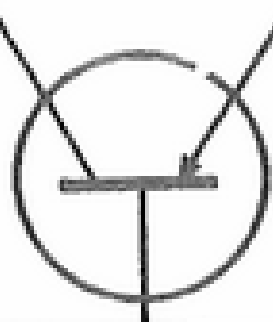


CENTRAL OKLAHOMA RADIO AMATEURS
COLLECTOR AND EMITTER



50¢

Volume 10

MAY 1984

Number 112

I N D E X

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| 6 Q. R. Zedd | 13 C O C O |
| 6 GPARC | 15 AMSAT |



Bring your best junkie for consignment or donation, and bring a little cash so you can take home some different goodies. N5FZK, our auctioneer, promises a fun-filled and exciting time for all who join us.

Come one, come all!
The Oklahoma City Autopatch Association invites all clubs and all visitors to share the fun of our annual auction.

The action begins at 7 on Tues., May 15 at our regular meeting place at the Fire Dept. Training Center on Portland between Reno and 10th. Get there early.

The April meeting of the Oklahoma City Autopatch Association was called to order by Pres. Kathy WBSNDO at 7:30 p.m. on April 17, 1984. Approximately 60 members and guests were on hand. Ron KESM reported we now have 154 members.

The CORA reps. gave their reports, and everything is confirmed at the Lincoln Plaza (July 21-22) with registration set at \$8 for pre-registration and \$10 at the door. Pre-registration prize will be an IC-730, and the main prize will be an IC-751. Talk about getting into the swing of things, it looks as if the CORA crew is trying to make this another good HAM HOLIDAY! Don't forget to pre-register!

The May meeting of Autopatch will be the annual "Drop your unnecessaries--Autopatch Auction!" The final rules have not been finalized, but it will probably be about the same as last year. Don't forget that the honorable Colonel Jack Stewart will be on hand to help during the auction. He has reminded us to wear our sunglasses to the auction because he's trying some new hair lotion and doesn't want anyone distracted during the festivities.

It seems as though one of our members received something the other day from California and has been talking gibberish every since. Buddy KESLD has possession of our new controller and has literally been burning midnight oil to get the programming done. Announcements were coming out of .82 every 5 minutes Saturday inviting people to his house for coffee and doughnuts and "since you're here, let me show you our new controller." We are still looking for donations to complete this very fine addition to our already fine stable of equipment. Also, the 440MHz machine should be improved soon with the addition of a couple of combiners, so look for that improvement in the near future.

Our speaker for the recent meeting was KTOK meteorologist Rick Tascatano. He put on a very informative program about weather, and I've heard a few comments on the air about possibly getting him to put on a program at HH '84.

Well, that about sums it up for another month in Autopatch. Don't forget about the auction at the May 15 meeting at the Fire Training Center--remember to bring your fine paraphernalia???

'73

Dennis
WD5CSM

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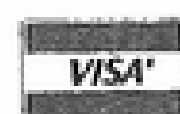
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THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

1 AERONAUTICAL CENTER ARC
MEETS: 8:00pm First Thursday Flight
Standards Bldg., FAA, S. Macarthur
PR WB5SVN Jack Iman 677-8537
VP N5ABL Holly Holcomb 799-2539
Sec WD5JPW Gloria Seignious 722-1740
Tr WA5CJG Bob Pace 376-3569
EDITOR: Gloria Seignious, WD5JPW 722-1740

2 OKLAHOMA CENTRAL VHF CLUB
MEETS: 10:00am Third Saturday. Red Cross.
10th & Hudson (Back door) Okla City.
PR KD5IS Jerry Wetmore 524-5080
VP KA5MY Chris Sartorious 728-0058
SE K5JB Joe Buswell 732-0676
TR W5KE Ellard Foster 789-6702
EDITOR: Joe Buswell, K5JB 732-0676

3 MID-OKLAHOMA REPEATER, Inc.
MEETS: 8:00pm First Tuesday. Okla City
EOC. 4600 N Eastern
PR N5EPV Bob Allen Unlisted
VP WD5ISS Don Saunders 751-0404
SE N5BEQ Jim Buswell 236-0368
TR W5KOZ Sid Gerber 737-1050
EDITOR: Susie Atkinson, KA5FED 842-8014

4 OKLAHOMA CITY AUTOPATCH ASSOCIATION
MEETS: 7:30pm Third Tuesday. Okla City
Fire Training Center. 800 N Portland
PR WB5NDO Kathey Whited 799-1457
VP WD5CSM Dennis Patterson 495-0769
SE N5DLM Vicki Adkins 722-6195
TR KE5M Ron Recer 341-7030
EDITOR: Kathy Whited WB5NDO 799-1457

5 OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB
MEETS: 7:30pm Second Tuesday (Sep-May)
119 Wilson Center. 1334 S Jenkins
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

6 ALTUS AREA AMATEUR RADIO ASSOCIATION
MEETS: 7:30pm Second Thursday
North Main Fire Station (CD) Altus
PR W5CCV Joe McDonald 782-3454
VP
S/T WA5CBF Loren Simms 477-0921
EDITOR: Loren Simms, WA5CBF 477-0921

7 BICENTENNIAL (76ers) ARC
MEETS: 7:00pm Second Tuesday. OG&E Bldg.
SE 3rd & E. K. Gaylord Blvd.
PR AE5N Donald Duck 681-0133
VP WD5JNT Ted Vanlaningham 262-1675
SE N5AUH Jerry Sproul 354-2061
TR WA9AFM Tom Webb 737-6716
EDITOR: Jim Seals, KB5XN 381-2005

9 WHEATSTRAW AMATEUR RADIO CLUB
MEETS: 2:30pm Second Sunday. Location
varies. See club section.
PR KA5DUO Leo Peil 886-2998
VP WA5FLT
S/T K5GG George Maschino 263-7614
EDITOR:

13 KAY COUNTY AMATEUR RADIO CLUB
MEETS: 7:00pm Third Thursday
Ponca City EOC
PR WB5YRN Delbert Foiles 762-4479
VP WA5UBO Marsh Pronneke 363-2526
S/T KA5PUB Glenn Bishop, Jr.
EDITOR: Rick Long, WD4CEP 767-1871

14 CIMMARON AMATEUR RADIO ASSOCIATION
MEETS: 7:00pm Second and Fourth Mondays.
Place varies. See club section.
PR WB5ECM Dennis Paimton 764-3599
VP N5FUP Steve Schoonmaker 886-3274
SE N5FMH Nadine Paimton 764-3599
TR N5FUR Ruth Simpson 227-2791
EDITOR: Major Bailey, KI5P 227-2061

15 SOUTH CANADIAN AMATEUR RADIO SOCIETY
MEETS: 9:30am Second Saturday. Red Cross
Bldg., North OU Campus. Norman
PR KA5MIZ Bob Rabin 360-6996
VP KA5EFJ Ken Neptune 321-7789
SE WD5GTC Gene Johnson 321-6759
TR N5BEW Ken Esadoah 329-4667
EDITOR: Sam Barrett, WA5RPP 321-2601

16 EDMOND AMATEUR RADIO CLUB
MEETS: 7:00pm First Thursday. See club
section for location and type.
PR WB5UIY Stan Van Nort Unlisted
VP WB5MLX Glen Cochran 942-7148
S/T WD5DYJ Kay Northcutt 755-4672
EDITOR: Mark Northcutt, WD5DYI 755-4672

18 GREAT PLAINS AMATEUR RADIO CLUB
MEETS: 7:30pm First Tuesday
Civil Defense room, Woodward courthouse.
PR WA5PLW Windle Hatchett 766-3561
VP W5KEK Lewis Patterson
SE K5YZK Jim Phares 254-2319
TR KA5SDE James Rockhold
EDITOR: Jim Phares, K5YZK

10 EDMOND AMATEUR RADIO SOCIETY
MEETS: Varies. See club section
PR KB0OU Cal Callison 751-3620
VP WA5ZGM John Keeling 340-1253
S/T KC5GN Bill Wright 341-6076
EDITOR: John Keeling, WA5ZGM 340-1253

20 ARDMORE AMATEUR RADIO CLUB
MEETS: 8:00pm First Wed. Red Cross Bldg.
Informal, 8:00pm other Weds. 221 9th NW
PR WB5VBK Fred Innis 223-1709
VP WD5FZD John W Merlyn 223-9543
SE W5JCX Jim Chilcoat 226-6816
TR W5BLW Charles Dibrell 226-0589
EDITOR: Glen Hamilton KE5ES 226-4379

CENTRAL OKLAHOMA RADIO AMATEURS, Inc.
MEETS: 7:30pm Fourth Tuesday. OKC Fire
Training Center. 800 N Portland
PR WN5NWX Reggy Whited 799-1457
VP K2GKK D. C. Macdnald 672-4947
SE N5BEQ Jim Buswell 236-0368
TR WDOFTM Linda Callison 751-3620

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Joe Harding, WA5ZNF, 737-1044

CIRCULATION MANAGER:
Bob Graham, WB5NSV, 677-8685



Club
NEWS

VILSV
The Voice of the Ham Radio Community

Minutes of April Meeting

Meeting was called to order at 10:06 A.M. by President Jerry, KD5IS, with 12 members and guests present.

Minutes were approved as published in the C&E. Ellard, W5KE, gave the Treasurer's report. Jerry, KD5IS, then presented Ex-President Paul, WA5HTL, with a gavel in appreciation for his term of office.

Bob, W5HXL, and Ellard, W5KE, gave the CORA report. Publicity planning was discussed.

Strategy and planning followed for an antenna party scheduled for April 28.

Hugh, KA5DGY, won the door prize, an audio compression amplifier donated by Steve, W5VCJ.

Meeting adjourned 10:52 A.M. Joe, K5JB, Sec'y

Electronic Mailbox on 2-M

Lee, W5OLX, advises he has an electronic mailbox (MSO) operating on 146.70 in the evenings when he is there to attend to it and everyone is invited to try it out. Initially he intends to have it on from 8 P.M. to 9 P.M.

His MSO is using standard RTTY tones (2125 Mark, 2295 Space) at 60 WPM, Baudot code. The MSO can be commanded by the remote operator to run 100 WPM. To get a list of commands and operating instructions, send some RY's, your call and .HELP. It uses typical commands like MSO's on 40 and 20 meters but it would be a good idea to use the help function to learn exactly how his operates.

He lives in Midwest City and is running 10 watts into an omni-directional antenna up about 20 feet so it shouldn't be too difficult to hit from anywhere in the City. Try his system out. It might be the watering hole you RTTY enthusiasts need to get something cooking on 2-M. While you're at it, how about talking up what you want to see at Ham Holiday relating to RTTY, etc. Joe, K5JB

Packet Radio Happenings

There is not much to report on the Packet Radio scene this month since I have been on the road quite a bit. There is one new guy on the air and one more about to make it. Bob-Robert, WA5BQX, persuasive cuss that he is, talked KB5XN out of his TAPR TNC. Jim, it seems is enamoured with the software approach and is going to try the Richcraft Engineering (W4UCH) program on the Model 1.

One of our bunch, Leo, K0LOT, took a lightning strike April 7 and has not replaced his 2-M rig and amplifier yet. If there is a good deal on a used rig out there, Leo might be interested.

The other guy who is about to get up and running is Mark, WD5DYI, who is hooking up a GLB board to a Commodore 64. He was making a direct hookup to that computer without using the "RS-232" adapter sold by Commodore and had some problems. In the process, he gonzoied the 6526 Complex Interface Adapter and had to replace it; no small feat since the 40 pin chip was soldered in! Once wounded, he is now gun shy and has ordered the RS-232 adapter for his CBM.

Joe, WA5FLT, and I put on a packet radio demonstration for the Wheatstraw meeting in El Reno on April 8 and had a lot of fun doing it. We are planning on putting on a demo sometime during Ham Holiday. (The program chairman, "I Heard" Chuck, K5NK, and I are negotiating a

time. Every time that he has suggested is prime flea market time. Makes no difference, any time a flea market is open is prime flea market time...sigh.)

I noticed that the January C&E TAPR v.s. GLB shootout article is posted on Compuserve's HamNet. It is taking up thirteen messages, all hand typed from the Tucson Amateur Packet Radio Status Register. I left a message for the system operator, Scott, W3VS, and commented that there surely must be some electronic way to get that kind of stuff in his hands so it wouldn't all have to be retyped. I mailed him some fodder from subsequent C&E articles on disk files he can read with his computer. (That's another fiasco involving IBM's toy computer that won't be covered here.)

Next week is the big blowout at Dayton and I plan to be there. There will be a Packet Radio forum so I will be finding out what is going on elsewhere and report in next month's C&E. Joe, K5JB

Packet Radio - What is That Stuff?

By popular request, I submit the following explanation of Packet radio, or, What the Heck is that???

Bob, W5HXL, wanted a short explanation of what Packet was, without all the technical mumbo jumbo...must be his management background showing.

Actually, Packet refers to the little bundle of stuff that is sent in a burst from the transmitter. It can contain anything, but for our purposes, it usually is some text. Each Packet is accompanied by some kind of preamble and salutation that tells from where it came, to where it is going and an error checking scheme. Each Packet is a complete transmission but the information it contains may be only be part of a message being sent. Many Packets contain no information but serve instead to perform supervisory functions such as connecton requests, acknowledgements, etc. A typical exchange between two radio stations includes a connect request, information transfer (several Packets) and disconnect requests, all accompanied by acknowledgements. In function it is similar to AMTOR but an information packet usually contains approximately 128 (or 256 characters) where AMTOR contains three in each bundle. End of short explanation. Howzat Bob? Joe, K5JB

The K7UAE "Coax" Antenna

Johnny, K5GBN, supplied me with a copy of a paper describing the popular K7UAE dipole antenna that has been circulating among the MARS crowd and others. The paper was put together by Smitty, KC5C. In his paper, Smitty called it a "Distributed Capacitance Antenna" and it is reported to have almost flat VSWR across the 75-80 meter band.

I started preparing a reverse engineering explanation of the thing for this month's C&E but I ran into two problems. First, I ran out of time. Second, I ran into trouble reconciling the thing. The coax in the center section forms a couple of reactive stubs (inductive) in shunt with the feedpoint. At this point in my analysis, their effect appears to be adverse, adding reactance of the wrong sign. I am probably mixed up and need to go to admittance parameters. If anyone has the explanation, save me the time, would ya? Joe, K5JB

Want Ads

For Sale: One section of Rohn 25 tower. Call Hugh, KA5DGY, 946-0033

For Sale: Swan 500CX, 80 to 10 meter SSB & CW transceiver, 550 watts PEP input. Top notch shape, owned by top notch radio craftsman, \$225.00. Ron, WA5EAI, 681-0896



ACARC Minutes April 1984

Jack Iman, WB5SVN, President called the April 5th meeting to order at 7:33 p.m. with 40 members and guests present.

The Treasurer Bob Pace, WA5CJG reported the ACARC has \$1232.51 in the club account with all debts paid.

Bob also reported that the WSPAA repeater is operating well and the new transmitter strip from ICOM has arrived and will be installed soon. The repeater antenna is scheduled to be moved to the ANF-1 building which will give it more height. The club has replaced its original computer with a new state of the art unit that will provide much faster service and be easier for club members to use. Come by and try it out!... (it came complete with joysticks for games too).

Don Rooker, N05M, gave the CORA report. CORA is making big plans for Ham Holiday 1984. The Grand prize this year is an IC 751 & power supply. The pre-registration prize will be an IC 730 & power supply. Don is looking for YL's to bake and bring cookies for the hospitality room.. so get out your best recipe and pre-heat your oven! There is a search under way for technical programs for Ham Holiday, so, if you have any ideas contact Don. There will be a home brew project and a two meter crazy antenna contest... so bring you best brainchilds to Ham Holiday 1984.

Old business: None

New business: None

Jack turned the floor over to Ed Jessup, FAA Aero Center weather instructor, at 7:56 p.m. for an excellent presentation on severe weather formation in Oklahoma. Thanks Ed!! a great job!

The meeting was adjourned for refreshments at 9:10 p.m.

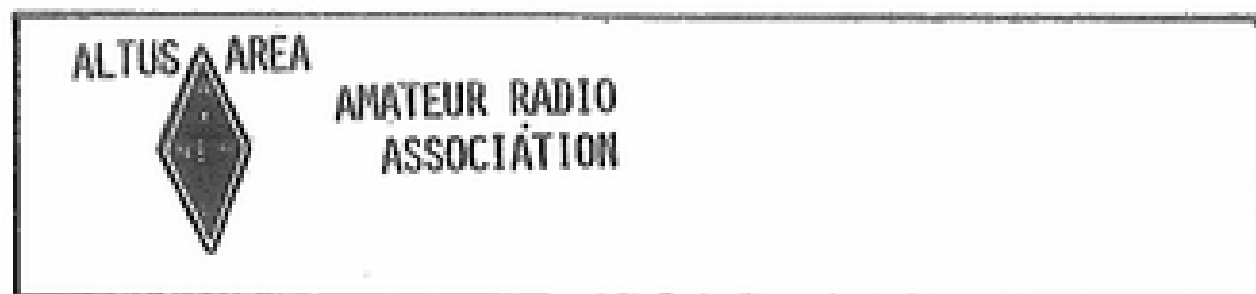
Gloria Seignious WD5JPW
Secretary ACARC

THE SMART SOLDERING IRON

For those few who still fog up a soldering iron to do a bit of construction or maintenance, there's a new device that looks interesting. MetCal, Inc., has what they call the Sta-temp VIP (Stable Temperature, Variable Internal Power), an iron that holds a steady temperature regardless of the load you put on it. No thermostat is used, but a technique making use of the temperature-dependent magnetic properties of particular metals to self-regulate the generation of heat. It'll hold a constant temperature of 290 C (530 f) regardless of the thermal load. Slick, huh?

Now, if some smart cookie will just come up with a self-regulating water faucet for showers.. one that will let you dial in the temperature and rate of flow you desire, push a button, and have the water diverted directly to the drain until the selected temperature is reached, then you can step under the shower with no burns or chills! Ah, dreams, dreams!

W5JJ



The Altus Area Amateur Radio Association had its February meeting scheduled on 21st of this month. It was held in conjunction with the Weather Watch organizational meeting at 1900 hrs. at the Altus city auditorium. Approximately 30 amateur radio operators showed up of the 170 people from 27 towns in southwest Oklahoma and north central Texas.

Don Devore, of the National Weather Service Office in Oklahoma City and David Martin of the National Weather Service Office in Fort Worth, Texas presented a program on severe weather safety and tornado spotter training.

This annual training program is presented under the sponsorship of Altus Civil Defense under the direction of Mr. Dwight Dennis, WB5KRH. The program was given to enlighten area citizens of the dangers of severe weather prior to the beginning of this years tornado season.

This annual training program is to prepare for potential severe weather this spring. The National Weather Service and the civil defense organizations throughout the state have developed new operations for the more efficient detection and communication of possible severe weather.

Following the general meeting a short gathering was held for the amateur radio operators. The meeting was concluded by 2130 hrs.

Altus lost one of its civic leaders and the Hams have lost one of their numbers on 17 Feb 84. Robert E. Parks better known as "Bob" Parks K5LYM, passed away that Thursday at Jackson County Memorial Hospital. Bob had lived in Jackson County all his life except for the time he served in the U.S. Army during World War II. He was a member of the American Legion and Woodmen of the World. He was also a member of AF&AM Lodge 62, Lion's Club and Altus Chamber of Commerce. Bob was past Emergency Coordinator for Jackson County and past President of the Navajo Mountain Amateur Radio Club.

Amateur radio also lost a good friend by the passing away of Robert Mayotte. Robert was not a Ham, but as past Civil Defense Director of Jackson County had helped considerably. Robert had promoted our club by always providing a location (the E.O.C.) for our club meetings. He had served as Civil Defense Director of Jackson country for 15 years prior to his retirement.

The computer group newly formed in Altus for the Commodore 64 users has a new name. It is called CUGA. This stands for Commodore User's Group of Altus. Many of the local group of Hams have C-64's. One of the newest users of the C-64 is Bob Bratton, N5AIP, of Mangum, Ok. He still have a lot to learn- especially about what happens when you initialize a diskette full of programs.

The next regular meeting of the Altus Area Amateur Radio Association is scheduled for March 8th. at the North Main Fire Station at 1930 hrs. CU There.

Loren WA5CBF

STAND-BY is the cue from the director for the Noon News.



Q. R. Zedd

EASTER EGG HUNT A GREAT SUCCESS AT RANCH

The first annual Easter Egg Hunt at Honor Roll Ranch was a grand success.

Held on Saturday, April 14, the same day the Friends of the Duck Pond were terrorizing the poor ducks at the OU duck pond, the egg hunt at the home of the famed Q. R. Zedd attracted 22 members of the South Canadian Amateur Radio Society.

The duck pond gala featured a great many weirdos walking around in long medieval dresses and baggy pants. The ducks were nowhere in sight, having flown to Ardmore, our newest All-American city, to avoid the clash of cardboard swords on tinfoil armor plate. A good time was had by all, nevertheless, and as a spokesperson for the duck pond friends stated, "We are going to go ahead and keep improving the duck pond habitat, and if the ducks are to stupid they go elsewhere to live, tough."

The duck pond medieval fair was nothing, however, compared with the Easter egg hunt at the ranch of Zedd, this planet's greatest DXer of all times and holder of the only 1x1 callsign, A5A.

Scattered about the 800-plus acres of Honor Roll were a large number of gaily colored tents, housing emergency operating stations for the faithful who had to have an emergency dose of rf while searching for the Easter goodies. Each emergency station was equipped with a Kenwood or Yaesu exciter, an Alpha linear, high-speed keyer, computer-assisted automatic logging terminal and popup TH7DXX on a sixty-foot crankup tower. Links to other emergency positions were provided on 146, 220 and 440 MHz, and for special visitors like N5MS and K5JB, packet radio facilities were provided.

The day began early, before the wind got up, with Zedd himself greeting guests at the ranch house. Zedd wore faded Levi's, a green flannel shirt, pink vest, red boots with silver concho spurs (the rowels painted metalflake yellow), a fuzzy roan Stetson with his Worked All Stations award and terminal DXCC button pinned on the front, and numerous strands of gold chain and medallions from various countries of the world around his neck. Ever the good host, Zedd led SCARS guests into the linear room, where a continental breakfast was laid out. He had rolls and coffee, tea, crumpets, orange juice and doughnuts for all, with Jack Daniels on the side for those who cared to imbibe, and Harvey Wallbangers for the fainthearted.

Tondelayo Schwartz, Zedd's blonde, nubile, 20-year-old QSL secretary and constant companion, was on hand to dazzle the locals with her repartee. Tondelayo honored the occasion by showing up in a fuschia hotpants outfit with pink, five-inch spikes and a darling pendant gold watch that monitored the 20-meter band for DX while marking the hour with a brief electronic rendition of "Waymon, Billy and the Boys."

Needless to say, the local studs were wowed.

After breakfast and a few words Easter egg hunt got under way.

Scattered around the ranch were some 24 plastic eggs. Cunningly hidden by Tondelayo, each egg contained a slip of paper which entitled the finder to a small token of the find: a piece of radio equipment.

Well, the boys and girls rushed into the thin sunlight of midmorning and began to hunt about 10:30. A wonderful time was had by all. Privacy forbids reporting who won what, but we can say that the prizes included some of Zedd's own discarded equipment, including a couple of Alpha 77s, a Signal One, 300 feet of Rohn tower, and two mainframe computers.

GREAT PLAINS A.R.C.

N5HGH Repeater 146.13/73

On April 3rd the meeting was called to order by our Vice President, Lewis Patterson. There was 25 members present and guests.

The treasurer's report and the Secretary's report were read and approved.

N5CCV made the net report: 13 sessions, 136 check ins and 7 routines.

The Eyeball QSO and Swapfest was discussed. It is to take place on Sunday, May 20th at Mooreland, O.K. at the FFA Building. There is to be a \$2.00 admission fee. There is a children's program and a ladies program. There is no charge for tables. Each one is asked to bring your family, a covered dish, your own place setting and Goodies to swap! Talk in on 146.13/73. Dinner is at 1 P.M. Ross Dunnihoo was complimented on the flyers.

Rod Ford thanked Windle & those who helped him on the super job on the new 13/73 repeater. The club gave him a standing ovation. Windle gave a report on the repeater. Discussion followed.

Doug Mauphin asked that we continue to meet at the City Maintenance Building because of locked doors at the Court House.

Rod Ford reported that the Gage Marathon will be May 26th. Discussion followed. A radio station will be there this year. Starting time is 7 A.M. The new race is 6.1 miles. There will be a 12 noon deadline. Anyone still running after 12 is on their own.

A discussion followed about changing the net time from 7:00 to 8 or 9 P.M. Bill made the motion that the net be held at 8:00 during Central Standard Time and 9:00 during Daylight Savings Time. Motion seconded by Lee. Motion passed. This is to become effective at the time change.

Bill Wyatt reported on radar and weather training. They added to the tower. The center of the dish is up to 45 feet. They have been working over and replacing needed parts on the radar. It is now completely rewired. The transmitter is downstairs now. Gerry and Ron Tice helped when the new pedestal was set. They are now waiting on a wave guide. They are hunting for a surplus receiver.

Weather Spotter Training was announced for April 9th at 6:30 P.M. at the Woodward Maintenance Building. Tues, April 10, Spotter training for police, etc.

Meeting Adjourned.

K5YZK

Quote of the week: WA5PLW says "Don't touch Those Knobs!"

Your reporter is allowed to state that he is very much enjoying his own prize, given as a result of his finding a purple egg in the weedpatch behind the barn. The KWM380 works great, Q. R., and thanks very, very much!

Zedd announced later that he will make the hunt an annual event, in memory of AF5X, who left Norman recently to go off and hunt Easter eggs of his own in Utah. AF5X, parenthetically, left his wonderful tower to WD5GTC when he left, and we can only hope that Gene properly understands the significance of this high honor. AF5X had gotten that tower from Zedd himself, who once used it to support his aircraft warning lights atop a (now dismantled) 750-footer on Honor Roll.

It was just the first of several significant social events scheduled in the weeks ahead at Honor Roll. Tondelayo confided during a munchie break that Zedd is all agog over the upcoming visit of his momma, Constance Wilhemina Zedd, who is slated to motor in from Mena on her Kawasaki 1000 for the OU graduation exercises in May.

"Momma's sister's boy, High Speed, is graduating," Tondelayo informed us.

"We didn't know the Great One had any close kin other than Momma," we replied.

"Oh, my ye-yus!" the darling girl beamed. "High Speed is graduating at the top of his class in EE, with a double major in French Pastry. He's a W6, dontcha know. He's a wonderful young man, you'll just love him."

We would have enquired further, but it was time to lug the radio home and turn a few neighborhood TV sets green. The matter will be pursued.

-- KU5B

SCIENCE FOR CHILDREN

Homebuilt devices using junk box parts can serve a child for years, first as toys, then later as science demonstrators. Put emphasis on the mechanical and on action for ages two through about six. Blinking lights, toy motors, an audio oscillator along with plenty of switches and pots that do something in the circuit will attract and entertain the young kids. I have built three electronic action gadgets for two daughters and five grandkids. They and their friends have played with these devices as much as any of their other toys. They can have their own Omniplex. (Go there too, once in a while). Let's abbreviate the name of these science things to "GADGETS" so we will all know exactly what we are talking about.

Sounds, motion and blinking lights are easy to achieve using simple circuits. Parts from the junk box or from Radio Shack will do the job. One gadget was a pine board with a 3-volt DC motor strapped to it. Also there was a battery, an on-off switch, speed pot and reverse switch. I cut out a wooden disc for the motor shaft. An earlier gadget had a similar motor with a propeller.

Another gadget was built on a chassis of 3/4" pine and masonite. An upright piece of masonite held a speaker. Three separate circuits are mounted on this chassis. Parts not requiring manipulation are under the chassis out of sight. Switches, knobs, etc. are mounted on the top surface, but are intentionally mixed among the three circuits to provide some complexity. There is a LED blinker which is a modified Heathkit potted plant moisture detector. A pot and resistor replaces the soil and provides a variable blink rate. Another circuit is a 555 audio oscillator. The tone is variable and the volume is adjustable. I installed a fixed resistor in the speaker circuit to limit the volume. A knife switch chooses between beep and blink and shows what a switch looks like inside, sort of. Two more LEDs can be turned on with push buttons. The knife switch is DPDT. The extra switch section along with a section of another DPDT switch are connected in the three circuits so that electrical circuit interaction is achieved as well as the mechanical mixing mentioned earlier. This provides a puzzle effect. The kids can figure it out better than I can and I built the gadget!

A circuit I built for my two daughters years ago used a relay with SPDT contacts. When unenergized, a neon bulb lit. When energized a two-neon bulb flip flop activated. A milliammeter indicated relay coil current and a pot made it adjustable. I could demonstrate pull in current and drop out current but this was too technical for their age. There was a motor and a couple of other switchable things. The girls and their friends really enjoyed this gadget, but it was dangerous. There was 120 volts available but covered, taped or otherwise insulated. I was always watching when the children played with it. Stick with low voltages and low currents until the child can be taught the dangers involved.

Build them tough & durable. Stow the gadgets as the children tire of them, then a renewal of interest and a deeper investigation can be made when the kids have grown older. For instance, you might ask, why does the motor reverse direction when the reverse switch is thrown? Some measurements could be made. An electromagnet and a motor with its insides visible could help the demo. Ohm's law should be a snap to set up.

I have always wanted to play with a strob and make the fans stop and run backwards. This may be the best excuse I'll ever have to scrounge one.

One of the best scientific demos I have staged was a session with a cheap plastic prism in the late afternoon sun. All the



BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

The April meeting of the 76'ers was called to order by Don, AE5N promptly at 7:30 P.M. The treasurers report was given by Tom, WA9APM. We had \$332.32 in the checking account and \$33.68 cash on hand. We had also just received the CORA bill of \$19.xx and had not paid it at this time.

The 21st and 22nd of July have been set as the date for Ham Holiday 1984. Of the many and varied things to be presented this year, here are some that were presented at the CORA meeting. A QLF contest for those of you left footed CW operators, (previous winners inelligible) A home brew contest. (hardware, not drinkables) A crazy 2 meter antenna contest. (must work)

The deadline for the June issue of the C&E is May 15. Paste-up is set for the 21st of May, and the label party will be on May 28, at the Red Cross.

The club responsibility this year for HH-84 is Pre-Registration. We will keep you advised of developments as we get closer to HH-84.

A motion was made to accept the minutes of the last meeting as published in the C&E. Motion passed. The repeater committee reported that the hardware for the new controller was going well, there is only one known hardware bug to fix, and it is under way now.

The Field Day Committee put forth a motion that the club members select what we wanted to do for field day 1984. A majority of those present voted to make it a family fun outing this year, and we will be voting on the site at the next meeting. Be sure to be there and let us know what your favorite lake or park is.

We signed up two new members this meeting, and want to welcome them to the ranks of the 76'ers. We finally ajourned to see a most interesting video tape "AMATEUR RADIO'S NEWEST FRONTIER" through the courtesy of the ARRL and Jim N5BEQ. It was a very good program about STS-9 and K5LFL.

By the time you read this the Dayton HANVENTION will be past history. I will forwarn you that out of the large number of Hams attending this year, yours' truly will be one of them. KB5BS, WODXA, and myself KB5XN will be driving to Dayton this year. We plan to operate HF, VHF, and UHF mobile. I will try to have mucho info for you when we return. 73 KB5XN Jim.

CONTINUED

grandkids and several neighborhood strays got a large bang out of this one. They gasped at the rainbow I made. Magnets are always lots of fun for all and a chance to give a technical spiel. Tell 'em the picture on the TV is due in part to magnetism. They always relate to TV pictures.

Astronomy is a brain-stretching activity and can be practiced without any gadget building. Find a fundamental astronomy book. I have ASTRONOMY, a Rand McNally Factbook, cost \$3. My two oldest granddaughters (readers) like for me to look at this book with them and study the night sky. Some day I will whip out Sagan's Cosmos.

The gadgets entertain and I hope educate and provide a contact between me and the kids. Teach science to the children of all ages around you. Hands-on demonstrations provide a fun way to learn.

Granddaddy Bill, WA5RAQ

GRAND AWARD



CENTRAL OKLAHOMA RADIO AMATEURS

proudly invite everyone to attend

our *bigger and better*



H H



State Convention

LINCOLN PLAZA INN

JULY 20-21-22

Oklahoma City

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 immediate family.

PRE-REGISTRATION: \$8.00 with attached form. All envelopes must be postmarked not later than July 6, 1983 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. No refunds or confirmations. Winner need not be present for this award only.

ADMISSION: \$8.00 pre-registered; \$10.00 at the door. This price is for everyone attending - visitors, wives and teenagers - licensed or not. Children age 12 or under admitted free with parent, but are not eligible for awards. Badges must be worn as proof of registration for entry into ANY area, including exhibit halls, program areas, flea market, coffee lounge and banquet.

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 everyone.

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

FLEA MARKET: (Non-commercial only) Every pre-registered may buy one table for \$5.00. Additional tables available on pre-registration form. The 30,000 sq. ft. area is indoors and airconditioned, with easy-access loading doors for setting up.

ACCOMMODATIONS: The Lincoln Plaza has offered special rates. Be sure and tell them that you qualify for these special rates.

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

Preregistration Award

See Other Side



IC-730 8 Band Ham Transceiver
Compact, Mobile

- 8 Tunable Memories
- Dual VFO
- IF Shift
- PBT Option
- CW Filter Option
- 100dB Dynamic Range
- 12 VDC Operation

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 Name

Address Call

City State ZIP

Please pre-register me @ \$8.00 \$ 8 : 00
I will be attending the following activities
BANQUET - Buffet style, prizes, etc... @ \$ 14.00 \$
QCWA BREAKFAST - Everybody welcome @ \$7.20 \$
Reserve ... Flea market tables (Saturday)@ \$5.00 \$
(Tables at door \$8.00 if available)
Strictly Non-commercial Total amount enclosed \$

Entries must be mailed no later than July 6, 1984.
Registration at door is \$10.00! Save! Mail your form today!
Mail check to: CORA, PO Box 44091, Oklahoma City OK 73144

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

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Salem

NEW YORK, NEW YORK

I have never been. JB always has a story about traveling to the Big Apple, but I don't have either that luxury or obligation. Never had a reason to go there for either business or pleasure (hamfest or otherwise). Now Dayton is a trip that I can always count on, strategically plan for and execute with precision, but New York, well, another story in the City. I don't usually get east very far except if it is Atlanta when changing planes while on the way to Dayton. And North, well, there is Dayton. But there is never a time that I get that far East and that far North at the same time.

About the only cultural exposure that I have to New Yorkers of a practical nature has been at Dayton and that is not really a representative example. I will never forget the one person that I saw at Dayton, about 5'5", weighs about 250 lbs, dirty t-shirt, scraggly beard, proper companion for a goat herd (you should have seen his wife) and completely unintelligible. This guy hailed from the Empire State, but I really don't hold it against them. After all, he had been in the flea market for two days. Probably walked in a three piece suit and a \$50.00 haircut. I tell you, that flea market is rough. . . Besides, I have met plenty of people from New York who I really like. And I especially like that particular form of entertainment known as Broadway. Boy, I have wanted to check out the great White Way for a long time for the experience of seeing a Broadway Musical. When John (a friend of mine from school) suggested that I come to New York and attend a seminar on computer software protection, I thought, why not?

The trip would not be a long one. The seminar was at the Plaza Hotel in midtown and the plan was to arrive Thursday evening, meet John at the airport, drive to the hotel, get up the next morning for the seminar which would take all day, stay the night and leave the next day, arriving in Norman on Saturday just in time to join a few of the locals for a glass of ice tea at one of the local bistros as is our regular custom. Radiowise, I could only take handhelds, and that meant the Icoms. Having engaged in discussion with JB about this on more than a couple of occasions, I knew that NY was a pretty active place radioactivewise. Just couldn't squeeze the TS-130 into the suitcase. And it definitely would not qualify as carryon luggage in the small suitcases that I got for it one year at Hamcom. They were suitcases made for American Airlines for carrying liquor on the planes. Besides, I made a decision a long time ago that my HF station and I would not travel on the same plane so that we both would not be wiped out at the same time in the event of a crash. This worked out pretty well last year when WA5EAI took the station to Dayton for us while I took the commercial bird. The set consists of two of the liquor cases. The TS-130 just fits into one. The other carrier contains a tape dypole, antenna tuner, other antennas (phosphor bronze wire reels as antennas) cables, a key, microphone, and a 4 amp nicad batter with an 8 amp charger/powersupply.

I did get a briefing from JB before traveling. I left a little before noon on Thursday. At the time, it looked that I would miss a snow storm that another friend of mine had predicted would turn the area into an icebox. I had talked to her the day that I left and she said that it was so cold that there was a reason that the Big Apple was Red. Film at Ten.

She suggested that I get the earliest flight out that I could, a point well taken. For awhile it looked like American would do their part to prevent that. The scheduled departure was 11:30 from OKC, but the plane didn't even arrive until ten until 12 and did not get off the ground until 10 after. That turned the 1 hour layover in DFW from a leisurely walk to an O.J. Simpson Hertz TV commercial lookalike contest. Fortunately, even though we had a wait at the ramp to pull up to the gate for another 5 minutes, I was still available to get to the connecting flight in the 5 minutes I had, but only because it was leaving from the very next gate. The people I sat next to on the flight who were going to Baltimore were not as lucky. They had to get across the entire American Building in the same time, don't know if they made it. . . .

The flight from DFW to LaGuardia was a DC-10. Actually, not a bad plane and certainly now one of the most inspected airplanes in the air today. If not by the airlines or the FAA, then certainly at least by the passengers. People were pointing at rivets and structural members and dinging the button for the stewardesses. Actually, it was a very comfortable flight. It was cold and just starting to snow when I got to the airport. John met me and we started for what I thought would be a quick trip downtown. Then we ran into the traffic at the toll bridge. In the big Apple, they expect you to pay for your use of the street right then instead of waiting and sending you a bill later. From the number of cars I saw waiting in line, I thought that Mayor Koch himself might be out inspecting this concrete revenue generator.

The traffic, Unbelievable. It seems to look like a continual jam. The meter for waiting while in a taxicab must have been invented while stopped for traffic in New York. And if you travel to the Big A without a fistful of dollar bills for tips, then you could be pummelled by a door man. John has access to an oddity, a parking place in midtown. His father has it and although I am sure that he didn't mention it, I am sure that he probably inherited it somehow. Still, we parked the car there and took a cab to the hotel. At the front desk, I checked in and was told the Manuel would show me to my room. I allowed as how I could probably find it myself and was told that the "management" insisted that Manuel show me to the room for security purposes. I am sure that if anybody had asked Manuel also, he would have insisted also, especially since I was a dollar lighter for the pleasure of his escort.

Dinner and a long conversation later, I watched as about 4 inches of snow was beginning to pile up outside. The building had little metal spikes all around by the windows to give birds a hotfoot and keep them from roosting outside the door and disturbing the guests slumber. Later that evening after John had left, I spent about an hour listening to 2 meters. There were an amazing number of repeaters from one end of the band to the other. I don't think that there was an unoccupied frequency anywhere, including the odd splits. I also heard a couple of ACC controllers around the area. One repeater seemed to be continually keyed up by intermod. The users talked about it as just about the only topic of conversation, the Intermod channel, I call it. I tried to hit one system and answer a CQ from a guy. It was pretty rough getting in from the downtown area and he suggested that I move to another system in the lower subband which he said that I could hit a little easier. He was right, but the problem then was that the repeater was in continual use. It never stopped. It yacked the whole time I had the radio on, it was yacking when I went to sleep and was yacking when I got up the next morning. I never really got a chance to see if I could hit it. Every time I tuned it on, somebody was still going.

When you are operating from an urban jungle where even the sunlight has a tough time finding it to the street, even a tall building is no guarantee of coverage. Besides, there is an incredible amount of RF pouring from the tops of the buildings. It is not that easy to spot the tops of buildings, but since my hotel bordered on Central Park, I could spy the tops of a couple of buildings. Lots of antennas. You could probably drive a small car with the energy you would pick up from a small loop and a diode.

They closed the airport the next day because of the snow. Since I did not have to get out of the hotel for the seminar, it was not really a problem for me, but John could not get into town from upstate, so he had to miss the seminar. The day warmed up a little and it looked like the streets were beginning to clear. By 5:30 p.m. when I hit the streets, there was nothing left but a pile of slush and high drifts of snow. It was still plenty cold though. After the seminar, I decided to walk down to the theatre district and see if I could find a decent ticket to a show. JB had told me about a place down close to the area that sold odds and ends to all shows the day of the performance. After checking over the list of shows that were available for that night, I was able to get tickets to Dream Girls, a Broadway takeoff on the Supremes. I asked a guard in one of the large office buildings for a good restaurant and he suggested a chinese restaurant on 42nd street, right down the street from the theatre. I was pretty good and the waiter was nice. Actually most of the people that I met were OK and a couple of them were downright friendly. Except for the waiter in the hotel. He was just a touch below snooty. I guess he didn't like the fact that I dirtied one of my plates with bread crumbs. On Saturday, John and I walked into a radio shack to buy some batteries. The girl who waited on us was very nice, but the guy who took my money was not. He asked for my address and I said that that was not necessary since I already get plenty of catalogs from radio shack. He snapped back that he did not ask me if I got catalogs, so I gave the address of the hotel and my room number. and told him that I was from out of town. He somehow got the idea that I was from out of the country, so I said sure and told him that I didn't really speak English all that well. He then apologized. This was a typical exchange. There is gruff manner in dealing with you, but it seemed that when they find out that you are from out of town, they get nice. Guess they are working on their image.

I decided to walk back from the hotel after the show. Besides, cabs were nonexistent. All the theatres seem to let out at about the same time. Unless you have arranged for a cab or limo, it is hand to hand combat to get a cab. I was also not yet ready for the excitement of a New York Subway ride, so I just hoofed it up the Avenue of the Americas and turned right on 58th street to go back to the hotel. John was on the phone when I got there. He wanted to know what I had been doing and we made arrangements to meet the next day. I wanted to walk up to the Lincoln Center before he got in and look around. I also thought that I would take a quick trip through Central Park. We were going to meet for lunch and I also thought that I could catch a show that afternoon, before going back out to the airport.

Central Park is really quite large. And even with the cold weather, there were still plenty of joggers, even as cold as it is. Of course, they still have to dodge the surprises left by the horse drawn carriages. Still, I was quite surprised to see quite a few people up and at it on an early Saturday morning. The Lincoln Center for the Performing Arts is magnificent. A friend of mine who used to live in New York and worked at the Met gave me a few clues of what to look for at the Met. I stopped by and bought a few

gifts at a little shoppe they have in the building. While walking back to the Hotel to meet John, I was amazed at all the little restaurants there are in New York. In Norman, you don't really find restaurants, they are just there. In New York, you must actively stalk restaurants just like Big Game. I use to read the New Yorker magazine and others talking about "finding" a restaurant and what a great place it is and everything. Well, that is just about the way it is. In New York, there are more restaurants in 1 block than in the entire city of Norman. You very easily could miss a great one in the next "town."

I didn't get down to Radio Row although I did visit the previously mentioned Radio Shack. That is like going to Paris and eating at a McDonald's. There were also more camera and small consumer electronics shops than I have ever seen in my life. John and I decided to walk back from the store to the Citicorp Building to eat. We went past the New York City Yacht Club where the windows are designed to represent the back of a boat. After lunch, we cut back through the Atrium of the IBM Building and caught a glimpse of their museum of computer equipment. The atrium is a beautiful plastic domed type area with trees and sort of an indoor park. We walked past Trump Tower built by Don Trump. Penthouse apartments there cost a mere \$5 million. Might be difficult to scrape up the rent for even a day. One Penthouse actually had a swimming pool up about 30 floors or so. Somebody said that Stewart Mott, a large shareholder in GM stock spent about 3 million there before deciding that it was too expensive. I would have probably figured that out a little sooner. Even the small condos in certain buildings brought a quarter of million. For that kind of money and no front yard. Well, the view was probably not that good either.

We got back to the hotel in time for me to check out. Left the bags with the bell captain (another bag, another dollar) and wanted to see what the possibility of another show was. The hotel had a ticket office which would call and arrange tickets, but she couldn't possibly do anything for less than \$75.00, but I didn't need two tickets. I ran outside and jumped in a cab, said goodbye to John, dashed down to 42nd Street, got out 2 minutes before show time, muscled my way to the front of the line, got a seat, and was sitting in just as the overture was starting. The show was my one and only starring Tommy Tune and Twiggy. The little girl has grown up. After the show I decided to take a different way back to the Hotel by walking over to Fifth Avenue past Rockefeller Center and Radio City Music Hall. There are a lot of places in New York that have to do with the name of Rockefeller. Sort of reminds me of the story about H. L. Hunt being in the hospital and a nurse asked him how much land he owned. When Hunt said that he owned about 160 acres, the nurse asked how he could be so rich and own so little land to which Hunt replied that the land was in downtown Dallas.

Back at the hotel, I picked up my bags (Dollar to the Bell Captain, and 50¢ to the doorman to carry them out. I didn't tip the guy who hailed the cab, figured he would split it with the captain). It seemed to all work out as I ran out of dollar bills just as I boarded the airplane. In fact, the last dollar that I spent was with the doorman at the airport who checked my bag. I stayed and watched quite attentively just to make sure that he would get it on the right plane. I didn't figure that it would be much use to me to complain later since he already had my money. I certainly wasn't interested in seeing my bag wind up at Kalamazoo. It was a good thing that I didn't have to tip the people who manned the X-Ray machine and metal detector station because I was fresh out of change

and dollar bills. They probably would have not let me through. What can you say about a City where people hang out in bathrooms wanting to shine your shoes for two dollars.

The flight from LaGuardia to Chicago was uneventful except that the plane was one of the new smaller widebody 767's. WA5JXX was jealous since he has never ridden in one of these new electronic jobbies. The plane features virtually all electronic instrumentation and servo control assisted by computers. Really was neat and I only got a glance at the cockpit on the way out. Something kinda neat. Chicago was snowing, cold and icy. Fortunately, I didn't have to get outside while I was there. The flight to Oklahoma City was about 10 gates away and I made it in plenty of time. The flight left late and must have been a positioning flight for the next day because there were very few people on the 727. I don't think that I would have had to take off my shoes to have counted all of them. Also the stewardesses were the nicest ones that I found on the entire trip and definitely the best looking. Since the crowd was small, they brought out extra peanuts and a coke here and there. Good show. The plane was right on time and WA5JXX was right there. I broke radio silence after we were on the ground and taxing in to let him know that we were here. Ran down to get my bag and nobody asked me for a dollar, the first time that that had happened since I had left New York. Back in Norman, a group of us met about 11:00 p.m. for a short snack and some iced tea.

Well, did I enjoy it? No doubt, it was a lot of fun, the seminar was especially interesting and maybe next month I might have time to set down a couple of the things that I learned. And if I can find some other reason to run to NYC again, I might gather up a fresh supply of dollar bills and try it again. I did learn one technique from John about how to minimize getting taken in the cabs. Whenever we would take a cab ride and all we had was a ten dollar bill and the ride was a couple of dollars, you would hand the driver the bill and ask for the amount of change that you wanted. That way, they would not just simply say thanks and put you out on the street and drive off with your ten dollars. Also always pay for the cab ride while still in the cab. He will hurry to get the change so he can get back to work. He has no incentive to make you wait while he gets change and he can't drive off before you have counted the money. Survival doesn't come easy.

New York is a great place to visit and probably an interesting place to live. The theatre and music opportunities are almost limitless. I was surprised also that I could get the hotel window open on the 13th floor. Might have reconsidered taking the TS-130. Just me and the pigeons on the 13th floor.

Micheal Salem N5MS

DAYTON DAYBREAK

This article is being written as I am preparing to make the annual trek to Dayton, thus it might seem that the usual drivel that appears in the space is a little abbreviated. For the most part, I don't really have a lot of time to look around in the piles of materials that I have gathered for something to write about. Time is of the essence.

It looks like the crowd this year will be pretty good size. I can count at least 15 - 20 people who will be there and a couple of others from the City area who live elsewhere who will be there to see. JB has already left for a trip that will bring him through Dayton for the holiday. K5LDL said hello to me as he was passing through this morning about 6 O'Clock

a.m. wandering toward that direction. Maybe Glenn will make it there by the time that the rope drops on Friday. I know that WA5FLT, WB5UIY, myself and K5JB have got rooms at the hotel. WB5ISN and his wife have one of my other rooms (out of the 3 that I reserved) K3KA and N3AKD have brought a couple of the Washington, D.C. crowd up for the show and will be in the same hotel. WB5ISO and WA5BQX are taking off later this week and driving. N3AMV and John Graham set off later also. W5NUT and W5LFK are probably greasing the axles right now. It looks to be a typical crowd. I have already gotten an invitation from WA8ZWJ and N8ADN for the pre-bash Bash on Friday night at Chuck's house. These guys always show us a good time. And I hope that they find a good spot in the flea market because I intend to take a couple of things up there to sell. The flea market is going to be handled by reservation only this year and I think that they will actually assign slots to fleamarketeers.

It has occurred to me in the last couple of days that the weather might actually be good enough to risk taking the small plane instead of relying on the commercial boys. To that extent, I have gone out and thumbed through the airplane looking for anything that might make the flight less than pleasant. So far, everything seems to be in good shape. So if it looks like that private VFR will be a possibility, then WB5UIY, WA5FLT and myself might charge up and blast off on Thursday morning. This will allow us to set our own schedule, and since getting back is not especially critical for any of us, an extra day in Big D probably won't hurt. I might want to try to head out and see how far we can get before weather gets back on we run into a front or something.

So watch this space next month and assuming that the crick don't rise, Dayton will be history.

Micheal Salem N5MS

POWER AMPLIFIER DEPARTMENT

I had occasion to install a Public Address system for my parents recently and found out a couple of observations that are worth noting. I wanted to use Low impedance mikes for better noise immunity and hum rejection. The system was in the church in my hometown and my father had asked me to assist in getting the old clunker going again. The old system was a tube type model that had finally given up the ghost. I suggested a new solid state system. I had looked at this thing a long time ago and I didn't really remember how it was hooked up, but it seemed to me that there was a transformer for the mike. Just to be safe I bought a couple of transformers to convert low impedance balanced to high impedance unbalanced. Actually I could have made out OK with just an unbalanced to balance transformer, but I was in Radio Shack at the time. I found that the system was connected up with both microphones in parallel and feeding a single transformer. I replaced the transformer with one of the newer ones and it worked OK, but there was still some hum. So, I simply grounded the black lead and the shield together and made the microphone unbalanced low impedance. Since the PA input was unbalanced, this worked just fine. So you might keep that in mind. My cousin told me of going up to the Church to clean it one evening while in high school. He turned on the lights which turned on the PA. Meanwhile, a CBer came by outside and was transmitting which was picked up and rectified in the amplifier. He said that the voices were clear as a bell. Scared the hell out of him on a dark night.

Micheal Salem N5MS



COCO MEETING 4/7/84
Chairman Tom Stott 324-5086
V. Chairman Hollis Holcomb 799-2539
Secry/Treas Miles Langmacher 352-4059

Meeting held at Red Cross Building, 10th and Hudson. First Sat. of the month, 9AM. Club dues are \$5.00 per/year (no dues required to attend any meeting).

Meeting called to order at 9:05AM by Holly (V.P.). President Tom stott was out of town on business and the Secry/Treas did not show either, so your Vice President put on a show -- making coffee, conducting the meeting and trying to take note for minute's as well.

Through the round of intro's, I noted many people from out of town. Several from around Chickasha and some way up at Ponca City I would like to welcome all these new people on behalf of the club. After the intro's old business.

OLD BUSINESS:

1) Move meeting to second SAT. of the month.

From last meeting, I was asked to check on the availability of the Red Cross building for the second Sat., After talking to Tim Sartorius, dir. of the Red Cross, I found the building would not be available until July.

Floor opened for discussion and voting. motion made and seconded to "Move meetings to the second Sat of each month STARTING in July. Motion Carried:

2) Monthly Disks and cassette's:

Last month it was decided that we would start a monthly disk as well as a cassette for the club. This left me doing both disk and cassette's. I asked the club what could be done in this area. The response was super, 13 people volunteered to help each month. This is enough to rotate the job once a month, so as not to be a chore for any one person.

3) Can the monthly meetings be improved?

This brought forth a goodly discussion. Some of the ideas were.

A - a group for new owners/users.

B - a printed list of telephone numbers of member that are willing to answer questions.

C - a box at each meeting that members can drop a 3X5 card listing some problem encountered in the past month.

D - after business part of meeting, divide up into groups to discuss different parts of our hobby, ie- computer, printer, modem, disks, ect..

NEW BUSINESS:

It was pointed out that we have yet another author in our club. Danial Jamet has an article in color computer magazine (page 28) on 'Home Financing'. Great going Danial!

SOFTWARE:

Again Telewriter not working on the new disk basic, 'COCO II's', was brought up. Let me say, I have both verions and as soon as possible will run a compare of the two and print whatever differents that may exist between the two. Bob Helms is writing a ML compare program to make this easier.

HARDWARE:

Frank Fields talked about a new 80 col. display for the COCO, called WORD PAK. Frank has it on order and will discuss it at some future meeting.

Also, Radio Shack now have some soft touch buttons that work great for joy stick bottoms. Cat# 275-1566, cost \$1.19

It was ask if a list of BB phone numbers were available. See list at end of min..

Door prize drawing held, had three door prizes this month. Meeting adjourned.

*** QUESTIONS QUESTIONS QUESTIONS ***

Some really super people at the meeting volunteered to answer questions about our hobby. Following is the list of names, times and phone numbers. Please be considerate with your calls, we don't want to wear them out right off.

NAME	PHONE	TIME
J. Fields	789-8469	8PM-10PM
Al Ward	794-8351	7PM-10PM not Tues/Thurs
Bob Pace	376-3569	6-10PM Sat/Sun only
H. Todd	685-3685	7-10PM
Jeff Davis	632-8993	6-10Pm
Bob Helms	733-3429	5-9PM
H. Holcomb	799-2539	5-10Pm

BB NUMBERS

This is a list of BB's in the OKC area.

NAME	PHONE	REMARKS
*****	*****	*****
GREKELCOM	722-5056	24 hours
TEBBTOWI	681-6929	after 10PM
HEATHKIT	848-9329	24 HOURS
EDMOND	348-7361	24 HOURS
MEGA-COMM	354-0732	24 HRS (COMMODORE)
CONNECTION	528-8009	6-9PM DAILY
PROFILE	799-3393	6PM-3AM DAILY
JJ ENTERP.	751-1869	24 HRS
COMPUSERVE	946-4799	6PM-5AM \$6 8AM-6PM \$12.50
SWITCHBRD	691-3422	24 HRS
FLEXNET	722-6809	24 HRS COCO'S DR#2
U OF O	329-8724	24 HRS
CSC-BBS	632 8153	24 HRS
USEMC	360-3020	24 HRS
COLORROMA	528-3175	24 HRS COCO'S

PROGRAM : 64K

Utility written in BASIC language.

Copies the BASIC ROMS over into RAM at the same addresses and turns a CoCo with the proper hardware installed into a 64k RAM machine.

TO USE

Just CLOAD the program and RUN. The screen will come back with the regular Tandy logo and you will be back in BASIC just like on start up, except now you can POKE to any address in the 64k or load in programs (ML) to the area above the BASIC area.

COMMENTS

Use to load programs written to run at &HC000 (such as ROMPACKS dumped to tape) into their "Home" address, and to put utilities such as "LISTMOD, JOYLIST, RSVIDEO, etc." out of reach of BASIC. Some versions of this program change the normal "OK" prompt to "64" to act as an indicator when in "ALL RAM" or "64K" mode.

PROGRAM: EDTASM+

PURPOSE: RADIO SHACK
EDITOR/ASSEMBLER/MONITOR(DEBUG)

COMMANDS:(THREE PARTS)

EDITOR COMMANDS:

A Assemble	Assembles current text. See Assembler Commands.
C Copy	Copies a block of lines to a new position. Source block remains unchanged. C1000,100:130,5 copies 100-130 to new set of lines starting with 1000 with increment 5.

D Delete	Deletes one or more lines. D deletes current line, D100 deletes line 100, D300:500 deletes lines 300-500.	G Go	in SEDTASM. Execute from location. GA00 starts from \$A00 (Hex). GSTART starts from address LABEL START.
E Edit	Enter Edit subcommand mode. E100 enters Edit subcommand mode for line 100.	H Half symbolic	Display instruction addresses as numeric, but instructions as mnemonic.
F Find	Find one or more characters in text buffer. FA searches for "A", FLABEL searches for "LABEL", F without string searches for last string.	I Input base	Sets default input number system. I10 sets decimal, I16 sets hex.
H Hardcopy	List a set of lines to system printer. H prints current line, H100 prints line 100, H#:* prints entire buffer, H100:300 prints lines 100-300.	L Load	Load machine language file. L loads next cassette file, L NAME loads file NAME, L NAME 1000 loads NAME with \$1000 added (offset) to the start address.
I Insert	Enter insert mode. I301,1 inserts from line 301 with increment 1. I301 inserts from 301 with last increment.	M Mnemonic	Set mnemonic mode. Instructions displayed in their mnemonic form.
L Load	Loads cassette source file. L loads next file from cassette. L NAME loads file NAME.	N Numeric	Set numeric mode. Data displayed as numeric values rather than instruction mnemonics.
M Move	Moves a block of lines from one position to another. M1000,100:300,10 moves lines 100 through 300 to new position starting with line number 1000 and incrementing 10.	O Output base	Sets default output number system. (see I)
N Renumber	Renumbers text lines. N100,10 renumbers starting with line 100 and increment 10.	P Save tape	Dump memory to cassette as machine language or memory image. PNAME 3000 3010 3000 dumps locations 3000 through 3010 as file NAME with execution address 3000. Use dummy execution address for data.
P Display	Displays text lines on screen. P# displays first line, P100:300 displays lines 100 through 300, P#:* displays entire buffer.	R Registers	Displays contents of all 6809 registers
Q Quit	Returns to BASIC. (Wipes out buffer!!)	S Symbolic	Display addresses in symbolic form based upon current contents of symbol table.
R Replace	Replaces one line and then enters insert mode. R100,10 replaces line 100 and then enters insert mode with line increment 10.	T Trace	Trace to display a block of locations. T3000 3010 displays locations 3000-3010.
T Print	Like H except line numbers are not printed.	TH Trace hardcopy	Outputs trace to line printer also.
V Verify	Verifies a filename on disk. Checks to see that the file will load but does not verify it for accuracy. === W Write	U Move block	Move a block of locations from one memory location to another. M3000 4000 10 moves the 16 locations from 3000 through 300F to locations 4000 through 400F.
Writes text buffer to cassette.	W writes text as file "NONAME", W NAME writes file as NAME.	W Word mode	Sets word mode. Data is displayed as 16-bit words.
Z ZBUG	Transfers control to ZBUG. (Retains buffer).	X Breakpoint	Set breakpoint, XLOOP sets breakpoint at location LOOP, XA00 sets breakpoint at location \$A00.

ASSEMBLER COMMANDS:

/AO Assemble with absolute origin.
 /IM Assemble in memory
 /LP Listing to Line Printer
 /MO Use manual origin
 /NL No listing
 /NO No object code generated
 /NS No symbol table generated
 /WE Wait (pause) for errors

(Enter all assembler commands on one command line, i.e. A /IM/NL/WE or A /IM/AO etc.)

ZBUG COMMANDS:

A ASCII Display in ASCII. Non-ASCII as blanks
 B Byte mode Set byte mode. Display contents of specified memory location as 8-bit value.
 C Continue Continue from breakpoint.
 D Display Display current breakpoints.
 E Editor Return to Editor.
 F Files FS0 displays disk DIR from drive 0 and FS1 displays DIR from drive 1

/ Examine location. A/ examines "A" register, LABEL/ examines location LABEL, A00/ examines location \$A00.
 UP ARROW Examine preceding location.
 DOWN ARROW Examine next location, increment based on current modes. (Example: In mnemonic mode will advance number of bytes to next instruction.)
 RIGHT ARROW Branch indirect..treats current display data as address, and resets display location to that address (JMP, JSR, LBRA etc.) ; Force Numeric Forces one time display of current data to numeric. (Over-rides mode)
 = Force Byte Forces one time display of current data to numeric and byte modes.

AMSAT News

Dick Ruhl WD5GLD Area Coordinator



Hello everyone and welcome to the AMSAT contribution. This is a new article we started this month to help provide Oklahoma amateurs with a source of information regarding the Amateur Satellite program. I would like to thank CORA and Joe Harding for making this all possible.

In the last several months with the successful launch of Oscar 10 and the flight of W5LFL much interest has surfaced in this "not necessarily new" but exciting area of amateur radio. With the recent advances in radio gear and antenna systems, an Oscar station can be put together fairly simple and for reasonable prices. There are currently 91 countries active on AO-10 with more coming on line every day, and with 10 watts output power into a 432 yagi you can work every one of these easy. The Satellite Experimenters handbook published by Amsat is a must for anyone interested in putting together a station; explaining every phase of the amateur satellite functions, including the commercial spacecraft operations from the ground up.

This an exciting area of amateur radio and we want to encourage as much participation as we can. The more interest and feedback you can generate for us helps in planning for the future. In the next few months we will get into what is required in setting up an Oscar station and how to enjoy making those rare DX contacts.

73 Dick

FOR SALE: Commodore VIC-20 with Kantronics Interface, Hamsoft and Interface to VIC-20 Cable. All \$150. Henry Radio 2KD-5 Linear. \$650. Call 732-8401, Art, W5PTM

OKLAHOMA: The Great Plains ARC 3rd Annual Northwest Oklahoma Eyeball and Swapmeet will be held in Mooreland on Sunday, May 20th. Starting at 9am. \$2.00 admission at the door. Covered dish dinner at noon. Local airport. Dealer and swap tables at NO charge. Talk-in on 147.72/12 and 146.52 simplex. Campsites available.

Directions: North on Main or Elm street. Across the tracks and West.

For further information call (405) 994-5394 or write KB5XI, Gordon Richmond, Rt 1, Box 12, Mooreland OK 73852.

MORE COCO - - -

- Force Flags Convert current data to flag mnemonics. (condition code register style)
- Single Step Execute one instruction. START, starts at START and executes one instruction. Comma alone continues from current location. COMMENT: In the

Editor the default number system is decimal. In Zbug it is hex. I.E. if you don't want the default system you specify "\$" before the number for hex..."T" after the number for decimal.

Hams and the Radio Pecking Order

By RICHARD F. BARRETT

The Journal reported March 28 that "the Air Force is preparing to build two powerful radar installations on the East and West coasts, and it also proposes a third on the Gulf Coast. These installations, to be built by General Electric Co., will use so-called over-the-horizon radar systems, which bounce beams off the ionosphere and back down to earth."

Now there's an announcement to make the radio hams of the world break out in a cold sweat, imagining that the "Russian woodpecker" may be about to get a mate.

The Russian woodpecker is a Soviet over-the-horizon radar signal that chatters up and down the shortwave radio spectrum disregarding international agreements that go back to 1906 and were designed to avoid interference that threatened the safety of life on the sea and later in the air.

To the radio hams, as well as other users of the shortwave spectrum for international communications, the "woodpecker" sounds like a bird rapping on an old barn or perhaps a wood lath being pulled across a picket fence. More familiar forms of radar operate at microwave frequencies that penetrate the ionosphere and continue into space without following the earth's curvature, making them useless for long distance surveillance, hence the assignment of the Russian radar to the high frequency bands.

The woodpecker has been raising hob with amateur long distance reception at least as far back as 1978 when Harry J. Dannals, then president of the American Radio Relay League, the hams' national society, expressed concern over the Air Force building an American version of the woodpecker at Hanscom Air Force Base in Maine. The installation was to have 21 transmitters using frequency bands from 5 to 30 megahertz, a piece of the spectrum that now includes five bands assigned to the amateurs, as well as broadcasters, marine and commercial communications,

with seven of the transmitters to be used at a time, running 100 kilowatts each.

Mr. Dannals wrote a letter to Sen. Barry Goldwater, a radio ham, who was assured by the Air Force that there would be "no significant signal transmitted. . . in the amateur radio frequency bands. . . The ERS transmitters have been built and tested to very stringent specifications that have virtually eliminated out-of-band radio frequency interference. . . the highest amplitude of any harmonic interference would be . . . less than 4 watts."

Four watts will travel great distances when conditions are right, but there seems to have been no great fuss over problems with the American experimental installation on which the new radars will be based.

The hams may properly wish that the Air Force would pass its blueprints along to the Russians. Their Siberian installation, which keeps a check on U.S. aircraft and ships, operates in total disregard of other users of the air despite international agreements. The problem has been acute in places like Alaska and Japan. The Japanese are responding by building a new \$2,000 ham transceiver, which is advertised as having a dual mode noise blanker ("pulse or woodpecker"). Recent reports of a new digital system for television that eliminates interference suggest that some day manufacturers will be building digital ham radio equipment that will tame the woodpecker.

In the meantime, the Russian attitude should be instructive to anyone who believes the Soviets have a commitment to observing international agreements that they find inconvenient. The paranoia that motivates them may not be directly life-threatening in this instance, but if the new Air Force radar lives up to its six-year-old promise to behave, the world will at least get another lesson in the comparative good and bad manners of the capitalists and the communists.

Mr. Barrett, retired columnist for the San Jose Mercury News, is known on the ham radio bands as W6CFK.

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BOB WA5CJG

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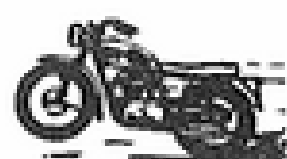


This is just a little notice that we are going to mail the next issue of the Collector & Emitter on May 28 (Yes I know that is Memorial Day) so if you have the time and the inclination show up at the Red Cross Bldg at about 9:00 am and help us mail about 3000 copies.

TNX Joe Harding WA5ZNF

HAM HAPPENINGS REFER TO CLUB SECTION FOR SPECIFICS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		M O R I Great Plains 1	ARDMORE 2	Aeronautical Center ARC 3 EDMOND Club	4	C O C O 5
6	7	76'ers O U 8	9	ALTUS AREA 10	11	SCARS 12
Wheatstraw 13	OK-DX 14	AUTOPATCH 15	16	KAY County 17	18	VHF Club 19
MOORELAND EYEBALL QSO SWAPFEST 20	A.R.E.S. EDIT <small>CENTRAL OKLAHOMA RADIO AMATEUR</small> COLLECTOR - EMITTER 21 	CORA 22	23	24	25	26
27	CIMARRON MAIL CAFE RED CROSS 28 YAL COME	29	30	31	May 84	



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