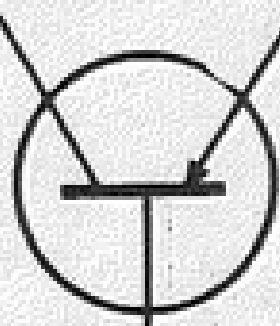


CENTRAL OKLAHOMA RADIO AMATEURS  
**COLLECTOR AND EMITTER**



50¢

VOLUME 11

JUNE 1985

NUMBER 125

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# TWO COUNT 'EM STALWARTS



For the 132 members that were not at the OCAPA meeting on May 21st, here are the hi-lights. The two programs presented were- "Terrible Tuesday", a film about the 1979 Wichita Falls TX tornado and amateurs. WB5PWY brought the film.. Next, Frank N5FM, showed the video "At Any Moment" featuring the Coronado California Police Department on amateur radio and disaster preparedness.

The program for the June meeting will be a film of self protection for women and men, titled, "Memphis Message" by LT. Jim Bullard.

The OKC Autopatch Association will have a table set up at the flea-market during Ham Holiday '85. Members are asked to donate SALEABLE parts, equipment or "what have you". This will allow members and friends to "Weed out" their surplus and allow the club to add a little cash to our treasury for unexpected contingencies.

We solicit volunteers from our club to man the table during Ham Holiday. Notify the secretary, Joe WB5ZNQ if you can help or have equipment to donate to the club.

**REMINDER** - Field Day is fast approaching. Mac, K2GKK is trying to secure Trosper Park

for the weekend of June 21 - 23  
Let's all keep that in mind.

In keeping with a prior agreement of maintaining current "State of the Art" equipment on the OCAPA sponsored repeaters, N5FM reaffirmed the clubs position. Then in a motion approved by the membership present, as soon as it becomes available, the "baby brother" RC 85 controller will be purchased for the .81/.21 repeater. This will add auto dial and emergency dial functions that are presently on the .22/.82 repeater, to the .81/.21 repeater.

The nomination committee consisting of Perry K5URJ, Frank N5FM, and Chuck K5NK was given the task of getting a slate of candidates for election of officers for the July meeting. Anyone interested or having any suggestions, contact the committee.

WB5NDO Kathy, club president, announced that future board meetings will conduct more business enabling only "key items" be presented to the general membership for action. This will aid in programs and in shorter business meetings.....

N5GWZ

## MORE SCARS NEWS

### CPR CLASS

The Norman Red Cross will conduct a CPR class for SCARS members and guests on a space available basis. The class will be limited to twenty people and will be held on two successive Saturdays during the summer. Contact Joe, KA5AXQ, at 364-4301 for the dates and to reserve a place in the class.

### HAM HOLIDAY

The club will be renting two tables at Ham Holiday on July 27. Any club member can put items for sale on the table BUT must also agree to work at the table for part of the day. Jerry W5MCJ, reports that pre-registering for Ham Holiday helps to increase the prizes. So send in your registration form now.

73 from Davis, KDSIT

oo

### For sale

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# THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

<p>1 AERONAUTICAL CENTER ARC MEETS: 7:30pm First Thursday, Flight Standards Bldg., FAA, S. MacArthur</p> <p>PR WB5SVN Jack Iman 677-8537 VP K5LDI Tom Mangham 677-5291 SE WD5JPW Gloria Seignious 722-1740 TR WA5CJG Bob Pace 376-3569 EDITOR: Gloria Seignious, WD5JPW 722-1740</p>	<p>11 EDMOND AMATEUR RADIO SOCIETY MEETS: Varies. See club section.</p> <p>PR N5DBM Ken Stepp 341-4874 VP K5SKA Bill DeMand 751-5137 S/T KC5GN Bill Wright 341-6076 EDITOR: Bill DeMand, K5SKA 751-5137</p>
<p>2 OKLAHOMA CENTRAL VHF CLUB MEETS: 10:00am Third Saturday, Red Cross. 110th &amp; Hudson (Back door) Okla City</p> <p>PR KD5IS Jerry Wernmore 524-5080 VP N5PS Pat Sherrill 943-3219 SE K5JB Joe Buswell 732-0676 TR W5KE Ellard Foster 789-6702 EDITOR: Joe Buswell, K5JB 732-0676</p>	<p>12 QUARTER CENTURY WIRELESS ASSOCIATION MEETS: Quarterly at various places. NET: 3855 kHz Sunday at 8:00am.</p> <p>CHM W5NL Fred Boardman 427-2505 VCH W5TY Ray Long 942-4314 S/T W5AS Howard Baker 721-5453 EDITOR: Robert Runyon, AA00 373-1818</p>
<p>3 MID-OKLAHOMA REPEATOR, Inc. MEETS: 8:00pm 1st Tuesday Okla City State Civil Def. Will Rogers Bldg State Capitol</p> <p>PR N5EPV Bob Allen Unlisted VP N5GRA Bob Gambel 672-9294 SE N5HII Elise Northern 376-4287 TR W5KOZ Sid Gerber 737-1050 EDITOR: Elise Northern, N5HII 376-4287</p>	<p>13 KAY COUNTY AMATEUR RADIO CLUB MEETS: 7:00pm Third Thursday Ponca City EOC</p> <p>PR N5HIC Paul Davis 765-2227 VP WA5UBO Marsh Pronneke 363-2526 S/T KD5FX Dave Land 762-8616 EDITOR: Dave Land, KD5FX 762-8616</p>
<p>4 OKLAHOMA CITY AUTOPATCH ASSOCIATION MEETS: 7:30pm Third Tuesday. Okla City Fire Training Center. 800 N Portland</p> <p>PR WB5NDO Kathy Whited 799-1457 VP N5GWZ Bob Northern 376-4287 SE WA5ZNQ Joe Hustak 789-8587 TR KE5M Ron Recer 341-7030 EDITOR: Bob Northern, N5GWZ 376-4287</p>	<p>14 CINMARON AMATEUR RADIO ASSOCIATION MEETS: 7:00pm Fourth Monday. Place varies. See club section.</p> <p>PR NN5Z Jack Day 227-3462 VP KA5DUO Leo Peil 886-2996 ST KA5SLY Reeta Martin 227-3013 TR N5FUN Dede Bailey EDITOR: Ruth Simpson, N5FUR 227-2791</p>
<p>5 OKLAHOMA UNIVERSITY ARC MEETS: 7:30pm Second Tuesday (Sep-May) 119 Wilson Center. 1334 S Jenkins</p> <p>PR KA5BAY Luke Noah 325-1775 VP KE5N John Wustenberg 325-2382 SE KA5COI Peter Richeson 329-3217 TR KA5LZN Greg Smith 366-1641 EDITOR: Greg Smith, KA5LZN 366-1641</p>	<p>15 SOUTH CANADIAN AMATEUR RADIO SOCIETY MEETS: 9:30am Second Saturday. Red Cross Bldg., North OU Campus. Norman.</p> <p>PR KD5IT Dave Egle 321-7570 VP N5BEW Ken Esadooah 329-4667 SE KA5AXQ Joe Green 364-4301 TR WB5RXZ Monte Bateman 329-7485 EDITOR: Sam Barrett, WA5RPP 321-2601</p>
<p>6 ALTUS AREA AMATEUR ASSOCIATION MEETS: 7:30pm Second Thursday North Main Fire Station (CD) Altus</p> <p>PR WB5KRH Dwight Dennis 482-2498 VP S/T W5VXU Mike Schenkle 482-1797 EDITOR: Mike Schenkle, W5VXU 482-1797</p>	<p>16 EDMOND AMATEUR RADIO CLUB MEETS: 7:00pm Second Monday. See club section for location and type.</p> <p>PR WD5DYI Mark Northcutt 755-4672 VP WA5EAI Ron Cron 681-0896 S/T WD5DYJ Kay Northcutt 755-4672 EDITOR: Mark Northcutt, WD5DYI 755-4672</p>
<p>7 BICENTENNIAL (76ers) ARC MEETS: 7:00pm Second Tuesday. OG&amp;E Bldg. SE 3rd &amp; E. K. Gaylord Blvd.</p> <p>PR AE5N Donald Duck 691-4199 VP WD5JNT Ted Vanlaningham 262-1675 SE N5AUH Jerry Sproul 354-2061 TR WA9AFM Tom Webb 737-6716 EDITOR: Jim Seals, KB5XN 381-2005</p>	<p>18 GREAT PLAINS AMATEUR RADIO CLUB MEETS: 7:30pm First Tuesday. Civil Defense Room, Woodward courthouse.</p> <p>PR NC5C Gerry Ford 256-5342 VP W5KFK Lewis Patterson 256-2111 SE KA5PYA Lois Ford 923-7683 TR N5EOX Freida Patterson 256-2111 EDITOR: Lois Ford, KA5PYA 923-7683</p>
<p>9 WHEATSTRAW AMATEUR RADIO CLUB MEETS: 2:30pm Second Sunday. Location varies. See club section.</p> <p>PR WA5JHB Marvin Stokes 893-2221 VP N5EMD Virginia Beneda 825-3302 S/T K5GGL George Maschino 263-7614 EDITOR: Richard Ruhle, WD5GLD 375-4843</p>	<p>20 ARDMORE AMATEUR RADIO CLUB MEETS: 7:45am Saturday. Corral Restaurant INFORMAL: Every Wednesday, 221 9th NW</p> <p>PR WD5FZD John W Merlyn 223-9543 VP WA5IJA Gene South 223-8252 SE W5JCX Jim Chilcoat 226-6816 TR W5BLW Charles Dibrell 226-0589 EDITOR: Glenn Hamilton, KE5ES 226-4379</p>
<p>CENTRAL OKLAHOMA RADIO AMATEURS, Inc. MEETS: 7:30pm Fourth Tuesday. Red Cross Bldg. 10 &amp; Hudson Okla City (Back door).</p> <p>PR WN5NWX Reggy Whited 799-1457 VP WD5ISS Don Saunders 751-0404 SE N5BEQ Jim Buswell 236-0368 TR WD0FTM Linda Callison 751-3620</p>	<p>CORA COLLECTOR &amp; EMITTER (USPS 116-150) is published monthly by CORA, Inc., 1020 Arthur Dr, Midwest City OK 73110. SECOND CLASS postage paid at Okla City OK. SUBSCRIPTION: CORA members \$3 Others \$6yr.</p> <p>POSTMASTER: Send Form 3579 to: CORA C&amp;E P.O. Box 15013, Del City OK 73155</p> <p>MANAGING EDITOR: Joe Harding, WA5INF 737-1044 CIRCULATION MANAGER: Bob Graham, WB5MSV Phone 677-8685</p>

# HERE YOU ARE FOLKS, ALL THE POOP ABOUT HAM HOLIDAY

Well folks it's all settled, well almost all. This years HAM HOLIDAY / ARRL STATE CONVENTION will be held at the Lincoln Plaza Convention Center out on North Lincoln Blvd. here in Oklahoma City.

July 26, 27, & 28

That only means that we will have to work one week faster and you will have to either put your vacation off for another week or move it up one week, or better yet plan it for that weekend and bring the family to the Lincoln Plaza, rent a room for Friday and Saturday night and have a ball, and be right there to enjoy everything, without having to leave the site.

You will find pre-registration forms in this issue of the Collector & Emitter so before reading what you will be offered turn to that page, rip it out and fill in a form. Non-Ham family members go for half price this year. Put it in the mail today so you won't forget it.

Now lets go into some detail about the proceedings:

First off there is the pre-registration award. It will be awarded at the banquet Saturday night, at least the name of the awardee will be known but he/she won't be able to pick up the prize until the Sunday afternoon awards.

Then there is the banquet, it will be held Saturday night, buffet style, with a super MC, two short speeches and a super program. Non registered guests may attend, that is wives, girl friend, husband ? ? ?

For those who want to dance afterwards there is a club in the Lincoln Plaza with live entertainment and plenty of room to dance.

The QCWA Breakfast will be Sunday morning with a real menu, the customary speeches and the other good times. You can attend even though you don't have 25 years experience, even if you are a novice.

The flea market will be in one area and the commercial exhibitors in another. The flea market will be opened to those who have pre-registered at 7:30am, with the doors opened to all you eager buyers at 9:00am. It will be held on Saturday only.

The commercial exhibitors look really good this year. They will be open for business at 9:00am Saturday, setting up Friday night, and staying open until you have bought them out and then they will open up again Sunday morning for those who didn't get what they wanted Saturday.

The ARRL West Gulf Director will be here with the latest information on what is happening to the amateur fraternity these days. He will conduct a Forum.

The programs have been arranged this year so that both men and women can take their choice of programs. Now as to just what will be presented will have to be dealt with next month but rest assured that there will be something for everyone.

The crowning event of course will be the award ceremony to be held Sunday afternoon when everyone will have a chance to carry home that fabulous HF rig or a super prize that will be awarded to someone. Now that you have seen a quick preview of what is going to happen go ahead and fill out that pre-registration form and get it in the mail today.

Next month we will have all the details so you will know what you have pre-registered for and what you will get for your money. Wonder how many there will be ? ?

1 (405) 376-3569

BOB WA5CJG



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**OIDAR**

OKLAHOMA INDEPENDENT  
AMATEUR RADIO

OIDAR is a group of progressive amateurs, primarily from north central Oklahoma, who decided to band together to finally "do something" about linking and other long talked-about projects. The club operates the 145.31 Ponca City repeater and the 145.23 Blackwell repeater. These two are moderate-coverage machines, and are linked to each other, allowing talkie coverage of both communities. Later this summer, we hope to complete the link with the 145.29 Enid machine, and plots are being hatched for an incursion into other regions not yet blessed (infested?) by our mellifluous and benevolent radio presence.....

The club was formed in April of 1984, and we celebrated our first anniversary by affiliating with ARRL. One of the purposes of the club is to

provide a more effective liason between progressive amateurs in Oklahoma and the League, something that's difficult in many areas because of non-affiliation on the part of older clubs.

**DIGITAL MODES** Biz WD8HCO is set up for packet operation in Ponca, and several others are teetering on the fence. Sandy WB5RRR is operating a dedicated packet digipeater on 2m from atop an office building in Enid, and is in fairly regular contact with KSJB and the rest of the *brrobapp* bunch in central Oklahoma. With any luck, there'll be a Ponca-to-OKC packet path available soon thru Sandy and Biz.

Regular RTTY and ASCII experienced a real surge of activity in 1983 and 1984, with a lot of spillover into 2m ASCII in the northern part of the state. Larry WA7UIB was at that time owner of the 145.29 repeater in Enid, and quite a few of us were active on ASCII through that machine, including some pretty creative radio bulletin-board activity. VHF RTTY activity has

declined considerably over the past year, but seems to come and go in phases.

**OIDAR meets** at 7 p.m. on the second Tuesday of every month, usually at the Southwestern Bell office in Ponca City. Talk-in on 145.31 (-600). Dues are \$15/year, and include all repeater privileges. In between meetings, you can usually find OIDAR members on the 145.23 and 145.31 repeaters up north. Ye editor, the DUB, can usually be found on the 444.1 repeater in Oklahoma City. Correspondence and inquiries should go to OIDAR, P.O. Box 2582, Ponca City OK 74602. Items for the OIDAR C&E column should be given to Taco K5FLL or mailed directly to NSDUB, P.O. Box 76451, Oklahoma City OK 73147.

73! Doug - NSDUB



# CENTRAL OKLAHOMA RADIO AMATEURS

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our *bigger and better*

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HAM HOLIDAY



State Convention

Bring a Friend!

## LINCOLN PLAZA INN

Oklahoma City

JULY 26 - 27 - 28

### USE THIS FORM TO PRE-REGISTER

You may buy as many registrations as you desire. 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!

Last Name \_\_\_\_\_ First \_\_\_\_\_  
Address \_\_\_\_\_ Call \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ \$ 8.00

See Other Side

Non Ham family members \$4.00 Ea. (Not eligible for Prizes except Program attendance prizes.)

Name \_\_\_\_\_ 24.00 \$ \_\_\_\_\_  
Name \_\_\_\_\_ 24.00 \$ \_\_\_\_\_  
Name \_\_\_\_\_ 24.00 \$ \_\_\_\_\_

The following items available in advance only, and will not be available at the door

Reserve \_\_\_\_\_ Flea Market tables (Sat Only) 25.00 Ea. \$ \_\_\_\_\_  
Reserve \_\_\_\_\_ Banquet tickets 214.50 Ea. \$ \_\_\_\_\_  
Reserve \_\_\_\_\_ OCWA Breakfast tickets 27.00 Ea. \$ \_\_\_\_\_

(Ham Holiday registration not Required for OCWA Breakfast or Banquet)

Will you be taking an FCC Exam? Yes No TOTAL \$ \_\_\_\_\_

If yes indicate Class of Exam \_\_\_\_\_ (Circle one)

NOTE! Your form 610 must be in by July 10th 1985, see instructions elsewhere on this page for instructions for mailing.

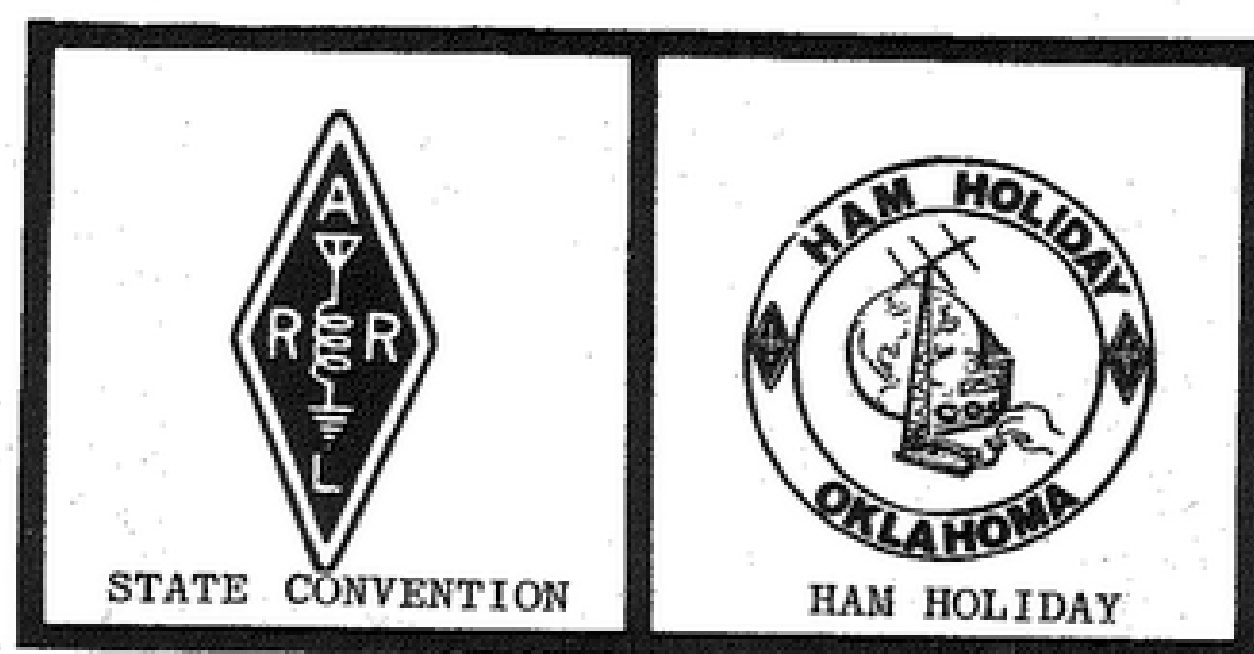
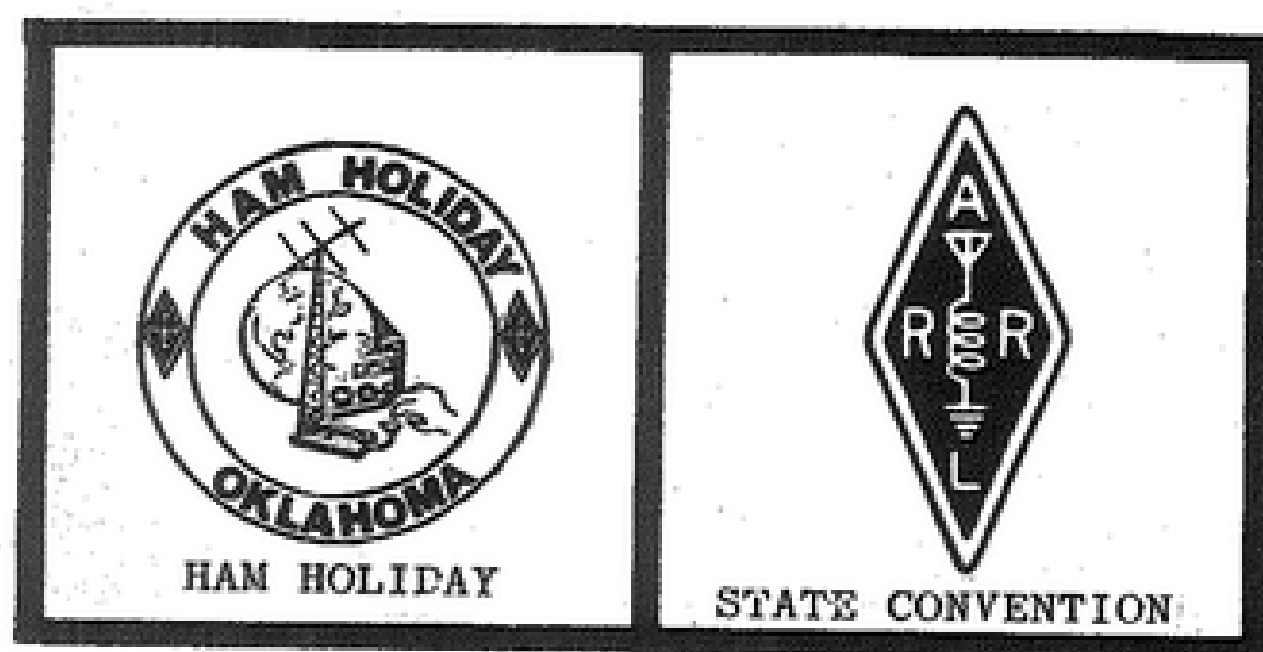
Send Pre-Registration with check or money order to:  
HAM HOLIDAY 1985 P.O. BOX 60093 OKLA CITY, OK 73146

Note! Must be postmarked before July 10, 1985

Please! No confirmations or refunds will be given

Please send your FCC form 610 to:

FCC EXAMS  
%Chuck Wilhite  
P.O. Box 32001  
Oklahoma City, OK 73132



**FACILITIES:** Ham Holiday/ARRL State Convention will be held in the Convention Center of Lincoln Plaza, 4445 N Lincoln Blvd, Oklahoma City OK. Commercial exhibits may be set up Friday night. Security has been arranged. Flea market exhibitors will set up at 7:30am, Saturday. The hospitality room will be open to all registered guests.

**PROGRAMS:** Something to interest everyone. There will be the usual displays, forums and seminars from beginning to extra. There will be programs on DX, antennas, satellites, FH, 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 rent one table for \$5.00. Additional tables available on Pre Registration Form. The 30,000 sq. ft. area is indoors and air conditioned, with easy access loading doors for setting up. No displays, or "tailgating" will be allowed in the parking lot.

**PARKING:** There is plenty of free parking surrounding the convention site. Several eating places are nearby. Free parking for SELF CONTAINED RV's.

**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.

**TRANSMITTER RESTRICTION:** In order for any ticket holder to be eligible to win an amateur transmitter, the ticket holder must hold a valid amateur license or there must be a licensed ham in the family.

**PRE-REGISTRATION:** \$8.00 with attached form. All envelopes must be postmarked not later than July 10 1985 to be eligible for the Pre Registration awards. Registration packet with necessary tickets will be held at the door. No limit on number of tickets you may purchase. No refunds or confirmations. Winner need not be present for this award only.

**ADMISSION:** \$8.00 Pre Registered; \$10.00 at the door. Non ham family members, 13 or over may Pre Register for \$4.00, but are NOT eligible for the Sunday awards. Badges must be worn as proof of registration for entry into ANY area, including exhibit halls, program areas, flea market, commercial exhibits and coffee lounge. Registration not required for attendance at Banquet and QCWA Breakfast.

● **HAM HOLIDAY 1985**

● **ARRL STATE CONVENTION**

**HAMS**

**Preregistration**

See Other Side

**GRAND AWARD**

**LADIES**

**Award**

**PRE-REGISTRATION DEADLINE:** Postmarked by July 10, to be eligible for Pre-registration award

## EDMOND AMATEUR RADIO SOCIETY

It has been quite some time since my last write-up on the repeater. The previous article dwelt on the repeater's history. I failed to mention two people who have helped with respect to the growth of the repeater. Dennis, WB5ISN, has provided antennas, feedline, good advice and his time. Doc, WA5CZN, has also provided equipment on long term loan, such as the antenna used for our UHF link in Guthrie. The only equipment that the club now has on loan is a monster 12 VDC power supply for the Micor Xmitter and the UHF corner reflector in Guthrie.

I have been planning on writing about the rpt for the last four months; however, I was really waiting until we (the technical committee) could resolve all of the rpt problems. I finally decided that it might be a couple of years before we reach that point. So I have started writing and editing at the computer keyboard. The news is not all good?

During the last article we left off at the point where we had just replaced the Motorola "thick film" RC filters located from base to collector (final PA transistors) on the Micor Xmitter. We thought that we had solved our desense problem; our machine and some others; we had not.

Bill Wright, KC5GN, trustee of the repeater, obtained use of a Tektronix 1401A spectrum analyzer. KC5GN, KA5MJT, KA5AFN, KB0OU, and I, N5BUJ, met one evening to clean up the transmitter. We spent about an hour and a half becoming familiar (read that as "trying to figure it out") with the spectrum analyzer. The signal really didn't look all that bad except on the high side, we "tweaked," quoting Janda, a capacitor on the PA deck and the garbage went away. At this point we again thought that our problem was solved, actually our repeater was working rather well at this point; however, we were still desensing another repeater.

Things were not going too well! About this time I received a letter from a California amateur radio operator. He informed me that "there is a difference between 'desense' which is caused by a strong off-channel signal, and 'garbage' which is produced by one's own transmitter (or amplifier), and which

falls within the passband of whatever filtering appears ahead of the receiver." I agree that there is a difference between the signals, but either one can cause desense. He also suggested that Motorola had replaced the "thick film filters" with discrete components. That may have been the case several years ago, but the replacement parts that we ordered from Motorola were larger and we have seen same in some late model Micor units; in any case the new filters have not broken. Although I didn't take the time to write a return letter (same excuse as the long duration between articles) I do appreciate him taking the time to write me and offer some advice, most of which I agreed.

All of the above was written several weeks ago, stored safely on one of the surfaces of the computer's winchester. Things are looking better now, it is about time of course! I will still have to back up from this point so as to not leave out anything. Continuing.....

The repeater was still bothering (desensing) another local repeater(s?); although we may not be real fast at solving all problems we can sometimes come up with a "fix." 147.135/147.735 became 735/135. This change moved us away from the other repeater's input. This is also in agreement with the current ARRL band plan for splinter splits. See your current repeater frequency book. My only regret is that we didn't think of the 20 kHz split option. Our frequency change was coordinated.

I don't like the word fix because I guess I have seen to many quick fixes, perhaps my reasoning is that fix should be reserved for a temporary cure or short term solution. We didn't change frequency and just plan on leaving it at that. The frequency change made our transmitter problem just our problem, in other words the only repeater we were bothering now was our own.

KC5GN, KA5MJT, and I changed the frequency of the repeater one Saturday morning, sometime in March I believe. The repeater started desensing its self that evening. Bill still had the spectrum analyzer so the two of us went to the repeater site to see if we could see anything. The first thing we noticed was that the room temperature was about 130 degrees, we left it that way while we performed some testing. When the transmitter was unkeyed for as short a period as 45 seconds it would

cool down enough to not desense the receiver. We would then key it back up; then we finally saw something on the analyzer, the base of the center frequency would get slightly wider (with no change in the overall amplitude). Now if we could just figure what the problem was by cooling components one at a time. We figured that the most sensitive thermal section would be the PA deck not the exciter. Fully realizing that sudden cooling of a hot transistor might in its self destroy a transistor we proceeded to cool the PA transistors and components one by one. One of the final PA transistors when cooled seemed to have some effect but both Bill and I were having problems telling much difference after looking at the spectrum analyzer's display for such a long period. We ran out of freeze spray anyway! We cut the output power to 40 watts because we discovered at that level it didn't warm up to the point of self desense.

Doing something had to be better than nothing and we had to start somewhere. We decided to replace all four of the final PA transistors. Bill ordered the proper (same) transistors and we installed them the first Saturday of April. During the process of installing the transistors we discovered that one of the "thick film filters" was open, we also replaced it. We figured that if the transistors weren't the problem then maybe the filter was. To make a long story short it still would desense its self... We cut the power back to 40 watts.

WB5ISN, Dennis, had said some time back when he was helping me try to isolate the problem that he figured it was probably the exciter at fault and that the PA was simply a wideband amp, garbage in and you get garbage out. As a test I decided to drive the exciter with a crystal controlled HeathKit handheld. KC5GN and I tried this experiment one weekday. We didn't have the spectrum analyzer but had noticed that our mobile radios did not have a clean cut off of signal strength when tuning up or down from the repeater's output frequency. Watching the S-meter with the repeater keyed up (a mile away) the S-meter would gradually drop as the frequency was tuned down, no "S-meter indication occurred at about 146.85. With the HeathKit the S-meter completely dropped off at 147.20. Poor man's spectrum analyzer? Conclusion, the exciter must be bad. The HeathKit was removed as it was only for testing.

I took the transmitter home for a day and traced signals with a Tektronix 475/DM44 200 mhz scope. I analyzed the circuits, found the appropriate descriptions in the new ARRL handbook; I was comparing the Micor manual's circuit with all the advise the ARRL book offered on cleaning up transistorized VHF transmitters. Just about every resistor, choke, capacitor, ect. could be explained in the ARRL handbook. Pages 11-8 through 11-16 offer some good reading if read carefully. The only thing gained using the scope and through the reading was a quick education on transmitter design and operation; it is neat to trace the triplers, doublers, ect. with a scope though!

I ordered a Hamtronics TA-51 exciter board and assembled same. This was one kit that didn't work to begin with, it had an open molded choke. Replaced the choke with a piece of wire and it started working, tuned the sections over to the final transistor and still didn't have any output power. Checked the output transistor and it was open, further checking revealed that my cable to the wattmeter and load had a broken center conductor. A trip to Trice and for ten bucks I had a new output transistor, I also picked up the proper choke. Once back home the exciter board was wrapped up in short order, if it only had SWR protection. The Hamtronics exciter board was mounted in a die cast aluminum box and has since been installed on the repeater.

Using the poor man's spectrum analyzer it is clean, we plan to use the real thing in the near future. A 1 kHz test tone shows no audio distortion but at lower frequencys the audio is distorted a little. The audio is clean going in to the exciter.

I would like to put the Micor exciter board back in but I don't know how to fix it. Any free help out there??????

The repeater output power is back up to 80 watts (use to be kept at 90) it has been one week as of this writting and no desense or other problems have occured.

#### The Future:

I have also obtained the Hamtronics UHF exciter and receiver kits. The exciter board has been assembled but not tested and the receiver is waiting on me to find time. I haven't ordered any crystals yet. These two items will be

used to restore our satellite receiver in Guthrie. Mid summer would be a good target date.

Mike Smith, KA5MJT, is thinking about building a new CW ider for the repeater, PROM based instead of the diode matrix one currently in use. The current Ider is a home brew item, it works a little different than most in that it doesn't ID until you unkey, doesn't ID during autopatch calls, and the repeater always has the last say. Mike will keep these features and add some more. Mike built the microprocessor controlled autodialer and repeater remote function controller currently in use. This project may take a year or so but is part of the future.

I have a couple of big automobile batteries that I would like to put on the repeater for emergency power use in the near future. We would cut the PA outpur power back on emergency battery use. This project will require some funding for purchase of plastic battery cases. Would be nice to emergency power the Guthrie link when we get it going too.

I need someone to offer to build a wood base to support the duplexer at the rpt site. It is now supported on wood but it doesn't look so "hot." Water occasionally gets on the floor during heavy rains.

There are a lot of things that we could do to improve operation of the repeater; however, most of these things cost money. The club does good to pay the phone bill with the current size of our membership; and if Granny Bell gets her way the rates are going to go even higher! Please think about giving a little extra money if you can at one of the future club meetings to help fund some of the unexpected repeater expenses. Please don't feel obligated because there is more to the club than the repeater; those who participate in club functions or give their time and effort to further the club are probably giving much more than the guy who only gives a few bucks; never the less, money helps.

Anyone needing to check the sensitivity of their radio, frequency, or deviation should contact me prior to a business club meeting. I will then bring a Cushman CE-7 service monitor, Bird wattmeter, frequency counter, dummy load, and 12 volt automobile battery if needed. All of the above will also be available at the May meeting but that will be past tense by the time this is read. Bob, N5BUJ

#### RADIO STOLEN and RECOVERED

On May 15 a Kenwood TH-21AT was stolen from one of our club members. I won't mention the names of some individuals and places so as to protect the young and innocent.

The same day as the radio was stolen at about 2:40 PM I heard a young voice say something over the 147.135 repeater. I wasn't listening close and didn't think to much of it because some of our members let their kids ID every now and then. About five minutes later the repeater came up with what sounded like a lot of kids (the children type) in the background; there was no one talking directly to the radio but they were pushing the tone pad. I IDed, with no comment, and listened for about five minutes, I then turned the repeater off for about another five minutes. The interference was gone when I restored the repeater back to service.

At about 3:00 PM I received a telephone call informing me that a teacher had discovered that her TH-21AT had been stolen from her desk in her gradeschool room. At that point the party on the telephone and I knew what I had heard earlier. To compound the problem the radio was on its second day of operation without the battery being charged. We could only hope the battery would hold out to give us a chance to try and track the radio should the thief decide to play again. We were also hoping he would leave it on the frequency as he found it.

KA0CVK, N5DBM, and N5DEW were all informed of the occurence. The unlucky party filed a police report and probably figured that was the end of history for that particular radio. There was no discussion of the stolen radio on the 135 repeater.

At 5:50 PM the kid started playing again. I gave KA0CVK a telephone call and we decided to go mobile; in the meantime the kid was scared off of the repeater about as fast as he got on it. A couple of stations talking about his lack of using a callsign and kerchunking must have intimidated him. Bob and I were both mobile in a rural part of Edmond waiting for the kid to start playing again. While waiting we were discussing a way to bait him on another VHF frequency. Ken joined in to assist. We moved back to 135 and Bob acted like he was having problems using his tone pad. I gave him (and the thief) very detailed instructions on how to use the tone pad. The idea worked, the kid started keying

up and pushing the tone pad, we even provided him dial tone to keep his interest. I was getting about three quarters of the LEDs on my s-meter listening to him direct. The direction I was moving caused the s-meter to gradually drop to nothing. In the meantime Ken, N5DBM, and Ron, N5DEW, were heading to the area. I had turned around and was heading in such a way that the s-meter was increasing in indicated signal strength.

I turned into an addition and at this point had full signal strength even though I wasn't on top of a hill. A pickup had turned into the same addition before I had, this guy opens his door as I am going around him; I thought "this guy wants me to knock the door off," looking in my rear-view mirror I notice that it is Bob, KA0CVK, with a new truck. I had devoted my handheld and mobile to listening to the input frequency and was talking to Ken and Ron via a UHF repeater but Bob didn't have a UHF radio so we didn't know at the time where each other were. Per Ron's suggestion I had the rubber ducky off of the handheld and hoped that if I drove by the house where the kid was I would be able to hear him without the antenna. Cal, KB0OU, and Linda, WD0FTM, were also heading to the area to help in pinpointing the exact location.

Based upon the area we were in only one student from the class would even live in that area. The teacher was asked to provide an address if possible. The kid quit transmitting, an address was provided and it just so happened that Ron, N5DEW, had been driving by that house just after the transmissions had ceased and observed a child of the correct age getting into a car with an adult, probably for an errand.

We had all gathered on a road about a quarter of a mile away from the house in question with the exception of Bob, KA0CVK, who had to head back toward town so as to sell his old pickup to an individual. I wonder if the old pickup had any doors on it? I might make it quite clear that none of us were going to go to the house or take the law into our own hands. The police were notified of the situation and we were waiting on them. The car that the kid had left in was observed back at the house and after sufficient time for their supper the kid started keying up again. Ron had suggested another idea, when the radio was keyed up I would drive by the house and blow my horn, if they could hear the horn in the background on the radio's audio that

would lock it up. The kid quit transmitting before I could drive by his house. I had my three kids along and they were in need of the proper facilities, I headed back to the house (my house that is).

It probably is just as well that I left because when the police officer arrived he at first questioned if they, the group, were with the FCC. One look at me in work clothes and my unshaven face would have blown the first impression. The officer was advised of the situation and he decided to go to the house and investigate. After a very very long fifteen minutes he returned, with the talkie, and asked the group to go to the police station. The child and his parents were going to the police station and the victim was contacted and also asked to meet at the police station.

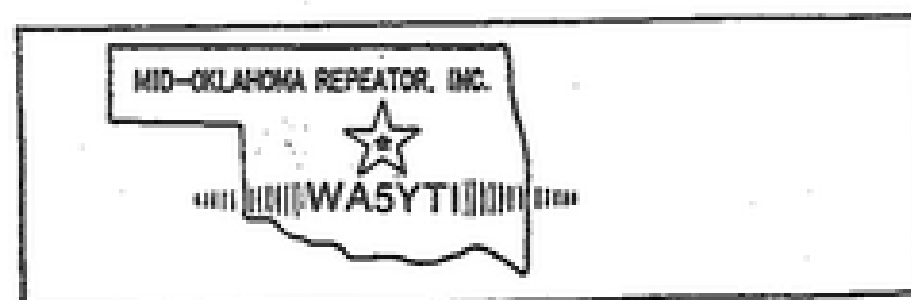
No formal charges were filed; would you want to leave your radio as evidence? The child would undergo counseling and also faced discipline from the school. As I understand the police made quite an impression on the child.

With the exception of Ken and myself the rest of the group met at a local restaurant for a rehash of the day's exciting events. The battery was still holding out on the TH-21AT! To bad that all stories don't end as nice as this one. N5BUJ

Everyone has been very busy this month with so much going on.

The Novice Classes have been phenomenal. And they have produced the following new Novices who have not received their calls as yet: A. C. Adams, Brent Higgins, Mary Wells, Robert Thomason, Kay Moore, Lee Vaughn, Stephen Stepp. And the following Novices who have received their calls: Ray Roton NSAUB, Tommy Guinn KA5WAV; Mike Leehan KA5WBZ; Don Kelly KA5UOS. Other new members were Tres Ross KESML; Charles Hofferber NSFMU and Ron Moore N5DEW. Ron is an old member who just rejoined the crew. We welcome all these new people and are prepared to assist them with any problems they may encounter in Amateur Radio. The next thing is to finish the Novice Classes and go on with the Technician/General Theory. We can't say enough for the tremendous amount of effort our teachers have been putting out to get our students through their courses.

Also we now have a new U.H.F. unit to link us to Guthrie as we used to have in the past and donations are welcome from the members to pay the cost of this unit which was purchased from his own pocket and he wishes to



The May meeting was called to order at 8:05pm by N5EPV. Only 23 members were present. WB5ZKZ Jack presented a very interesting film titled "At Any Moment" that contained information about Amateur Radio and Disaster Preparedness.

N5GVP Jerry, stated that Darlene Dunn for the March Of Dimes contacted him about MORI club members NOT providing the communications for the recent Walk-a-thon. After much needed discussion, letters of apology will be sent to the March of Dimes with a new list of names to contact for any future public service work.

ND5S Ron, read a letter from Trustee K5ELL Merwin, about the audio problems on the repeater. Discussion was also entertained about the possible purchase of a computer interface to display what has been programed into the repeater.

N5GVK Sue, passed around the sign-up sheets for cookie donations and volunteers for the Hospitality Room at Ham Holiday. Programs were also announced---

Horticulture demonstration  
Silk Flower arranging  
Bingo

There will be no programs held on Sunday morning because of the Church Service. The big prize to be given away at the main drawing on Sunday will be an AT&T Portable Telephone and an answering machine.

Meeting adjourned at 9:45pm

If anyone has any complaints, suggestions, or compliments concerning MORI, the repeaters, or anything else pertaining to our fine amateur radio hobby, PLEASE come to the meetings to get your views heard.

N5HII

remain anonymous if I remember correctly.

Our next meeting will be a dinner meeting on the third Friday of June. If there is any change to this we will inform you by phone etc.

We had storm watches this month with some damage although it was minimal, but still far more activity than we have had in several years and no question that some spottings were positively twisters in the air. It may be we are in for more activity in this area than we have had to handle in some time. I believe we are better spotters than we have been through the new Certified Spotters program.

Wild Bill As Usual, K5SKA



# GREAT PLAINS A.R.C.

W5HGM Repeater 146.13/73

The first thing on the agenda of the May 7th club meeting was that everyone here wants to thank the C&E folks for the size of print used on the new format. This is much easier to read and is greatly appreciated.

Myron Lusk, N5HRA, will be taking over as net manager as James, N5HLJ, is leaving our vicinity. Myron is in dire need of more net control stations.

Any help would be greatly appreciated. We will miss James as he is an excellent young ham and has done a superb job as net manager.

## TOWER IN THE AIR !!

Windle, WA5PLW, says that mission impossible is now complete thanks to all the help he received in raising his 300' tower. The .12 machine will probably be placed on the newly erected tower in the near future. Windel in his "thinking Again" mood, suggested that we invite all those interested in Field Day Activities to attend the upcoming Board of Directors Meeting to help formulate plans for that event.

Larry Ellis, KOCIO, from Coldwater KS was renewed as a club member. Glad to have Kansas back, Larry.

## AWARDS

Presentations were made by O.C., WA5OUV, to Gordon Richmond, NR5L, for his outstanding work in the VE program and to Gerry Ford, NC5C, for his job well done in promoting amateur classes in the area. Congratulations to both these gentlemen.

## CARLA'S BULLETIN

Carla, WBOQGW, says "no beans or peas please" when reporting on the size of hail. Instead she needs a more precise measurement. Carla wants the amount and description of rain, wind direction and velocity, and your exact location each time you change. Let's all comply and help Ron and Carla in a most difficult job.

## HAMFEST UPDATE

The GPARC Eyeball QSO held on April 14th was, or so I am told, a huge success this year with around 250 people attending. I'm sorry I had to miss this one, but I did make it back in time for the cleanup detail. The festivities began on Saturday with a hamburger fry. After the girls gave out, I'm told that Lewis, W5KFK, and Gene Halley, WB5SQ, of Tuttle (no one was safe here) learned the great art of hamburger frying with rapid success. There was close to 150 pounds of hamburger meat served.

After the meal, Bill, KD5JR, presented a program with slides on the Woodward Radar. Everyone seemed to enjoy this type of get together before the swapfest and perhaps it should become a regular event.

Gerald, N5CCV, reported that the VE Testing went well also. We were pleased to see in last month's C&E that a few of the other clubs mentioned that their members had a nice time at Mooreland. Next years QSO will be even bigger and better!! Our thanks to everyone for attending. We enjoy putting this on and getting a chance to meet so many nice people.

## 'RADAR BILLY' NEWS

Stay tied down to a hospital bed? "Bah-HumbuG" not 'Radar Billy'. During the May 6th storms in this area, Radar Billy was directing the storm net from his hospital bed. With an IV in one arm, a telephone in one hand, and a hand held in the other, he communicated with the National Weather Service and the Woodward Radar Site in acquiring and sending out information and directions with great assurance and authority. He had no intention of not being involved with the radar this night. His interest and dedication for the welfare of the community as well as dedication to the radar, made his hospital stay only a slight imposition on his part. I'm sure the opinion of his Doctors and Nurses are, however, a different story. The only thing this night that did detain him at all, was that his battery finally got low. How's that for a club Emergency Co-ordinator????

## NR5L

Listen up fellow hams because I'm going to tell a very short story of NR5L.

Gordon Richmond is his name and his wife is a Joy with four children and grandchildren and a radio as a toy

He's a farmer by trade, a ham in between, but I may have it backwards, if you catch what I mean

He's been a Novice, a General, an Advanced licensee and then made it to Extra, in the year '83

He's involved much with nets and his callings are amny As for time in between there doesn't seem to be any

So listen in as you can and you'll catch him I know on an Okie net talking on his R A D I O

He's a VE Examiner and his wife tells and knows

\*\*\*\*\*  
\* Oklahoma CPM \*  
\* User's Group \*  
\*\*\*\*\*  
\* Meet at OSU Tech on NW10 and \*  
\* Portland, room AD100 \*  
\* 2nd. Thursday of month. 6/13 \*  
\* 6:00 PM -- Informal meeting \*  
\* 7:00 PM -- Start meeting \*  
\* 8:00 PM -- Program \*  
\*\*\*\*\*

The Oklahoma CPM user's group would like to thank the Collector and Emitter for letting us use there monthly magazine.

The June meeting will have an indepth meeting on standard RS-232 signals and making your own interface cables.

Starting this month if you bring a FORMATED disk to the meeting with the information shown below, the librarian will place programs on the disk. This service will be done on a monthly basis, so all you do is come in and exchange disk.

Info needed on the disk:

Name and Phone

Disk format, ie SS/SD IBM-PC

If you would like to write an artical for the User's group please contact Jim White or Myself.

Bill Skipper

## NEXT T R N

Satellite communications will again be the topic of the next North American Teleconference Radio Net slated for June 14th at 8:00 pm Oklahoma Time.

The guest list for this one is really impressive and reads like a "Who's Who" in the amateur program. Notables such as AMSAT President Vern Riportella, WA2LQQ; and Colonel John Brown-ing, W6SP, of Project OSCAR, will be on hand.

Tune in the Edmond Amateur Radio Club's repeater if you want to update your information files and get answers to your questions on ham radio in space, including an update on the next live amateur radio operation from an orbiting space shuttle.

- The Westlink Report -

his involvement with radio just grows and grows

As this ham you should know with deeds that excel there just isn't a short story of NR5L

73, Lois, KA5PYA

# The South Canadian Amateur Radio Society

Davis, KDSIT

SCARS held its April meeting on the 13th at the Red Cross in Norman. Sixteen members and one guest attended the meeting.

## CONTROLLER FUND

The response to the SCARS controller fund was outstanding. The RCBS was ordered several weeks ago and was delivered on the 12th. Thanks to the efforts of Louis, KDSWA; Mike, NSMS; Tim, KASDHU; Darrell, WASTOC and Dean, NSAMV, who worked all day on the 20th, the controller is installed and working.

The amateurs who contributed to the controller fund are (new members identified by an \*):

WB3FGX BOB*	WDSBTC GENE
KDSIT DAVIS	WSUXR VINCE*
KASKWM HERSHELL	WDSHPU JIM
W5EOD HUGH*	WSUZZ LOUIS
KASMIG GHISLAINE*	KASMIZ BOB
KASUGN HOWARD	KESEB JEFF
WASTAW DON	KASDHU TIM*
KUSB JACK	KSPL DAVE*
NSBEW KEN	NSHJG STEVE
WSMCN LELAND	W5OU GORDON
KSKDR BILL	W5SQJ JESS
KASEFJ KEN	WSPND JOE
KSLDE FRED	NSOU JAMES*
KASRUZ RALPH	WSMCJ JERRY
WBSFZD JOHN	

Welcome to the new members. The total SCARS membership is now up to 48. It's not too late to contribute to the controller fund! Send a check to KDSIT or WBSRZX and help us improve the Norman emergency communication repeater.

## BY LAWS CHANGES

Several changes in the by-laws affecting the Trustees responsible for the club station and the club repeater were suggested and approved at the April meeting. The changes will be considered again at the May meeting. If you were not at the meeting and want to see an advance copy of the changes, get in touch with KDSIT.

## NOVICE CLASS

Ten of the persons who started the SCARS Novice class five weeks have now passed both the code and written tests. All have been working on theory and will try the element 3 exam to be given in Norman on April 24. Monte, WBSRZX, the course coordinator, did a great job organizing the course and we owe him a round of thanks for that.

## FIELD DAY

It is just about time to start thinking about Field Day. June will be upon us before you can say Joe Bltfxjhqz. Louis, KDSWA, is the SCARS field day coordinator and he will need help. If you want to participate, give Louis a call or come to the next meeting on Saturday, May 11, at the Norman Red Cross.

## ARDMORE

The Ardmore club is alive and well with the weather net and spotters doing their usual good job during this season. With the .79 and .97 repeaters active stations are manned at the E.O.C. with direct line to weather service and in the Red Cross headquarters, and of course the mobile spotters.

The club coordinated with the Crop Walk, April 21 with the Red cross van, keeping the water cans full and cups supplied. The only casualties were an

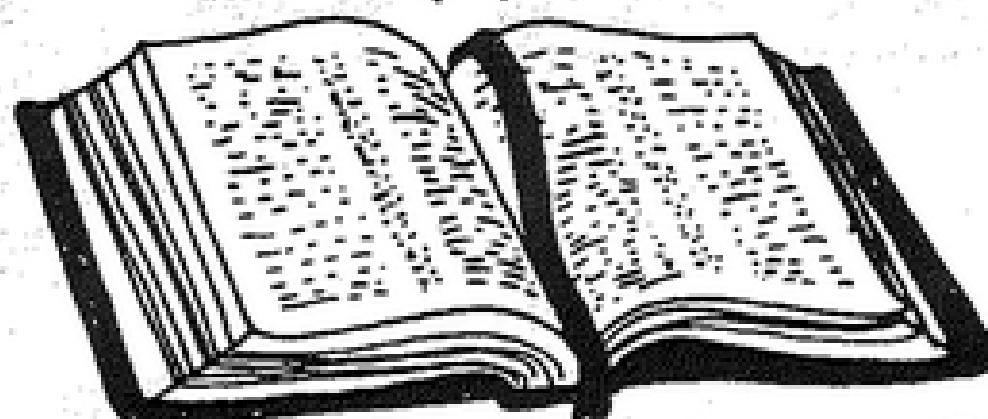
occasional blister on the lower extremities. There were also a few runners getting warmed up for the big run on April 27, which will be coordinated by our group of faithfuls.

The Ardmore club meets each Saturday of the month at 7:30 in the morning at the Corral Restaurant on North Commerce for breakfast. It is always a pleasure to have travelers drop in on us. Just hit the .97 repeater and let us take you by the hand.

The May meeting, however, will be held at the E.O.C. in City Hall, taking everyone on a get acquainted tour of the E.O.C. and showing the film "At Any Moment" to our new civil defense director. Join us if you can.

Jack, W5GM

\*\*\*



## HAM HOLIDAY WORSHIP SERVICE

JULY 28, 1985

LINCOLN PLAZA

## Everyone is invited

IF YOU ARE REGISTERED TO ATTEND THE HAM HOLIDAY,

WHY NOT PLAN NOW TO ATTEND THE HAM HOLIDAY WORSHIP SERVICE.

SUNDAY, JULY, 28, AT 9:00 am IN LINCOLN PLAZA.

W5ZUS

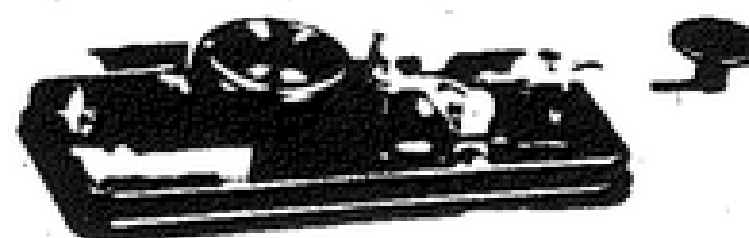
WILL BRING OUR MESSAGE, FOLLOWED

BY A TIME OF FELLOWSHIP WITH OTHER HAMS.



FOR MORE INFORMATION ABOUT THE HAM HOLIDAY, JULY 27-28, AND THE WORSHIP SERVICE, CHECK INTO THE NET 7275 + OR - AT 2:00 P.M. EACH SUNDAY.

ALSO --- PLEASE INVITE OTHER HAMS TO CHECK IN AT THAT TIME. AFTER FORMAL CHECK-IN AND PASSING OF ANY FORMAL TRAFFIC, THE NET IS DECLARED INFORMAL AND WE ENJOY A NICE TIME OF RAG CHEWING AND FELLOWSHIP.



sponsored by BAPTIST GENERAL CONVENTION OF OKLAHOMA

BROTHERHOOD DEPARTMENT

# WELCOME

## Central Oklahoma Radio Amateurs



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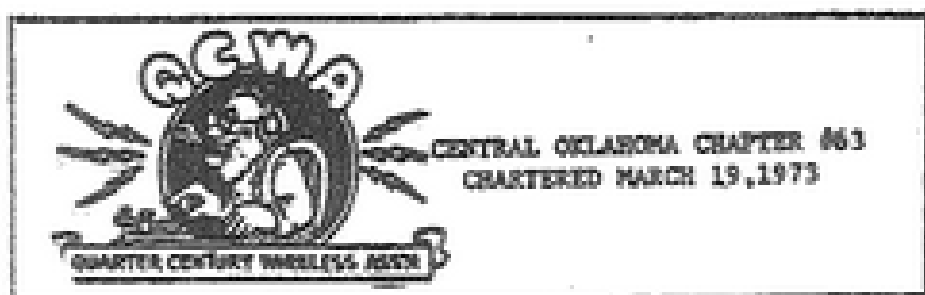
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## FILE ZERO -

This month's article for QCWA Chapter 63 won't be as long as the one last month when you had to read your way through the proposed Constitution and By-Laws.

Before I forget, please let me remind all of you that we need your input for the column, and that we need them by the 15th of the month. You can submit anything (within the bounds of good taste), whether it be controversial or not, to:

R.E.Runyon AA00,  
RFD-2  
Yukon, OK 73099

I guarantee you, your material will be published.

What we would prefer is anything you think might be of interest to your fellow QCWA members, any issue you might want to raise which concerns the Chapter, the International organization, or anything else along those lines. Way back last summer and fall, before I got temporarily run out of town, Chairman Fred made an eloquent plea for issues to be discussed openly in this forum. So, unless you want to hear about my trip to New Mexico again, you had better submit something for publication.

For instance, what do you think about such things as:

1. THE VOLUNTEER EXAMINATION PROGRAM; how is it working, what would you do to improve it (if anything).
2. PUBLISHING OUR CONSTITUTION IN C&E; do you want everyone in Oklahoma to read it? Would you rather have your own copy by First Class Mail?
3. CW vs Phone operation.
4. Phone vs CW operation.
5. Your last DXpedition - to Lake Thunderbird.
6. Your last DXpedition - to Lake Texoma.
7. Your last DXpedition - to anywhere.
8. Your most unusual (memorable) amateur radio operating experience. This was a self introduction subject at the last quarterly meeting, and it was exceptionally interesting. Maybe some of the members could jot something down on paper and submit it for publication.
9. Horseracing (and amateur radio?)
10. Liquor by the drink (and amateur radio?)
11. etc...

So, whatever it might be you would like to voice an opinion on, let's hear it. It's my opinion that open discussion, no matter what the issue(s), can be a positive source of strength for any organization.

Something went awry in last month's column. I am using a word processor that is compatible with Joe Harding's so that we can exchange copy via phone modem. Joe lives in Mid-West City, and I live North East of El Reno which makes it tough to get the copy for this column to him any other way than via modem since I do not at present have a printer capable of producing camera ready copy... Joe does however, so that makes it pretty easy to compose the column here, and send it to him for formatting any way he likes, and printing it.

Anyhow, this particular word processor is new to me, and has a peculiarity when it comes to making columnar notations such as the birthday listings, and the Chapter traffic report. You may have noticed these two items didn't turn out too good last month. I'm not sure I can cure the problem this month but will try. The processor doesn't know when I am making a tabular column listing unless I give it the proper instruction to end a line early... I think that's the way it works... It looks okay on the screen, but does not reproduce that way on the printer. After applying the principle of reading the book as a last resort, I think I may have found the proper method for making this kind of listing stay it the columns.

## BIRTHDAYS - JUNE 1985

7- Wilhelm Wesenick W5NQF  
10-Linda Watson (XYL) W5EIU  
15-Gladys Kelly (XYL) W5LFPK  
19-Bill Hubbard W5HXR

Happy Birthday to all!

The following is condensed from Howard's monthly traffic report from Chapter 63 for May, 1985:

The QCWA Chapter 63 On The Air operation as follows April, 1985:

SESSIONS	4
CHECKINS	134
TRAFFIC	16

I hope the above turns out to be better than the same items were last month.

I received a letter from Chairman Fred dated May 8, 1985 transmitting a very interesting

piece from Tom Banks, W5HJ (I may have told you about running into him on two meters down in southern New Mexico last fall). Anyway, Tom's article is reproduced herein. Fred's letter was pretty interesting (as usual), and some of the issues raised in it bear sharing. Fred observes that he has only one response concerning the Constitution/By-Laws...from Bob, W5DS, and to date Howard, W5AS has received none. Surely there must be a comment or two out there waiting to be heard... Now is your chance... Don't belly ache about the result later on if you don't speak up now! More on Fred's letter, after this:

Las Cruces, New Mexico April 22, 1985

## THIS IS NO RUMOR - IT'S A FACT

Melvin Bolger, W5AXM, told Fred Boardman, W5NL, that W5HJ (Tom Banks -ed.) was one of the earliest hams to go mobile. Well, it's true! As I recall it was back in 1928 during my sophomore year down at Texas A&M in College Station, Texas.

I took my 40 meter ham rig down to College Station my freshman year, but it was too heavy to haul back and forth to Oklahoma City when I came home for Thanksgiving, Christmas, and Easter vacation breaks.

So I set out to make me a portable transceiver for 40 meter cw to use on the Santa Fe trains when I was commuting to and from Oklahoma City.

I built the transceiver in one of those lunch buckets that carries a thermos bottle in the top half, and it used three UV-199 tubes with 90 volts of "B" battery for a plate supply.

I had previously discovered I could copy cw signals with my transmitter as a receiver if I plugged my headphones across a resistor in series with the place B+ lead. I figured it would work the same way with my dinner bucket portable, mobile.

To make my story short enough to be believable, on my next trip home I told the Santa Fe conductor I wanted to use my wireless on the train enroute to Oklahoma City. Would he object if I stretched my antenna wire down one side of the coach where it would be across the large window panes? He didn't know what I was up to but he said go ahead if the passengers on my side didn't object; so, I did just that.

Everybody was curious as to what I was up to; so they gathered around my seat to watch and listen. They were about to give up until all of a sudden I heard a CQ loud enough for

everybody to hear.

I believe it was about opposite Waco, Texas at that time. I let forth with my hand key about a dozen times, but no answer; so everybody shook their heads and wandered away.

At the next town North my luck changed and I got a reply, because I think the other station was practically right up at the track side. I worked several that way on the way home. Up until that time nobody believed me.

I tried this little rig out on the interurban down to Norman and back, but it wasn't so good due to electrical noise from the trolly sparking.

If you don't beleve all of this just ask Melvin Bolger- he started the rumor. (signed) 73, Tom Banks - W5HJ

Fred correctly observes in his letter that this is the sort of contribution for this column we need. So, Thanks Tom for the help, and a very entertaining short story.

Fred also pointed out that we need not only the story type article, but we can also publish circuit diagrams, and pictures. I'll check with Joe Harding, WA5ZNF, our Managing Editor concerning the size and contract requirements with the new format for C&E. (The columns are 3.2 inches wide).

The following very interesting tidbit was provided by Carl Drumeller W5JJ:

HOW DID "73" GET INTO OUR ARGOT?

There are many tales, tracing back to the early wire telegraphers. There's no doubt that they sought many types of short cuts to reduce the number of keystrokes needed to dispatch a telegram. The January issue of AMATEUR RADIO, in an article written by VK3ZS, relates one of the more fanciful tales. It says that in November 1908 the Order of Military Telegraphers gave a dinner honoring Andrew Carnegie. It being Carnegie's 73rd birthday, the symbol was adopted to honor him.

VK3ZS goes on to say that the U.S. Navy has evidence that a long list of numeral abbreviations was adopted in 1859 at a convention of telegraphers. Our old friend, 73, was on that list.

In 1933 I saw a list of such abbreviations. It differed, however, from some in VK3ZS's list. That was a long time ago, and the only ones I now recall are 30, end of message; 73, best regards; 88, love and kisses;

and 99, keep out. There's no doubt, however, that 73's (plural 73 -ed.) means "I am a lid of the first magnitude."

(signed) W5JJ

Thanks Carl for sharing your usual insightful analysis with us. Please note the plural of 73 is never used in this column. Since I was a wire telegrapher before becoming "wireless", I am quite familiar with some of the numeric as well as alpha codes used by that media. Among others, the number "25" also comes to mind. That was the signal for "I'm busy now" in answer to a call to your station. It was short, and served to let the calling station (on the wire) know you heard him and to quit calling.

By the way, reduction of keystrokes wasn't the problem that wire operators were trying to reduce. Until the twenties, there weren't very many typewriters, and most messages were written in longhand on the message forms. Some of those old operators developed very elegant penmanship styles. It was a mark of professionalism to produce an attractively embellished message. There were also developed several complete "shorthand" codes for use by various specilaists within the profession. One such code was called the Phillips code. It was used by press telegraphers who were filing storys of news events. I remember one phrase: The code "GXP" when heard by the copying operator was "great excitement prevailed". I don't know why I remember that particular phrase, but I do. Perhaps some of you "old heads" out there could share some of your operating experiences with the rest of us? Send it in, or call me on the phone, and I'll take notes and write it for you. I'll even meet you some- where for coffee, and "interview" you.

Carl's story got my memory juices flowing... I'll try to recall some more of the codes we used in my "Jgraph" days.

However, since I'm kind of junior to most of you, I suspect your stories would be much more interesting.

This winds up the column for another month. I had a kind of clever little doodad about how to tell when you are "old" but have misplaced it somewhere, and can't find it. I wonder if that's a sign I'm getting a little older...

73 for now, Rob AA00

Forest Park, Ok (NL) May 26, '85: Not my intention to bore anyone with computer talk. Just mention this QTH acquired a new Word Processor (WP) this month-not a Freebee this time-that amon9 many features will Justify the right margin; which for this use as column input makes each line equal (3.2 inches/32 spaces in Pica type). The (WP) is called "Letter Wizard"; the manual has 9 chapters and 64 pages. Right now am using "Cookbook" technique; probably will for some time. Had earlier sent items to Robby, AA00, our News Editor which he has already (WP'd) and transmitted via Modem. So the following is more recent information; the first of which is not Pleasant news, but is most important.

We, of Central Oklahoma Chapter wish to convey our deepest and sincere sympathy to the family of Calvin Ladd, W5FX. Calvin became a "Silent Key", early Sunday morning, May 19th, 1985. The following is a brief Memorial to Calvin; realizing the inadequacy of words to express his lifetime of accomplishment and service to those within his sphere of influence. Calvin's wife, Vera is aware that this is being written and expresses her gratitude to all Chapter 63 Members.

#### SILENT KEY

Calvin George Ladd, W5FX, age 78, became a "Silent Key" early Sunday morning, May 19, 1985. Calvin was born March 20, 1907, Enid, Oklahoma. Calvin and his wife Vera moved to Midwest City in 1947 from Hugo. Calvin and his wife recently celebrated their 55th wedding anniversary.

Services were held at the Bill Eisenhour Funeral Home chapel, May 21st with burial at a special Masonic section of Chapel Hill Cemetery, NW of Oklahoma City. Calvin is survived by his wife Vera of the Midwest City home; a son Donald R. Ladd of Piedmont; a granddaughter Lori Dawn; a brother Bill Ladd of Orange, Texas.

Calvin was a veteran of WWII with the U.S. Navy; was honorably discharged 25 Sep. 1945 as a Master Chief and subsequently retired from the Navy Reserves as a Permanent Senior Chief/Communications Technician, 16 Nov. 1963. He also retired from Bell Telephone after 42 years of service. Calvin and his wife Vera were both licensed Aircraft Pilots.

It will be quite difficult to enumerate and explain the



numerous organizations and activities in which Calvin played an active role. Within QCWA, he was a Charter Member of this chapter; his name and call appears 3rd from top on the original charter, March 19, 1973, a copy of which is framed and displayed in his shack. He was first licensed in 1932 and now also has the QCWA "Golden Anniversary Award" displayed. Recently he had qualified as a Volunteer Examiner (VE) and was active in the CORA and Choctaw (VEC) programs. He was an ardent CW operator - still using the "Vibroplex"; wanted no part of Electronic Keyers. He learned Telegraphy well. During 1931 his wife Vera sent him CW using Will Rogers articles that appeared in the morning newspaper. Calvin was health conscious-within his shack a stationary bicycle. Noted that it had 8960 miles on the speedometer and Vera assured most of the miles were his.

Enumerating other activities: Calvin worked with the Boy Scouts at Paul's Valley and Midwest city for 15 years. His time consuming interest was with the Masonic Order; first with St Martin's at Chatham, Mass., 24 Jan. 5944, and in this area as a 32nd Degree Mason as a Royal Arch Mason (Chapter 91). He also was a Sunday school teacher at First Christian Church, Midwest City.

One other-his more recent interest in CALLIGRAPHY. Two recent ones, of particular interest, were read during the service by LCDR. Hollis E. Star, Chaplin, USNR, as follows:

Friendship is the inexpressible comfort of feeling safe with a person, having neither to weigh thoughts nor measure words, but pouring all right out just as they are, Chaff & Grain together, certain that a faithful friendly hand will take & sift them, keep what is worth keeping, and with a breath of comfort, blow the rest away....Calvin G Ladd (1-22-85). The second is titled "When I Quit" and is unfinished and unsigned, as follows: When I quit this mortal shore and mosey round this earth no more...Don't weep, don't sigh, don't grieve, don't sob;... I may have struck a better job. Don't go and buy a large bouquet, for which you'll have to pay.....(the ending is missing!!). Perhaps the reader can envision Calvin's concluding stanza?? How about...Because I'll see my loved ones once more...Whenever they come unto this distant shore.

Calvin will be further honored by addition of an engraved nameplate to be affixed to the

Chapter's Silent Key Plaque. A contribution will also be made in his honor to Oklahoma Medical Research Foundation.

73--To Calvin & Family  
Central Oklahoma Chapter

NEW MEMBERS: Please welcome two (2) new members to chapter 63; Hugh Benson, KASDGY and Carl Harp, WSNVJ, Membership No. 9904. Hugh was subjected to the full application route plus a few bucks to lead the way. Hugh has already been put to work (minimum arm twist); counting ballots at Red Cross, May 18, '85. After a "Telling" morning was able to obtain some leading particulars, as follows: Hugh was engaged in Aircraft Radio & Radar the first part of WWII (B-17 Program). Thence from the University of Calif. Cyclotron Lab, he was a representative at Oak Ridge, Tenn. (Manhattan Project) for the rest of the duration of WWII-working with mass spectrograph research group (exceptionally impressive, Ed Note). After WWII back in aircraft custom radio installations at Houston, Tx. 1949. Thence to Schlumberger Oil Well Logging Co.; hence coming to Oklahoma in 1958 as a Field Engineer. Hugh, we have a common field of endeavor to pursue at a later date; was with Schlumberger in Tx & Calif. and in Calif had to learn some French to read the instruments on early logging units. (Sub. Ed. Note). Thence, Hugh started his own business;

designing & installing fire alarms, nurse calling systems, TV and sound distribution systems. Retired in 1983. Carl comes to OKC from Ft. Worth & Chapter 72. Carl a very sincere welcome & sorry did not have time to gather data to introduce yourself for this issue. Perhaps with some minor arm tugging we can induce you to help with Project Teller at a future Saturday session??

PROJECT TELLER: QCWA election ballots started arriving during the week ending May 18. at P.O. Box 2236. A mini training session convened at Red Cross Hdq. @ 0900 hours with 225 ballots to be counted, states logged plus a general critique to the good/better/best way to proceed. Coffee, doughnuts & good fellowship ensued. Also was able to attend the VHF Club meeting, on a part thereof for the first time in many moons. Starting with Bob Ard, W5JME (Bob please note) and in alphabetical order the following 63-ers were

on station: Howard Baker, W5AS; Hortense Baker; Hugh Benson, KASDGY; Fred Boardman, W5NL; Dale Diehl, K5WUF; George Lagaly, W5NTL; Ray Long, W5TY; Larry Watson, W5EIU. Feel the session was entirely satisfactory. The "Telling" is just a little bit tedious & does not respond to assembly line technique. Wish that Hossein (Hoss) Karimi, WA5ZAI had been there but he was already Mobile back to Alexandria, Va. from OKC via Dayton. Had, often hourly, QSO's on 40 meters as far as Wheeling, West Va.

Then last Saturday, May 25th we again convened to count approximately 2000 ballots, but managed 1600 plus. Almost the same group of tellers; add George Bunce, W5DKC; Gene Nailon, K5DLE & delete Howard & Hugh who were at Green Country Hamfest & in Iowa respectively. Fancy we shall be contacting many members for the rare opportunity to assist. If you happen to be a stamp fancier there are many overseas stamps; the coffee and doughnuts are good and the fellowship is excellent. All for this month of May (June C&E).

73--Fred, W5NL\*\*

#### SPACE SHUTTLE AUDIO AND VIDEO

Rod Harrison, WB5DSH has received the following letters:

ARRL

Dear Mr. Harrison:

Perry Williams, W1UED, asked me to send you a copy of the FCC waiver for retransmitting Space Shuttle audio and video.

It looks like picking the signal off the C-band satellite is ok, but you have to get permission to retransmit from NASA. This is covered in paragraph (b) of paragraph 4, page 2.

Good luck with your project.

NASA

Dear Mr. Harrison:

This is to authorize Radio Station WB5DSH to rebroadcast audio from the Space Shuttle (referred to NASA Select) on any authorized amateur radio frequency.

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# kay

## MAY MEETING NOTES-

We didn't have a quorum so we couldn't hold our election of officers, but we did have a good birthday cake made by Lee (KE5XY's XYL). So the election of officers and the vote on splitting up the club dues into three parts will have to come at the June meeting. We did discuss our field day plans, if the club approves at the June meeting, then we will have hamburgers paid by the club this year. The field day site was discussed again with no real decision made yet. By the June meeting the field day plans will be firmed up and it will be presented to everyone. Field day this year, in case you don't have it on your calendar yet, is June 22nd and 23rd. The June meeting will be held on June 20th at the Pioneer Motor Bank as usual. It will be an important meeting, so be there if you can. (Those who don't show will be elected to something.)

## ANOTHER REQUEST FOR OUR HELP-

The Conoco Employee Association has asked the club to provide communications for the 10 K run they are holding on JUNE 8th. All those wishing to help with communications (we'll need at least 4) should meet at the shelter house area about 9:30 am. Communications will be handled on the W5HZZ (146.97) repeater and the net control will be KD5FX. This is what public service is all about folks, so lets have a good turnout. You don't need a Handie Talkie to do this kind of work, bring your mobile rig (and your HT if ya want).

KD5FX

## RTTY/ASCII/AMTOR ON 145.29

There seems to be a renewed interest in the digital mode, look for KD5FX, W5PTM, K5FLL, and others on the Enid 145.29 repeater. I checked with the Enid ARC to make sure it was OK for the digital mode on 29 and they said it was fine. They have had some trouble with the receiver

lately but it should all be worked out soon. I am working on a MSO program for the C64, and when I get it a little better de-bugged it will be listening to 29, listen for the beacons in 110 ASCII. We may even renew the ASCII net on Saturday nights at 9pm.

KD5FX

## CLOSED CIRCUIT TO COMMODORE FANS-

C.O.M.B. discounters in Minneapolis is having a sale on SX-64 computers, this is a C64, five inch color monitor and 1541 disk drive all packaged up in a nice metal carrying case (a la Compaq) for under \$400. This machine is COMPLETELY compatable with regular ole C64 software, the only thing it won't do is hook up to a TV or cassette player. (You don't need to, it has a built in color monitor and disk drive!) You can hook it up to an external monitor if you want. I've had mine now for a couple of months, and REALLY like it.

KD5FX

## SIX METER BEAM FOR SALE-

Six element long boom six meter beam, never been installed, make me an offer I can't refuse. Cash only please. KD5FX

DAVE LAND

405-762-8616

## NORTH AMERICAN TELECONFERENCE

\*\*FRI-JUNE 14th 0100 ZULU\*\*

You will not want to miss the next North American Teleconference Radio Network on June 14th. New and exciting developments in the Amateur Radio Space Program will be reviewed. Basic information on how you can get started in satellite communications will be provided.

These and many other questions you may have, will be addressed in the teleconference. The Radio Amateur Satellite Corp. will have some of its top volunteers available on the Network. W6SP, WA2LQQ, W3IWI, K8OCL, W3XO, NK6K, AND W3GEY.

Don't miss this opportunity to learn more about the fantastic activities in the works in the amateur space program. WD5GLD



The May meeting of the Wheat-straw Club was May 19th at Red Rock canyon. Naturally it was a picnic type meeting with lots of goodies. They were sure good

I ate more than my share and enjoyed every bite of it. I did not get to try every dish though I understand that the picnic was crashed by an unexpected guest in the form of a centipede which caused a commotion while some of the people were eating. I didn't find out wheather it was after some watermelon or the cantalope or if it was some of the other goodies. There were 34 present at the meeting which followed.

It was reported that our 25th annaversary party was mentioned in the QST in the Okla Report column. Field day was discussed Looks like we will use the same site as other years. This year it seems we will do it a little differant in that we will use a callsign that allows some HF operation. Other years we have always went strictly VHF. Maybe this change will spark a little more effort at operating this year. Also we are looking for 76ers to join us in our field day effort this year, so come on out guys. The question was put to the club, should we sponsor a Hamfest? Discussed but no action on the matter. The next meeting will be in Kingfisher at the Peoples National Bank in the new Community room. The room is currently being remodeled and relocated to the ground floor of the addition to the south of the older bank bldg. Meeting is the 2nd Sunday of June at 2:30 pm. Last year we had outdoor meetngs all summer and we will do more of it this summer. Since this is an indoor meeting, the program will be a video tape taken at the 25 anav. party, and also at the repeater site when the new gear was installed replacing the old repeater. This one is a used Motorola repeater that looks and works like new. We are sure proud to have it and looking to much better signals out of it. The Wheatstraw net on Wednesday night has moved to 9:00pm, which is our regular summer time. Tune in and join the fun.

K5GGL

FOR SALE: Wilson System 33, 3 element beam, 10-15-20, \$150. Ham 4 rotor, \$150. Cush Craft Ringo Ranger 2, \$30. Bill, KD5EO Phone 634-0413.

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## Q. R. Zedd

### THE ZEDD PLAN FOR FOILING POWER HOGS

As faithful readers recall, we reported last month that the world's greatest DXer, Q. R. Zedd, A5A, was upset about growing reports of illegally high power outputs by some of his fellow radio amateurs around the globe.

Zedd shocked his area friends by announcing that he was considering QRP operation as an example to all.

At the hour of this writing, the great man was tuning his new QRP transmitters and laying plans for his first venture into low-power operations. A report on this historic event will be forthcoming in a future issue of C&E.

This month, however, we must update the deserving on Zedd's master plan for making sure no other amateurs run illegal power -- ever again.

A handful of us were privileged to be on hand one balmy evening in May when Zedd, operating out of his hamshack at Honor Roll Ranch, just a hoot and a holler south of town, undertook to quiet the airwaves and enforce law and order on the bands.

As readers of this publication well know, Zedd had already published his personal letter to the world, stating his beliefs about illegally high power.

For those who might have missed the article in C&E and Zedd's own monthly newsletter, The Great Man's Ideas, here are highlights from his observations and suggestions:

1. It is up to the amateur community to police itself in terms of forcing all operators to transmit within the stated legal guidelines.

2. Illegal power sucks.

3. Bandits on the airwaves have had their way long enough.

4. It's time for the good guys to take matters into their own hands.

On the night in question, Zedd assured us that he believed everyone had had long enough to ponder his message, and take appropriate action to monitor their rf output power, and to reduce it if it was too high.

"I'm sure everybody will cooperate," the great man told us. "But maybe we ought to just tune a couple of the bands to be sure."

He started on 75.

One of the first problems he encountered was a bunch of people in Kansas, or maybe Nebraska, chewing the rag about the high cost of medical care and jellybeans. About every other transmission, some gargle-voice broke into the roundrobin QSO, demanding that everybody move.

"We've been on this frequency every night at this time since 1954," one of the Cornhuskers shot back. "Move someplace else."

"It's a free country, lid," shot back the gargler. "Nobody owns the frequency. Where did you get your license? At the county fair fish pond?"

The net signals had been coming in about 5 and 9, but the next transmission pegged the meters on Zedd's receivers:

"WELL, BOYS, I GUESS THIS NERD IS JUST GOING TO KEEP ON HASSLING US. I GUESS WHAT WE ALL BETTER DO IS TURN ON THE LINEARS BEFORE WE GET INTO THE NIGHTLY BIBLE

### DISCUSSION."

A carrier came on, breaking one of Zedd's loudspeakers.

"This," Zedd sighed, "is the sort of thing I feel compelled to police."

He flipped a couple of switches, touched up the plates, and keyed his mike.

"Boys," he said calmly, "this is A5A, Zedd, down in the Wishbone Country. I'm sure you know I take a dim view of impoliteness and illegal power. Now, I respectfully urge you boys to turn down your linears a little and try to get along. What say? Over."

There was a vast silence on the frequency for about sixty seconds.

Then a voice came back, about 5 and 6, with some flutter:

"A5A, this is (deleted). Thank you, sir, for reminding us of our obligations to amateur radio and the community. -- Everyone on the net, please QSY up ten. Up ten, please. -- To the gentleman asking for the frequency, thank you for calling your concerns to our attention, sir. The frequency is all yours. Over."

The gargly voice was about 3 and 3: "It's okay, OM. Please feel no need to QSY. I am going QRT. Thank you and 73."

Zedd smiled and keyed his mike: "A5A."

"A modest pileup responded. One voice slightly dominated: "Thank you, sir. It has been an honor."

"You see?" Zedd asked us with another pleased smile. "Cooperation. Integrity. Ethics. The milk of human kindness. An awareness of the rules and regulations, and a spirit of friendship. That's all we need. Gawd! I am so glad I got involved in this enforcement effort! I am so great!"

Humming a few bars from the 1812, he tuned to 20 meters.

And that was when things turned nasty.

Next month: Zedd Strikes Back.

KU5B

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P.O. Box 75252 / Okla. City, Ok. 73147

## REPEATER IMPROVEMENTS

Edmond Amateur Radio Club members have approved the purchase of an Advanced Computer Controls RC-85 controller for the 444.200 repeater.

UHF users in the club are attempting to raise enough money among themselves to make up the difference between the RC-85 and the RC-850 controller. The '850 is a much more advanced machine, and the same controller as found on the 147.030 repeater. Donations are being coordinated by Larry Marks, WB5DUC, and may be mailed to Kay Northcutt, WD5DYJ, Secretary-Treasurer.

ACC's Version 3 Firmware has been ordered for the 147.030 machine. Version 3 includes some interesting and advanced improvements to the operation system of the controller. Among some of the improvements include sophisticated paging formats; automatic mailbox message generation to a user if a directed reverse patch is unanswered; automatic logging of high and low conditions, such as temperature for later recall; increased vocabulary; control of remote paging and remote base frequencies independent of the main repeater; Bulletin Board, for general messages for all users; and increased capacity in almost all areas. If the UHF repeater gets an '850, it will automatically include Version 3 as its operating system.

The VHF power amplifier on the 147.030 machine has had some problems. During the Space Shuttle re-broadcast, the screens in the 4CX-250B power tubes were shorted, and the amplifier was taken off-line. Leo Neyer, KØLOT has found another pair and power output should be back to normal by the time you read this.

Receiver and antenna for the 147.340 repeater have been moved to approximately 1100 feet on the tower. -de WD5DYI-

## REFERENCE MATERIAL FOR EARC MEMBERS

Along with the letter of authorization to re-broadcast Shuttle communication on the WD5AII repeater system, NASA sent along a "Space Shuttle News Reference". This publication will be available to club members on a weekly check-out basis.

The guide is crammed full of data relating to every phase of Shuttle operation, including ground support and pre/post flight routines. Portions of the communication section are reproduced in this issue. Next month, we hope to present a section on the computer systems involved in the operation.

Club members should contact the Secretary/Treasurer for availability. -de WD5DYI-

## SPACE SHUTTLE COMMUNICATIONS

The recent voyage of the Space Shuttle Challenger attracted quite a bit of attention among ham operators in central Oklahoma.

Under blanket waiver provisions by the FCC, amateur stations are allowed to re-broadcast all transmissions relating to the Space Shuttle missions.

In Oklahoma City, Rod Harrison, WB5DSH, was re-transmitting communications on 147.000 MHz. In addition, Edmond Amateur Radio Club's Trustee Dennis Orcutt, WB5ISN was making the audio available as a spare audio input to the 147.030 repeater.

The satellite downlink was provided to the EARC repeater through the facilities of radio station KOFM, where the repeater is located and Dennis is the Chief Engineer. Dennis was able to persuade management to allow use of the downlink during times KOFM did not require it for newsfeeds.

Luckily, the Shuttle communications and ABC Radio Network News feeds were on the same satellite, so reorientation of the dish was not necessary.

Sharing the downlink meant certain times of inaccessibility for retransmission on '03. WB5DSH's transmissions from his home were always there when the '03 machine wasn't. Thanks, Rod.

During the latter part of the week, Rod, Dennis and Deeds Bigelow, WB5ADN, combined equipment and talents to install a dual-polarized LNA feed to the KOFM dish. This allowed continuous reception of both the Space Shuttle activity and ABC Radio Network News. Spare audio on the '03 repeater became "instant Space Shuttle" upon command from EARC club members.

EARC's thanks go to the staff and management of KOFM for the use of the satellite reception equipment, and to club member Deeds Bigelow for the gracious use of one of his dual-polarized setups. Thanks also to Rod Harrison for instigating the idea and following through with it.

Future Space Shuttle communications will be re-broadcast from EARC's 147.030 repeater under control of club membership.

-de WD5DYI-  
STOLEN

EARC member Preston George, K5CBA reports the theft of his 2 Meter mobile radio from his car. The car was parked in his driveway, and the rig was taken during the night.

The transceiver is a Kenwood TR-7400A. This radio was manufactured from 1977 through 1979 and was the first synthesized Kenwood on the market.

Among its distinguishing features include two large tuning knobs for the 100 kHz and 10 kHz positions, with white engraved markings on the knob skirts. The red LED frequency display shows all digits of the frequency, i.e. 147.030. The radio is dark grey in color and is rather large compared to today's mobiles.

No serial number is available, and there are no distinguishing marks on

the radio other than regular wear-and-tear. It had the stock microphone which was very tiny -- the same as was used on the Kenwood TR-2200 portable crystal rig. The mobile mount was taken and the DC power cord was disconnected at a connector Presto installed. If still on the rig, it will be a rather large, 4 pin aluminum cased plug.

This incident followed the theft and recovery of a hand-held in the Edmond area earlier the same day. The story of that successful recovery can be found in the EARS section of this issue. Check it out...it's an interesting account of how hams put together. -de WD5DYI-

## ANOTHER TELECONFERENCE NET JUNE 14

With the declining sunspot cycle (and the worst is yet to come), you will not want to miss the next North American Teleconference Radio Network on June 14th. New and exciting developments in the amateur radio space program will be reviewed. Basic information on how you can get started in satellite communications will be provided.

Some of the topics to be covered include:

- \* What are satellites?
- \* How can they be used to QSO?
- \* How can you get started?
- \* How do the amateur satellites get built and launched?
- \* Where can you go for help in getting started?
- \* What kind of activities are planned for the future in the amateur space program?

These, and many other questions you may have, will be addressed in the teleconference. Many opportunities for questions and answers will be provided among the repeaters which have two-way capabilities. If you have been trying to get started in this area because you're frustrated with present HF band conditions, now's your chance to listen-in for some help. AMSAT, the Radio Amateur Satellite Corporation, will have some of its top volunteers available on the teleconference:

- \* John Browning, W6SP
- \* Vern "Rip" Riportella, WA2LQQ
- \* Tom Clark, W3IWI
- \* John Champa, K8OCL
- \* Bill Tynan, W3XO
- \* Harold Price, NK6K
- \* Jan King, W3GEY

Don't miss this opportunity to learn more about the fantastic activities in the works in the amateur space program.

Under the direction of Net Manager Tim Loewenstein, WAØIVW, the net will begin at 8:00 p.m. CDT on June 14th. Over 235 amateur repeaters throughout the North American continent will participate. The North American Teleconference Radio Net is a service of the Midway Amateur Radio Club, Kearney, NE.

Presentation to central Oklahoma will be provided on the 147.030 repeater in Oklahoma City, and is a service of the Edmond Amateur Radio Club, Incorporated.

-TRN Press Release & WD5DYI-

## HAM SURVEY

The June edition of 73 Magazine contains results of a readership poll which may be of interest. Although by no means scientific, it seems to represent current trends in amateur radio:

Ninety-six percent of the hams are men. Thirty-four percent are in the 40-59 age group.

According to this poll, the majority of hams are Advanced class, and have been hams from 11-20 years. A majority have the new (post-3/78) callsigns, and devote two to five hours a week to the hobby.

Twenty meters is the favorite HF operating band, with two meters as the favorite in the VHF/UHF category. The FM mode is used the most.

Figuring club dues, magazine subscriptions, QSL expenses, and purchase of gear, 41 percent of those surveyed had spent less than \$250 over the year.

The majority reports that hams are just the right age; they are politically conservative; and most were 16-21 years old when they became a ham.

Sixty-one percent surveyed own a home computer. Seventy-two percent of the respondents had used a personal computer in connection with their amateur radio activities. Most do not consider themselves fluent in a computer language, and even doubt their ability to write a short BASIC program. Of the ones who do feel comfortable with programming, most use the BASIC language. The Commodore brand edged-out the Radio Shack 36 to 28 percent in popularity.

Most hams thought home computing is siphoning people, including youngsters away from amateur radio.

A majority think the Volunteer Examiner Program has not increased cheating on exams, and reject the ideas of periodic re-testing of licensed hams and maximum and minimum age requirements. Most felt they could pass their theory tests for their class license if retested. There was also a firm rejection of the a question to increase the speed of CW exams.

The question: "Should we get rid of the ARRL?", received a 52 percent no-vote and a 48 percent yes vote. (These results can be expected in the readership of 73 Magazine, which reflects the anti-ARRL antics of the magazine's ex-publisher, Wayne Green - Editor).

In a 54 to 46 percent response, readers favored a no-code 220 MHz Digital Class license, which would prohibit any mode but data communications. However, in a 3-to-1 response, readers rejected the idea of the same type license which would allow phone operation.

Fifty-seven percent feel it is time to completely deregulate amateur radio by having the FCC turn over all the responsibility for ham operation to the amateur community.

Two-to-one thought the CW sub-bands should be reduced. Roughly the same percentage reported they could solidly copy CW at the speed at which they were licensed. (HMMM...)

In the area of net operation, sixty-five percent of the readers responding think nets in general have a place in ham radio. But on the subject of DX nets, readers overwhelmingly think they don't belong on the bands. On the question: "If, while tuning across a band, you heard a net called 'Jammers International' in progress, most said they would complain to the FCC or some other organization, rather than jamming, ignoring, or listening.

There were interesting responses in the area of traffic handling: Thirty percent said it was good, the same said it was okay, and twenty-six percent said they despised it.

Ninety-seven percent said they solder together their own coax connectors, and seventy percent felt competent enough to replace the finals on a transistor-type rig. Only two percent have designed their own antenna. Ninety-two percent had their antenna systems mounted on their house, rather than on a tower.

450 MHz is the band most surveyed said should be used for future space flight QSOs; but thirty percent said they shouldn't bother to operate at all.

There were several questions which fit a miscellaneous category and were designed to be controversial. Two-thirds thought viewing of pay television services with MDS converters and satellite dishes was alright, with only a third thinking only "skunks" did that sort of thing. When asked "If you heard an emergency net in progress, would you immediately join in and offer your services?", 59 percent said they would. (This was somewhat of a trick question. The surveyor's comment to this response was "I say, stay away until you're called for.", which makes good sense in an emergency situation -- Editor).

The final question was "Have you ever secretly hoped for a minor disaster to strike your community just so you could demonstrate your radio skills?" Sadly, there were 18 percent who responded "yes" to this question. They are the 18 percent we don't need when the chips are down. -de WD5DYI-  
TRIAL AND ERROR SYNDROME

Edmond Amateur Radio Club's 147.330 repeater has gone through some changes in the last couple of months.

Intermod has been a culprit on the repeater for quite some time. Trustee Dennis Orcutt, WB5ISN, has discovered combinations which have resulted in a change in frequency twice over the last few months.

The first change resulted from a bizarre combination of frequencies: All the EARC repeaters are located on the tower of KOCO-TV, Channel 5. KOCO's studios are also near the base of the tower. KOCO-TV's newsroom has many public service scanners in operation 24 hours a day.

If you'll remember, Joe Buswell, K5JB wrote an article a few years back about Bearcat scanners and their ability to produce significant birdies 10.8 MHz below the frequency at which they are programmed. The birdies can be strong enough to provide a ham with

a poor-man's signal generator.

It seems through pure persistence from Dennis, he was able to determine that a scanner in the Channel 5 newsroom was throwing one of these birdies onto 147.930, the input frequency to the repeater. The scanner would stop on one of the Oklahoma City Police frequencies of 158.730 each time it was in use. This in turn would bring up 93/33 with noise. The repeater was dropped in frequency to 147.92/.32 temporarily and the State Repeater Coordinator was advised of the move.

Problems stopped until Dennis decided to move the receiver higher on the tower. As Murphy's Law confirms, problems soon follow. Intermod again plagued the repeater.

This time, noise seemed to go away at night and was always associated with activity on the 147.030 repeater. Persistent Dennis again put his calculator and experience to work and came up with another mix.

The output of 147.030 was mixing with the carrier of nearby KBYE-AM at 890 kHz. KBYE goes off the air at legal sunset. 147.030 plus .890 equals 147.920, the input of the 92/32 machine. The frequency was then changed above the original to 147.940 /147.340 coordinated and remains unaffected at press time.

This change in frequency probably marks the first repeater in the state to actually adapt, not only once but TWICE to the proposed 20kHz spacing plan, aside from those already on the suggested frequencies (Reference the NSMS article last month, hi hi!).

-de WD5DYI-

## MORE SCARS NEWS

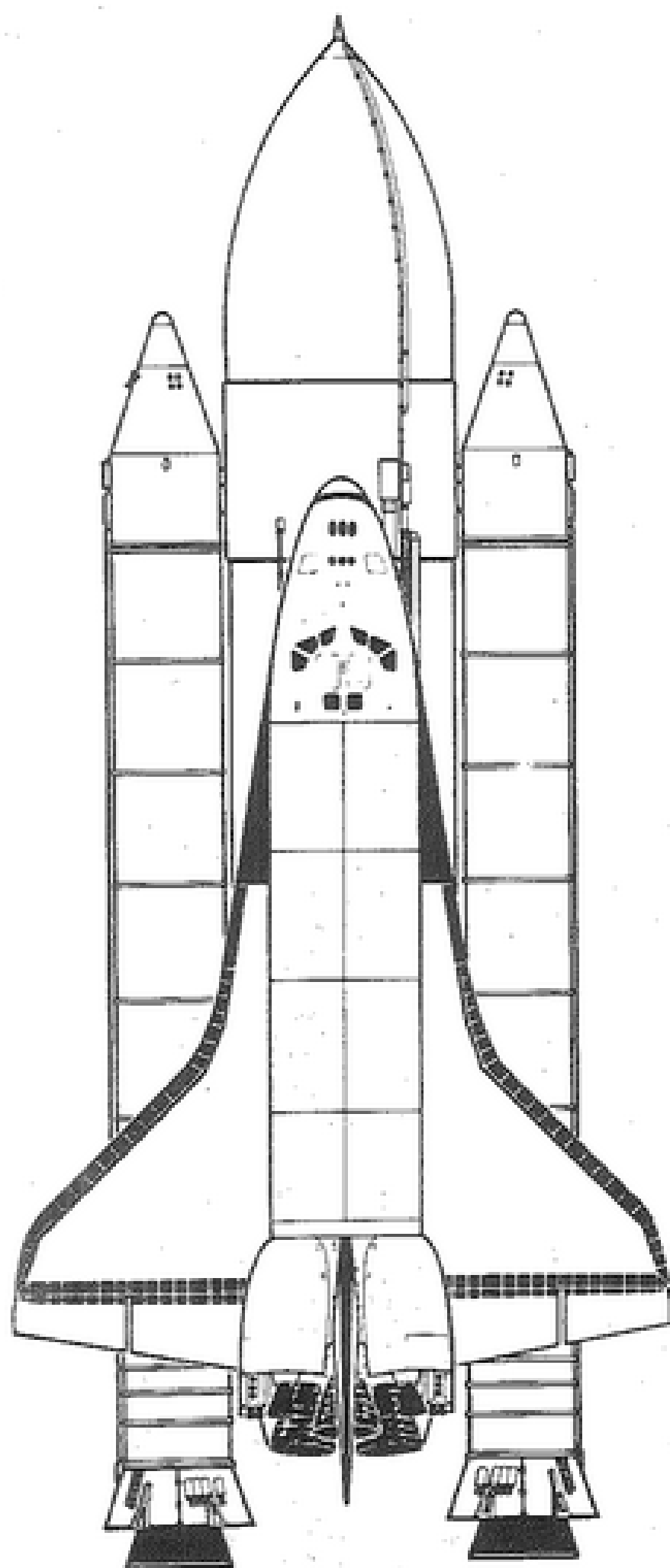
### VE EXAMS

The first VE exams in Norman were held on May 24. Twenty-six people took one or more exams. Sixteen of those earned new privileges, including:

Ralph Moulton	KASRUZ	Nov to Tech
Chas Gaunce	KASUPM	Nov to Tech
Earle Sigler	New Novice	to Tech
Stephen Sites	KASLAA	Nov to Tech
Fred Beck	WBSRAP	Gen to Adv
Fred Goodwin	New Novice	to Tech
Jean Jeffrey	New Novice	to Tech
Howard Liles	New Novice	to Tech
Randal Harlan	New Novice	to Tech
Joseph Hallet	WSPNO	Gen to Adv
Ron Kickerbocker	New Nov	to Tech
Paula Barrett	KASDCE	Nov to Tech
Mark Kleine	New Novice	to Tech
Jesse Cooksey	KASUVE	Nov to Tech
Linda Brandt	N5DWN	Adv to Extra
Leonard Conn	KASVWC	Nov to Tech

Thanks to Jack, KUSB; Sam, WASRPP; Mike, NSMS; and Gordon, W5OU for arranging and giving the exams. Jim, WDSHPU was a big help setting up the audio equipment and several SCARS members were on hand to congratulate the successful examinees.





## COMMUNICATIONS AND DATA SYSTEMS

The communications and data systems provide flexible systems with adequate capability to accommodate the operational and scientific requirements of the wide range of Space Shuttle payloads.

The Orbiter systems (fig. 4-16) consist of radiofrequency systems, a general-purpose computer system, special processors for interfacing between payloads and radio-frequency systems, a television system, and tape recording systems. The supporting ground systems include the Ground Space Tracking and Data Network (GSTDN), the Tracking and Data Relay Satellite System (TDRSS), the Mission Control Center (MCC), and the Payload Operations Control Centers (POCC's).

### Communications

The Orbiter uses four separate communications systems: S-band PM, S-band frequency-modulated (FM), Ku-band, and ultrahigh frequency (uhf). The S- and Ku-bands are microwave systems. The S-band PM and Ku-band systems provide for the transmission and reception of voice, engineering and scientific data, and commands. The Ku-band provides for television transmission to the ground. The S-band FM equipment provides for the transmission of engineering and scientific data and television. The S-band payload system provides for sending voice and commands to detached payloads and receiving voice and data from detached payloads. The uhf system provides two-way (amplitude-modulated) voice for air-to-ground,

orbital, and extravehicular astronaut communications. A hardwired audio system provides communications from point to point within both the Orbiter and the payload bay. Closed-circuit television is provided by cameras on the remote manipulator system (RMS) to aid in RMS control and by fixed cameras in the payload bay for observation of payloads.

The Orbiter displays and controls subsystem allows the crew to supervise, control, and monitor all Orbiter systems. It includes the display and control panels, the spacecraft and RMS hand controllers, the cathode-ray-tube displays, the keyboards and associated electronics, the timing displays, the caution-and-warning (C&W) system, and the spacecraft lighting. It also provides caution-and-warning and status information on the ET, SRB's, and payload systems.

**Ku-band transmitter/receiver.**—The Ku-band system provides duplex communications between the Orbiter and the Mission Control Center through the tracking satellite when antenna line of sight exists. The system uses a high-gain antenna deployable from inside the payload bay. Use of this system is limited to orbital operations when the payload bay doors are open.

The Ku-band transmitter accepts data in either of two modes with three channels of data in each mode. In the first mode, channel 1 provides 192 kbps of real-time operational data identical to the format transmitted by the S-band PM system in the high-data-rate mode. Channel 2 provides (1) real-time attached-payload data up to 2 megabits per second (Mbps), (2) playback of operational data from the record/playback system, or (3) playback of payload data from the record/playback system. Channel 3 provides real-time or playback attached-payload digital data at rates up to 50 Mbps.

In the second mode, channels 1 and 2 are the same as in the first mode but channel 3 provides (1) television video to 4.5-megahertz bandwidth, (2) attached- or detached-payload analog data to 4.5-megahertz bandwidth, or (3) attached- or detached-payload digital data up to 4 Mbps.

The Ku-band receiver link includes the same 72-kbps data described for the S-band PM system high-rate mode. Additionally, a capability is provided for a text and graphics channel at 144 kbps for a total received data rate of 216 kbps. The primary Ku-band system and the rendezvous radar system are partly integrated, with a common antenna and front-end electronics.

For Ku-band acquisition between the Orbiter and the tracking satellite, the broad-beam Orbiter S-band PM signal will be acquired by the tracking satellite and used to point the satellite high-gain Ku-band antenna. The Orbiter Ku-band antenna will then acquire and automatically track the satellite Ku-band signal.

**S-band payload interrogator.**—The S-band payload interrogator is a transmitter/receiver designed to communicate with detached payloads. The payload interrogator and its companion avionics packages will be available in the latter part of the orbital flight test program. The interrogator transmitter operates on any one of the selectable channels and carries command data to the detached payloads at rates up to 2 kbps.

**S-band FM transmitter.**—The S-band FM transmitter provides a single wide-band data channel from the Orbiter to the ground stations. Inputs to the transmitter are selectable and can be any of the following:

1. Real-time or playback main engine data consisting of three channels at 60 kbps each
2. Playback of operational or payload data at rates up to 1.024 Mbps
3. Real-time payload data up to 5 Mbps or 4-megahertz bandwidth
4. Television video

The transmitter uses one of the two omnidirectional antennas located on the upper and lower hemispheres of the Orbiter.

**S-band PM systems.**—The S-band PM transmitter/receiver normally operates in phase lock with the uplink carrier. The system can operate on either of two sets of frequencies. The antenna system consists of four selectable omnidirectional antennas, one located in each quadrant of the Orbiter. One mode of the system is compatible with the ground tracking system and the other mode is compatible with the satellite tracking system.

The S-band PM transmitter accepts real-time operational data at either of two rates: 96 or 192 kilobits per second (kbps). The low data rate consists of 64 kbps of telemetry and one 32-kbps digital voice channel; the high data rate consists of 128 kbps of telemetry and two digital voice channels of 32 kbps each.

The data rate received by the S-band PM receiver is either 32 or 72 kbps. The 32-kbps rate consists of 8 kbps of command and a single 24-kbps voice channel; the 72-kbps rate consists of

**Network signal processor.**—The network signal processor accepts inputs of 64- and 128-kbps operational data from the PCM master unit and analog voice data from the voice system. The voice is digitized and multiplexed with the operational telemetry and outputs are provided to the S-band PM transmitter, the recording system, and the Ku-band signal processor.

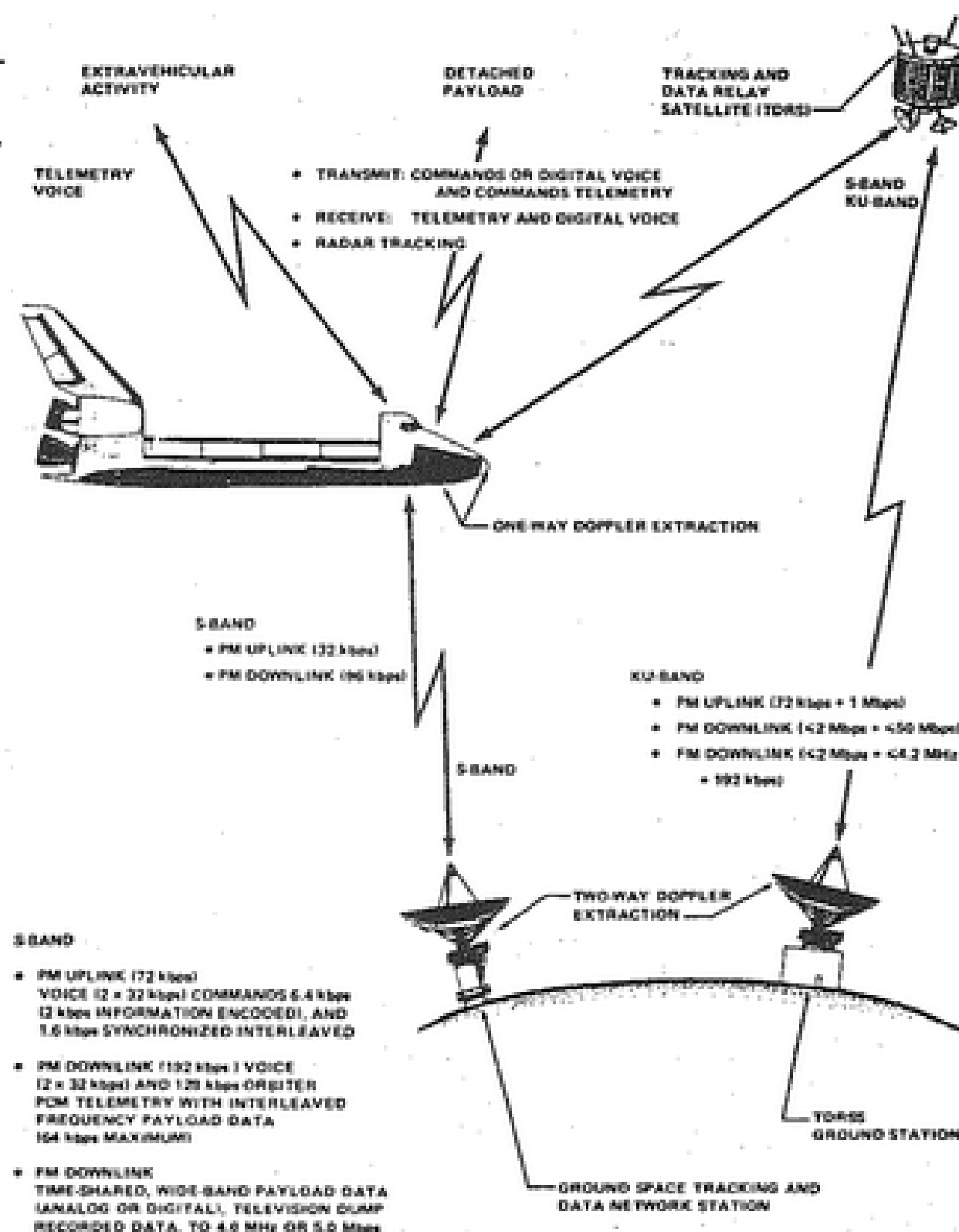
The command and voice data received through the Orbiter rf system are accepted by the network signal processor and demultiplexed. The voice data are converted to analog form and routed to the appropriate subsystems; the command data are routed to the Orbiter computers.

**Ku-band signal processor.**—The Ku-band signal processor accepts inputs from the network signal processor, the attached and detached payloads, the television system, and the record/playback systems and provides either of the two modes of three channels each that are transmitted by the Ku-band transmitter. The command, voice, and text/graphics data received by the Ku-band receiver are accepted by the Ku-band signal processor and routed to the appropriate subsystems.

**FM signal processor.**—The FM signal processor accepts inputs from the record/playback system, the television system, the main engines, and the payloads and selects the source to be transmitted by the S-band FM transmitter.

**TABLE 4-II.— ORBITER RADIOFREQUENCY SYSTEMS AND DATA SERVICES**

System and frequency	Data services
<b>S-band PM transmitter/receiver</b>	
Transmitter - coherent: 240/221 times received frequency; auxiliary oscillator: 2287.5 or 2217.5 MHz	High data rate at 192 kbps: 2 voice at 32 kbps each 1 telemetry at 128 kbps Low data rate at 96 kbps: 1 voice at 32 kbps 1 telemetry at 64 kbps Ranging: turned-around composite signal on 1.7 MHz subcarrier
Receiver - 2108.406300 or 2041.947900 MHz	High data rate at 72 kbps: 2 voice at 32 kbps each 1 command at 8 kbps Low data rate at 32 kbps: 1 voice at 24 kbps 1 command at 8 kbps Ranging: composite signal on 1.7 MHz subcarrier
<b>Ku-band transmitter/receiver</b>	
Transmitter - 15.0034 GHz	Mode 1 (PM): 192 kbps operational data 16 kbps to 2 Mbps payload data or 60 to 1024 kbps operational playback data 2 to 50 Mbps payload data convolution-encoded at one half Mode 2 (FM): 192 kbps operational data 16 kbps to 2 Mbps payload data or 60 to 1024 kbps operational playback data 16 kbps to 4 Mbps PCM data or DC to 4.5 MHz analog data
Receiver - 13.7750 GHz	High data rate at 216 kbps: 1 command at 8 kbps 2 voice at 32 kbps each 1 text and graphics at 144 kbps
<b>S-band FM transmitter</b>	
Transmitter 1 - 2250.0 MHz	Wideband data for one of following: Real-time engine data - 3 channels at 60 kbps each Real-time television Real-time attached-payload data up to 4 MHz (analog) or 5 Mbps (digital) 1 main engine data dump at 60 kbps (one rate at 16:1) 1 PCM telemetry dump at 128 kbps (one rate at 8:1) 1 PCM telemetry dump at 192 kbps (one rate at 5:1)
Transmitter 2 - 2205.0 MHz	Real-time PCM development flight instrumentation at 128 kbps Real-time 15 subcarrier channels
<b>S-band payload interrogator</b>	
Transmitter - 2025.8 to 2118.7 MHz	828 channels: 2 kbps maximum
Receiver - 2200.0 to 2300.875 MHz	830 channels: 16 kbps maximum to payload data interleaver Bent-pipe 4.5 MHz maximum
<b>Ku-band rendezvous radar</b>	Cooperative or passive mode Outputs: range, range rate, angle, and angle rate

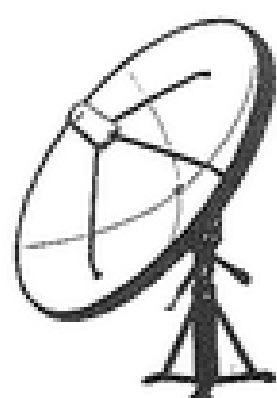


#### Navigation Aids

The S-band phase-modulated (PM) microwave communications system can be used to provide two-way Doppler tone ranging (ground to Orbiter to ground). The Doppler shift is determined on the ground, used to compute a revised vehicle state vector,<sup>1</sup> and then transmitted to the spacecraft computer for onboard computational use. A one-way Doppler system on the Orbiter obtains ranging information by comparing the S-band carrier frequency shift to an onboard frequency standard. This information may also be used for vehicle position computations. A rendezvous radar is used for detecting, acquiring, and tracking active and passive targets.

Three navigational aids are used during entry and landing. The tactical air navigation (tacan) system determines the bearing and slant range from the Orbiter to a ground station (of known position with respect to the landing site) for fairly long ranges. The microwave scanning beam landing system (MSBLS) determines the elevation, azimuth angles, and range of the Orbiter from the landing site for fairly close ranges. The radar altimeter provides absolute altitude with respect to the runway from 762 meters (2500 feet) to touchdown. These navigational data are used to update the Orbiter computers during the landing phase.

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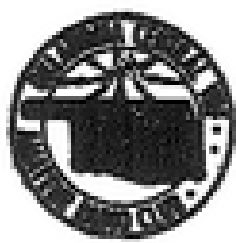
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THE DAYTON HAMVENTION

### Minutes of May Meeting

Meeting was called to order by President Jerry, KD5IS, at 10:08 A.M. with 18 members and guests present.

Bob, W5HXL, gave the CORA report. Ham Holiday plans are proceeding satisfactorily except volunteers are needed for flea market table management and security. An Arkansas club's request to join CORA was discussed.

Ellard, W5KE, gave the Treasurer's report.

An antenna party for the club station was organized.

Tim Sartorius, KA5NNT, addressed the group regarding American Red Cross and Amateur Radio cooperation and plans to enhance it. He introduced Richard Grizzle, Director, Emergency Services, who expressed some of his goals and ideas to improve physical layout between the radio room and operations room. Dave Hackett, his assistant, an interior designer by profession, gave some additional details.

Paul Thompson, N5PT, Oklahoma County Emergency Coordinator, took a few minutes to describe ARES activity and invited everyone to update their data cards on file. He reminded the group of the meeting held on Thursday evenings, 146.34/94, at 8 P.M.

Meeting adjourned at 11:09 P.M. and the antenna party proceeded.

Joe, K5JB, Sec'y

### VHF Forty Years Ago

In QST May, 1945, a letter to the Editor by John P. La Blonde, W9FZC, of the Navy Radio School, University of Wisconsin, promoted amateur use of frequencies above 200 MC. even though WWII was still going on and amateurs were off the air.

He stated (in part): "A person wonders at a time like this whether it wouldn't be a smart move to open up the bands above 200 MC. when the situation in Europe is under control and thereby develop equipment and designs for such operation. The hams could go a long way in this respect even before the war was entirely over. Operation above 200 MC. would not be detrimental to the war effort, inasmuch as this range provides little more than line of sight transmission and reception."

John was far sighted but the equipment of that time was less than desirable to go past "line of sight" as compared to operation on VHF and UHF today. Even 2 Meters was considered line of sight for years. The serious VHFer and UHFer might get a chuckle about this bit of amateur history.

Steve Stevens, W5VCJ

### Dayton Hamvention

I enjoyed this year's Dayton Hamvention more than any other I have attended. The weather was perfect. The weather not only made everyone comfortable but kept them from packing into the exhibit hall to get out of the cold, rain, heat, or whatever. Therefore, the crowd inside was not unreasonable and one could at least make short forays to peruse the new things, pick up a few goodies and peek into a few forums. With attendance pushing 30,000, the crowds are often suffocating when a large percentage goes inside. Places that got unreasonably crowded did not stay so long and I was eventually able to see everything without getting jostled. I picked up a new Icom IC-04AT and heavy duty batteries (the thing draws over 50 mA squelched!)

The flea market was, as usual, excellent. It was all on paving this year. I didn't have much of a shopping list (I already have one of everything worth having.) so I was a bit disorganized in my flea market sweep. Besides one has to be a bit selective when "everything must fit in the overhead compartment or underneath the seat". I did seek some treasures for others.

Stan, WB5UIY, had purchased a printer and needed a printer cable so we started an earnest search for plugs, cable and the works. An interesting thing about the Dayton Hamvention flea market is the wide variation in prices. Joe, WA5FLT, spotted hoods for DB-25 connectors for a reasonable price. Up to that point we observed about a buck was the asking price. These were marked \$.05 each. After offering 2 1/2 cents each the lady said why don't you give me \$1.00 for the whole box; be glad to get rid of it. We did, dumped them out on the ground and divided them up. Final price - \$.05 each...

Incidentally, true to form, Stan's printer didn't just hook up and run. It is true that when ever one starts to make a connection with the RS-232 "standard", he is gonna have trouble getting it to work. It took two telephone sessions, the first getting it to print and the second getting it to print correctly. If Stan had not been agile with a voltmeter it wouldn't be running yet because the information in the printer manual suffered in the translation. If you're lucky, you may get to read something printed by Stan's new toy.

One of my happiest purchase at the flea market was a Tenmar model 72-045 digital multimeter that is a close copy of the Fluke, the liquid crystal display one with the push buttons along the sides. Mike, N5MS, and Rich, KD6NC, had already bought a couple and when I stopped to haggle there appeared a possibility there might be a price reduction if more than one were bought. A quick check on 446.5 brought Larry, WB5DUC, to the scene and a deal was struck for two of the things for a

total of \$100. That was a good price! The thing measures not only the normal things, voltage, current and resistance but it has provisions to measure transistor gain and capacitor values. It is going to be really handy around my shack.

The packet forum was two and a half hours long and appeared to be well attended. I visited parts of it but didn't stay for most of it because I had heard most of the basic stuff before (in fact, seems I have given some of those types of presentations somewhere).

Throughout the Hamvention there was a lot of talk of packet radio. More manufacturers are offering radio modems for packet and more people are asking questions about the mode. I met a Kantronics Packet modem beta tester who advised it had some of the undesirable characteristics of the GLB PK-1. He said that it has difficulty handling the radio and terminal sides simultaneously.

I spotted a familiar call while visiting the AEA booth; W2JUP, who I met through Compuserve's HamNet. On a video monitor I spotted the call in a connect request from somewhere in the arena and asked who the heck that was Norm spoke up and I finally got to visit with him. With nearly 30,000 people gathered in one place I had no hope of meeting him but I was lucky. He is a professional tech writer and sure likes to express himself! That is why you will see some of his messages showing up in the C&E from time to time. In fact, he obtained a Kantronics UTU and wrote up some comments I will try and include in this issue if space permits.

Every year I intend to visit the contest forum and see what they do in there. I presume they exhibit their slings, arrows and poison pots, but I really don't know. Someday I would like to see how the other half lives.

I also missed the forum by Wayne Greene. It was titled "What is Wayne Greene doing now?" I guess I just didn't care.

I visited the forum, "Amateur radio and the law" where Mike, N5MS, and Chris Imlay, N3AKD, General Council, ARRL, were involved in panel discussion about things like radio towers.

On Friday night we attended the "Gathering of the Faithful", an event that is becoming the highlight of the Dayton Hamvention weekend. This is a collection of friends from Dayton, Omaha, St. Louis, Oklahoma City and Washington D.C. It is hosted by Chuck, N8ADN, Keith, WA8ZWJ, and their families. They send invitations out about a month before the big weekend and prepare some kind of surprise for us. The common thread running through all this is Hoss, WA5ZAI, who at one time or another has lived in most of those places (or become acquainted with someone who now lives there). This

year's surprise was a series of awards for Hoss who destroyed a glass topped table by hitting it (twice) with an arrow being used to get antenna hoisting gear high in a tree.

Saturday night dinner was another gathering of the faithful. We invited some newcomers and initiated them into the group. Dave Sumner, W1ZZ, Executive Vice President of the League; Chris Imlay, N3AKD, General Council for the League; Bob Chapman, WB4FTU, from Washington D.C., and another gentleman (whose name escapes me) joined us for dinner. Mike, N5MS, later provided names and addressed to the Secretary of the Faithful, Chuck N8ADN, so these gentlemen could be notified of our next "meeting".

As the weekend began to draw to a close, for the first time ever, I couldn't get away from the flea market and watch the prize drawing. It was a good thing too because I happened to be standing near Keith, WA8ZWJ's, flea market spot when a buyer for my Yadic modem showed up with questions. He seemed determined to buy that modem so I just let him have it for a specially good price.

Joe, WA5FLT, happened to be in the right place at the right time. Keith, WA8ZWJ, had just bought an Apple 2e and had his old Apple II up for sale but had not moved it by Sunday afternoon. He asked me why I didn't just take it off his hands for \$300 so he wouldn't have to take it home. I told him I didn't want it but I saw someone who did, spotting Joe across the aisle. I called him over another deal was struck. (Now how to get it on the airplane?)

In the flea market there was more computer stuff this year than last. There were circuit boards and disk drives of all kinds. I took a look at a PDP-8 for less than \$100. I already mentioned Stan, WB5UIY, getting a deal on a printer. There were boards for Heath, IBM and Apple computers all over the place. I ran into Jim, KB5XN, carrying a board similar to an Apple's but with circuit for a Z-80 co-processor.

The trip home was one of the most unusual parts of the weekend. TWA had over sold the flight and six of us volunteered to trade our seats for \$400 voucher, overnight lodging in St. Louis and a trip home the next morning. If you hear us talking about the TWA hamfest, we are talking about the one we are going to have with our vouchers. The only question is whether to go to some old jive place like New York (two round trips each!) or throw in a few extra bucks and make it once to London. None of us have been to a hamfest there yet!

Well, that should be more than enough prattle about Dayton (assuming Mike does his usual number, and maybe comes up with some pictures). It is well worth the planning and it isn't too early to start planning for next year. "Yeah guys, the Ramada Inn on Little

York Road is fine. The sign is about 40 meters from the portico and it is easy to climb on both of them. Remember the time...?" Joe, K5JB

#### New Gadget review - Omni-Reader

I recently had an opportunity to try a new gadget manufactured by Oberon International that was intended to make text entry as simple as falling off a log. It has been advertised in the computer and office automation magazines and was on display at the recent computer show in Oklahoma City. It is priced at \$500.00 which is about one tenth the price of the next higher priced optical character reader.

If it worked as good as the ads claimed it would be useful for entering text from various sources into a word processor for editing and formatting for the Collector and Emitter. It might even have some other possible uses like preparing messages for electronic transmission on RTTY or packet radio.

It is an optical character reader that consists of a flat surface tablet with a hinged ruler-type guide holding an optical character reader head. It is used by putting a sheet of paper containing typed text on the frame, aligning it with the ruler/guide and tracing over a line of text with the reader. The reader can read from left to right or right to left because of sync marks on the guide.

It apparently does a pattern recognition by comparing what its sensor array sees with a pattern stored in memory. If it is fairly confident of the match it made, it dumps the line of text out the RS-232 port. If it doesn't get a good match it causes an LED to flash and an operator has the option of re-trying or dumping the results out the port.

It can send data out the RS-232 port with standard data rates of 300 to 9600 bauds and has all the standard hardware and software hand shaking available.

It comes equipped to read four common type fonts. Typewriters usually type either 10 or 12 letters per inch and have all kinds of type fonts. The most common (on IBM typewriters) are probably Courier 10 pitch, Courier 12 pitch, Letter Gothic and Prestige Elite; the ones read by the Oberon reader. However, there are dozens of fonts and they differ in letter size, shape and whether they have serifs or not. This text will probably be typed in Letter Gothic. Before we went to the full size reproduction I was using Courier. There are a lot of other type fonts and Oberon is planning to increase the device's capability, but more on that later.

It was packed up and taken over to Joe, WA5ZNF's, house to see how it would do on the myriad of text formats he receives for the C&E. First we verified that the thing was working by

trying it on the test sheet that was supplied. The test sheet was printed in Courier, 10 pitch and it was read fairly well. There were a couple of lines it had trouble with but hitting the read/dump button dumped the text to the terminal anyway and it often had no apparent errors. We then started trying some real stuff. The dot matrix printed material was a complete flop. If the dots were individually distinguishable we got a whole bunch of colons, periods, commas, quotes, but nary a letter.

We tried it on his printer's type face (Smith Corona TP-1) and it gave us partially correct results after we experimented with the available type fonts, pitches, quality modifiers, etc. We tried it on N5MS's stuff and did worse. We tried it on the Westlink Report and it did fair after juggling with the parameters; but, after reading the text and using a word processor to weed out the errors we judged that we could type it in just as fast. We could read the ARRL letter pretty well but it is available in electronic form already with no fuss and muss.

(The next morning I tried it on the Letter Gothic text that was printed in last month's C&E and it did pretty well. That is less than useful, though since it is already stored in electronic form. I tried it on the latest issue of the Texas VHF-FM News and did a fairly good job reading text that was done by a dot matrix printer in the emphasized mode. The dots were overlapped. I am not an expert typist but I believe I could have typed it in the length of time it would have taken to use the optical reader, saved the file, and used a word processor to correct it.)

Our conclusion was that it wouldn't help where it was really needed; text that was done with a dot matrix printer having an exhausted ribbon just has to be retyped. That is not to discourage anyone from sending Joe stuff done that way; it is a lot easier to read than some handwriting! It also enables the authors to more easily create better quality material than they could with a typewriter and whiteout!

The learn mode planned for this device may hold some hope for the future. This is the first relatively low priced device of its type on the market and like the lady sez "We ain't seen nothin' yet!" If the algorithm used doesn't need contiguous lines in character formation it may be possible for the thing to learn the shapes of characters formed by dot matrix printers. You can be assured that your C&E editorial staff will be keeping our eyes open and try to stay on the leading edge of technology (particularly since it yields such cute toys). Joe, K5JB

#### Equipment Review - Kantronics UTU

The following is a composite of two messages left on the Compuserve HamNet Bulletin board by Norm, W2JUP, May 8

and May 12:

Here are some comments on the Kantronics UTU box, which I have been testing for the past week since getting back from Dayton. My test setups have been running the UTU against the following systems:

Philips SBY75 SITOR System (no CW);  
Dovetron MPC1000C with Siemens PT80 teleprinter (no CW);  
Drake/Tono Theta 9000E upgraded to Tono 9100E;  
AEA ATU-1000 with C-64 and MBA-TOR;  
AEA AMT-1 with SAGE II and Randy Bush's TeleTalker 4.13;  
ICS AMT-2 (British) with Apple II+ Clone and ASCII Express Pro;  
AEA CP-1 (stock) with C-64 and MBA-TOR;  
AEA CP-1 (stock) with VIC-20 and MBA-TOR;  
AEA CP-1 (300-baud and RS232 mods) with Televideo 912C Terminal;  
AEA MAP-64 with C-64;  
Kantronics Interface II with C-64 and HamText;  
AIR-1 with C-64;  
AEA ATU-1000 with AIRDISK and C-64

The UTU is not a bad piece. The flexibility offered is well worth the price and the performance is about in the middle of the gamut I can cover. The box is better than the manuals, which are awful! Manual states that 132-WPM Baudot is illegal in USA.. untrue. Manual has no filter alignment or AFSK output level setting instructions. Companion AMTOR operating manual is still full of crap like how to call CQ in ARQ.

UTU is very convenient to hang on this IBM 6580 System or any other computer or terminal via RS232. The main menu is a large pain in the butt. You must return via escape code to main menu in order to change operating modes. CW algorithm is adequate. Baudot and ASCII fairly good but impulse noise makes it barf. Front-end filtering is fair on HF, dandy at 300 bauds on VHF/UHF. AMTOR protocols a teeny bit flaky, but nothing serious. Hard to judge maximum distance performance with HF rotten. FEC lock-up time visibly slower than AMT-1 and MBA-TOR softwares. Mode L pseudo-sync inferior to AMT-1, AMT-2 and MBA-TOR. Much better than AIR-1 or AIRDISK software.

One gross violation of AMTOR/SITOR operating convention: separate menu items for AMTOR MODE B and MODE A SLAVE make it non-compliant with CCIR 476, etc. You cannot sit in true AMTOR STANDBY and be available for BOTH access by an ARQ call or display any FEC traffic on the channel - this is a dumb goof and results in another large pain in the butt. You are forced to choose one or the other and then flog your way back to the main menu when the character of the traffic on channel changes.

The UTU offers an irritating constraint to the operator who wishes to send files from disk - unless he/she is equipped and willing to play XON-

XOFF games with flow control. The UTU's transmit buffer is a ridiculous 32 bytes. This is not even adequate for the fast typist, who will probably over-run the buffer and get agita'. Here's what the Kantronics manual sez: "UTU has an internal 32 character buffer that allows you to input data slightly faster than it is transmitted. For most operators the buffer will be used only in the CW mode. Be careful not to exceed the capacity of the buffer as additional characters will be lost." end quote-

This is interesting, especially for the AMTOR operator who has the habit of typing ahead to the distant station whilst watching inbound data scroll. It's very easy to pre-type 32 characters when preparing a comment reply.

Compare this really chintzy buffer to the ICS/AEA AMT-1 with 2 Kbytes, or to the default transmit buffer in the the AEA MBA-TOR, with 1024 bytes, expandable to 29Kbytes if needed, or even to the Microlog AIRDISK program, which defaults to 14Kbytes receive and 14Kbytes transmit. (More detailed review and critique of the AIRDISK program is in work now for end of month).

One sometimes gets the impresssion that some of this software is written (in the operational sense) by code writers who don't have a clue as to the real needs of the system operator - code writers who are probably not hams.

I realize that in most cases one gets what one pays for; but this surely should not be advertised as a "full-featured" system. The must be a cheap way to install some reasonable transmit buffer like about 2K. Anyone tried this yet? Any results to report?

All things considered, a good box for the appliance operator who already has a computer other than the ubiquitous C-64/VIC-20, like IBM, KayPro, Apple, etc. and a serial port with any dumb terminal program. It ain't no ATU-1000, but the price is cheap for the value offered... besides, it's cute as hell!!! Norm, W2JUP

#### Packet Radio - The Latest Stuff

The following was lifted from Gateway, the ARRL's Packet Radio Newsletter. (By the way, I got to meet Jeff Ward, KBKA, Editor of Gateway, in Dayton):

If last year's Dayton Hamvention was where packet radio "came out of the basement," at this year's Hamvention packet "came into the store." Commercial vendors Heath, Kantronics, GLB, HAL, AEA and Richcraft were all displaying TNCs. Kantronics, Heath and TAPR each had prominent packet-radio advertisements in the Hamvention program. Heath's supply of TNCs lasted only until Saturday morning, and dealers reported good sales of the other TNCs.

After months of secret planning, designing and testing, Tucson Amateur

Packet Radio Corp. (TAPR) has unveiled a new TNC, the TNC 2. TAPR, a non-profit research and development organization, designed the TNC 2 to "prove new concepts and to raise money to fund other development projects."

The TNC 2, dubbed "tiny TiNC," measures about 6 inches by 9 inches and is housed in a low-profile cabinet. A CMOS Z80 CPU and other CMOS ICs keep power consumption below 260 mA at 12-v dc. The TNC 2, unlike TNC 1, does not use ac power; it requires a dc supply between 10 and 15 V. Packet (HDLC) I/O and clock recovery are performed by a Z80 SIO chip and a state machine. This hardware permits full-duplex packet operation. Like the modem in the TNC 1, TNC 2 modem uses the EXAR chip set with a switched-capacitor input filter. There is a modem-disconnect header for connecting external modems. The TNC 2 comes with 16 kbytes of EPROM and 8 kbytes of RAM and can be expanded to 56 kbytes total memory. In place of the nonvolatile RAM found on TNC 1, the TNC 2 uses a lithium-battery backed-up RAM for storage of user-settable parameters.

The software for TNC 2 was written in Z80 assembly language. It provides the same user commands as are found on TNC 1, with a few additions and deletions. The support of VADCG protocols is gone, and in its place comes the ability to select either AX.25 Version 1 or Version 2. The software also keeps a list of stations heard, will send a message to connecting stations and can display the digipeater paths for monitored frames, to describe only a few of the enhancements.

The best feature of TNC 2 may be its price -- less than \$200.

So that TAPR isn't deluged by phone calls, a few of the questions most frequently asked by those who saw the TNC 2 at Dayton will be answered here:

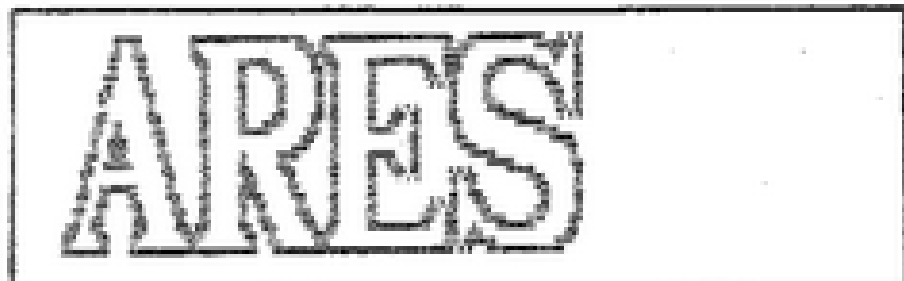
What about TNC 1? The TNC 1 is no longer produced by or available from TAPR, but TAPR software support will continue. Heath, AEA, HAL and Kantronics are selling TNCs based on the TNC 1, so the TNC 1 is not "outmoded." What is on TNC 1 that is not on TNC 2? The TNC 2 has only one set of stored operating parameters, it has no ac power supply, and it has no parallel status port. (To replace the parallel port, TNC 2 has connect status and buffer status LEDs.)

When can I order a TNC 2? TAPR is not sure exactly when the TNC 2 will be available. There are now some units being tested, but it will probably be late summer before the first few kits are sold. Even after this, supply will probably be lower than demand. There is no waiting list being maintained. Jeff Ward, KBKA, Ed

#### What is that noise?

Remember, If you want to know what packet sounds like in Oklahoma City area, listen to 146.415. Joe, K5JB





We have been enjoying increasing numbers of check-ins on the ARES net on Thursday nights. In March we had 5 sessions, 46 check-ins for an average of about 9 per net. In April, the net had 4 sessions, 41 check-ins averaging just over 10 stations per net session. During the month of May, due to poor conditions and lack of response to the 10 meter net sessions we decided to forego the weekly alternation of net frequency and began holding all nets on the 146.34/.94 frequency until further notice. Almost all stations that were heard on 28.7 MHz were checking in on the 2 meter nets anyway, with much greater readability for all stations on the net. Now the net meets every Thursday at 8:00 PM on 146.34/.94 and all stations able to are welcome to check in. You may participate at whatever level you would like to, take part in the training that is being conducted weekly, the drills, and the discussion that follows if you like. If you have any interest whatsoever in what goes on in the organization of our emergency capabilities here in Oklahoma County, please join us Thursdays or give me a call at 949-1963.

I especially want to thank those who were able to come down to the Red Cross Saturday, May 18th, to help with the preparatory work for installing a new CL-33 beam. Along with taking down the old antenna and putting together the new one, a new rotator was installed (quite a chore, eh Don and Mike?) in the top tower section. We enjoyed meeting with the VHF Club and hearing about what is being planned for the near future in connection with the station that they operate and maintain for the Red Cross here in Oklahoma. Thanks and kudos to KA5TSD, KA5UOS, WB5NUP, KA5TTH; and, K5VCJ and KD5IS of the VHF club for a great job.

As of this writing, one ARES net training session has been completed on the subject of traffic handling and net operations. This is one of the most important areas in which we as public service minded amateur operators should be proficient in. The sessions are being conducted by O.J. Watkins, WB5SRX, with questions and answers afterward. O.J. has a great deal of expertise in traffic handling and consistently has one of the highest traffic totals in Oklahoma as

well as appearing on the Public Service Honor Roll and Brass Pounders League (seen in QST's Public Service column every month). We are very fortunate to have someone of his caliber involved in ARES and I urge everyone that possibly can to check in or at least listen to the ARES net. We never can learn too much, can we?

As promised during one of the net sessions, I have included the training material that was presented and discussed over the period of several weeks. For the benefit of those who may have missed one session, and since this material is only available in the new Emergency Coordinator's handbook as far as I know, I have included the text in full (to be continued in future columns as room permits). Thanks to W7JIE and W6IIH for this work on the "Basic Theory of Telecommunications" and thanks to ARRL for permission to reproduce the material from the Emergency Coordinator's Handbook.

#### Basic Telecommunications Theory

There are six elements to any communications. Whether it is simply asking for the time of day or a complex logistic transmission, all six elements should always be present in your ARES communication.

(1) CONCEPT - We must determine exactly what it is we wish to transmit. This is not as easy as it sounds. We must identify and understand a need, clarify and simplify it, then reduce it to its most basic and immediate essentials.

(2) DOCUMENTING - Once we have the concept, we must determine how to deliver it to the intended receiver. We must consider the vocabulary and expression to be used and find the best way to deliver the message in a simple form. Complex word groups or difficult phrases can better be understood if simplified.

(3) TRANSMISSION - We then have to send the message through either speech (phone), or written message forms (RTTY or CW). Make sure the transmission is free from interference (such as loud talking in the background when sending a verbal message). Engines, aircraft, saws, and many items can cause severe background noise that will create serious harm to the understandability of a verbal message. Plain, ordinary QRM or station interference can cause problems in many transmission modes. We must provide alternatives when QRM becomes a problem, so be prepared to change frequency

or even mode of transmission as required.

(4) RECEPTION - The person who receives a message must not only receive it, but must understand it. The relaying operator must be able to legibly give the message to the intended receiver, thus minimizing the chance of error or misunderstanding.

(5) INTERPRETATION - Here reception is not enough. The actual addressee must be able to correctly interpret the message as it was originally conceived and delivered to the ARES operator.

(6) FEEDBACK - There must be a specific way to indicate that the first five steps have been completed successfully. This evidence of successful communication may be direct - a vehicle has been requested to return to base, and the vehicle returns to base. Or, a particular item is needed at the search camp and the item is delivered. In the case of radio messages, it is best to have the receiver repeat the message back in its entirety or at least its essential parts to insure that it is understood correctly. If there is any doubt, provide your own feedback by asking a question, requesting a repeat of the instructions, or obtaining physical proof, such as watching the direction of travel of a team dispatched to a problem situation. If you are the receiving operator, make sure you understand the instructions before action is taken.

Most breakdowns in communications are owing to omission of one or more of these six steps in message communication. The best conceived and transmitted message is worthless if directed to the wrong person or if your instructions or question are ambiguous or over-ridden (contradicted) by other messages. Don't be afraid to ask for a repeat or an acknowledgement if you think the message is not clear. If you stick to the six elements, your messages will be nearly 100 percent perfect.

(To be continued)

Paul Thompson, N5PT,  
ARRL County Emergency  
Coordinator

-FREE-FREE-

RADIO COMMUNICATION, the journal of the RSGB (Radio Society of Great Britain -ed.) and one of the best sources of information on antennas. Many, many years of them. FREE. I need the space. Call and come and pick them up. 789-3788. W5JJ.

# Salem

## DAYTON HAMVENTION 1985 REPORT (Still the Biggest, Still the Best)

It has been ten years that I have been making the annual trek to the mecca of amateur radio operators that is known as Dayton. It has really been a decade of memories and there are so many that still linger in my mind. You really couldn't script some of the things that have happened and I wax nostalgically just thinking of them. For example, everytime I get ready to go, I remember the time K5HMD started dancing in the lobby of the downtown Dayton Motor Inn when his Motorola HT-220 battery that he had stuffed in his pocket as a spare accidentally came in contact with his key chain. Burned a hole in his pocket and his pride. I also remember the time that Dennis WB5ISN hiked his leg on a bush in the downtown area while on his way back from the FM Bash. I still have the picture. . . Or, I remember the time that a bunch of fellows including WB5ISN, WB5UIY and WB5YWO wanted to check out one of the local theatres downtown which featured live professional entertainment and, I, just, well, ahh, weee, really don't remember that one too well. All I remember is that nobody got into too much trouble.

I even remember the time when WB5YWO actually used to go to Dayton. And his story of the guy who set his walkie talkie on the fender of a car in the flea market and have the driver pull away. When the radio fell to the ground, the owner started screaming at the driver. When the driver heard the racket, he stopped and looked around, then put the car in reverse and backed up and over the radio, crushing it. His explanation and apology of "sorry" lead to the classical Dayton line of "Sorry is not going to quite cut it." Of course, I sympathize with the driver since somebody should know better than to leave a radio on the fender unattended. Besides, it was only a Heathkit, a minimal loss anyway.

This year, as the magical weekend approached, I begin to worry about things like plane reservations, room reservations, tickets and etc. Stan WB5UIY had made the room reservations last year right before we left. I don't understand really what happened. 365 days to the next hamvention, we had to be among the first to make reservations and still we could do no better than the Dayton Downtown Ramada Inn. Well, it was better than Cincinnati. Transportation this year was no contest. Last year, with airfare somewhere over \$350.00 flight for even a super saver, I strongly contemplated taking the private plane. When the weather broke, we dashed for the airport. Even though we had to delay a day coming back (the storm that blew through was a beaut), we still saved about half over the commercial flight. This year, the airfare wars had heated up even more when the airlines started announcing flights for as little as \$158.00 for the roundtrip, who could resist? I couldn't and WB5UIY and I made reservations for the entire crew at the ultrasaver flight rate. I couldn't really save any money flying myself and besides, the stewardesses on TWA are a lot nicer looking than any I could have talked onto the plane.

That sewed up rooms and air transportation. I waited until the last week or two before the Hamvention before checking on ground transportation and then called National. I thought they could handle it, but eventually they did not prove up to the task. On a conference call with Stan and myself, the reservation clerk promised a car for six people or maybe more. Something like a Lincoln Continental (I told K5JB we'd be going in style this year). National promised and promised but in the end only delivered some small "luxury" car that would have held 4 people maybe, but no capacity for baggage. A little last minute scrambling at the Dayton airport provided a Big Cadillac barely big enough for six, but we went ahead and put seven in it. It really didn't do too badly until we had all the baggage and then the car was a low rider. Of course, it didn't make any difference, we still were hitting the bottom of the shocks when the car was lightly loaded. Nevertheless, it was still a lot of fun riding around in casual comfort in a Cadillac.

When you travel at an airfare that approaches about 30% of the full list price, you should not expect all the amenities of full service. This means that instead of champagne and caviar, you expect beer and biscuits. And the airplane is full, and I mean loaded to the rafters. When the flight attendant on the flight out of St. Louis came back a few minutes before takeoff and said, "Is there anybody in the bathroom?" After the stewardess replied in the negative, he turned around and began to walk toward the front of the cabin. He spied an empty chair and yelled, we got an extra seat back here. I turned around startled that he might actually sit somebody in the toilet until I saw the empty seat he was referring to. But cattle car trips on cattle car airlines are ok. It only hurts for a little while and really wasn't so bad. WA5LTM had arranged the seating arrangements and we had all our boarding passes for all flights except for the flight out of St. Louis back to Oklahoma City on Sunday night. That proved to be a fateful event, but one which had a happy ending as will be explained later.

The travel group had evolved into quite an entourage. Stalwarts K5JB, WA5FLT (the two Joe's), WB5UIY and myself had been joined by WA5LTM (back for his second trip in three years after taking a sidebar trip to San Francisco last year for the Demo National Convention) and Annette, Stan's wife, who decided to come along to see what it was all about. We checked in at the OKC airport at least an hour ahead of time and it was a good thing. Some scoutmaster had gotten ahead of us and was changing tickets for about 20 kids in the Post. This was a slow boat indeed and I still had to wait awhile until they brought a few more people on line after the problem got worse and the line got longer. Still made it down to the airplane in plenty of time and that included unhooking all the radios and setting them on the counter to go through the metal detector. Sometimes they ask you to turn the radio on and have it blow squelch. Most of the time the guards check look at them with studied indifference. Among the six of us (Annette the exception), we probably had a radio per capita population of at least 3 per person.

Cokes were free on the plane and a sack of peanuts were thrown in for good measure. I brought the Drink-A-Talkie along as a safety precaution and stuffed it with about a cup of my favorite beverage. WB5UIY took advantage of screw-top easy access as well as K5JB and myself. Since I wasn't driving, I broke my usual rule about not imbibing before flight. TWA got us to St. Louis and then to Dayton with a minimal amount of trouble and as I have previously noted, at minimal cost.

The rent car hassles are too depressing to go into, but it will suffice to say that National Car rental got a sharp letter for their trouble upon my return to Oklahoma for their subterfuge. Avis got the nod for ground transportation after National refused to deliver, but had I known the condition of the car, it might have behooved us to take two cars instead of the Cadillac. WA5ZAI, WA8ZWJ, NØBLX, and N8ADN had already headed for the Casa Lupita restaurant when our plane touched down in Dayton. After the car hassles, we headed out to join them for a first rate Mexican dinner. The crowd this year looked like it had grown over 25 or so when we walked in. The guys had taken over a pretty good size section of the restaurant. It didn't take very long to get seated and some of the group enjoyed the scenic building from the comfort of the bar while waiting. It is really good to see old friends and Dayton is really a great place to visit. After dinner, I wanted to break back for the hotel to get to sleep and plan on strategy for attacking the flea market.

I was pretty tired since I had stayed up to the early hours the night before to try to get a bunch of things done before leaving. Tim and I picked a room together and when we got there, I remembered that I was travelling with one of the all time master planners. General Mauldin had brought Cokes and candy bars and even a small sewing kit. I poopedawed his organizational skills, but I thought better of it the next day when I availed myself of one of his grapefruit drinks, a coke and a candy bar. He also carried an ice chest to the Arena, I merely relied on the free beer keg that Keith, Chuck and the gang load up and carry to their flea market space.

I hate to confess that Dayton's flea market has lost a little of its allure for me. It's not that it is not the biggest amateur radio fleamarket in the world, because it is. Nor is it the weather because it has been pretty good the last couple of years. It is just that Dayton has become a big social occasion for me and the people that travel their. It is always great to see all the Oklahoma City bunch in the flea market. And I especially look forward to seeing all our friends in Dayton. I didn't really spend a lot of money this year, but I did pick up a couple of things that I needed. And, of course, a couple of things that I really don't have any use for. It is also a lot of fun to see what somebody else bought. WA5FLT got another computer. I guess you might say, "What else is new?" Except what was really fun with this computer was that I had to lie down across everybody's feet in the car and have K5JB slide the computer in on top of me. Now, that makes Dayton a social occasion for me. I wouldn't do that for any business associate. But, the fact that there were four people, an Icom AT-500 antenna tuner, and an apple computer (in the box) all in the back seat of a 1979 Cadillac, does qualify for an unusual rating. Not to mention all the sacks loaded with goodies from

the flea market and at least three radios per person. We made it to the airport just in time. And I was thankful that we stopped for gasoline on the way back. It was good to stretch the legs after doing deep back bends with an Apple Computer.

Friday Night after the flea market was the trip over to Chuck N8ADN house for the annual "Gathering of the Faithful." Chuck and his wonderful wife Diane had served up a wonderful mess of food and beverages for a rather large, hungry and thirsty crowd just back from hard work in the flea market. As a special added attraction, Keith WA8ZWJ and some others had decided to present awards to members of the faithful who had distinguished themselves during this past year. Hoss got the "I Shot An Arrow Into the Air . . ." Award. This award was tendered as a result of an antenna raising party at Hoss' location in Washington, D. C. when he used a bow and arrow to string some dipoles in the trees. Everything went fine until the arrow came down and hit the glass top lawn table, shattering the glass top. Now this is not so unusual until you realize that this is the second time that the glass top table had been hit by the keen eye of Longfeather WA5ZAI. In fact, the table was hit after having been moved to a position of (supposed) greater safety.

The gathering broke up in time to let some of the "faithful" get back downtown for the Miami Valley FM Bash. I was a little bit late getting into the chow line when I first got there because I ran to N8ADN's station to see what propagation conditions were like back to Norman. My usual Friday night sked on Dayton weekend maintained its continuous record when W5UXR came up on frequency and we chatted for about 20 minutes. WA5TOO was suppose to be there, but didn't make it home in time. Darrell is always telling me about his super station and how much better his antennas are than mine. Doesn't make any difference if you are not there for sked. Chuck wouldn't let me use the amplifier this year because he has a small TVI problem that he has yet to solve with the neighbors, but the solution is on the way. Didn't really need it this year since the band seemed to get stronger the longer we talked.

Saturday at the flea market was more of the same, just as much hard work. I think that I have never seen as much Motorola equipment as I did this year. The stuff is going for a song compared with previous years. Prices are still up, though, because there is still a demand for the stuff in the commercial market. Fleamarketeer W5NUT was there. Keith WA8ZWJ still runs his table and he graciously consented to putting several items on the table for me. The touchtone decoders that I designed several years ago have been surpassed by many other designs and configurations, but still works OK for a base station application. I don't move many of the boards now, but still have some spares built up. I did manage to take a tour of the inside of the commercial exhibits building just briefly on Saturday and a little longer on Sunday. The new Icom 735 looks like a doozy of a radio. I also shopped around and bought an AT-500 automatic antenna tuner just to see how it works. (So far, I have been really impressed with its speed and accuracy in tuning) The new Kenwood portables are amazingly small. Yaseu had a couple of

new items for all to look at. Advanced Computer Controls announced the availability of their new version 3.0 and 3.5 software for the RC-850 repeater controller. This stuff is fantastic and both the WD5AII repeater ( 63/03) and N5MS (28/88) should be sporting the new software as it becomes available. The version 3.0 is made to work with the straight RC-850 and the version 3.5 requires the addition of a computer interface card.

I managed to wander into the building in time to attend and participate in the Amateur Radio and the Law meeting. Got to talk to Chris Imlay N3AKD again and talked him into dinner that night with the rest of the "faithful" (Gathering of the Faithful, Page 2). Chris brought along Dave Sumner K1ZZ. Our reservations at the China Boy Restaurant exceeded even that for the Casa Lupita. It started at 15, then gradually rose to over 30 as extras kept adding on. The tab was equally divided up and I think that the waitresses earned their gratuities that night. We had to use radios to talk from one end of the table to the other. The table started in a straight line and then started a bend when it reached a wall. We kept adding onto the end of it as people kept showing up and eventually it reminded me of those long dragons that run through the streets of San Francisco during the Chinese New Year. The shape of the table, I am sure, spelled something in Chinese, but the waitress wasn't talking. Besides, I recall that she wasn't even Chinese.

Back to the room and I sorted through some of the goodies that I picked up that day. We hoped to get an early start the next day so that we could sprint for a finish, but didn't make it out to the flea market until about 8:30 a.m. We checked out of the hotel so that it would be a straight dash from the Hara Arena to the Airport. I have never won anything in the prize drawing, so this time after 1:00 p.m. on Sunday is prime flea market time. This is the time that you can tell the guy that you will either buy it or he has to take it home. There is a certain psychology that overcomes a fleamarketeer when confronted with the realization that all the totable merchandise will have to be toted out unless sold. This is particularly a time when waiving greenbacks under the nose of a flea marketeer seller has been known to induce a trance like state in which the color of the blood of the seller actually turns green, much like Spock. The state is temporarily broken as the realization that the dollars being waived is only 75 or even 50% of the asking price, and as the rude awakening completes the transition to a conscious state, an autonomic reaction occurs where the seller yells, "Ohhh, Awwright, Gimme da money," and grabs the air for the dollars. Yessireee. Wouldn't miss that part of the flea market for the world.

The prize drawing was still going on, when everybody arrived for our scheduled departure. We sat around for a minute or two and guzzled a couple of WA5LTM's cold beverages while shooting pictures of each other and the Cadillac. I have already described the ride to the airport with the computer in slight detail, so we now jump to a sequence of events that begin at the airport. I have managed to talk WA5FLT into letting me check the antenna tuner as one of his pieces of luggage. I already have a suitcase to go for my luggage. I am now carrying three Dayton super strong industrial size fleamarket bags loaded with literature

and fleamarket acquisitions. The debate now begins in my mind as to whether I should check my always ready, ever ready overnight bag. One fact is certain, I can't carry it, the three sacks, another flight bag and the camera case. The flight bag, the camera case and the sacks don't lock. I decided to check the overnight bag, thereby depriving me of contact lense solutions, shampoo and other necessities of personal hygiene until my arrival back in Oklahoma City. Wise and frequent travelers like K5JB and WA5FLT have played this game before and lost. They carry everything on in small suitcases that either fit underneath the seat or hang up somewhere in the cabin. I gambled and lost. This was brought painfully home to me when we were waiting around in St. Louis for the flight home to OKC when the clerk announced that they could not issue us boarding passes because the computer had broken down. It is not difficult to smell a lie, even one of the corporate variety. So we just waited around and sure enough, all six of us were fixing to be "volunteered" off the flight because of overbooking. In fact, this flight was so overbooked that there were about 10 people who didn't make it. Now this might have been a real irritation until we realized that TWA had planned a little golden parachute of their own to cushion the fact that we would have to spend the night in St. Louis. They offered travel vouchers on TWA good for a year that would be the equivalent of two round trip tickets to Dayton for next year. Who could resist? Valor and greed being what they are, all six of us graciously "volunteered" off the flight for the transportation the next day, a night at a Marriot Hotel close to the airport, and the aforementioned travel vouchers.

Dinner that night (on us, TWA did not include a meal) was fabulous. We all had a great time and looked for a TWA flight schedule to see where \$400.00 would take us. Planning has been intensive for the new "TWA Hamfest." Unfortunately, they do not fly to the islands to the south of Florida or we would have lost K5JB right there. They do, however, go to Washington, D.C. and WA5LTM made note of that. I thought about a trip to New York, or even London, if I wanted to add a little boot. WA5FLT could probably find anything that would suit him since TWA flies to a lot of places where there are girls. The bad part of all of this is that just as TWA became a general creditor to me, I am driving home from the office later that week and find out that Carl Icahn is trying to buy them. I just know that something is going to happen to them and I will lose my TWA hamfest tickets. In a way, this is small compensation for their neat trick of two years ago when they held the plane on the ground in Dayton for about 45 minutes, then diverted south for weather going into Saint Louis just enough to make us miss our flight to OKC. I always wondered if they did that to avoid another overbooking situation. We pulled up to the ramp in St. Louis just in time to see our other flight on its way out to the runway for takeoff. Well, I don't think too badly of TWA now, unless Icahn buys them.

Well, another successful safari to Dayton is history. Next year is even better. WA5LTM has volunteered to start the organizational ball rolling. Onward!!

Micheal Salem N5MS

**DAYTON PHOTO EXCLUSIVE!!! WE BRING EM BACK ALIVE !! ACTUAL PHOTOGRAPHS OF ACTUAL DAYTON ATTENDEES CAUGHT IN THE ACT OF ATTENDING THE DAYTON HAMVENTION!!!!!!**



**HARDWORKING FLEAMARKETEERS!!**

Ed N5HVG, Wendall WB5ISO and Dayton Stalwart Joe K5JB standing at attention prior to getting the command to attack. These three Dayton soldiers have just run through the amateur's manual of arms and faced inspection. Other than a couple of "Pull in that gut, soldier!" these fleawalkers passed with flying colors.

**THE BUSINESS AT HAND IS THE FLEAMARKET!!**

Take the scene pictured here and multiply it by at least a thousand and you have an idea of what the average fleamarketeer faces at Dayton. The fleamarket covers at least 10 acres of the parking area around the HARA arena. The fenced in area presents some of the most spectacular radio bargains since the end of World War II. In fact, much of the stuff is still that vintage. Mixed in with all the junk is just about everything any amateur might want to look at. And the price is that of a buyer's market. Nobody ever takes stuff to Dayton with the idea of taking it back home again. Everything must GOOOO!!!



**MEXICAN REVENGE NORTH OF RED RIVER!!**

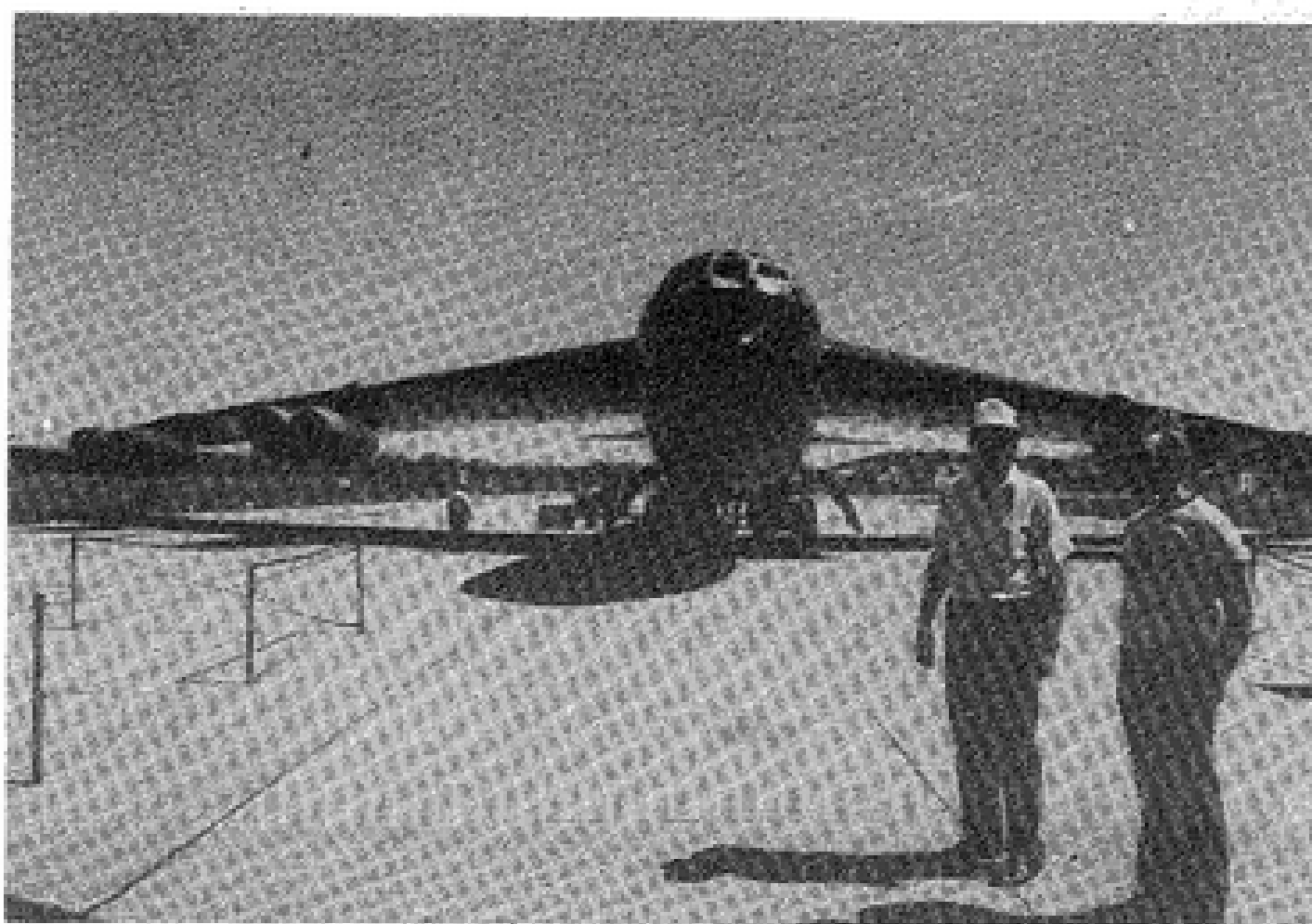
Three diners at the Casa Lupita Restaurant enjoy the fine mexican cuisine. From left, Stan WB5UIY (looking a little like he swallowed a balloon, boy, does he have gas), Annette, YL of Stanley, and Joe WA5FLT, who definitely has a lean and hungry look. Pictured in the foreground is a large pitcher of margueritas which turned Stan into an airhead. We got him out of the restaurant just in time before he tried to pick a fight with a pinata!



PHOTO CREDITS: Who else?? N5MS shot these photo in color. This is not good, so that is why he gets Jim Greenshields WD5HPU to make the half-tones. For several years, Jim has been making this guy look good. It's a miracle. So for the credit where credit is due department, a tip of the C & E hat to WD5HPU.

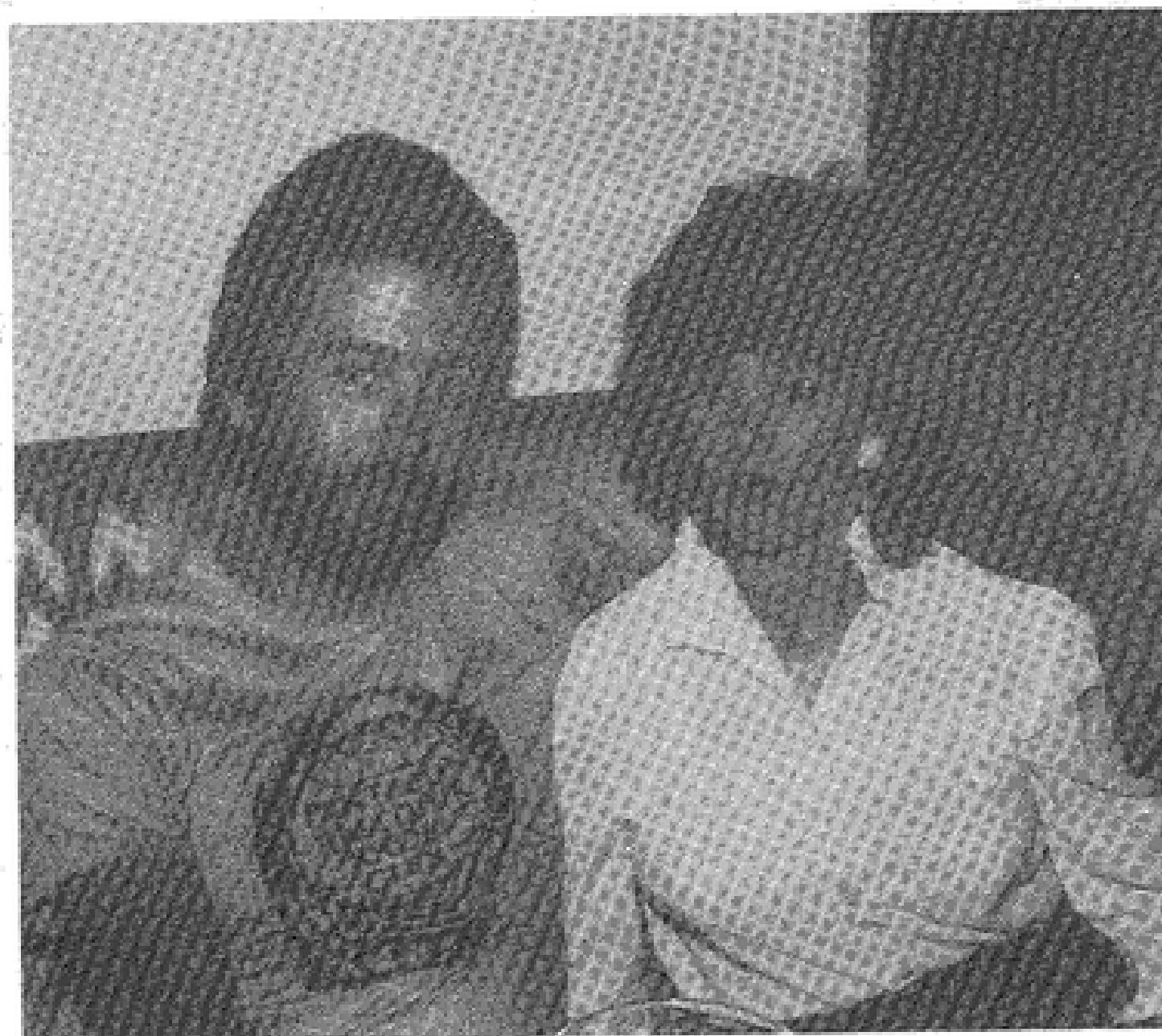


**THE MERCHANTS OF MENACE!!** Any resemblance of these three Dayton fleamarket merchants to sober individuals is purely coincidental. From the left Keith WA8ZWJ, his brother Jim, and Crazy Bob K8JUK all man the fleamarket table that forms a base of operations for N5MS, K5JB, WA5FLT and others. The most important part of the base operations is the Keg of Stroh's located down and to the right. Next year, it may even get its own picture in the C & E. On those hot days of hard work walking along the asphalt, it is great to find a place to sit and a cold beer.



**JOE K5JB AND JOE WA5FLT CHECK RENTAL RATES FOR CHARTER FOR B-52 FOR NEXT YEAR'S TRIP TO DAYTON!!!** Looks there will be a lot of these babies available for use in the coming years and K5JB and WA5FLT figure that now is a good time to get the charter rates from the Air Force Museum. A brief sidetrip to the Museum prevented us from making it to the Hamvention when the rope dropped at 12 Noon on friday, but this problem will be solved next year. We'll get two rent cars to increase our logistical alternatives! !!

**GATHERING OF THE FAITHFUL HOSTS** Chuck Hodel N8ADN and his lovely wife Di (short for Diane, just like you know who) pause during a break in the action at Casa Lupita to welcome our intrepid Dayton visitors. They have already broken out a pitcher or two of margueritas and the burritos are warming up in the bull pen. On friday night, these two are host to a curious ritual of mouth stuffing and award giving at the annual "Gathering of the Faithful." Chuck and Di have just moved into a new house, but were unable to avoid its use for the gathering. Their house is also the scene of the annual "We gotta talk back to Okla DXpedition run by N5MS who blistered off two DXpedition contacts in 30 minutes, a new world record for him. Special commemorative cards for all who worked him are available by sending \$100.00 in small bills or IRC to callbook address to cover cost of postage and handling.



**PHOTO CREDIT:** Just remember, WD5HPU created these half-tones of silk out of the sow's ears of pictures shot by N5MS.

WE GOT A MILLION OF THEM PHOTOS THAT YOU SHOULD SEE, BUT THIS IS ALL!!!



WINNERS OF THE KEN AND BARBIE LOOKALIKE CONTEST Stan WB5UIY and Annette, his wife, yock it up at the "Gathering of the Faithful" over a can of Grape Juice. (Uhh, huhh, well, you know what it is). Annette is showing off her latest project from the women's program at the Hamvention, How to get rid of splitting headaches by drilling a stick through your head to let the evil spirits out. In truth, this unusual photo resulted when a knitting needle slipped during a "pearl one" while Annette was attending a "Learn to be a (k)nit wit Seminar." The instructor was actually aiming at the beer can that Stan is holding that was resting on Annette's head. Annette took the mishap in stride and finished up some baby clothes and in addition nitted a muffler for WA5LTM..

BOB NØBIX and wife share the fun at the Case Lupita restaurant. Bob is smiling because he is thinking of all those traveler's cheques in his pocket ready to be countersigned at a moments notice in the commercial exhibits. His wife is smiling because she now has all the traveler's cheques converted over so that they require her signature instead of Bob's to validate them. She is also thinking of furniture instead of radios. What can you expect from a guy who wears a tee shirt that says, "He who has the most toys when he dies is the winner." Behind Bob, but not out of sight is Keith WA8ZWJ and to Bob's right and definitely out of sight is Hoss WA5ZAI, former Dayton resident (and come to think of it former OKC resident, he just can't stay anyplace for a long time). Hoss just came through OKC about a week ago on his way down to Texas. He was treated to dinner in his honor at Molly Murphy's.



### HAMCOM IS COMING!!

Following up on the Hamvention is the annual trek to Dallas for HamCom. I got a program in the mail the other day and it looks like it will be the usual good program down in Dallas. Don't know if the C & E will be delivered before HamCom makes it, but I saw a couple of programs of interest, including another description of packet. There has been a dirth of activity of packet here recently. Looks like we need to get some people fired up. I saw at Dayton where TAPR is discontinuing the manufacture of their TNC's in favor of a TNC that will merge with the networking work that

is being done. TAPR said that several commercial vendors are now making the TNC available to amateurs and it was now time to step aside and onward. The HamCom flea market is always pretty good size and I expect that it will be up to its usual standards. So, look for the first saturday in June and see what's cooking in "Big D."

Micheal Salem N5MS

SUN	MON	TUE	WED	THUR	FRI	SAT
<b>JUNE</b> The managing editor assumes no responsibility for the data contained herein.						
						1
		M O R I Great Plains		Aeronautical Center ARC		SCARS ARDMORE C O C O
2	3	4	5	6	7	8
Wheatstraw	EDMOND Club	76'ers		ALTUS AREA	RADIO TELE CONFERENCE	VHF Club
9	10	11	12	13	14	15
		AUTOPATCH		KAY County	EARS	FIELD DAY
16	17	18	19	20	21	22
VEC EXAMS TOMORROW	CIMARRON CENTRAL OILHEIM RADIO ASSOCIATION COLLECTOR - EMITTER	CORA				
23/	30 24	25	26	27	28	29

WA5CZN says,

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**Spiritual Batteries Need A Charge?**

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