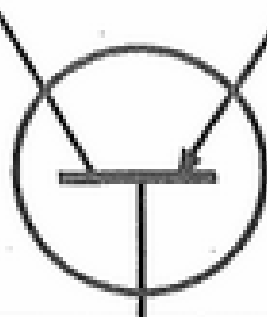


CENTRAL OKLAHOMA RADIO AMATEURS
COLLECTOR AND EMITTER



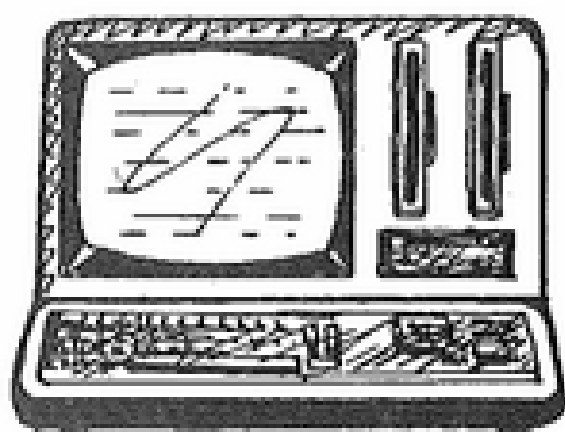
50¢

Volume 9

JUNE 1983

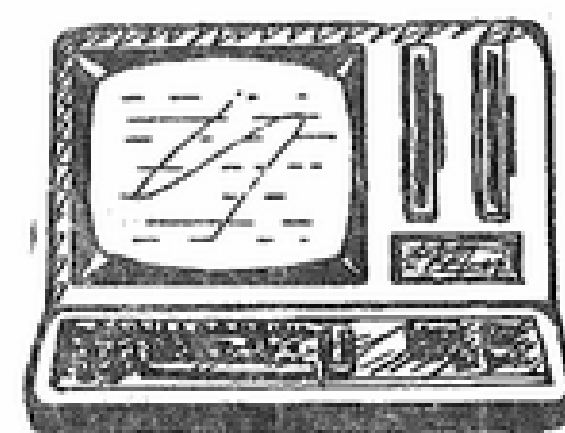
Number 101

HEY-- IT'S THAT TIME AGAIN



HAM HOLIDAY '83
ARRL STATE CONV.
COMPUTERFEST

JULY 29, 30, 31
Myriad Conv. Center



PRE-REGISTER NOW FOR H H
(Use Special Form Inside)



CORA COMMENTS

We want to invite everyone to make their final plans to attend "HAM HOLIDAY '83". Your team has spent many hours of time and effort to make this years ham radio gathering even better. You will want to start your Ham Holiday on Friday July 23 so you won't miss any of the fun.

Friday evening at 5:00 pm the registration table will be open so you can get your registration packet. This will let you have your badge already in place on your shirt so when the flea market opens on Saturday morning you can be first in line for the early goodies. About 7:00 Friday we will have a couple of fun things. The QLF contest will be back, for those that have not tried it before, you should. It is simply a "left footed CW sending contest". Chuck, K5NK will be the official judge again this year, for those of us who can't even send code with a computer a few nice wrds to the judge before the contest, with maybe a cup of coffee and a piece of apple pie, might not hurt. After they get started beating the soles of their feet on the key we will start the QRM contest. Bring your hand-held radio, a fresh battery, and see how many contacts you can make. With all of the RF energy radiated in the room some contacts are rather hard to confirm. The winner will be allowed to help the QLF judge eat the extra apple pie.

The only people up Saturday morning will be those of you that checked the little box on your preregistration indicating that you wanted a flea market table. You folks will be allowed to bring your "junque" in and set it up on your table promptly at 7:00 am. You will be required to have your badge before you set up. At exactly 9:00 the doors of the flea

market area and the first of a complete day of both technical programs, special interest meetings and a compliment of ladies programs will begin. On the registration desk will be a complete program listing of times and a brief highlight of the substance of the program for your convenience. We have tried to present a well rounded forum of topics. There will be several that will catch your interest, we hope.

The Saturday night buffet and dance will be a little different this year. It is an improvement. Instead of having it at the Myriad, competing with the Mexican band, dancing on a cement floor and listening to taped music we are going to move a few blocks East and have it at the Quality Inn. We will have a buffet type dinner, a few awards, a very, very short speech and several door prizes in nice plush surroundings. After dinner we will move right out of our napkins and into our dancing shoes for several hours of well deserved fun. There will be a live band, a good dance floor and refreshments for everyone's taste.

Sunday morning we can sleep in a little, but you will not want to miss the two forums scheduled. At 9:30 the FCC will conduct a forum--that means there will be a question and answer period where we can ask the people in charge why some things are happening in the way they are. Then at 10:30 the ARRL forum will begin. Sounds like a lot of fun so keep your notes from the first one and compare them with the second. At 1:00 pm it will be time to award all of the prizes. Last year, after the receipts were counted, we were able to award duplicate Grand and Preregistration prizes. We may not be able to do that this year but there will be a bunch anyway.

Come to the Myriad July 29, 30, 31 and share the fun with us. You are why we do it. See you there.

Ted, WD5JNT



EXTENDED WEAR SOFT CONTACT LENSES

that you can SLEEP in !

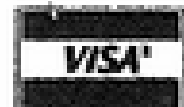
Get a **FREE** Computer Analysis !

Find out if *you* can wear soft contact lenses.

If the signs are right, we'll place soft contact lenses on your eyes and make a further evaluation. Bring your written prescription if you wish. Patient normally gets lenses **IMMEDIATELY!**

Dr. Robert Goodhead
Optometrist, Inc.
2821 N.W. 57th St.

840-1234

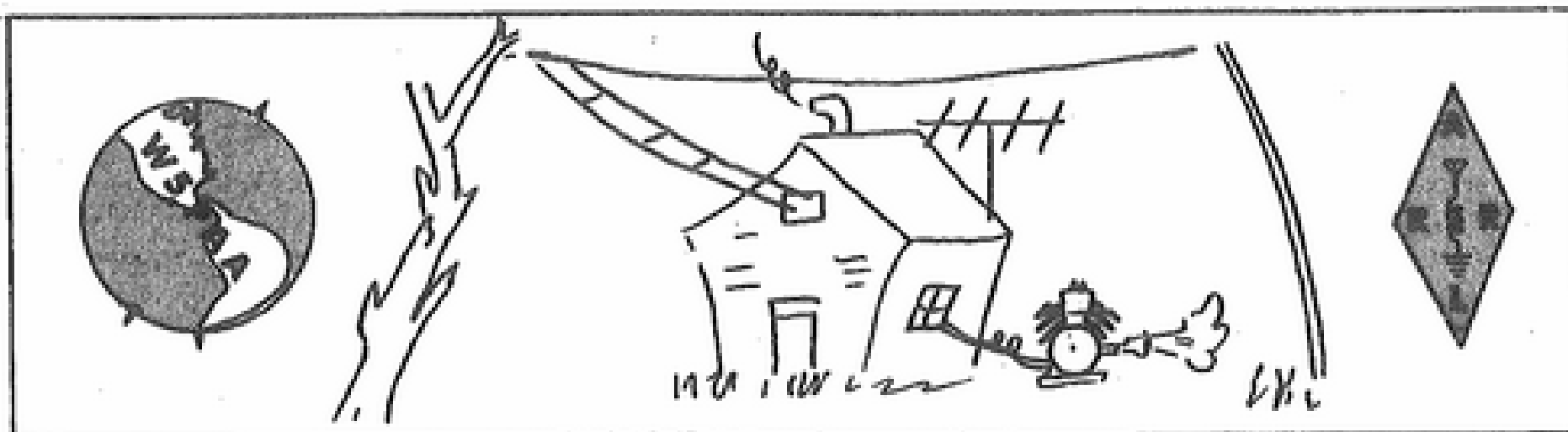


Ask Doc, WA5CZN, about his fantastic contacts!

THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

<p>1 AERONAUTICAL CENTER ARC MEETS: 8:00pm First Friday. Flight Standards Bldg., FAA, S. Macarthur</p> <p>PR K5LDI Tom Mangham 677-5291 VP AF5X Jess McKenzie 329-1543 SE KA5JCX John Mooney 794-8519 TR K5RJR Larry Norheis 798-9629 EDITOR: John Mooney, KA5JCX 794-8519</p>	<p>2 OKLAHOMA CENTRAL VHF CLUB MEETS: 10:00am Third Saturday. Red Cross. 10th & Hudson(Back door) Okla City.</p> <p>PR WA5HTL Paul Asplin 787-4286 VP KD5IS Jerry Wetmore 524-5080 SE K5JB Joe Buswell 732-0676 TR W5KE Ellard Foster 789-6702 EDITOR: Joe Buswell, K5JB 732-0676</p>
<p>3 MID-OKLAHOMA REPEATOR, Inc. MEETS: 8:00pm First Tuesday. Okla City EOC. 4600 N Eastern</p> <p>PR N5EPV Bob Allen Unlisted VP KD5DL Holly Stewart SE KA5CXW Fred Taylor 528-1537 TR W5KOZ Sid Gerber 737-1050 EDITOR: Susie Atkinson, KA5FED 842-8014</p>	<p>4 OKLAHOMA CITY AUTOPATCH ASSOCIATION MEETS: 7:30pm Third Tuesday. Okla City Fire Training Center. 800 N Portland</p> <p>PR N5IH Henry Israel 722-3848 VP K2GKK D. C. Macdonald 672-4947 SE WB5NDO Kathy Whited 799-1427 TR K5GL Guy Liebmann 787-9545 EDITOR: "Mac" Macdonald, K2GKK 672-4947</p>
<p>5 OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB MEETS: 7:00pm Second Tuesday(Sep-May) 119 Wilson Center. 1334 S Jenkins</p> <p>PR KA5BAY Luke Noah 325-1775 VP</p> <p>S/T KA5LZN Greg Smith 325-3218 EDITOR: Greg Smith, KA5LZN 325-3218</p>	<p>6 ALTUS AREA AMATEUR RADIO ASSOCIATION MEETS: 7:30pm Second Thursday North Main Fire Station (CD) Altus</p> <p>PR KA5MPK Gary Alexander 482-0857 VP</p> <p>S/T KA6RTX Bill Flattery 482-1155 EDITOR: Bill Flattery, KA6RTX 482-1155</p>
<p>7 BICENTENNIAL (76ers) ARC MEETS: 7:00pm Second Tuesday. OG&E Bldg. SE 3rd & E. K. Gaylord Blvd.</p> <p>PR N5BFD Jim Hopkins 947-0043 VP WD5JNT Ted Vanlaningham 262-1675 SE N5AUH Jerry Sproul 354-2061 TR WA9AFM Tom Webb 737-6716 EDITOR: Bruce Goff, KC5CR 751-7192</p>	<p>8 WHEATSTRAW AMATEUR RADIO CLUB MEETS: 2:30pm Second Sunday. Location varies. See club section.</p> <p>PR KA5FUU Tom Johnson(El Reno) 262-5631 VP KA5DUO Leo Peil (Canton) 886-2996</p> <p>S/T WA5PFK Ralph Wilder(Watonga)623-4521 EDITOR: George Maschino, K5GGL 263-7614</p>
<p>12 SHAWNEE AMATEUR RADIO CLUB MEETS: 8:00pm Second & Fourth Tuesday Shawnee City Hall (EOC)</p> <p>PR KD5NX Jay Tingler 273-3033 VP N5CGZ David Stanley 273-4226</p> <p>S/T W5TQZ Herbert Holton 598-5984 EDITOR: Earl Couch, WB5ZBA 589-3212</p>	

<p>13 KAY COUNTY AMATEUR RADIO CLUB MEETS: 7:00pm Third Thursday Ponca City EOC</p> <p>PR WB5YRN Delbert Foiles 762-4479 VP WA5UBO Marsh Pronneke 363-2526</p> <p>S/T KA5PUB Glenn Bishop, Jr. EDITOR: Tony Congram, WD5EAA 405-363-2217</p>	<p>14 CIMMARON AMATEUR RADIO ASSOCIATION MEETS: 7:00pm Second and Fourth Mondays. Place varies. See club section.</p> <p>PR KI5P Major Bailey 227-2061 VP WB5ECM Dennis Painton 764-3599</p> <p>S/T N5FMH Nadine Painton 764-3599 EDITOR: Jack Day, N5FMQ</p>
<p>15 SOUTH CANADIAN AMATEUR RADIO SOCIETY MEETS: 9:30am Second Saturday. Red Cross Bldg., North OU Campus. Norman</p> <p>PR K5KDR Bill Oliver 329-6333 VP KA5MIZ Bob Rabin 360-6996 SE KA5EFJ Ken Neptune 321-7789 TR WD5GTC Gene Johnson 321-6759 EDITOR: Sam Barrett, WA5RPP 321-2601</p>	<p>16 EDMOND AMATEUR RADIO CLUB MEETS: 7:00pm First Thursday. See club section for location and type.</p> <p>PR WD5DYI Mark Northcutt 755-4672 VP WB5MLX Glen Cochran 942-7148</p> <p>S/T WB5UIY Stan Van Nort Unlisted EDITOR: Stan Van Nort, WB5UIY</p>
<p>18 GREAT PLAINS AMATEUR RADIO CLUB MEETS: 7:30pm First Tuesday Civil Defense room, Woodward courthouse.</p> <p>PR WB0PGD Ron Tice 994-2138 VP KOCIO Larry Ellis (316) 582-2889 SE WB0QGW Carla Tice 994-2138 TR NC5C Gerry Ford 256-5382 EDITOR: Carla Tice, WB0QGW 994-2138</p>	<p>19 SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN. MEETS: 7:30pm Second Monday. Location varies, contact a club officer.</p> <p>PR WB5TTU Ron Henson 326-5418 VP WB5ULI George Weldon 326-5672</p> <p>S/T WD5FUE Orville Kaley 326-3650 EDITOR: Ron Henson, WB5TTU 326-5418</p>
<p>20 ARDMORE AMATEUR RADIO CLUB MEETS: 8:00pm First Wed. Red Cross Bldg. Informal, 8:00pm other Weds. 221 9th NW</p> <p>PR W5HJ Tom Banks 226-3356 VP WB5VBK Fred Innis 223-1709 SE WA5YOM Tim Vandagriff 223-3582 TR W5BLW Charles Dibrell 226-0589 EDITOR: John Merlyn, WD5FZD 223-9543</p>	<p>CENTRAL OKLAHOMA RADIO AMATEURS, Inc. MEETS: 7:30pm Fourth Tuesday. OKC Fire Training Center. 800 N Portland</p> <p>PR WD5JNT Ted Vanlaningham 262-1675 VP K2GKK D. C. Macdonald 672-4947 SE N5BEQ Jim Buswell 236-0368 TR K5GGL George Maschino 263-7614</p>
<p>CORA Collector & Emitter (USPS 116-150) is published monthly by CORA Inc., 1020 Arthur Dr, Midwest City OK 73110. SECOND CLASS postage paid at Oklahoma City OK SUBSCRIPTION: CORA members \$3 others \$6 yr.</p> <p>POSTMASTER: Send Form 3579 to: CORA C&E, P.O. Box 15013, Del City OK 73155</p>	<p>MANAGING EDITOR: Joe Harding, WA5ZNF, 737-1044</p> <p>CIRCULATION MANAGER: Bob Graham, WB5NSV, 677-8685</p>



AREC NEWS LETTER

PUBLISHED BY: AERONAUTICAL CENTER AMATEUR RADIO CLUB

THE BIRTH OF A CLUB

The Aeronautical Center Amateur Radio Club was born before there was an Aeronautical Center! You see, before the Center was established mid-1946, The CAA Signals Training Center, at Ft. Worth, TX, had three dedicated Radio Amateurs on its staff. These were Claude E. Gardner, W5AGM, its Chief, Carl C. Drumeller, W0EHC, a Radio Engineer, and John H. Ott, W5HEV, a Technician. As soon as the High Frequency amateur bands were opened, these three put a Collins TDO (a powerful autotune Navy xmtr) on the air, operating as W0EHC/5. When the Signals Training Center, along with five other organizations, was moved to OKC, these amateurs lost no time in getting that TDO back on the air. It was in Building 10, on Denning St., and was equipped with a tall and long random-length antenna plus an excellent buried-wire ground system.

The Employees Ass'n. was being organized and special-interest sub-groups were invited to affiliate. As the Club had already started a formal organization, chiefly for the purpose of obtaining a station license, it became the first sub-group to join the Association.

From a mere handful, membership grew. Students attending what now is the Academy joined, and later an Associate Membership was established for non-employees. (This was necessitated by government regulations requiring that officers be employees.)

When the Club was organized, it had two officers: President and Secretary-Treasurer. These were elected for life or leaving the Center. W5AGM was president for many years and was elected President Emeritus later. W5EHC (later W5JJ) was Sec'y-Treas. until he retired. Later, periods of office were changed to annual increments.

The Club was very active in Emergency Communications, especially during the time when W5AGM was Oklahoma SEC. It staged many mock disasters, worked closely with the Air National Guard. Too, it staged a number of technical symposiums attended state-wide.

The Club sponsored many training classes. In addition, it always has tried to present programs of meaningful technical value as well as interest.

The social aspect was not neglected. The Club's Christmas parties were noted for their joviality. Even top brass from the "Front Office" used to slip over to Building 10 to join in the festivities.



CLUB "BEGINNERS" - L to R, Carl Drumeller now W5JJ, Nihle Frank, John Ott, W5HEV, Eugene Crippen & Claude Gardner, W5AGM 1946
4 CORA Collector & Emitter JUNE 1983

As time went by, W5PAA got new equipment. The TDO always had company. A huge THH boasting four UV-303As in push-pull parallel modulated by four UV-838s in push-pull parallel kept company with two VHF transmitters. These all were replaced by a Collins KWS-1 and Collins 75-A4 when the station was moved to the H & I Building.

Club equipment kept well up with the times. There was a Collins 75S-1+32S-1 combo, the Drake Twins, a Signal One, a Kenwood in the HF range. In the VHF range there have been numerous transmitters, receivers, and transceivers. Each was connected to a rather good antenna.

The publishing field is one in which the Club has shone. It published a booklet on Radiotelegraphic Operating Procedure that sold nation-wide. But papers were the main thrust. There was Short Skip and AREC NEWS LETTER. Topping all is the Collector & Emitter. (Incidentally, both Collector & Emitter and the operating booklet are copyrighted by the Club.)

The title, Collector & Emitter, was selected by a nation-wide contest. The wings were taken from the old CAA insignia, and the transistor insert from some forgotten member.

The C&E always has had a wide circulation, among students who'd returned to their homes and among exchange magazines over the world. At one time it undoubtedly was the most widely quoted club paper published anywhere.

It's probable that the ACARC is the oldest continuously-active radio club in the state. There are one's that are older but have lapsed and been revived.

The Club has been awarded many honors. It's message handling during the Alaskan earthquake (over 3000 official messages) won it national recognition and awards. Other activities have been given suitable recognition, too.

At one time the Club was 100% ARRL but has been permitted to slip from that desirable position. Never, though, has it ever been other than an active supporter of the aims and policies of the League.

Blessed with good leadership and an active membership, the Club has had a long and useful career. May it live and prosper many more years!

W5JJ

By now you may have noticed that the regular Aeronautical Center logo is different. We thought it would be fun to substitute a 1946 version. Joe, WA5ZNF

THE FOLLOWING IS COPIED FROM THE 1983-84 ARRL REPEATER DIRECTORY

- 1) Monitor the repeater to become familiar with any peculiarities in its operation.
- 2) To initiate a contact simply indicate that you are on frequency. Various geographical areas have different practices on making yourself heard, but, generally, "This is W5PAA monitoring" will suffice. One practice that is looked upon with disfavor almost universally is calling a long CQ on a repeater.
- 3) Identify legally! you must identify at the end of a transmission or series of transmissions and at least once each

10 minutes during the communication.

4) Pause between transmissions. This allows other hams to use the repeater (someone may have an emergency). On most repeaters a pause is necessary to reset the timer.

5) Keep transmissions short and thoughtful. Your monologue may prevent someone with an emergency from using the repeater. If your monologue is long enough, you may time out the repeater. Your transmissions are being heard by many listeners including non-hams with "public service band" monitors; don't give a bad impression of our service.

6) Use simplex whenever possible. If you can complete your QSO on a direct frequency, there is no need to tie up the repeater and prevent others from using it.

7) Use the minimum amount of power necessary to maintain communications. This FCC regulation minimizes the possibility of accessing distant repeaters on the same frequency.

8) Don't break into a contact unless you have something to add. Interrupting is no more polite on the air than it is in person.

9) Repeaters are intended primarily to facilitate mobile operation. During the commuter rush hours, base stations should relinquish the repeater to mobile stations; some repeater groups have rules that specifically address this practice.

10) Many repeaters are equipped with autopatch facilities which, when properly accessed, connect the repeater to the telephone system to provide a public service. The FCC forbids using an autopatch for anything that could be construed as business communications. Nor should an autopatch be used to avoid a toll call. Do not use an autopatch where regular telephone service is available. Abuses of autopatch privileges may lead to their loss.

11) All repeaters are assembled and maintained at considerable expense and inconvenience. Usually an individual or a group is responsible, and those who are regular users of a repeater should support the efforts of keeping the repeater on the air.

FOR SALE: TS-120, PS30, WM-3000, DENTRON
SUPER TUNER 1KW, HUSTLER MOBILE ANT.
W/10, 20, 40, 75; HY-GAIN 18ATV; \$700.00 OR
MAKE OFFER CALL BILL KB5BS 1-872-8683

MAY MINUTES

ACARC

The May meeting of the ACARC was called to order by Tom, K5LDI at 8:00 PM on Friday, May 6, 1983. Introductions were held and Charlie, WA5JGU said he was "WA5JGU Model 3" whatever that means.

Don, K5SJV gave the CORA report and all is moving along well for Ham Holiday 1983. Everyone needs to get in their preregistration.

Tom, K5LDI announced the need for a new CORA representative. There was such a rush of people for the job that he had to fight them off with a stick. But he twisted Charlie's, WA5JGU arm and he got it in the end.

Tom, K5LDI put on a program about charging NICAD batteries. It was a very good program and generated a good amount of discussion.

At 9:20 PM the meeting was adjourned for coffee and goodies.

John KA5JCX

Secretary ACARC

FOR SALE: FAST SCAN TV TRANSMITTER
W/JAVELIN MC-930 CAMERA; UHF TUNER MODUL
FOR RECEPTION (NEEDS PS); \$75.00 CALL BILL
1-872-8683

FOR SALE: HEATKIT DEVEATION METER \$100.00
2 EIMAC 4-400 NEW \$50.00; CALL BILL
1-872-8683

WHAT IS TAKHOMA ENTERPRISES, INC.



- Delivery Service
- Photographic Service
- Mailing Label Service
- Finished Ceramic Goods
- Custom Made Machined Parts
- Custom Computer Programming

■ SERVICE

President
Tom Childers, N5GE

(405) 631-0169
(405) 848-PAGE



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

Editor: STAN VAN NORT WB5UIY

ABOUT THE CLUB

The Edmond Amateur Radio Club was founded in 1975, and Incorporated soon afterward by Larry Dillard, WB5CMB, Bart Wortham, N5BW, Larry Marks, WB5DUC, and Dennis Orcutt, WB5ISN, to promote and enhance amateur radio communications.

As part of the Club's ByLaws, a membership maximum ceiling is maintained. Currently, the membership ceiling is 40 members. There are various reasons for the membership ceiling, the primary being to control the Club's ability to maintain a progressive attitude and to also provide state-of-the-art systems for the use of its members with a minimum of red tape.

EARC maintains the 147.63/.03 repeater on two meters and a UHF repeater on 444.2 MHz. The Club is also coordinated by the Oklahoma Repeater Society for another two-meter repeater on 147.93/.33. The machine is not on the air at the present time.

The 63/03 repeater is controlled by an Advanced Computer Controls RC-850 Computer Controller, one of the most advanced control systems available. The controller is configurable on-site, making it very flexible and secure. Firmware updates from the manufacturer offer many new features on a fairly regular basis.

Both of the Club's repeaters are located on the television tower of KOCO-TV Channel 5 in Oklahoma City. They each receive at 1400 feet and transmit at just under 1000 feet. The UHF repeater's receiver and transmitter are both tower-mounted, with control circuitry on the ground. The 63/03 receiver is tower mounted, with the controller and transmitter on the ground. All antennas are Decibel Products, and transmitters and receivers by Motorola and GE.

FIRMWARE UPDATE -- MAILBOX AND PAGING NEW

The '03 repeater's controller has been outfitted with the latest firmware and hardware. A Memory Expansion Board has been installed to double our memory on E-squared PROM. This enables much more capacity in the areas of callsign locations for reverse autopatch, more ID's, mailbox messages, and many more functions.

Control functions have been increased, allowing a more flexible set-up of all states. The firmware update includes a scheduler, which memorizes set-up states for all functions according to times of the day AND days of the week! By doing this, the controller can automatically switch into different functions.

The Mailbox function allows ten pre-programmed messages to be tagged to any members callsign. The canned messages are sent to a member from another member, or from "home" or "the XYL". An example of the mailbox is as follows: "WB5ISN from the XYL... All is OK at home.....see you tonight." Another message could be "N5MS from WB5UIY...call me." The mailbox may be interrogated for messages, plus a tail message "messages" is tagged to each four squelch tails to announce "mail" in the mailbox. If the 'box is empty, the controller responds with "M-TY". Clever people, these Californians!

A two-tone paging signal may be programmed by the members. It is now feasible for a club member to wear a pocket pager and be notified in that manner if there is a call for him on the repeater. A member may want to be accessible for a call, but may not want to listen to all the chit-chat. This new bit of programming genius allows members even more flexibility.

Beacon-type identification is now possible with the new firmware. The repeater's ID may be programmed for a recurring ID during periods of repeater inactivity. This function is in addition to the three initial IDs, the anxious ID, the forced CW ID, the special ID, or the seven pending ID's. Each of these may either be voice or CW, and all are configurable in one of four access methods.

The controller's firmware has a few bugs in this new update, and plans are underway to debug and ship new PROMS from the factory. The people at ACC have been very understanding and fantastic with customer relations. There have been no major hardware problems, and the unit works beautifully.

NEW CONTROLLER FOR UHF

The May meeting of the EARC accomplished quite a bit. One of the developments is the construction of a new microprocessor controller designed and to be built by Martin Vinson, WD5FEI. One of the major features of the controller will be a remote base to two meters, with an ICOM IC-22U as the two-meter rig. This controller should interface to the existing UHF repeater soon.

YOUR RIGHT TO VOTE

When EARC purchased the ACC RC-850 Controller, there was much communication with the factory. Ed Ingber, WA6AXX, designer of the controller and main-man, was very receptive to our suggestions. Many firmware changes were as a result of suggestions from his customers. One of our suggestions by Mike Salem, N5MS, Dennis, and others was to design a receiver voter system to interface to the RC-850.

Lo and behold, Ed announced his intentions to market an intelligent voter system at this year's Dayton Hamvention. The EARC delegation grilled Ed on his intentions and are firmly convinced that the voter system will be another winner.

The Edmond Amateur Radio Club voted at the last meeting to place a down payment on the IVS-6/12 Intelligent Voting System. The club may receive the prototype for evaluation sometime this fall.

A voting system allows multiple receivers for the same repeater. The receivers are either hard-wired to the voter or linked by radio to the voter. The system then selects the best signal of all receivers polled.

The ACC Voter preliminary information indicates capabilities to vote either 6 or 12 receivers. It uses continuous voting, based on peak/valley detect and proprietary signal quality evaluation. The unit has an auto-equalize mode, with remotely-adjustable equalization and level on each channel. The voter can tailor courtesy tones to each receiver for instant recognition. The unit boasts fast switching and lock-on to touch-tone signalling. The voter will not switch receivers during dialing or user commands.

The Club purchased two VHF receivers and a UHF control receiver at Dayton. These units will be implemented with the voter system and control unit when available.

ABOUT OUR MEMBERS

Bill Moore, K5HTF, passed his Extra Class Examination at the Dayton Hamvention. Congrats, Bill!

Mark Northcutt, WD5DYI, has been appointed Emergency Coordinator for the City of the Village, by Frank McCollum, N5FM, District Emergency Coordinator.

Art Roberts, W1GOM and Section Manager for Oklahoma with the ARRL, will be moving to a new house in the Piedmont area soon. Get your tower site ready, Art!

Martin Vinson, WD5FEI is now the proud owner of a condominium in Edmond. Now he has a place for all his musical instruments and radio gear!

Ed Murar, W5OYW, announced his retirement from the phone company this fall to become a full-time ham.

Jack Perry, N5DWT, has become the victim of a top-secret experiment conducted by the government to disable certain members of the population with inner ear problems and terribly bad colds. Hope you feel better soon, Jack. He just hasn't been the same since Dayton.

REVIEW OF LAST MEETING

A business meeting was held on May 5, at EOC. There were 12 members present and they voted to spend a lot of money this time. After the usual minutes and treasury report, the Dayton delegation discussed the trip. Three motions passed to: 1. Down payment on an A.C.C. voter system; 2. Purchase a standard card rack and power supply, purchased by Mike Salem at Dayton; and 3. Purchase three GE receivers that Dennis Orcutt had already bought at Dayton.

Other business included Bob Shaw donating a home built bird house to house an outside temperature sensor for the A.C.C. controller. Art Roberts was working on plans for 63/03 to carry the June 2 tele-

Continued on next page

CIMARRON A.R.A.

EDITOR: Jack Day, N5FMQ

I am sure that everyone in CARA may be thoroughly confused by now but it is official as of the May ninth meeting, that the summer meeting schedule of CARA will be ONE night per month. That night is the fourth Monday of each month at 7:30 DST. The meeting of June 20th will be held in the hobby room of Mr. and Mrs. Fred Simpson to arrange the Field Day last minute preparations, but thereafter the meeting will convene on the fourth Monday night. Fred and Ruth, N5FOU and N5FUR respectively will host the next regular meeting also.

CARA's second novice class was begun May 9th. the scheduled club meeting was shortened to welcome the class of nine eager unsuspecting novices into the world of CW. After the usual hour of bragging and rag-chewing Vice President Denny Painton took the meeting in hand and the Nine were initiated to the mysteries of Amateur Radio. It was the consensus of the Club that these Novices were going to be a great group for Amateur Radio and would make all of us work to stay ahead of them.

KA5DUO, Leo Peil, who is Vice President of the Wheatstraw Club, invited CARA to the Canton Lake meeting of the Wheatstraw Club the second Sunday in August.

Most of the Club made and enjoyed the EYE BALL QSO at Mooreland. The food was great, the music and company were EXCELLENT! We plan to attend the CORA bash at the Myriad in July too. We want to thank the members of Great Plains ARC for the effort they put forth.

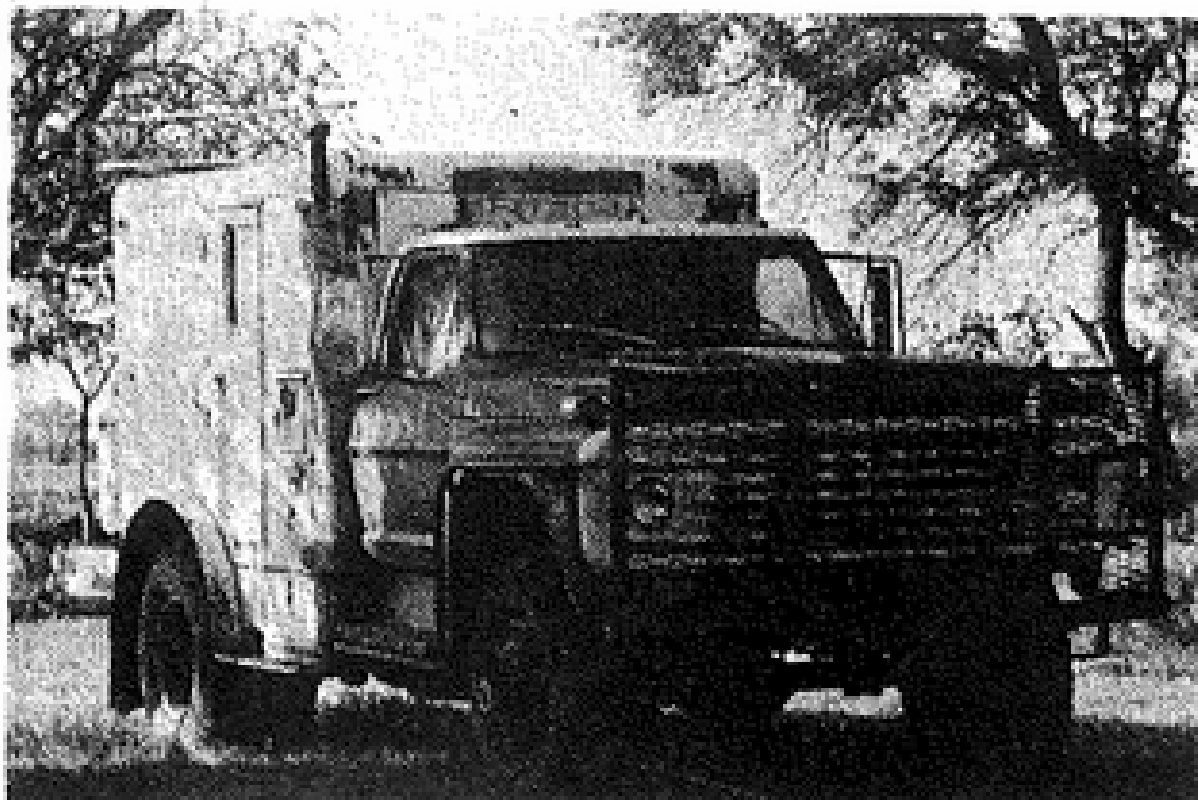
The time of the CARA two meter net has been changed to NINE OCLOCK each and every Thursday night to allow for the gardeners and golfers and just plain pooped out people to recover from the days heat. Net Manager KD5YB will be absent the last two weeks in May but the Net Control will be passed along in its regular rotation as usual. We encourage traffic for this Net so reach out and touch through Amateur Radio!

We hope you use and enjoy the technical articles in this column supplied by our Prez Major Bailey, KI5P. He would be glad to field any questions about the circuitry. His phone number is (405) 227-2061. SELAH

kay

COUNTY AMATEUR RADIO CLUB
COUNTY AMATEUR RADIO CLUB
COUNTY AMATEUR RADIO CLUB

A radio was put in the EOC before club meeting last night, so we are set up for the 37/97 machine now. As soon as we can round up a 12v power supply the other rig with four frequencies will be put in its place to give us more coverage.



You all have read about the 4x4 truck the club was donated: well here is a photo of the Beast. Don't think we will have any problems getting to any area that would need our services.

Edmond Amateur Radio Club
P.O. Box 73222 / Okla. City, Ok. 73147

Continued from last page

conference. If necessary Art will use his M.C.I. access for the phone link.

Martin Vinson is trying to finish up a small computer controller for the UHF repeater. Bob Shaw challenged Martin to finish it by May 31, midnight. If he does complete the project, in time, Bob stated (and it's on paper) he will donate an Icom 22U to the club to be used as a remote base. We sure hope Martin makes it, so we can see Bob shell out the coins.

Meeting was adjourned.

NEXT DINNER MEETING *NOT* SCHEDULED

June 2 is the first Thursday and normally the dinner meeting for an even numbered month would be set for that night. HOWEVER, the Teleconference for antennas is set for the same night and time. Time and place has not been set, so check on 63/03 for any announcements.

DAYTON HAMVENTION-MECCA FOR AMATEUR RADIO

The annual trip to Dayton, Ohio once again revived the weak and victimized the newcomers, as the Oklahoma delegation made the trek. This year we had two new victims, Tim Mauldin and Jack Perry. They have now experienced the "World's Largest Hamvention" and won't be the same. Regulars included: N5MS, K5JB, WA5FLT, WB5ISN, WB5ISO, N5DWT, and K5HTF. Former club member, Howard Thompson, (ex-W5UVI) even made it. Some feel he moved out-of-state just to be closer to Dayton. Also present was your editor here, WB5UIY.

The Hamvention was great as usual, but Mother Nature tried her best to rain every one out. Despite mud and rain the flea market was still a big hit and Mike Salem had to be dragged away again as our departing plane was being announced. That is another story, also. TWA's put on the bottom of our favorite airline list.

Specials at Dayton included the new Kenwood TW-4000A, a dual band-UHF & VHF transceiver with an optional voice synthesizer. The Yaseu boom mike and headset for the hand held was another hot item. ACC announced a voter system for a multiple receiver system and a digital voice recorder using solid state devices for storage. Other companies had assorted satellite receivers, freq. counters and new HF rigs. Icom displayed their new repeaters and Kenwood displayed a "prototype" repeater.

Overall the group from our club had a good time and we are making plans for next year. If Dayton appeals to you next year, now is the time to respond. They are taking room reservations at this time:

1984 Hamvention Housing
P.O. Box 1288
Dayton, Ohio 45402

Be sure and read Mike Salem's section on the Hamvention with pictures. Therefore I won't ramble on since he will have a complete run-down.

WANTED: 60 cycle, 120 Volt line frequency meter in 3" round case. It has seven reads reading from about 55 to 65 cycles. Steve, W5VCJ, 341-8486

EXTRA CLASS
AMATEUR RADIO
WSKE

FIRST CLASS
RADIOTELEPHONE
LICENSE

ELLARD'S EX EL

ELLARD W. FOSTER, OWNER

5905 N.W. 42nd Street, Phone: 405/789-6702
OKLAHOMA CITY, OKLA. 73122

TELETYPEWRITER
ASSEMBLIES

USED TEST
EQUIPMENT

EXCESS
ELECTRONICS

4/1

kay

COUNTY ARC

This may very well be my last article in the C&E for a while since this Thursday night is meeting night for the Kay County ARC. That's right! It's election night and some new or some old faces may just ride the Midnight Special into office for the 83-84 year. Hope nobody gets caught without their ticket to ride. Don't think the record was ever corrected in the C&E on this year's officers. Everything is correct but the position of Vice-President was David Land KD5FX; had sent the change in, but never got done.

Last month I conned Tony, WD5EAA, into doing the article for that month. He must have made better grades in grammar than I did, for it read real smooth. But, his opening line that he thought spring was here must have been there to fill space. This last week at my house seems more like late winter! My hat is off to you Tony for the good job.

Last month at the April meeting we had many members sign up for R.A.C.E.S. and urge anyone who has not, to do so. Being a RACES member in time of disaster allows the amateur much more flexibility of operation and allows them to be of much greater value in assisting with communications problems.

The club "Beer Drinkers" team--NO! --that was the club's Field Day Committee met this past week to make plans for this year's FD. It was toasted, I mean voted to hold it at Lake Ponca, at the sailboat arena the same as last year. It will be on June 25th and 26th, everyone come on out. We'll have a covered-dish dinner at about 6:00 pm so, get on the good side of your XYL, YL or whatever and bring a good covered dish and a good appetite and your eating utensils and plan to chow down on some of Kay County's good home cooking.

The Kay County ARES truck is coming along in great strides. The operating stations are just about done. The cork in each op. station was installed this past Saturday. It turned out to be a very time-consuming project, taking almost the entire day and that was with the good help of Tony, WD5EAA. He did a lot of "Hold This", "Go get this or that" or just being a good GOFER and didn't do much complaining about much but "What can I do while you are doing that". Well, when you're in a box that is 8x5 feet and part of it is taken up by the operating stations that "don't" leave much room to do much else at the same time. He did find his way behind some sandpaper and finish sanding the inside walls. Now, if that spring time weather would come back, we could paint the insides. A few things are left to do before it goes to the paint shop for its new coat of paint, if the people will still donate the job as they offered to last year when I approached them with it.

There could very well be a sanding detail before long, if they want the cab sanded by us. I anticipate we will have to do so before they will be doing us a big favor to paint that beast.

At this month's meeting, the new Kay County Emergency Coordination Map will be passed out. Those members not present should contact one of the officers to see about obtaining a copy. Every member should have a map and information so during a weather watch, everyone will have the same information.

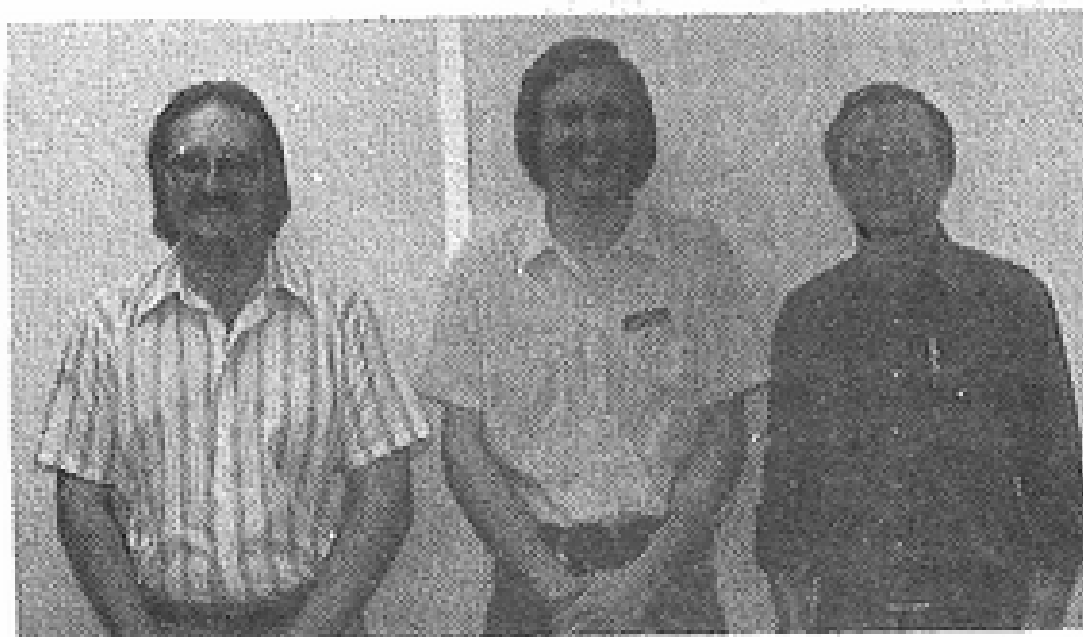
The past few weeks we have had quite a bit of severe weather and have had very well operated nets. One thing everybody needs to practice is keeping their transmissions short and to the point.

In a few days I will finish this article by inserting the names and calls of the newly elected or railroaded officers of the club for the 1983-84 year. I would like to say its been fun; lots of time and work fulfilling the job as CORA Collector & Emitter JUNE 1983

of president for the past two years. We have seen some changes, hopefully all for the better. All good things take time and time is what no one has enough of to go around. I Hope everybody is happy and I haven't crossed anyone's path without good reason. I will still keep a lot of interest in the club's future and still do whatever I can to better it.

NEW CLUB OFFICERS FOR 83-84

PRESIDENT	DELBERT FOILES	WB5YRN
VICE-PRES	MARSH PRONEKE	WA5UBO
SEC-TRES	GLEN BISHOP, Jr	KA5PUB



GLENN MARSH DELBERT

CLUB MEMBERS WHO DARED SHOW UP AT THE MAY MEETING



BACK ROW, L TO R: TOM, N5ZR - TRUMAN, WBSMRE - GEAN, WA5MUB - JAY, W5TXF - JIM, WA5MDN - GARY, WB5WMD - LUCKIE, WA6JXO. MIDDLE ROW: GLEN, - KA5PUB - DAVE, KD5FX - VERN, N5ANV - C. L., W5ZWM - LEWIS, KA5JZL - PAUL, KA5PYG. FRONT ROW: BOB, W5IPN - JOHN, WB5YSK, - MARSH, WA5UBO - DELBERT, WB5YRN - TONY, WD5EAA - CHUCK, KA5PYR.

Another Tain ran through the May meeting besides the one for the new club officers.

Since the rumor has it that Vern, N5ANV moved out on his own, into the real world he no longer resides in Blackwell. That made an empty slot for assistant E.C. as well as filled the vacant slot for the other assistant E.C. Positions as follows:

C. L. Hallmark	W5ZWM	Kay Co. EC
Vern Treiber	K5ANV	Asst. EC
Marsh Pronneke	WA5UBO	Asst. EC

For the closing will share a story that Dr. Paul, KA5PYG shared with us last night. As you know the patch on our club hats is just plain, KAY COUNTY ARC. The other day Dr. Paul was making his rounds at the local hospital, when all of a sudden one of the employees asked him when she was going to get her hat, for she already had her ARC coffee mug. Well, when he thought what department he was in he got a funny look on his face...for he was in the Alcoholism Rehabilitation Center.... hink we know where we can sell some extra hats!

73' It's been fun
Marsh, WA5UBO



Club
NEWS

VILLOV
The Other Radio Magazine

MINUTES OF MAY MEETING

Meeting was called to order at 10:06 A.M. by Vice-President Jerry, KD5IS. With 14 members and guests present. He advised that President Paul, WA5HTL, was not going to make the meeting and that he was going to have a hernia operation at University Hospital June 5. Jerry also relayed the information for Treasurer Ellard, W5KE, that the club's bank was going to start charging \$4.00 per month to service our checking account. It was the feeling of the members that Ellard move the account, or take what ever corrective action he desired, to work out a better deal.

It was reported that Don, AE5N, had underwritten purchase of a 2-meter transceiver for the U.S. Weather Service office in Oklahoma City. Part of it has been repaid by donations from Clubs and individuals. Motion passed that our club donate \$20.00 for that equipment. Individuals may contact Don if they want to make personal contributions.

Meeting adjourned at 10:15 for the A.R.T. Workshop (Along with coffee, donuts, and Marc, KA5KPJ, acting as NCS of the Texas Gulf Severe Storm Warning Net) K5JB, Sec'y

A.R.T. WORKSHOP - POWER SUPPLIES

The Amateur Radio Techniques (A.R.T.) workshop was really informal this month. Access to the rest of the Red Cross building's first floor was blocked and meetings were in progress on the second floor so the workshop took place in the radio room. Mark, KA5KPJ, was actively working weather related traffic on 40 meters and those who weren't particularly interested in the workshop had to put up with it to get at the coffee and donuts. We had a good time anyway.

With the help of C.Y., N5EDT, who prepared some interesting charts and information on lead acid battery characteristics, we covered some aspects of power supplies. I found two exhibits of basic 5 Volt, 5 Amp, power supplies that demonstrated the reason why switching power supplies had been invented. A few questions on various forms of regulation were weakly covered (no blackboard) and the workshop degenerated into a discussion of digital data transmission. You guys know how to make a guy work in a workshop!

The subject for next month's workshop was not established because the dominating members of the group (Ted and I) still had our minds on digital data standards. I feel we ought to cover some of the basic stuff first but I am game to 'go for it' if some of you have some opinions. I'll have some more information on packet radio in my 'packet pocket' by next meeting in case we don't receive some better ideas or volunteers so you folks had better let me know what you want. Joe, K5JB

THE HAMVENTION

Well, Dayton Hamvention has come and gone, the memories of the rain are fading already, but the memories of the good times are still crystal clear. The best part of the Hamvention is the reverie with old friends. Bob, NOBIX, from Omaha, Hoss, WA5ZAI, from Wash. D.C., and the gang from Dayton who were all in rare form. Chuck, N8ADN, and Keith, WA8ZWJ, hosted the "second annual gathering of the faithful" at Chuck's house with refreshments and chow provided. Nearly everyone wore stick-on name-tags marked "Hoss, WA5ZAI". Hoss took this all in stride, but when the guests were leaving, someone out front signed off on 2-M with "WA5ZAI clear". Hoss tore out to get the low-lifer who impersonated him.

I got stung in the flea market when I tried to take advantage of a poor innocent chap who wanted to sell a Vadic 1200 baud modem for \$150. (If Bell 212, it would be worth thrice that.) When I got home and looked it up, it turned out to be a Bell 202 (half duplex) type which has very limited usefulness. (Unless I get really creative, or lucky, it will wind up on someone's flea market table next year so someone can take advantage of me.) Joe, WA5FLI, promised to look up the specifications for me when he got home but, charitable soul that he is, kept his information secret until I admitted that I had already found out the bad news.

I went to the flea market with only two things on my shopping list: Some NE-51 neon bulbs for myself and some egg insulators for Ellard, W5KE. Never did find the NE-51's, though stout hearted Ron, WA5EAI, reported some close calls. We couldn't get the egg insulators down to Ellard's price so I came home with the shopping list unmarked and still useable for Ham-Com in Dallas. One unplanned purchase was a bargain 80 column video display generator for one of the Apples...and it worked great! In fact, I probably wouldn't have bought that particular card out of a wish book but I was pleased when I read up on it and tried it out. It has a communications package in firmware, with buffer save, text file receive and transmit, etc., just like some of the high dollar terminal programs.

The weekend was punctuated with a dandy get-together at the Spaghetti Warehouse in downtown Dayton Saturday night with Ed, K3KA, one of my co-workers in Washington, and some of his buddies in the Capitol DX Association. I think Mike, N5MS is elaborating on that so I won't try to second guess what lies he is telling, so I can tell different ones.

As usual, by Sunday afternoon I was ready to go to the arena for the prize drawing (and get off my feet). Nobody won anything up to the time we had to break and run for the airport.

The trip home suffered one minor hitch from the weather around St. Louis. Our arrival was delayed just long enough for us to see our connecting flight push back from the gate. TWA was nice enough to offer us accommodations for the night but we suffered from collective get-home-itus and found another way: Ozark to Tulsa and rent-a-car to Oklahoma City. We made it even if some of our baggage didn't. The less seasoned air travelers in the group now know what baggage to check and what baggage to carry, right guys? Joe, K5JB

RTTY POSTSCRIPT

While looking for some material in back issues of QST to prepare the Packet Radio article, I came across a goodie I wish I had seen before I prepared the RTTY article in the April issue of the C&E. November 1981 QST contained an autostart, anti-space modification of "The State of The Art TU" which was published in December 1980 QST by Robert Witmer, W3RW. The demodulator IC used was, guess what? XR-2211.

There was not a significant difference from the one that I built and described in April but there are some useful ideas for making the complete hook-up to a mechanical TTY machine. Be advised that the circuit described was intended to be used on FM where there is no need for band pass filtering. If the thing was to be used on HF, it would have to be either preceded by a good band pass filter or a good receiver containing such filters to keep the XR-2211 from collapsing under the noise.

The modulator used in the QST articles uses an Exar function generator circuit, XR-2206 instead of the NE/SE 567 used in the July 1981 ham radio article. I don't know which would be preferable. The XR-2206 Attempts to synthesize a sine wave while the 567 probably creates a triangle wave. either would have to be filtered before putting the waveform on the

microphone circuit of a SSB transmitter. The 567 only has 8 leads, as opposed to 14 so I would probably vote for it. Joe, K5JB

PACKET AWAY LEON!

One of the good things about running around with N5MS is that he sometimes serves as a bad example. Last year he went to a forum at the Dayton Hamvention so this year, like monkey-see-monkey do, I went to one. It wasn't half bad either. The one I chose to attend was the one on Packet radio and I came back with a lot of enthusiasm about the concept and desire to get on with it myself.

Amateur Radio Research and Development (AMRAD) Corporation, Tucson Amateur Packet Radio (TAPR) Corporation, and Saint Louis Amateur Packet Radio (SLAPR) joined forces to run a booth in the convention hall and put on one of the forums. There are all non-profit groups. I left much more informed, but not totally satisfied that I knew all I wanted to know about the sport. Not until I happened to get a short course on ISO X.25 packet protocol from Alan Ray at TOTCO did I get really excited about the significance this medium would have for the Amateur radio.

Most of you are familiar with RTTY, the way it is sent and received. Hopefully, only one station at a time is transmitting on a given frequency. Many can listen but only one can transmit at a time. When this rule is broken, when there is fading or static, received text is garbled and it takes a good imagination to figure out what is said. RTTY is excellent for message handling. The only problem is insufficient stations to make solid networks. The packeteers are addressing that problem also but I'll get to that.) AMTOR is the buzz word on RTTY these days and whenever I mention my interest in packet and answer the question "What is packet radio?", the next comment is invariably, "Oh, like AMTOR eh?".

For a good explanation of AMTOR, check the June 1981 QST article by J. P. Martinez, G3PLX. AMTOR uses an entirely different code from ASCII (think about it...it came from Europe), and is more similar to Murray (Baudot) code except it uses seven bits per character. Only combinations having four high bits and three low bits are used, creating the first level of error check possibility. There are no two characters that differ by only one bit.

Packet Radio is an adaptation of a practice that has been effective in some form or another in commercial circuits since the 1960's. Like any old live data transfer system, it does error checking and requests retransmission when there are errors. The method used is supposed to be better than plain old parity checking and check-summing, though I don't have any details on this (yet).

A packet is a little chunk of text that is preceded by a header and followed by a trailer that contain synchronization, addresses, system information and error checking information. Where AMTOR contains the error checking information in order that the receiving station can request re-transmission, the packet contains additional address information that permits networking. Each packet radio station is capable of sending, receiving, and relaying packets. The terminal node controller (TNC) is programmed by the operator to perform whichever function he wishes. The operation as a terminal is not much different than RTTY and no different from AMTOR as far as function is concerned. The real difference is in the relaying capability of the TNC. The packet header contains the address of not only the ultimate recipient, but the addresses of the originator's node and the destination node so packets can be routed as desired. If more than two nodes are involved, I don't know how the additional nodes are addressed. More on that after I get some of the literature I have requested from AMRAD and TAPR.

10 CORA Collector & Emitter JUNE 1983

Ultimate AMRAD plans are to have one of the amateur satellites developed to handle packets (PACSAT). The result will be a leapfrog system that will permit jumping over the earth-bound relay system and a system that could act like a 'bulletin board in the sky'.

Much of the forum dealt with the experiences of the packereers to date. The Canadians were the first to get started, having received permission in 1978. Experimental stations were set up in the US shortly thereafter. The first packet repeater was put on the air in San Francisco by the Pacific Packet Radio Society. Shortly thereafter, AMRAD and TAPR took off on packet experiments with the former using a Z-80 based Vancouver TNC and the latter used the 6809. (What else do you think they would use in Tucson?) The goal of the Tucson group was to design a TNC that could be used by technically unsophisticated Amateurs. They reasoned that unless the technique was readily available to large number of users, it would never take off as a practical networking scheme. The TNC they designed has all the things necessary to hook it up to a transceiver and 'drive it off the lot'. There is a modem, scratch pad memory, ROM with the operating system, serial interface for a terminal (CRT) and suitable interfaces for a transceiver. After the initial design was worked out, a batch of TNC's were built (190) and provided at the cost of parts (approximately \$200.00) to those who would test them and report results of actual use. This is called the Beta test and boards have been supplied to numerous groups around the country for trial. Members of the St. Louis group were there to describe their experience with the things. In an actual environment of typical home 2-M installations, range is somewhat limited unless the operator is blessed with a super tower and antennas. My own practical operating range is about 20 to 40 miles radius before signals get kind of noisy. With packet repeaters located at residential sites and spaced within close operating range, it is possible to get extensive coverage without the trouble and expense of locating the equipment at high, inaccessible places. Messages are relayed from repeater to repeater automatically. Each repeater operates on a single frequency in half duplex. Full duplex multi-freq. repeaters can also be used with some advantage. A packet is received, the header is modified to direct it to a new recipient, and it is retransmitted.

The operator at a packet station can operate it in several modes by commanding it with his terminal. The terminal is anything capable of generating ASCII or BAUDOT I/O, and would normally be some type of CRT terminal, though an ASR-33, or a portable terminal like those made by RCA or Transterm would work fine. Naturally a computer, operating as a terminal works fine. In fact, a computer working in intelligent mode, can dominate a packet system because it can dump large quantity of text continuously and hardly leave an operator on a keyboard any room to elbow in. The term adopted for this is 'Computer Hog'. The Tucson group is surely gaining a lot of non-technical experience from the Beta test.

Current plans are to make design refinements in hardware and software and provide information or kits by the end of the summer. TAPR is not in the production and sales business and I imagine the voluntary enthusiasm is running low after producing 190 boards and troubleshooting them for the Beta test. There were some bare boards and some defective populated boards available but the man I discussed it with was becoming a little weary of people bugging him about hardware so I didn't press him. In the middle of the mob at Dayton is no place for a relaxed chat.

If I get smart enough to know how to ask intelligent questions, I will seize the opportunities, as I travel, to rap with some of the 'movers and shakers' (like in Wash. D.C.), and report more in a later C&E. Joe, K5JB

Q. R. Zedd

WORLD AWAITS WEDDING OF ZEDD AND TONDELAYO

The eyes and ears of the world were alert this week for news of the wedding on June 18 of the greatest DXer in history, Mr. Q. R. Zedd, of Honor Roll Ranch, Norman, and Miss Tondelayo Schwartz, nubile, blond, 20-year-old former QSL secretary to the great man and recently voted the cutest graduate in the history of the Harvard Business School.

The ceremony, with the Rev. Billy Graham officiating, will be held in the linear room at Honor Roll Ranch starting at 10 a.m. The Mormon Tabernacle Choir and Lawrence Welk will provide the music. Donnie and Marie will serve punch.

Dignitaries from around the world have already begun to descend on Norman, giving the local Holiday Inn a brisk run. Among early arrivals were Kenny Rogers, the great folk singer who last year made "The Ballad of Q. R. Zedd" a national hit after recording it at Ham Holiday; Bill Blast, of the daily Blast Off DX Net; Dingfod Armstrong, famed Texas DXer; the president and first lady; Queen Elizabeth; George Steinbrenner, and W2NSD/1.

Elizabeth Taylor and her entourage were also in the area, but chose to camp out at Lake Thunderbird along with Lee Radziwell and Truman Capote.

Order of service for the nuptials will be as follows:

1. Arrival of guests.
2. Music by the Choir. (Selections will include "Fugue for Keyer and Bug, in B"; "The Q. R. Zedd Symphony in D", and "Ah, Sweet Mystery of DX", by Verde.
3. High-speed CW demonstration on videotape by Mr. Zedd.
4. Tap dancing by Miss Schwartz.
5. Music by the Welk orchestra, featuring accordion and dancers with set smiles.
6. Slides by AD1S.
7. Entry of the wedding party.
8. Nuptial ceremony.
9. Remarks by Rev. Graham.
10. Departure from the linear room.
11. Closing music by Donnie and Marie.

Following the service, the reception will be held in Mr. Zedd's main living room, which seats 400.

Excitement was generated earlier in the week by the arrival of the great Russian DXer, Mr. Boris Badenov, together with his brunette, nubile, 19-year-old QSL assistant from Box 88, Natasha Bullwinkle. Badenov had no sooner landed his Ilushyn 230 aircraft at Norman's Max Westheimer Field than Twinkie stock went up 31 per cent and all central Oklahoma stores reported they were sold out of Coors.

"I am mighty proud to see Boris here for the little shindig," Zedd said. "We need to include the younger fellows in our social life."

"That Natasha is such a honey!" Tondelayo added. "I just hope this time she gets time to go by the Salvation Army and improve her wardrobe a little. Mah goo'ness, maybe it's aw right in Russia to wear army boots with your flour sack sundress, but in this country it's considered a lil ... tacky."

"Is least I could do, come this decadent country once more, honor this man -- what is his name? -- Zipp? -- Sap? -- on his marriage," Badenov said. "In great Mother Russia, marriage is fading custom, but we understand how it is with how you say backward peoples, da?"

"I will stick her with my knife!" Natasha said of Tondelayo, brandishing a

small plastic stiletto recently removed from a box of Crackerjacks.

Zedd's momma, Mrs. Constance Wilhemina (CW) Zedd, of Mena, Ark., arrived several weeks ago on her Kawasaki 1000 with the pop-up hf quagi and handlebar keyer assembly. She reported working 124 countries on 40 meter CW between Fort Gibson and Midwest City, where she went QRT in anticipation of her arrival at Crossroads Mall, where she stopped to pig out on hot pretzels and Orange Julius.

"I am so thrilled by all this I just can't see straight, ya'all," Mrs. Zedd, clad in a form-fitting purple leotard outfit from Fredrick's of Hollywood, told the assembled press. "Ya know, I have longed for a grandchild, and now I have hope again. I think Tondelayo is a darling child, and everyone knows that Q. R. is simply the greatest, kindest, truer DXer ever lived (in the words of the Ballad of Q. R. Zedd), and they make a lovely couple."

"I only wish my dear husband, Zepp, could have lived to see this day," Mrs. Zedd went on. "But as you all know, poor Zepp died in that avalanche in China during our Dxpediton long ago, and none of my later husbands has been worth a hoot, which is why I told all of them to get lost. I just know that my darling Zepp is sitting up there in heaven someplace, his golden logbook on an operating desk of silver and diamonds, working the celestial DXCC list with vigor and vim and looking down on us and sharing with us in our happiness."

In answer to a question from a Florida-based scandal sheet, Mrs. Zedd said she did not believe reports that Tondelayo was pregnant.

"Both my son and Tondelayo believe in the old moral values," Mrs. Zedd said in a huff. "And also, they have been busy contesting for the last several months running."

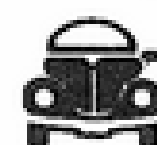
Special press facilities have been set up at the University of Oklahoma's Owen Field for the world's reporters flooding in to cover the event. Among publications early to arrive were Time, Newsweek, Fortune, 73, Byte, QST, CQ, National Geographic, W, the RSGB Radcom, and String and Twine Journal.

The Cora C&E planned avalanche coverage by Olde Joe Harding, KU5B, N5MS and special sidebars by WA5RPP. All this special coverage will be available in the memorable July issue.

-- KU5B

HAM HORRORSCOPE

Gemini May 21 - June 20 You are quick tempered, impatient, and tend to respond with bitter sarcasm when people's operating practices offend you. But when you do the same thing, you can't take criticism.



Appointment
Preferred

HONDA

TOM'S SMALL CAR CLINIC

Specializing in VW's & Hondas
Complete Repair
3109 South High
634-7040

TOM MANGHAM
634-2827

TROY MANGHAM
677-5291

1-3

Custom Made
Replacement Windows
Double & Triple Pane
Storm Doors
Patio Doors
Vinyl Siding

OKLAHOMA
VINYL
SASH
390-9553
390-9482

Frank
Walford

2402 N. Main
Choctaw, Okla.

MOBIL HOME WINDOWS 3-4

The June meeting of OCAPA will be conducted at the usual place and time. If you have not attended for quite a while, our meetings are held at the Oklahoma City Fire Department Training Center on North Portland Ave. between Reno Ave. and N.W. 10th St. Our monthly meetings are held on the 3rd Tuesday of each month and start reasonably promptly at 1930.

We will be discussing our proposed effort for the upcoming ARRL Field Day contest in late June. The plans are still in the beginning stages, but should be pretty well firmed up by meeting night. We will need operators, loggers, duplicate checkers, etc. We will try to set up schedules for as many positions as possible. From past experiences with Field Day, we know that the early morning hours will be the hardest slots to fill. If any of our members work those hours normally, your assistance is urgently requested. Come out to the meeting and sign up for the fun.

The annual auction held at the May meeting was great fun. Attendance was down a bit from the past, but the fun level was as high as or higher than ever before. Jack Stewart (WD5FKE) was superb as a combined auctioneer and stand-up comedian. The ways in which he managed to coax bids and counterbids from the folks in the audience was really something to behold. Prices ranged from something like a penny a pound and up.

I was asked not to put this story into the C & E, but it is too good to pass up. It seems that as the auction got down to the last few items, an opening bid of \$1 was made on a particularly decrepit looking box of "stuff". After receiving that bid, the auctioneer added a large (and old and heavy) adding machine to the assortment. At this point the bidder reduced his bid to fifty cents. No other bids were received, and the auctioneer declared that the lot was sold and the original \$1 bid stood. After the auction was completed, and the money was being settled, Jack offered the bidder the fifty cent difference. At this point, the bidder accepted the offer and then told Jack he would have paid \$2 not to have to take the adding machine home! Jack asked the successful bidder not to let me know about the whole affair, since it would show up in C & E for sure. The bidder then asked Jack if he knew whom I worked for. Jack did not know at the time, but he soon did. The successful bidder who avoided hauling the adding machine home was my boss, Gene Nailon (K5DLE). Gene and I are still chuckling over the incident.

Other "good deals" at the auction are still sure to be cooking. Ask George about Vicki's "new" FM rig. Ask Mike (N5DDB) why he is on George's hit list. Make sure to attend next year's auction in order to not miss any of the fun.

Since this is a special edition of C & E for the big Ham Holiday X shindig, perhaps a little information regarding the Oklahoma City Autopatch Association (OCAPA) might be in order. OCAPA currently operates four repeaters: 146.22/146.82 and 147.81/147.21 on the 2 meter band; 449.30/444.30 on UHF; and 52.680/52.525 on the 6 meter band. We operate autopatch facilities on the 81/21 and UHF machines. All our repeaters are "open" but the autopatch facilities are for the use of members only. All repeaters carry the callsign K5JL/R of the trustee, Jay (K5JL). The current officers are: PRES: Henry (N5IH); VP: Mac (K2GKK/5); SCTY: Kathy (WB5NDO); and TREAS: Guy (K5GL). Some of the fine folks who keep the repeaters going so the rest of us can keep flapping our jaws are Reuben (WD5FKF), Buddy (KA5AQY), George (AD1S), Art (W1GOM), Terry (N5AUE), Perry (K5URJ), Larry (WB5NYX), and many others. We have a fine emergency communications trailer, which has been primarily built and supported by Frank (N5FM) and Dennis (WD5CSM). OCAPA conducts the Central Oklahoma Severe Storms Warning Net on its 22/82 repeater. The same repeater is used for dissemination of weather information and bulletins when severe weather exists or is forecasted within the state but does not immediately threaten our area.

Stop by at a meeting or say hello on one of our fine repeaters. We think you will find that we have a lot to offer.

Mac
K2GKK/5

See you at Ham Holiday



Greetings to the OK section. The last several months have been very hectic at best. Jane lost her father March 15th and we have been busy ever since.

There have been some important appointments made recently. The Affiliated Club Coordinator is K5CAY, Dan; Your State Government Liaison is W5NZS, Larry. There are also four new District Emergency Coordinators. These include:

Oklahoma City area- N5FM, Frank
Northwest quadrant- KB5XI, Gordon
Southwest quadrant- W5VXU, Mike
Northeast quadrant- K5ENA, John

I am still looking for a DEC in the Southeast quadrant. Any one interested or have a recommendation? Also if anyone would like to help as an EC, please contact me or your area DEC.

I have managed to do some traveling the past month or so. First there was the Pawhuska Swapfest, then Lawton Hamfest, a trip to Bartlesville for the Saturday morning breakfast of the BARC. From there Jane and I went to Mooreland for the Great Plains ARC eyeball QSO. Two trips to Tulsa for the TRAC and TRO were mixed with a great time at the Broken Arrow swapfest. I have really enjoyed these trips. I have met many amateurs that I did not know and was able to renew many friendships.

We are well into the WX season and the storm nets have been doing a tremendous job. I have heard many nets around the state and I am pleased with the operations.

APRIL TRAFFIC:

NET	Sess.	C/I	Msgs	WX
OTWN	26	450	414	380
OPEN	4	215	11	
OLZ	30	165	56	
NWOSN	13	222	40	
OTN	21	304	116	
EATWN	33	244	13	
ONON	30	527	157	
STN	26	492	94	
QCWA	4	138	19	

The weather warning form found on opposite page may be Xeroxed to use as a reference during severe weather. The format of the bulletins issued on the OCAPA 22/82 repeater by the National Weather Service will correspond to the form for easy copying.

This form is currently in use at all of the media outlets served by the amateur operators, plus at National Weather Service, National Severe Storm Lab, Red Cross, and state, county and city civil defense E.O.C.'s.

By issuing this "pre-warning" the amateur network can save one to five minutes over the teletype system, plus assuring a backup in the event of failure of that system.

Only counties served by the Oklahoma City NWS office appear on the form. They are in alphabetical order. In general practice, it has been found efficient to place a checkmark or an "X" in the blank beside the county if the whole county is included. If a section of a county is included, write in "SE", "S 1/2", or "NE 1/3" to eliminate any errors.

Blanks at the bottom may be used to check the source of your information or to log times of relays to other repeaters. Time of issue and date may be logged in the upper right.

Make the system better through your cooperation and public service abilities. Help an agency get the information faster!

de WD5DYI

The National Weather Service Forecast Office in Oklahoma City
will soon be issuing the following warning;



SKYWARN

SEVERE THUNDERSTORM WARNING

FLASH FLOOD WARNING

TORNADO WARNING

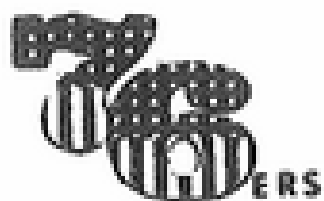
In effect until for the following counties in Oklahoma:

ALFALFA	COTTON	JACKSON	NOBLE
ATOKA	CUSTER	JEFFERSON	OKLAHOMA
BECKHAM	DEWEY	JOHNSTON	PAYNE
BLAINE	ELLIS	KAY	PONTOTOC
BRYAN	GARFIELD	KINGFISHER	POTTAWATOMIE
CADDO	GARVIN	KIOWA	PUSHMATAHA
CANADIAN	GRADY	LINCOLN	ROGER MILLS
CARTER	GRANT	LOGAN	SEMINOLE
CHOCTAW	GREER	LOVE	STEPHENS
CLEVELAND	HARMON	MCCLAIN	TILLMAN
COAL	HARPER	MAJOR	WASHITA
COMANCHE	HUGHES	MARSHALL	WOODS
		MURRAY	WOODWARD

Location of Cell Moving At mph

16/76 22/82 / Civil Defense

This information is relayed as a public service by amateur radio
operators from the Radar Room of the National Weather Service, OKC.



BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

MINUTES FOR MAY MEETING

The meeting was called to order by Jim N5BFD at 7:00. Introductions followed. There were 15 Members and guests present.

Treasurer report. No report.

Secretary report. The minutes of the April meeting was approved as printed in the C&E.

New Business. Dale KD5SX Has asked to be relieved of his duties as club treasurer. Discussion followed on how to fill the rest of his term. Tom WA9AFM has volunteered to take over the rest of term. Tom was voted in by the Rail road method.

A motion was made to authorize sec to notify members who are delinquent for 90 days that they have 10 days to renew or be dropped from roll. Vote was called. Motion carried. Pre-registration for HH83 is going fine Bruce KC5CR reports Programs are being handled by Ted WD5JNT and he has lined up several good programs.

Break was called. at 8:45

After break we had a Field day report by Dick WB5TMW. He still needs volunteers for various jobs.

The program for the night was a demo of the Osborne computer and its Ham related programs. We plan to use the Osborne at this years field day to log and dupe so come by and see an automated field day operation.

meeting adjourned.

Jerry N5AUH Sec.

As usual, our turnout for the May 76ers meeting was small. On the bright side, we got several things accomplished too. First off, we've finally got ourselves a new treasurer. This was necessary as our old one has been captured by enemy forces (his new work hours). So congratulations go to Tom, WA9AFM on his new position as 76ers treasurer. This is a badly needed change since many members are delinquent in their club dues simply because they don't know who to pay them to. From now on, all club dues and and other pecuniary matters should be directed towards Tom. Remember that club dues are still only six dollars; not twelve, twenty-five or fifty like many others. That six bucks includes a year's subscription to the C & E, as well as affiliation with our 16/76 repeater; soon to have autopatch again! In addition, you will have an opportunity to associate with some of the most highly computer-oriented amateurs in Oklahoma City. Anyone with further interest can contact me or Tom at home.

Field day is coming up on us soon. My last 'advertisement' seemed to have no affect on you readers, so listen up this time. In order for us to have a winning Field Day, we must have participation. I'm not asking for temporary donations of equipment, although that would be nice. We would merely like to hear from anyone who is interested; if anyone is interested! Remember that the main purpose for our wonderful little hobby is emergency communications. We are supposed to supply emergency radio service for the public when normal telecommunications mediums are down. Whether you realize it or not, Field Day is an actual on-the-air test to see how well prepared you really are for just such an emergency. By measuring your score against the scores of other 'emergency' stations, you can see how effective your communications are in comparison to others. As you can see, Field day is so typical of amateur radio it's no wonder it is the most popular contest on the H.F. bands year after year. The fact that that it is usually held as a group activity makes it that more interesting. It doesn't happen without participants, though! What are you guys doing out there on the last weekend in June, anyway? I wasn't aware that there was another Field Day setup in the city this year. Time is running out! This is your last warning!

14 CORA Collector & Emitter JUNE 1983

You can, of course, show up at the last minute if you want to, but it would be helpful if people would let it be known that they planned to do something. By now, if I haven't raised your interest, please consider model railroading as a new hobby. If I have, contact WB5TMW on 76 for details, or better yet be at the next meeting on June 14 at the downtown O.G. & E. building (7:00). Only you can keep the 76ers on top in the fifth call area!

Did anybody notice that you can kerehunk 76 from northside with a rubber ducky again. (of course giving call signs to comply with F.C.C. regulations)? After careful experimentation and testing, a new four-pole antenna system was perfected. Several Saturdays ago it was installed by AE5N, WB5TMW, KA5GTM, and KC5CR; replacing the older system which had been suffering from chronic Oklahoma weather. It was hard to believe the improved coverage that resulted, particularly on the north-west side of the city. The really good news is that soon a three bay array will be installed on our new tower, consisting of three four-pole systems. This means an additional six db gain for all areas! Of course there is no substitute for antenna height, but this will have to do until the satellite receiver system gets off the drawing board.

The Ham Holidays committee is busy working on preregistrations and programs. The preregistration committee seems to have things under control, but the programs are not yet nailed down for Ham Holidays. If you know of some group that would like to put on a good program for us, tell him to drop the 76ers a line. Of particular interest to us are subjects like software applications, data communications, six meters, AMSAT, direction finding, or perhaps something on specialized communications techniques like moonbounce, SSTV, facsimile, etc. Any volunteers? This is your big chance to become a star.

Bruce KC5CR



For our May meeting we caravanned to Mooreland to enjoy the Second Annual Great Plains Amateur Radio Club's Eyeball QSO. We had seven cars in the caravan, six of which met in Watonga. From there we made our way to Seiling to pick up another car and hand out the club jackets that had been ordered the month before. A big "Thank You" goes to Leo, KA5DUO. He got the order in, collected the money, got the call, name and size all correct.

A good time was had by all, but we do need to talk to the management about the dinner hour. You can't keep a group like ours waiting too long for the goodies, but it didn't take long after the line was opened for us to make up for the lost time. We thank those people involved with the planning and operation for having it and hope they have it again next year.

On the road to Mooreland we had one of our "On the Radio" Wheatstraw business meetings. Our on the ball secretary, Ralph, WA5PFFK, had the minutes recorded on a cassette. His job is getting too easy. He also thought it would be neat to record a meeting without any of the background commotion.

Our next meeting is going to be a covered dish picnic at Red Rock State Park the second Sunday in June at 2:30. Everyone is welcome. Just bring a covered dish and enough eating utensils for your own needs and join in the fun.

Net control this month is being provided for by the fine group in El Reno. This is the first month that we have used this new system and it seems to really work well. Thank you Ray, K5LLX for bringing it up. Join our net 9:00 Wednesday evening on the .01/.61 repeater for final details of the next club meeting.



UNIVERSITY OF OKLAHOMA

Amateur Radio Club 146.28/.88

Our next meeting is Tuesday, September 13th at 7 pm. As usual it will be in room 119 of the Wilson Activity Center. The WAC is located at 1334 S. Jenkins, just south of Lindsey Street.

The OU Amateur Radio Club was affiliated with the American Radio Relay League on June 19, 1924 as the Alpha Sigma Delta Radio Fraternity. We have retained the original name but seem to be known unofficially as the OU ARC. This is a student organization of the University of Oklahoma, but our membership is open to non-students as well as students of the university. Meetings are held on the second Tuesday of each month during the Fall and Spring Semesters.

There is a VHF-FM repeater (146.28/88) on campus that is sponsored by the club and kept in top working condition by our trustee, N5MS. We also have a HF station that uses the call W5TC. Any club member is allowed to use the station.. We do have 24 hour access to the radio shack. We also wish to express thanks to our station trustee, N5ABC. In addition to Micheal and John's help I'd like to thank the

many other hams who assist the club in so many ways.

The OU Club tries to help in two or three community events per year. Sometimes this is difficult to put together due to the demands of school work, but somehow we manage to pull it off.

Members are active in the Cleveland County Emergency Net and we assist OU REACT on some of their community service projects.

We hope to have a big turnout for our meeting in September. If you're in town stop by. If you aren't in town for the meeting or if you just happen to come to Norman during the summer, give us a call on '88'; Norman has some of the friendliest hams in the world.

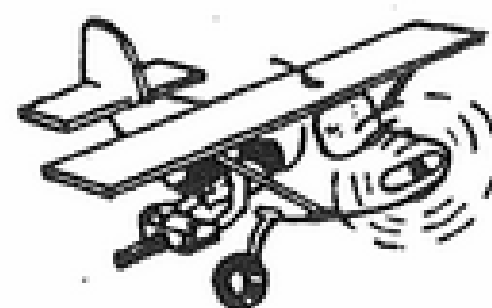
'73 KA5LZN

Want to help a KID's Computer Camp get started? Kermit Scott (1-405-263-7701) needs to rent or buy COCOs or APPLES. Call him.

AIRCRAFT-ONE AERIAL PHOTO SERVICE

SPECIALIZING:

- HOMES
- RESORTS
- ACREAGES



J.D. STEMEN

Oklahoma City, OK

WB5GSZ

(405) 755-0010

(405) 942-8668

Reduced Rate to Licensed Hams

HOLISTIC CHIROPRACTIC CLINIC

- Nutrition/Weight Loss-Digestive Disturbances
- Blood Sugar Disorders-Headaches/Backaches
- Work/School/General Physicals
- Workman's Comp-Auto Or Job Injuries

- Full Lab And X-Ray Services
- Physiotherapy-Iridology
- Full Spine Adjusting-General Family Practice



DR. DON BOWERS, M.P.H., D.C.

Give DOC KX5W A Call

4180 N.W. 23

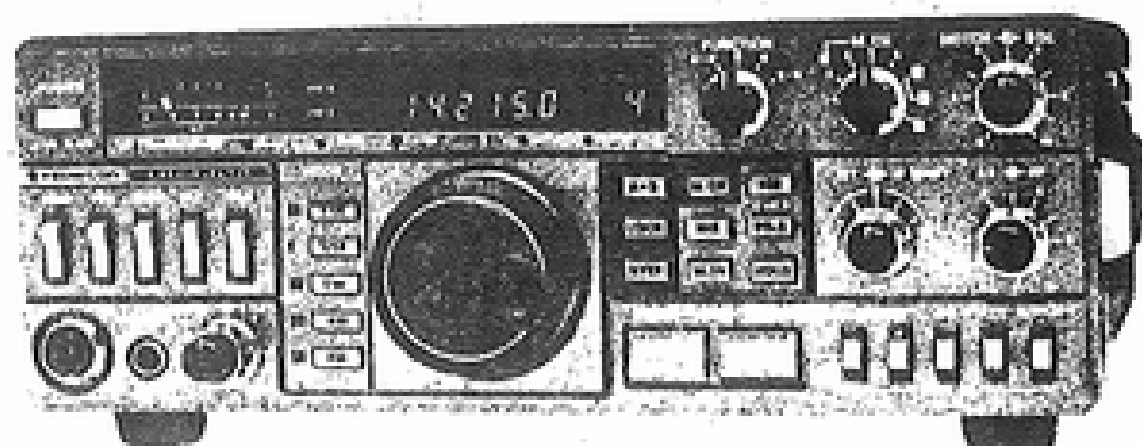


942-7738



- **HAM HOLIDAY '83**
- **COMPUTERFEST**
- **ARRL STATE CONVENTION**

**JULY
29,30,31**



**MUST BE
PRESENT
FOR ALL
AWARDS***

**GRAND AWARD - \$1200 Value
KENWOOD TS 430 S & Power supply**

PRE-REGISTRATION: \$6.00 with attached form. All envelopes must be postmarked not later than July 17, 1983 to be eligible for the pre-registration awards. Registration packet with badges and tickets will be held at the door. No limit on number of tickets. No refunds or confirmations. Winner need not be present for this award only.

ADMISSION: \$6.00 pre-registered; \$7.00 at the door. (Same price as last year.) This price is for everyone attending - visitors, wives and teenagers - licensed or not. Children age 12 or under admitted free with parent, but are not eligible for awards. Badges must be worn as proof of registration for entry into any area, including exhibit hall, flea market, coffee lounge and banquet/dance.

FACILITIES: Ham Holiday activities, except buffet/dance, will take place in the northwest area of the Myriad Convention Center in downtown Oklahoma City (same as last year). All events on Friday will be held on the main floor while commercial exhibits are being set up. Security has been arranged to protect the area at night. Upstairs meeting rooms will be open all day Saturday for demonstrations, forums, and ladies programs. The Buffet/Dance Saturday night will be held at Quality Inn, Reno at I-40, a few blocks east of the Myriad.

PROGRAMS: Something to interest everyone. There will be the usual displays, forums and seminars and amateur oriented computer programs from beginning to advanced levels. There will be programs on DX, antennas, satellites, FM, alternate energy sources and many others. Special groups will hold meetings: ARRL, Night Owls, Oklahoma Repeater Society, SMIRK, MARS and CORA, to name a few. There will be QLF and QRM programs. The ladies will have plenty of interesting things to do.

FLEA MARKET: (Non-commercial only) Every pre-registrant may buy one table for \$1.00. Additional tables listed on pre-registration form. The 30,000 sq. ft. area is indoors and airconditioned, with easy-access loading doors on Sheridan St. for setting up.

ACCOMODATIONS: The Sheraton Hotel, across the street, and the Quality Inn have offered reduced rates. Tell them you deserve the Ham Holiday rate.

AWARD POLICY: The winner and/or his ticket must be present to claim any award except the pre-registration award. You may sign your ticket for someone else to hold for you. Unclaimed registrations will not be deposited for the main drawing - only for the pre-registration drawing.

PARKING: Ample underground parking is available under the Myriad at their regular rates. In addition, there is substantial on-street and off-street parking close by.

See Other Side

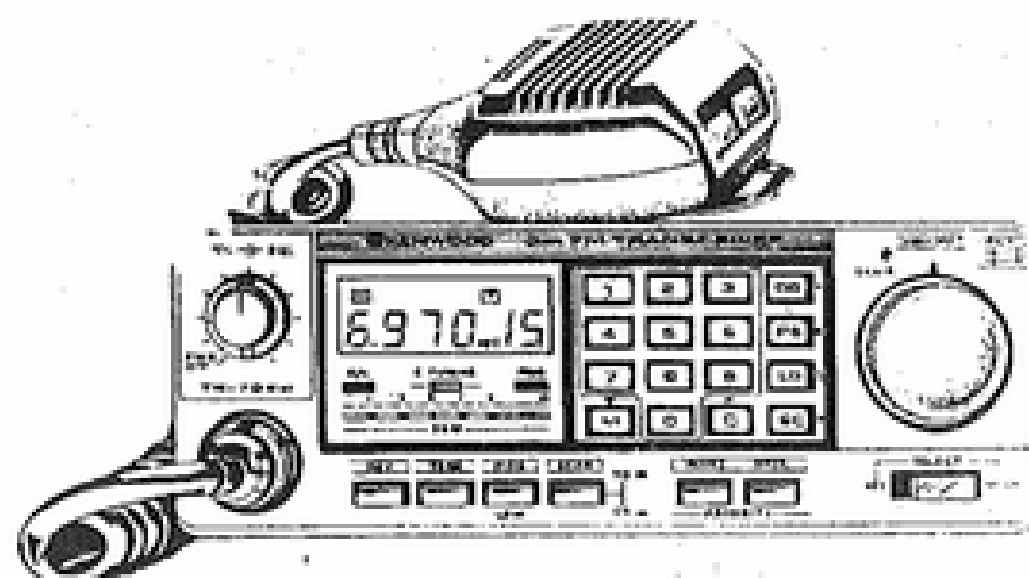
Preregistration Award

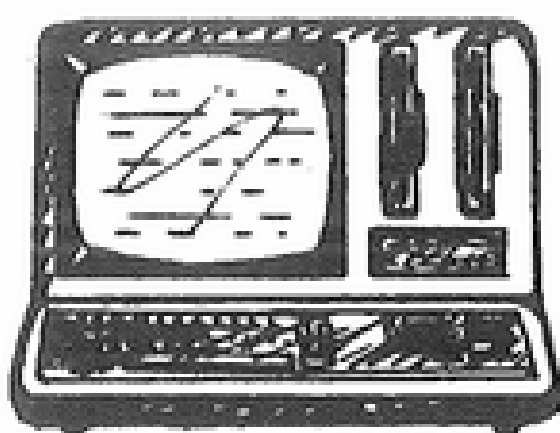
TAKE YOUR CHOICE

TRS-80 COLOR COMPUTER

OR

KENWOOD TR 7950





Computerfest



H H '83



State Convention

CENTRAL OKLAHOMA RADIO AMATEURS

proudly invite everyone to attend
our *bigger and better*

HAM HOLIDAY '83

JULY 29,30,31

Myriad Convention Center
Downtown Oklahoma City

See Other Side

PRE-REGISTRATION DEADLINE: Postmarked by July 17,
to be eligible for Pre-registration award

Registration packet will be held at the door. Please do not request refunds or confirmations.

USE THIS FORM TO PRE-REGISTER

You may buy as many registrations as you desire at \$6.00 each. All participants and all guests over age 12 will be required to register to enter any area. Tickets at the door are more expensive, so pre-register the whole family!

Please pre-register _____ people (over 12) @ \$6.00 ea \$ _____

Saturday Night Buffet & Dance _____ people @ \$11.00 ea Door Awards \$ _____

Dance ONLY Saturday Night _____ SINGLE @ \$3.00 _____ COUPLE @ \$5.00 \$ _____

ONE Flea Market Table @ \$1.00 (Strictly Non-commercial) \$ _____

_____ Additional Flea Market Tables @ \$4.00 \$ _____

NOTE: Flea market tables not reserved on this form will be sold
to door registrants @ \$5.00 ea, subject to availability.

Reserve my table(s) for SATURDAY _____ SUNDAY (Circle one or both) _____
Total amount enclosed \$ _____

Name _____ Call _____

Street/Box _____ Apt # _____

City _____ State _____ ZIP _____

Names of additional registrants, paid for above.

_____ Call _____

_____ Call _____

_____ Call _____

PLEASE INDICATE YOUR INTEREST IN: (How many?)

QCWA Breakfast, Downtown Holiday Inn Everyone Welcome YES NO

LADIES Saturday Luncheon & Fashion Show YES NO

Bus tour to shopping center, Walking Tour of Downtown YES NO

Make check/money order (No Cash Please) to CORA Ham Holiday and mail to:

CORA, P.O. Box 14268, Oklahoma City OK 73113 before July 17, 1983

CORA Collector & Emitter JUNE 1983 1

Come to OKC early Friday, bring the whole family, and enjoy all that Oklahoma City offers. On Saturday while you are hamming and computing the family can sample some of the following.

- The National Cowboy Hall of Fame belongs at the top of your OKC itinerary. The worlds largest museum of Western history and art awaits you with priceless paintings, sculpture and memorabilia of the West. It sets the mood to "play cowboy" for a day.

- Head for Frontier City amusement park, and roam Main Street in a recreated Western town - with shops, saloons, dancehall entertainers and rides.

- Browse some of the biggest Western stores you'll ever see.

- Saddle up for an afternoon of horseback riding.

- Kick up your heels at a rollicking collection of world-class Western nightspots.

- Enterprise Square, USA on Okla Christian College campus is the sensational brainchild of experts in educational TV, theme parks and entertainment - with flashing lights, animation, sound effects and video screens, Enterprise Square is full of facts and fun.

- Catch the refreshing, rushing roar of White Water, one of America's largest water recreation parks.

- Visit the Kirkpartick Center and marvel at Omniplex - the largest hands-on science museum in the Southwest -- the Air Space Museum, the Kirkpatrick Planetarium, the International Photography Hall of Fame and outstanding art galleries.

- Tour one-of-a-kind attractions like the Firefighters Museum, National Softball Hall of Fame and 45th Infantry Museum.

- Meet nearly 500 species at the renowned Oklahoma City Zoo - recognized as one of the top ten zoos in the country.

- Take time to see rapidly changing downtown as extensive redevelopment continues.

- Schedule an afternoon in Historical Guthrie, just 30 minutes from downtown OKC. Oklahoma's first capital offers a taste of turn-of-the-century, boomtown grandeur.

- After dark your choices run the gamut from theatre and stage comedy to the HH Buffet & Dance with music from rock to jazz, to the down-home sounds of Oklahoma Opry.

- Over 1500 restaurants offer a colossal selection of menu, atmosphere and price range. And your hotel or motel stay will be a vacation in itself.

The programs weren't back from the printer when we had to go to press on this issue but they are all set and will please everyone.

PRINTED, UP TO DATE PROGRAMS WITH DETAILS OF THE

TYPE OF PROGRAM WILL BE PRINTED NEXT MONTH AND

THERE WILL BE PLENTY OF COPIES AVAILABLE AT THE

REGISTRATION DESK.

SOME HIGH-LIGHTS*

Ray Clark will bring us up to date on SMIRK. Brad Rehm will discuss Evaluation of Ham Radio Equipment. George Adkins will take us on a DXpedition to Micronesia. Cox Cable Co. will help on cable TVI. Basic Digital Transmission will clear up modems, getting on the air etc..

There will be programs for those just starting, wanting to get started in computers and for those who have been around a while.

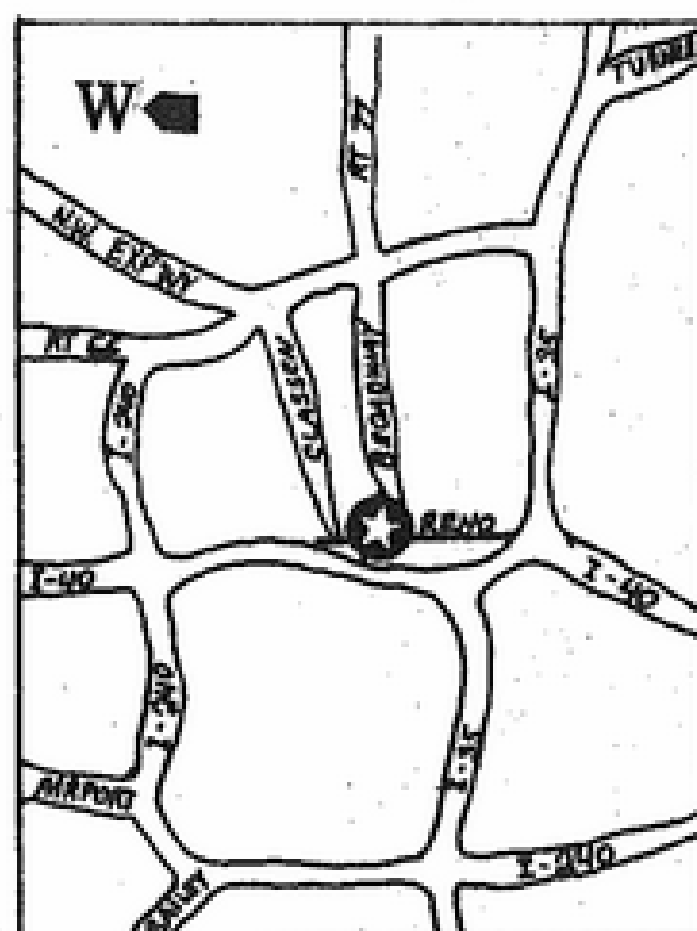
Annual meetings of The Okla Repeater Society, CORA, MARS, State CD people, and a host of others as well as a special FCC representative will be here to answer your questions and the ARRL Forum will bring us up to date on what has, is and probably will happen in Amateur Radio.

The ladies haven't been forgotten. Two full days of programs have been arranged. Join the JAZZ-ER-cise group if you care to. Microwave Magic with lots of door prizes will help you cook easier. There will even be a Tupperware party.

Saturday at noon will feature a brown bag style show - no you don't wear a brown bag - you bring it and go to Kerr Center a couple of blocks from the MYRIAD to attend a style show presented by the largest store in OKC. After "lunch" there will be a choice of BINGO or a bus trip to shopping malls. CPR training, save someone you love, will be conducted by the Red Cross at 3 pm.

On Sunday buy a ticket to the QCWA breakfast and find out what they talk about. Then at 9 am there will be a program to help the whole family understand computers, then BINGO. In case you carry away a lot of prizes a Self protection class will be held.

The members of Mid-Oklahoma Repeater, Inc. will host the Hospitality Room on the second floor of the MYRIAD. Coffe and snacks will be there to make your stay more enjoyable...



HOW TO GET TO HAM HOLIDAY

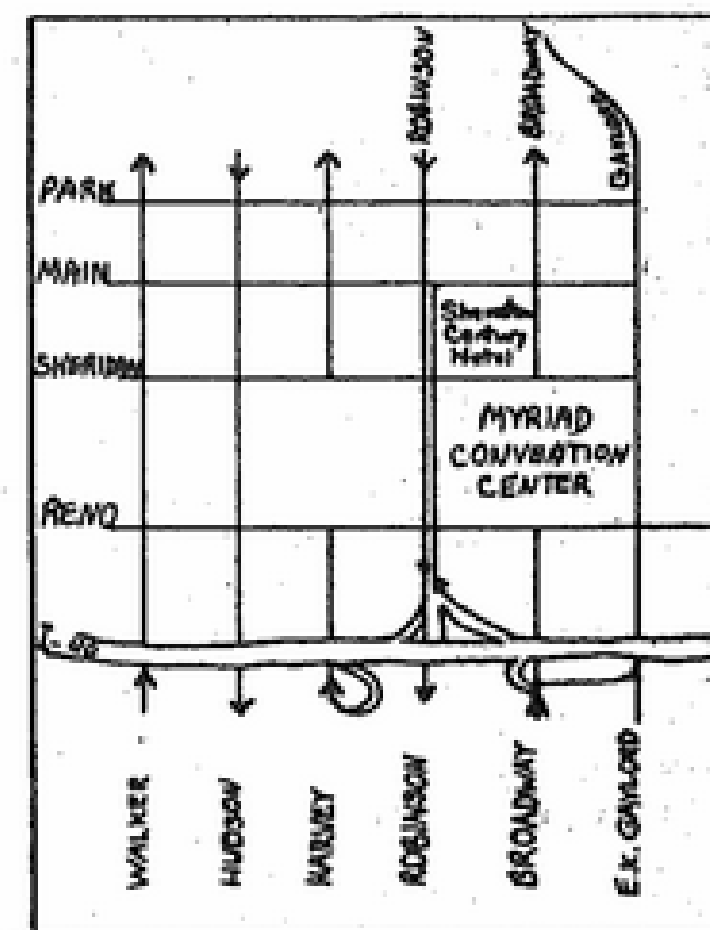
FROM THE EAST - Downtown Okla City will be on your right if you are on I-40. Take the Robinson off-ramp, turn right at the light for two blocks.

FROM THE WEST - Downtown will be on your left. Take the Harvey off-ramp, turn left under the Interstate to Reno, then right for a block.

FROM THE NORTH - From I-35 take I-40 WEST, then see FROM EAST.

FROM THE SOUTH - From I-35 take I-40 WEST, then see FROM EAST.

Need more help? - TALKIN IS 146.34/94



OK DX

De AD1S.

NEXT MEETING: Moved to the SECOND Monday of the month to avoid conflict with mailing date of the C & E. Repeat, SECOND Monday for the OK-DX informal meeting, held on June 13, 1983 at MARDEE'S RESTAURANT, (Note new location) located in the Springdale Shopping Center, N.W. 50th near Meridian, Oklahoma City. The faithful usually gather around 6:00 and stay until ??? I am told that Mardee's features FREE shrimp until 7:00 PM, so come early and enjoy. K5GL and AD1S have scouted this location for our meeting, and recommend it for everyone...besides, they play country music!

OK DX Association will be sponsoring two programs during the 1983 HAM HOLIDAY on July 29, 30 and 31, 1983. We hope all the DXer's will attend, see the fantastic Flea Market and Dealers Displays, attend a seminar or two plus get together with all your fellow Hams and DXer's. It should be an outstanding convention again this year, with new programs on computers, digital communications and some excellent technical goodies thrown in! Also, a representative of the F.C.C. is expected, so we get a chance to ask about no-code licensing!

Featured in the DX programs this year will be the slide presentation of the arduous DXpedition to St. Peter and Paul Rocks from early 1983. I have been talking with the SSB operator, Stuart Greene, WA2MOE, and he assures me that the show is a good one. You remember the St. Peter and Paul DX trip; that was the one that used ALL of 20 meters to work split, and evoked an editorial in QST by General Manager, Dave Sumner, K1ZZ. WA2MOE has some interesting insight from the various operators on the trip and we'll share them with you at HAM HOLIDAY.

Also, slides from the 1982 DXpedition to Micronesia will be shown, including handicrafts from Yap, Palau and Majuro Islands. The ladies will probably like this one, too.

Congratulations to Bruce Goff, KC5CR, who upgraded to Amateur Extra class last month! Bruce heard about the new Extra subband on 20 meters and took the challenge! I know how Bruce feels about CW, so we are especially pleased that he had the incentive to conquer the BIG "E".

The QSL's from TT8AC and TT8BC are in the mail from WB4ZNH and company. Carl will be in Dallas at Ham-Com on June 4, 1983. I am going down to see Carl's slides and hear how great he is, (and to say 'Thanks' for another new country.)

*** ON THE BANDS ***

CHINA - BY1PK has returned with regularity and was heard on May 18, 19 and 22 (local). Listen for the distinctive 'chirpy' AC note, around 14.050 Mhz anytime from 0030 UTC. I worked BY8AA March 23, 1983 and still anxiously await my QSL card. Fingers still crossed.

SOUTH SHETLANDS - 4K1F is there and active, particularly on 20 and 40 meter

CW. He is a Russian, so QSL's go to Box 88, Moscow.

BANGLADESH - S2BTF is supposed to be checking into the SEANET, (14.320 Mhz at 1200 UTC) but we have not heard him; nor have we talked with anyone who worked him there. CALL ME if you hear this one!! HI.

KERMADEC - ZL/K - is one of the top twenty rare ones, and Jim Smith, VK9NS says he plans to go there. Jim is soliciting funds to pay off the enormous expense of his recent DXpedition to Heard Island and help launch a trip to Kermadec in 1984. Jim's address is P.O. Box 90, Norfolk Island, Australia 2899. Tell him I said hello... By the way, Jim's VK0JS cards have been mailed!! He is far ahead of the "other group", which has only printed a few hundred cards for their regular QSL manager... Woe is me.

AMSTERDAM ISLAND - FB8ZP has been a busy fellow on 20 meters around 1200 UTC for several days. He is a good operator, but operates transceive. Of course the Stateside DX hogs never stop calling... Listen around 14.210 Mhz.

MALPELO - HK0?? will be activated by a Colombian DX Association in October. This should be a multi-station (major) effort to commemorate the anniversary of the Colombian nation and World Communication year.

SAN FELIX - CE0X? will also be activated later in 1983 with (perhaps) one U.S. operator to assist with the language barrier... I know who the U.S. op will be, but have been asked to stay silent at this time. No, Elizabeth, it WON'T be KF10/CE0X!!

JARVIS ISLAND - KH5 will be active during the CQ Worldwide DX test... Guess who is going to fight the 'feral cats' (look it up) and the goony birds? More on this later...

We were very pleased to chat with one of our readers from Ponca City on the 145.290 Repeater (Enid) last weekend. I was mobile, so neglected to record his call, but He knows who he is and I appreciate his readership! Good DX.

Don't forget the June Meeting at Mardee's Restaurant...and HAM HOLIDAY on July 29, 30 and 31! 73 es GL de AD1S.

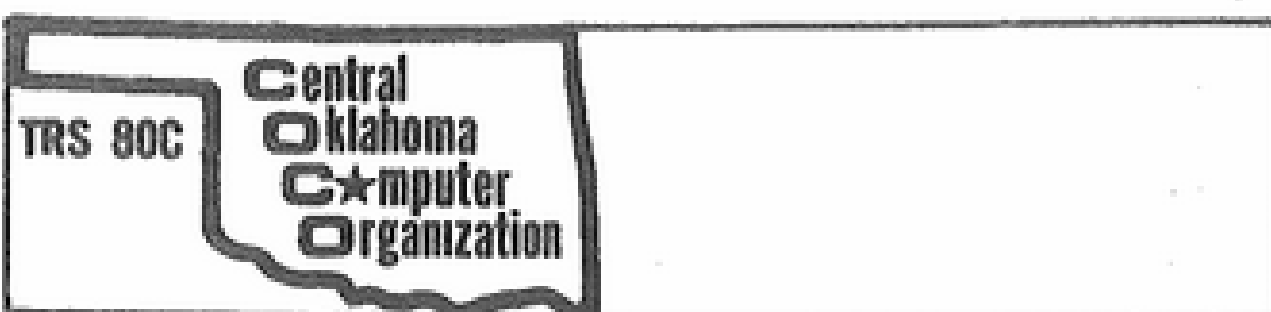
1 (405) 376-3569

BOB WA5CJG



PACETRONICS RESEARCH CO.
COMPUTER SALES AND SERVICE
*TRS-80 COLOR COMPUTERS

*TRS-80 IS A TRADE MARK OF TANDY CORP. 1726 W. ROSEDALE DR. MUSTANG, OK 73064



USING FLEX NET

Here it is almost time for the C&E and nothing written. Being this is a special addition and going to Hams state wide, we were asked to write about computer /radio projects. I'm about half completed with a RTTY interface and a pulse power supply so I can't use either of those. After some thought I have decided to write about transmitting, but transmitting over the phone lines.

For those who are not computer types, one can send data over phone lines to other computers, to bulletin boards (a central computer to leave messages or programs on) and if you like, across the room to a phone patch and on to the radio. To send data via Ma Bell you need a Modem. This device interfaces the phone lines to the computer in a manner so as not to cause the Telephone Co. interference, also it changes the voltage output of the Serial I/O port to Audio that can be transmitted over the phone lines.

The bulletin board here in Okla. City is called Flexnet. Flexnet was originally started not for our Color Computer but it's Father, the Southwest Tech 6800. The 6800 uses a different Disk Basic then COCO, called FLEX. Voilà, the Flexnet.

As things turned out our little 'game' machine could also run FLEX and some of us started using the net with mixed results. For one thing we started leaving Radio Shack type programs on the net, these caused some confusion. Like most fathers and sons they do not totally understand each other. And like fathers instead of throwing us off the net, they assigned one of their disk drives just for the Colo Computer.. Even more they wrote a program (Datalink) to run under Radio Shack disk basic, alleviating the need of first running Flex.

Special thanks should be given to some very special people *** Bill Holland *** R.L. Hilbun *** Roger Walton *** for their work on Flexnet.

Operating Flexnet: OK, now to the hard part. I don't mean the nets hard to use, I mean writing about it is hard! First things first, do you have a modem, disk drives (one will do but two are sure nice), a terminal program such as DATALINK (videotex will work but you can not upload or download programs) and oh yeah, a computer. Bill Holland tells me that sometime in the near future, he'll have a program for cassette based computers as well but for now you need a disk drive.

Getting on the net is so easy that if you're not carefull after loading 'DATALINK', you'll miss it happening.

LOADM"DATALINK" (ENTER), next EXEC (ENTER)

The prompt that appears explains how to get to the MENU, which you do not really need to do right now but if you like hit BREAK to see whats on the MENU. The Menu is easy and self explaining. Hit 'T' to get back to terminal so you can place your call. The phone number is 722-6809, this should be a breeze to remember 6809 is the processor chip that COCO uses. BE prepared to call again if it's busy. After the third ring Flex net will answer with a tone, when you hear this tone turn the modem to ORIG., after a short pause the net signs on with the date and what ever Roger wants to tell everyone. Then you'll get the nets prompt FLEXNET-

Your on the net, notice you did not hit any keys after making the call, you didn't need a codename, number or know the governor. IF you have never used a bulletin board before, it might be of interest to know you are operating someone else's computer.

Now that you're on the net.....What next? Well I'm not going to go through all Flex commands but here are some you'll need.

CAT : Shows whats on the disk

20 CORA Collector & Emitter JUNE 1983

- ASN : Assigns working drive (color computer programs are on drive one, so if you type ASN W=1 (ENTER) then any thing you do such as CAT, you'll be on drive one.
- BUILD : this lets you leave a message for someone, as BUILD HOLLY.HOL (ENTER). To get out of the build command use a # (pound sign)
- RECEV : this tells the net to receive a program you are about to send it. AS RECEV DIRLIST.RSB (ENTER), NOTE the extension. RSB = Radio Shack Basic, RSM = Machine Language, RSD = Data, etc..
- SEND : this tells the net to send to you. Use the same format of RECEV.
- DELETE : Kills any file on the disk.
- LIST : Lists messages made by the build command.
- LISTNEW : Lists only those files that have being put on the net after a date you select. LISTNEW 5,25,83
- RENAME : Will rename a file.

These are the most used and will get you in and out of the net alright. When using the SEND and RECEV commands remember that you are operating someone else's computer and you are telling it to send to you or receive from you. After the net gives you the PROCEED prompt you must hit BREAK to get back to your computer, that is if you're using DATALINK, if not then you'll use what ever format your terminal program calls for.

To leave the net you use the same format as most all nets, that is type BYE (ENTER). All the programs you find on the net are free, you may send or receive at your pleasure.

All the proceeds from the sale of this program will be used to improve the Flexnet. It is hoped that the sale of DATALINK will pay for some more phone handling capabilities.

The DATALINK program can be obtained from:

Bill Holland (cost \$19.95)

RT 5 BOX 384J

OKLA. City, OKLA.

zip 73169 phone 1-405-745-3392

Flexnet will be a place for new programs (public domain) as we receive them. Its also nice for storing a program you wish to send to a friend that works different hours than you do, later he may retrieve it.

I'll continue on the memory map next month. Take care and happy computing.

Holly

84K Upgrades

Peripherals

R&G Electronic Specialties

3317 S.E. 24th

Del City, Oklahoma, 73115

BOB WB5NSV 405-677-8685

TRS-80 Color Computer--Service & Repair
TRS-80 is a trademark of Tandy-Radio Shack

ARDMORE AMATEUR RADIO CLUB COMMUNITY SERVICE SINCE 1948

The Ardmore Amateur Radio Club, has been most lax the last couple of months reporting the minutes of the last meeting to CORA. Reason we have no minutes! In view of the up coming HAM HOLIDAY/ARRL STATE CONVENTION/COMPUTER FEST, and because we finally have some news, we submit the following, as fact and fiction. We sure would not want to be forgotten at such an auspicious occasion as HAM HOLIDAY. I understand that we will be helping with the registration. Since we are somewhat new in CORA we are looking forward to meeting some of the Oklahoma City Q.R. ZEDD's. We might even get lucky and meet Tondelayo Schwartz, I have always liked those German girls; that blond hair and those big blue eyes.

Saturday May 14th. we met for our monthly breakfast, there was a good turn out in spite of the storm we had had Friday evening and night. Twenty or so faces ham and egged it, Then EVELYN GANT, XYL of JACK GANT W5GM presented a most enjoyable slide show on EPCOT CENTER in Florida. Funny how after seeing these slides everyone is ready to begin the journey to Disney World, for a vacation. I wish we could get as many out to a business meeting as we do to our breakfast. BILL MOORE WA5CSN, past president of the TULSA RADIO CLUB, visited our breakfast. BILL, also is an ex-Ardmoreite. He discussed the TULSA CLUBS growth which is approximately 150 members and spoke about their school for upgrading. We enjoyed talking with BILL, most of us were well acquainted with his father-in-law who recently passed away.

One of our charter members was honored recently and we are happy to pass on the good news. CHARLES DIBRELL, W5BLW was selected by the Chamber of Commerce and the Ardmore Development Authority, as one of the two Distinguished Service Award Winners for 1983. Charles was presented a Certificate by Wilson Wallas. They spoke of Charles as MR. RADIO, since he not only has been a ham since 1929 but he also operated a two way communication business before retirement. An active member in our ARBUCKLE WEATHER NET, he has participated in a great many weather watches.

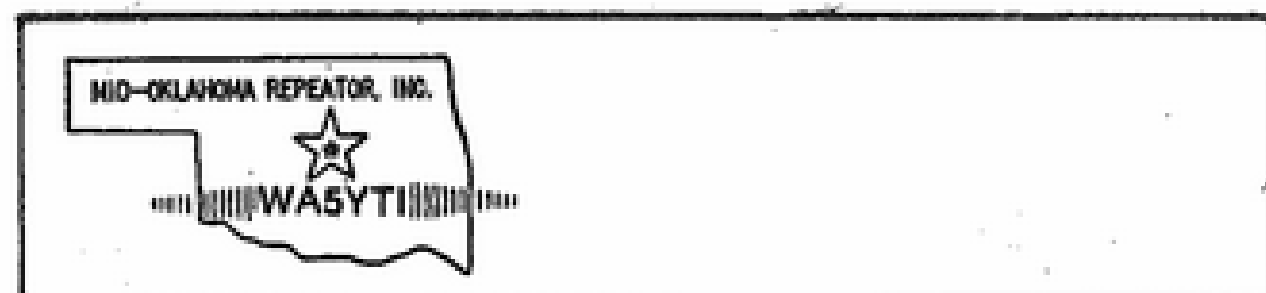
CHARLES is most active in his church and spends several hours a day there. He has given many more hours to the RED CROSS for which was honored. After working with the ARBUCKLE WEATHER NET, he then gathers information on damage for the Red Cross, which is followed up helping disaster victims thru the RED CROSS. He has contacted many in our local area, when ADA was hit he spent many weeks helping out there. CHARLES is currently serving as Chairman of the Carter County Chapter of the Red Cross and as Coordinator of the Disaster Volunteers of the Oklahoma and Texas Division.

Friday the 13th. brought severe weather to our area and the ARBUCKLE WEATHER NET, was called early in the evening. A very active cell was followed from the Ringling area to Healdton, to Ardmore, where one of our spotters reported a funnel about two miles west of Ardmore. Egg size hail began to fall and he lost sight of the funnel. About this time Channel 9 reported the funnel and the weather bureau in Oklahoma City notified our EOC of same. Needless to say many went to cellars as the sirens blew. The funnel must have lifted and the cell moved on towards Sulphur where damage did occur on the North side of The Lake of The Arbuckles. Spotting and reporting to our club station W5JP, located at the Red Cross bldg. and being manned by TOM BANKS, W5HJ and net control CHARLES DIBRELL W5BLW were PAT UBANKS, located south of RINGLING, KA5HKJ, WAYNE SKELTON, W5VXR HEALDTON, LLOYD BENTON, K5WTW, HEALDTON, FRED INNIS, W5VKB, South of ARDMORE, BOB GRIFFEN, W5VKA in Ardmore. Spotting from

various locations were RUSSEL SOUTH, W5PZH, RUSS located the funnel cloud, JACK GANT, W5GM, TED SPURGEON, K5PJO, DAVE VADEN, W5CSX, GENE SOUTH, WA5IJA, TOM TUDOR, WA5WMO CARL KA5DAV, Sulphur, RAY, W5SKB, Sulphur, and JOE KEITH, W5NQU Daughterdy.

Continuous contact was kept with TONY, W5PNH at the Oklahoma City, Weather Bureau through out the evening. Ardmore came thru in pretty good shape with only wind, hail & two inches of rain. WHEW !!!

THE ARDMORE AMATEUR RADIO CLUB, participated in the MARCH OF DIMES Walk from the Coliseum to the Pecan Grove at Lake Murray. The Red Cross Van followed the Walk. Some of our club members participated in a first for us, they transmitted messages from terminals in Ardmore to a terminal at the High School in Healdton. WAYNE SKELTON, W5VXR, lives in Healdton and has two girls in a computer course at the High School. WAYNE, installed his base station at the school along with an interface and his computer. They also installed a COCO with computer games. Normally only juniors and seniors attend computer classes. This day they allowed the 7th grade up to visit the class and use the equipment. CHARLES DIBRELL, W5BLW, spent from 8:00am until 3:00pm at his station. TED SPURGEON, K5PJO, transmitted several reports to the students and HOWARD ROBINSON, W5FAJ, sent info from his shack. This session is reported to have created a great deal of interest in both computers and ham radio. Most of the students had never seen on computer communicate with a second computer. GEORGE COLLIER Jr., W5GME, DURANT, recently visited our breakfast. Come again GEORGE. In fact we would welcome any CORA member anytime. Remember, second Saturday of the month 7:30 to 8:00am, Tower Restaurant, Ardmore. We finish our program around 9:00 am. "73's" JOHN, W5FZD.



ANOTHER FINE MORI MEETING WITH PRES BOB N5EPV AT THE HELM, KEEPING US IN STITCHES...AFTER THE USUAL TREASURERS REPORT, AND SECRETARIES REPORT AMENDED IN THAT UNANIMOUS WAS SUBSTITUTED BY THE WORD OVERWHELMING...WE DEALT IN SUPERLATIVE BUSINESS FOR A WHILE...

WIGOM PASSED ON THAT THE DEADLINE FOR COMMENTS ON THE NO-CODE PROPOSAL 83-28 HAD BEEN EXTENDED TO JUNE 28, AND THAT RAY WANGLER W5EDZ OF OUR ARRL DIVISION HAD SUGGESTED STRONGLY THAT WE WRITE OUR CONGRESSMEN AND COMMENT, HOPEFULLY WITH A NEGATIVE ON NO-CODE AND PROVIDING, A ALTERNATIVE IDEA.(I'VE WRITTEN MINE AND RECD A ANSWER FROM MICKEY EDWARDS ALREADY....

I'VE ALSO SIGNED A LETTER DRAFTED BY OUR VP. KD5DL STU TO GO FORWARD ON THE CLUB LEVEL..

WE DISCUSSED AND SUGGESTED DONATIONS FOR THE WEATHER SERVICE 2 MTR RADIO NOW IN PLACE AT THE NATL. WEATHER SERVICE OFFICE AT WILL ROGERS AIRPORT. I UNDERSTAND THEY ARE LINKING AS FAR AWAY AS ALTUS. THANKS TO AE5N FOR HIS FORESIGHT

MORE DISCUSSION ABOUT A REPEATER CONTROLLER, WE'LL HAVE A FIRMER PROPOSAL AFTER STUDY BY THE BOARD.

LOTS OF FOLK ENJOYED THE BIG CROWD AND COFFEE AND DONUTS..DOOR PRIZES WERE DISTRIBUTED AS USUAL

WE'RE WORKING HARD ON THE HAM HOLIDAY WOMENS PROGRAMS, AND NEED MORE VOLUNTEERS FOR THE PLANNING AND THE CREW WE WILL NEED TO HAVE FOR THE CONVENTION. CHECK THE PROGRAM PRINTED IN THIS ISSUE AND GIVE US YOUR IDEAS....

NORM W5FLO AND N5EPV WILL BE THE COORDINATORS OF THE TALK-IN FOR HAM HOLIDAY ON 34/94..

THATS ALL FOLKS FRED KA5CXW SECY
CORA Collector & Emitter JUNE 1983 21

The South Canadian Amateur Radio Society

FINALLY!!! .-- --- ..- / .--.

It all began on an overcast Tuesday in April. Actually, the action started the previous Friday when two SCARS members picked up the old ACARC repeater at the FAA installation in Oklahoma City and moved it to the workshop of Bob, WA5CJG in Mustang. During the weekend that followed, the machine was re-tuned to the 147.66/.06 frequency and the ID'er was re-programmed to the W5OU/R call.

So, on the morning of April 19th, KA5EFJ and W5MCJ left Norman with a 4 inch thick piece of foam padding and some rope to bring the new SCARS repeater to its new home. After their arrival in Norman at about 12:30p.m., work began on moving the machine to the top floor of the Cleveland County Court House. This was obviously an easy job and about one hour was set aside for the task. As with most easy jobs, the time required should be multiplied by at least a factor of four. The first roadblock to progress came when the machine was found to be just large enough to cause a great deal of trouble to the crew trying to move the cabinet through the door and down a flight of steps. Once into the basement, the repeater had to be loaded onto the small elevator that services the county jail. It went in just fine, however two members of the team were almost entombed for life when the monster failed to slide out of the elevator when it reached the fourth floor. Well, surely after extracting the crew from the elevator, things would be easy. So we thought. The layout in the attic of the courthouse is almost impossible to describe, but it is enough to say that the fun was only beginning. The door leading into the Law Library, through which we had to pass, was too short, and to lay the machine on it's side was also impractical because of the close spacing of the shelves on which the law books are stored. After much wailing and gnashing of teeth, it was decided to remove the wooden palate that supported the cabinet on the bottom. This fortunately also facilitated standing the repeater in a space with less than generous head room. Almost Done!! Just a couple of holes through the side of the metal cabinet and one through a set of wooden bookshelves and we were in business.

The repeater, I am glad to report is everything that we had hoped for. The reliability is much improved over the old machine and the coverage is great.

The installation crew included: KA5EFJ & W5MCJ as previously mentioned, as well as KU5B, W5MCN, N5ALG, W5OU, and WA5RPP.

NOVICE CLASS BEGINS.....

The SCARS class for potential Novice Class Licensees began this month and has been meeting at the Red Cross building in Norman. Most classes are held in Thursday except for a couple of weeks when it will be necessary to hold class on Friday nite. The class currently has six to eight members.

-wa5rpp-



22 CORA Collector & Emitter JUNE 1983

GREAT PLAINS A.R.C.

The Swapfest has come and gone here at Mooreland for another year. We had a great day of fun with lots of visiting, swapping, and good food. Our entertainment was provided by a young man from Gage, Ok., Richard Chapman. He sang gospel songs and was truly enjoyed by all. We had two programs for the ladies. One was on painting presented by Rhonda Richmond. She had an excellent program and it was enjoyed by everyone. The other was a Mary Kay program presented by Kay Miller. The demonstrations were enjoyed. We also had a children's program with N5CC, N5CCV and WDØBDN doing the teaching. The kids made a salt water battery and a key. They also wrote the code on their key. You should have seen their beaming faces! Last but not least was the food. The tables were groaning and after dinner so were we!! I have a small pyrex dish that had contained meatloaf and a black plastic handled pie server that were left. If these are yours get in touch of me. Also taken by mistake was a pyrex dish that had contained meatloaf that belonged to Judy Bowman, XYL of Gerald Bowman N5CCV Mooreland.

We had two guys go to Oklahoma City and up grade. Leo Peil KA5DUO got his advance and Gordan Richmond got his extra. Congratuations go to both guys! That's a lot of hard work and studying.

We have been able to use the new Woodward radar three times as of this writing. The system was changed of necessity. Because of the new radar and all of the added features KD5JR has his hands full with the radar alone and the various scopes. He is doing a mighty fine job too!! Plotting is E.D. Buck with WBØPGD on the 2-meter and Jerry Nickles on the local government radio. I keep a log of all the spotters' incoming reports, both hams and the local governments. We can interchange our jobs so that each is covered in case some one can't be there. The areas surrounding the Woodward area are each headed by a net control. The net controls send out their network of spotters and they work on a different frequency with 147.12 reserved for the radar and its surrounding net work of spotters. We have a few more "bugs" to work out but feel we have a realworkable thing going. So far it has worked real well with each person doing their assigned task.

Starting shortly will be a novice class for children taught by NC5C. He has five anxious students raring to go. He will hold classes in the Woodward court house in the civil defense room. Anyone wishing to attend or help him please call. His telephone number is in the front of C & E.

73's WBØQGW

BELLE-LAUGH DEPARTMENT

Do you want a good belly laugh? Then turn to the diagram on the bottom of page 33 of the March issue of 73 Magazine. Then go to the text on the middle of page 34 and note the statement about phasing the windings of transformers connected in cascade. WOW! And that's in a "Technical" journal! One can readily see that the author knew nothing of AC theory, but wouldn't you suppose an editor would see such a gosh-awful boo-boo?

W5JJ

Salem

DAYTON HAMVENTION HAPPENINGS (or the Right Time at the Wright Place)

Whew! Another weekend at Dayton. Nothing special, just the world's largest fleamarket, not to mention announcements of all the latest in amateur gear and, of course, over 20,000 milling hams wandering through every nook and cranny of the HARA Arena. There are some who would believe that their soul, upon death, would go Dayton Fleamarketteering, that is, assuming they don't go to the other place (Skunk Hollow) first.

I generally start agitating the local gentry to begin to make plans for our annual trek to Dayton around Christmas. I drew early interest from WA5FLT, Joe Garland and Joe K5JB. This time, JB was go from the word go. WB5UIY, Stanley was also in the vanguard. Actually, this is no trick to round up this crew. We have been regulars, plus or minus a count, for several years. As the agitation continued, I thought I heard the distinct sound of a wet noodle coming from Stillwater way as WB5YWO decided he could not possibly work the trip into his schedule after talking about it continuously since last year's trip. Another candidate in the waffling category came from WB5FZD (John waited to leave us literally at the church house steps the day before the trip). Oh well, ye stout hearted men do not despair, the crew (K5JB, WB5YWO and WA5FLT) was joined by another Novice (Daytonwise, that is) WA5LTM, Tim. I had talked this up at a couple of impromptu doughnut eating sessions of the intense variety on regular Saturdays. Tim took the bait and the airline ticket in one big gulp.

We thought that our friends at Polaroid would come through for us with an appropriate 2 for 1 ticket purchase, but this ran into early difficulty. Meanwhile, Stanley had check with Delta and found that we could accomplish the round trip by commercial jetliner for just about three bills plus some change. On a Saturday afternoon conference call, we made our reservations. Delta was getting persnickity, they wanted the money within three weeks of the reservations, not three weeks prior to flight as we had been accustomed to. These commercial boys are going to get a run for their money next year, I will talk JB into considering another private plane flight.

One slight hitch in the plane reservations (the big hitches came later) came about when Joe WA5FLT decided he had to talk to a female voice, (it had been almost 30 minutes) and called Delta to check on the flight. We were planning on leaving Thursday Afternoon and returning on a 3:00 p.m. flight on Sunday which would truncate the prize drawings and prime time flea marketteering a little, but was a necessity brought about by the cheapness of the tickets. Delta made an unscheduled change in the scheduled departure time and Joe found that Delta wanted to leave at 2:00 p.m., not when we would be ready later. The change was brought about by Daylight Savings time and after some scrambling around, we found that TWA would be leaving Dayton about 5:00 p.m. on Sunday and we would be arriving back in OKC about the same time as previously planned. Could Delta change the flight to the TWA flight? Sure, just cost you \$13.00 more. Didn't this change come about because Delta was ready before we were? So Solly, right, Delta will pick up the tab. Now, that's downright nice.

As D-Day came down to takeoff, we began to collect more problems in the form of the rooms to stay. Dennis WB5ISN had made the initial reservations, but

by the time it got to the Ramada Inn, they had flubbed it up. Which was standard for the boys at Ramada. Our double double rooms (a room with two double beds) became double rooms only and our request for a cot promised for one of the rooms, was never honored, though promised. Not only was it not there for Thursday, it was not there for Friday or Saturday and I never could interest anyone at the front desk in getting us one. We were told we were on our own. The dolts at Ramada didn't stop there. There was more. Later, however.

John WB5FZD did a disappearing act the day before D-Day and the group was down to 5. Wendall WB5ISO and Dennis WB5ISN were going to trek up in Dennis' new truck and we gained a welcome lategoer in the form of Ron WA5EAI who had decided to drive. Ron also graciously offered to carry up any necessary equipment for the flea market. The temptation was great and I brought him a bunch of junk Wednesday nite before departure including the TS-130 portable station. I made a couple of schedules with wet noodle impersonator WB5YWO as well as WA5JXX.

What can you say about a commercial plane ride that hasn't been said before. We left in the afternoon which means that we could not act crazy like we did the previous year with the Red eye flight from Tulsa. Something about the late night hours brings out the crazies and the stewardesses fortunately have a sense of humor. The first leg of the trip was to Atlanta. We hiked off the flight and I was running behind Joe K5JB to our next connection when he turned around and said "Hey, there's Joe Garland kissing a girl!" And he was right. Joe, apparently aware of the 2 hour layover in Atlanta had rounded up some midtrip entertainment. After introductions, JB, Stan and Tim and I found a bar to wait out the next connection and I suspected that Joe went out and rented a couple of those 25¢ lockers. He showed back for the flight with a grin on his face. His friend suggested that next year, we should all come into Atlanta a day early and she would scare up some entertainment for all of this travelling show citing some amazing boy/girl ratio in Atlanta. Hey, thanks, but this is Dayton weekend. No hanky panky stuff, a man needs all his strength for the flea market. But it is something to think about. . .

Our arrival at the Dayton airport was significant in that Ron WA5EAI had just arrived in town in his truck and honked out to the airport to meet us. Also it was great to see Hoss WA5ZAI, Keith WA8ZWJ and Bob NØVIX. They, of course, came appropriately dressed in the necessary glasses, noses and fake mustaches made famous in previous Dayton trips. Hoss had everybody in his group stand with their back to us and then turn around on cue. However, the problem with this is with their backs to us, they really don't know when to turn around. Meanwhile, Stan made a covert approach and caught Hoss and the boys in mid Skullduggery, make that Noseduggery.

It was a hop, skip etc to the National car rental agency and we got the rent car for the trip down to the Ramada to do battle with the front desk. I had called from Atlanta to check out the room reservations and to cancel one room. This action took about 10 minutes of battling with a snippy front desk clerk who must assumed I was hard of hearing while I only assumed she was stupid. Part of the problem was that even though I sent the reservations in under my name, they kept them in Dennis' name, to the ultimate confusion. Of course, the request for a cot for the room was met with a brusque, "we can't help you." I waived copies of the letters (two, count em) I had written requesting the accommodations including extra beds to no avail. About the only thing they did right (and that was by accident) was that they managed to get double double rooms and we kept them by adverse possession for all three nights.

I guess I figured that there was nothing else that the Ramada would do that they had not already done, but I was wrong. When we checked out, they stiffed us on the bill for \$48.00 by failing to credit us with a check deposit. I will get the last laugh from VISA. And Ramada may never get any other business from me. A letter about two weeks ago to the Ramada front office has gone unanswered or unresponded.

A regular Friday nite ritual (and Dayton is full of rituals) is a trip to the Fireside tavern for dinner and a quick drink. This is one of Keith's favorite watering holes and as my eyes became heavier, I realized that I needed to crash quickly. Besides, we needed to get back to the Hotel to see if we could get the HF station up and running. We unloaded the TS-130 and carted it up to our 8th floor room. JB, a veteran of many HF operations from motel rooms, suggested that with my antenna tooner that we should consider a half-wave antenna. Sounded like a good idea, so we paced off some wire in the room and dropped it out of the window. JB went downside to recon the area and finally decided to tie the half wave end with some break easy string I brought to a lamp post down on the fourth floor by the swimming pool. It was amazing to me that of the more than 20,000 hams in town and goodness knows how many in the Ramada that there was only one HF operation going on.

Back upstairs, I attached the antenna to the single ended output of the Dentron Junior. No dice for the first iteration. JB took over and after considerable amount of jiggling blew up the metering output circuit of the Dentron. It really wasn't JB's fault as our choice of antennas really was the culprit. A half wave antenna is high impedance by nature, somewhere about 3000 ohms or so. To get this baby to take a 120 watts or so from a 130, the voltages do go up a little. From the formula

$$P = \frac{E^2}{R} \text{ which is really } E^2 = P R$$

which is $E^2 = 120 \times 3000 = 600 \text{ volts}$

The circuit was a simple diode detector with a 27K resistor and variable resistor in series with the diode detector. This resistor was only about a watt or so. However, the dissipation was really more than that:

$$P = \frac{E^2}{R} = \frac{(600)^2}{27,000} = 13.33 \text{ watts}$$

This is a little stout for the simple half watt resistor and it quickly gave up its carbon granules in a blaze of smoke in the antenna tuner. I guess that Dentron didn't design the tuner to work with half wave antenna.

After a little jockeying, JB was eventually able to get the antenna to take some power and we were drawing arcs with a lead pencil. I empirically verified the six hundred volts by getting across the lead pencil while JB was testing. We were tuning up into the blind and we needed an antenna indicator. The solution was our regular Friday morning visit to Mendelson's surplus and a couple of NE-2 neon light bulbs. The next night, I tied the neon bulb to the end of the antenna and we were able to get definite ideals about how much power the antenna was taking. The schedule was for Friday evening with the first time set for operation from Chuck's station N8ADN while we were at the party. Chuck and his wife Sue had scheduled as a prebash Bash (for the FM Bash). The station was now set up for a later try from the hotel room.

Up the next morning and after breakfast, we drove over to Mendelson's Surplus. I don't know why we do this and I think that this will be the last year. Mendelson's prices go out of sight when you pick something up. They don't price a lot of stuff and the ideal is that they will try to jack you up when you bring it up to the front desk. They have a lot of stuff and some of

it is quite interesting, but a lot of it is a bunch of junk and they take a lot of their better items out to the Hamvention site for sale in two different locations.

After Mendelson's, we drove out to the Hamvention site to be there when the rope dropped on the commercial exhibits. For some mystical reason, the Hamvention Committee had decided not to have the Flea Market start until Saturday morning (Surely it was because of the complaints from the commercial exhibitors). We took a considerable amount of time walking through the commercial exhibits hidden in every corner of the Arena and around the Wampler Ballroom. About six thirty or so, we headed over to Chuck's house. After getting directions as we were dashing around, we got there just in time to sit down for the 7 p.m. schedule.

It seemed that Roger had chatted with Mark on the way home from work and by the time I signed up on frequency, there was a whole host of Oklahoma amateurs waiting for us. I counted WA5BQX, WB5HST, W5OU, WD5DYI, WA5JXX, WB5YWO and a whole bunch of others who I neglected to copy out of Chuck's log (a napkin I brought out of the kitchen while munching tons of food). The "Big Kahuna" prize was won by Ron WB5HST whose Alpha boosted signal melted the ice in my coke. Bob WA5BQX was a close second. Ron also won "Mr. Congeniality" by running a series of phone patches to all the folks at home. Roger characterized the hour long plus QSO as the most "fun he had on HF in his life." We set up a time for a later attempt from the motel room that night. I was worried that the signals might be down since Chuck's station boosted a Dentron and a TS-830 and a full legal limit on 40 meters while I told everybody that I was running a 2N2222A to a bent straight pin (a secret I learned from Q. R. Zedd).

Later, that evening, Ron WB5HST and Mark WD5DYI checked in and reported good signals from the motel. The half wave antenna was working great. Jim WB5YWO checked in and Ron ran a couple of more phone patches. The signals were excellent again. Our NE-2 tuneup indicator was working great. I had some misinformation that the schedule was going to start on 75 meters earlier, then move to 40 meters. I tried to tune up the half wave (now a quarter-wave antenna) on 40 meters and the neon light went out. JB suggested putting a neon bulb down at the other end of the antenna and I thought why not. I made a loop with the wire lead of the neon bulb, then wrapped it around the antenna wire. I then slid it down the antenna lead to the end. Sure enough, it worked like a champ. We got the antenna to take power and we had a little neon bulb flashing away at the other end of the antenna somewhere down on the fourth floor.

The neon bulb down on the outside end of the antenna would still flash with the half wave on 40 meters since the end of a resonant half wave antenna is a voltage maximum. Unfortunately, it was also in the sight of the bar down on the fourth floor and from more than just a couple of rooms. Saturday night, we had a considerable amount of rain (as we had Saturday morning). We had another schedule with Roger WA5JXX, Mark WD5DYI and Ron WB5HST and chatted with them for over thirty minutes or so. Apparently, our neon tuner tester was spied by some drunk lady in the bar because somebody called the front desk and reported some "sparking" outside. The front desk passed the complaint to the maintenance man who went outside and stood in the rain for 30 minute looking for the 'sparking'. The next day, by the dawn's early light, he went back outside and finally saw the wire. He traced it up to our room and called and asked to come up. JB thought that he had been put up to this by somebody else in the hotel (like maybe Dennis) so he says

"Come on up." The guy came up and looked around and tried to intimidate Joe by saying he was a member of the Dayton Police Department and "what the hell were we doing." JB said with 20,000 amateurs in town, he should be surprised there weren't a dozen antenna outside. The guard then asked how we were going to get down and unhook the antenna. Joe said no problem, we'd just break it off since the string that we used was quite soft. He shrugged his shoulders apparently thinking with some regret over the time he spend out in the rain looking for a neon bulb. He said nothing and turned around and walked off. Meanwhile, JB gave a tug on the antenna and reeled it up.

I really began to regret the fact that the flea market did not start friday, especially when it began to rain late friday nite. When we got up the next morning, it was quite wet and still coming down. We were up by 5:30 a.m. or so and finally got out to the flea market about 7:30 a.m. or so. It was miserable and I had left my umbrella in Norman. Rain was rain and the flea market was the flea market. I got a little wet running around until Wendall offered to head out to Sears and buy some umbrellas. Of course, by the time he got back, the rain had stopped and stay away until about 5 that afternoon, almost perfect timing. Meanwhile, the prices jumped around as flea marketeers worried that a return of the rain would kill a season of sales. I made several good buys during this time. I think that we got about 4 inches of rain during the entire weekend and it seemed like it. For those in the flea market who were off the pavement, it was terrible, the ground was a mass of mud.

Dinner plans for Saturday night were kind of indefinite since Howard W5UVI and Bertha was up for the Hamvention. I hadn't seen them for some time. Also, JB and I had invited Chris Imlay N3AKD and Ed K3KA for dinner that night. Ed suggested that we go to the Spaghetti Warehouse in downtown Dayton and that sounded like a good idea. We called Dennis and Howard and said that we'd meet them there. After dinner with Ed and Chris and other members of the Capitol Amateur Radio Club, we had a great visit with Howard, Dennis, Wendell and others. Back at the motel, we talked to Mark, Ron and Roger and Howard and Dennis got on the radio to jawbone the people back in Oklahoma.

Sunday was a little laid back and we checked out of the Motel and were back out at the site by 9:30 or so that morning. I did some serious flea market searching and turned up the typical rare items such as HT-100 batteries and an extension cable for the IC-720. I finally broke down and purchased a capacitance meter for about \$73.00 or so. It was a digital type with LCD and I think that they will sell a lot of these. I also ran into Pat WA5BPS from Tulsa and he allowed me to set up some stuff on his table and I sold a couple of amplifiers. It was amazing that nobody bought any of the touchtone decoder boards. There were not many others selling digital tone decoders in the flea market. I sold an HT-100 which helped with the cash flow.

The real circus began on the way back. We hustled out to the airport and dashed onto our plane. After being in place, I was just settling down when the pilot came on and announced that because of traffic scheduling problems in St. Louis we would have a delay of about 1 hour in leaving. Oh boy, our connection in St. Louis would be tight, if not nonexistent. Well, actually, the St. Louis flight was delayed also but it didn't make any connection since TWA missed it by about 5 minutes and even though there were 8 on the flight from St. Louis to OKC, nobody wanted to let anybody know. And the stewardesses passed out the cokes and peanuts in the first 30 minutes that we were on the ground, then promptly sat down and

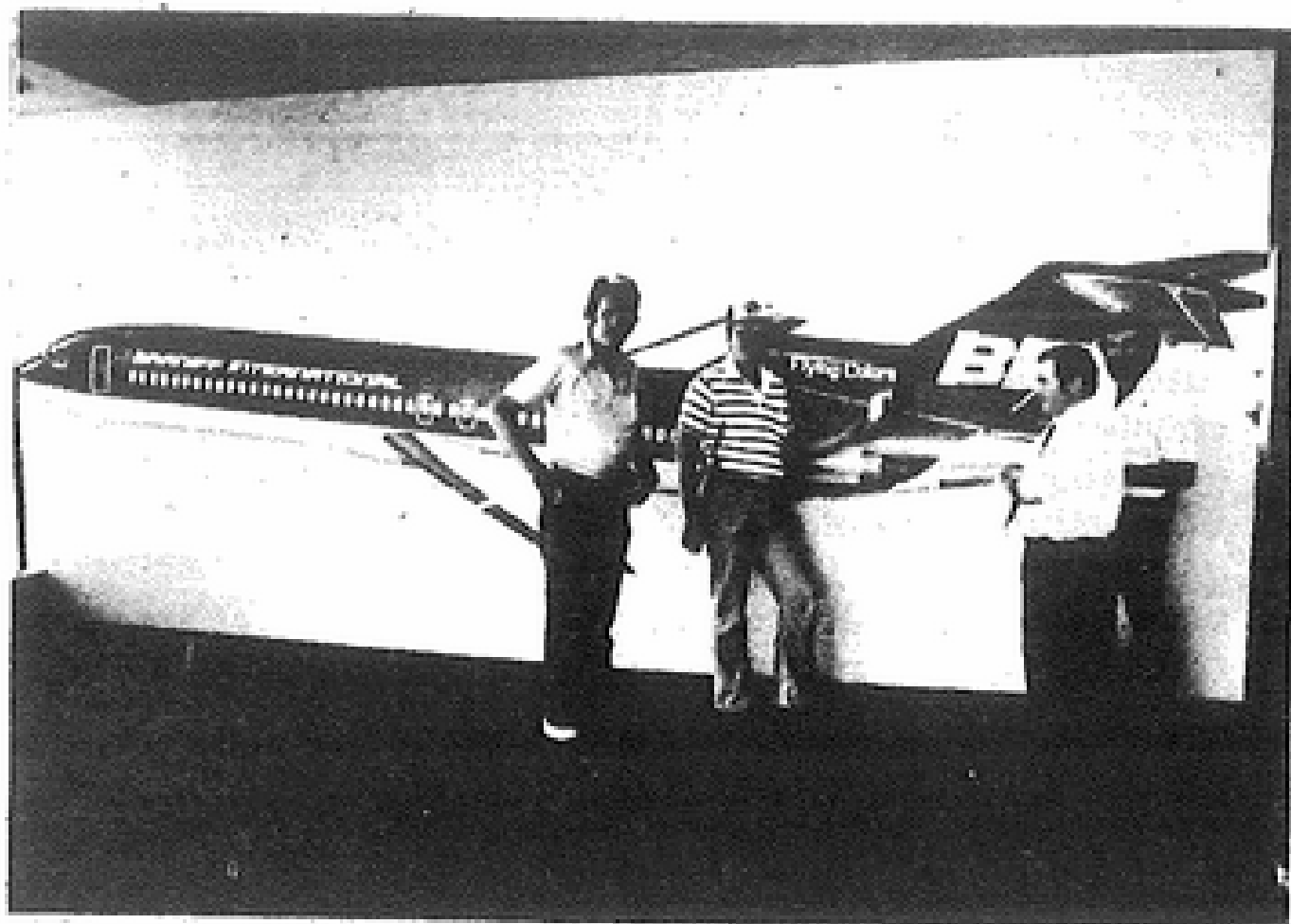
didn't budge an inch for the rest of the wait and the entire flight. They did, however, catch up on their reading. It was also interesting to be told that our flight to OKC would be leaving from a particular gate, then to find out that the gate they gave us was under construction. Even if we had had a fighting chance to get to OKC (had our flight not left before we got there) we still might have missed it while trying to figure out what gate the plane was really leaving from.

After we got off the plane, we went to a courtesy counter and tried to see what alternatives were available to get back to OKC. We were told there was nothing. I distinctly remember asking about going to Tulsa and getting a negative answer. Later, we sped to the main terminal area and spread out to check on alternatives. Stan checked the commuter flights. JB and I went to American Airlines. Tim got in line at TWA. A nice counter lady at American found a flight from St. Louis into Tulsa leaving in a couple of minutes, but we'd have to go standby. Joe and I went to the Ozark counter to make the reservations. By radio, we found out that we'd have to deliver our tickets to the TWA counter and get a voucher. We got the standby tickets and hustled through the X-ray machines and, of course, I dropped my HT-100 on the ground and it stopped working. We found that the flight time was right, but, of course, the flight was late. In fact, it was so late, that it didn't leave for an hour and fifteen minutes. Wonder of wonders, we were able to get on the flight. All of us. The stewardesses on the Ozark flight were very nice and knowing that we were displaced from an earlier flight, they slipped us all a couple of extra bags of peanuts. In return, Joe WA5FLT promised them a good time if they ever got to Oklahoma City.

The radios came in useful at Tulsa to collect the baggage, get out the rent car and collect the refunds from TWA. The plan was to rent the car and drive to OKC. Fortunately, one of the rental places had no drop charge to OKC, but I only found out after asking one of the girls at the other counter.

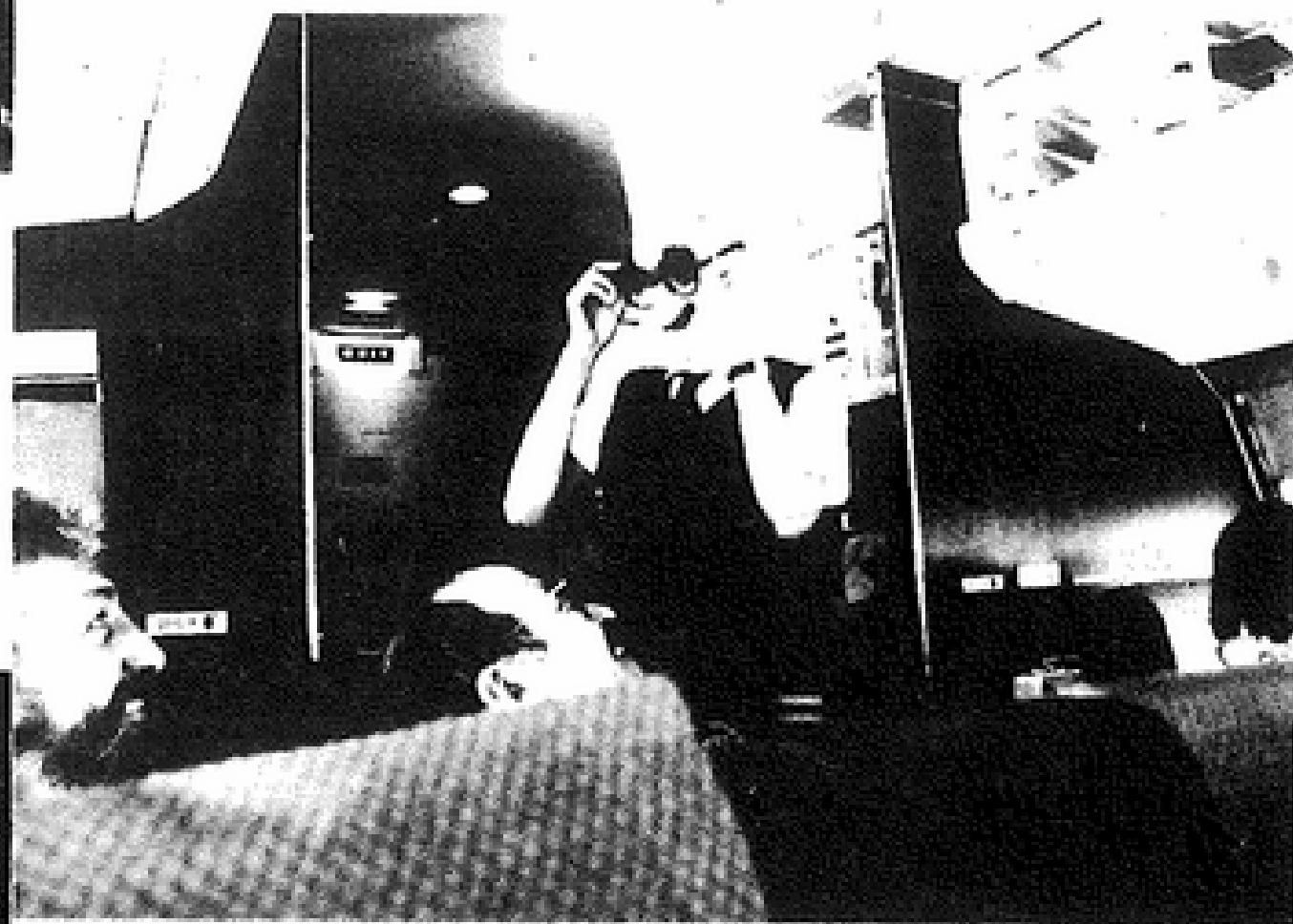
Back into OKC well after midnite and I was pooped, but Annette had made some lasagne for a late nite snack (assuming we had arrived on time at 8 p.m.) I couldn't see it going to waste, so I followed Stan up to his house and a couple of helpings as well as a glass or two of ice tea. That really hit the spot. Some fancy footwork with the rent car and Tim took it back the next day.

So how was it? Pretty good by normal standards. Not so good by Dayton standards. The rain was a real problem. It always seemed to stop by about 9 in the morning and start again just as the flea market was getting ready to close. The Hamvention Committee should not have caved in to the commercial exhibitors and struck the Friday flea market. The program contained an early history of the Hamvention and how it got started. They acknowledge that it grew to its present size because of the flea market. That is still true today. Dayton is centrally located to Chicago, New York, Atlanta and many other places. One thing was outstanding. The Flea Market. With its size and popularity came the outstanding programs and commercial exhibits. The commercial boys are there because of the crowds. The crowds are there because of the flea market. Open it back up on Friday. I understand that there were people dealing in the flea market friday morning before the official opening at noon. My response? So what? People are buying and selling in the line waiting to get into the flea market on Saturday. So what if a little free enterprize gets a head start on everybody else. Will I go back? You bet your HT I will. I'm not that discouraged. And I will make sure that Captain Waffle and Major Wet Noodle go too.



GUESS WHO IS NOT GOING TO DAYTON? Braniff, of course! As a matter of fact, Big "B" from Big "D" is not going anywhere for now. Not true for intrepid Dayton Fleamarketeers K5JB, WB5UIY, WA5LTM, and WA5FLT. The friendly skies beckon all true blue stalwart amateurs to Dayton's friendly shores.

SOCIAL DIRECTOR for our Delta flight emcees the one-bag Groucho lookalike contest! What a riot! No telling what these people can do in a pinch without lamp shades!



FRIENDLY NATIVES greet our arrival at Dayton including Cyclops, NOBIX and Keith aka "Groucho" WA8ZWJ in an ancient greeting ritual ritual at the gate of arrival flight.

PREPARING for the opening salvo in the flea market is WA5FLT who is getting ready to throw out the first drunk, himself. The Stroh's people shouldn't leave these trucks unguarded from the savage horde.



SMILING OKLAHOMA faces inside the Hamvention building. From left to right, view WA5FLT, Ultra-brite poster girl Sandy Orcutt (wife of Dennis WB5ISN), Patrick WA5BPS (from Tulsa), Merle W5HXD (also from Tulsa), the smiling and wired for sound WB5ISN and Tony K5PJR (formerly of OKC).

THE DAYTON FLEAMARKET Marching Band is on the move! Continuous floor shows in the first row with choice seats still available. Harry James, eat your heart out!!



GEARING UP FOR THE Big QSO Contest in the Sky in front of marquee for local church is Nick Dixon WT5APE from Skunk Hollow Amateur Radio Club. Nobody misses a lick on the Hamvention Weekend. No doubt that there are more than a few lost souls in the flea market on Sunday.

SPAGHETTI WAREHOUSE (Not sure if we spelled that right or not) fans with definitely full stomachs include K5JB, Gwen (wife of WB5ISO), Sandy (Ultra-Brite Poster girl), Dennis WB5ISN, Wendall WB5ISO and Stanley Bear WB5UIY.



ACC RESIDENT engineer and full time genius Ed Ingber WA6AXX and W1XU of 73 Magazine pose for the birdie inside at the ACC Booth. No doubt they are discussing voice synthesizers that replace magazine editors. Wayne has offered to be the new voice model for ACC for those who can't get enough of 73.

DAYTON NEWCOMERS from Oklahoma City Jack N5DWT, Mike N5DZW and Bill K5HTF show off Bill's newly upgraded Amateur Extra Class license just recently acquired at FCC exams given at the Hamvention. The reaction? Got to come back next year!!



THE OLE PORTABLE ANTENNA BLUES

I thought that a few more comments might be in order about the antenna that JB suggested for use at Dayton. This is not the first time that a group from OKC has taken an HF antenna and rig to Dayton to talk back from the Convention location. A couple of years ago W5UVI took his IC-701 along in a big Winnebago to keep a nightly schedule. The antenna from the Motel was a Hustler mounted to the outside railing with a Vise Grip (or is that a Vice Grip?). The efficiency of mobile antennas is generally pretty low, generally in the one digit percentages and low power portable and mobile become a real challenge and some time real challenges are not much fun.

Actually, the challenge is to find a way to string the antenna in such a way that nobody sees you or that nobody can believe you did what you allege you did. I have not had a portable station worthy of the name until just a couple of years ago when I got an IC-720. Prior to that, it was just not a big deal to carry a Swan 350 plus power supply and accessories for the thrill of making a couple of contacts. The IC-720 or TS-130 makes this kind of operation a lot more interesting. Especially since JB and I spotted some American Airlines liquor cabinets at Dallas HamCom a couple of years ago. These boxes fit the TS-130 perfectly with room for a little foam rubber around the radio. The second box is just about right to hold Hygain tape dypole, a power supply consisting of an 8 amp battery charger and 4 amphour battery of the Nicad persuasion. I also stock string, tent stakes, a Dentron Junior tuner and a variety of other accessories. The station is complete and self contained within the two suitcases.

The antenna has always been a challenge. I have a couple of spools of surplus phosphur bronze wire to use for long wire. The Hygain Tape doublet is nice, but awkward to handle. The tape is highly visible and susceptible to breakage. Such high profile operation generally draws more flies than an open can of pork and beans. I use the tape doublet when at my parents house because even though they don't like its looks, it is only there for a couple of days at the most. Besides, a tape dipole is nothing compared to my father parking his tractor in the front yard.

I tried a Barker and Williamson "Vacationeer" once on a trip to Dallas (Model 370-10) and it was a piece of junque. I have seen the ads that B & W have published for years and I am not much impressed. The device does not collapse into any convenient size, requires loading coils and a counterpoise. The signals from Dallas to Oklahoma City on 40 were atrocious. So much for that \$45.00 experiment.

Current fed antennas like the B & W or the dipole also require a good electrical or earth ground, something of a luxury during portable operation. This is why the suggestion of K5JB to use an end fed half wave antenna was appropriate. A little of theory of antennas might be helpful at this point (Now, just a little, it won't hurt).

Without dwelling on this too much, a dipole is essentially two quarter wave antenna placed back to back to form a half wave antenna. (See illustration A)

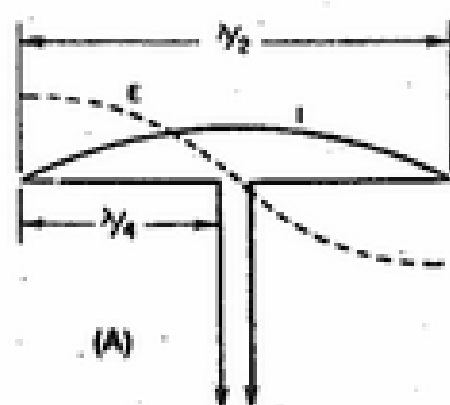


Illustration A: Half-wave dipole antenna, center (current point) fed. 72 ohms Characteristic

We will not run through all the maximums and Maxwell Equations etc. (not sure I want to take a chance I can get all the cross products right), but it will suffice to say that the current distribution will look like the line that shows a maximum at the center and a minimum of current at the ends of the antenna. The voltage distribution along the antenna starts at a minimum at the center and runs to maximums at the ends. Interestingly enough, this really is true. One day down visiting with WA5TOO and N5AMV, we decided to fire up Dean's Collins gear into one of the tape dipoles. We set it up in the shop and strung it out for 10 meters because of size limitations. We loaded the 32S1 into the tape dipole, then took a five foot flourescent bulb and moved it along the tape dipole while it was receiving power. Sure enough, the light was most brilliant when it was at the end and died off toward the center of the dipole. This very graphic example illustrates a general principal that is true. A half wave resonant antenna will always have voltage maximums at the ends of the antenna. The current distribution will be greater at the center and lesser at the ends.

The center fed half wave dipole is fed at a current maximum, hence earning the name "current fed." Running through the calculations will show a characteristic impedance of about 72 ohms. This should not be surprizing since you would expect the impedance to be low at a point of maximum current.

If the feed point is shifted to end of the antenna, it will be fed at a point of maximum voltage. (See Illustration B)

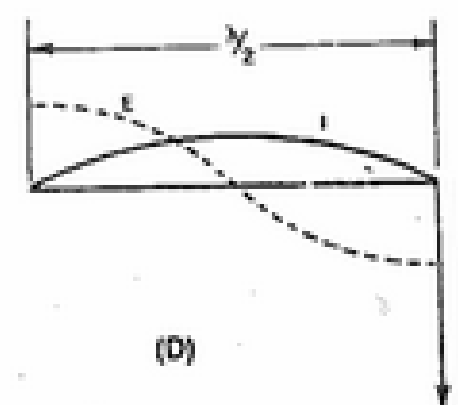


Illustration B. End fed half wave antenna. The feed point has been moved to a point of high voltage and a calculation of the characteristic impedance for such an antenna in the end fed characteristic would usually leave the value somewhere in the order of 3000 ohms.

The end fed half wave resonant antenna is known as a "voltage feed" antenna and does exhibit the somewhat higher characteristic impedance of about 3,000 ohms. The center fed antenna (which is current fed) has an impedance of 72 ohms. To properly work, this must be given a low impedance ground. To obtain such a solid ground could be a problem while out roughing it in the forest.

The characteristic end fed dipole however is a different animal. With an impedance of about 3,000 ohms, it would not be very difficult to get an adequate ground in view of the ground impedance with respect to the antenna.

Indeed, end fed antenna are becoming more and more popular and a recent commercial device is truly unique. The Avanti through the glass antenna is nothing more than a half wave end fed (voltage fed) antenna. This is useful in that the capacitive coupling through the glass is really not much capacitance and a consequently high impedance. In a 50 ohm antenna such as a quarter wave or so, the capacitor formed by the two metal plates and the glass of the window would have such a high impedance that it would be much larger than the impedance of the antenna. By switching the antenna to a voltage feed, the characteristic impedance of the antenna is increased to the point that the impedance of the "through the glass" capacitor is much lower in comparison to the impedance of the antenna.

Avanti claims that the antenna does not need a ground and they seem to be right. They do, however, provide a capacitive plate to couple to the body of the car. Surprisingly, this capacitive coupled ground is quite adequate. When dealing with an antenna of such high impedance, a couple of hundred ohms to ground is no big deal and the capacitively coupled ground works very well.

There is only one disadvantage of the half wave end fed antenna. Since most radios are designed to operate with current fed antennas, there must be some type of antenna tuning network after the transmitter. Now, if the voltage fed antenna is such a neat ideal, why are most transmitters not designed to work with them? Quite simply, current fed antennas have lower voltages along transmission lines and this contributes to lower losses from dielectric losses in the transmission line. One may not know what type of feed line will be necessitated by the antenna used or its distance from the transmitter.

An example may be in order. The end fed antenna mentioned in the previous Dayton story was developing about 120 watts from the TS-130. At the feed point (and incidentally through the antenna tuner), there was about 600 volts on the end of the antenna at the feed point. Now, if we were to use coaxial cable to feed this antenna, there would be 600 volts from the center conductor to the sheath and not only would this take a good quality cable with high voltage characteristics, it also increases the dielectric losses in the cable. Ordinarily, in such a situation, one would use a high efficiency feed line such as open wire. The power levels of our transmitter were very modest and yet they produced voltages of 600 volts or so. Increase that power level to the 2000 watt level and the voltage jumps up to almost 2500 volts. Figure in the numbers for most broadcast station power levels and you get voltages of quite substantial proportions. Now, capacitors of such voltage capability require a large spacing and a large spacing means that the capacitors must be very large to have the same capacitance as a smaller voltage capacitor. Of course, size corresponds to dollars and you can see why most transmitters are designed for current fed antennas.

One solution is to use an antenna tuner at the antenna to match the voltage feed point to the current fed transmission line. This is essentially what Avanti has done. They have a little tuning box that fits on the inside of the glass to transform the antenna to a voltage fed connection. In the case of our operation in the Hotel at Dayton, I took a Dentron Jr. tuner to perform the conversion task. This tuner is the familiar "T" network and JB has extolled the virtues in these pages before. I carry the antenna tuner so that antenna construction becomes less critical during portable operation. It just isn't feasible to go out and tune the antenna to take maximum power just to make a couple of contacts. The tuner also allows QSY capabilities without another trip out into the rain. So the end fed antenna becomes a natural because even though you are now messing with a tuner, you don't have to give a lot of care to the ground. Just stay away from the voltage end of the antenna. You might also have to make arrangements to get the feed line out of the room with some amount of insulation, but a towel borrowed off of the shelf in the bathroom does very well.

I guess this really isn't much of a revelation, those of you contemplating mobile and portable operation might keep the half wave voltage fed antenna in mind. It reflects some thought in its selection. Thanks
JB!

Micheal Salem N5MS

A*C*E IS A FOUR FLUSHER-BOOTLEG DEPARTMENT

One of our frequent correspondents Vince W5UXR brought me by a publication he had received the other day published by a group called the "Association of Clandestine Enthusiasts." The avowed purpose of A*C*E is "monitoring and reporting unlicensed or unusual radio transmissions." The publication appears monthly and yearly subscriptions are less than \$10.00 a year.

The front page contained a copy of the recent FCC Public Notice regarding the arrest and forfeiture of an unlicensed broadcaster in Missouri. Humm, looks good to this point. The inside constituted a potpourri of logging reports from a bunch of SWL of unknown or unusual radio transmissions. Mixed in with a lot of reports of what sounds like just a bunch of bootleggers are legitimate (?) pirates such as CID (Cuba Independiente y Democratica). Some of the bootleggers show a little class with humorous programs and names such as "Munchkin Radio," "Radio Clandestine," "Radio Free Boston," "Radio Free Harlem," "Samurai Radio" "Nylon Radio," and my personal favorite as a reader of thousands of his SWL columns, "Radio C. M. Stanbury."

So far, so good. The identification and exposure of bootleggers is always a first step toward cleaning up the ham bands. Unfortunately A*C*E degenerates rapidly into not just passive identification of the bootleggers, but an article or two on "Cleaning Up Your Signal (and sounding better too)" and complaints on FCC Policy regarding bootleggers (their agin them) and other references are thinly disguised pitches for the reader to join the fun. It is disturbing to find that much of the information about stations logged fall on frequencies within the Amateur bands with a couple of broadcast stations (sort of) on the AM band and FM commercial bands.

I remember my fascination with the broadcast media when I was a young kid and one of the first projects I ever constructed was a "phone oscillator" for the broadcast band. It was a neat device with audio mixers, oscillator and power amplifier. It only had a range of a couple of hundred feet, but it was the first transmitter I ever built. Shortly, thereafter, I got my license and switched to the ham bands, but I had always had a fascination for broadcasting. I really didn't think I would satisfy that urging by setting up in the middle of 40 meters and daring the FCC to find me. Ego being what it is, I generally seek recognition for a clever transmission. Bootleggers represent a strange element of radio enthusiasts who bring a kind of anarchy to the bands. The frequency and detail of the reports of the various "logging" reports leads me to believe that more than likely, many of the bootleggers provide reports of their own transmissions to the "A*C*E Report." My experience with two meter FM jammers is that they are people who crave recognition and ignoring them is the best method to deal with them. When the EARC bought the new ACC Repeater Controller last year, its first appearance on the repeater preceded the appearance of the local squirrel by just a few minutes. Fortunately, try as he might, the spook was unable to get the repeater to do anything other than repeat its phone patch message over and over again. ACC designed the device for use in a hostile environment and eventually the score was ACC - 1, Squirrels - Fresh out. Recognizing the futility of the situation, the Turkeys went back over to basket-weaving or stickball or whatever games these cretins do in their off hours.

Sorry A*C*E, you looked good at first, but you're really a four flusher. Keep trying.

Micheal Salem N5MS

HAM HOLIDAY COMPUTERFEST ARRL CONVENTION

WELCOME TO


**Sheraton-
Century Center Hotel**
SHERATON HOTELS & INNS, WORLDWIDE
BROADWAY AT MAIN
OKLAHOMA CITY, OKLAHOMA 73102
405/235-2780

CALL (405) 235-2780

Or address your request to:

**Sheraton Hotel, Reservations
One N. Broadway
Oklahoma City OK 73102**

ASK FOR RESERVATIONS

**WE ARE CONNECTED TO THE MYRIAD CONVENTION CENTER
BY AN ALL-WEATHER UNDERGROUND WALKWAY**

**SPECIAL RATE FOR HAM HOLIDAY
BE SURE AND TELL RESERVATION CLERK**

Single, Double or Twin \$55.00

HOW TO KEEP A SMALL COMPUTER HEALTHY

These days small computers have become almost routine pieces of equipment, hardly more mysterious than typewriters. And most of the time a small computer gets treated with the same benign neglect given to, say, a typewriter.

Such casualness is sometimes a mistake. A broken typewriter is a minor irritation in most cases; a computer failure can destroy records and bring procedures to a complete halt. Even properly maintained computers, moreover, are occasionally subject to a mysterious ailment known in computerese as a "glitch". A glitch is a temporary malfunction in the computer's circuitry--usually caused by static electricity or an erratic power line. Although glitches don't stop a computer from operating, they can destroy data and programs.

Fortunately, you can eliminate or reduce many of the causes of glitches and other computer failures by taking a few simple--and inexpensive--precautions. Here are some common causes of small computer failures and the steps that can be taken to avoid them.

OVERHEATING. All small computers are designed to operate at normal room temperature (68 F). While they can tolerate minor temperature fluctuations, any significant rise in temperature (more than 20 degrees) can create glitches. Overheating will also shorten the lifetime of the computer's circuits. Thus, it pays to keep the computer area cool all year round. If airconditioning is unavailable or is cut back in the summer to conserve energy, a 20 inch portable fan will help keep the computer cool.

STATIC ELECTRICITY. Like the common germ that proved fatal to H. G. Wells's Martians, ordinary static electricity can bring down the mightiest small computer. Simply touching a computer (or the desk it is sitting on) can send a thousand-volt static electric shock through the computer, creating glitches or even destroying circuits. The solution to static electricity is to minimize its buildup in the atmosphere and on floor surfaces. Atmospheric static is at its height when the air is dry; its buildup can thus be controlled by installing a humidifier (about \$125) in the computer room. Setting the computer on antistatic mats (\$25-\$200 each) is an equally simple solution to static from floor surfaces. However, if there is static-building carpet, it may be necessary to replace some carpeting.

DIRT AND DUST. These can be as fatal to disk drives and diskettes as they can be to a stereo system's records and needle. And for the same reason--they cause excessive wear. There are two ways to eliminate this problem. First, select an area that's reasonably clean. Second, once the area has been selected, eliminate as many niches and dust-building corners as possible (i.e., unnecessary bookshelves, ornate furniture, etc.)

POWER FAILURE. A power loss will wipe out some of the memory of most small computers. Recovering from a power failure entails reentering the lost data--a nuisance that most users are willing to live with because of the high cost of battery backup or uninterruptible power supplies.

VOLTAGE FLUCTUATIONS. A small computer requires a steady source of "clean" power to operate reliably. Unfortunately, the power on tap at your outlets rarely meets this ideal. Varying power demands and electrical machinery and appliances--especially in urban and industrial areas--create all sorts of line voltage fluctuations: brownouts, dips, surges, spikes, noise. These fluctuations may be great enough to cause glitches in an unprotected computer, and can even damage circuits. Various levels of power protection are available, however, depending on the degree of fluctuation in local power supplies. A voltage regulator protects a computer from voltage fluctuations, but count on spending about \$1000 for this item. A voltage suppressor/noise filter is far less expensive (about \$60), but leaves a system vulnerable to

high voltage drops. A noise filter only protects against power line noise, but it is cheap (about \$30).

MISHANDLED DISKETTES. The floppy disks (diskettes) used by many small systems to store programs and data are very sensitive to mishandling. Smudging a diskette with fingerprints, bending it, writing on its surface with anything but a felt tip pen, paperclipping it to something, and other similar abuse can result in the diskette becoming unreadable. To avoid mishandling post a copy of the warnings furnished with most diskettes near your computer and refer to them occasionally.

MYLAR WARP. Diskettes are made of Mylar plastic, which can expand over time even when properly handled and stored. As expansion occurs, stored information is distorted and program errors can result. The solution to this problem is to re-record or replace diskettes after four years of use. Date each diskette when you put it in service. Make a backup copy of each disk and store it elsewhere.

COMPUTER PRINTERS

When I review the various newsletters received each month it is evident that computers are taking over as word processors. It is also evident that considerable improvements could be made which are well within the capability of any word processor system.

When one uses the dot-matrix printer the letters are funny! Initially the words are difficult to read, but the computer operator gets used to them and reads the printing as easily as normal words. But the readers of the paper do not have this ability and the articles are therefore more difficult for the average reader. This is especially true when the printer does not have descenders on the letters. Some readers take one look, call it garbage and won't even attempt to read the article. Yet, there are a few things that can be done to help.

The first thing is to avoid long lines. Remember the old rule: Type 46 Pica (10 to the inch) characters per line. This is the length of line that the Collector & Emitter uses and makes for easier reading.

Be sure the pitch matches the typeface. Recently one newsletter used 12 pitch type but spaced 10 pitch. Surely many looked at it and gave up without trying to read it.

Another rule* Be sure that a good, clean ribbon is used, better yet, use carbon film ribbon if it will fit your machine.

ARNS Bulletin

HOW MANY TRANSISTORS IN A COMPUTER?

Have you ever stopped to figure out how many transistors might be used in a home computer? Most home computers have 48K of storage. Now in computerese 48K means almost 50,000. This is bytes, and each byte is 4 bits (not to be confused with a dollar), each of which is 2 transistors for a minimum of 8 transistors. This means that there are about 400,000 transistors for the memory alone. These memory bits are useless unless there is an input and an output circuit which may consist of 2 for each bit. This brings the number up to 800,000. Then there is the ROM, circuits to control a disk, printers, serial devices, tape recorders, etc. This may well bring the total number of transistors up to one million on that personal computer you have in the shack.

Anyone want to comment?

ARNS Bulletin

The human brain is a wonderful thing. It starts to work the moment you are born and never stops until you stand up to make a speech.

Those people who have no trouble separating the meh from the boys are called -- women.

HAM HAPPENINGS: REFER TO CLUB SECTION FOR SPECIFICS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JUNE			ARDMORE	EDMOND Club	Aeronautical Center ARC	C O C O
			1	2	3	4
		M O R I Great Plains		ALTUS AREA		SCARS
5	6	7	8	9	10	11
Wheatstraw	OK-DX	SHAWNEE 76'ers		KAY County		VHF Club
12	13	14	15	16	17	18
	CIMARRON A.R.E.S.	AUTOPATCH				Field Day
19	20	21	22	23	24	25
Field Day	EDIT <small>CENTRAL OKLAHOMA RADIO ASSOCIATION</small> COLLECTOR - EMITTER	CORA SHAWNEE				
26	27	28	29	30		



Mike's Cycle Salvage



2212 SW 29th OKC 631-7223

New & Used Parts

We Buy Salvage

Mike Kraus KASNUP

146.025 / 146.625 REPEATER

FEEL FREE TO USE IT