTUS AREA AMATEUR RADIO ASSOCIATION

MEETS: 7:30 pm Second Thursday North Main Fire Station (CD)

PR WB5HJS Charles Smith 477-1098  
VP S/T WA5CBF Loren Simms 477-0921

EDITOR: Loren Simms, WA5CBF 477-0921

#### 7 BICENTENNIAL ARC

MEETS: Second Tuesday, Air National Guard Will Rogers Airport.

PR N5BEQ Jim Buswell 2360368  
VP Se N5AUH Jerry Sproul 354-2061  
Tr WA5RAQ Bill Rogers 632-4375  
EDITOR: Bruce Goff, KC5CR 751-6276

#### 9 WHEATSTRAW AMATEUR RADIO CLUB

MEETS: 2:30 pm Second Sunday. Location varies. See club section for location.

PR WA5GLD Dick Ruhl (Kingfisher) 375-4843  
VP KA5FUU Tom Johnson (El Reno) 262-5631  
S/T WA5PFK Ralph Wilder (Watonga) 623-5421

EDITOR: Ted Vanlaningham, WD5JNT (El Reno) 262-1675

#### 12 SHAWNEE AMATEUR RADIO CLUB

MEETS: 8:00 pm Second & Fourth Tuesday Shawnee City Hall (EOC)

PR WB5ZDA Earl Couch 598-3212  
VP WD5ETD Rick Wilson  
S/T KA5FBC Jim Sullivan 273-3843

EDITOR:

#### 13 KAY COUNTY AMATEUR RADIO CLUB

MEETS: 7:00 pm 3rd Thursday at EOC

PR WA5UBO Marsh Pronneke 363-2526  
VP WB5NQT Pat Burnham 765-7229  
S/T WB5YRN Delbert Foiles 762-4479

EDITOR: Marsh Pronneke, WA5UBO 363-2526

#### 15 SOUTH CANADIAN AMATEUR RADIO SOCIETY

MEETS: 9:30 am Second Saturday, Red Cross Bldg., North Campus, Norman

PR KU5B Jack Bickham 329-1311  
VP K5KDR Bill Oliver 329-6333  
Se AF5X Jess McKinzie 329-1543  
Tr WB5UUX Charles McCown 321-1061  
EDITOR: Sam Barrett, WA5RPP 321-2601

#### 16 EDMOND AMATEUR RADIO CLUB

MEETS: 7: pm First Thursday See club section for location.

PR WD5DYI Mark Northcutt 755-4672  
VP WB5MLX Glen Cochran 942-7148  
S/T WB5UIY Stan Van Nort N/L

EDITOR: Stan Van Nort, WB5UIY N/L

#### 17 TRI-CITY AMATEUR RADIO CLUB

MEETS: 7:00 pm First Tuesday. Location varies. See club section.

PR WB5UBB John Warriner 379-3149  
VP WB5VLT J. B. Bills 379-3992  
S/T WB5TYW Yvonne Warriner 379-3500

EDITOR: Yvonne Warriner, WB5TYW 379-3500

#### 18 GREAT PLAINS AMATEUR RADIO CLUB

MEETS: 7:30 pm First Tuesday, Basement Woodward court house

PR N5CCV Gerald Bowman 994-5381  
VP WB0PGD Ron Tice 994-2138  
Se WB0QGW Carla Tice 994-2138  
Tr N5EOY Gerry Ford 256-5342  
EDITOR: Carla Tice, WB0QGW 994-2138

#### 19 SOUTHEAST OKLA AMATEUR RADIO ASSN.

MEETS: 7:30 pm Second Monday. Location varies. Contact a club officer.

PR WB5TTU Ron Henson 326-5418  
VP WB5ULI George Weldon 326-5672  
S/T WD5FUE Orville Kaley 326-3650

EDITOR: Ron Henson, WB5TTU 326-3640



# ELECTIONS TO BE HELD DURING AUGUST MEETING

The Oklahoma City Autopatch Association will elect officers on Tuesday, August 17, 1982. The meeting will be held at the usual meeting place-the Oklahoma City Fire Department Training Center, Portland Ave. between Reno and NW 10th Street. The meeting will kick off promptly at 7:30 PM. All members and non-members are cordially invited to attend!

The nominations committee presented the following candidates for nomination:

PRESIDENT: Henry Israel, N5IH (incumbent)  
VICE-PRESIDENT: 'Mac' MacDonald, K2GKK  
SECRETARY: Kathy Whited, WB5NDO  
TREASURER: Guy Liebmann, K5QL (incumbent)

Nominations from the floor are invited.

## MEMBERSHIP UPDATE:

Year-End 1981 - 133 members  
June 30, 1982 - 158 members\*

\*includes renewals not yet processed.

The annual "funny antenna" contest was won by Paul, WA5HTL with an almost-live "rubber duckie" complete with sidetone (quack quack!) as the most outrageous; and Mac, K2GKK /5 with a vertical, er horizontal - no, make that vertical loop complete with wooden dowel & black tape with lowest SWR. We will submit Mac's antenna to Underwriter's Lab for evaluation and analysis. (poof!)

A motion was made to amend the constitution to charge dues (amount not yet determined) for licensed spouses of full members. This amendment would change the present constitution which grants spouses and minor children full privileges under the "family membership" condition without addition dues. The constitution requires publication of the proposed amendment at least 28 days before a vote is taken.

The next meeting is August 17; this insufficient time has past for the vote to be made in August. We therefore assume this matter will be considered in September.

Ham Holiday 82 will be history by the time C&E goes to press, but we want to thank all club members who contributed countless hours to make HH82 a success! Let's hope everyone has a good time!

Please note that O.C.A.P.A. Vice-President George Adkins, AD1S, is a candidate for ARRL Section Manager for the next two year term. The "Section Communication Manager" post is being expanded by the ARRL (see June, 1982 QST page 53 for details) and we feel George's administrative experience is especially suited for the new responsibilities of Oklahoma "Section Manager." If you are a League member be sure to vote for the candidate of your choice.

A reminder that Art Roberts, W1GOM is program director and is always looking for original program ideas. Give Art a call if you can help.

FOR SALE - IC-720A Icom Transceiver with general coverage receiver, continuous tuning 100 Khz to 30 Mhz. Includes mike, CW filter, power supply, 3 bedrooms and two baths (?). Will gladly demonstrate and negotiate! Call George, AD1S - 722-6195 after August 17th.

The next regular meeting of OK-DX will be held Monday, August 9, 1982 at the Waterhole Restaurant, 3333 NW Expressway (across from Baptist Medical Center), Oklahoma City, OK. Anyone interested in HF DX'ing is cordially invited to attend. Some of the group trickle in as early as 6:30 PM for a "happy hour"; arrive when you can and stay as long as you like.

## ON THE BANDS:

\*Vicki and I will miss the August OK-DX meeting but we'll be thinking of you from Palou, Republic of Belau! Vicki promises to listen for Oklahoma stations from all four countries we will operate from. Listen for KC6WS from Eastern Carolines, August 4-8; KC6WS from Western Carolines, August 8-11; AD1S/KH0 from Saipan, August 11-14 and finally KX6OS from the Republic of the Marshall Islands, August 14-16, 1982. We hope to have lots and lots of beautiful color slides to show y'all in September!

A51PN - Bhutan - reported to be showing up infrequently on the SEANET, 14.320 Mhz at 1200 UTS. Somebody call AD1S on 147.900 if you hear this one! The SEANET SSB contest is scheduled August 15-16. Maybe A51PN will show up!

ED9YL - Tristan de Cunha - Andy's girlfriend now has a license and has been showing up around 1300-1400 UTC on low end of 20 meter SSB - long path.

BY1PK - Peoples Republic of China - The DX Bulletin reports frequent activity once again - CW only on 14.040 and 21.040+ listening down. Beware of SLIM-Jay, K6GO reports he worked four different stations purporting to be BY1PK before he got the real one. Jay sent 4 IRC's with SAE and got his QSL back in seven days! That's faster than from OKC to Dallas!

YI1BGD - Iraq - This guy was heard in central U.S. around 14.236 Mhz, 0500 UTC on July 5, 1982. Could have been Slim- but who knows. With the war going on between Iraq and Iran, I don't look for alot of activity right now. Henry, N5IH has worked this station 3 or 4 times - but has not received a single QSL! Oh well.

TYA11 - Benin - was recently heard in the Radiosport contest. He has now left Benin and returned to the States.

KH1?? - American Phoenix - Trip to Canton Island by Erik, SM0AGD has been cancelled. No transportation was available. I still believe this will be deleted soon since U.S.A. has relinquished all claims to Canton Island.

XZ?? - Burma - DF8MP/XZ showed up July 3 - worked 12 U.S. stations and faded. He has not been heard from since.

VK0HI - Heard Island - At last, a new one! Looks like March 1983 with a joint effort by International DX Foundation, Box 117, Manahawkin, NJ 08050, Wireless Institute of Australia and Northern California DX Foundation. Three operators, all bands, several weeks in duration. No lids, no lists, no space cadets! (where have we 'heard' that before?)

CONTESTS - The All-Asian DX Contest, CW mode is scheduled for weekend of August 28-29 1982. This one is mostly Japanese, (extra envelopes down at the bureau!) but listen carefully and maybe hear some surprises from the East!

Until next month, Good DX and see you on the air. 73, de AD1S





OK  
NEWS

VHF  
The Short Answer Magazine

### Minutes of July Meeting

Meeting was called to order at 8:00 p.m. by President Steve, W5VCJ, with 14 members and guests present.

The major topic of discussion was details regarding the Club's operation of the ARRL booth during the Ham Holiday. Paul, WA5HTL, committee chairman, led the discussion and organization of details.

Next topic was the 25 year anniversary celebration scheduled for July 23 at Quality Inn East. Steve, W5VCJ, leader of that effort informed the group of the detail schedule of events.

It was announced that there is a Hamfest scheduled for Sept. 25-26 in Wichita Falls TX. (Details covered elsewhere this issue)

A motion was passed that the club join with the Aeronautical Center ARC and MORI to have a three club watermelon fest on Friday August 20 beginning around 6:30 p.m. Jim, K5VRL, is to order the watermelons and reserve the site. (The site is Bethany Park, north side of NW36th between Rockwell and Council. The West shelter has been reserved.) Bring your own eating utensils, newspapers, salt, etc. Cost of the affair will be split between the clubs.

New CORA representatives were selected. They are Ellard, W5KE, Paul, WA5HTL, and Fred, KA5CXW.

Meeting was adjourned at 8:35.

Minutes taken by Jim, N5BEQ, for Secretary Joe, K5JB, who was absent (again).

### QC6MN -- The 25th Anniversary Reunion

Steve, W5VCJ, started with an idea, worked hard on the details, and pulled off a wonderful reunion of amateurs who have been associated with the club since it started. On Friday July 25, seventy five past and present members of the Oklahoma Central Six Meter Net, later to become the Oklahoma Central VHF Amateur Radio Club, met at the Quality Inn East at Reno and Eastern, to get together again.

Not that Steve did it alone; he got some help here and there; but if he hadn't stayed on it like a bulldog, it wouldn't have been the success that it was. He not only got everybody together, he also organized a fine program.

After about 2 1/2 hours of renewing acquaintances, and eating dinner, the program started with Bill Nowland, WA5FWD, as master of ceremony and a man of good humor.

"Preacher" Rea, W5DRZ, delivered a thought provoking memorial for those who are Silent Keys.

Bob Ashby, W5HXL, then went into a history of the Club from the time of the 2 1/2 and 5 meter days. He reminded the group of the name of the first newsletter, the Explorer, prepared by W5WIU. He told about the conventions, the field days, competition with the Wheatstraw Club, State Fair booth, caravans, transmitter hunts, foliage tours and sponsorship of the first Texoma Hamfests. He reminded us that we established VHF communication and helped set up amateur radio stations in all levels of emergency operation centers in the area. He detailed the set-up and operation of a high powered 2-meter am station at the weather bureau station (as it was called then) at Will Rogers airport. He had done his home work because there were only minor details he had to get help recollecting.

Steve told of the problems contacting everyone who had been member of the club. He said that he had received confirmation that 200 people would show up but only 75 made it. When the club was formally established, there were 70 members and out of that group only 6 came.

After the formal program, the charter members and all the past presidents were assembled for group pictures before they could continue with their "remember whens". Joe, K5JB



Charter members of the VHF Club, left to right: Maurice Holding, K5AJW, Tom Mangham, K5LDI, Walter Cox, W5GDM, Marvin White, K5HQP, Bob Ashby, W5HXL, and Steve Stevens, W5VCJ.



Past Presidents of the VHF Club. Front row seated: Charlie Greene, WA5JGU, Tom Stinson, W5OZE, Jim Williams, K5VRL, Steve Stevens, W5VCJ, and Bob Ashby, W5HXL. Standing, left to right: Carl Drumeller, W5JJ, Bob Dicus, WA5LBI, Johnny Fish, K5GBN, Gene Nailon, K5DLE, T Van Woody, W5FMX, Houston Blevins, K5VFR, and Ralph Bartow, W5IRB. Joe Harding, WA5ZNF

### Hamfest, Hamfest, and More Hamfest

Boy did I have a good time, and I hope everyone else did, at the 1982 Ham Holiday! I want to express my sincere thanks to all the people who put in the long hours to put this one on. You did a good job. I tried to take in a little of everything, except maybe the ladies programs (I never claimed to be that well rounded...). I missed a few programs and came in late for some others and I didn't buy much in the flea market but I did have a lot of fine eyeball QSO's. I'm really tired (Notice how I forgot to change picture pitch on this thing after typing the above picture captions? Well I'm running late and it will have to do.) Due to the combined efforts of Charlie W5GPO, Wichita Falls TX and Ray, W5REC, Enid, I have the following information on the Wichita Falls Hamfest.

It will be held Sept 25 & 26 at the National Guard Armory, Midwestern Pkwy and Armory Blvd. It is near plenty of hotels, restaurants, Kickapoo airport (free shuttle), and there will be free RV hookups at the Armory. There will be indoor flea market, dealer display by Electronic Center of Dallas, Computer dealers, etc. It starts 8 A.M. Sat and Sun. Preregistration closes Sept 22. (\$4.00) cost at door is \$5.00. For info write to WARS, Box 4363, Wichita Falls TX 76308. If there is room we might get the whole flyer in next month's issue. Joe, K5JB

# GREAT PLAINS A.R.C.

June and July were certainly two more months full of storm watch. Again we wish to thank each and everyone that helped out. We sited tornados, had hail, high wind, and hard winds. Fortunately, only one storm resulted in injuries. July 9 at Coldwater, Ka. three were injured, several campers and trailers were turned over and tore up. Trees had tops broke out and blown over. KØCIC and KAØKEK did an outstanding job during this emergency.

Field day was a weekend of fun for everyone. KØCIC was chief coordinator and did an outstanding job! We wish to thank N500 for the use of his call and Jim Ginrich for the use of his camper and WØDOZ who furnished the grill and charcoal. The guys set up in three hours with lots of hard work but, oh boy, what fun! It seems the ball hitch on the tower trailer was to big but KB5XI and N5EOY thought they had the problem solved. Well, they hooked it all up and started off to the field day site with several guys following. I'm told the trailer hitch bit the dust and the whole thing did a "See Saw". They almost got to set up in the middle of the road as the tower stood it self nearly on end. But as all good amateurs should do, they persevered and set up at Crystal Beach in Woodward. We had a hamburger fry and watermelon feed Saturday night with KØCIC and KB5XI as chefs. You did a great job guys, sure was good. Sunday after tear down everyone enjoyed a chicken dinner. I was told that WN5LUI wanted a job so he was assigned latrine orderly, Hi. Actually he and his XYL Debbie took the night shift on the radio and did an outstanding job. New amateurs got their feet wet working field day and had a ball. We had lots of visitors and lots of working amateurs were able to drop by for awhile since the location was in Woodward.

Saturday night KD5JR, KØCIC, and WBØPGD went to radar. A storm watch was called for south central Kansas. Everyone had a great time making contacts, visiting, eating, throwing horseshoes, and frizbees and generally goofing off at field day.

## OTHER HAPPENINGS

KD5JR, GPARC E.C. appointed KØCIC as A.E.C. in Ka. and WBØPGD as A.E.C. in this area. (How's that for abbreviations!)

WA5PLW has received our new duplexers from WACOM. He is tuning the 73 machine. WACOM gave us very prompt and speedy service!

July 10, WB5EGZ, KD5JR, W5KFK, KØCIC, N5EOY, WA5PLW, WBØPGD, and WBØQGW met at the radar site to hang the cable and antenna on top of the water tower for the new 73 location. N5EOY and WA5PLW did all of the aerial work. Boy were they tired. That's a lot of climbing! I know some other guys that had sore muscles the next day.

And talking about aerial work, about a week earlier WA5PLW went to the tower site to check it out and tried his best to get a certain fellow to go up with him! He got up part way and decided Windle needed a ground crew. Ask KD5JR about it or better yet you might get a better story asking WA5PLW! Just teasing Bill.

I regret to report Larry Mullins KA5FKX is silent key. He will be missed by all who knew him.

WN5LUI is moving to Ponca City. He is in charge of opening up a new store there. Good luck David.

KA5AAR is trying to load 3/4 mile of telephone line on 160 meter.

W5KFK and N5EOX went to the world's fair. Bet they had fun!

K50J's XYL is back home from the hospital.

WA5YQQ- Where Are You?

KC5OU is trying to make one antenna load on all bands. I'm told he's about to get it accomplished.

KI5P is building a repeater for the Fairview area.

KD5JR, N5CCV, KB5XI, and his XYL Joy, WBØPGD, WBØQGW, and N5EPO and his XYL met at WB5EDD's and his XYL's for an antenna party. We got the tower set or I should say the guys got the tower set with our rousing support!

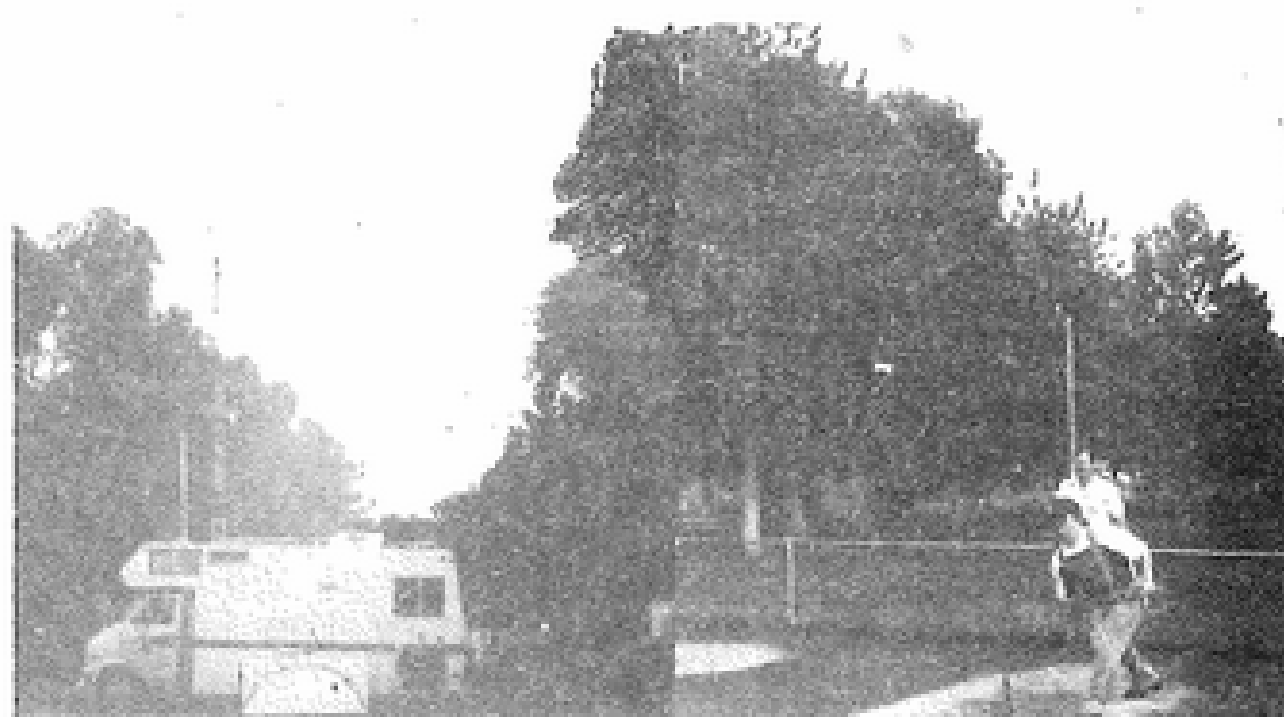
WBØPGD and WBØQGW are hosting a swimming party and picnic at the Mooreland swimming pool.

N5CCV has kitten problems! The family got a new kitten and while dad is trying to sleep the kitten decided to roam! One night he was woke with a sharp nip on the ear, the next night I understand the kitten couldn't resist his hair. Then according to his XYL Judy he even got a little damp! Judy has the kitten trained but poor Gerald.....

Then there is the "Saga Of The Air Conditioner". WBØPGD, a technician, had air conditioner problems and couldn't find the trouble so he called a general (N5CCV). He couldn't get it fixed either so an advanced (KD5JR) was called in. Well he mulled the problem over, did some work and, you guessed it, it still didn't work. Then a brand new general (N5EOY) was called in. You got it, the new guy found the trouble and its working great!

73's WBØQGW

## GREAT PLAINS FIELD DAY '82



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KD5JR watches WN5LUI operate.

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by

WD5JNT Ted VanLaningham

Calumet was our host for the well attended monthly meeting of the Wheatstraw Amateur Radio Club. Our president Dick WD5GLD saw fit not to hold up the meeting because the club editor was running late, so this account will start with the refreshments. I was informed that the home made ice cream came from Marvin WA5JHB. He was not able to make it to our Field Day hamburger fry so he saved it for the meeting 2 weeks later. The Calumet ladies put together quite an assortment of confections to enhance Marvin's small part. Delicious!!!!

Our next meeting is going to be another covered dish pick-nic. We might have to change our name to the "Round Club" if these dinners continue! This one will be at Canton Lake, not far from the airport. Maybe some aviators would like to fly up and join the festivities? Leo, KA5QU0 and Ray, AB5Z with a little help from Sue will be our host. They have invited the group down from the Great Plains ARC so we can return the hospitality shown us at Mooreland last spring. They have reserved the Canadian Shelter north of the airstrip. From Canton go to the lake and past the engineers office then bear left about a half mile, then right about a half mile and if you are not yet there you better get on your radio and holler. Talk in will be on 52-52.

Do not forget the Wednesday night net at 9:00. Net control is Johnny, K5GBN. See you there!!!!

Ted WD5JNT

Field day contacts were down for 1982 but the calories were up. About 30 members gathered at the Field Day site for our traditional hamburger fry. We think it is only fitting and proper that the club should fix dinner and feed our weary operators during their unselfish sacrifice at the microphone, and this year was no exception. Thanks to the chef of the evening Joe WA5GHK we had a steady stream of burgers from our small but sturdy grill and thanks to the ladies, the real backbone of our club, there were plenty of trimmings, cole slaw, potatoe salad, baked beans, taco salad than even Mac Donalds has to offer. There was even a little desert to top it all off. Home-made pies, cakes, cookies, brownies and even 3 freezers of home made ice cream. Our club is a small one, and we might not place in the top ten in the Field Day Results, but we sure can get a belly ache trying. Keep up the contacts fellas!!

TED WD5JNT

This picture and a writeup was in the OKARCHE CHIEFTAIN July 8. It shows the size of the pot holes and wash outs in the county roads around this part of Canadian County. It seems that Johnny, K5GBN, was awakened about 1:30 AM one night by the radio which he leaves on all night monitoring the Wheatstraw Repeater. The voice on the radio was saying emergency.... When Johnny answered he was told that Phil was up side down in a ditch full of water and that he did not know where he was. Johnny woke up enough to know that there was no way he would hear a mobile whose antenna was under an overturned car under water, but the guy insisted that he was upside down in a ditch under water and that he did not know where he was. Johnny suspected a hoax, but finally got the guys OKC home address and phone number and checked the Callbook. They matched, so he called the OKC phone no. Phil gave him. Johnny relayed the message and the party on the phone had an idea where Phil was going, and he went to see if he could find him. On learning that help was on the way Phil hiked it back to the hiway and flagged down the rescuer when he got there. We understand the radio was an ICOM IC-25 that was on the seat beside Phil, so we wonder if it got dunked too. We know the battery was while all this took place, since in a Honda it is up front and the picture shows that end was under water.

SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN.  
SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN.  
SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN.

Storm season finally seems to be over and everyone down here is breathing a sigh of relief. Our ARES/CD spotting team was called out so many times during the past few months that it began to seem like it would go on forever.

Our club, in association with the Red River Valley Amateur Radio Club, supplied communications for the Lung Association's 10 K run held this past June. In July we worked with the Paris Texas Bastille Day committee, supplying communications for the celebration of Bastille Day.

The primary benefit we get out of these operations not only fulfill our responsibility for public service but also help to keep us trained. With all the reasons that can be given for this type of operation-- public service, training etc., possibly the best motivating reason is that this type of operation is just plain fun.

Our repeater committee is making noises about an autopatch for the repeater here in Hugo. Any input from other repeater groups on current FCC interpretation of control requirements, best way to approach Ma Bell and any other ideas concerning autopatch use and/or installation, would be greatly appreciated.

Good news for those traveling thru SE Okla, the Clayton repeater 146.13/.73 is back to carrier access. The Clayton machine, K6UML/R, no longer is PL accessed. Equipment in use is a porta-peter between a Regency and KDK. At the present there is no cw id.

Many of our members received certificates from the Red Cross and ARRL for operation during the tornado here and in Paris Texas April 2nd. As AEC for Choctaw County I'd like to say thanks to all for a job well done.

73 de WB5TTU

## JOE DID IT

If you are reading this it is logical to assume that you looked at and/or read the story on the cover and if so, noticed that there was a headline in type large enough to get your attention.

If not look at the head above, for in actuality JOE DID IT. The equipment to make the head was acquired by Joe, K5JB, at no cost to the Collector & Emitter. All we had to do was apply a little WD-40, elbow grease and a little dexterity and it worked like a charm.

Where did it come from? Dave Balew, K5WMY, & his partner Larry Webber no longer had a use for the machine and offered it for a nominal sum. A discussion followed and they donated it to CORA. Thanks a lot, Dave, Larry and Joe.

Now if anyone knows of some Varsity Headliner type wheels that are excess to someone and they can donate them, we can have a more attractive C&E.

Joe, WA5ZNF



## RED STAR VISITS FOR HAM HOLIDAY, BLASTS ZEDD

Boris Badenov, globe-girdling Russian superstar of the DX world, landed in Oklahoma City late in July, planning to appear at Ham Holiday. Badenov, 44, was accompanied by his brunette, nubile, 19-year-old representative from Box 88, Natasha Bullwinkle.

"We bring greetings, 73 and 88 from all the freedom-loving peoples to the working proletariat of whatever state this is," Badenov proclaimed at Will Rogers World Airport, where his flight had just landed after connections in New York, Peoria, Kansas City, Wichita and Enid.

"From great Mother Russia, where was invented the vacuum tube, capacitors, inductors, transistors, coils, resin core solder and everything else important about radio except resistors, because we don't allow no resistance, best wishes!" Badenov added.

Badenov said he had no particular plans for Ham Holiday. "Will be enough to stand around, let peasants view my magnificence," the Soviet star said modestly.

"As great Russian radio sportsman, I will allow local peasants also to touch me," Badenov added. "I have worked many Oklahoma Indians and other downtrodden, poor, suffering, oppressed native peoples on twenty-meter CW. Maybe is so we can have how you call it a eyeball, da?"

Badenov granted a brief interview once he had been installed in his suite in a downtown Oklahoma City hotel.

"Is terrible decadent luxury," the burly Russian, who is a major in the army, muttered as he unreeled a home-brew antenna from the twentieth floor and began to warm up his Yaesu gear. "Natasha, please order more this terrible decadent Coors beer and peanut butter sandwiches, da?"

Badenov said he works DX most evenings from his modest radio club station atop a mountain not far as the crow flies from the Kremlin. The club, with 2,000 members, all officers in the Russian army, is proud of its amateur status and how well it competes in international competitions with modest home-brew equipment.

"All we got is couple little receivers, couple little transmitters, few little antennas," Badenov said. "Is hearing flies rubbing wings together in Africa on receivers, designed and made by members of club with some advice, maybe, Russian Institute of Electronics. Transmitters nothing special, few kilowatts, maybe, to phased thousand-meter verticals with Lithuania for ground plane, couple of Plotkins at two hundred and eighty meters, five, six little terminated Ivans, switchable for best direction. Is nothing more. Humble. But we get some contacts by being great geniuses of radio sport, da?"

Asked to explained the working of the "Plotkin" and "Ivan" antennas, Badenov conceded that in the western world these are called, respectively, the Yagi and the rhombic. "WE know in mother Russia who really invented these antennas!" Badenov added.

"Is latest great exploit of our club, winning the IARU Radiosport," Badenov went on, pigging out on a Twinkie, washed down with liberal additional quantities of Coors. "Scores not out yet officially, da, but our club scored more points than rest of world, maybe! Is great Soviet triumph!"

Badenov was politely reminded by one of the spectators in the room that Oklahoma's own great DXer, Q.R. Zedd, had been in the recent Radiosport competition.

"Zedd, schmedd!" Badenov thundered, destroying a package of Oreos. "I have hear this Zedd many times. I always give him five-nine-nine to be polite, promote international good will. But in truth his signal is always pitiful in great Mother

Russia, sometimes does not even get through the hated American Woodpecker. Zedd is in Oklahoma, da? Ha, ha! Is remind me of old saying, 'Give it back to the Indians!' Da?"

This was too much for a member of the Norman contingent who happened to be in the hotel room at the time. Pushing past three KGB agents and a representative from CORA, the Norman ham went eyeball to eyeball with the great Badenov.

"Listen, boy," the local growled, "are you sayin' Q.R. Zedd ain't the greatest? Because if you are, sport, then we better step outside in the alley."

"Is only truth!" Badenov shouted back. "In my great country, Zedd would be novice operator, in charge of sending SWL cards to Americans from zones they can never get no QSLs out of! Zedd, like I said, schmedd! Is this Zedd real person or only fig newton of somebody's imagination? You tell me, da?"

The Norman operator was restrained in the nick of time. "Ole Q.R. is probably over helping people get ready for Ham Holiday right now!" he yelled as the KGB agents dragged him out of the room. "I'll just send him over here!"

"Da!" Badenov grinned, winking at the comely Natasha, who was perched prettily on a windowsill, consuming RC Cola and moon pies. "You bring Zedd over, eh? And we will have big laugh!"

In the next few minutes the tension in the room got thick enough to slice as Badenov went through two dozen ginger snaps, a Bluebird pie, a pound of chocolate-covered cherries, three Big Macs and another case of Colorado Kool-Aid. He explained how Russians had invented the airplane, TV, and Afghanistan, and was just starting to explain the Russian ancestry of Samuel B. Morse and Thomas Edison when there was a great stir in the hall, a burst of (American) applause, and a swinging inward of the hotel door.

And who should come into the room, spurs clinking and TR-7 spitting high-speed CW, but Q.R. Zedd. He had a cheroot clamped between his teeth and was wearing a blue boom mike that matched his string tie, with his memory keyer in a shoulder holster under his left armpit and his Gene Autry belt buckle loaded up for 40 meters.

Behind Zedd, wearing five-inch spikes and a darling pink mini-dress, was none other than Tondelayo Schwartz, his blonde, nubile, 19-year-old QSL secretary from Harvard Business School.

"Howdy," says Zedd, looking Badenov up and down.

"QRZ?" says Badenov, a bit flustered.

"You got it, boy," says Zedd.

Tondelayo eased over to Natasha. "Hi, honey," Tondelayo smiled. "You poor little thang! Wouldn't they give you anything decent to wear for the trip? Come on and I'll show you how to get to Goodwill."

"I will cut your heart out with my knife!" Natasha hissed.

"Natasha," Badenov muttered reprovingly, whipping out a blitz cloth to apply to one row of his medals. "Remember we are guests in this primitive country, da?"

"Da," Natasha glowered. "But she say anything like that again, I cut her heart out with my knife!"

Zedd flipped one of Badenov's medals with his forefinger. "Hey, where did you get some of these? They don't have some of these at the TG&Y Family Center in Norman!"

Badenov's nostrils flared, making some of the Sara Lee crumbs fall off his face. "Is great medals for great radio accomplishments in great competition for great freedom-loving Union of Soviet Socialist Republics!" he thundered.

"What's this oblong one for?" Zedd asked. "The world's record in junk food?"

"Everybody knows junk food record is held by that great American of great Russian background, WA5MLT!" Badenov yelled. "Tell me, so-called DX man: you were in recent IARU Radiosport, da?"

Continued, next page



LEONARD HOLLAR, WA5FSN  
SECTION COMMUNICATIONS MANAGER

Usually, The hurrieder I go, the behind-  
er I get. So I am starting this a little  
earlier than usual.

Soon, We will have an opportunity to  
express our opinion on a 'No Code' license  
or class of operator. Two options appear at  
present, either eliminate code on Technician  
or create a new class similar to the Canad-  
ian Digital class. In accordance with I.T.U.  
Regulations, all these operations must be,  
above 30 mhz. This is a change implemented  
at WARC '79 from above 144mhz. Sufficient  
notice will be given at a later date to file  
your comments.

I see where an ARES groups' use of a  
Chart equiped Depth Recorder located a car  
and body deep in a frozen over lake. The  
Amateurs expertise in using the equipment far  
out-performed other units brought into use for  
the search at ARES suggestion.

There is always something new coming  
along. We have heard of problems with auto-  
mobile electronic brakes. Now, something new  
has reared its head. Subaru is advising  
against installation of any R.F. Trans-  
mitters in their '82 cars. (even garage  
door openers) as they may have a severe  
effect on the Electronic Control Modules  
causing erratic operation. I have also been  
advised that one type of Electronic Fuel  
Injector can be ruined, even by a transmitter  
in an adjacent vehicle. "Caveat Emptor"

John, K5GBN hear something "Early" the  
other morning on the Calumet repeater, check-  
ing further, He found that Phil, WB5PVL had  
found a "Big Hole" in the road and was opera-  
ting "Upside Down" from it. No apparent  
injuries except to pride. John made the nec-  
essary calls and a successful rescue was  
effected. All's Well that ends well.

HELP. again I must repeat the plea for  
volunteers to help as Net Controls on all of  
our evening nets. Plus a logger or 2 on the  
Weather Net. Contact the Net Managers: WA5Z00  
WD5IFB, WA5OUV and KV5X.

Vacations and band conditions took their  
toll of Net operations in June.

Net.	Sessions	QNI	QTC	WX
O.P.E.N.	4	109	6	
O.P.O.N.	18	228	28	
S.T.N.	26	354	70	
O.T.W.N.	26	398	343	320
O.L.Z.	30	194	67	
Q.C.W.A.	4	134	7	

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## RUSSIANS INVADE (continued)

"Da-earned right," Zedd yucked, winking  
at Tondelayo.

"Ha! You think you maybe win decadent  
western country first place?"

"Well, Boris, I wouldn't be at all  
surprised, son. Yessir, I figger maybe we  
might have racked up a place somewheres in  
the top hundred or so, uh-haw."

"Ha!" Badenov cried in triumph. "Is  
looking at greatest scorer in history of  
Radiosport, sure winner of this year's  
contest! Me! You see this medal? Is already  
presented by Politburo to me for being  
greatest in world!"

"Well, I swan," Zedd said softly. "Is  
that genuine cardboard?"

"One day, maybe we can compete, how you  
say, head on head," Badenov scowled. "Prove  
what we in Soviet Union already know, who is  
greatest!"

"That would be real nice," Zedd smiled.  
"Now if you'll excuse Tondelayo and me, we  
got to get back over to the Myriad. We're  
helping set up tables for the Bingo."

"See you all," Tondelayo cooed, waltzing  
out after Zedd. "Natasha, honey, the  
Salvation Army telephone number is --"

"Next time I see you, I cut you with my  
knife!" Natasha screamed.

"Is nice man," Badenov said after the  
smoke had cleared. "This Zedd. I like him.  
Is dumb but nice. Like mule, da? Maybe he  
come in in top ten for western world in  
Radiosport. I hope so. Bad for competition,  
great Russian radio sportsmen win all top  
places. You quote me, da? In great Mother  
Russia, Zedd would be welcome to watch me  
operate any time. We are always willing to  
help underdeveloped, how you say, nerds.  
Da?"

Badenov completed the interview on this  
note, saying he had to rest. Natasha  
Bullwinkle was last seen headed for a nearby  
7-11 with a shopping list that included  
graham crackers, turnips, Hershey's syrup and  
dill pickles. Plans called for Badenov to  
have his own booth at Ham Holiday so the  
throngs of admiring peasants could be  
controlled, each being given at least a brief  
glimpse of the great man.

"Is least great Mother Russia can do,  
share me with world," Badenov said humbly.

--KU5B

EDITOR'S NOTE: A bulletin received just  
at press time announced raw scores in the  
1982 Radiosport. The winner's total was  
being withheld, officials said, because it  
was so far in excess of all other  
competitors' totals that "we fear some might  
go into shock if they knew how badly they had  
been beaten," one official explained. The  
winner, however, was known. In first place,  
world, with an unknown horrendous total, was  
(of course) Oklahoma's Q.R. Zedd.

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REQUIRED

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## The South Canadian Amateur Radio Society

LATE BREAKING REPORT-ham holiday.....  
 --flash--KB5EK gives up 75meter DX and goes  
 into seclusion with new TRS-80 Color Computer.  
 --further flash--W5SQJ dips his grids.  
 Ham Holiday was bigger and better than ever  
 this year and this is a trip that I wouldn't  
 have missed. I absolutely cannot stay out of  
 the flea market. This year for the first time  
 in a few years I bit the dust and launched my  
 own flea market table. For those who havn't  
 tried it, the experience wasn't altogether  
 unpleasant. There was a fairly good crowd  
 milling in and out of the exhibition area  
 most of the day, however apparently quite a  
 few of those who attended found time to take  
 in a few of the programs. Everyone who had  
 anything to do with the planning of the annual  
 celebration should have more than one pat on  
 the back.  
 -Just one final word about the Ham Holiday:  
 as mentioned above, SCARS members were well  
 represented prize-wise during the drawing.  
 KB5EK won a TRS-80, one of the two pre-regis-  
 tration ~~XXXXXX~~ awards (pardon me). Also,  
 W5SQJ won a much needed test equipment in the  
 form of a Grid Dip Oscillator. Congratulations  
 to both Wade and Jess.

-wa5rpp-

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## C O R A   C O M M E N T S

### NOTE FROM C.O.R.A. PRESIDENT

Ham Holiday 82 is now history. I would like to extend my personal thanks to N5ABL, KA5AQY, WB5BXW, WA5CJG, KC5CR, N5DLM, N5EWF, WA5PSN, K2GKK, WD5JNT, KE5M, WB5NSV and all the volunteers who handled the registration tables during the convention. I want to offer special thanks to Judy MacDonald, KA5BJS who spent hours on the beautiful signs and posters at Ham Holiday, and to George Maschino, K5GGL who handled the books and spent most of his time in the tiny convention office.

We are very pleased with the results of Ham Holiday 82. The programs were well attended; the dealers were very happy with the new floor plan and business was brisk. Attendance was almost as good as last year's West Gulf Division Convention! (1200+)

The C.O.R.A. board continues to learn from experience and by cutting corners in some budgets, we were able to award TWO pre-registration awards of TRS-80 color computers and TWO grand awards of IC-730 HP transceivers, a TR-7850 transceiver, several VHF and UHF talkies and all the other awards pictured in this issue.

I would like to hear your comments on HH 82. What suggestions can you make to improve our convention? I know we overlooked the following:

1. talk-in frequency
2. assignment of publicity to a club
3. registration committee with adequate personnel

Did we miss anything else? Sometimes when volunteer workers get "close" to a project like HH 82, we overlook obvious flaws. Help us to continue improvement by sending in your constructive comments.

This morning (7/26/82) I spoke with a local ham who attended the ARRL National Convention. He said attendance was approximately 3000+ but that commercial business was less than enthusiastic. (Too bad.....)

WELCOME to the Ardmore Amateur Radio Club as the newest participating organization in C.O.R.A.! The Ardmore Club was unanimously accepted into C.O.R.A. at the annual membership meeting at HH 82.

Our thanks go to Ray Wangler, West Gulf Division Director for attending HH 82. Ray brought back many facts from the Director's meeting in Cedar Rapids. He discussed the proposed band plan changes, no-code licensing and other items. Ray had to fly from Cedar Rapids, Iowa back to San Antonio, Texas before returning to OKC for HH 82.

I will not be running for re-election as C.O.R.A. president. I request that all participating clubs consider potential nominees for 1983 president. The election of officers will be held soon.

I have thoroughly enjoyed this year as your C.O.R.A. president. I shall continue to try to serve the amateur community however possible. Thank you for the opportunity to serve in 1982. See you at the August meeting.

### HAM HOLIDAY PICTORIAL

Captions for photos on opposite page.

1. Center section of a crowd of 1000 gathered at the Myriad last Sunday for the Award ceremony.

2. Wade Anderson, KB5EK, Moore OK with the "surprise" second Radio Shack Color Computer given to pre-registrants.

3. Goldie Wilder, XYL of WA5PFK, Watonga with her (Ralph's?) TR-7850. Just one of the six 2-meter rigs awarded.

4. The advertised Radio Shack Color Computer (a surprise second one was given to Wade) in the arms of John Millikin, K5ABL, San Antonio.

5. Bea Jones, XYL of K5UKP, Oklahoma City and Susie, KA5FED, who was on the women's program committee, celebrate Bea's new microwave oven.

6. Chuck, K5NK, M.C., congratulates the youngest novice to attend Ham Holiday, Preston Weiss, KA5MPI (12), Mountain View OK after already rewarding the oldest novice, Harry Holzman, KA5GHL (only 76).

7. Bill Humphries, W5JYT, presents some handcrafted copper roses to Michielah Kremer, daughter of Bob, WA9FCT/G5BHC, Midwest City OK who picked through 1200 badges, some with pins unfastened, without a scratch.

8. That's not a smile on the face of Clarence Sittel, K5YAQ. The ICOM 730 he is holding was a "consolation" Grand Award that he picked up for his friend Jimmy Martin, KC5ZL, of McAlester who had to leave early.

9. Just some of the 105 flea market tables in the overall view below.

10. Ron Real, WD5CIG, is taking that ICOM 730 Grand Award to Wellston, but not to his house. It goes to Ben Thorpe, WD5CIG, a novice of Wellston.

### THE LUCKY ONES AT HAM HOLIDAY '82

Dot Hall	2-meter talkie
Dolph Grolock KB2AW	IC-4A/T
Jim Buswell N5BEQ	IC-2A/T
Louise Carrell	Down Converter
F. Boardman W5NL	HAZER 2
Jerry Welch N5EWF	Portable telephone
John Petersen N5DKQ	Power amplifier
R. Castleberry WD5FKF	CW Contester
Jess Speer W5SQQ	Grid Dip Meter
David Solda N0IN	\$100 Radio Shack Cert.
Steve Miller AA5V	Luggage set
Charlie Greene WA5JGU	Drake Keyer
Steve Scott WB6NBK	Drake phone patch
Al Jakubowski K5YPK	Drake Keyer
Gary Woodrow WB5FRU	SWR/Watt meter
John Fagan WB5FZD	Triplett ammeter
Jim Lawson WA5TOW	All band antenna
John Carter K5SAZ	All band antenna
Geo Maschino K5GGL	Digital Clock
Bill McKim WA5RVP	Digital Clock
Bob White WB5PWZ	2-meter antenna
Frank Royal KB7UD	2-meter antenna
Robert Lucas WD5IBX	2-meter antenna
Dub Thornton WA5YFY	Super-Stick antenna
Glenn Clark W5ZKK	Super-Stick antenna
Dick Dreher W5VTJ	Super-Stick antenna
Joseph Bunn KA5KTD	Antenna
Dale Langly WD5CAH	Antenna

The following all won a "Grab Bag" containing several books, circuit boards, Tape, tec.:  
 Philip Cohen (5 years old)  
 C. H. Stewart KD5DL  
 Doug Teachman W0DXA  
 C. D. Couffer K5RRQ  
 R. L. Davenport N7BBA  
 John Upchurch KA5NYR  
 John Shean K5DB  
 James Swope WB5PW0  
 Bob Morgan KA5EOM

Other winners and their picture →

EXTRA CLASS  
AMATEUR RADIO  
WSKE

FIRST CLASS  
RADIOTELEPHONE  
LICENSE

### ELLARD'S EX EL

ELLARD W. FOSTER, OWNER

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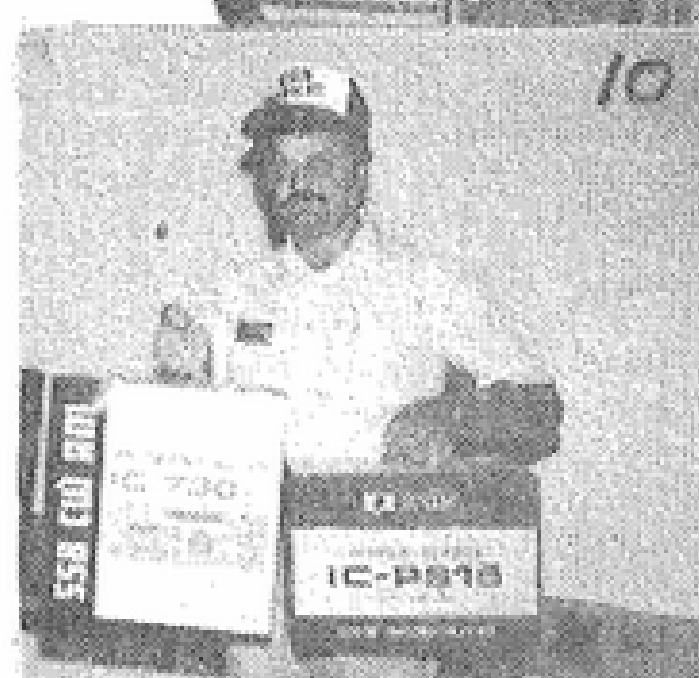
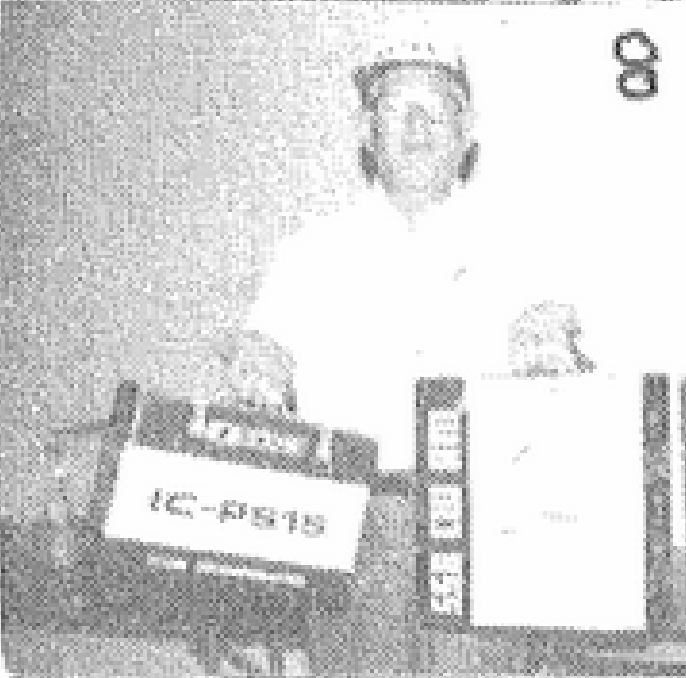
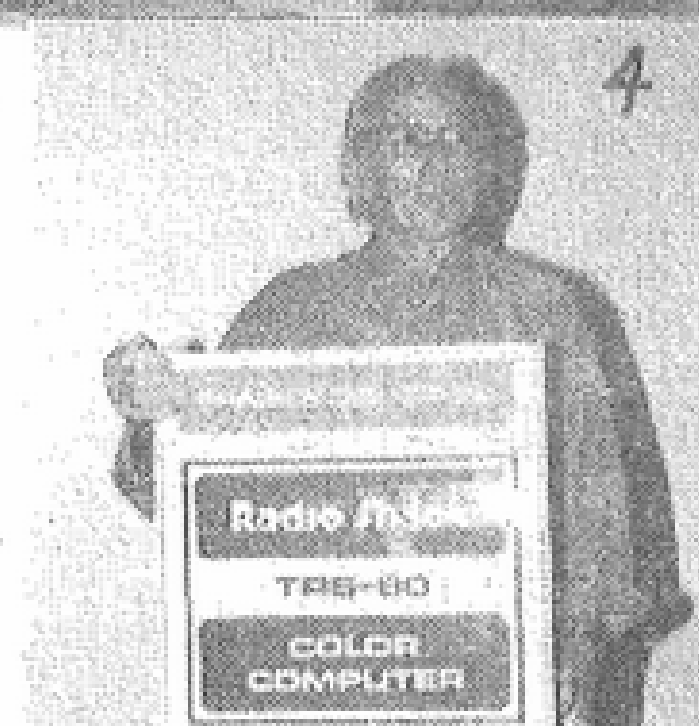
TELETYPEWRITER  
ASSEMBLIES

USED TEST  
EQUIPMENT

EXCESS  
ELECTRONICS

7/1





# BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

Sponsored by Oklahoma Air National Guard  
ARRL affiliated



## MINUTES FOR JULY 1982

Meeting called to order at 7:20 by President Buswell. First order of business was the secretary report by N5AUH, Jerry Sproul. Motion was made to approve the minutes as published in Collector and Emitter. Treasurer report by Bill Rodgers W5RAQ. Balance in Treasury is \$327.17. Bill reports that membership is on the upswing.

### Announcements:

1. C.Y. still has not located his "Spirit of 76" picture that he loaned to the club. If anyone spots this, give C.Y. a call.
2. Bruce KC5CR says he needs help stuffing the envelopes for pre-registration of Ham Holiday. Several people volunteered.
3. Ken K5UAB commented on the remodeled quarters that we are meeting in and says that there should be no problem for present time in staying here.
4. Bill W5RAQ was commended for the fine quarterly report that he prepared and passed out tonight.

**Field Day Wrapup:** Dick Baker WB5TNW gave us a rundown on how we did on Field Day. Looks like we will have well over 10,000 points. Dick thinks this should be good for a No. 1 finish. **Food Report for FD 82:** We spent \$118 while the selling of food brought in about \$75. Total cost to club is about \$25.

**Technical Committee Report:** The autopatch has not worked since we put in the new repeater. It is in the process of being replaced. A motion was made to discontinue phone service to the autopatch while it is out of service as it costs the club about \$25 per month. Motion was seconded and carried by a majority vote.

**CUHA Report:** Ham Holiday 82. Pre-registration at this point is about 432.

**Old Business:** Tabled motion from last month on club dues was resubmitted. The gist of motion was that we go back to separate dues for club and repeater support. Motion made by Bruce KC5CR and was seconded. Motion carried by majority. A motion was made by Dick Baker WB5TNW that the balance of treasury be split 50/50 between club and repeater. Motion was seconded and carried by majority vote.

Break at 8:40. Meeting resumed with a program being presented by Shelley Zaikis from the Citizens Against Crime on personal safety and neighborhood safety. Shelly showed us from different brands of Mace and offered them for sale to us. All profit is used to support the Citizens Against Crime organization.

Meeting was adjourned at 10:00 P.M.

JBS:cs Jerry Sproul, N5AUH, Secretary

First off, I hope everyone got to go to Ham Holiday 82. It was by far the best of the last four that I've been to. Being a DX hound, I liked the slide show of the TYA11 expedition the best of all programs, but the 6 meter DX forum was interesting to me as well (even though I've never been on 6). By far, however, the ARRL forum was the most informative of them all.

The forum, conducted by our division director Ray Wangler W5EDZ, discussed some of the legal action that may be passed affecting the Amateur Radio Service. On the good side the House version of Barry Goldwater's bill S-929 could be signed sometime this week. Some of the highlights of this bill are a 10 year amateur license term, minimum RF susceptibility standards for receivers, and a waiver on the 'secrecy of communications' clause for amateur frequencies. This bill was heavily lobbied against by a group of electronic firms that do not want to have to spend the extra cost of a real front end in their products. What's really discouraging about the whole affair is the fact that Trio-Kenwood, a popular amateur equipment manufacturer, is one

of the worst offenders in this case. I speak from experience here because my family has a Kenwood tuner that makes wonderful noises any time that I key up on HF. Being a caterer to hams, these people should know better.

Mr. Wangler also told of some other new possibilities for the Amateur Service that did not meet to his, or the ARRL's approval. FCC personal radio chairman McKinney has finally decided for us that we need a code free license in an attempt "to get youth interested in amateur radio." Ray says that apparently we will finally have a no-code license whether we like it or not. I usually make it a point not to comment in the C & E, but I feel that I might be more qualified than others on this subject, getting my novice call at the same age that they are talking about. I simply do not feel that a code free license will entice anyone in the age bracket 12-15 more than the licenses that they now offer. The reason is that for most people that age, code is simply not that much of a problem. For people that age, the problem is not code, it is theory. I know because I failed my novice and General theory exams once each before I managed to pass. The code tests, however, were both passed first time around. Now this isn't meant as a brag session, but rather as a point that it is simply much easier for a person that age to practice morse code than to have a working knowledge of electronic components and the algebra required to solve equations. I truly feel that McKinney has got the wrong idea here, and I think I speak from experience when I say that this codeless license will not encourage youth into ham radio. What it will do I don't know, but I can tell you it won't serve the purpose chairman McKinney has intended it for.

Finally, there was some discussion on (my favorite subject) U.S. phone band expansion, including an unveiling of the ARRL's proposed bandplan for the entire HF spectrum. Although I won't take up space printing it here, I can summarize it basically like this:

1. 200 kilohertz more for 10.
2. No change in 40 meters.
3. 25 kilohertz more for 15.

I can't understand why they decided that 40 should remain unchanged. In my humble opinion, 40 is the worst of them all because of the foreign broadcast stations in ITU regions 1 and 3 who are authorized to put their megawatt carriers on 40. Mr. Wangler says that apparently we will have expansion of the HF phone bands, so we had better decide how we want it changed. If we don't, you can sure bet the FCC will decide for us.

Bruce KC5CR

FOR SALE - I.R.C. International Reply Coupons 40¢ each - minimum of 10. I will mail them postpaid when 30 or more are ordered. Write or call AD1S after August 17.

ICE CREAM!! ICE CREAM!! ICE CREAM!!

Don't miss our big wing-ding this month. Instead of talking about club dues, the repeater and field day, we're going to put our differences aside for our annual Ice Cream social. It won't be at the National Guard this year. Instead we're having it at the Granada mobile home lot at 2400 S. MacArthur. It'll be at the same day and time as the regular meeting, and bring your own bowl and spoon or you'll have to watch the rest of us eat.

By the way, let me take the time here to thank the following people for giving up an entire evening of their time to help me and John KH6JTE on the pre-registration for Ham Holiday. Thanks go to Jim W5VCB, Don AE5N, Jerry N5AUH, Dick WB5TNW, Fran KH6JUN, and C.Y. N5EDT, who showed us all how to eat cookies the correct way.

Bruce KC5CR

# Salem

## A MODERN TOUCHTONE DECODER--MAYBE

The last couple of months I have been talking about some of the new breed of touchtone decoders that use digital detection techniques. The MK5102N-5 and MK5103N-5 are two different versions of this new type decoder made by Mostek. They have been around for a couple of years. The decoders use a 3.579545 Mhz television color burst crystal for reference and both detect and decode all 8 of the standard DTMF frequencies. They both require only 4.5 to 5.5 volts. The zero crossings of the incoming tones are counted over several periods and the results averaged over a longer period. When a minimum of 30 milliseconds of a valid DTMF digit is detected, the proper data is latched into the outputs and output strobe goes high. When a valid digit is no longer detected, the strobe returns low and the data remains latched into the outputs. The minimum interdigit time is about 35 milliseconds.

The format control output is pin 5 of the MK5102 or 5103. This determines the output format from pins 7, 8, 9 and 10. If pin 5 is brought high, (to +5 V), the output is standard BCD as shown in the following table:

Digit	4-Bit Binary				Dual 2-Bit Row/Column			
	D1	D2	D3	D4	Row D1	Row D2	Column D3	Column D4
1	0	0	0	1	0	1	0	1
2	0	0	1	0	0	1	1	0
3	0	0	1	1	0	1	1	1
4	0	1	0	0	1	0	0	1
5	0	1	0	1	1	0	1	0
6	0	1	1	0	1	0	1	1
7	0	1	1	1	1	1	0	1
8	1	0	0	0	1	1	1	0
9	1	0	0	1	1	1	1	1
0	1	0	1	0	0	0	1	0
.	1	0	1	1	0	0	0	1
#	1	1	0	0	0	0	1	1
A	1	1	0	1	0	1	0	0
B	1	1	1	0	1	0	0	0
C	1	1	1	1	1	1	0	0
D	0	0	0	0	0	0	0	0

The second part of the table shows the output if pin 5 is left floating. This is a Dual 2 Bit code that shows the row and column in digital format. If you chose this format, omit the 10K pullup on pin 5 to allow it to float. If you ground pin 5, the outputs go to high impedance for tri-state use. You must remember that the 5102 or 5103 is tied to the inputs of the Hex Buffer/Driver. It might be necessary to remove the 7407 from its socket if you decide to use the Tri-State feature. My idea in this instance was to allow the decoder to interface to the I/O lines of a computer and by utilizing the high impedance output state, the same lines could be used for outputs. The Touchtone decoder could be also strapped with another touchtone decoder with the outputs in parallel. Since each touchtone decoder would be in the high impedance state when not receiving a signal (if you strap the output strobe to the format pin), you could bring both decoders into the computer using the same input lines and a separate line for the output strobe of each tone decoder.

Why did I chose the MK5102/3? The main consideration is price. In single quantities, the chips are about \$25.00 apiece now. The S3525A prefilter is another \$16.50. This is a little less than the \$60.00 or so that the Mitel MT8860/MT8865 CMOS chip combo. The Mitel is a good choice in mobile or portable operation because of its low power consumption. The Mostek/AMI combo is perhaps a little more available. The Mitel has formatted outputs similiar to the Mostek chips. The AMI S3525A needs a few more

external parts to operate because it is designed to integrate to a variety of chips. The Mitel chips are designed to integrate to each other. I essentially flipped a coin and picked the Mostek/AMI combo. Since this card was designed for base station operation, I worried a little about power consumption, but once I got around 100 ma or so, that was good enough. The Mitel could get that much lower.

The AMI S3525A is a natural choice for the prefilter. This new chip is an 18 pin monolithic CMOS integrated circuit designed to implement switched capacitors in a band splitting circuit. The device includes a dial tone filter (something Mitel must add externally), high and low group separation filters and on chip limiters for squaring of the filtered signals. An uncommitted input amplifier allows a programmable gain stage or anti-aliasing filter. The dial tone filter provides a rejection of at least 52 db in the 300 to 500 Hz frequency band.

Be careful when ordering the S3525A. There is also a S3525B which uses a 894.89 KHz at pin 18 for the clock output. In the S3525A, the output at pin 18 is 3.579 Mhz which can be used to drive the 5102/3.

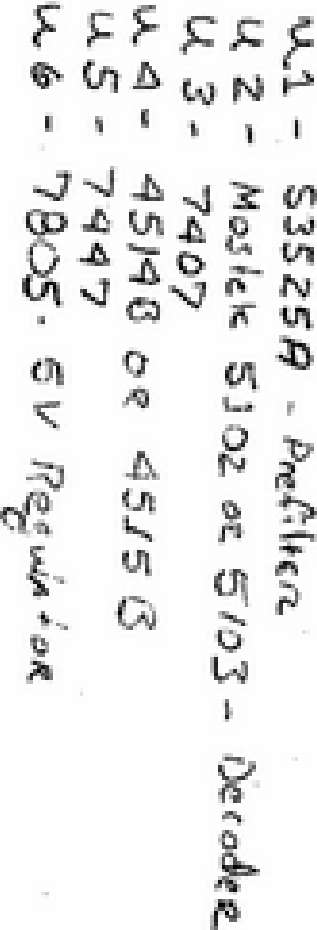
You can use either the 5102 or 5103 decoder. The only difference is the tolerance of frequency required for decoding. The 5103 seems to offer a slight advantage in tone decoding in a noisy environment, but it seems insignificant.

I added a bunch of clap trap to the basic circuit that I published a month or two ago. This is to provide you with a readout of the digit being decoded and buffered outputs including 1 of 16. This can be eliminated depending upon your interest. If you don't want or need the LEDs that show the BCD outputs, then you can strap across them and change the 470 ohm resistors to 10K or so. Eliminating the 7 segment DL10A or equivalent and U5, the 7447 is also a possibility if you desire lower current consumption. If you don't need 1 of 16 outputs, then you can eliminate U4. It is possible to build the entire circuit using just U1 and U2 and have no output format at all.

The outputs are varied. The 1 of 16 is brought to the card edge. The BCD output directly from the 5103 is also brought to the card edge. The output from the 7407 Hex Buffers is also brought to the card edge as is the output from the transistors. Why did I do this? Several reasons. The 5103 has just enough output current to drive several CMOS loads and just one TTL load. If you don't use the 7407, you could drive one TTL load external to the card using U, T, S and R and P for the strobe. If you use the 7407 on the card, don't drive anything else with those outputs. But you can use J, K, L, M and N for the strobe which is the outputs of the 7407 Buffer. If you need signal inverted you can use the H, F, E, D and C for the strobe which are the outputs from the transistors. So there really is a method to all the madness. Of course, those of you who interface directly to a CPU may just use the 5103 outputs and let the computer come up with the display outputs.

Q6 is driven from the strobe output and functions to blank the display when not being used so that the last data displayed does not remain on the display drawing current. This same line also lights the decimal point on the display much as the LED that Q5 lights. So the Decimal Point lights if you chose to eliminate the BCD format LEDs. Lighting all of these LEDs can increase the current consumption to about 200 to 250 mills or so. This could be cut down a little by using low current output display and LEDs and adjusting the series resistors.

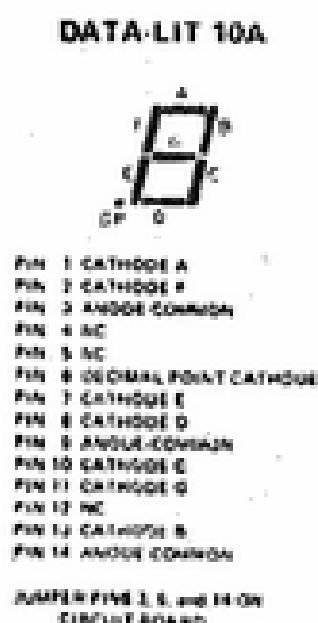
J1 is a jumper that allows you to strap the outputs to +5 volts or +12 volts depending upon your needs.



U4 is also strapped at the same time for +5 or +12. J2 is the format output strap previously noted. Strapping J2 to +5 volts provides for BCD output. Leaving J2 floating (pin 5 of the 5103) provides a columnar/row output.

The audio input can come in on one or all of the inputs. This may have been overkill, but if you have several difference sources to decode, there is something for everybody. I would suggest that, for example, if you are using using several different receivers on the input that you make some effort to kill the audio of the unused receivers when not active (a relay to the COR line so that no unsquelched audio goes into the decoder. The device has a fairly good signal to noise ratio, but multiple inputs at the same time could prevent decoding by masking the digits to be decoded. If you chose, you could strap across the 5K input pots and just use the gain control (25K) pot for overall adjustment. Or if you have a couple of sources with different levels, you could use the 5K pots to adjust the levels and set the overall gain with the 25K pot.

The display LED is not critical. The pinout is the only thing to be careful with. A DL10A or equivalent pinout is recommended. The DL10A is an older display made by Litronix . The display configuration is common anode and conforms to a pin layout as follows:



I have seen numerous of these types in the flea market including Hewlett Packard, Monsanto and the like.

The digital output display doesn't exactly conform to characters that are identical with the touchtone characters. As a result, you will have to use the following characters decoders to display all sixteen digits. The only character that is affected for the normal 0 to 9 digits is 0 which is decoded as a small c. What actually appears as a 0 is in reality a D. A blank is C. But you know it is being decoded by the strobe output and display BCD. I tried to find a decoder that would display the hex output in proper sequence, but none was available for the touchtone format. Of course, if you chose not to build up the card format display, you could always have the CPU do all of your decode and display.

What kind of specifications can you expect from this circuit? According to the manufacturer, a bandwidth of approximately 5% and a dynamic range of about 32 db. You will have a decode ratio of 99.9% at a S/N Ratio of 12 db. These numbers were made using the Mitel (CM7291) Test tape, a standard in the industry. The tape tests various parameters including false hits, bandwidth, dynamic range and a variety of other things. The test results for the 5103 and AMI prefilter are shown.

The decode speed decreases slightly with higher levels, but you may expect that it will be no more than 45 milliseconds or so with that being the worst case. Typical decode time with 0 dbm at 600 ohms input is about 30 milliseconds. Worst case comes with a -28 dbm input since the circuit takes a longer time to decode in the presence of a weak signal .

For radio work it is essential that the tones into the receiver not be clipped at any previous stage including

receiver and transmitter. The reason is that clipped lower tones produce harmonics that get into the high filter and mess up the decode algorithm. Sooo, you must turn down dem touchtones. Actually, the device will decode with reasonable deviation levels of 1-2 Khz even with weak signals. If your voice peaks on modulation are +4-5 Khz of deviation and you run your touchtones below that, then you will be OK. Make sure than there are no clipping circuits in either the transmitter or receiver stages that are saturated with touchtones and you will be OK. The effect of clipping will be to decode no signals. It can also decode only a couple of the digits. The new microprocessor controller for the 147.63/03 repeater uses the Mitel chip set. The audio down the line was pretty hot as Dennis had to turn it up to overcome bad signal to noise problems. Unfortunately, the receiver output stage was being driven into clipping with a consequence that not all the digits were decoding. After climbing the tower and backing the gain down below clipping (when viewed on a scope), the problem went away and decode for all digits came up. This was true for only some radios. So you might have some people who will still be able to activate the decoder and others will not. This is a function of the audio characteristics of the transmitted signal. But, in any case, backing down the audio below clipping solved the problem for all radios.

MK5103 WITH AMI S3525A  
MITEL TAPE (CM7291) TEST RESULTS  
Table 2

TEST #	RESULTS
2a, b	BW = 5.0% of fo
2c, d	BW = 5.1% of fo
2e, f	BW = 4.9% of fo
2g, h	BW = 5.2% of fo
2i, j	BW = 5.1% of fo
2k, l	BW = 5.0% of fo
2m, n	BW = 5.2% of fo
2o, p	BW = 5.1% of fo
3	160 decodes
4	Acceptable Amplitude Ratio = 19.1 dB
5	Dynamic Range = 32 dB
6	Guard Time = 32.5 ms
7	99.9% Successful Decode at S/N Ratio of 12 dB
8	1 Hit on Talk-Off Test

A printed circuit board will be available is there is enough interest. The board should cost in the range of \$20 to \$25.00. Contact me for details. I have shown the layout on the next page, but I think that this is for your own interest. I wouldn't take the chance at shooting this out of the magazine. The chance for aberation is too great. The board is double sided and hopefully will have plated through holes. The holes drilled are # 65 and may need to be enlarged if you use pots, for example, with larger diameter leads. The same is true for the 7805. I tried to make no through-the-board jumpers that would interfere with sockets if you don't use plated through holes. I would suggest that you use sockets for all except the LED and you can use that if you like. On mine, I bent the pins and set the Display on its side then ran jumpers to those pins in the air so that the LED would be visible when viewing the card from the edge.

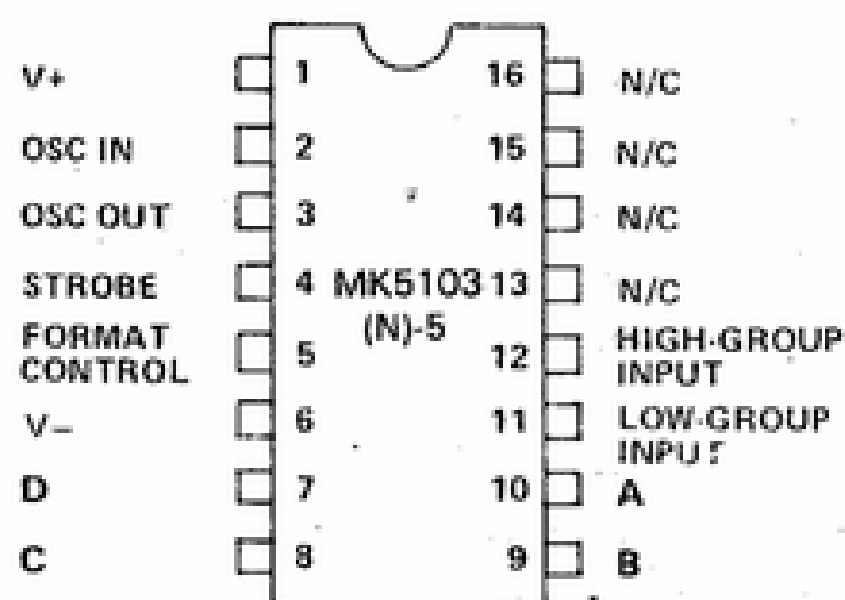
The card size is a standard that has apparently evolved in some of the magazines. I have

started to use it for a new series of cards that plug into racks. In the works are a hybrid phone patch card for a repeater controller, a Micor squelch and audio card (the size is just a little shorter though), and an audio card for a repeater (still on the drawing board). The size is convenient to work with and for double sided edge connectors, 44 pins is OK. There are some times that I need a couple of more, but for now, this is OK.

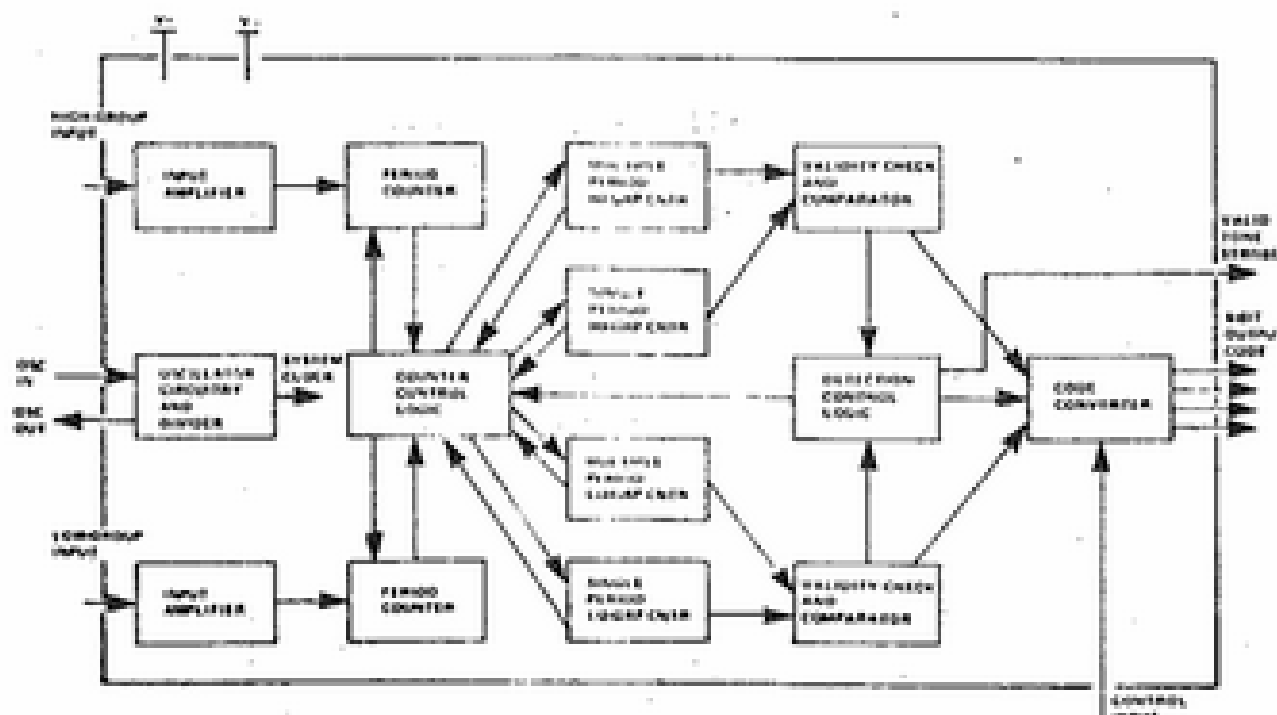
This design came to mind from an article in the January 1982 issue of QST. The decoder used the Mostek 5102/3, but the prefilter was an ITT hybrid. The cost of the prefilter alone was about \$60.00 for a two chip set. This was about the time that I first started studying the S3525A and I adapted that circuit to my new design and added the digit display. So the cost of the prefilter was brought down to less than \$17.00. The other bells and whistles are no extra charge.

The CD4514B and CD4515B are CMOS 4 Bit Latch/4-to-16 Line Decoders that take the BCD output and provide 1 of 16 outputs. The latches hold the last input data presented prior to the strobe transition from 1 to 0. The chip contains an inhibit control which allows all outputs to be placed at 0 (CD 4514B) or 1 (CD4515B) regardless of the state of the data or strobe inputs. The chip is a 24 pin dual-in-line. If you need an active high when activated, then use the CD 4514, if you need an active low, then use the CD 4515. When the inhibit is high (pin 23) as it would be when no digit is being sent, all outputs go low for the CD4514B and high for the CD4515B.

The pin connections for the MK5103 are shown below:



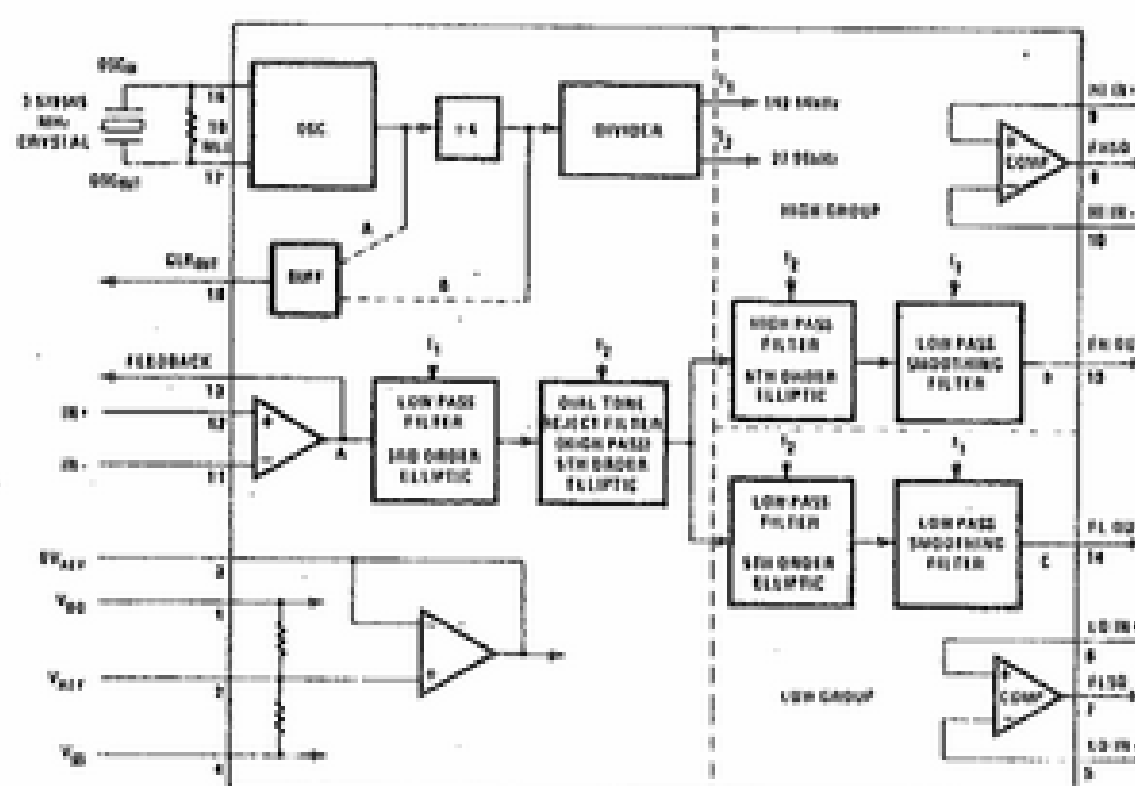
This view is from the top. Please note from the circuit that no crystal is necessary for the 5103 because it derives its clock frequency from the S3525A through a resistor and capacitor. Only one crystal is necessary. A block diagram for the decoder is:



Both the high and low input come immediately into input amplifiers. The signals are then immediately subject to period counters which count the zero crossings. The signal is subject to several multiple period countings and in addition, counts are made on subharmonic and period averaging is also accomplished. After performing all the validity checks, a determination is made as to whether or not a valid digit has been detected and the signal is outputted in the form of either BCD or row/column information.

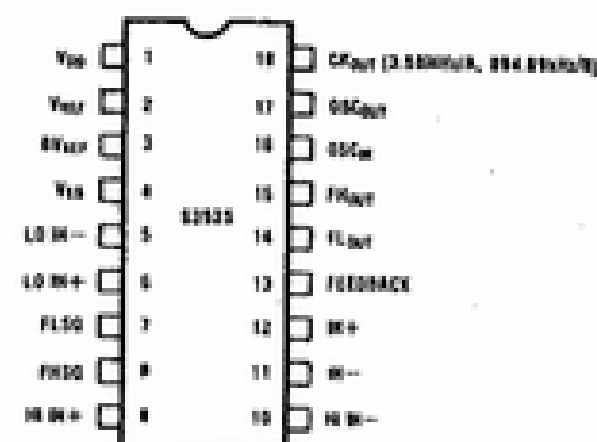
A Block Diagram for the S3525A is shown below:

Block Diagram



The crystal oscillator is shown in the upper left hand corner. The oscillator has a buffered output at pin 18 of the chip for certain chips. The incoming signal is subject to an input amplifier, then through a 3rd order elliptic low pass filter. The signal then goes through a Dial tone reject filter which is a 5th order elliptic and is then split for the high and low pass filters. After going through each high and low filter, the signal goes through a smoothing filter before each group is processed through the amps in the upper and lower right corners which amplify the signal to limiting. The ITT filters mentioned in the QST article did not have on chip amplifier limiters. The S3525A saves a couple of packages on the board by including them on the substrate.

The pin configuration for the S3525 is the following:



My printed circuit layout is shown on the next page. The board is a double sided board and the top picture is the bottom board and the bottom picture is the top side of the board. Sounds confusing, No? Anyway, I would not suggest that you try to shoot the board out of this book. I have intentionally chosen to use small lands so as to allow me to keep up the board density. The small groups of dots on the lower right side are the input potentiometers. The large dot near the lower left center is for the 7805. The S3525 follows right into the 5103 and then to the left for the buffers and 4514 or 4515. If you are interested in boards, give me a call at 321-5453 or 360-1302 and if we have enough interest, I'll have some made up commercially.

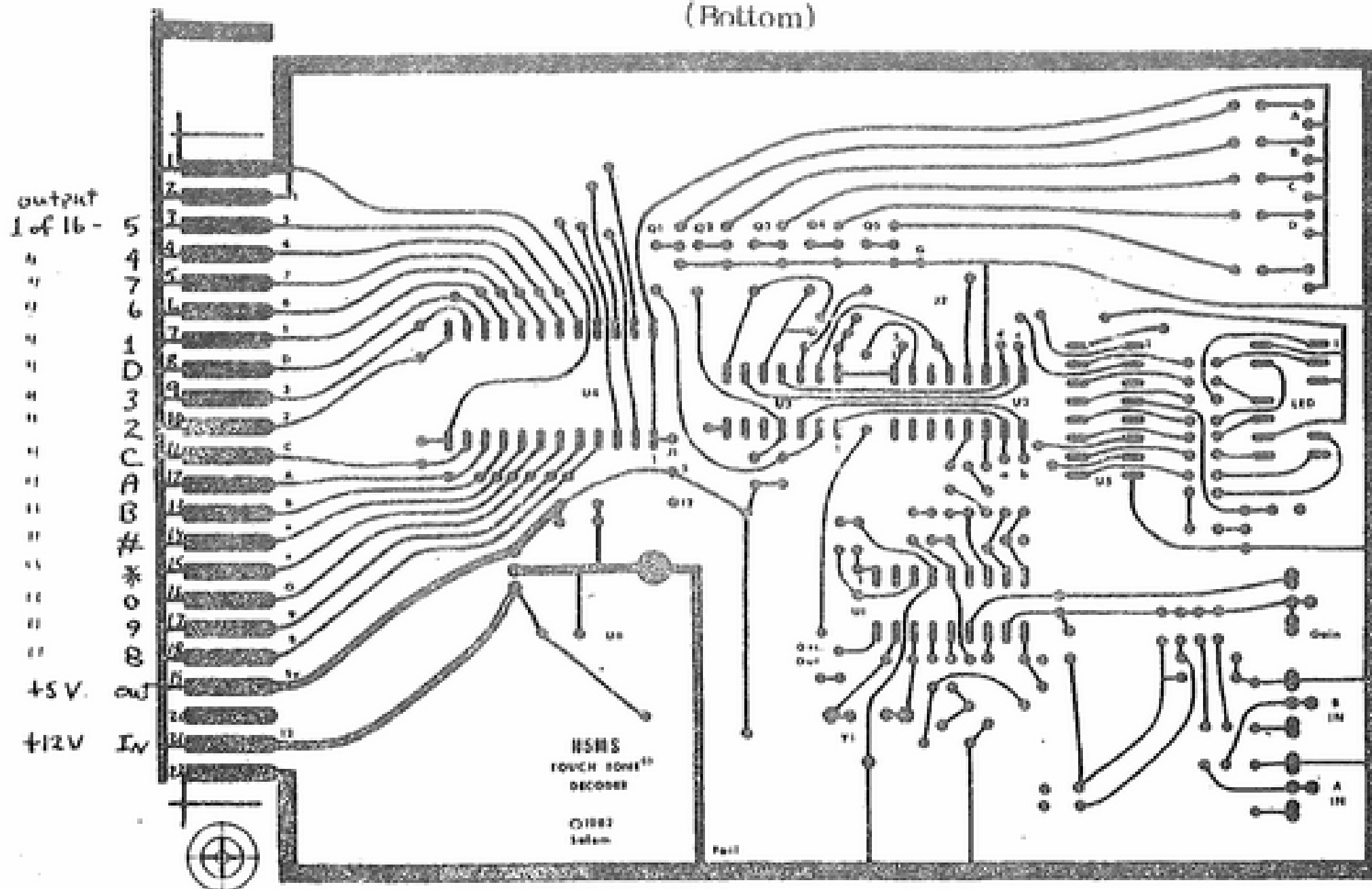
On the next page, if space and time permits, I hope to have a parts layout. If it is not there, then look for it next month.

Micheal Salem N5MS

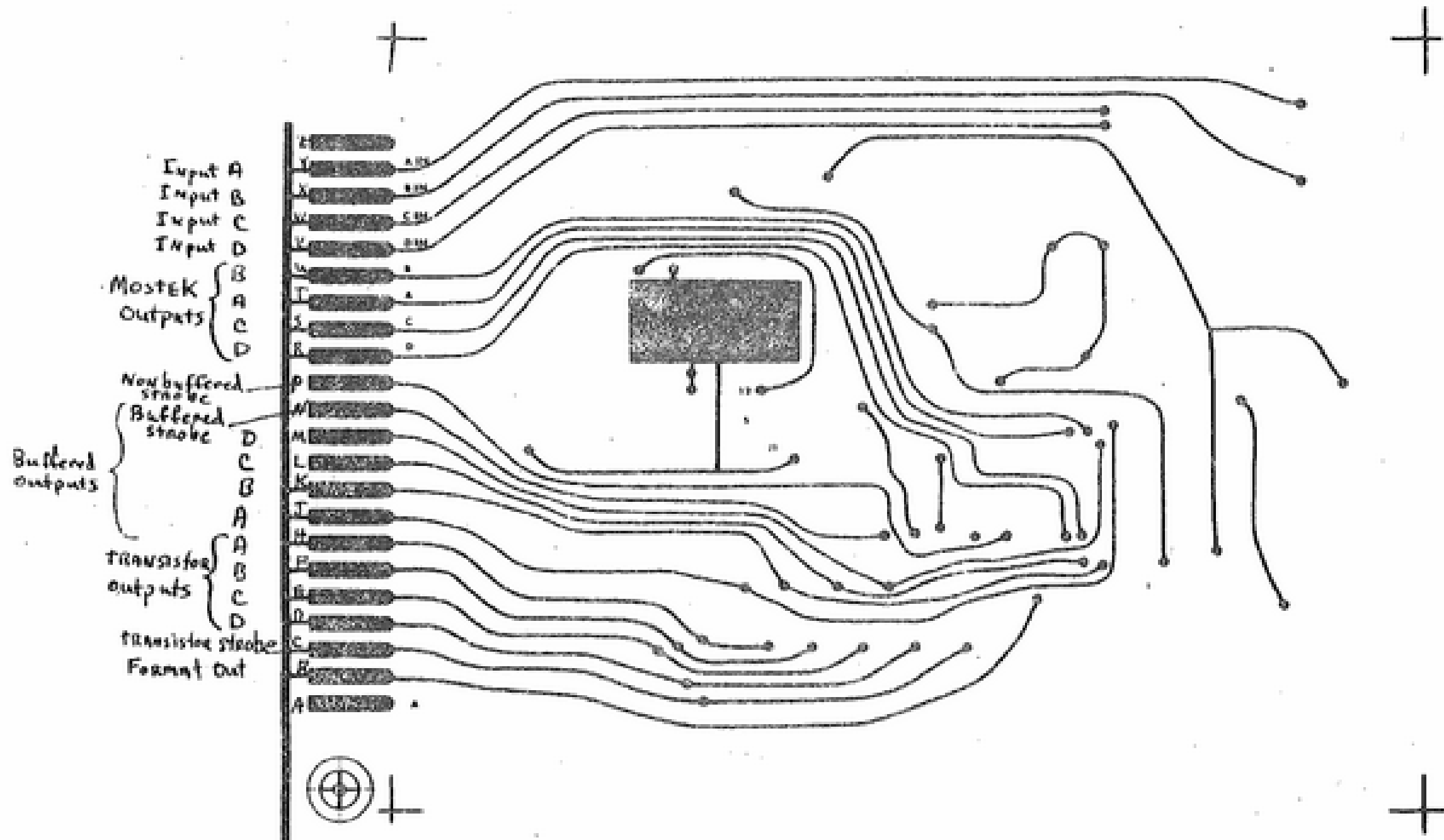


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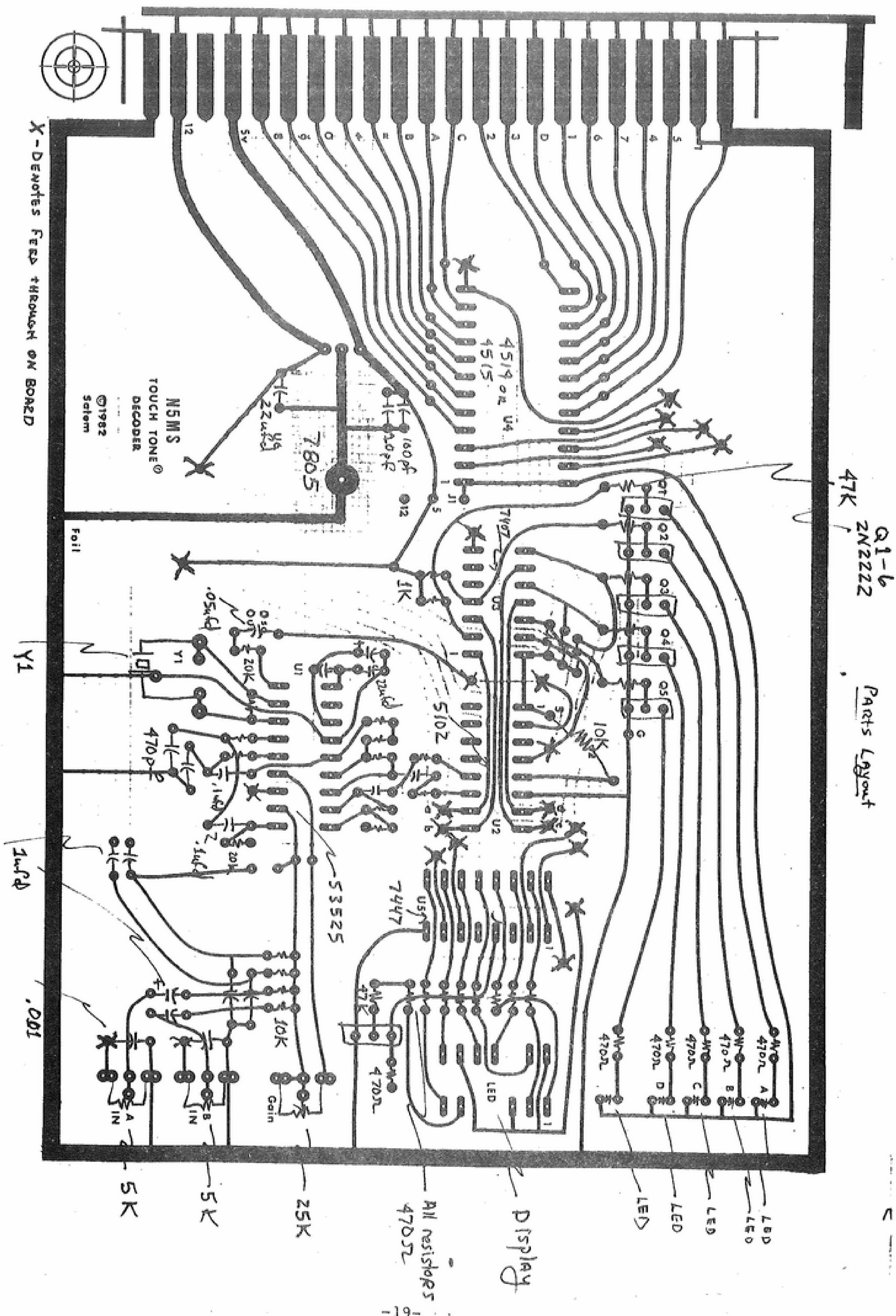
Foil Side of Board  
(Bottom)



Component Side of Board  
(Top)



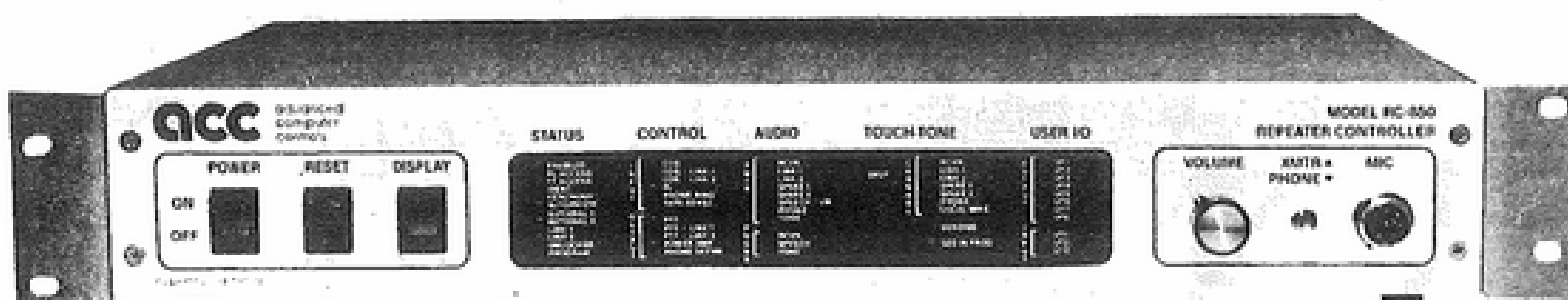






Edmond Amateur Radio Club  
P.O. Box 76262 / Okla. City, Ok. 73147

Editor: STAN VAN NORT WB5UIY



### THE NEW RC-850 REPEATER CONTROLLER

The new ACC RC-850 repeater controller has arrived and was placed on the about July 8. It immediately started talking with the utterance of "Charlie Sierra" and hasn't stopped since then. There has been a lot of talk about it on the entire 2 meter band and if you were on 147.03 the machine itself would be part of the conversation also.

The controller has been in a testing phase lately with Dennis, WB5ISN, trying to learn the machine's capability. There were thought to be some initial problems with it, but it was all human error. The controller just hasn't made a mistake yet and in its own voice will tell you so.

Most user functions are turned now: autopatch, autodial, emergency autodial, touch tone pad test, reverse patch (with call sign read-out), and UHF link function. Some items will be added later when additional sensor equipment and link radios are purchased. Other items will become functional when the newer voice synthesizer arrives in the next week or two. More on that latter.

If any club member hasn't been advised about the new access codes, contact Dennis, WB5ISN, Stan, WB5UIY, or Mark, WD5DYI. The club will shortly send out new ID cards with notes on the back side to help remember the functions.

The club was just notified (July 26) that ACC will be sending the new voice synthesizer soon and it will have an expanded vocabulary. It will then be able to make meeting announcements. Also included will be the time of day clock and the readout of the analog measurements. There also will be software changes to help improve the system security. The computer is really amazing overall and with each new update in software it will always improve the performance.

At the current time Dennis is the only control operator and only configuration command operator. Therefore if you need a call sign changed for your position or autodial number changed, contact Dennis. Also if you have any ideas for an announcement to be used on the air, let the same person know.

With the new repeater controller on the air the have been many comments, some good and some bad. There was even a repeater trustee from Tulsa who came down to hear the machine work. Seems this Tulsa club wants one too. With so much talk about it and over it we have included a few overheard comments, most of which were not on the air.

Dennis: "It's more intelligent than me!"

Bob: "It really does all those things."

Howard: "Well, has it paid its dues to talk on the repeater."

Male voice: "WD5AII, THE COMPLETE MACHINE."

Stan: "OH REALLY."

Larry D.: "Anybody want to buy my 2 meter walkie-talkie?"

Female voice: "GOOD MORNING"

Mike: "When it comes to the Turkey or the Controller, I'll put my money on the machine!"

Male Voice: "Whiskey Delta Five Alpha India India, Repeat, O K C."

Larry M.: "That is really neat."

Ron B.: "PHAAAAAAAAAAAAAAAAAAAAAAAAAT!"

Male voice: "Kilo Five Juliet Bravo Bang Crash"

Joe B.: "Same to you"

Male voice: "Mike 5 M S (Bugle fanfare)"

Jim S.: "Play that one again!"

Mark M.: "Wait a minute."

Annon. voice from Duncan: "It's a shame that dumb women gets on there and ruins a good machine."

Martin: "sigh"

Female voice: "Good Afternoon!"

Reuben: "Where are you."

Joe G.: "I'd like to met that sweet thing."

Leo: "I guess I should make a meeting sometime!"

Mike S.: "Dennis is messin' with it again."

Bill: "Well nobody told me anything."

Male voice: "Repeat Time Out!"

Howard: "Is this the LID net!"

Male & Female voice: "Repeat time-out cancel!"

Female voice: "Good Evening"

NEXT MEETING: THURSDAY, AUG. 5, 1982

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4-3



July 26 1982 - Oklahoma City OK - n5beq, jim  
OK, FOLKS, THIS IS IT ! THIS IS THE FOURTH  
(AND PROBABLY LAST) TIME. WE'RE GONNA TRY TO  
GET THESE SIRENS REPORTED TO THE CIVIL DEFENSE  
PEOPLE OR QUIT WITH EGG ON OUR FACES:

WB5PWZ	12	WATER TANK, S W 89 & LINN
K5UKP	14	JOHN ADAMS SCHOOL, S W 37 & GOFF
N5EPV/ N5ARV	21	SOUTHERN HILLS SCHOOL, 7700 S KY.
	23	RANCHO VILLAGE SCHOOL, 1401 S. JOHNSON
WA5RAQ	24	MCKINLEY SCHOOL, S W 53, SHARTEL
	25	3416 S ROBINSON
K5LDI	32	HATHAWAY PARK, S E 38 & LINDSAY
KH6JTE/ KH6JUM	34	BODINE SCHOOL, 5301 S BRYANT
	41	LYTHE PARK, N W 7 & GREEN VALE
K5AHU	42	CANADIAN RIVER, 2200 S PORTLAND
	43	JACKSON SCHOOL, S W 26 & VILLA
	45	WESTWOOD SCHOOL, 1810 SW 10
	52	WOODSON SCHOOL, 600 N HIGH
	53	CROOKED OAK, S E 15 & EASTERN
K5SJV	61	4529 N W 36
K5VRL	62	HARLOW PARK, N W 19 & HARLOW
K5AHU	63	3801 N W 10
WA5TAR	64	MADISON SCHOOL, N W 30 & INDEPEN
N5BWV	65	SEQUOYAH SCHOOL, 2400 N W -DENCE 36
N5ANG	71	1236 N W 36
	72	HAWTHORNE SCHOOL, 2300 N W 15
	73	WILSON SCHOOL, 2215 N WALKER
KD5AW	74	JIM THORPE BUILDING
	78	HICKS ADDITION, N E 23 & LIBERTY
KASHRH	81	SURREY HILLS ELEMENTARY SCHOOL
	91	LONGFELLOW, 1201 N E 28
N5CTT	93	BURBANK, N W 65 & INDEPENDENCE
WB5RUP	96	CORONADO HEIGHTS, 5911 N SAPULPA

I'M ASKING YOU TO FILL IN THE BLANKS WITH YOUR  
CALL AND REPORT WHAT YOU SEE AND HEAR ABOUT  
THESE SIRENS AT HIGH NOON LOCAL ON THE FIRST  
AND THIRD SATURDAYS EVERY MONTH. IF YOU WOULD  
RATHER REPORT ON A NEARBY FIRE STATION, THAT'S  
HUNKY-DORY - JUST COPY THE NUMBER OFF THE SIDE  
OF THE BUILDING AND RELAY IT TO THE NET ON .94!  
THIS WILL HELP REDUCE THE AMOUNT OF EGG ON OUR  
FACES (THE TOTAL GROUP OF AMATEURS WHO SAID  
THEY'D DO A JOB FOR CIVIL DEFENSE AND CAN'T  
SEEM TO FOLLOW THROUGH).

AT ANY RATE SEE YOU THERE, THEN !

n5beq, jim

AGE SAGE: HOW TO TELL WHEN YOU'RE GROWING  
OLDER or IS THERE REALLY LIFE AFTER 40 ? : When  
you regret all those mistakes resisting  
temptation..!

n5beq, jim

## THE AMATEURS Edgar A. Guest

There's something about them  
you've got to admire,  
They work for the love of the task,  
not for hire.

Every one of them's blessed  
with the heart of a boy!  
What's a job to the drudge  
unto them is a joy.

While we to our regular  
schedules are keeping,  
The amateurs do  
without eating or sleeping.

They worry their wives -  
since so short is a day,  
They don't get to bed when  
they should but they stay,

Sending calls on the air;  
catching calls from afar,  
And I think as I hear them  
how patient they are!

How much better we'd work here,  
if only we knew it,  
In that amateur spirit  
of wanting to do it!

Professionals weary sometimes  
and they shirk,  
Since they're paid to perform,  
they look on it as work!

They begin with reluctance;  
they're glad when it's done,  
And they measure in money  
whatever they do.

But the amateur never  
begrudges a minute,  
He goes to the job  
for the joy that is in it.

So here's to the amateurs;  
brave-hearted throng,  
Though short be their waves,  
may their lives all be long.

Make up for the nights  
when they go without sleep,  
And may we, in their spirit  
and deep understanding  
Of work and its joy,  
keep our amateur standing!  
\*\*\*\*\*  
An oldie and a goodie. Thanks to  
B-Varc Bulletin, you get to read it.  
\*\*\*\*\*

## THE WHITE HOUSE

WASHINGTON

Dear Mr. Meyers:

Hearty greetings to the members and friends  
of the Old Old Timers Club!

As a former member of the broadcast frater-  
nity, I appreciate the role of organizations  
like the O.O.T.C. Having played a part as  
pioneers in the vital communications field,  
you have experienced those first crucial  
steps that led to remarkable growth over the  
decades.

It is a pleasure to commend your contributions.  
I encourage your continued active interest in  
all aspects of communications.

With best wishes,

Sincerely,

*Ronald Reagan*

Mr. Ray E. Meyers  
President  
Old Old Timers Club  
717 Anderson Way  
San Gabriel, California 91776

# UPDATED REPEATER DIRECTORY

July 26 1982 - Oklahoma City OK

STATE REPEATERS

FREQUENCY INPUT-OUTPUT	LOCATION	AREA	CALL	FREQ: IN-OUT	LOCATION	AREA	CALL
52.68-52.525	OKC	Central	K5JL	147.72-147.12	Mooreland	NW	KA5CJG
144.51-145.11	Cleveland	NE	WB5MPU	147.75-147.15	Enid	NW	WR5ABW
144.61-145.21	Broken Arrow	NE	WA6HNO	75/15	Grove	NE	K5PJR
4.63- 5.23	Blackwell	N.Central	N5ANV	78/18	Seiling	NW	KA5CJG
75- 5.35	Stillwater	N.C.	WB5KQL	"	Tulsa	NE	WD5EVU
77- 5.37	Eufaula	E.Central	WB5OBY	81/21	OKC	Central	K5JL
83- 5.43	OKC	Central	KB5OB	84/24	El Reno	W.Central	KB5RJ
85- 5.45	Fairview	NW	K15P	"	Tahlequah	E.Central	WA6EAW
87- 5.47	Tulsa	NE	AB5M	87/27	Stillwater	N.C.	K5FVL
89- 5.49	Yukon	Central	WA5CZN	"	Tulsa	NE	WR5ASX
146.01-146.61	Beaver	NW	WR5ATW	90/30	Alva	NW	KB0HH
91/61	Calumet	Central	K5GDE	"	Concharti Mtn	NE	?
"	Hugo	SE	WB5TTU	93/33	Edmond	Central	K5PL
94/64	Cavanal Mtn	E.Central	WR5AII	"	Muskogee	E.Central	WA5VMS
"	Granite	SW	W5CHE	96/36	Big Cabin	NE	WA5ICW
97/67	OKC	Central	K5ELL	"	Byars	S.Central	WA5IQH
10/79	Ardmore	S.Central	W5RFX	"	Laverne	NW	WD5CSN
"	OKC	Central	WA5TSJ	99/39	Moore	S.Central	K3TGY
"	Tulsa	NE	K5LAD	"	Tulsa	NE	WB5NJU
13/73	Stillwater	N.Central	WB5KQL	222.28-223.88	Waurika	S.Central	WA6HGK
"	Clayton	SE	K5JE	2.30- 3.90	Tulsa	NE	WB5BET
"	Duncan	SE	?	2.34- 3.94	Grove	NE	K5PJR
"	Woodward	NW	W5HGH	"	Muskogee	E.Central	WB5AOH
16/76	Bartlesville	NE	?	2.46- 4.06	Pryor	NE	KC5FM
"	Elk City	W.Central	WB5FBU	2.50- 4.10	Bartlesville	NE	KB5QJ
"	OKC	Central	KC5CR	"	OKC	Central	N5BEQ
19/79	Altus	SW	WR5ANX	3.34- 4.94	Enid	NW	WR5ABW
"	Ardmore	S.Central	W5BLW	"	Tulsa	NE	K5LAD
"	Miami	NE	WR5AHX	437.25-425.25	Edmond	Central	W5LIL
22/82	OKC	Central	K5JL	439.25-421.25	Muskogee	E.Central	W5EJK
"	Tulsa	NE	WA5LVT	"	Grove	NE	K5PJR
25/85	Muskogee	E.Central	W5EJK	439.425-427.425	Tulsa	NE	WA5LVT
"	OKC	Central	WR5AVM	443.20-448.20	Tahlequah	E.Central	WA6EAW
28/88	Lawton	SW	WR5AJV	3.65- 8.65	Del City	Central	K6DBR
"	Norman	Central	N5MS	7.55- 2.55	OKC	Central	K5YGM
"	Tulsa	NE	WA5LVT	8.1 - 3.1	Muskogee	E.Central	WA5VMS
31/91	Shawnee	Central	W5TQZ	8.3 - 3.3	Cleveland	NE	WB5MPU
34/94	Durant	S.Central	?	8.85- 3.85	Enid	NW	WD5HUT
"	Enid	NW	WR5ABW	8.9 - 3.9	Edmond	Central	WD5FEI
"	OKC	Central	WA5YTI	9.1 - 4.1	Altus	SW	WR5ANX
"	Tulsa	NE	WA5LVT	"	OKC	Central	WA5TRS
37/97	Ardmore	S.Central	N5AO	"	Tulsa	NE	WA5LVT
"	Claremore	NE	N5TM	9.2 - 4.2	OKC	Central	WD5AII
"	Ponca City	N.Central	W5HZZ	"	Tulsa	NE	WA5BPS
.625-.025	Norman	Central	WA5RPP	9.3 - 4.3	OKC	Central	K5JL
.655-.055	Bartlesville	NE	?	"	Tulsa	NE	K5LAD
.985-.385	Pawhuska	NE	WB5DYR	9.4 - 4.4	Enid	NW	W5HTK
147.135-147.735	Edmond	Central	KC5GN	"	Muskogee	E.Central	WB5AOH
147.285-147.885	Ada	SE	WB5NBA	9.5 - 4.5	Calumet	Central	WA5FLT
147.60-147.00	Tulsa	NE	WA5YPT	9.6 - 4.6	Tulsa	NE	N5ANY
63/03	OKC	Central	WD5AII	9.7 - 4.7	OKC	Central	WD5FAM
66/06	Norman	Central	N5OU	"	Ponca City	N.Central	W5TXF
"	Pryor	NE	KC5FM	9.8 - 4.8	El Reno	Central	?
69/09	Choctaw	Central	K5EGQ	9.85- 4.85	Claremore	NE	N5TM
"	Oolaqah	NE	WA5LVT	9.9 - 4.9	Stillwater	N.Central	WB5YWO
72/12	Guthrie	Central	KA5E0S	9.975- 4.975	Moore	Central	K3TGY
"	Guymon	NW	KY5C				

A new experimental spacecraft known as UOSAT is currently scheduled for launch by NASA into a sun-synchronous, polar, earth orbit September 4th this year. UOSAT will be a secondary payload aboard a Delta 2310 also housing a solar mesosphere explorer.

Power derived from 4 solar panels and a battery charging system will supply a VHF ground command receiver, several beacon transmitters, an on-board RCA 1802 microprocessor system, telemetry, and SSTV transmission. The entire 1802 software for the computer control of spacecraft operations can be modified or replaced by the ground command receiver to accommodate changes in the mission profile and resolve possible software or hardware failures.

The general data beacon should be of interest to amateurs. Operating on 145.85 mhz, the 450 mw output on this beacon should be received by even the simplest ground station using a small fixed, crossed dipole. NBPM is the modulation mode and telemetry data will be transmitted in AFSK. The beacon may also be modulated by a limited repertoire of speech synthesized telemetry or SSTV images of the earth from space presented as a 256 x 256 pixel digital array having 16 possible digital grey levels.

Other beacons include the engineering data beacon operating on 435.025mhz at 450mw modulated by high speed experimental and engineering data using Bi-phase PSK. Propagation studies will be conducted using the phase reference HF beacons on 7.001mhz, 14.002mhz, 21.003mhz and 28.004mhz. Two microwave beacons on 2.4 ghz and 10.47 ghz will be used to study SHF propagation and evaluate the usefulness of these frequencies for future amateur satellites employing relatively simple and inexpensive ground stations.

From Arkansas Ragcgewater

Mike, N0ALJ

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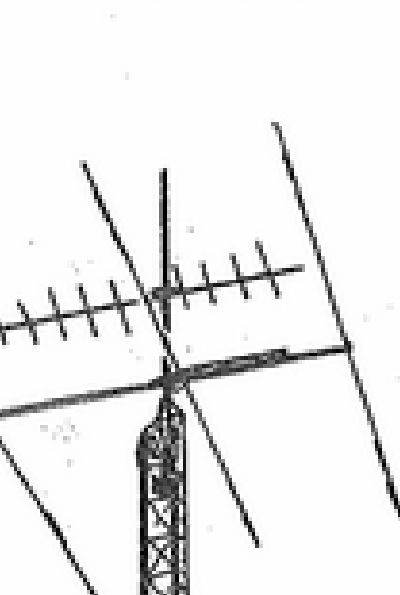
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H A M H A P P E N I N G S REFER TO CLUB SECTION FOR SCHEDULE						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3 GREAT PLAINS TRI-CITY	4	5 EDMOND CLUB MEETS	6	7
8 WHEATSTRAW	9 SEOARA  OK-DX ASSOC.	10 76'ers  SHAWNEE	11	12 ALTUS	13	14 S C A R S
15	16 A R E S	17 AUTOPATCH	18	19 K A Y	20 VHF - ACARC MORI Watermellon Feast	21
22	23 E D I T Collector & Emitter	24 CORA  SHAWNEE	25	26	27 Mail C&E (Call Joe at 737-1044 if you can help)	28
29	30	31	AUGUST			

★	BIRD	★	DRAKE	★	DENTRON	★	ICOM	★	YAESU	★	DAIWA	★	A E A	★
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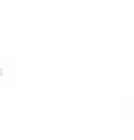


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SUNDAY .....	CLOSED
MONDAY .....	CLOSED

★	PANASONIC	★	M F J	★	ROHN	★	MORSEMATIC	★	ISPOLE	★	C E S	★
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