

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER

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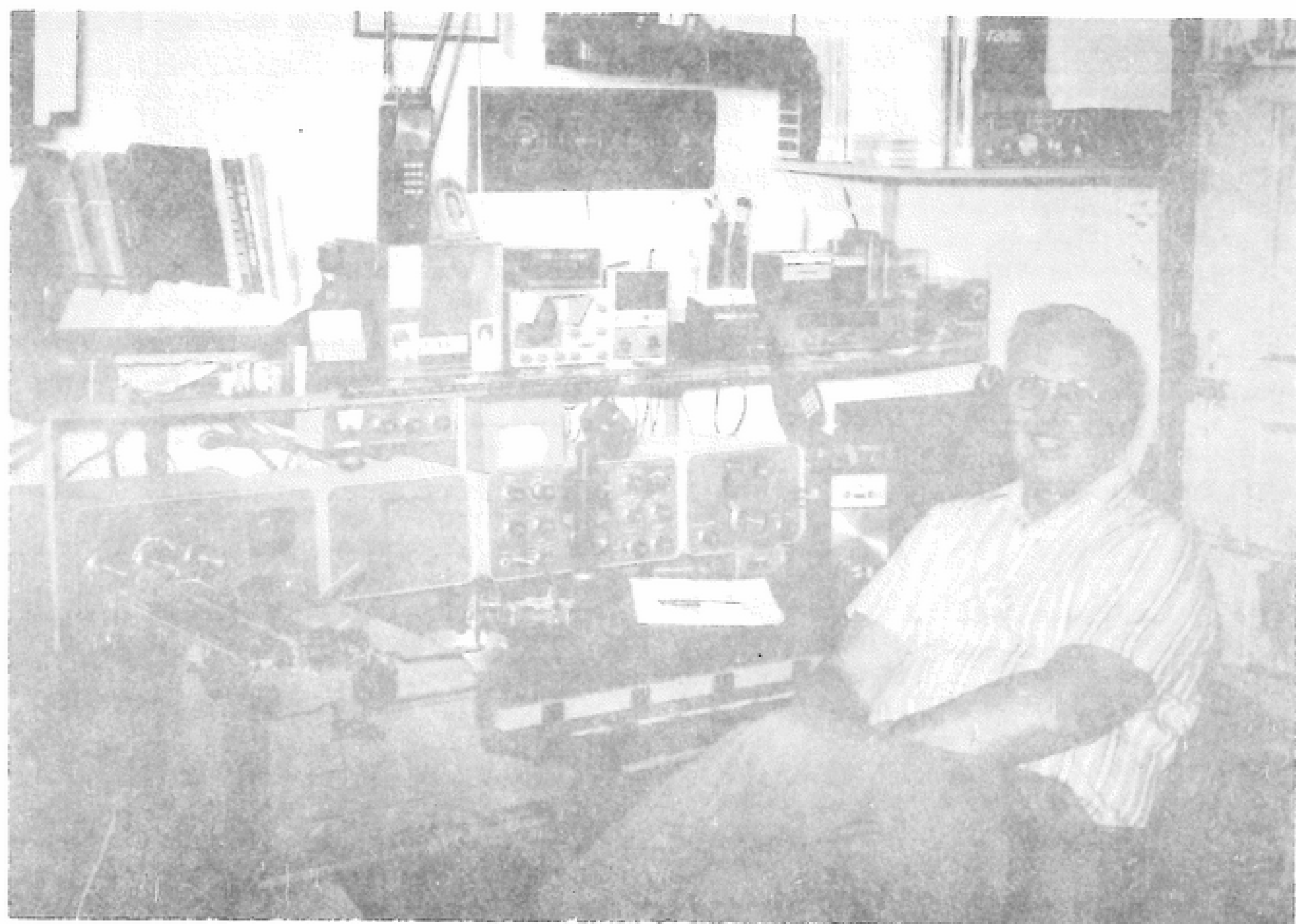
AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

Volume 3

AUGUST 1977

Number 31

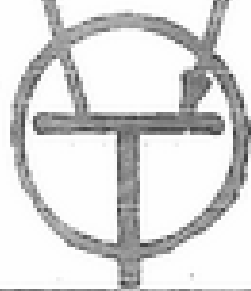


SID GERBER, W5KOZ is trustee of WR5AJP and membership secretary of Mid-Oklahoma Repeater, Inc. Sid started in radio in 1926 by building a 3-tube receiver. First licensed in 1934, he now holds an Extra Class license and a First Class Radiotelephone license. Sid retired from a military career and now is teaching in a technical trade school. Read his story in PERSONAL SKETCHES elsewhere in this issue. (page 4)

SID, ALONG WITH SIX OR SEVEN HUNDRED OTHER, AMATEURS, HAMS, WOULD-BE AMATEURS, HAMS AND THEIR YL'S AND XYL'S AND FRIENDS WILL GATHER AT THE SOUTHGATE INN THE FIRST WEEKEND IN AUGUST FOR LOTS OF FUN. JOIN THEM!

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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Central Oklahoma Radio Amateurs, Inc. (CORA) is a not-for profit association of radio amateurs, founded for the promotion of interest in amateur radio communication and experimentation, for the advancement of the radio art and of the public welfare and operates to enhance the cooperation of member clubs in sponsoring activities of mutual interest to the clubs and all radio amateurs.

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PARTICIPATING CLUBS FOR CORA COLLECTOR & EMITTER:

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Poatal Station 18, Okla City OK 73169
MEETS; 8:00 PM First Friday each month
Flight Standards Bldg, FAA Aero Center

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Assist Lloyd Kirk WB5HUP 685-6566
V-P Bill Hulse W5NI 376-2125
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in month. Okla City EOC, 4600 N Eastern

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UNION Room 161

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V-P Kenny Hutchison WB5RXZ 364-3001
Sec James Jones WB5RKQ
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AIR National Guard, Will Rogers Airport

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V-P John Oltmans WB5PZG 525-6066
Sec Jim Townsend WB5VCB 632-5445
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American Red Cross Bldg, 10th & Hudson

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Sec Joe Buswell WA5TRS 732-0676
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MEETS: 7:30 PM 3rd Tuesday, Bi-Monthly
Oklahoma Military Academy 36th & Grand

Pres Gary McCormick WA5ETV 946-2898
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Sec/Tr Jim Derman WB5EOL 681-6048
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MEETS 7:30 PM, 2nd Thursday,
North Main Fire Station (CD)

Pres Loren Simms WA5CBF
Sec/Tr Deanna McEndree WB5UMH



Amateur Radio News Service

Mid-Oklahoma Repeater Inc.

A NON PROFIT ORGANIZATION
OF RADIO AMATEURS DEDICATED TO PUBLIC SERVICE

MORI BUSINESS

NO MORI MEETING in August, instead, work ahead on the Honey-Do's or save 'em up, but by all means do go to the HAM HOLIDAY ! ! ! !

> WELCOME ALTUS <

MINUTES OF THE JULY 1977 MEETING

Started at 8:03. Introductions. Reports from Bill, WA5RAQ soliciting people for input to the C & E.

Treasurers report: \$ 1,422.36

It was announced that there will be no meeting in August due to Ham Holiday.

It was also reported that the patch had been overhauled so that it should operate consistantly even on the hottest day.

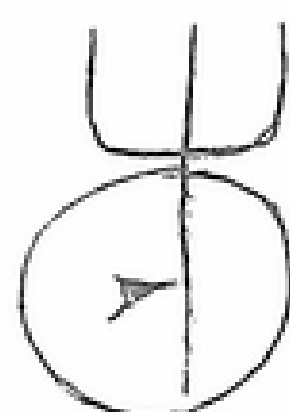
Glen, K5LDL, told about C. W. code practice on a repeater in Alabama & talked about the possibility of using it here.

Abe, WB5AUF, demonstrated his slow-scan TV setu,. And informed all of us on its operation & function.

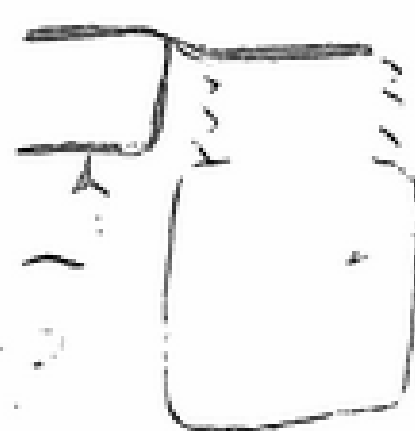
Meeting was adjourned at 9:05 PM for coffee & doughnuts. There were 27 members & guests present.

- Rick, K5LW

SCREW
FIXTURE
1/4" x 1/2"
1/4" x 1/2"
1/4" x 1/2"



NOTE
1/4" x 1/2"
1/4" x 1/2"



NOTE
1/4" x 1/2"
1/4" x 1/2"

SID, W5KQZ hangs small parts and hardware in jars on a pegboard fastened to the wall. Access to a part is gained by removing a jar and fixture from the pegboard. You might unscrew the jar. At any rate, allow space between jars on the pegboard. You have to eat a lot of pickles to get uniform jars in sufficient quantity.

- - Bill, WA5RAQ + +

From CNEER, June, 1977. Submitted by Frank, K5JN.

SERVICE. When we try to serve the world (or to understand it) we touch what is divine. We get our dignity, our courage, our joy in work because of the greatness of the far-off and always in sight, always attainable, never at any moment attained. Service is one of the ways by which a tiny insect like one of us can get a purchase on the whole universe. If we find the job where we can be of use, we are hitched to the star of the world and move with it.

----- Richard Cabot

PERSONAL SKETCHES

SID GERBER, W5KOZ

Sid is trustee of WR5AJP and membership secretary of Mid-Oklahoma Repeater, Inc.

He received his first amateur license in 1934 which was "Class B". The same year he passed the test for a First Class Radiotelephone license. Both tests had all essay type questions. The test for the commercial ticket required the drawing of a schematic of a high-level modulated transmitter with class B modulator. The values of all components were required. Also included were the power and control circuits.

Sid was interested in radio before this, having built a 3-tube broadcast receiver in 1926. It worked!

One of Sid's early jobs was a partnership in a new radio shop in 1933. He was in on television in its early days at an experimental television station, W9XAL (not amateur) in the top of the Power and Light Bldg., Kansas City, Mo. Our paths nearly crossed. I attended a technical school two years later, operated by the same organization that ran the T.V. station.

Sid joined the Army Signal Corps in 1937, doing both technical work and operating. After graduating from Ft. Monmouth with a code speed of 55 words per minute, he became a "War Department Operator". He held all ranks through Major and retired as Chief Warrant Officer in 1962 from Tinker Field.

Amateur radio activity was suspended during World War II, but Sid let both his licenses expire after the war. He became interested in amateur radio again and passed the test in 1948, operating portable while being transferred around here and there by the Army. He held an assortment of calls: W9TKU, DL4HG, K6AEM, W4ZWG, KA2JW, W0TAI, DL4KF and finally W5KOZ. In 1951, while in Germany, he worked over 100 different countries in less than 90 days using a Meissner Signal Shifter on CW with a power to the antenna of less than 2 watts. Most of his operation has been on CW.

After retirement from the Army, Sid worked for five years at GE as assembly foreman, then to Honeywell for about a year. His present job is teaching in a technical trade school, covering everything from the basics through computers to bio-medical instrumentation. Sid got another First Class 'Phone the hard way - by taking the test again in 1973.

Back to amateur radio. Sid passed the Extra Class test in 1968. That 20 WPM must have sounded slow after zipping along at 55 WPM in the Army. Sid home-brewed almost everything until Heathkits came along. He progressed through the "SB" series. He makes improvements in commercial or home built gear by making modifications. He built the fabulous DF loop. Presently there is not a whole lot of building. Operating is now casual with mostly rag chewing and repeater operation.

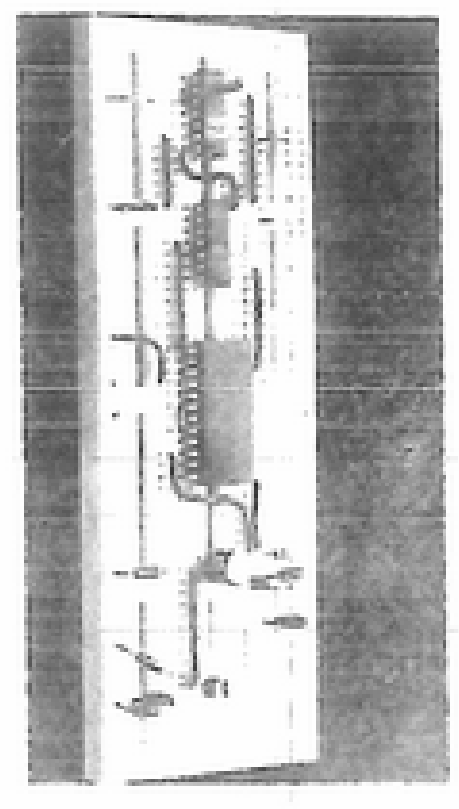
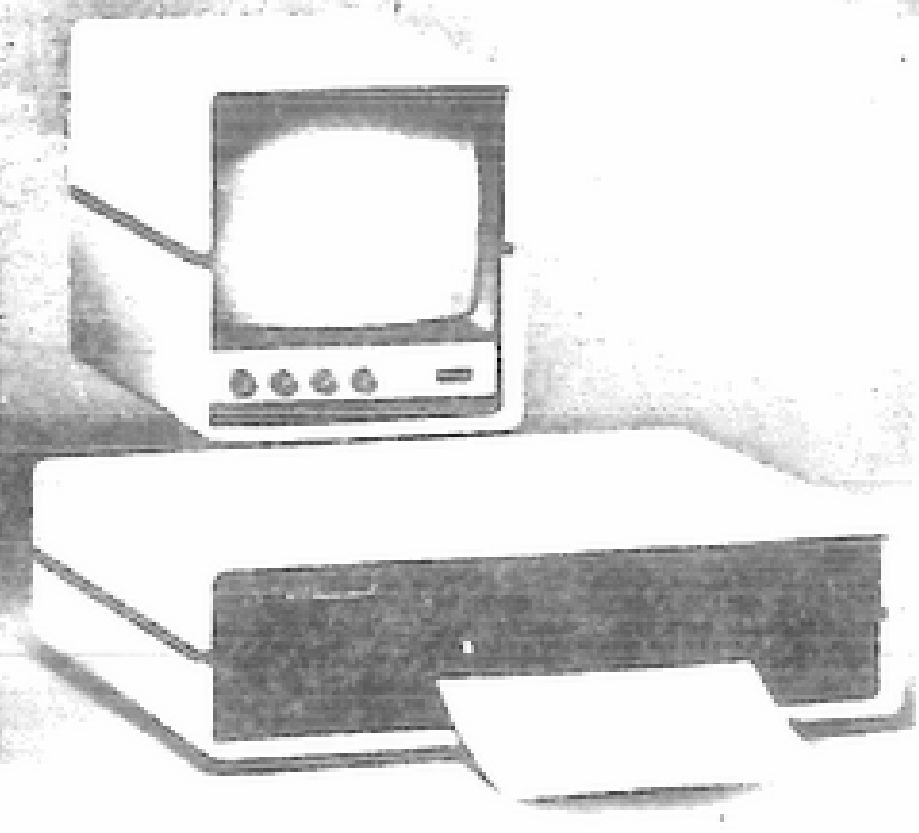
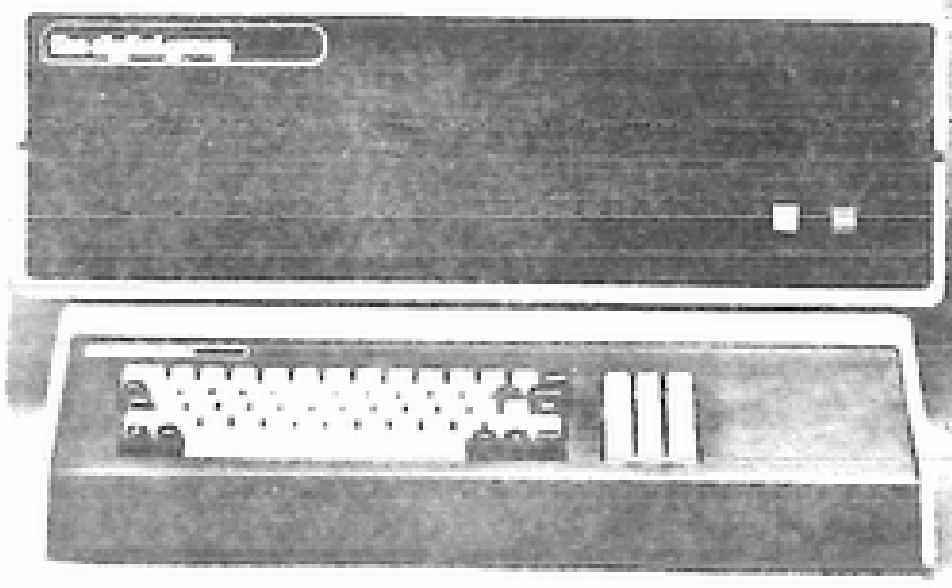
Always last but never least in these SKETCHES is the news of the family. Sid's wife is Mary Lee. Sid says she has a full time job taking care of him. They have two daughters; Mary Lou and Nancy. Both daughters are now in California. Until recently, Nancy was assistant director of KWWB in Wichita, Kansas. Mary Lou is Director of Personnel for AMI Hospital Conglomerate consisting of eighteen hospitals with headquarters in California.

Sid takes a lot of color slides of family and scenery. He estimates there are 6,000 to 7,000 slides in the collection, but doesn't claim this as a hobby.

We took a stroll outside the shack to wind up the interview for a look at antennas and the fruit orchard. There was an apple tree, a peach tree and a cherry tree. Sid said the latter was a Mont Morency. The apples and peaches had a long way to go, but the cherries were bright red and ripe. We sampled them, and agreed they were ready for a pie.

- - From an interview by Bill, WA5RAQ + +

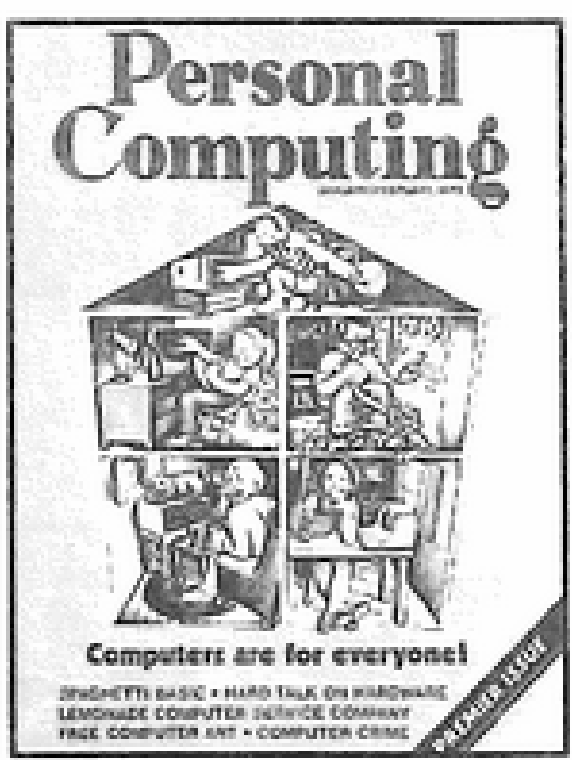
The digital group



INTERFACE Magazine

kilobaud

BYTE

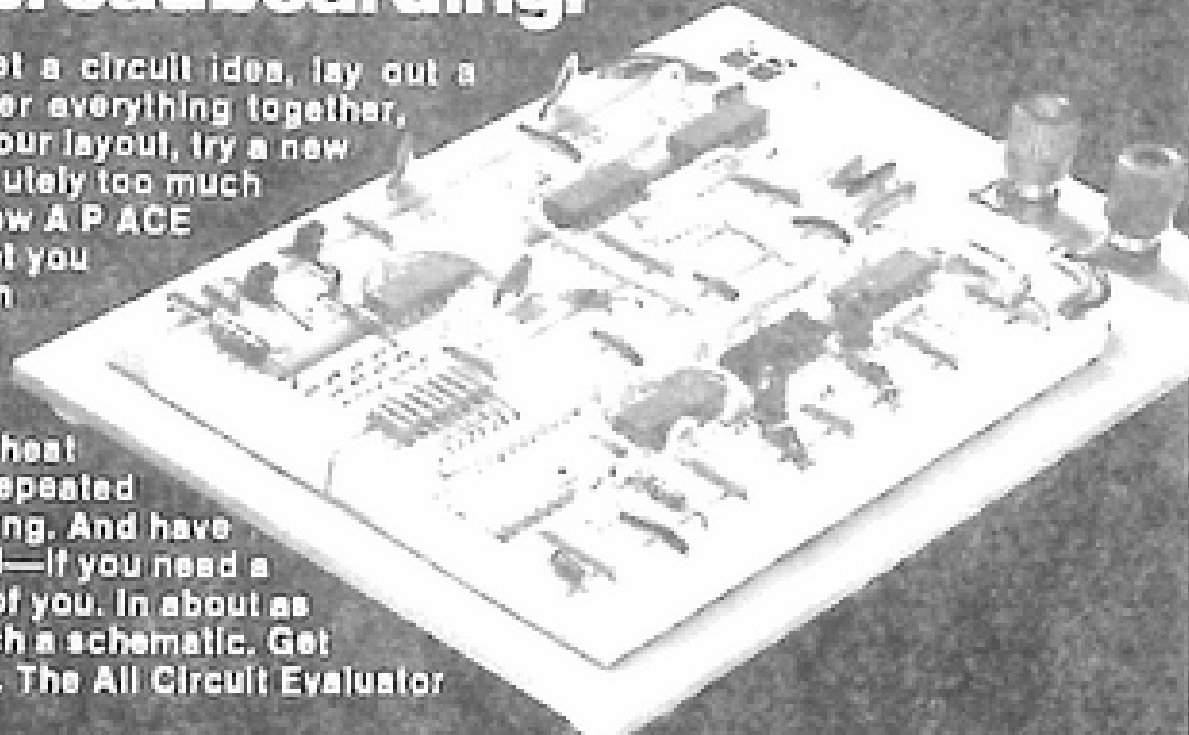


Hobby-Wrap-30 \$5.95
 Strips, Wraps and Unwraps 30 ga. wire on standard wire wrapping pins.

STRIP	WRAP	UNWRAP

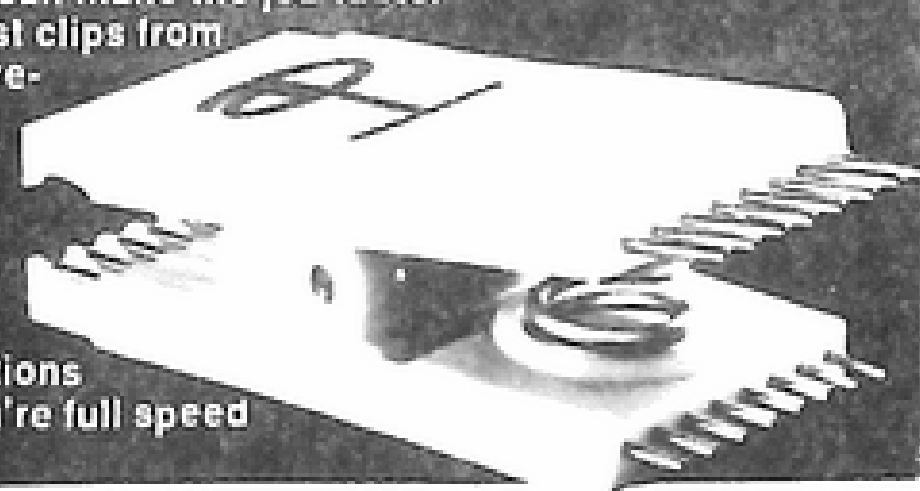
Nothing is Faster and Easier than ACE for circuit breadboarding.

Used to be you'd get a circuit idea, lay out a pc board, print it, solder everything together, troubleshoot, change your layout, try a new board, and spend absolutely too much time breadboarding. Now A P ACE All Circuit Evaluators let you breadboard in a fraction of the time. Make your changes immediately. Keep full leads on your components. Avoid the heat damage possible with repeated soldering and desoldering. And have a pattern for your board—if you need a board—sitting in front of you. In about as long as it takes to sketch a schematic. Get cooking with ACE. ACE. The All Circuit Evaluator from A P Products.

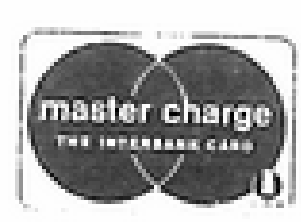


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YAKKEY-DEE-YAK FROM THE EX-PRESIDENT

Thanks to Ellard, W5KE, for a very interesting and informative program on AC voltage regulators. Everyone really enjoyed his demonstrations and some surprising results.

As everyone at the July club meeting found out, I am returning to North Carolina about the first of August. We have all enjoyed living in OKC and are looking forward to returning to our home state. In the past we have lived in the central and coastal parts of the state, but this time we will be at the foot of the Blue Ridge mountain range in the western part of the state.

I want to thank everyone for their confidence in me when I was elected President of the ACARC. It was a special honor for me, one that I never expected or will forget. There are many that helped me when I called on them. I hate to start naming people, because I know I will leave out someone. But I will say that the club officers and former officers have been of great assistance to me. I know that my replacement, Bill, K5NI, will do an outstanding job because he will have the assistance he needs.

I plan to be active on 80 thru 10 and 2 meters. We will be near Hickory, N.C. and their repeater is on 25-85. I'm sure I will be heard on that one from time to time. And so will Susan, WA4AKB. When I return to the Academy for more training, I hope to see all of you at the meetings again. Again, thanks to all for your assistance and 73

Dave W4YDY/K5NC

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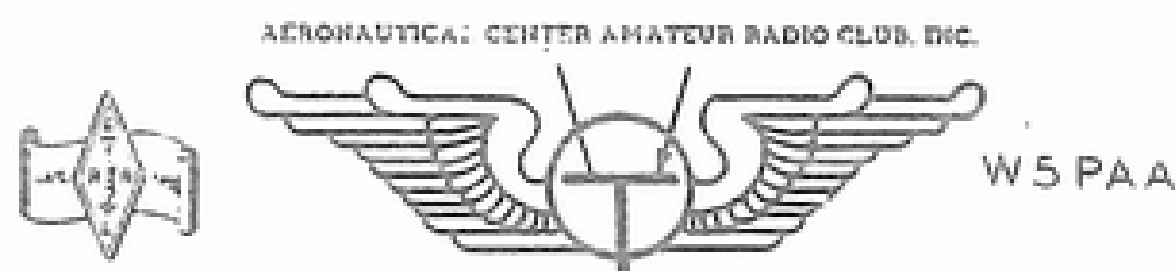
NOTABLE ISSUES FROM THE PRESIDENT

The August meeting of the ACARC will be a BIG one! Naturally I'm talking about the one at the Southgate Inn on August 6 and 7, the HAM HOLIDAY. This promises to be one of the biggest ever, with something for every interest. It will be a gala affair so if you're not there you will miss a lot!! Plan to attend. For the early birds it will start Friday evening, then it should get in full swing Saturday morning, so come on over and bring a friend!

ACARC President, Dave Langley, has accepted a new position in North Carolina, and will be leaving the area. He has resigned the office of President as of last meeting, and that leaves me to fill the office for the rest of the year. The club members and I wish him the best of luck in his new endeavor and will certainly miss him at future meetings. We thank you, Dave, for your service as President, a job well done. I hope I can maintain the office as well for the remaining months.

Don't forget the OCARC watermelon feed. It should be a lot of fun and their QST is out. Come on out and enjoy yourself. Check the activities calendar for details.

There have been several requests for code classes at the Aeronautical Center. If any volunteer instructors are available for this fall, please let me know. Any ideas along this line would be welcome. I think we should try to get a class going this fall if possible,



but we need manpower. Bring some ideas to the September meeting for discussion.

Bill, W5NI

** ** ** ** **

MINUTES OF THE ACARC MEETING OF JULY 1, 1977

These minutes were taken by Bill K5KDR in my absence... Thanks for the fill-in, Bill... these minutes sure look alot better than mine. Just shows what experience in the job can do for you.

The meeting was called to order by President Dave, K5NC at 2005 hours, with 29 members and guests present. Self introductions were made by all present. With some very interesting comments.

There will be no meeting next month due to Ham Holiday.

There will be a joint watermelon feed party with the Oklahoma Central Amateur Radio Club the third Friday in August at Will Rogers Park, 36th and Portland. For details as they develop monitor 34/94.

President Dave submitted his resignation...he is transferring to a RADAR site in Western North Carolina...now has the dilemma of owning K5NC here, and W4YDY there. Good luck Dave, and thanks for your service to the Club.

Bill, W5NI will take over as President until election time. Don't leave town Bill, I can't handle this job, let alone that one too!!

Abe WB5AUF announced some equipment problems resulting in no slo-scan for Ham Holiday. Sorry to hear that, and hope you can get the thing going again soon, Abe.

The program was conducted by Ellard, W5KE who presented a short-course on AC regulators, and gave a very interesting demonstration.

Thank you for a most interesting program Ellard.

The meeting was adjourned at 2108 for coffee and eyeballs.

Bill K5KDR/ via Robby W5JES

P.S. I had asked Bill to announce that I had misplaced the business records from the June meeting and could not tell who I had signed up, and renewed...this very night (July 15) I found them stuck down inside the receipt book, and will process two ARRL renewals (late), and the club renewals. Sorry 'bout that guys....Robby

NEVER DO IT SIMPLY

There is one unwritten law that is seldom violated by newcomers. It goes something like this: Never do a thing (or say something) in a simple, natural, straight forward manner if there is a complex (or wordy) way of doing it (or saying it). The penalty is endangering oneself of being summarily booted out of "The Most Highly Derogatory Order of Bumbling Lids."



How do you retain your membership? By being very careful to observe the following precautions:

Never say or ~~write~~ ^{write} 73 (best regards). Always say 73's (bestes regardses).

Never say 88 (loves and kisses). Always say 88's (loves and kisseeses)

Never end a contact with a simple "Out". Always say "Over and Out and Around and About" and all the other nonsensical rigmarole that may pop into a chaotic mind.

Never say "I" if you are referring to yourself. Always use the Imperial "We". Someone may come back to you addressing you as Your Majesty! And think how that would puff your ego!

Never say something in verbal English if it can be expressed in 14 more syllables by missusing Q signals or 10 signals.

Never use correct abbreviations or symbols when you are writing. Always use mhz or Mhz instead of MHz. Always use ma instead of mA. If you really work at it, you can screw up a whole series of abbreviations. That will mark you as a person who does not even know the basic language of his hobby! You'll have it made!

Always call your wife "the XYL". That lets the world know you regard her as no longer young and no longer a lady!

W5JJ

* * ** * ** * ** * ** * ** * ** * ** *

FOR SALE: Precision Apparatus Co. Signal Generator, Series E-200. 50 kHz to 44 MHz RF and 400 Hz AF. \$10.00. W5JJ, (405) 789-3788.

FOR SALE Precision Apparatus Co. Sweep Generator Series E-400 for TV, FM and AM. 5 MHz to 480 MHz. Provision for marker crystals. \$15.00. \$10.00 extra if I must hunt for the instruction manual that is buried somewhere in my collection. W5JJ, 5824 N.W. 58th Street, Warr Acres, OK 73122.

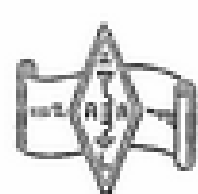
FOR SALE Heathkit IC-2100 Electronic Slide Rule, one that has a keyboard big enough to accomodate a mans fingers! OK electrically, But the dang Nixie tubes will not stay in their sockets. Squeeze up those contacts and you will have one heck of a good calculator. Cost me \$120.00 and one heck of alot of labor. Carry it off for \$10.00 with instruction manual. W5JJ, 789-3788.

FOR SALE Power supply, 450 V and 6.3 V, rack mount, solid-state rectifiers. \$5.00. W5JJ, 789-3788.

TECHINCAL REVIEW
-W5JJ-

IEEE TECH GROUP, May, courtesy of W5KE, speaks of a new (to me) classification of emission, F3Y, digital voice modulation. Also theres mention of mobile or portable antennas made of conductive rubber.

RADIO COMMUNICATIONS, May, has the second part of "disappearing



W5PAA

inductance," a trick for better beams. There's still another electronic keyer, plus the usual goodies of "Technical Topics."

IEEE SPECTRUM, May, revisits the world of amorphous semiconductors, a world many once claimed to be imaginary.

QST, July, has two top-notch articles; "Beat the Noise with a Loop" and "A Simple Approach to Complex Circuits".

73, July, starts on page 26 with "Breakdown." Don't skip it! And don't miss part IV of "History..." Four more good ones: "Selecting a Frequency Counter," "Build a Multiplying Prescaler," "Phone Patch Tips," and "Impedance Matching".

HAM RADIO, July, tells of improvements to a simple 80-and 40-m omtr, shows how to convert a selective rcvr plus an ordinary scope into a spectrum analyzer, gives info on constructing self-supported coils, and provides ideas on using NE570 ICs in AF applications.

RADIO COMMUNICATION, June, has a novel crystal calibrator and Band-edge marker. Don't miss the first portion of Technical Topics! It's not too technical but a masterpiece of satire! Other portions concern AGC and medium-sized loop antennas.

AMATEUR RADIO, May, shows a power-increasing modification to the IC-22 xcvr. Another article concerns a shortened 40-m dipole. Other modification hints are for HAMM II rotors, Sb-34 xcvs (FM reduction), the TS-520 ocvr (harmonic reduction).

POPULAR ELECTRONICS, Aug, give hints on handling MOS devices to avoid electrostatic damage.

WORLD RADIO, Jul, tells us the happy news that RACES has been returned to radio amateurs. You may recall that for many years it was dominated by non-amateurs.

ELECTRONIC TECHNICIAN/DEALER, Jul, courtesy of W5KE, has two good articles, one on 4-layer diodes devices (diodes, SCRs, TRIACS, etc.) and the other on noise sources in mobile installations.

+ * * * * *

Robby's Soapbox didn't get writ this month due to the ever decreasing time available out here on the windy hill. Hopefully I can get the ambition and time to get one started for next month.

Y'all have a blast at Ham Holiday...I'll be thinking about you from my TDY QTH in Albuquerque, N.M. where I'll be in school getting some much needed training in financial management. Can't think of a nicer place to spend August, unless possible Fairbanks Alaska in January?

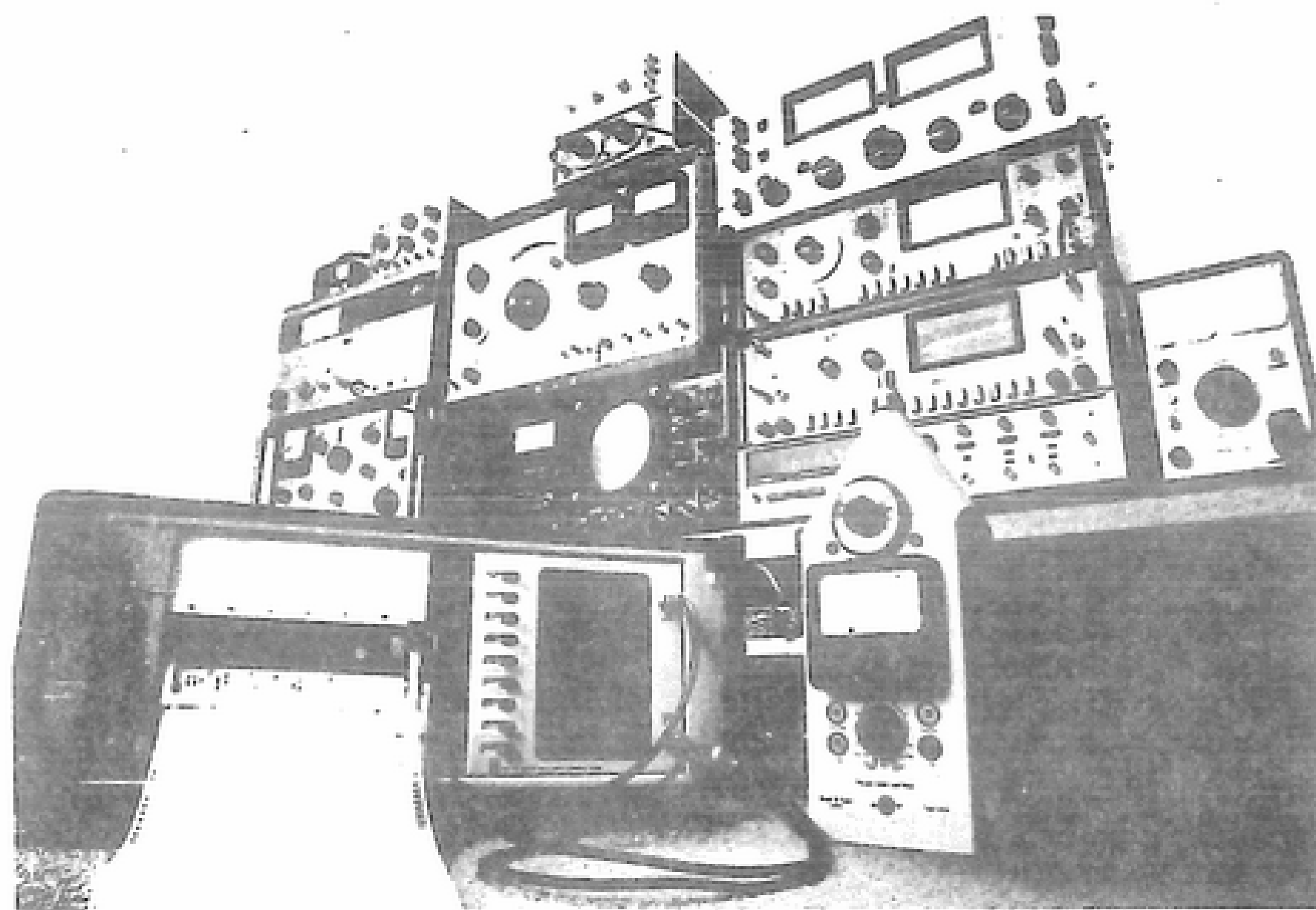
As you enjoy Ham Holiday, be sure to give an extra measure of credit, (and my heartfelt gratitude) to Joe, K5JB/WA5TRS who planned, executed, and put the entire program together virtually single-handed with precious little help from his co-committeeman (yours truly). Well done in advance, Joe....wish I could be here to enjoy the fruits of your labor.

73.

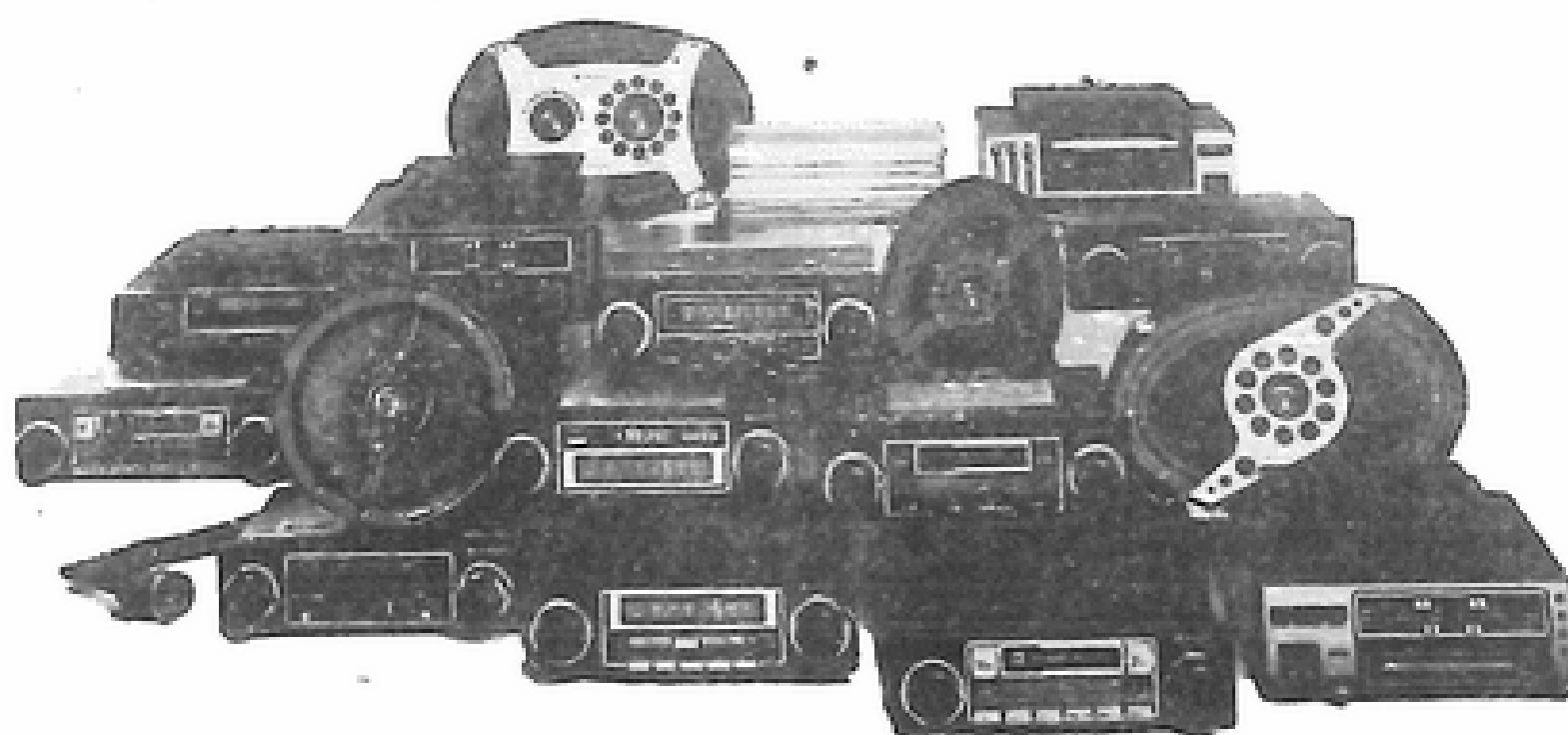
Robby W5JES.

A A A
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 should be carried? What "NEW" Products?



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 PART OF OKLAHOMA CITY AND IS EASILY LOCATED. AAA HAM SHACK
 WILL BE LOOKING FOR YOU. THE BEST OF MERCHANDISE WILL BE
 HANDLED BY THIS STORE.

First woman: "Didn't Mrs. Brown look pleased when I told her she didn't look a day older than her daughter?"

Second woman: "I really didn't notice — I was too busy watching the expression on her daughter's face."

Child's definition of a skeleton: "a person with his inside out and his outside off."

A woman suing for divorce was seeking alimony on the grounds that while her husband was an inveterate gambler, she was an ideal wife.

"Some ideal!" snorted the defendant. "I hocked the kitchen stove to play a hot tip at the track — and she didn't miss it for nine days."

Weary of the constant disorder in her sons' room, a mother laid down the law: For every item she had to pick up off the floor, they would have to pay her a nickel.

At the end of a week, the boys owed her 65 cents. She received the money promptly — along with a 50-cent tip and a note that read, "Thanks, Mom; keep up the good work!"

"I can't hear you, dear," the lad's mother said as he whispered his prayers.

"I wasn't talking to you," the child answered firmly.

The student enrolled for one summer school class, spent the entire six weeks goofing off, then complained when he didn't pass. "I really don't think I deserve an F," he whined to the instructor. "Neither do I," came the acid reply. "Unfortunately, it's the lowest grade I'm authorized to give."

What this country needs is a small car that can run on the fumes of the big cars — thus creating only a little smell from a big stink.

Restaurant patron: "Two eggs, please. Don't fry them a second after the white is cooked. Don't turn them over. Not too much grease. Just a pinch of salt. No pepper. Well, waitress, what are you waiting for?"

Waitress: "The hen's name is Eleanor — is that all right?"

The small but precocious relative of a Nobel Prize-winning chemist answered the phone while visiting her distinguished relative.

"Yes, this is Dr. Flory's house," she said brightly — then added, quite confidentially, "but he's not the kind of doctor that does people any good."

One of the nicest things about growing old: finding your children crossing the generation gap to your side.

A patient suffering from bursitis was directed by her doctor to apply heat for relief.

"But doctor," objected the patient, "my husband says to use cold packs."

"Well," replied the doctor, "you tell your husband that my wife says heat is better."

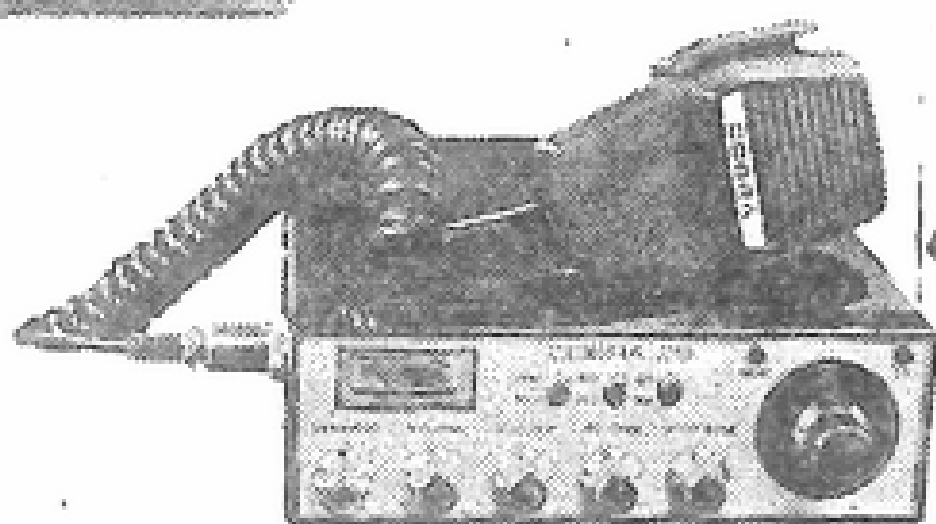
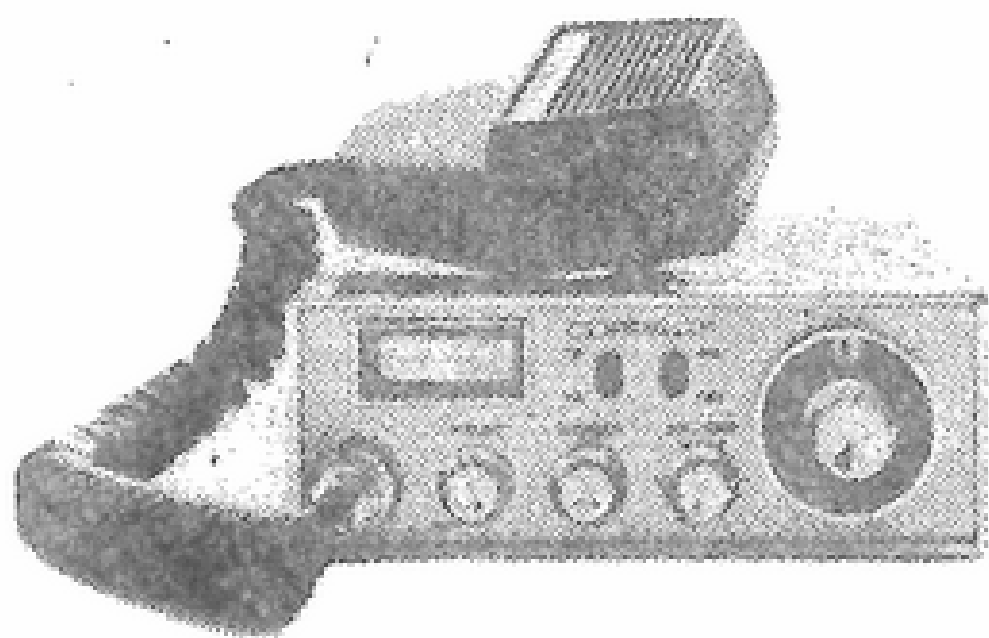
The sum of the parts CAN be greater than the whole — especially when it comes to repacking a vacation suitcase.

Seniority: that time of life when you know all the answers — and nobody asks you the questions.

STOCTON'S CB SALES & SERVICE

7425 S.E. 15th Street, Midwest City, Okla.
Telephone 405/737-7177. In the west end of
Stockton's Discount Foods.

AMATEUR SALES AND SERVICE. RADIO TELEPHONE FIRST CLASS LICENSE. F.C.C. LICENSED TECHNICIANS. Repairs made to all makes and brands, including Midland, Teaberry, Cobra, Hy-Gain, Royce, etc. Owners are Bill Inabnett, and Carl Shelton.



This location is across the street from the Oklahoma Journal Bldg. "BILL", WB5YDM wants to greet all AMATEURS attending F&M HOLIDAY.

Is your little rig sick? Bring it to Dr. Bob. A specialist
in:

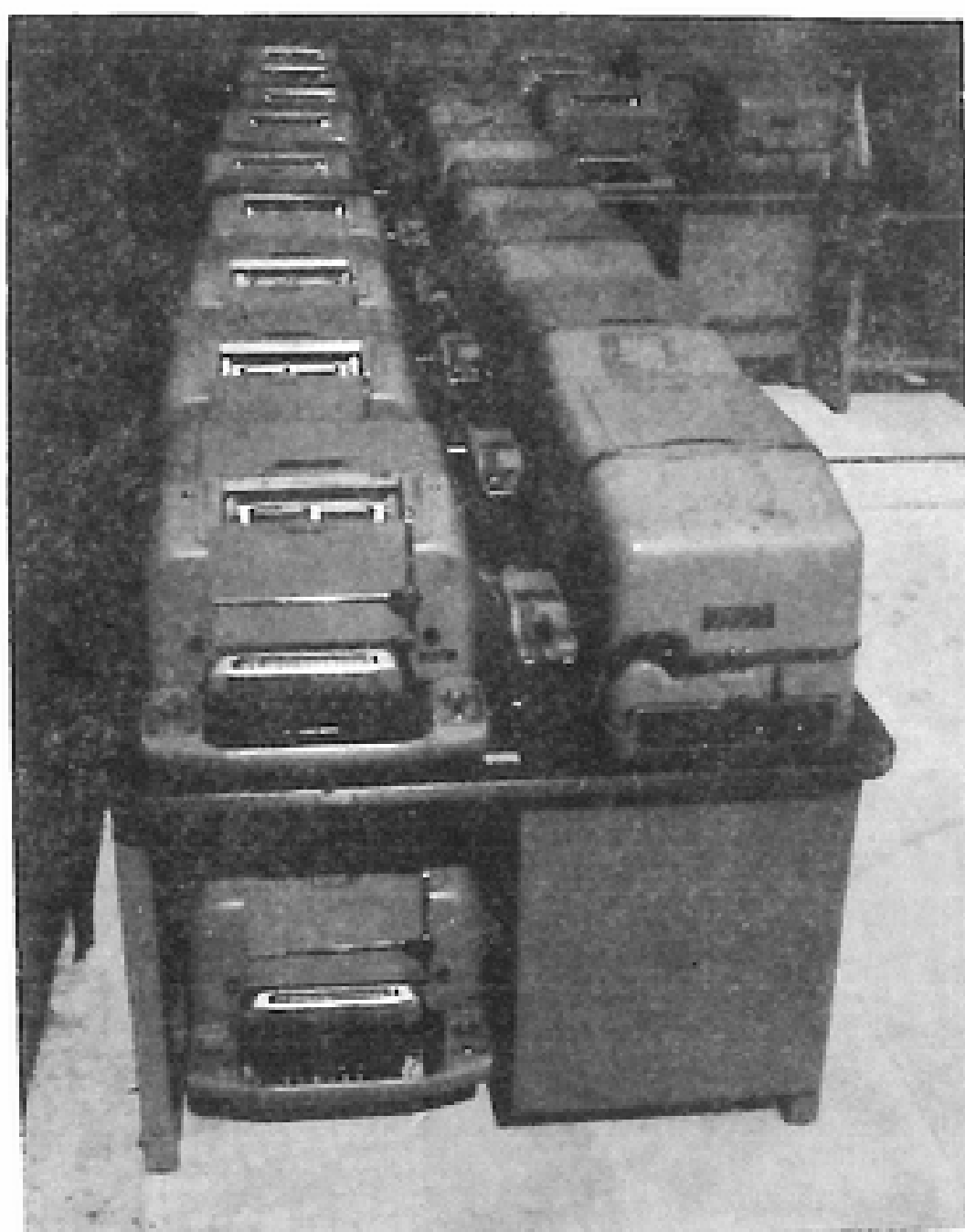
Heart problems - Oscillator circuits
General health - Alignment, tuning & crystal netting
Corrective surgery - Parts replacement
Diagnostic services - Determining what's wrong
Circulatory systems - Power supplies
Organ transplants - Valves, transformers & other parts
Birth defects - Making kits work that don't
Bionic transformations - Electronic modifications

Since advertising by the medical profession is considered unethical, this notice is for informational purposes only. Dr. Bob is retired and only accepts clients from the amateur fraternity. The only charge is what you want to pay.

Bob's Amateur Radio Service
1815 N.W. 27th Street
Okla. City, OK 73106
Telephone: 528-6461

LEADERS

"Here are the three qualities that Floyd Hall, of Eastern Air Lines, believes make up that most rare bird of all, the natural business leader: 'The kind of guy who commands leadership is first of all the fellow who knows his business, and knows it so well that he exudes confidence. Second, he has to be a thoroughly honest person, with himself and everyone else - not because some outside influence tells him, but because of an inner ethical sense that tells him right from wrong. Finally, the natural leader must have a real appetite for accomplishment. He must have the ability to work hard for long periods of time, without breaking down mentally or physically, under stress.' - Dun's Review"



NO!

ELLARD'S EX EL WILL NOT BRING
ALL THESE TELETPEWRITERS TO
HAM HOLIDAY.

But there will be one or two
of them and lots of other
surplus goodies in Room 178
at Southgate Inn 6 & 7 August

See You There,

W5KE

MORI

U

MYSTERY

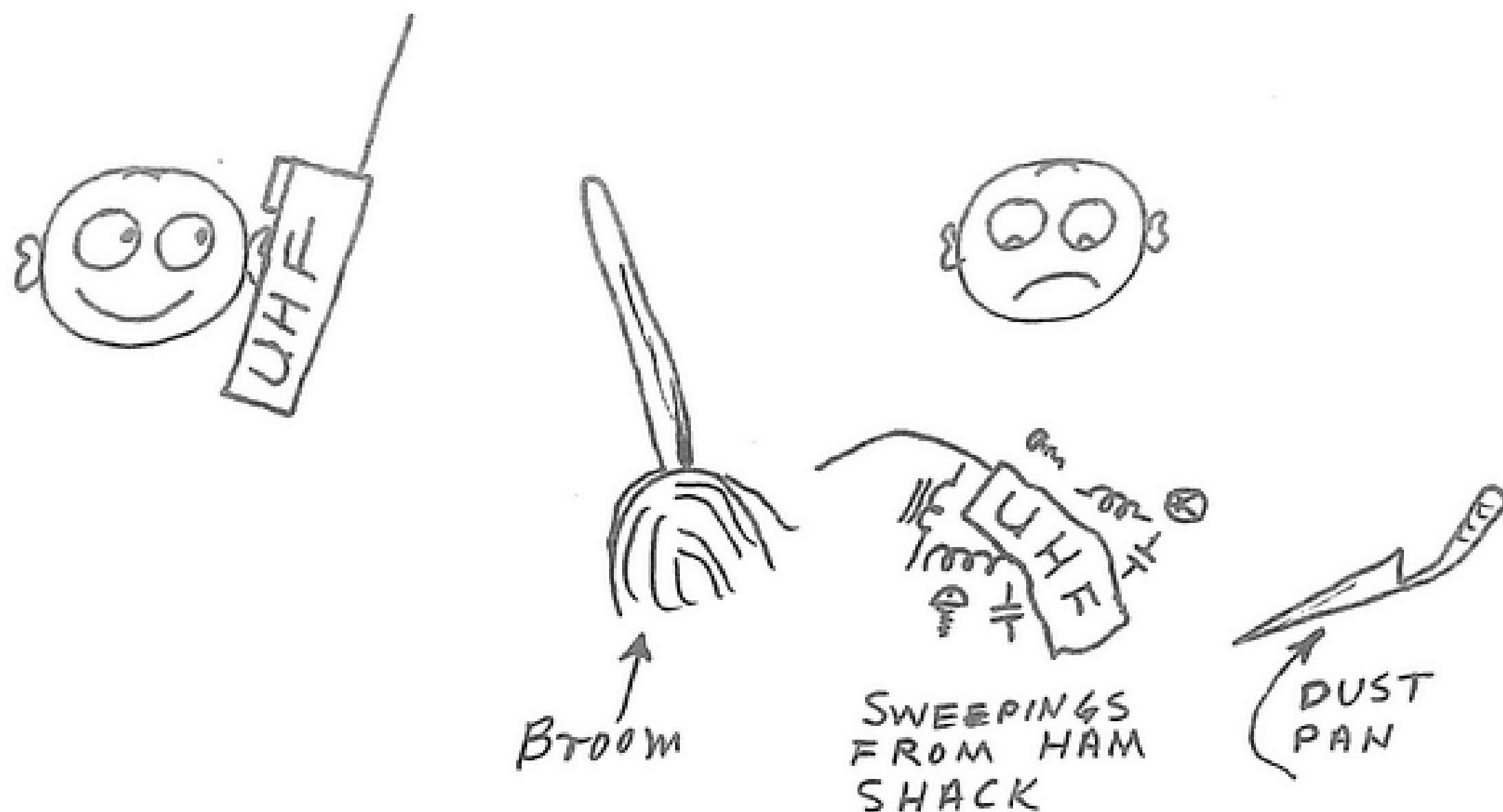
About 14 UHF hand held transceivers have disappeared! Of the 20 in the original mass purchase in the UHF repeater deal, only about six are accounted for (in use on UHF). Dust off your hand held rig, charge the batteries and try out the new improved UHF repeater. There are reports of good coverage with hand holds to Norman and Edmond! But where are the 14 missing rigs?

Report from JOE, WA5TRS
rit by WA5RAQ

MORI

H

WHICH ARE YOU ?



MORI

F

ART BY GOLLY

P.S. You are welcome to use the UHF REPEATER with any rig.

"If you have a well-developed sense of humor, you will find this world full of absurdities. If you are a realist, you will find it a world of cold, hard facts. If you are a money-maker, you will find it a world of opportunities. If you are a pessimist, you will find it just a climb up a sand dune. And if you are a poet, you will find it a realm of inspiration.-The Ediphone."

MOTOROLA
HEP

WAHL

Belden

SWITCHCRAFT

ATLAS SOUND

XCELITE

SONY SUPERSCOPE

SPRAGUE

Amperex

3M

BIC

BIC VENTURE

SHURE

AKTRON

BANKAMERICAN

marantz

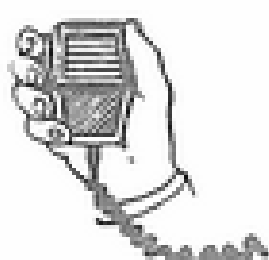
SUPERSCOPE

You never heard it so good

TUBES 50% OFF
Free Testing
Most Electronic
Engineers and
Technicians buy
from us

Kelly's

**DISCOUNT
ELECTRONICS**
4221 N. MacArthur
PH: 787-0822
Oklahoma City,



THE ZANY NEWS FREQUENCY

By JOE, WA5ZNF

Do you enjoy receiving & reading the CORA C&E?	YES	NO
Do you want to keep on receiving it?	YES	NO
Are you, as an individual, willing to help?	YES	NO

If you checked (physically or mentally) a YES box above --- Read on.

The \$1.50 per year subscription price which everyone pays as a CORA affiliated club member just about pays for material costs. Amateur radio oriented business firms have been advertising at a rate which supplied the difference. BUT--Our postage rates (all 2nd class users) go up with this issue and printing costs have about doubled.

NOW -- Here is where you can help. Look at the opposite page----- It contains reproductions of 10 business cards. Notice that none of them are directly associated with amateur radio, but, each has a product or service that amateurs use. Think about it, don't you?

To keep from raising subscription rates we need about 30 advertisers at the insignificant rate of \$30 to run his business card display ad for a WHOLE YEAR in C&E. That's only \$2.50 a month.

Contact stores, restaurants, garages, service stations, bowling alleys, cab companies, in fact just about any place you do business with or know about and ask them to advertise to all of the amateur radio operators in Central Oklahoma - this issue will mail 678 copies.

Get a copy of his business card, yellow page ad the same size as his business card or any other copy that size and a check for \$30 made out to CORA Collector & Emitter and that is all that is required. By the way if you own a business you should take advantage of this method too. Your employer would appreciate your calling it to his attention.

Any questions? Call Joe, WA5ZNF at 737-1044.

If they sell or service electronics they probably want a full page ad like the one on page 16 for only \$17 an issue, or one of 1/4 page like the one on page 13 for only \$5. If so call Ivan Miller, W5HFU 942-4160 or call me.

* * * * *

THESE FOUR PAGES WERE DESIGNED TO BE REMOVED WITHOUT RUINING YOUR COPY OF C&E. SLIP THEM OUT, TAKE THEM WITH YOU AND SELL A FEW SPACES.

* * * * *

I got tired of being retired and have started working again, sort of, spending a lot of time on a new IBM computer and since I was going to be working with on I decided I might as well go back to college at night and learn how to get the most out of it and how to write programs in my spare time. Consequently I have less and less time so I want to apologize for this month's C&E. It had to be rushed out and the editors didn't have time to do their thing like they would have liked to, in fact some were left out but all should be settled by next month and we will be back to normal, as to time of publication and content. I just happened to think, HAM HOLIDAY facility chairman took a lot of time too but I think it was worth it since I enjoy seeing people having a good time, so I am looking forward to seeing you and yours at Southgate Inn on 6 & 7 August. Shoot your pre-registration form in today or call H. O. Townsend, WA5MLT and get him to put it on the cuff for you.

CAFE — MODERN CABINS — FLOAT TRIPS
BAIT — BEER & ICE

HANGING ROCK CAMP

14 Mi. No. of Tahlequah on Hwy. 10, or 12 Mi. So.
of Little Kansas on Hwy. 10, on Scenic Illinois River

918-456-3088

TOM HENLEY, Owner

Loop Route
TAHLEQUAH, OKLA.

"REAL ITALIAN PIZZA"

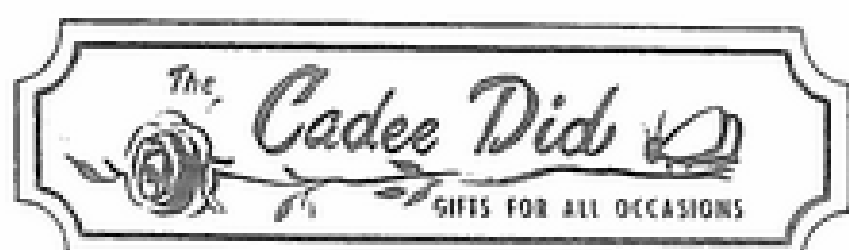
PIZZA



Pizza City

PHONE
336-9464

44 N. DEERFIELD



Holiday Square

1100-6 S. Air Depot
733-2421

Midwest City, Okla.
73110

Kenneth and Carolyn Hood



ATLAS PLUMBING & HEATING CO.

9267 NASHVILLE ST.

469-6834

TOM MURRAY

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Main Enterprises, Inc.

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609 BROOKWOOD DRIVE PHONE 691-2497
OKLAHOMA CITY, OKLA. 73139



OLIVER A. WELCH
BUS. 684-2921
RES. 653-6150

Town & Country Realtors

1020 LAKELAND AVE.



Sunset Beauty Salon

1101 STATE STREET

PHONE 294-0681



PHONE 412-2200

MAIN TEXACO STATION

AUTOMATIC WASHING SERVICE

210 N. MAIN STREET

PHONE 336-1572

MARS BAR & GRILL

FISH FRIES ON FRIDAY

JIM MARS

Frank Harrison

4221 GREENBACK LANE
967-3211



SPECIALIZING IN BAND PHOTOGRAPHY

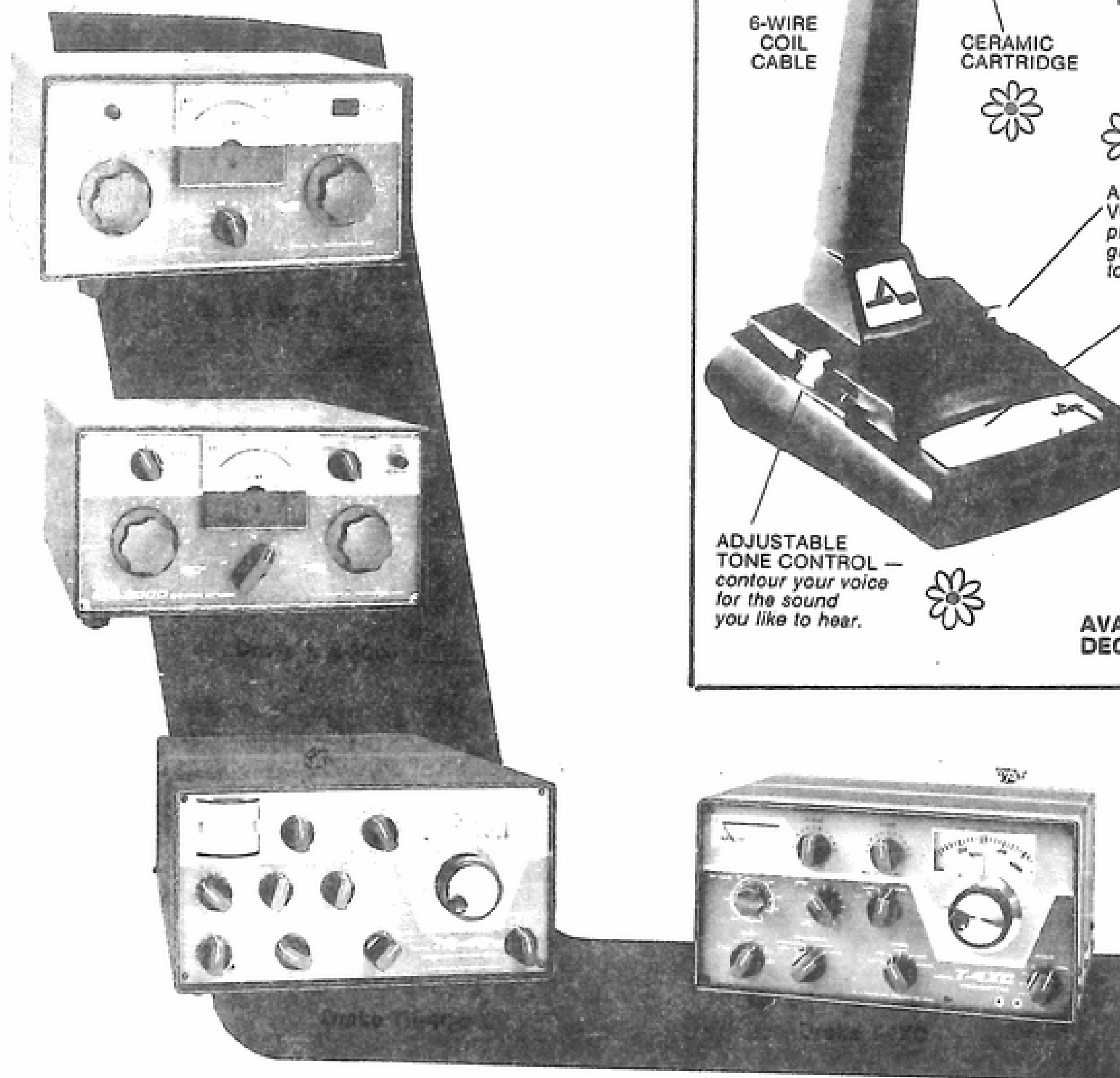
967-4682

DISTRIBUTOR OF QUALITY HAM RADIO EQUIPMENT

CITIZENS BAND RADIOS AND ACCESSORIES

SERVICE ON HAM & CB EQUIPMENT

Drake



B & J Two Way

+ + + AMATEURS DEPARTMENT + + +

1516 S.E. 44

PHONE 672-1381

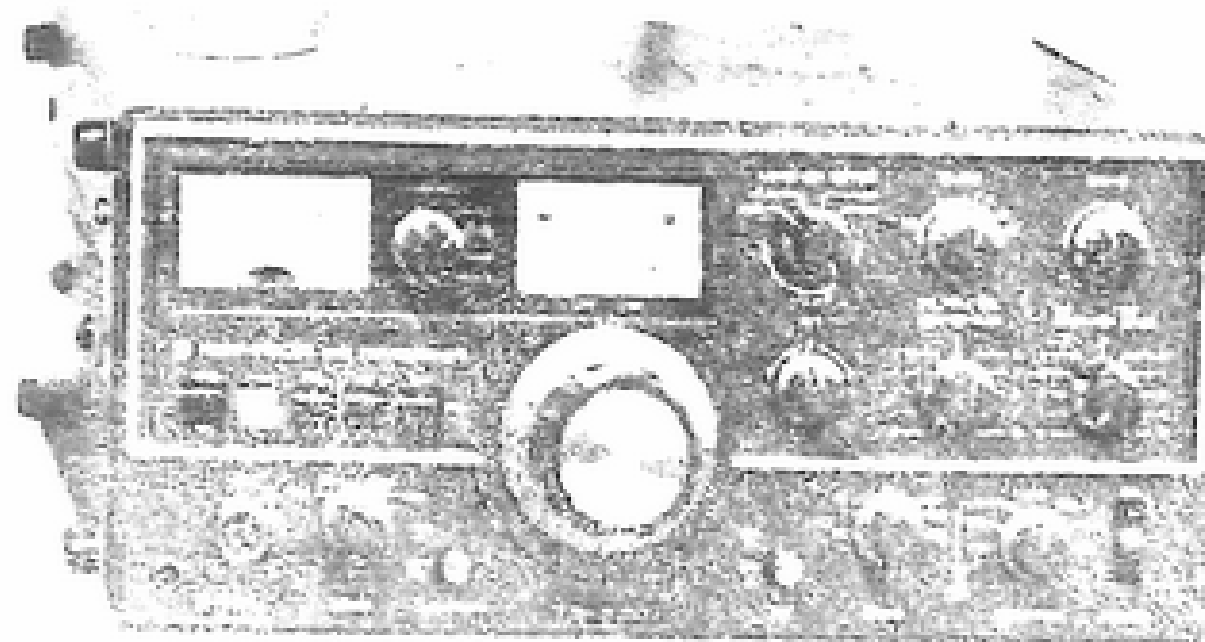
OKLAHOMA CITY

ONE BLOCK EAST OF I-35

OKLAHOMA

HAM HOLIDAY

AUGUST 6 & 7 1977



GRAND PRIZE

GRAND PRIZE

KENWOOD

'629⁰⁰

TS-520 SSB transceiver

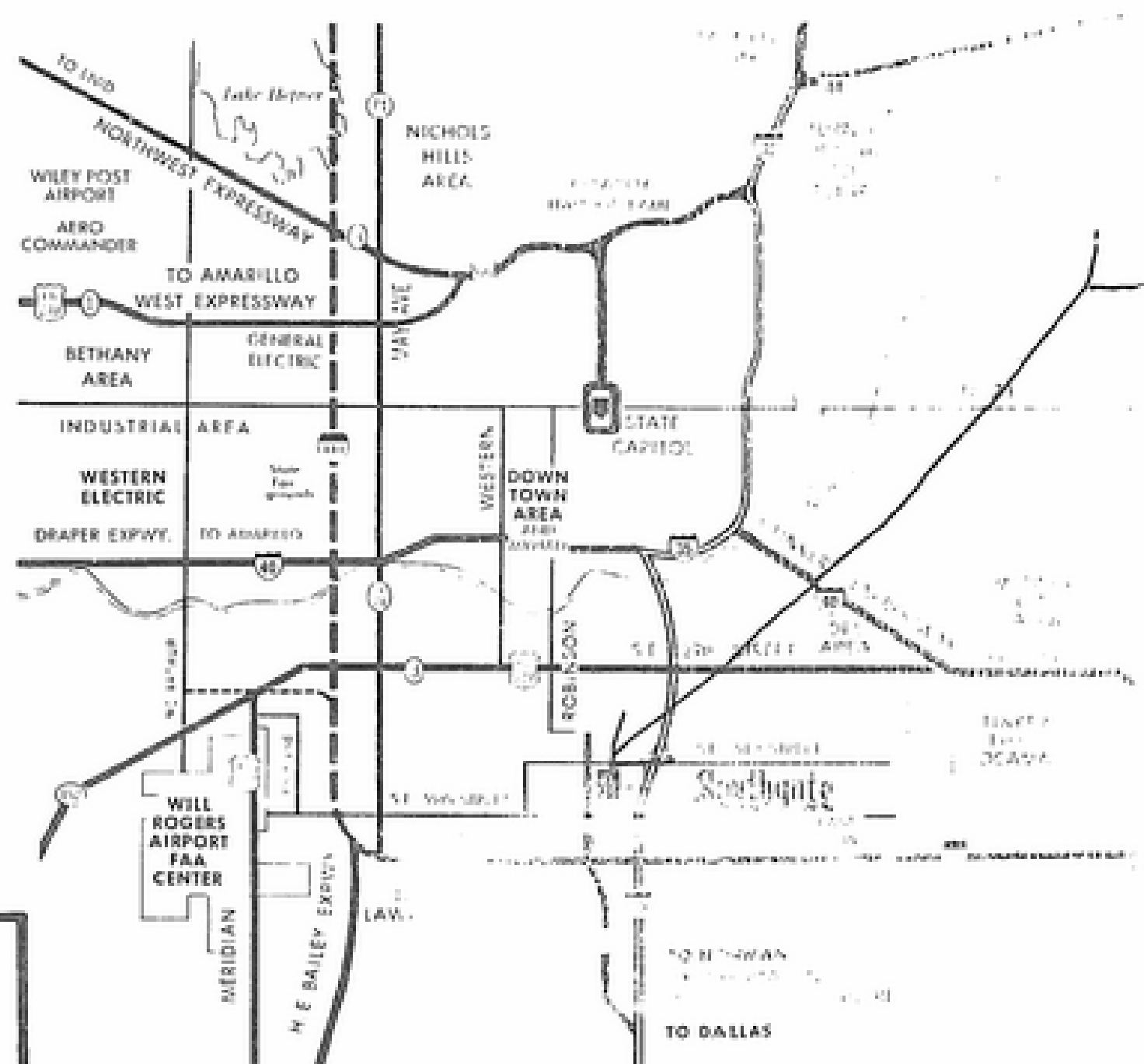
(You need not be present to win,
but your ticket must be.)

LOTS OF GOODIES

REGISTRATION FEE:
\$3.00 IN ADVANCE
\$4.00 AT THE DOOR



5245 SOUTH INTERSTATE 35



OKLAHOMA CITY

5245 SOUTH I-35 • PHONE AC 405 672-5561

DO IT TODAY - PRE-REGISTER FOR HAM HOLIDAY
August 1977 17 CORA Collector & Emitter

HAM HOLIDAY

NOTICE

NOTICE: SPECIAL CORA MEETINGS

A SPECIAL MEETING OF CORA WILL BE HELD
IS TO REPORT HAM HOLIDAY COMMITTEE PROGRESS.

REGULAR JULY MEETING IS MOVED TO JULY 29 AT SOUTHGATE INN. DINNER (OPTIONAL) AT 6:30PM, MEETING 7:30PM.

CORRECT YOUR CALENDAR TO SHOW THE ABOVE DATES. DO IT NOW SO YOU DON'T FORGET. ALSO, GET OUT YOUR CHECKBOOK NOW AND WRITE THAT PREREGISTRATION CHECK AND GET IT IN THE MAIL - CORA, BOX 15013, OKLAHOMA CITY, OK 73115. THERE IS A FORM ELSEWHERE IN THIS ISSUE.

DON'T FORGET - DON'T FORGET

HAM HOLIDAY PROGRAM SCHEDULE

FRIDAY NITE, AUGUST 5

7 - 9PM, PREREGISTRATION

SATURDAY, AUGUST 6

9 - 9:50AM, OLZ MEETING (GIL, W5RB)

10 - 10:50AM, MOTOROLA HT220 EVOLUTION & NITTY GRITTY (COYLE SCHWAB, WA5DJG, MOTOROLA)

11 - 11:50AM, EMERGENCY PROGRAMS (ROBERT HALPRIN, KIXA, ARRL HQ)

12 - 1:30PM, LUNCH BREAK

1:30 - 2:20PM, MOBILE AND BASE VHF ANTENNAS (RICK PRINDLE, WB8WFH, MAYNARD AND GUNN)

2:30 - 3:20PM, MICROPROCESSORS/COMPUTERS, PART I (INTRODUCTION, DAVE BALLEW, K5WMY - HIGH LEVEL COMPUTER LANGUAGE, JOHN WALDVOGEL, W5UNA)

3:30 - 4:20PM, MICROPROCESSORS/COMPUTERS, PART II (DEMONSTRATION AND PANEL DISCUSSION, BILL BRODIE, K3TGY, DAVE, K5WMY AND JOHN, W5UNA)

8PM, PARTY - PRIZES - MUSIC BY UPTOWN BLUEGRASS

SUNDAY, AUGUST 7

7 - 8:50AM, QCWA BREAKFAST

9 - 9:50AM, ARRL FORUM (ROBERT HALPRIN, KIXA, ARRL HQ, JACK GANT, W5GM, WEST GULF DIRECTOR, ARRL, LEONARD HOLLAR, WA5FSN, SEC. OKLA. SECTION)

10 - 10:50AM, IMPROVED MOBILE TELEPHONE SERVICE (IMTS) DENNIS ORCUTT, WB5ISN, BELL TELEPHONE CO.

11 - 11:50AM, OKLAHOMA REPEATER SOCIETY MEETING

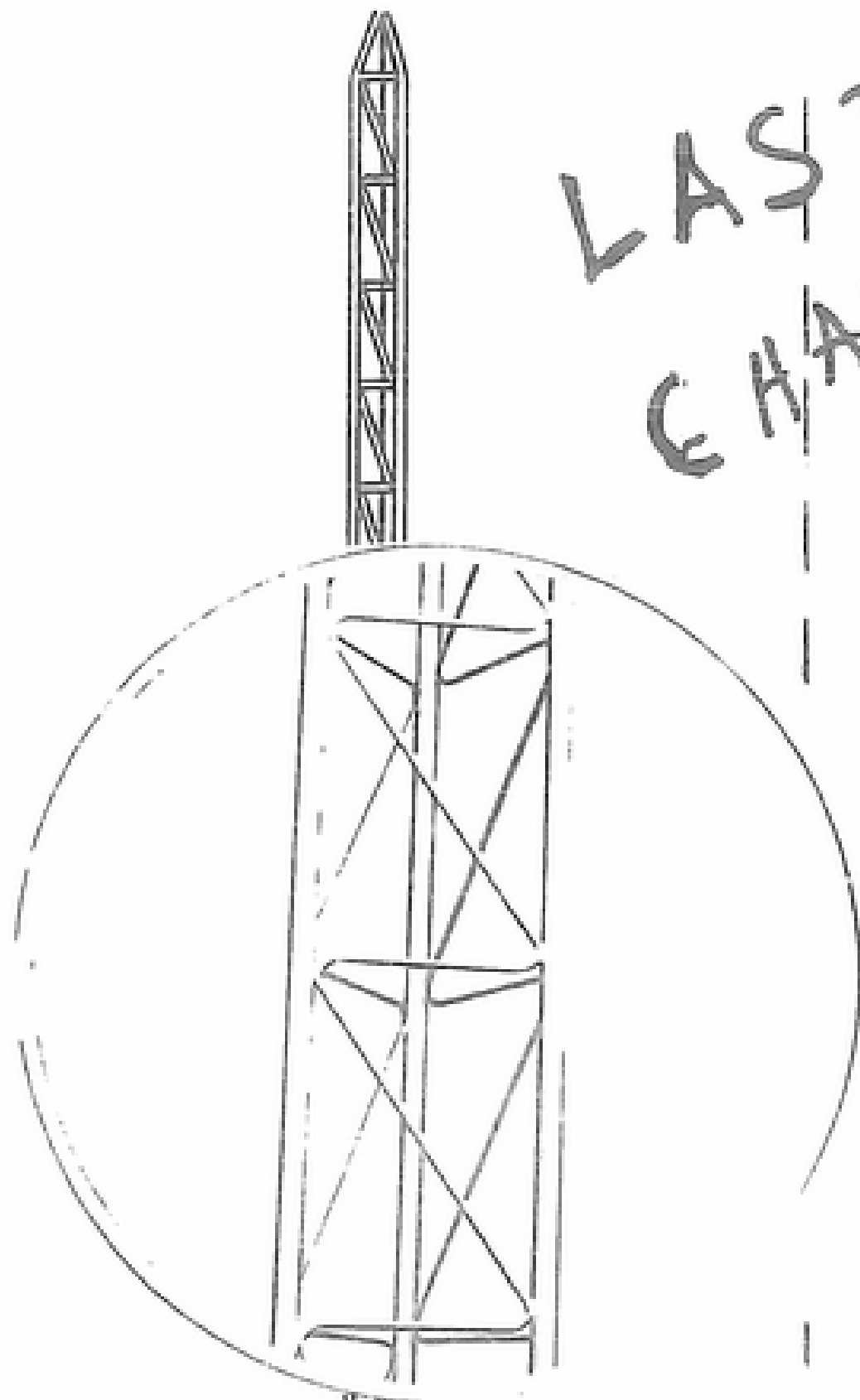
12 - 1:30PM, LUNCH BREAK

1:30PM PRIZE DRAWING

DON'T FORGET TO PRE-REGISTER!

PRE-REGISTER
AND YOU JUST
MIGHT TAKE
THIS FINE
TOWER HOME
WITH YOU!

ROHN



LAST
CHANCE

TEAR ON THE DOTTED LINE, OR SEND THE WHOLE PAGE, TODAY

PRE-REGISTRATION FOR OKLAHOMA HAM HOLIDAY

SOUTHGATE INN - OKLAHOMA CITY - 6 & 7 AUGUST 1977

NAME

Call

Lady

Street

City

State

Zip

Mail check (\$3.00 per person registered) to CORA, Inc. P.O. Box 15013, Oklahoma City OK 73115
Letter must be postmarked NO LATER THAN 2 August to be eligible for the pre-registration award for which you are
eligible whether you are in attendance or not. Register as many people as you wish. Just list and enclose \$3 for
each.

FREE Fleamarket tables will be reserved by number. Non-Commercial only. RESERVE ME A FLEAMARKET TABLE.

CORRESPONDENCE INDICATE "PRE-REGISTRATION" ON OUTSIDE OF ENVELOPE

YOUR TICKETS WILL BE HELD AT THE RESERVATION DESK



Club
NEWS

W5LOV
The Elmer Gooder Memorial
Station

MINUTES OF CLUB MEETING

MEETING WAS CALLED TO ORDER 8 PM BY PRESIDENT WOODY, W5FMX. CHARLIE, WA5JGU, MOVED THAT FIVE YEAR MEMBERSHIP BE GIVEN TO HOBE BERGAN, WB5MLN, FOR A NYLON ROPE HE PURCHASED TO GO WITH OUR GIN POLE. THE BALANCE OF VALUE OF THE ROPE IS TO BE PAID BY CHECK. MOTION PASSED.

EX-PRESIDENTS, W5HXL, WA5JGU, K5VFR, W5VCJ, K5VRL & W5OZE JOINED W5FMX UP FRONT TO START THE PROGRAM PREPARED BY STEVE, W5VCJ.

STEVE GAVE A SHORT HISTORY OF THE CLUB INCLUDING SOME INTERESTING FACTS. THE FIRST MEETING WAS IN 1957 AND THE GROUP CALLED ITSELF THE SIX METER NET. AT THE TIME THERE WERE TWO OTHER LOCAL CLUBS, THE AERONAUTICAL CENTER AMATEUR RADIO CLUB AND THE OKLAHOMA CITY AMATEUR RADIO CLUB. THE LATTER IS NO MORE. THE CLUB HAD AT ONE TIME OVER 100 MEMBERS. THERE WERE 288 NAMES IN A SIX METER NET DIRECTORY WHICH LISTED OPERATORS WHO WERE WITHIN GROUND WAVE RANGE OF OKLAHOMA CITY. THIRTY THREE MEMBERS OF THE CLUB ARE NOW SILENT KEYS,

STEVE SHOWED TWO FILMS HE COMPOSED FROM FOOTAGE TAKEN BY HIMSELF AND OTHERS. INCLUDED WERE OUTINGS AT WILL ROGERS PARK, U.S. WEATHER BUREAU AND ROMAN NOSE PARK IN 1957 OR 1958. THERE WERE FIELD DAY ACTIVITIES AT THE GENERAL ELECTRIC SITE AT TENTH AND MORGAN ROAD.

SEVERAL SCENES WERE SHOWN FROM A DXPEDITION TO QUEEN WILHELMINA PARK. SIX METER OPERATION WAS SET UP AT 2600 FT. ELEVATION IN AN ATTEMPT TO ESTABLISH CONTACT WITH OKLAHOMA CITY. THE ATTEMPT FAILED BUT IT LOOKED LIKE A LOT OF FUN ANYWAY. THERE WERE SEVERAL ANTENNA RAISING PARTY SCENES INCLUDING ONE AT K5VRL'S HOME AT NW 39TH. THE MUDDY FIELD DAY IN 1967 AT K5VRL'S "HELEN'S HALF ACRE" SHOWED THAT AMATEURS MAKE FAIRLY GOOD DITCH DIGGERS. THERE WERE OTHER SCENES FROM CHRISTMAS PARTY, WATERMELON FEED, AND A WEINER ROAST AT STEVE'S ACREAGE.

STEVE SUBMITTED THE FILMS AND PHOTOS HE HAD COLLECTED TO THE CLUB TO BE KEPT WITH CLUB RECORDS. THE PHOTOS HE FORGOT TO BRING WILL BE BROUGHT OUT AT THE 25 YEAR ANNIVERSARY MEETING.

SOME DISCUSSION FOLLOWED ON WATERMELON FEED SCHEDULED FOR MEETING NIGHT IN AUGUST. IT WILL BE NEAR THE NORTH SHELTER, WILL ROGERS PARK, AT 7 PM.

MEETING WAS AJOURNED AT 9:30 PM FOR A CLOSER LOOK AT THE PICTURES.
JOE, WA5TRS/K5JB, SEC'Y

COMMENTS

I LOVED CARL, W5JJ'S COMPARISON BETWEEN GOLFING AND AMATEUR RADIO OPERATING IN LAST MONTH'S C&E, PG 9. VERY WELL DONE CARL!!

GLEN, K5LDL, WANTED ME TO PASS ALONG A COMMENT. HE WISHES THAT THOSE WHO TAKE ON AN UNINFORMED AMATEUR ON THE AIR AND CORRECT A MALPRACTICE SHOULD DO SO DIPLOMATICALLY. HE WAS REFERRING TO THE USE OF "BREAK" TO ENTER A CONVERSATION. THIS PRACTICE IS WRONG AND IN POOR TASTE BUT THE UNFORTUNATE PERSON WHO DOESN'T KNOW THAT SHOULDN'T BE HANDLED TOO ROUGHLY. PERHAPS THE PERSON WHO DID THE CORRECTION HAD A ROUGH DAY.
JOE, K5JB

WANTED: SIX METER SQUALO OR HALO. WOODY, W5FMX, 942-2831

DON'T FORGET THE WATERMELON FEED NEXT MONTH...SEE MINUTES FOR DETAILS.



ALTUS
HAM
CLUB

President: Loren Simms, WA5CBF
Sec./Tre.: Deanna McEndree, WB5UMH

The Altus Ham Club met 14 July 77 at 1930 hours at The North Main Fire Station. 26 persons were present. Loren, WA5CBF called the meeting to order. The minutes and treasury report were read by Sec. and approved. We had a guest from Shamrock, Tex. Earl Boyd, WB5OMY. We also gained a new club member, Bob Bratton, WD5BBW, from Mangum. Loren read a letter from H.A. Gilberton, W5RB, net manager of the State CW Traffic Net in Okla. City. The net meets every evening at 7 P.M. on 3682 K, speed 13 to 15 WPM. The net call is OLZ. The 5th regional net call is RN5. Club members were urged to participate.

Deanna, WB5UMH, made a motion that we have an ice cream social at the city park on Broadway and Park Lane instead of the regular club meeting on Aug. 11. This will be a family get together for all area hams, their spouses and kids. Its about time we all got acquainted. Bring your badminton, volleyball, your family and your appetite and we'll make a night of it. Several people have volunteered to bring freezers of ice cream. If you want to bring cake or ice cream, call Deanna, WB5UMH. Oliver, WA5OGC, seconded the motion and it passed. Dwight, WB5KRH, volunteered his usual services as garbage disposal.

Richard, WB5PUF, discussed Field Day. He described it as a test of physical endurance. Equipment was furnished by Jim, WB5PXU. Operators were Richard, WB5PUF, Jim, WB5PXU, Gary, WB5TUB, Chuck, WB5MJS and Dave, WB0VKF/5. 431 contacts were made, 2 to Hawaii. PUF hopes to have more cw contacts next year. He also wants to set up some Novice equip. and a QRP rig. Puf suggests we start planning now for next year. Anyone who will loan equipment make a list, also list any suggestions for improvements or any ideas for a better site. Voice your opinions. Its your Field Day. We would like to run on full emergency power next year. We need to get the generator from Bob Parks, K5LYM, and make it portable on a trailer.

Loren discussed the 4th Annual Ham Fest on September 17 at Lake Altus. Communications chairman is Richard, WB5PUF, Publicity chairman is Loren, WA5CBF and Food committee Janice, WB5WMN and Deanna, WB5UMH. Anyone having Novice equipment for sale or trade please bring it to the Ham Fest or at least advertise it. We still have several Novices looking for rigs.

Chuck, WB5MJS, discussed the ham classes to begin at A.O.C. in September. Chuck suggested the Sec. begin working up the advertising and contact ARRL. Chuck, WB5MJS, will teach the theory and Richard, WB5PUF, will conduct the code. We need to start ordering our supplies.

The Lawton Ham Club has invited WB5PUF, W5ZUS and WB5LTU to pre-

sent a program with the slides of the Tipton tornado. It will be Sept 6 in Lawton, Ok. Clinton, Ok. has also approached the club for the same program.

The Tipton, Ok. Pilot's Club will have a fly-in in Aug. Several club members are involved in this project. It is always a good show.

Southwestern Oklahoma Repeater Association got an excellent write up with photos in the July issue of QST.

Seems everyone had comments to make on Collector and Emmiter, all good I might add. We really enjoyed this months publication and are looking foreward to the months ahead. We want to thank C & E for the warm welcome extended to the Ham Club.

Anyone who missed club meeting this month, sure missed some good refreshments made by Janice Bryan. Thanks Janice.

A motion to adjourn was made by Dwight, WB5KRH, seconded by Chuck WB5MJS. Motion carried.

Remember next month's club meeting will be at the Altus city park. We hope to have a good attendance.

Dues paid by Gene Gunkle, WB5NYG, Bud Smith, WA5ZAR and Bob Bratton, WD5BBW.

73's

Deanna, WB5UMH

FOR SALE: 2 - 9 element KLM beams, stacking harness and balons.
Contact: Gene Gunkle, WB5NYG, Box 130, Eldorado, Ok. 73537, phone: 633 2217.

Gene, WB5NYG

Need some good used 2 - meter equipment. Contact: Kenneth Ingham, WD5BBT, 618 Dahlia, Altus AFB, Ok. 73521, phone: 482 8355

Kenneth, WD5BBT

I need an operations manual and explanations on how to tune a Heath-kit DX-35. Lawrence Moore, WD5BBP, 362-B South Ash, Altus AFB, Ok. 73521, phone 477 0091.

Larry, WD5BBP

NEW ROHN TOWERS

IN STOCK AT A 20 % DISCOUNT. CONTACT BILL RIDDLES, WA5MZW
PHONE (405) 842-0092

NOTICE OF CHANGE: The QCWA July meeting has been changed to 31 July, 1 P.M. at Val Gene's. Penn Square.

LOOK ! FOR SALE - THE VERY POPULAR HEATHKIT MODEL SB-200
LINEAR AMPLIFIER (1200 WATTS PEP INPUT ON SIDEBAND - 1000 WATTS CW)

ONLY THREE YEARS OLD - \$200!! KEVIN - WB5KGP -- 341-5042

CORA Collector & Emitter

Cushcraft, Larson, Wilson, Newtronics Antennas

AMATEUR RADIO SERVICE

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NCX-1000

5 BAND SOLID STATE KILOWATT TRANSCEIVER

A BETTER BUY THAN MOST TWINS.



REGULAR PRICE \$ 1600.00
Introductory PRICE \$ 1100.00



NCL-2000
LINEAR AMPLIFIER

NATIONAL

REGULAR PRICE \$ 1200.00
INTRODUCTORY PRICE \$ 1000.00

AE

Amateur Electronics

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Okla. City, Okla. 73109
(405) 634-8844

YAESU
Kenwood

Wilson 2 Meter Handy Talkies

Wilson & Sonar
Business Band



JACK D. GANT, W5GM, DIRECTOR, WEST GULF DIVISION
521 MONROE, N.W., ARDMORE, OKLAHOMA 73401
(405) 223-2149 BUSS. 223-2619 RES.
7-12-77

CORA, Inc.
1020 Arthur Drive
Okla City, Okla. 73110

re: CORA Collector & Emitter
July 1977, page 25

In answer to "AN OPEN LETTER TO ARRL" I first want to thank WB5TKG for the concern which prompted it. It is such concern and follow-up which is our strength.

The very real problem addressed in the letter has been brought to my attention very recently by two other amateurs and, believe me, I do not in any way agree that we can do nothing.

OK, so give us something concrete. The Intruder Watch does not have this sort of problem as their responsibility, but the Intruder Watchers have been given fine information which I feel should be in the hands of all serious and concerned radio amateurs. Therefore I will include a list of telephone numbers which I believe should be available as handy reference for all of us. I also intend to suggest definite steps which can be taken by the individual amateur and steps the League can take to help us through the pages of QST.

I assume all of us know that a tape recording is not acceptable in court as legal evidence. So, we might as well refrain from recording a flagrant violation heard on our receivers? Not at all, record it! It can be sent to an FCC Monitoring Station as a real help to them to know what they are listening for. Send it!

What should we do when we hear a violation taking place that we consider serious and in need of immediate attention:

- 1 - Make careful determination of the frequency.
- 2 - Call a Monitoring Station you think could also receive the offending station.
- 3 - Stay on the telephone while the Monitor is locating the station on his very excellent receiving equipment. A patch into your telephone would be helpful, but you can at least hold the telephone receiver close to your speaker.
- 4 - If this Monitor is not geographically located to receive the station call another one.
- 5 - Let the Monitor know if you have heard this garbage before and if it is usually on about the same frequency.
- 6 - Send the Monitor the tape you made for his future reference as he attempts to gather evidence. Include all your info.

You have done a good job and the rest of us are grateful to you.

What can ARRL do to help? Print in QST this sort of info so that it will be available to as many as possible. It will be brought before the Board of Directors at the July meeting!

73,

Jack

W5GM

FAA MONITORING STATIONS With Two-letter Designators and Phone Numbers

AL Allegan MI	(616) 673-2063	AN Anchorage AK	(907) 344-1011
BE Belfast ME	(207) 338-4088	CA Canandaigua NY	(315) 394-4240
CH Chillicothe OH	(614) 775-6523	DS Douglas AZ	(602) 364-2133
FE Ferndale WA	(206) 354-4892	FL Ft Lauderdale FL	(305) 472-5511
GI Grand Island NB	(308) 382-4296	KI Kingsville TX	(512) 592-2531
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PS Powder Springs GA	(404) 943-5420	SS Sabana PR	(809) 784-3772
WA Washington DC	Watch Officer (202) 632-6975		
	WP Waipahu HI	(808) 677-3954	

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NOW AVAILABLE - NEW REPEATER DIRECTORY

The new ARRL Repeater Directory is out and available and it looks good. The handy $5\frac{1}{2} \times 8\frac{1}{2}$ size should fit in or under any rig or pocket and the number of repeaters listed are always interesting to note and to study.

You can get one of these Repeater Directories from ARRL, they weigh just under four ounces bare so if you allow for five ounces of postage you will be home free. If you are in a hurry you would be best to send a sase with 57¢ postage for first-class mailing. The envelope should be large enough.

Your director also has a large supply of the directories. If he is within easy reach, put the arm on him for one. They are a good item to have. And one of ARRL's free membership services... James Morris, KH6HQQ, edited the booklet. With a bit of advertising included, it runs around 88 pages.

THE WORD FROM WASHINGTON

Recent word out of Washington was that the White House was planning to eliminate the office of Telecommunications Policy, a White House agency which has at time attempted to edge out the FCC as the authority for communications policy.

The Office of Telecommunications Policy, with 59 employees plus a few more 'borrowed'. Some congressional opposition was voice to the plan. The OTP in the past was often labeled as representing commercial interests and viewpoints. One of their proposals was relative to the 220mhz band being opened to CB types.

SOME GOOD DX SAN DOMINO

From August 3rd to 17th IL7DMK will be heard from San Domino Island in the Adriatic. The operation will be headed by Massimo (Max) Di Marco out of Milano, his home call I2DMK.

Max advises that day lists (schedules) are available and should be sent to his Milano Qth. QSL to the same place with sase/sae-IRC. Look for IL7DMK at

0800-0900Z	7050kc/phone
0900-1030	14190kc/phone
1300-1530	14025kc/cw
1930-0000	14025kc/cw..looking for dx
0000-0200	7010kc/cw stations

SHORTER CALLS?

WØPY has filed a petition...RM-2907...asking for 1X1 and 2X1 calls for amateurs who have held an Amateur Extra license for at least twenty years and who hold both a first class radio telephone and radio telegraph license. Such calls would be WØW or WAØA.

SPECIAL CALLS FOR AUGUST

X01 - X02 These will be permitted for use by the VO-amateurs during the month of August 1977.

FOR SALE: Robot model 70 SSTV monitor and Robot model 80 camera with micro lens. \$495.00
Hallicrafters T.O. Keyer with Vibroplex \$65.00
Guy, K5GL, 787-9545

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

70478

In the matter of)	
)	
Deregulation of Part 97)	Docket 20777
of the Commission's Rules)	
regarding emissions au-)	RM-1429, RM-2163, RM-2170,
thorized in the Amateur)	RM-2330, RM-2429, RM-2507
Radio Service)	RM-2545, RM-2550

O R D E R

Adopted: June 22, 1977; Released: June 28, 1977

1. On March 2, 1977 the Commission adopted a First Report and Order in Docket 20777, 42 FR 14111 (1977), adopting harmonic and spurious emission standards for transmitting equipment in the Amateur Radio Service, in conformity with the requirements of the International Telecommunication Union (ITU). On June 13, 1977 the Commission released a Memorandum Opinion and Order in Docket 20777, FCC 77-379. In the Memorandum Opinion and Order, the Commission exempted amateur transmitters and transceivers (but not external radio frequency power amplifiers) built before April 15, 1977 or marketed before January 1, 1978 from the standards adopted in the First Report and Order. In so doing, however, the Commission unintentionally neglected to amend Section 97.73 of its Rules to ensure that amateur equipment exempted from the new regulations meet the previously existing spurious radiation standards. Thus, as it currently reads, Section 97.73 of the Rules imposes no spurious emission standards whatsoever on amateur transmitters operating below 235 MHz.

2. Removing all previously existing restrictions on spurious radiation from amateur transmitters exempted by the First Report and Order and operating below 235 MHz was certainly not intended by the Commission. An amendment of this nature was neither proposed nor discussed by the comments in this proceeding. By this Order we are acting to correct our error by amending Section 97.73 of the Rules to require that spurious radiation from all amateur transmitters be reduced or eliminated in accordance with good engineering practice, regardless of when the transmitters were built or first marketed. (This was the standard existing before adoption of the First Report and Order.) The specific spurious emission standards of Section 97.73 (a) and (b) continue to apply only to transmitters and transceivers built before April 15, 1977 or first marketed before January 1, 1978, and to all external radio frequency power amplifiers.

3. Authority for this amendment appears in Sections 4(1), 5(d), and 303 of the Communications Act of 1934, as amended. Because the amendment adopted herein is of an editorial character, designed solely to correct a previous error, the prior notice and public procedure provisions of the Administrative Procedure Act, 5 U.S.C. 552, are not applicable.



4. Accordingly, IT IS ORDERED that Section 97.73 of the Commission's Rules IS AMENDED as set forth below effective July 19, 1977.

FEDERAL COMMUNICATIONS COMMISSION

Richard D. Lichtwardt
Executive Director

A P P E N D I X

Part 97 of Chapter I of Title 47 of the Code of Federal Regulations is amended to read, as follows:

1. §97.73 is revised to read, as follows:

§97.73 Purity of emissions.

(a) Except for a transmitter or transceiver built before April 15, 1977 or first marketed before January 1, 1978, the mean power of any spurious emission or radiation from an amateur transmitter, transceiver, or external radio frequency power amplifier being operated with a carrier frequency below 30 MHz shall be at least 40 decibels below the mean power of the fundamental without exceeding the power of 50 milliwatts. For equipment of mean power less than five watts, the attenuation shall be at least 30 decibels.

(b) Except for a transmitter or transceiver built before April 15, 1977 or first marketed before January 1, 1978, the mean power of any spurious emission or radiation from an amateur transmitter, transceiver, or external radio frequency power amplifier being operated with a carrier frequency above 30 MHz but below 235 MHz shall be at least 60 decibels below the mean power of the fundamental. For a transmitter having a mean power of 25 watts or less, the mean power of any spurious radiation supplied to the antenna transmission line shall be at least 40 decibels below the mean power of the fundamental without exceeding the power of 25 microwatts, but need not be reduced below the power of 10 microwatts.

(c) Paragraphs (a) and (b) of this section notwithstanding, all spurious emissions or radiation from an amateur transmitter, transceiver, or external radio frequency power amplifier shall be reduced or eliminated in accordance with good engineering practice.

(d) If any spurious radiation, including chassis or power line radiation, causes harmful interference to the reception of another radio station, the licensee may be required to take steps to eliminate the interference in accordance with good engineering practice.

NOTE: For the purposes of this section, a spurious emission or radiation means any emission or radiation from a transmitter, transceiver, or external radio frequency power amplifier which is outside of the authorized Amateur Radio Service frequency band being used.

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HAM HOLIDAY 7	8	9	10	ALTUS HAM CLUB MEETS 11	12	13
14	15	26 hrs AUTO PATCH 16	17	18	VHF ACARC WATER MEETINGS 19	20
21	22	23	24	AUTO PATCH MAILS C&E 25	CORA MEETS 26	27
28	29	30	31			

See pages 2 and 37 for individual club sections

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