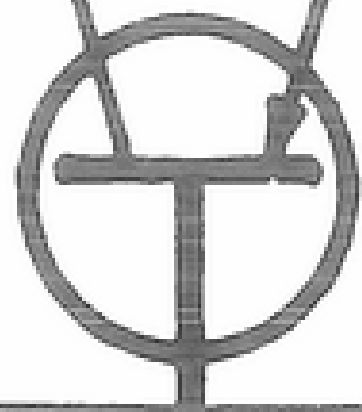


Central Oklahoma Radio Amateurs

COLLECTOR

EMITTER

AND



SINGLE COPY

25¢

AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

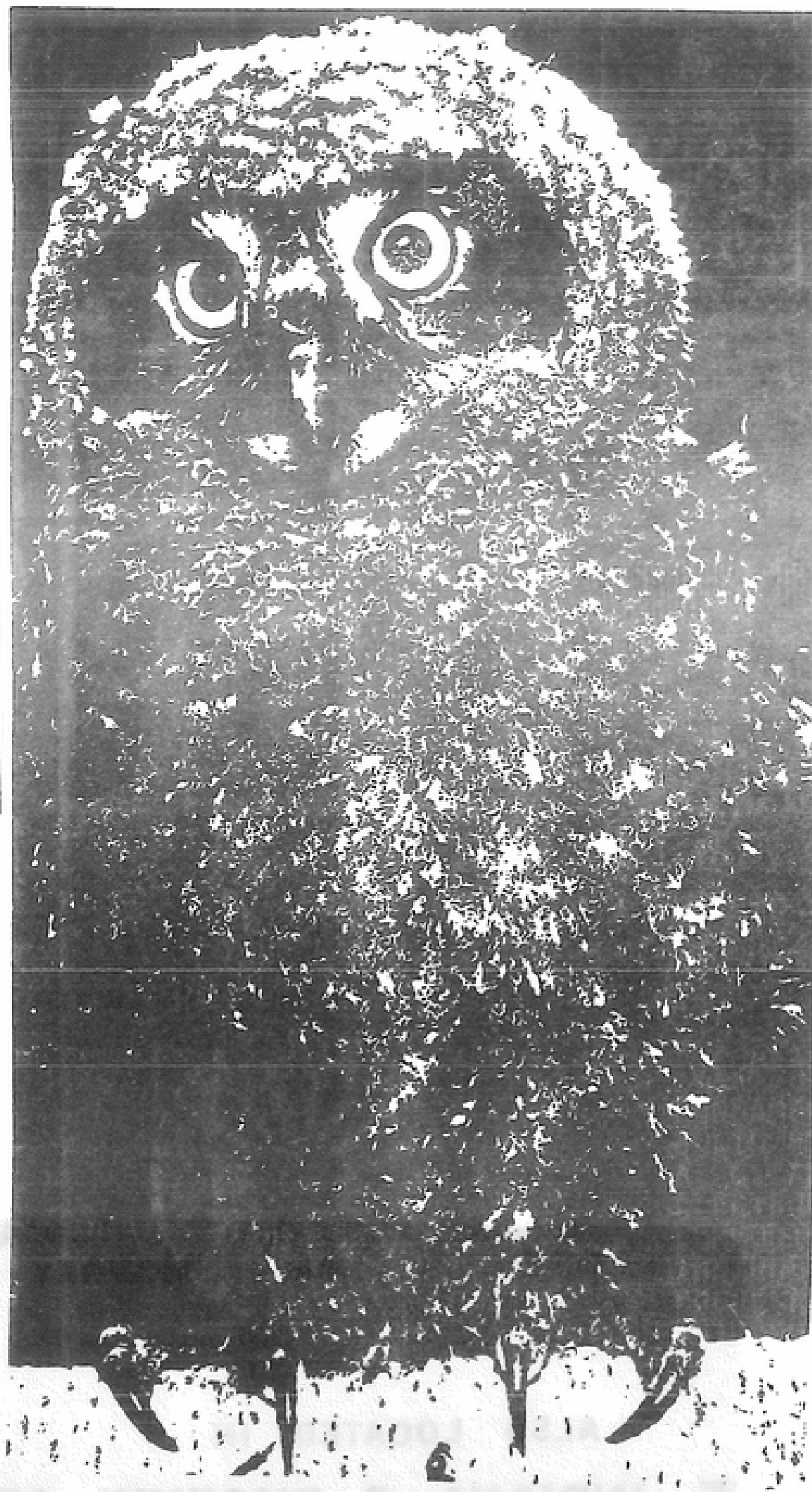
Volume 5

SEPTEMBER 1979

Number 56

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try the Night-Owl Net... see
page 10

KRYDER ELECTRONICS

YOUR COMPLETE AMATEUR RADIO STORE

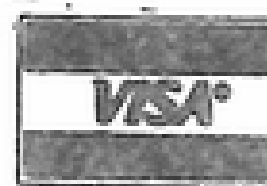
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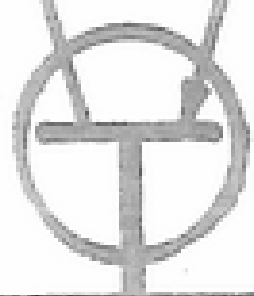
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Central Oklahoma Radio Amateurs

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.

President	Mark Northcutt	WD5DYI	842-1086
Vice President	Chuck Wilhite	K5NK	721-4926
Secretary	Jim Buswell	N5BEQ	947-1180
Treasurer	Ron Recer	WD5FRQ	751-5378

E D I T O R I A L

To those people who don't know:

It peeves me to be told how much a radio is, then two and a half months later, when it comes in, I'm told it is \$32.00 more.

I only hope other amateurs will watch their deals with stores who sell radios. *(Ed; Or anything else.)*

A lesson well learned;
Sound like a good deal, Put it in writing! Then it's a DEAL.

So others may learn too,
My steam is released.

Joe, WB5RAG

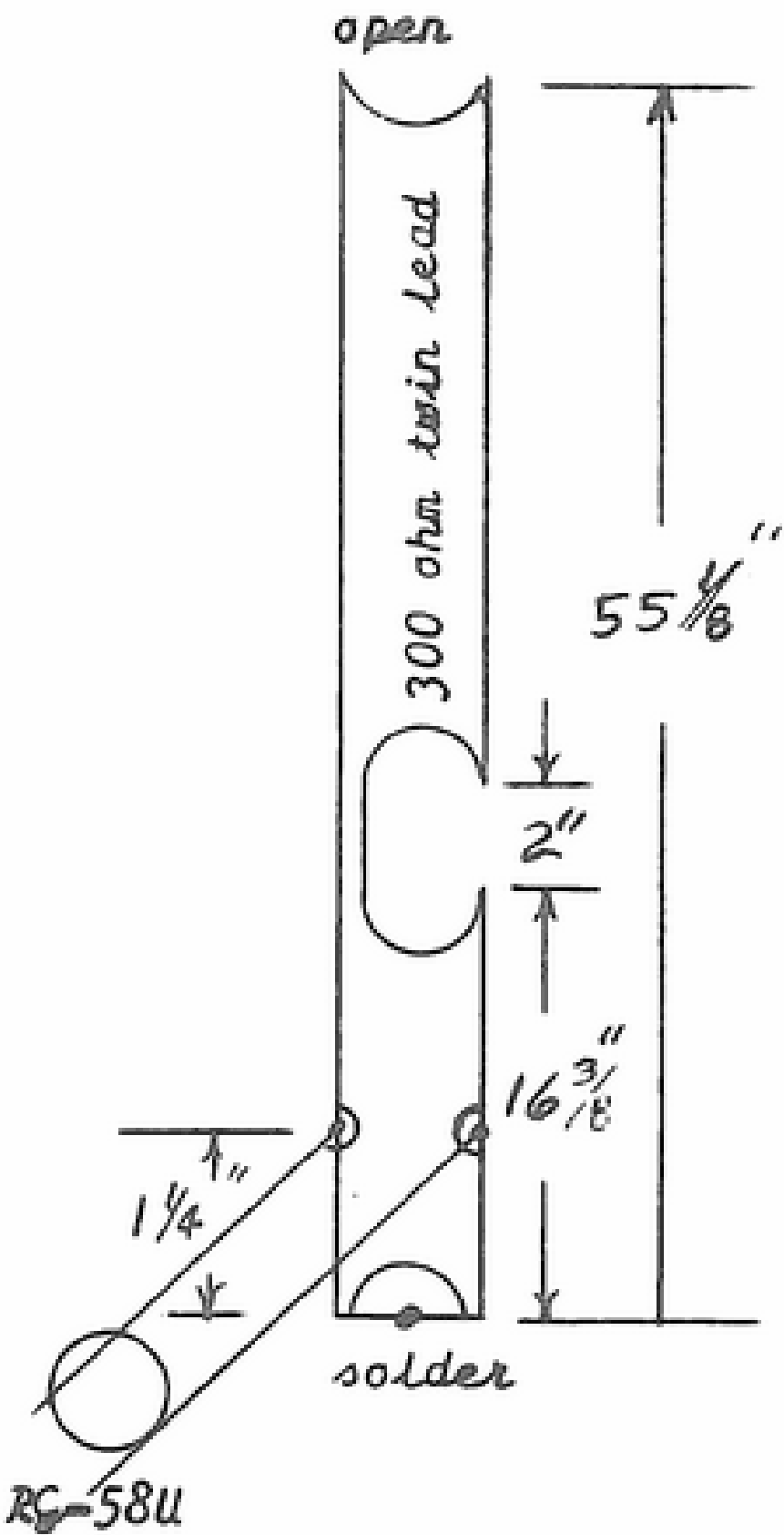
* * * * *

I N D O O R 2 M E T E R A N T E N N A

This was picked up from the TRW CROSSTALK publication.

It looks simple and would staple to a wall easily, hang from a 50' tree or any where you wanted it.

Someone build one and let us have a technical report for the next C & E. Don't send us a bill for the material , though.





MEETS: 8:00 pm First Friday each month
Flight Standards bldg, FAA Aero Center
PRES Bob Pace WA5CJG 376-3569
V-P Bill Oliver K5KDR 329-6333
SEC Bob Graham WB5NSV 677-8685

Club Editor, Bob Graham, WB5NSV

RANDOM WORDS FROM THE PRESIDENT:

Well Ham Holiday '79 is over, and it turned out to be super. I would like to thank Holly and Pat, Bob and Sandy, and my wife Jean for all their hard work to make the Ladie's Program come off so good. I was very pleased with H.H. '79 this year, since my wife won a Wilson Mark IV talkie, (for me). I am writing this months comments while my wife and I are flying a 747 to Hawaii. (I have the Wilson with me of course.)

This months meeting of the ACARC will be held at Will Rogers Park. We will join the Central Oklahoma Amateur Radio Club for a watermelon feast, and I hope everyone comes out and has a good time. I will be back for the September meeting, at the Aeronautical Center, the first Friday in September. We have a good program planned so come on out and join us.

George, W5NTL, is putting up a new trap dipole at the club station, and Bob, WB5NSV, is building the serial I/O board so the computer can be interfaced with the T.V. terminal that he built last month, Thanks George and Bob.

If you have been listening to the 25/85 repeater, you know we have been having some noise problems, Bob, WB5NSV, Holly, N5ABL, and myself, WA5CJG, went up to the repeater site about 2 weeks ago, we pulled down the antenna, and checked every connection on it, all looked good. We then discerned that the guy wires were arcing to the mast (very small arc) so we put some tygon tubing on the guy wires until we can get some insulators to put in them. Don, WD5GWH, and myself went back up about a week later, and did a little more work on the antenna system. Thanks fellows.

Back to club business, we are coming to a time of the year when we will start up the radio classes at the Red Cross, so if you can help or if you want to upgrade, come on out and join us.

Next month I will begin a series of articles on upping your frequency first to 435 MHz, then to 1296 MHz, and on up to 2304 MHz and above. We are now leaving the coast of California so Aloha until next month.

73, Bob Pace, WA5CJG

MINI-ANTENNAS

Small-size antennas are attractive things to think about, but combining small size with effective operation becomes a frustrating problem.

One possible solution is hinted at in Technical Topics section of Radio Communication for July. By cladding the radiator with a ferrite, the antenna can be shrunk to approximately one-eighth size and still retain resonance. Another blessing is that the input impedance is not as low as it would be without the cladding. Such antennas are usable over a frequency range of 5 MHz to 100 MHz.

As usual, there's a joker. As RF power goes up, the ferrite tends to saturate. I discussed this type of antenna with an engineer in a research firm some 10 or 15 years ago. That firm, looking for an antenna that would handle hundreds of kilowatts, had dropped the idea because of power limitations. Perhaps some amateur of radio communication and technology should revive the exploration!

W5JJ



Minutes of the August Meeting of the ACARC

As you are probably aware, there was no normal meeting of the Aeronautical Center Amateur Radio Club in the month of August. Instead we shared in a watermelon picnic with the Oklahoma Central Amateur Radio Club. Probably the most significant piece of business conducted was the seed spitting contest! Pat , N5PS, won the grand prize of 1 free watermelon Hi.

We have some fine programs, and interesting discussions planned for future meetings of the ACARC, and everyone is invited. So, come on out the first Friday of each month and join us.

73, Bob Graham, WB5NSV

CQ DX, CQ DX, CQ DX... and the calling seems to go on and on. It seems at times that the more you call the fewer DX stations you hear. Then at other times just walking into the shack may produce a new country at first call. There are other times, too. For example, several weeks back while assisting with the instruction chores of a Sales/Management class, someone said "RTTY." Class stops! Who said, "RTTY?" "I did" the voice replies. 9V1SI. But, Jim we've been in class two days together. You never mentioned... well neither did you. Class is dismissed for a coffee break. Ragchew increases...

*Pictured here*abouts is Jim Gauntt II, 9V1SI, of James Gauntt PTE. LTD., Singapore. During the ragchew session that immediately followed, Jim indicated that a close friend, an OK1., recommended Drake gear? So, moments later there we were sitting in front of the equipment.

Jim and his dad's company market several product lines of equipment in Singapore and Southeast Asia. One company they represent is TOTCO and its line of oil field instrumentation equipment.

In other ragchew moments, I ask Jim why we don't hear more 9VI stations on the air. He indicated that in Singapore, a country whose population runs in the millions, only about 40 - 60 Amateur licenses have been granted and that less than half of these own their gear. Half of the remaining are inactive. This leaves a very few actually on the air making for a genuine DX pile-up. Which, to say the least, is discouraging. Jim also says that the solid state equipment is nice; however, tube-type rigs are a long way from extinction in the South China Sea part of the world because of parts availability. Collins and Drake C-Line equipment brings the best price. Should any of us be fortunate enough to work Jim, he asks that we QSL direct. For him it's the easiest. Jim, good luck with the new antenna. We are listening.

WA5MLT

* Sorry, Picture submitted too late for this issue.



THE UNIVERSITY OF OKLAHOMA

CLUB EDITOR
Nathan Kirby, KB5BF

Alpha Sigma Delta Radio Fraternity

MEETS: 1st Thursday, 8 PM, (Sep-May)
Room 449, Carson Engineering Center
PRES James Gardner KA5DHF 321-8779
V-P Dan Orr WD5GKZ 325-6951
SEC Peter Richeson KA5COI 325-3015
TREAS Nathan Kirby KB5BF 364-7979

WELCOME BACK STUDENTS

A big welcome to you who are returning to the campus. Hope your summer was enjoyable. The first meeting of the club is scheduled for September 6th. This is a Thursday night. Since we do not know the empty classroom situation, Jim Gardner, our illustrious leader, suggests we meet at the ham shack located on the 4th floor of the Carson Engineering Center at 8 PM. This will give you a chance to eyeball the new Kenwood TS-820S station before we have our first monthly meeting. Jim says the first priority of business will be to elect a new slate of officers for the 79-80 school year. We made a lot of progress last year but we can't dwell on the past; we must forge ahead. One of our first priorities, as I visualize, is building our student membership. Several talented Norman hams will be assisting you but, as usual, the on-campus activities must be performed by you, the on-campus student. Some of the on-campus activities are mentioned this month.

CARL HOROWITZ WB5QNK TO ORGANIZE FOOTBALL GAME COVERAGE

Carl Horowitz, an O.U. Club member, a Norman resident and U.S. Postal Institute instructor, has volunteered to relieve Jim Gardner as organizer of our football game coverage. Jim, who works part time for WKY, has had a change in work schedule which will require he work at the WKY studios on game days. Carl is a former president of another fine ham club in Norman, the South Canadian Amateur Radio Society (SCARS), and a talented and energetic organizer in his own right. Club visibility at the football games was a key factor in our on-campus visibility last year. This visibility on campus is vitally important when we ask the student congress for funding. We may not receive the funding we want every year, but if we are always highly visible as a campus service organization, it will be difficult for any particular congressman to challenge our service role to the entire campus.

A new wrinkle on our football game coverage is the participation of Norman and Oklahoma City area hams on the game days of Sept. 15 (Iowa), Sept. 22 (Tulsa), Oct. 6 (Colorado), Oct. 27 (Iowa State), Nov. 10 (Kansas State), or Nov. 24 (Nebraska). If you have a two meter talkie with 146.28/88 crystals or 146.52 crystals or have a mobile 2 meter rig, call Carl right now to let him know when you want to work a game. We must have at least 10 hams to perform the coverage so let's not leave Carl hanging until the last minute on whether we will work a game. The June, 1979 issue of the C&E has a detailed plan of how the effort is organized if you want to read further. Carl Horowitz WB5QNK can be reached at 360-1819 for more information.

ASDRF AND SCARS TO PRESENT GENERAL CLASS LICENSE INSTRUCTION

The lessons learned from our Novice class held last fall were discussed at a meeting called by our president in July. As a result Jim has asked another talented O.U. club and SCARS club member to assume the role of organizing these classes. JOE GREEN, KA5AXQ, a public school teacher and O.U. graduate student will organize the general license classes. We are also fortunate to have JACK BICKHAM WB5TZZ to be in charge of newspaper publicity for the class. Jack is a member of SCARS and a financial benefactor of the O.U. WR5AFW repeater. Jack is a professor in the Journalism college and has authored several novels. Jack is the Secretary of SCARS and is the Cleveland County Emergency Coordinator for the ARRL. Some interesting and significant points learned about the class this Fall are:

1. The class will be jointly sponsored by the Alpha Sigma Delta Radio Fraternity and the South Canadian Amateur Radio Society.
2. Class will be open to all interested persons both on campus and Norman area residents.
3. The instructor lesson plan to be used was written entirely by JOE BUSWELL K5JB. Joe is club editor for the Oklahoma Center VHF Amateur Radio Club and is a regular technical contributor to the Collector and



Alpha Sigma Delta Radio Fraternity
since June 10, 1924

Dedicated to serving The University, the community
and introducing amateur radio to tomorrow's leaders.

Emitter. Joe holds an Amateur Extra class license. The instructor's lesson plan is extremely detailed, well written, and complete and is a tremendous improvement over the somewhat disjointed ARRL Novice course we used last year.

4. Classes will be held in a location accessible to both O.U. students and Norman area residents. If such a location cannot be found, transportation will be provided those students who do not own cars.
5. The instruction will cover the written material to enable participants to pass the written test for the Technician and General class of license.
6. O.U. and SCARS club members will be available to give the Novice code and written tests at any point in the course when a participant feels he is ready.
7. Class members who already have a Novice ticket will be prepared to take the Technician and General written (it's the same test) when the FCC comes to Oklahoma City on January 8, 1980. A review will be given to all students the week before and application forms to take the FCC test will be passed out during class. If we are lucky, we may even get Joe Buswell, K5JB; to give the review in person. The climax to the course will be seeing a maximum of our campus students and Norman area residents take and pass the Technician and General written on January 8, 1980. (Exact date may be subject to slight change by FCC - Dallas office)

I do not know what decision Joe Green KA5AXQ has reached on whether to have code during class. This General License course is an ambitious undertaking for both the ASDRF and SCARS. Joe will need lots of help from both clubs if this worthy undertaking is to be successful. Please call Joe Green at 364-4301 for further information.

"IT'S NOT JUST A JOB IT'S AN ADVENTURE"

As many of you know your club editor is a member of the Reserve of the U. S. Navy. My rate is AZ1 (Aviation Administration). My unit is VR-53. One weekend a month one of our C-118B aircraft flies to Tinker and picks us up for our weekend drill. The C-118B is the same aircraft as the old (old) DC-6 that the airlines flew over twenty years ago. It is a four engined propeller driven aircraft that is probably the oldest aircraft in the Navy still flying. On domestic flights carrying passengers or cargo, we do not carry a Radioman or a Navigator. (Ask a Navy Pilot where you are when flying and they will invariably say "Don't really know, we're still figuring out how to fly this thing" or they will say "we're searching for a little piece of concrete down there" or they will say "don't know where we are - we're working on keeping altitude right now"). Actually, most of the pilots in VR-53 are active airline pilots for Braniff and other Dallas based airlines. They seem to enjoy flying the old C-118's on weekends. As you read this, I will be doing my part to make the world "safe for democracy" by doing my two weeks active duty. I believe the National Guard is a fine organization but crawling in the Arkansas mud has never seemed very appealing to me. My last two years were with another Navy squadron so I spent my two weeks at NAS North Island in San Diego. It was nice to go down to Coronado Beach in San Diego and play in the surf but this year I must go where my new squadron deploys. Four times a year, VR-53 takes an airplane to Naval Station Rota, Spain and flies cargo and passenger flights for the Mediterranean Command. Rota is close to Cadiz on the southwestern coast of Spain just above Gibraltar on the Atlantic side. Since there is only one airplane to keep flying and only a handful of us I hope to be able to travel around the Spanish countryside some. Yes, my fellow amateurs, it will really be rough duty. I do want all of you to know I will be doing my patriotic best to endure this arduous duty. You can sleep especially secure tonight knowing your Navy Reserve is awake (so now you know why you have been so restless and unable to sleep nights)

THE UNIVERSITY OF OKLAHOMA NORMAN, OKLAHOMA

W5TC - CLUB STATION using ALL HIGH FREQUENCY (HF) AMATEUR RADIO BANDS
Trustee - John Stehr N5ABC - home telephone 364-8761
WR5AFW - VHF REPEATER input 146.28 MHz output 146.88 MHz
Trustee - Michael Salem N5MS - home telephone 321-5453

UPGRADES

Bob Fields N5ALG - General to Advanced

Bob Fields is a member of SCARS but is a financial benefactor of the WR5AFW repeater in Norman. He is an independent businessman and sailing enthusiast. I know Bob worked real hard to upgrade and all of us in the ASDRF and SCARS offer him a big congratulations!



THE AMERICAN RADIO RELAY LEAGUE, INC.

140 WEST 43RD STREET, NEWINGTON, CONNECTICUT 06111

July 18, 1979

Nathan Kirby KB5BF
1214 Barkley Ave.
Norman, OK 73071

Dear Nathan:

I read (and enjoyed) in the Collector and Emitter about the early days of the ASDRS club and decided to look at our records. I found that the Alpha Sigma Delta Radio Fraternity of Norman OK, was affiliated on June 10, 1924, way before 1931 as your records show. That's "Roots!" I looked for the club file and found none. Many of our really old club files are missing. The club file card shows that an R.C. Sweet of 737 Jenkins Avenue, Norman, was secretary in 1924. Then in 1971 the ASDRS of OU affiliated. That should not have really happened, as the earlier club was affiliated in 1924. All that really needed to happen, was to reactivate the old affiliation. In 1978 the club's files were put with other inactive clubs as we hadn't received an annual report in 1976 or 1977. We wrote to Kenny Hutchison in 1978, asking him to please fill out and return the report forms, but we never got an answer. We have a tough time keeping school clubs actively affiliated because of the turn-over of students. We'd really like to have the club actively affiliated again and I hope you'll fill out and return the enclosed sheets. I've also enclosed some material from past mailings.

Also, I'd like to have any reports or documents that the club did up in order to convince the Student Congress to appropriate money for the station. That was quite an accomplishment! We occasionally have school clubs write, asking for ideas on how to do exactly what you did. It'd be nice to have something to send, that worked so successfully. Please? Again, congrats.

73,

Rosalie

Rosalie White, WA1STO
Manager, Club & Training Dept.

Nathan Kirby KB5BF

FOR SALE: Motorola HT-220 Omni model with power deck, 4½ watts. Has International crystals for 52/52, 22/82, 25/85, and 28/88. New case, belt clip, charger. Went through a commercial shop for tuneup less than a year ago. I have over \$500 in the rig, will listen to any reasonable offer. Jack, WB5TZZ, 329-1311 in Norman.

September 1979

-8-

CORA Collector & Emitter



CLUB EDITOR
George Lee. WB5NMK. 946-2754

MEETS: 8:00 PM First Tuesday of month
Okla City EOC, 4600 N Eastern
PRES Chuck Wilhite K5NK 721-4926
V-P Bill Atkins N5AH 737-6984
SEC/TR Jim Jones K5PER 634-5235
Dues: Sid Gerber, 829 Bouse, WMC 73110

THE REGULAR CLUB MEETING WAS COMBINED WITH A PICNIC, AUG. 7, 1969, AT THE NORTH SHELTER OF WILL ROGERS PARK, INSTEAD OF THE USUAL E. O. C. MEETING PLACE. EVERYBODY FURNISHED HIS OWN PICNIC LUNCH, EXCEPT THE DRINKS. THE CLUB FURNISHED THE DRINKS--SOFT DRINKS, OF COURSE! AFTER DRIVING AROUND THE PARK FOR A WHILE, AND SOME RADIO CONTACTS, I FOUND THE NORTH SHELTER AFTER PASSING IT ONCE WITHOUT RECOGNIZING IT. THERE HAVE BEEN SO MANY CHANGES IN SCENERY IN THE LAST FORTY YEARS, THAT OLD MEMORIES ARE USELESS. WE CAME INTO THE PARK FROM AN UNACCUSTOMED ENTRY AND WOUND UP AT THE SOUTH SHELTER FIRST.

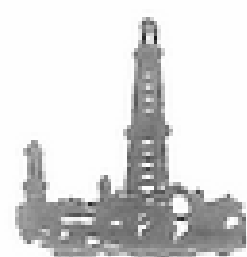
DO YOU KNOW THAT THE PICNIC SHELTERS ARE AMONG THE FEW IMPROVEMENTS REMAINING, THAT WERE BUILT BY THE C.C.C. BOYS BACK IN THE 1930's? (JUST THOUGHT THAT MIGHT BE INTERESTING). NUMEROUS CHANGES AND IMPROVEMENTS (?) HAVE BEEN MADE SINCE.

THERE WERE AN ESTIMATED SIXTY TO SEVENTY-FIVE PEOPLE THERE. (MY ESTIMATE, I DIDN'T COUNT THEM). IT WAS A GOOD ATTENDANCE, AND I BELIEVE ALL OF US ENJOYED IT. IT'S GOOD TO MEET THE FACES THAT GO WITH THE VOICES YOU HEAR OVER THE RADIO. ONE NICE THING I HAVE NOTICED IS THE INCREASING NUMBER OF YF'S AND YL'S THAT ARE BECOMING HAMS. THE SCENERY IS IMPROVING!!

CHUCK CALLED A BRIEF SESSION FOR BUSINESS AFTER WE FINISHED STUFFING OURSELVES. THE ITEMS MENTIONED BELOW ARE FROM AN IMPERFECT MEMORY, BECAUSE NO NOTES WERE TAKEN.

CORA HAS DECIDED THAT THE PARTICIPATING CLUBS FOR EAM HOLIDAY WILL HAVE THE SAME JOBS IN 1980. WE ALL OWE THEM A VOTE OF THANKS FOR A JOB WELL DONE. CHUCK, I BELIEVE, WILL CHAIR THE COMMITTEE FOR THIS. I WOULD LIKE TO CONGRATULATE CHUCK ON THE EXCELLENT WAY HE HANDLED THE PRIZE DRAWINGS. I WONDER IF HE WASN'T JUST SLIGHTLY HOARSE THE NEXT DAY? HE PRESIDED OVER A LONG MEETING, AND WAS DOING MOST OF THE ANNOUNCING.

ANOTHER ITEM WAS ACTION FOR A COMMITTEE FOR NOMINATION OF OFFICERS NEXT YEAR. CHUCK, I UNDERSTAND, WILL REMAIN AT CORA FOR US THIS NEXT YEAR. TOO BAD I DIDN'T COME PREPARED TO MAKE NOTES, I AM AFRAID I'M FORGETTING SOMETHING.



MID-OKLAHOMA REPEATER INC.

ABOUT THE HAM HOLIDAY, I SPENT A BUSY DAY WITH MY SISTER'S HUSBAND, LOOKING AND LOOKING, AND DIDN'T GET UPSTAIRS TO THE NEW EXHIBITS. I UNDERSTAND THE EXHIBITS WERE GOOD. I GOT UPSTAIRS, SUNDAY, WHEN ALL WERE PACKED AND LEAVING, SO I MISSED IT. THE LECTURES, ETC., I ATTENDED WERE VERY INTERESTING AND EDUCATIONAL.

ON SUNDAY, AFTER CHURCH, I RETURNED FOR THE DRAWINGS. A LOT OF PEOPLE WON PRIZES THAT SEEMED QUITE NICE. I BELIEVE ALL HAD A VERY GOOD TIME.

WELL, SO MUCH, FOR NOT SO MUCH TO SAY. HOPEFULLY, WE WILL SEE YOU AT NEXT YEAR'S HAM HOLIDAY.

GEORGE, WB5NMK

FOR SALE: Dentron GLA-1000 Linear Amplifier (converted for 10M) \$275.00
H. O. WA5MLT 329-4426

Late-Night Amateur Radio is ALIVE

AFTER THE TEN O'CLOCK NEWS AND JOHNNY CARSON'S MONOLOGUE, MANY OKLAHOMA AMATEURS ARE FINDING SOMETHING REFRESHING ON TWO METERS. MOBILES OUT-AND-ABOUT, LATE-SHIFT WORKERS, AND RELATIVELY DISTANT HAMS KNOW OF IT, TOO. IT'S CALLED THE NIGHT OWL NET, THE BEST WAY TO KEEP IN TOUCH WITH AMATEURS IN OKLAHOMA. EVERY AMATEUR, TECHNICIAN CLASS AND HIGHER IS WELCOME TO PARTICIPATE. THE NET PROVIDES ASSISTANCE TO MOBILES, PASSES TRAFFIC AND KEEPS THE BAND ALIVE WITH GOOD AMATEUR CONVERSATION. JOIN US ANY EVENING AT 10:30 P.M. - EVEN ON WEEKENDS. YOU MAY GET HOOKED!

The Night-Owl Net
146.07/.67 Oklahoma City

Shawnee Amateur Radio Club



W5SXA

MEETS: 8:00 PM, 2nd & 4th Tuesday
Shawnee City Hall, EOC
Pres Earl Couch WB5ZBA
V-P Jay Tingler WD5BUQ
Sec/Tr Bill Warren WB5TZQ
CLUB EDITOR Jay Tingler, WD5BUQ

FIELD DAY IS SPELLED R-A-I-N: The SARC FD site for 1979 was Shawnee Lake. (We meant to be just near it; not in it.) There were four HF stations established - one A1 and three A3. Operation was mostly on 40 and 15 meters; all on emergency power. The most exotic contact made was with Quito, Equidor. The other extreme was represented by El Reno, OK. The final score is still being tabulated but will be well over 4,000 points. The food provided by the YL's was EXCELLENT; the steaks were superb; everyone got wet; Jim's XYL had a flat tire; and an excellent time was had by all!!

HARMONICS: Ron, WB5UPU was passing out cigars last meeting night. Miss Shanna Re-nee Phillips made her appearance on July 1, 1979 - - - (7 lb, 6 oz). Mother, Cindy and daughter both fine.

DRIP - DRIP - DRIP DEPARTMENT: The jury is still out on the clubhouse rehabilitation project. A committee took a look at the possibilities for putting on a new roof and decided it wouldn't work.... The existing roof will be repaired and better drainage provided.

THANKS AND A TIP-OF-THE-HAT, ETC: Many thanks to Bill, KB5BS for his visit on July 24. His talk and demonstration on Direction Finding and transmitter hunting techniques was very informative and helpful. He was also kind enough to bring along his deviation meter so that some of us could check our 2 mtr. FM gear.

OTHER HOBBIES I HAVE TRIED DEPARTMENT: Number 5 at Shaw AFB, SC is a 151 yard, par three hole that any self-respecting jock who knows his mashie from his putter can make with one hand in his pocket - - - -. Except for the psychology of it. Golf pros and course architects being how they are and all, Number 5 is all water from tee to green. One hot, muggy July afternoon more years ago than I care to admit, I was trying out this other hobby. At Number 5, with the naivety of the duffer I was and the confidence of a pro, I teed up, selected my best five (?) iron and proceeded to top the ball. It cleared the near bank by about 15 feet. The second ball - I think I changed to the three iron - did a little better. It splashed in about 50 feet short of the far shore. The third ball - still with the long iron - came to rest in three inches of water at lake's edge. It was in the clear, on firm sand so I decided to play it. (I was running low on balls.) The chip went all the way over the green into a canyon on the other side and left me wet clear up to ---! Two more shots and I was on the green. After two-putting back into the lake, a certain rumbling from deep inside told me that a significant turning point in my life was at hand. After careful consideration, I returned the putter to its slot in the bag, picked up the bag, clubs, cart and all; hoisted them high over my head;

SPTS 1979-THERE'S A SATELLITE IN YOUR FUTURE SOMEWHERE

The decision was really not a very easy one to make. Should I consider a short vacation before settling down to the serious business of the OU football season or should I take that short week and attend the World's first Satellite Private Terminal Seminar (SPTS 1979) scheduled for Oklahoma City the middle of August? Sure, I have considered the possibility of constructing a private satellite terminal for some time, but the cost of the commercial units still hovered in the \$6,000 to \$10,000 range. This still wasn't too bad when you consider that the units like the big boys used cost over \$100,000 and that wasn't too very long ago. All this heat and lite was generated last November when Bob Cooper W5KHT presented a program in Norman for the SCARS Radio Club in which he described his own home satellite terminal which received some 40 channels of TV programming direct from the "Bird." Visions of watching unedited versions of the Tonight Show as the program was beamed from Burbank to New York danced in my head. I could give up that lip reading correspondence course I had been working on to slip by Ms. Priscilla Goodbody, the NBC censor. As if this wasn't enough, there were some nine different first run movie (they call them prime) sources currently running on the satellite with the microwave spigot just ready to turn on for the price of a home terminal. The quick and simple recipe was to whip up a Low Noise Amplifier (LNA) with about 50 db of gain and 120⁰ K noise figure, add a few microwave components (of various surplus or new vintage) spice with a 10 to 12 foot parabolic reflecting surface (or spherical in some neighborhoods) and you can conjure up the magical mystery of satellite TV reception.

All well and good so far, but there are a few minor hurdles to overcome. First, my cash flow would not support the now estimated cost of \$4,000.00 for such a simple system purchased from commercial suppliers. Second, I had to come up with the \$125.00 fee for the Seminar. Not really an unreasonable fee when you consider that I get circulars for technical seminars all the way from \$125.00 to over \$400.00. It sort of reminds me of the story of the real estate agent who went to his client and told him he had good news and bad news. The good news was that he had swung a \$2 million dollar deal for some real estate. The bad news was that they had to come up with \$500.00 earnest money. Amen.

Well, I saw Bob at his presentation here in Norman and again at Ham Holiday and found them both to be excellent presentations. In addition, he had invited Taylor Howard W6HD and Robert Coleman, two proponents of low cost satellite reception techniques. Bob also promised construction details on the various efforts by Tay and Bob dealing with new and surplus construction of home terminals. Well, the offer was getting attractive. Still, there would be a lot of information that would be thrown my way in the three days. It would take a lot of fast scribbling to get it all down. I mean, Bob talks pretty fast. In my recent subscription to CATJ Magazine, which had been edited by Bob until last May, the latest issue indicated that participants would be invited to bring their own video tape recorders and make their own permanent copies of the proceedings. That cinched it. I would have a complete permanent record of all the goings on for casual reference at a later date and in full color yet. I made arrangements to obtain a video recorder for use during the week.

I waited until mid July to sign up and got my registration back fairly quickly. I was number 175. The seminar had been tentatively set for 300 registrants. The other slots filled up rather quickly I later found out so quickly that Susan Cooper, Bob's wife, was getting obscene phone calls from disgruntled applicants who had their letters returned unfilled. Apparently the Seminar had become a hot item ticket.

I checked to see if I could clear a week on the calendar. Since the Seminar did not actually start until Tuesday, I moved a few items here and there and left Friday open just in case something good came up. I had to do a little jockeying

with WD5FVI to coordinate our respective departures. (Humph. He said he was going to San Francisco claiming he would have a good time. Sniff.)

A minor problem cropped up the Thursday before the Seminar was scheduled to begin. Apparently the local MultiPoint Distribution System operator became a bit miffed and took exception to a part of the Seminar which taught the "secrets" of microwave reception in the 2.0 Ghz region. Together with a national common carrier organization, they filed a suit in the local Federal Court to enjoin the proceedings. Bob was served only hours before a schedule preliminary injunction hearing and had to drop everything and run down to the Courthouse at 4th and Robinson. Fortunately, the "Freedom of Speech" clause of the First Amendment won out and the seminar went on the road as planned. As Bob said in his opening remarks on Tuesday, he didn't know whether he feared walking into that Courtroom more than he feared the possibility that he would have to face many of the attendees and tell them that he would not be able to go ahead as scheduled. People had been scheduled to attend from many far away states of the union and a few foreign countries.

I showed up the first day with my tape recorder and several rolls of tape. Yee Gods! I wasn't the only one with this idea. I found myself crowded into a small communications with some 62 other enthusiasts and their Betamax's and VHS machines. Fortunately, I had been prewarned in a pow wow by telephone the nite before with Charles WA4PLG who works at South Oklahoma City Junior College. I grabbed a piece of choice real estate (on the floor) and traced an RF chain back to the source and ran a couple of checks. Fortunately, I took my minature VTR monitor with me to check video output and it saved my hash several times during the recording and editing sessions. Others had to guess as to the success of their recordings. In addition, I also broke up some of the monotony of the tape room by playing the Blues Brothers from a Saturday Nite Live recording. I also found a few other enthusiasts had some other recordings of questionable heritage and dubious quality. Some were quite hilarious. Well, my primary interest was technical.

The video tape recorder brought about a freedome that I never dreamed could exist. I actually spent less than 50% of my time actually attending what was going on in the main program room. I was able to flit around from program to program, sampling a little of each one and then moving onto the next program or exhibit. Extra frosting on the cake was presented in the form of a technical lecture series by Paul Shuch, a professor at San Jose State College and President of Microcomm. The Shuch lecture series was outstanding and was so well attended that the tape of this series had to be ran on the video system at times when there was no activity going on so that everybody could see Paul. Paul's lecture represented along with Tay Howard and Bob Coleman, the technical aspect of the seminar. A discussion on antennas was presented by Oliver Swan, a pioneer in the use of spherical antennas, good friend Tony Bickel K5PJR, and Jim Vines of Paraframe. Tony talked about antennas and mounts. It's not easy to control a 10 to 12 foot dish on a support and swing it with accuracy to within one half of a degree. Tony explained how. Some of the seminars covered the business opportunities that are available to persons who want to set themselves in this new and fledgling business. This is like computers for home use in its infancy. More of the manufacturers are either large concerns or small mom and pop outfits.

Wednesday nite featured a discussion on TV reception techniques in the 2.0 to 2.5 Ghz band. I suppose that there were more than a few people from the local MDS operation in attendance.

For those of you who remember the discussion in the December 1978 issue of C & E regarding Satellite receivers for home use, you may recall that these transmissions are protected by §05 of the Communications Act of 1934 (Title

47 of the United States Code) which prohibits their interception and use by unauthorized persons. There are also copyright problems to be overcome since the owners of the materials being transmitted have the right to obtain a fee for the use of their programs. The final presentation on Thursday embraced the legal problems of establishing a home terminal. Several announcements were made of considerable interest. First, with the assistance of Scientific Atlanta and their HomeSat plan, the FCC announced that they would begin routinely processing private terminal licenses on a registration basis. This means that there would be no frequency coordination so the user builds the terminal at his own risk of interference. But the Commission has apparently recognized that reception is going to occur and that the priority for licensing receive only terminals is fairly low, so why not do it and let the chips fall where they may. It would be up to the individual user to avoid copyright problems. The second announcement of importance was made by Al Parinella of Warner Cable Corporation to the effect that they would begin licensing home satellite terminals for reception of their satellite transmissions. The crack in the citadel was extended even further with an announcement by Southern Satellites Systems which carries WTCG of Atlanta (whose call letters were recently changed to WTBS) that they would also license home users. Home Box Office and others still do not (and apparently cannot) license home users directly, but there is no doubt that they will watch the Warner action with interest. The fact is that these programming sources are not really interested in home terminal users, yet. The number of such terminals is not significant for them to worry about. There is no doubt that the number of private terminals will increase. Manufacturers will increasingly enter the field with low cost equipment and it will not be unreasonable for a complete terminal to drop to \$1,000 to \$2,000 within a couple of years. At some point, the number of users will reach a critical mass and the programming sources will have to take notice.

Programming will ultimately recognize the utility of broadcasting directly to homes and there is much speculation that satellite broadcasting will move to the 12 GHz band with high powered satellite transponders so that small 2 foot dishes mounted on your roof will be all that is needed for reception.

Oklahoma was well represented by manufacturers at the Seminar. International Crystal has jumped into the receiver manufacturing business with their TV-4200, a fully agile 24 channel receiver with both 0.2 and 6.8 Mhz audio subcarrier detectors for just \$1,995.00. United States Tower Company of Afton, Oklahoma previewed a line of dish antennas and mounts. Microcom Consultants of Boise City, Oklahoma now represent HomeSat in this area for the home terminal marketing division of Scientific Atlanta, a cable industry giant. HomeSat plans to help with licensing, installation, and programming fees. Paraframe R & D showed their new home satellite dish constructed of fiberglass reinforced pine wood segments prestressed into multilayered structural laminations. Avcom of Virginia also demonstrated a satellite video receiver and so did Scientific Communications Company of Garland, Texas. Their LNA's are very popular in the industry.

Gardiner Communications Corporation of Houston, Texas offered an earth station package in the 5 meter dish size and perhaps the most innovative method yet presented to license the programming from the "Birds." If you register your home reception terminal with Gardiner, they will approach the various program sources as a single group and negotiate licensing fees just as a cable TV company would for its customers. Since most of the programming sources cannot license direct to home customers, Gardiner becomes an intermediary acting just like your friendly local neighborhood cable company. One of the nightmares that result from home licensing is the bookkeeping problems that result. For example, WTBS licenses their programs for \$5.00 a month because that is their minimum billing. They don't want to do it for less. They charge cable operators, however, just 10¢ per subscriber. This represents quite a difference in charge. Od-

viously the problem is primarily bookkeeping. WTBS has a maximum that they charge cable operators for licensing fees. No doubt they would charge no fee at all if they could. However, because they appear on the satellite as a common carrier, they must charge something. One solution in the case of WTCG is to go together with a number of your friends and pay a fee based on a MATV (Master Antenna Television System) user which is 10¢ a subscriber with a minimum of \$5.00. No doubt Southern Satellite Systems is interested in increasing the number of viewers for WTBS since advertising revenue is directly related the number of viewers (a hard fact of life learned from the TV ratings game). WTBS is rapidly approaching a potential viewing audience equivalent to that offered by some of the medium size networks. Cable TV companies routinely pick WTBS and its 24 hour programming for distribution on their cable systems. The all night movies and wacky news reports have a slight touch of irreverance and humor. As previously indicated, there are some nine different movie services similiar to HBO and Fanfare now on the satellite.

What is the ultimate upshot of all this? Well, for sure, Satellite TV is and will be here to stay, whether it expands in the 3.7 to 4.2 Ghz band or moves up to the 12 Ghz band. There should be no doubt that diversity offered by the Satellites will upset local TV and radio stations and the national networks. Why has cable TV been slow to develop in metropolitan areas? The reasons are multiple, but you can be sure that local stations feel threatened when their audience is diluted by a 30 channel cable system. Cable has not been installed just because there are 5 TV stations already in Oklahoma City. The diversity offered by cable is so clearly superior to the commercial station operations and yet more popularly oriented than the Public stations and educational channels.

There are plenty of opportunities for people interested in pursuing this from a business aspect. Several of the attendees at the seminar were doing just that. Others were there because they were, in the words of one of the attendees, "Gee Whiz Kids." That is, they saw the announcement in the magazine and said "Gee Whiz, I really would like to go to that." The attendees came from a multitude of different backgrounds and employments, but with one interest. I was thankful to my video tape recorder for letting me take the time to talk and visit with the variety of people who were there. I also found that many of them were eager home brew artists who had whipped together nifty projects of various types and sophistication. And many were willing to share there knowledge. Like the Video recorder repairman who explained that you could change the speed of the machine right in the middle of a record session without missing a lick because the machine took its sync from the tape directly and slowed or speeded up according to the distance between the pulses on the tape and not from any speed standard. Also that the "hook" that occurs at the top of the TV screen when playing back certain programs was the result of an AFC problem in the sync circuit and detailed how to find information to correct the problem. I truly enjoyed dinner with several of the crowd and the lively discussions that ensued.

The facilities at South Oklahoma Junior College were well planned and appropriate with numerous TV studio cameras and a full TV control room. It is my understanding that the various seminars and programs will be available for viewing from Bob Cooper on a purchase basis and that various segments will be broadcast on the satellite later in the fall. I also understand that Bob has planned another seminar for the South Florida area in Mid-January of 1980 and the San Francisco Bay Area in mid-March. (Hum, that might be a reason to make San Francisco a fun spot much like WD5FVI did) Additional information on the tape programs and construction plans are available from: Satellite Television Technology, P. O. Box G, Arcadia, Oklahoma 73007. Good Show!!

Micheal Salem N5MS

CAUTION--YOUR BEARCAT MAY BE HAZARDOUS TO YOUR HEALTH DEPT.

I got an interesting letter and collection of materials from John Nelson W5AVK after the article I wrote concerning the statute that permits the issuance of special personal identification plates and cards for amateur operators. I reproduce John's delightful letter in full below:

There are more legal working laws on the statutes of Oklahoma relating to amateur operators than I read in your articles in C & E. You may be interested in the following eye ball information.

I was moving to Woodward the night of the tornado, but could not get in, so I came on to Norman to dump my load. A Mr. Story, the local lineman at Woodward got one telephone line routed by early morning and had communications established.

This happened before the Highway Patrol had their two way radios, (not counting the old home built one we installed in the Commissioner's car in 1938 on 1626 KHz).

In the early 1950's many amateurs installed home built 75 meter two way radios in their cars, they chased storms and did some emergency work.

By the 1960's the two way single frequency toys were on the market with superregenerative oscillators, and were being used in Oklahoma City rather profusely by burglars. They operated several outposts while one or more did the break-ins. Also these burglars could tune the transistor radios to the UHF PD frequencies. At the time many PD frequencies were changed to UHF using surplus UHF equipment from WW2 aircraft.

Soooo, our Oklahoma Senators and Representatives got together and passed the emergency statute enclosed which is an original copy as passed in 1961.

I got busy on the typewriter and spread the news to the ARRL, amateur friends in the FCC, Senators and Representatives and others.

In 1966, a radio dispatcher at a local taxi company in Norman had a PD receiver on his desk and was listening to PD calls (UHF). He was arrested by a visiting policeman as shown by the enclosed clippings. Later, the case was tossed out of court. This was just about the time that UHF sets became cheap enough for the public to purchase.

I haven't kept up with the changes in the laws, but I thought that you might be interested in a bit of legal history. I am also looking for documents from the time when it was legal for a person to have a commercial broadcast station in the state. No license was required if it could not be heard across the state line. . . . and there were several. John Nelson W5AVK

The Bill cited by John was Enrolled Senate Bill No. 262 found in Title 21 O.S. 1961, §1214 which made it a misdemeanor for any person "not acting in his official capacity as a law enforcement officer, ambulance driver, doctor of medicine or osteopathy, or other state, county, or city officer to own and operate on or about his person or in a motor vehicle a radio receiving set which is capable of receiving on frequencies assigned by the Federal Communications Commission for the use of police or other law enforcement agencies, unless such operator and radio set has been issued a permit therefor by the Commissioner of the Oklahoma Department of Public Safety as authorized by the authority granted such Commissioner by the Federal Communications Commission, or unless the operator of such radio set holds a license for its operation from the Federal Communications Commission.

Well, John, your prayers were answered, but it took several years to do it. Just about four to be exact. I did some rooting around at the OU Law Library and stumbled upon the amended version of the law. Actually, the law was amended in 1965 and again in 1970. I don't what changes were made the first time, but the present version of the law is as follows:

It shall be unlawful for any person to operate a mobile radio capable of receiving transmissions made by any law enforcement agency for illegal purposes or while in the commission of a crime and not otherwise and any person violating the provisions hereof shall be guilty of a felony and upon conviction thereof shall be punished by imprisonment in the penitentiary for not more than three (3) years, or fined by not more than Five Thousand Dollars (\$5,000.00), or by both such imprisonment and fine.

12 Oklahoma Statutes §1214
Amended 1970

There is no doubt that the previous law provided by John was overly broad and prevented conduct which might not ordinarily be criminal. The newspaper clippings that John provided dealt with a man who was charged under the old law who kept a police radio at his office as manager of a local cab company. The mere ownership of such a radio and operation regardless of the situation was illegal. The charge was later dropped and the news story provided few details of the reason, but it is logical to conclude that the statute was found invalid. The present law readily defines the illegal activity associated with the radio as criminal conduct. Notice that the penalty was increased from a misdemeanor to a felony with some fairly whopping consequences. Also notice that the statute does not define "illegal purposes" so that isn't just limited to those who listen while shopping for five finger discounts. Do you have that Bearcat in the car which you listen to while driving along just "to locate the Smokeys?" Watch it! It could be a felony. That innocent little bear finding activity could land you a possible jail term and a stiff fine. While Smokey reports are not strictly illegal according to §1214, that casual mention on the local repeater coupled with a scanner in the car could show intent for an "illegal purpose."

Incidentally, I should mention that the law apparently did not change to make it illegal to own a receiver capable of receiving frequencies assigned to law enforcement agencies to the present "illegal purposes" in 1965 because the newspaper clippings are dated 1964 and the law was amended in '5. The wording of the statute as cited in the newspaper article was virtually identical to the 1961 law.

So you can carry your scanner with you both mobile or portable, just be careful when using it. And cases cited under the statute indicate that the radio doesn't have to be under constant manual control. For example, one fellow was charged with a violation of the law because he had a police scanner in a house where he was also in possession of marijuana. Bingo, they nailed him. I guess the moral is if you do something wrong, don't listen to the cops.

One last thing. I remember once when I was in school being stopped while walking along the highway and asked what frequencies were in my Motorola HT-220. I was carrying a 12 channel special modification job and when I finished my rapid fire burst of frequencies, the policeman mumbled something about OK and drove off. I guess he felt it easier to leave than to try to sort out my 20 some crystal frequencies.

Incidentally, there are a couple of ordinances of note that occur in the Norman City Code involving radio and I list them below. You might be interested

to know that it is illegal in Norman to:

Section 15-706. Responding to short wave radio calls.
No person operating a vehicle not qualified as an emergency vehicle under the authority and within the limitations governing the operation of such vehicles shall respond to any short wave radio call or message directed or addressed to or between any person engaged in the discharge of his duty imposed by federal or state law or city ordinance. (Ord. No. 0-7273-56)

Section 15-708. Transmission.

(a) Except as otherwise provided, no person shall broadcast, send, emit or cause to be transmitted any signal, beam, impulse, or sound upon the radio frequencies of 155.430, 154.130 or 155.100 Kilocycles or upon such other or additional frequencies as may hereafter assigned by the Federal Communications Commission for exclusive use by the City.

(b) Persons excepted from the above subsection are:

- (1) employees of the City acting within the course and performance of their duties;
- (2) any person who has previously secured written approval from the City Manager, said Manager being empowered to limit the number of transmitters to be operated by such approved person. (Ord. No. 0-7273-56)

Aside from the obvious typographical error for Kilohertz (oops, I mean Kilocycles) I doubt that they would really care about the 150 Kilohertz band. The limitations are pretty explicit. I hadn't contemplated any pulse transmissions on the city frequencies, but it does occur to me that my Bearcat's local oscillator could cause some trouble should it "beep" past the Norman frequency. Well, that could be the price for progress. As to frequencies assigned by the FCC for the exclusive use of the city, we all know that most of the VHF frequencies are used on a shared basis.

Another thing, don't chase firetrucks.

Micheal Salem N5MS

SPECIAL PERSONAL IDENTIFICATION CARDS FOR TECHNICIANS

As I indicated last month, I had checked to determine whether by administrative interpretation, Technician Class licensees would be issued Special Personal Identification cards by the Department of Public Safety. I am happy to report that Technician Class licensees are considered eligible for the Special Personal Identification Cards. The Director of Telecommunications for the Department of Public Safety, Mr. Gene Thaxton, has indicated that he will accept for filing all licenses except Novice class. Also, with the upsurge in the number of applicants for special ID cards, the Department is requesting that you send them a copy of your license even though this is not mentioned on the application form. There also is no space on the application to sign, so just put a line at the bottom and put your "John" or "Jane Henry" on the application. There is a possibility that the application form would be changed to comply with these requirements. Maintain.

Micheal Salem N5MS

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MEETS: 7:30 PM 3rd Thursday of month.
Security Bank Basement, Ponca City
PRES Chuck Willis WB5DOT 765-5366
V-P C. L. Hallmark W5ZWM 762-8620
SEC/TR Jay Williams W5TXF 765-9440
CLUB EDITOR Chuck Willis, WB5DOT

Well I see by the old calendar on the wall that it is time for another article to sprout forth from my pencil. Ham Holiday 79 is now past history and I want to express my appreciation, and that of the Kay Amateur Radio Club, for the fine meetings, exhibits and flea market. I know there must have been some oversights and mis-cues with such a large undertaking, but they certainly were not obvious. Our hats are off for a job well done. I'm already marking space for that weekend in 1980. The only disappointment with Ham Holiday 79 was that I didn't win the grand prize!! I'll just have to try again in 1980!

We had 13 members present for our July club meeting. I don't have a copy of the minutes available so I will have to do them from memory, which is no small feat! We discussed the Field Day operations and expenses. Under old business, we discussed the battery backup for our repeater receiver site. Hopefully that project will be complete by the time this reaches print. For some unusual reason, no one could think of any new business (summer doldrums). Our program was concluded by two films dealing with crystal and resistor manufacture. We are losing one of the members of our club. Bob Neumann, WB5SWZ, has accepted a position in Munich Germany and will be leaving us on August 15 for D-land. Have a safe journey Bob and we will all be looking for you on 20m CW.

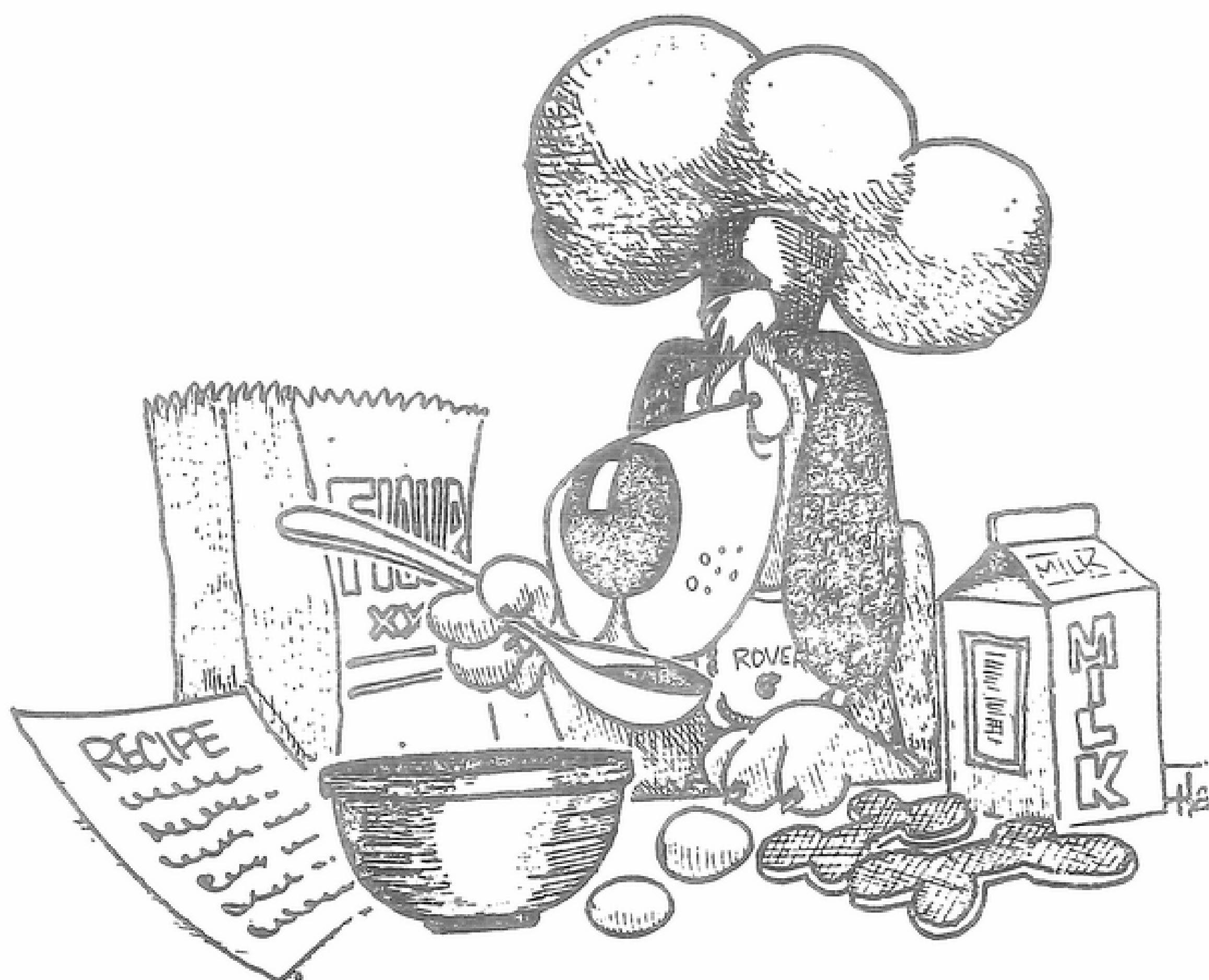
While browsing thru Ham Holiday's flea market picking up my treasures, I had a sudden realization of how dated my theory had become. Equipment on the tables was either tube vintage (last use was to announce the fall of the Phillipines to the Japanese), or full of IC's (those little black 14 leg critters). There was no inbetween! I'm afraid a lot of hams are like me in that we are talking grid leaks and plate dissipation and the manufacturers are talking PLL and RAM's with MOSFET's. Technology has been running at a break-neck pace for the last 15 or 20 years, and if we sit around pointing to our shiny new whatchit and 10 year old license without putting that muscle between our ears to work, amateur radio will degenerate to another CB type service before we know it. This year I plan to try to put my brain in gear and upgrade my theory so that next year I can find a use for those IC's in a bin, 10 for a dollar. I would encourage all amateurs to explore and discover what those little 14 leg critters are and how they work, for they are the wave of the future. The last American holdout for tube rigs, Swan, recently announced the discontinuance of such equipment, so like it or not, we will have to contend with the likes of IC's and MOSFET's for a long time to come. There is a saying in the academic community-Publish or Perish. Maybe our cry should be-Study or Stagnate!

Now that I am off my soapbox, I guess I can close this column for another month. Again, I certainly enjoyed Ham Holiday and will be anxiously awaiting Ham Holiday 80. Until next month- 73's

Chuck - WB5DOT

FOR SALE- Swan FM-2X Transciever with xtals for 07-67,22-82,34-94,
16-76,37-97,28-88,52-52,58-58. 75\$ WB5DOT,1704 Leslie Ln,
Ponca City,Ok 74601

FOR SALE: Drake TR-4C with power supply, spare tubes, and manual.
RV-3 remote VFO. Waters Clipreamp. Radio Shack cardioid dynamic mic
and desk stand. All for \$600. W5JJ, 5824 N.W. 58 Street, Warr Acres,
Ok 73112. Phone: 789-3788.



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Okla Military Academy, 36th & Grand

PRES Frank McCollom N5FM 751-3577

V-P Henry Isreal N5IH 722-3848

SEC/TR Hobe Burgan WB5MLN 751-1646

CONGRATULATIONS

TO THE

NEW OFFICERS!

PRES: DOC GOODHEAD, WA5CZN

V-P: CHUCK WILHITE, K5NK

SEC'Y, TREAS.: KAREN REGER, WD5HBX

MOBILE FIVE

The following is quoted from Metropolitan's In Brief for Fall, 1978:

"... Our claims people have learned some interesting things about what 'causes' automobile mishaps from accident reports submitted by policyholders. We'd like to share some of them with you:

- + The other car collided with mine without warning me of its intention.
- + I had been driving my car for 40 years when I fell asleep at the wheel and had the accident.
- + As I reached an intersection, a hedge sprang up obscuring my vision.
- + I pulled away from the side of the road, glanced at my mother-in-law and headed over the embankment.
- + The pedestrian had no idea which direction to go, so I ran over him.
- + The telephone pole was approaching fast. I was attempting to swerve out of its path when it struck my front end.
- + An invisible car came out of nowhere, struck my car and vanished.
- + The guy was all over the road. I had to swerve a number of times before I hit him.
- + The indirect cause of this accident was a little guy, in a small car, with a big mouth."

Bill, WA5RAQ



CLUB EDITOR
Joe Buswell, K5JB
732-0676

MEETS: 8:00 PM Third Friday each month
American Red Cross, 10th & Hudson OKC
PRES Ken Ford WB5KHU 528-8770
V-P Jim Williams K5VRL 789-0769
SEC Joe Buswell K6JB 732-0676
TREAS Ellard Foster W5KE 789-6702

MINUTES OF CLUB MEETING

THERE WAS NO FORMAL MEETING AT THE WATERMELON FEST HELD WITH MEMBERS OF THE ACARC AT WILL ROGERS PARK.

KEN, WB5KHU, ADVISES THAT POTENTIAL CORA REPRESENTATIVES HAVE BEEN CONTACTED AND SELECTION WILL BE MADE AT THE MEETING IN SEPTEMBER. AT THAT TIME, THERE WILL BE DISCUSSION ON PLANNING FOR HAM HOLIDAY FOR NEXT YEAR. IN FACT, THERE WILL BE SOME PLANNING ASPECTS COVERED FOR HAM HOLIDAY 1981.
JOE, K5JB, SEC'Y

WHISTLE PROJECT

SOMEWHAT LIGHT HEARTEDLY, I MENTIONED LAST MONTH THAT I WAS WORKING ON A WHISTLE WITH THE INTENTION OF USING IT TO ESTABLISH THE FREQUENCY OF A SSB TRANSMITTER USING A FREQUENCY COUNTER. I MENTIONED THAT MY ATTEMPT TO MAKE A WHISTLE FAILED. HOSS, WA5ZAI/8, DAYTON OHIO, PICKED UP ON THAT AND SENT ME TWO WHISTLES THAT WERE HOME-BREWED SEVERAL YEARS AGO FOR REPEATER WHISTLE-ON PURPOSES. THEY WERE ABOUT 2 5/8 INCHES LONG, 5/16 INCHES IN DIAMETER, MADE FROM DOUBLE WALLED STEEL TUBING WITH INSIDE DIAMETER OF ABOUT 1/4 INCH. I'M STILL SCRATCHING MY HEAD ON THAT DOUBLE WALL BIT. ANYWAY, THEY WORKED! FREQUENCY WAS ABOUT 1900 HZ. I INTENDED TO DROP BY A HOBBY SHOP AND GET SOME BRASS TUBING TO TRY AND RUN OFF A DUPLICATE, EXCEPT FOR THE FREQUENCY, AND SEE IF I COULDN'T MAKE ONE WORK. WELL, LIKE MANY IDEAS I HAVE, I NEVER GOT A ROUND TUIT! MAYBE NEXT MONTH.

OSHKOSH BY GOSH

IMMEDIATELY AFTER HAM HOLIDAY, JIM, WA5LFN, HIS WIFE CAROL, SON ANDY AND I TOOK OFF FOR OSHKOSH WI TO ATTEND THE ANTIQUE AIRCRAFT ASSOCIATION FLY-IN, THE LARGEST EVENT OF ITS KIND IN THE COUNTRY, AIRPLANE EQUIVALENT TO DAYTON, YOU MIGHT SAY. WE WERE CONSUMMATING A DEAL WE MADE A YEAR AGO. JIM PROMISED ME TO HELP WITH HAM HOLIDAY A YEAR AGO AND POSTPONE HIS TRIP TO OSHKOSH, IF I WOULD GO TO OSHKOSH THIS YEAR WITH HIM. IT WAS ONE OF THOSE KIND OF OFFERS I COULDN'T REFUSE.

AS IT TURNED OUT, WE DECIDED TO SKIP THE FIRST TWO DAYS OF THE FLY-IN AND ATTEND HAM HOLIDAY. TALK ABOUT HAVE CAKE AND EAT IT TOO!

THE TRIP TO OSHKOSH WAS RELATIVELY UNEVENTFUL, SEEING ONLY ONE ISOLATED THUNDERSTORM, BUSY REFILLING A LAKE NEAR, I BELIEVE, TOPEKA. A STOP AT ATCHISON TO REFUEL, ETC., AND ONWARD OVER SOME SCATTERED CLOUDS TO OSHKOSH. DURING THE WEEK OF THE FLY-IN, THERE IS THREE TIMES AS MUCH AIR TRAFFIC AS CHICAGO'S O'HARE. PILOTS GET SWEATY PALMS JUST THINKING OF THE MIX OF AIRCRAFT SPEEDS AND SOME WITHOUT RADIOS CONVERGING ON THE PLACE. ACTUALLY, ARRIVAL IS A SNAP. PILOTS START READING THE APPROACH PROCEDURES TWO HOURS OUT AND ARE BETTER PREPARED THAN TYPICAL AIRPLANES ARRIVING ROUTINELY AT O'HARE.

THE ARRIVAL WAS ONE OF THE HIGHLIGHTS OF THE TRIP. AT THIRTY FIVE MILES OUT WE TUNED THE AIRPORT RECORDED APPROACH INSTRUCTIONS WHICH TOLD US WHICH ARRIVAL PROCEDURE WAS IN USE. WHEN WE ARRIVED AT THE INITIAL APPROACH FIX I BEGAN TO WISH WE HAD BROUGHT A TAPE RECORDER. AS WE ARRIVED AT THE LITTLE TOWN OF FISK, WHICH WAS ABOUT EIGHT MILES FROM THE AIRPORT, SOMEONE ON THE GROUND SPOTTED US AND HIS RADIO INSTRUCTIONS WENT SOMETHING LIKE THIS: "CESSNA WITH THE RED TIP ON THE TAIL OVER FISK, FLY EAST TO THE RAILROAD TRACKS, FOLLOW THEM TO THE DIVIDED HIGHWAY. TURN LEFT AND FOLLOW THE HIGHWAY UNTIL ON RIGHT DOWNWIND TO RUNWAY 27. TURN DOWNWIND AND CALL THE TOWER ON 118.8. ROCK YOUR WINGS IF YOU HEAR ME OK." AFTER STRETCHING TO

COMPLETED KIT TO RST FOR TUNING AND TESTING. SOME OF THE EQUIPMENT IS SOLD IN ASSEMBLED FORM AS AN EXTRA COST OPTION BUT THE BASIC CONCEPT OF THE COMPANY IS TO ALLOW A PERSON HANDY WITH TOOLS TO INVEST SOME TIME AND SAVE SOME MONEY. IN ADDITION TO TRANSCEIVERS, THE COMPANY HAS AUDIO PANELS, COMMONLY USED IN AIRPLANES TO ALLOW ONE MICROPHONE TO SERVE MORE THAN ONE RADIO AND COMBINE SPEAKER AUDIO FROM THE VARIOUS RADIOS INTO ONE CONTROL BOX WHERE THE PROPER COMBINATION CAN BE SELECTED. INTERCOM KITS ARE AVAILABLE, SIGNAL SPLITTERS AND DIPLEXERS ARE USED TO ALLOW ONE ANTENNA TO BE USED FOR MORE THAN ONE RADIO. THERE IS A LINE OF TEST EQUIPMENT WHICH IS USED FOR COMMUNICATION AND NAVIGATION EQUIPMENT TEST AND CALIBRATION. I LOOKED THE EXHIBITS OVER AND WISHED JIM AND FRAN MITCHELL RST'S PRESIDENT, GOOD LUCK IN THE VENTURE.

CAROL ATTENDED THE 'PINCH HITTER' COURSE, A PROGRAM FOR SPOUSES OF PILOTS INTENDED TO ENABLE THEM TO HELP IN CASE OF EMERGENCY SUCH AS SICKNESS OF THE PILOT. IT WAS A COMPREHENSIVE COURSE TAKING PART OF TWO DAYS AND INCLUDING THREE HOURS IN A SIMULATOR. SHE TOOK IT IN STRIDE AND WAS SUPRISED WHEN I TOLD HER I WOULD HAVE BEEN WORN OUT AFTER THAT AMOUNT OF TIME IN ONE OF THOSE 'INFERNAL MACHINES'.

ANOTHER VERY INTERESTING AREA WAS THE FOOT LAUNCHABLE ULTRALIGHTS. BASICALLY HANG GLIDERS WITH ENGINES, THE THINGS ARE PRETTY SAFE WITH RESPECT TO FORCED LANDINGS UNLESS THERE IS AN AIRFRAME FAILURE. SINCE SOME OF THEM DON'T HAVE TAILFEATHERS LIKE A CONVENTIONAL AIRPLANE, I WOULD WORRY A LITTLE BIT ABOUT TUMBLING AFTER A STALL BUT IT MAY NOT BE A PROBLEM. THE ULTRA LIGHTS WERE FLYING EARLY IN THE MORNING AND LATE IN THE EVENING TO TAKE ADVANTAGE OF THE LIGHTER WINDS. EVEN THOUGH FOOT LAUNCHABLE, MOST OF THEM TOOK OFF AND LANDED ON LITTLE BITTY WHEELS. FLYING ONE OF THOSE THINGS IS REALLY GETTING BACK TO BASICS.

BY THE TIME WE STARTED THINKING ABOUT COMING HOME, WE WERE READY. NOT THAT WE WERE TIRED OF THE AIPLANES, OUR FEET WERE SHOT AND WE WERE GENERALLY ABOUT TO GIVE OUT. MY LEGS WERE DOING PRETTY GOOD AFTER THE INITIAL DAMAGE OF THE FIRST TWO DAYS HEALED BUT THE FEET NEVER HAD A CHANCE TO REST.

THE DEPARTURE WAS AS SMOOTH AS THE ARRIVAL. WE FOLLOWED DIRECTIONS OF FLAGMEN TO THE RUNWAY, DID THE RUN-UP ON THE FLY AND WERE WAVED OFF IMMEDIATELY BEHIND OTHER DEPARTING AIRCRAFT. THERE WERE THUNDERSTORMS IN THE AREA AND WE HAD TO CIRCUMNAVIGATE ONE WHICH MUST HAVE BEEN OVER 50 MILES IN DIAMETER. ONE STOP IN IOWA TO LOOK AT THE CORN AND REFUEL AND I BEGAN TALKING JIM INTO STOPPING AT A RESTAURANT EAST OF WICHITA CALLED BEAUMONT HOTEL. JIM DIDN'T SAY MUCH AS WE LANDED ON A SOD STRIP AND TAXIED OUT ONTO THE ROAD LEADING INTO TOWN BUT HE BEGAN ASKING QUESTIONS LIKE "WHAT DO WE TELL THE SHERIFF?" WHEN WE APPROACHED A STOP SIGN IN TOWN. ALL I COULD TELL HIM WAS THAT HE HAD BETTER STOP AT THE STOP SIGN, TO KEEP FROM RANKLING THE LOCALS. I WAS RELIEVED TO SEE A SIGN ON A TREE THAT SAID "AIRPLANE PARKING"

IT TURNED OUT THAT THE STORIES I HAD HEARD WERE TRUE. THERE REALLY IS A PLACE CALLED BEAUMONT HOTEL THAT CATERS TO AIRPLANE PEOPLE. WE ONLY HAD BEEN THERE FOR A SHORT WHILE WHEN A SECOND AIRPLANE CAME TAXIING UP THE ROAD, THE AVIATORS OUT FOR A LEASURELY LUNCH AT A NIFTY PLACE.

WELL AS FAR AS AVIATION, I FEEL LIKE I HAVE BEEN TO THE MOUNTAIN. IT WAS A TREAT TO SEE SO MANY THINGS I HAVE READ AND HEARD ABOUT. AFTER RETURNING, I HAD MANY FRIENDS SAY THAT THEY WERE KIND OF PLANNING TO GO TO THE THING BUT DIDN'T GET AROUND 'TUIT'. I HAVE JIM TO THANK FOR PROVIDING THE ROUND 'TUIT'. JOE, K5JB

FOR SALE: D43GGB, 2 FREQ, MOTOROLA BASE STATION, 35 WATT, WITH 34/94 & 52/52. INCLUDES MICROPHONE. GE PROG LINE VHF MOBILE UNIT, 50 WATT ON 34/94, COMPLETE WITH CABLES AND CONTROL HEAD. GE PROG LINE ON 40 MHZ, 50 WATT. EXCELLENT 6 METER FM RIG. RON, WA5EAI, 681-0896.

SEE IF WE HAD A RED TIP ON THE TAIL, WE ROCKED THE WINGS AND CONTINUED WITH THE APPROACH. WHEN WE TURNED DOWNWIND, THE TOWER CALLED US WITH INSTRUCTIONS THAT WENT SOMETHING LIKE, "CESSNA TURNING DOWNWIND, YOUR TRAFFIC IS A COUPLE OF CESSNAS AND A TWIN. CONTINUE DOWNWIND UNTIL OVER THE LAKE. WHEN YOU HAVE THE TRAFFIC IN SIGHT YOUR ARE CLEAR TO LAND." THERE WAS A LITTLE MORE CHATTER ABOUT TURNING OFF THE RUNWAY AS SOON AS PRACTIBLE, BUT THAT WAS IT! ONCE ON THE GROUND, FLAGMEN DIRECTED US TO SUITABLE PARKING AND FOR THE FIRST TIME IN MY LIFE I KNEW WHAT WAS MEANT BY SECTIONS OF PARKED AIRCRAFT, NOT ACRES, SECTIONS!

WELL I COULD RAMBLE ON FOR PAGES ON WHAT HAPPENED FOR THE NEXT FIVE DAYS BUT I WILL LEAVE THAT TO THE AVIATION MAGAZINES. THERE WAS SO MUCH TO COVER THAT WE WERE NOT ABLE TO DO SO...ANTIQUE AIRCRAFT, FOR EXAMPLE. I MADE TWO PASSES THROUGH THE ANTIQUE AIRCRAFT ON DISPLAY AND INTENDED TO GO UP AND DOWN ALL THE ROWS TO LOOK AT ALL OF THEM. I NEVER GOT TO DO THAT. WE WERE AT THE AIRPORT FROM BEFORE 8 AM UNTIL AFTER 3 PM EVERY DAY, AND COULD NOT SEE IT ALL. THERE WERE SEMINARS PRESENTED BY DESIGNERS FOR HOME AIRCRAFT BUILDERS. THERE WERE WORKSHOPS ON HOW TO WELD, RIVET, WORK WITH COMPOSITES, FABRIC, AND MORE. THEIR VERSION OF A FLEA MARKET WAS CALLED "FLY MARKET".

MANUFACTURERS AND SELLERS HAD COMMERCIAL EXHIBITS GALORE. JIM AND I KEPT IN TOUCH WITH 450 PORTABLES SO EACH COULD GO AT HIS OWN PACE. WHENEVER JIM FOUND SOMETHING THAT HE THOUGHT WOULD STAGGER MY IMAGINATION HE WOULD GIVE ME NAVIGATION INSTRUCTIONS ON 450. IN A PLACE AS LARGE AS AN AIRPORT AND HAVING AS MANY AS 100,000 PEOPLE AROUND IT CERTAINLY IS MADE EASIER WITH THE RADIOS.

I STOPPED BY THE AMATEUR RADIO TRAILER AND VISITED FOR A WHILE. THE LOCAL CLUB WAS SET UP TO OFFER EXPLANATION OF AMATEUR RADIO AND ACCEPT MESSAGES FROM PARTICIPANTS FOR DELIVERY THROUGH THE NATIONAL TRAFFIC SYSTEM. THERE WAS A 25/85 REPEATER SET UP FOR VISITOR'S USE BUT, UNFORTUNATELY I DID NOT HAVE THE PROPER CRYSTALS IN MY TALKIE. AS SOON AS WE ARRIVED, I EXTRACTED THE SLIMLINE WHICH GOES EVERYWHERE MY FLIGHT KIT GOES AND KERCHUNKED ALL THE REPEATER FREQUENCIES IT HAS INSTALLED. NO LUCK. WHENEVER THIS HAPPENS, I ASSUME I AM IN A PRIMITIVE AREA AND GO TO PLAN 52. THERE IS ALMOST ALWAYS SOMEONE TO TALK TO ON 52 IF THERE AREN'T REPEATERS. SURE ENOUGH, WHILE WAITING FOR THE FLIGHT LINE BUS, I STRUCK UP A CONVERSATION WITH W9KKK, THE CLUB STATION MENTIONED ABOVE. AN OPERATOR HAD BEEN STATIONED THERE TO HANDLE TURKEYS LIKE ME WHO DONT HAVE SYNTHESIZED WALKIE TALKIES. OUR CONVERSATION WAS INTERRUPTED BY THE ARRIVAL OF THE BUS. FROM THAT POINT ON I DIDN'T HAVE TIME TO PLAY WITH THE 2M RIG.

IF THERE WAS ONE THING THAT WAS OUTSTANDING IN MY MIND, IT WOULD BE THE INCREDIBLE WORKMANSHIP DISPLAYED IN THE HOMEBUILDERS AIRPLANES. CRAFTSMANSHIP IS NOT DEAD. NOBODY IS DOING IT FOR MONEY ANYMORE I GUESS BUT IT CERTAINLY IS NOT DEAD. THE ATTENTION TO DETAIL WAS SUPURB. SHEET METAL AIRPLANES DISPLAYED FITS THAT COULD HAVE ONLY BEEN ACHIEVED WITH TLC AND THE HIGHEST SKILL IN METALWORKING. PAINT JOBS WERE FLAWLESS. UPHOLSTERY WAS PERFECTLY FIT. I NEVER SAW SO MUCH STAINLESS STEEL HARDWARE USED IN FITTINGS, NO JIVE CAD PLATE FOR THOSE BOYS. I'M NOT TALKING ABOUT A HANDFUL OF AIRPLANES, I'M TALKING ABOUT ACRES OF HOMEBUILTS. ONE MANUFACTURER, CRISTEN, HAD PARTS FOR ITS KIT AIRPLANE, THE EAGLE, ON DISPLAY. NOTHING BUT FIRST CLASS, LIKE ONE WOULD EXPECT FROM THE FERRARI FACTORY.

I STOPPED AT THE BOOTH OF RADIO SYSTEMS TECHNOLOGY, INC, GRASS VALLEY CA, TO MEET JIM WEIR, WB6BHI. HE IS BILLED AS VICE PRES, ENGINEER AND DESIGNER. I HAVE BEEN FOLLOWING HIS AVIONICS COLUMN IN PRIVATE PILOT MAGAZINE. HE LETS OUT SECRETS ON HOW TO WIRE RADIO AND AUDIO EQUIPMENT AND AVOIDING HIGH DOLLAR WIRING JOBS ON THE SIMPLER PROJECTS. I DIDN'T KNOW OF HIS CONNECTION WITH RST, INC. UNTIL I MET HIM AT THE FLY-IN. RST IS ADVERTISED IN AMATEUR RADIO AND AVIATION MAGAZINES. IT SPECIALIZES IN ITEMS THAT CAN BE KIT BUILT. THE TRANSCEIVER KIT GETS TYPE ACCEPTANCE BY RETURNING THE



MINUTES



The July 25th meeting was called to order at 7:30 pm with 24 members and guests attending and representing six of CORA's 13 member clubs.

The minutes of the June meeting and the treasurer's report were approved as read.

Announcements: CORA Executive Committee and HH79 Committee Chairmen ONLY would have an interim meeting at 10 pm Sat. 28 July at Ham Holiday;

there will be a demonstration van owned by one of the dealers at HH79 but all sales are to be made in the dealers' rooms, none in the van!;

there will be no latecomers allowed to operate a table in the flea market: tables required reservations which meant a 20 July deadline.

There being no old business, we pressed on to new business: no action was taken but much discussion on "Worked-All-Counties: Oklahoma" certificate, decision made that this project needs a leader to step forward;

representatives were reminded that CORA requires new (next term's) club representatives be identified by 28 August meeting and attending by 25 September meeting to elect new CORA officers;

further discussion on possibility and feasibility of changing the "C" in CORA from Central to something else more befitting the group (engendered by continuing interest in membership from outlying clubs) was tabled pending investigation of legal and regulatory ramifications of changing the name of an incorporated organization;

the motion passed that MORI retain the prize committee chore, Autopatch-the facilities, Aeronautical Center-the ladies, 76ers-the registration and Central - the publicity committees/responsibilities for Ham Holiday(s) at least thru HH80, leaving the challenge of Programs to another energetic and resourceful club yet to volunteer;

a motion passed that HH81 committee clubs be settled (and working) by March 1980;

also, that CORA put on both 80 and 81 Ham Holidays (remembering to attempt 1980 West Gulf District or National AND State ARRL Convention/s to coincide with HH80) and request feed back from member clubs thru their reps.;

Chuck K5NK was authorized to spend up to \$100.00 in advance for HH80 prizes and up to \$300.00 from HH fund for the HH79 raffle prize: a Kenwood 7600 2M FM (which was won by Mark WD5DYI, CORA current President);

Committee Reports: as of 25 July, 768 had preregistered for Ham Holiday including 202 YLs of whom 51 are licensed hams, plus 68 flea market requests, 27 QCWA breakfasts and 114 banquet seats; 11 commercial exhibitors had requested retail sales and display room space with 13 providing door prizes; publicity had been provided to radio and TV stations and newspapers in the area. (Further details and statistics elsewhere in this issue.)

In attendance at this meeting, the Aeronautical Center, Oklahoma Central and Bicentennial Clubs had three representatives each, MORI 2, and ATV and Autopatch 1 each. Not represented were EARS, OU, Altus, Wheatstraw, Choctaw, Shawnee and Kay County Amateur Radio Clubs.

With no further business the meeting adjourned to a local culinary establishment at 9:51 pm.

Jim N5BEQ
Secretary. *Jim N5BEQ*

Central Oklahoma Radio Amateurs

A terrific amount of work went into HAM HOLIDAY '79, and plans are already underway for next year's blowout. Workers and planners have it all to do again next July, and the planning can be shaped by input from you. Please indicate any suggestions on improvement by dropping us a line here at the Collector and Emitter.

The September edition of QST contains an editorial by Richard Baldwin, W1RU, General Manager. In it, Mr. Baldwin questions the "proliferation of hamfests and conventions" nation-wide. He suggests, along with the ARRL Board, that "clubs and other groups considering sponsorship of such events make an effort to hold joint affairs with other groups in the general area." This suggestion is made with the concern that more and more hamfests mean diluted attendance, League reps spread thin, dealers and manufacturers torn between locations, and inflation keeping everyone away.

Mr. Baldwin is encouraging the type hamfest CORA has been running for years. It is a really good feeling to know our organization has been ahead of the trends we may start seeing in other areas. Having representation from our member clubs keeps our major hamfest well-planned, managed, and represented.

Our register shows one-thousand, one-hundred, forty-five amateurs and guests attended HAM HOLIDAY '79. In 1978, we just got an even 900 at the last minute. Our thanks go to all of you. Hopefully, HAM HOLIDAY '80 will be even bigger and better.

It was hard to believe how much equipment was given away on Sunday: Bencher Paddles, MFJ Keyers, DSI Multi-Meter, Wilson Mark IV, Coax Switches, VOM, Drake Encoding Mike, TET Tri-band Beam, Optoelectronics Frequency Counters, 5-Band Doublet, Medical History Microfilm Cards, Tone Pads, Low Pass Filter, Amateur Upgrade Game, W2AU Baluns, 24-Hour Clock, Dummy Load, Health Spa Gift Certificates, Soldering Aids, WorldRadio Subscriptions, Logic Proce/IC Tester, DSI Frequency Counters, Rotor from TET, Larsen 2m Mobile Antenna, 50% Discounts on Mor-Gain Antennas, TET 2m Swiss Quad, Dentron Tuner, Associated Radio \$25 Gift Certificate, Packages of ARRL Publications, Cushcraft 2m Beam, Tele-Tow'r 40' Crank-up Tower, Wilson Mark II, Coax, wire, insulators, earphones, surplus IC's, maps, Tempo S-1 Synthesized Talkie, Kenwood TR-7600, and the Grand Prize: Kenwood TS-120s, PS-30, SP-120, MC-50 Mike and MC-35 Mike. WOW!

CORA paid bills for facilities, held back just enough to get started next year, then took what was left and put those funds into prizes. Not all prizes were purchased. We wish to gratefully thank our exhibitors for the many donations of equipment we received for the drawing.

The CORA Board will be pouring over information, statistics, leads, comments and suggestions over the next few months. As with last year, Collector and Emitter presents a list of "where everybody came from":

OKLAHOMA CITY...289		
ARCADIA.....2	JONES.....3	NORMAN.....63
BETHANY.....40	MIDWEST CITY...63	PIEDMONT.....1
CHOCTAW.....5	MOORE.....19	SPENCER.....3
DEL CITY.....19	MUSTANG.....7	TINKER AFB....6
EDMOND.....43	NEWALLA.....1	WARR ACRES....4
HARRAH.....6	NEWCASTLE.....1	YUKON.....21

(Metro Total: 596) (52.052% of total attendance)

STATEWIDE TOTAL: 433 (38% of total attendance)

ADA.....11	BAKER.....1	BLANCHARD.....2
ADDINGTON.....2	BARNSDALL.....1	BLUEJACKET....2
ALTUS.....5	BARTLESVILLE...9	BRISTOW.....2
ANADARKO.....2	BEAVER.....5	BROKEN ARROW..17
ARDMORE.....18	BIXBY.....1	BUFFALO.....1
	BLACKWELL.....3	BURNS FLAT....3

Remember, Board Officers' elections will be held at the September Meeting. All club representatives for the next term should have been elected or appointed by then. I urge all club representatives to attend to assure equal representation in our officers' elections.

CORA HAM HOLIDAY '79

Statewide Attendance, continued...

CALUMET.....6	HOLDENVILLE.....4	SALLISAW.....4
CATOOSA.....2	HUGO.....2	SAPULPA.....1
CEMENT.....4	JENKS.....1	SEILING.....1
CHANDLER.....2	JENNINGS.....2	SEMINOLE.....1
CHELSEA.....2	KAW CITY.....1	SHAWNEE.....16
CHICKASHA.....8	KINGFISHER.....6	SPAVINAW.....2
CLAREMORE.....4	LAWTON.....11	SPRINGER.....1
CLEVELAND.....2	LEXINGTON.....4	STILLWATER.....13
CLINTON.....1	LOGAN.....2	STROUD.....2
COMANCHE.....1	LONGDALE.....2	SULPHUR.....1
CRESCENT.....1	MANGUM.....1	TAHLEQUAH.....3
DAVENPORT.....1	MEEKER.....2	TECUMSEH.....8
DUNCAN.....5	MILL CREEK.....2	TIPTON.....1
EL RENO.....16	MINCO.....2	TRYON.....2
ENID.....28	MOORELAND.....6	TULSA.....69
EUFAULA.....1	MOUNTAIN VIEW.....2	TUTTLE.....1
FAIRLAND.....2	MUSKOGEE.....13	VICI.....2
FAIRVIEW.....1	NOBLE.....4	VINITA.....4
FORGAN.....2	OKARCHE.....4	WAGGONER.....1
FORT SILL.....1	OKMULGEE.....2	WASHINGTON.....1
FOSS.....1	OWASSO.....2	WATONGA.....2
FREDERICK.....3	PADEN.....1	WEATHERFORD.....1
GARBER.....2	PAWNEE.....1	WELLSTON.....2
GROVE.....1	PONCA CITY.....5	WILBURTON.....1
GUTHRIE.....14	PRAGUE.....2	WOODWARD.....3
HENRYETTA.....2	PURCELL.....1	
HITCHCOCK.....2	ROBINSON'S	
HOBART.....1	LANDING.....1	WE'LL SEE EVERYONE
HODGEN.....2	RUSH SPRINGS.....2	AGAIN AT HAM HOLIDAY '80!

OUT OF STATE TOTAL: 115 (10% of total attendance)

ALABAMA - Muscle Shoals (3)	NEVADA - Sparks (1)
ARKANSAS - Booneville (1)	NEW MEXICO - Alamogordo (1)
Fayetteville (1)	TENNESSEE - Memphis (1)
Fort Smith (8)	TEXAS - Allen (1)
Greenwood (2)	Amarillo (5)
Paris (1)	Comanche (1)
Russellville (1)	Dallas (2)
Siloam Springs (2)	Denton (3)
Springdale (1)	Flint (1)
CALIFORNIA - Ukiah (1)	Fort Worth (1)
COLORADO - Longmont (1)	Graham (2)
CONNECTICUT - Newington (1)	Hallsville (2)
FLORIDA - Orange Park (2)	Hereford (4)
GEORGIA - Atlanta (1)	Hillsboro (2)
College Park (1)	Irving (2)
Gainesville (1)	Lewisville (8)
INDIANA - Fort Wayne (1)	Midlothian (1)
IOWA - Iowa City (3)	Pampa (1)
KANSAS - Baxter Springs (1)	Phillips (3)
Coffeyville (4)	Plainview (2)
Derby (2)	Richardson (1)
Eldorado (1)	San Antonio (2)
Galena (1)	Sheppard AFB (1)
Independence (2)	Temple (1)
Liberal (1)	Wichita Falls (5)
Wichita (7)	
MISSISSIPPI - Gautier (2)	DX - Johannesburg, South Africa (1)
NEBRASKA - Lincoln (1)	
Nebraska City (1)	
Omaha (4)	

THE AMERICAN RADIO RELAY LEAGUE, INC.
office of the
SECTION EMERGENCY COORDINATOR
OKLAHOMA SECTION



U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION (NOAA)
NATIONAL WEATHER SERVICE



LETTER OF AGREEMENT

AMATEUR RADIO EMERGENCY SERVICE

NATIONAL WEATHER SERVICE

I. Purpose: This agreement states the terms for an understanding between the Oklahoma Section of the ARES and the NWS, that will serve as a broad framework within which volunteer personnel of the ARES (and other amateur radio organizations) may offer their assistance to the NWS for communications in connection with the identification and reporting of severe weather events and other disaster activities.

II. Recognition

A. The NWS recognizes that the amateur radio service, because of its broad geographical station coverage and its excellent communications capabilities, can render valuable aid in identifying and reporting severe weather events which are hazardous to public safety.

B. The ARES recognizes the NWS as the federal agency, charged by Congress, to issue warnings, of hazardous weather, to the public.

III. Amateur Radio Emergency Service (ARES)

The ARES is an operational unit of the Amateur Radio Public Service Corps of the American Radio Relay League. The Section Communications Manager (SCM) is responsible for the management of ARES activities within the State of Oklahoma. The Section Emergency Coordinator (SEC) is appointed by the SCM. With the approval of the SCM, the SEC develops and manages the section emergency communications plan and appoints local Emergency Coordinators (EC) to implement the plan at the local or county level.

IV. NWS Skywarn Program

Project Skywarn is a broad scope program intended to increase public awareness of natural disasters, such as tornadoes and flash floods, and to mobilize community resources for disaster preparedness. Included within this effort is the Skywarn Spotter Program. The goal of the spotter program is to identify and report severe weather events in order to reduce the loss of life and property by the public. This is accomplished by insuring that such reports are available to:

1. Local government and Civil Defense officials who must make the decision to sound sirens and activate other community warning systems.
2. News media outlets who disseminate the information via television and radio.
3. National Weather Service Offices which disseminate the information via:
 - a. NOAA Weather Wire teletype to the media, law enforcement and Civil Defense agencies, and to other groups served by the system.
 - b. NOAA Weather Radio
 - c. The National Warning System (NAWAS) to Civil Defense and law enforcement agencies.
 - d. Internal communications systems to other NWS offices such as the National Severe Storms Forecast Center at Kansas City. COR 114 200 ➔

V. Intent of the Program

It is not the desire of the NWS or the ARES to interfere with the operation of any existing spotter groups; rather to encourage and support such networks in any manner possible.

Where operational spotter groups do not exist, both the ARES and the NWS will cooperate in the development of such networks. When possible, this will involve the support and participation of local Civil Defense and local government officials.

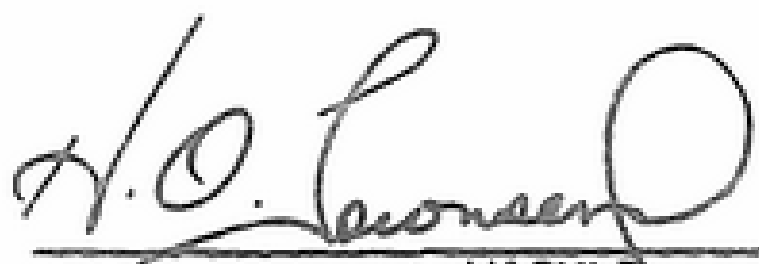
VI. Methods of Cooperation

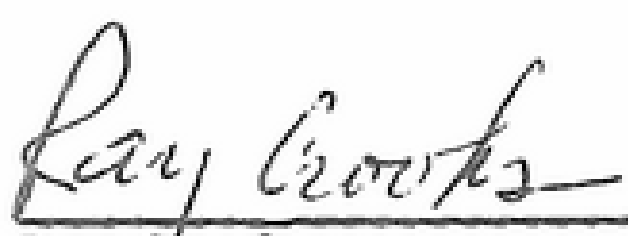
A. Subject to manpower and other operational demands, the NWS will:


1. Provide spotter training to any recognized amateur radio group requesting such training. Training will be coordinated with the SEC and the local EC as well as with the local Civil Defense Director.
2. With the approval of the appropriate Meteorologist-in-Charge, the NWS will make space available in the NWS office for the operation of amateur radio equipment by licensed amateurs from the local area.
3. Publicly support and acknowledge the important role Amateur Radio is contributing to the warning program and public safety.

B. The ARES (or any other organized amateur group which wishes to participate) will assist the NWS in development and organization of spotter networks; providing personnel and equipment as resources allow.

July, 1979


H.O. Townsend WA5MLT
Oklahoma Section Emergency
Coordinator


Ray Crooks
Meteorologist-in-Charge
National Weather Service
Oklahoma City, Oklahoma


Ben Barker
Meteorologist-in-Charge
National Weather Service
Tulsa Oklahoma

FOR SALE: IC-21A & DV-21 SCANNING VFO \$390.00, TS-700A
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JOE, WA5ZNF

737-1044

THE MEG - A - SCANNER For the KDK 2016

The KDK 2016 is a fine two meter rig just as it is, but with this simple modification, you have the ability to scan the entire band, one MHz at a time.

With this modification installed, the KDK is just about the most versatile rig available. All of the original features are retained except for the scan open/scan close switch, which, in my opinion is a useless feature anyway.

Here comes the best part. Cost should not exceed \$5, even if you have to buy every component.

The whole thing fits inside the rig, and it in no way alters the external appearance of the rig.

OPERATION Scanning is accomplished with a 4518 IC, (see Fig 1) which is two BCD counters in one 16 pin pack. Clock for the counter is derived from a multivibrator already in the rig. (IC -9).

Two 74C157 packs are used to select either the counter outputs or the frequency selector switcher for control of the 10 kHz and 100 kHz portions of the desired frequency.

The MHz switch and the UP 5 kHz switch are always effective to enable scanning the splits and switching to different 1 MHz segments at will.

CONSTRUCTION The scanner requires only 3 IC's, and since they are CMOS and draw very little current I used the regulated 8 volts from the rig for power. The circuit may be built on a small PCB, or on perf-board.

I built mine on a piece of perf-board 5/8" wide & 2 3/4" long and mounted the IC's end to end with the 4518 counter IC in the center to simplify wiring. The completed board can be mounted upside down in the empty space right beside IC 11.

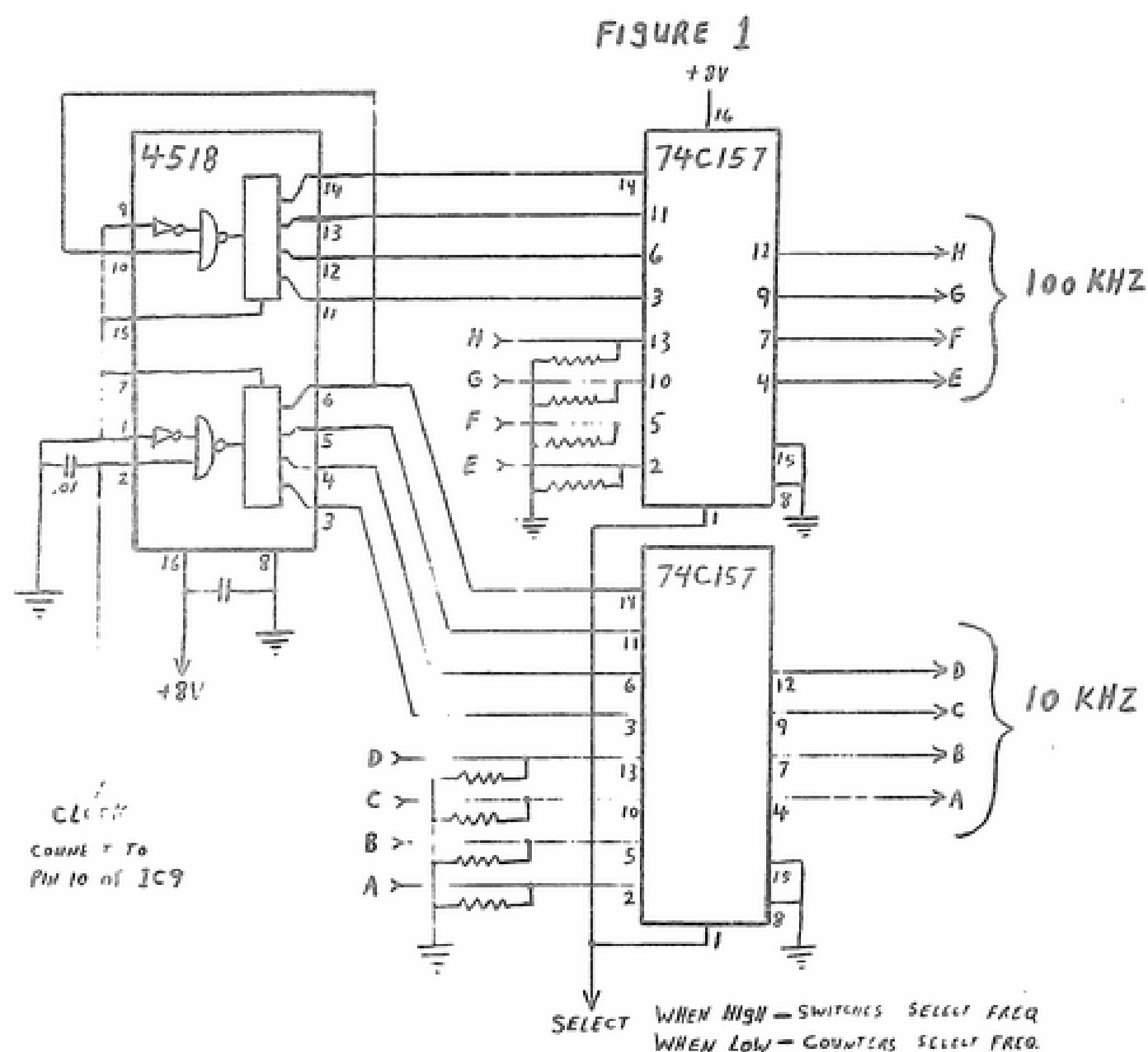
You must cut one solder run in the rig because, the counter derives its clock from the same source (IC-9) that is used to clock the 4 channel memory scanner. The problem is, power is applied to IC-9 only when the switch is in the scan-memory position. This is easily rectified by cutting the run and jumpering pin 14 of IC-9 to P-22. (See fig. 3). Done properly, IC-10 and Q13 will have power applied only when the switch is in the scan memory position, and IC-9 and Q12 will have power applied all the time.

Unsolder the 8 wires from points A" through H" and connect them to the inputs of the scanner board. (These 8 wires are from the frequency select switches.) Also connect 8 wires from the outputs of the scanner to points A" thru H".

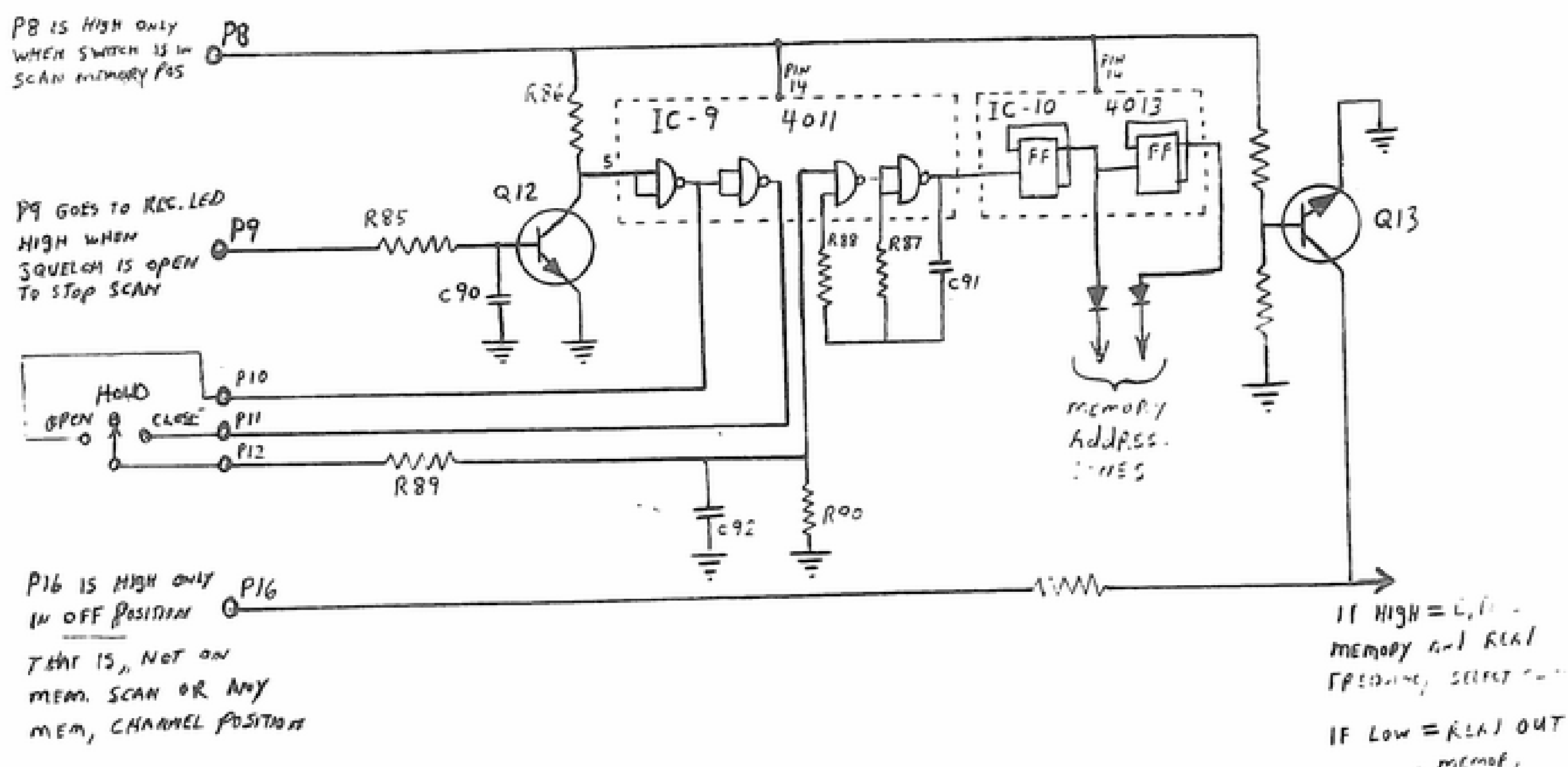
All that remains is to rewire the scan open/scan close switch as shown in fig. 3, hook up a ground wire, a wire to 8 volts, and a wire for clock.

Here are a few optional changes you may want to make to your KDK 2061.

1. **SCAN DELAY** The KDK has no scan delay at all. The second carrier drops, it moves on to another SQ0. I found this to be very bothersome. A simple solution is to add a diode and capacitor as shown. The larger the capacitor, the longer the delay. I start with about 10 MFD and shorten or lengthen the delay to suit yourself.

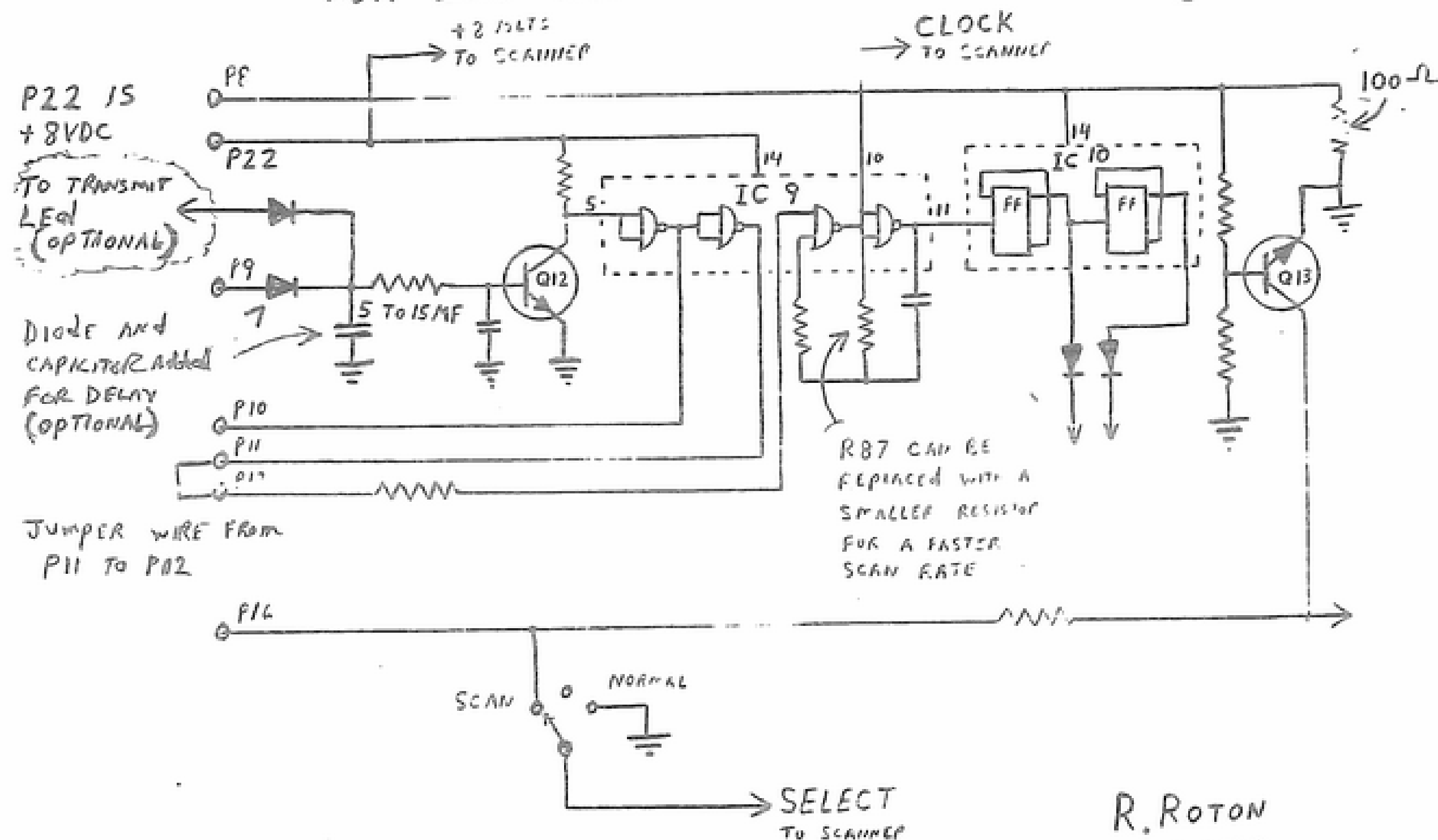


KDK 2016 WITHOUT ANY MODIFICATIONS **Figure 2**



KDK 2016 1-174 MODIFICATIONS

FIGURE 3



R. ROTON
N5AUB

2. **SCAN INHIBIT WHILE TRANSMITTING** The KDK will scan in transmit mode as well as in receive mode. This could really be a problem. If you had four local repeater frequencies programmed in memory, with the switch set to scan, and unknowingly set on your mike.

A diode installed as shown will stop both the memory scanner and the MEG-A-SCANNER when the mike is keyed. Of course the diode for scan delay must also be installed. Better to have just one repeater group mad at you.

3. **FASTER SCAN RATE** The scan rate is controlled by the time constant of R87 and C91. The circuit diagram in the manual says R87 is 10K but it is actually 1.5 meg. I changed mine from 1.5 meg to 1 meg, and I find the faster scan rate very desirable. I don't know just how fast you could scan and still allow time for the PLL to settle on each frequency, but I'm sure the maximum rate is still faster than mine.

4. **SCAN THE WHOLE BAND** If you prefer to scan the entire band without touching the controls, you could simply add another counter stage to count the MHz portion. A 74C90 would work very well for this. Of course it would be necessary to add another 74C157. It would scan from 144.000 to 148.995.

This rig is built in such a manner so as to lend itself to any number of other changes, such as remote display, remote frequency selection, etc.

Ray Roton, N5AUB



WHEATSTRAW

ARC (R)

MEETS: 2:30 PM 2nd Sunday. Location varies. See Text.


PRES Marvin Stokes WA5JHB 893-2221

V-P Ted Vanlangham WD5JNT 262-1675

SEC/TR Ralph Wilder WA5PFK 623-5421

CLUB EDITOR Virginia Beneda, WB5WTH, 825-3302



Hi Gang!

Sorry I missed the July meeting, letter, etc: But I hear you really started off with a  BANG!! The first unofficial motion being to skip the business and get to refreshments. Ha! It seems this has been an unusually busy summer and I can't quite get everything together. It occurred to me that if we were noted for "vice" in our club I surely could have used a vice-reporter the past couple of months. Then I remembered, hmmm! Equal Rights! If the President is entitled to a "vice" in his office - why not the reporter? So Beware! The finger may be on you.

Counting all noses a total of 32 made the journey to the Gold Room at El Reno for the August meeting. We also had some first timers, and hope it won't be your last. Weatherford, Watonga, Hitchcock, Bethany, Kingfisher, Calumet, Okarche and El Reno were all represented, but we missed you Geary, Canton, Longdale, Hennessey and OKC. Where were you? And how about Jim, K5YZK, streakin' off to Chandler to live; Just because a skunk ran you out of your house once doesn't necessarily mean Watonga smells you know. Seriously we miss you and hope you and your YL get back to visit us real soon.

The main order of business seems to be getting the repeater license renewed, also there was a lot of discussion about repeater ID, antenna's, Crystals, Power Dividers and all those necessary evils. Sounds as if the near future holds dual antenna's and a lot more "Go Power" for transmitting and receiving, plus a new 01-61 Crystal and a back-up unit. Lookin' Good, fella's. Again, Thanks to you who devote your time and energy. We appreciate your dedication and ability. Ralph, WA5PFK, compiled a list of Wheat Straw members along with addresses and Call letters. I really enjoy this bit of information and all you have to do is "Come and Get It". Thanks Ralph. (P.S. He makes a pretty good cow-sitter too.) Congratulations are in order to Mike, WB5LJI, and Leo, KA5DUO, on up-grading their licenses. Mike to General and Loe to Technician.

Ray, K5LLX, will be net control this month. (Can you believe he's staying home a whole month) I'm not a very good "checker-inner" but I hear Leonard, K5FSN, defaulted into some extra duty. However, it kept him faithful to 01-61 on Wednesday night. Ha!

Our next meeting will be Sept. 9 @ Canton, so mark your calendar for a super-duper day. Get up early, kill the Old Red  AWK! Pack the picnic  go to church, then head for Canton and a picnic dinner meeting. A shelter will be reserved, and we'll have the "Last Round-up" on a few groceries. Check in to Wednesday night nets for details. Yu'all come, ya hear!

73

WB5WTH Reporter

Edmond Amateur
Radio Society, Inc.

MEETS: 2:00 PM 3rd Sunday Room 205
Science Bldg, Central State Univ.
PRES Howard Wise WD5IDB 341-2510
V-P Ken Stepp WD5HXX
SEC/TR Bill Wright WA5ZLW

CLUB EDITOR Howard Wise, WD5IDB, 341-2510

!!! NOTICE OF IMPORTANT MEETING !!!

Our September 16th meeting is a very important one for all EARS members. We've been operating under an old constitution and by-laws that must be brought up to date.

The club officers held a special executive meeting to draw up a new (revised) constitution and by-laws, and a copy of the proposals was passed-out at our August 19th meeting. If you were not there, and would like to have a copy of our proposed constitution and by-laws, please get in touch with one of your club officers. Futher discussions (and voting) will be held September 16, at 2:00 PM CDT, room 205 of the Science Building at Central State University....so, please be there.

ACTIVITY REPORT

Special plans have been made for a club picnic at Stephenson Park located at Edmond, Okla. on Sept. 15, 1979 at 7PM. All members are invited to bring their families along with 1 meat and 1 vegetable covered dish including their own silverware for the picnic. The club will furnish the tea and coffee. Come out and have fun and enjoy the fellowship.

At our August meeting Clarence Dollmeyer, KA5EKM presented a very good program on calculating azimuth and bearings using a hand held calculator. Thanks for a fine program Clarence. For those who missed the program we might have Clarence repeat his performance.

The September meeting will host Martin McCormick, WB5AGZ who will present a program on the Apple Computer; perhaps Martin will insert information as to the Apple Computer's application in Ham Radio.

Dee, WD5FHR

TREASURERS REPORT

Beginning Balance 7-1-79.....	\$ 92.52
Income (new members).....	30.00
Sub-Total.....	122.52
Expenses (for repr.).....	20.68
Ending Balance 8-20-79.....	\$101.84

NEW MEMBERS

Welcome to Rob Brandenburg, KA5AES and to Roger Harmon, KA5EGU.

Speaking of new members, we would very much like to have you join us. All you need to do is fill out the application below and mail it (along with your check for \$10.00) to Bill Wright, WA5ZLW, 2105 Rambling Road, Edmond, Oklahoma 73034.

```
*****
*
* NAME.....CALL.....
*
* ADDRESS.....CITY.....
*
* TELEPHONE.....Class License.....
*
* Licensed Since.....ARRL Member.....
*
* Other Club Affiliations.....
*
* Special Interests.....
*
*****
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ALTUS AREA



AMATEUR RADIO ASSOCIATION

MEETS: 7:30 PM 2nd Thursday each month
North Main Fire Station [CD]
PRES Steve Norris W5KI
V-P
SEC/TR Mike Schenkle W5VXU
CLUB EDITOR Mike Schenkle, W5VXU

The regular monthly meeting of the Altus Area Amateur Radio Association was held Thursday July 12 at 6.00 PM. In order to continue a tradition established several years ago, this month's meeting was held in a picnic atmosphere at the central City Park. Everyone attending brought their own food and drinks. The meeting had an overall feeling of informality with the major interest seeming to be the ice cream made by Steve, K5KI and his wife.

Dwight, WB5KRH, turned in a check for \$15.00 earned through the sale of a one-wheel trailer, no longer wanted or needed by the Club.

Steve reported to the membership present that a pictorial layout of the planned activities for the remaining six meetings of this year was in the process of being completed and would hopefully be ready by the next meeting.

The financial report revealed that the Club is solvent with \$271.02 in the black after paying for the Field Day activities and taking in dues and other items.

The meeting then sort of dissolved into ice cream eating and visiting among members and their families.

The August meeting of the Altus Area Amateur Radio Association was called to order by Steve, W5KI, shortly after 7.30PM, Thursday, August 9th. The financial report showed that the club was in good shape with a little over \$250 in the bank.

Members present were asked for a show of interest in starting a Novice class in the near future and after some debate it was decided that when any of the members are approached by an interested individual, a post card should be sent to the Club Secretary. This will afford the opportunity to tally the overall interest within this area and give a better overview of the need for a class.

A suggestion was brought forth that a copy of the monthly CORA C&E might be placed in the Public Library. The idea was tabled till more of the regular members are available to put this to a vote. In the meantime, the Secretary was tasked with placing a monthly spare copy there for the benefit of the reading public.

The question of handicapped persons and amateur radio was brought up for discussion and the unanimous opinion of the membership was that when a member becomes aware of a handicapped person especially when such a person is unable to communicate easily with other people, that the benefits and advantages of amateur radio be brought out and extensive efforts be made to bring such a person into the amateur community. It was felt that for each problem encountered by such a person, a solution could be found by an amateur.

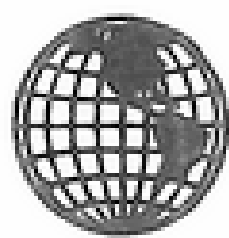
FOR SALE OR TRADE: Full size, enclosed standard 19-inch equipment rack with back-door, power plug-ins and fuses. Would like to trade for shorter 19-inch rack max height not exceeding 6 feet. Contact Mike, W5VXU, Altus, 482-1797.

FOR SALE: Hallicrafters SX-71 Receiver \$60.00. Paul Freedland WB5ZVB, 789-7534.

FOR SALE: HW-100 and Power supply, mike. \$200.00.

SHURE 520-T desk mike w/preamp. \$10.00. Dick, 732-6029.

FOR SALE: Rohn 54' crankup tower, Ham II rotor and 3 element Cubex triband quad. Used one year, near new. Good DX antenna \$600.00. Jack Harkins, W5CPI, 789-9398.



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It has been some time since I included my Ramblings in the C & E. These are probably of interest to no one, but there are a few things that perhaps some will be interested in.

HAM HOLIDAY: I am sure there will be much said in this issue about our recent Ham Holiday, but I want to add just a few words. As most of you probably know, MORI was in charge of Prizes this year. There are many people to thank for their many hours of hard work in making our part in Ham Holiday a success. A special thanks to Larry, WB5NYX, who headed up the Prize Committee. Larry did a wonderful job. I think we all found out that this was one big job. I can't remember when I have done so much walking and trying to be in two or more places at the same time in many a moon. It was worth all the time and effort. One of the most enjoyable parts was being able to spend all that money for prizes. Ron, WD5FRQ, and I enjoyed spending approximately \$2,200.00 on Sunday morning, which did not include our grand prize or pre-registration prizes. It should be pointed out that over \$3,000.00 was spent on prizes this year. I only heard one complaint that we had too many big prizes. HUH?

MORI will once again be in charge of the Prizes for Ham Holiday, 1980. This was decided at the last CORA meeting prior to Ham Holiday, 79. We have been given permission from CORA to begin immediately in working toward 1980 in obtaining prizes and commercial exhibitors. We made a few mistakes, but we learned from them, and we hope to do a better job this next year. It will be easier, we hope that is.

Although not actually connected with the prizes, the Raffle was a big success. We got a late start in getting tickets printed and making a decision on what to give for the drawing. There are just too many people to thank for helping me sell the tickets. I could list many, but I would leave someone out. Approximately \$600.00 was netted from this raffle. We will all benefit from these proceeds, as they will be used to buy a printer for C & E, making our type all the same and much easier to read. These funds went into the C & E fund, and not the Ham Holiday account.

ELECTION OF OFFICERS: The election of new officers for MORI for 1980 is coming up. The election will be held at our regular club meeting for October, with the officers taking office at the January meeting. I have asked three gentlemen, Ken, K5VVZ, Jim K5VRL, and Merwin, K5ELL to serve as a nominating committee to seek out qualified individuals for our club officers. They might be contacting some of you before long.

AUGUST PICNIC: Many club members, wives, children, visitors, etc. turned out for our picnic held at Will Rogers Park. I believe everyone had a good time and I know there were lots of good meals served. I ate my first crawdad, courtesy of Randy, WB5CNM. Once again, there are folks to thank for their hard work in making this a great success. Jim, N5BEQ, made sure we had a nice place with permit in hand, and Fred, K5HFN, had plenty of soft drinks iced down good and cold.

OPERATING HABITS: I would like to commend everyone in watching their language on the repeaters. The last time I heard anything out of the ordinary was by a W8 as he passed through town. But, we are hearing more and more "CB" terms all the time. I hear "THREES" and "THIRDS" being passed around like hot butter. Now and then a "SEVENTY THIRDS" or "SEVEN THIRDS" comes across. Folks, this is 11 meter stuff. It sounds much better to say "SEVEN THREE". With all the ribbing I have to take, it doesn't sound too bad to hear "SEVENTY THREE" or "SEVENTY THREES". UGH, but, please no "THREES" or "THIRDS".

CB JAMBORIE: Having never been to a big CB get-to-tether, I thought it would be fun to take in the local smash. On Saturday, WD5FXP, N5BEQ and myself decided to just see what went on out at the fair grounds. We each paid our buck to get in, got our badge which called for our handle and 20, and started meandering through. It had been reported that they were expecting from 10,000 to 12,000 souls from all over the country. Boy, what a joke! Expecting to see all kinds of commercial tables filled with both amateur and CB gear, we walked through and saw all kinds of pottery, doll factories, fancy clothing and at least 4 badge makers. One supposedly reputable antenna maker had a small exhibit and old "Lightening" from California had a few CBs for sale. It appeared there must have been at least 500 (not 10,000) people walking around with badges hanging down from their chests to the middle of their legs, dressed in all kinds of get-ups, a whole lot of beer being sipped, and old "Stringbean" up on the stage calling out the winning numbers. Actually, we all wanted to see who the commercial exhibitors were, and if there were any there that we wanted to make sure and not invite to Ham Holiday, 1980. We all felt like we had tossed a dollar to the wind.

K5NK

A VERY NICE MAN - VE3HYW

I had the pleasure of having Don Cole, VE3HYW, visit in my home for a few hours on his recent visit to our fine city. Don is from Seagrave, Ontario, and was in town attending schooling with his company, Data Processing. Don visited here in April, 1978, and made many friends at that time.

It was most interesting to talk to Don. Sure, he has a different accent than we do here in Oklahoma. We all found it pleasing to listen to. After all, we don't all speak English here in Oklahoma, most of us speak Oklahoman. Don is originally from England, having moved to Canada approximately 13 years ago.

We talked about many things. It was interesting to find out from him the customs of life in Canada, and how they differ, or, are like what we have here. It was very interesting to talk about amateur radio, and the governing bodies in each of our countries. They also have their duds there, as we do here. Their testing is different from ours, with essay type questions instead of our multiple choice. His license costs him \$13.00 a year, but is good for life and does not expire. When he is in the states, he must abide by our frequency allocations. For instance, he can operate phone below 14,200 at home, but when here, he must stay above 14,200. If he is operating a local amateur's station, he must use the call of the station and if that amateur holds a general class license, he can only operate in the general class portion of the bands.

We talked about taxes, both income and property. They have a pretty stiff income tax there too. He is also afraid of the revenue man, for they get audited like we do here. It was interesting to compare what he can claim for deductions and what we can. We talked about the costs of homes, radios, gasoline, automobiles, speed limits, license plates, and you name it, we talked about it.

I know Don thought I was the most inquisitive person that he had run into in a long time. I was full of questions, and he graciously answered all of them. Now & then he would be telling me about something and I would stop him to ask him what he was talking about. For instance, he was telling of an instance when he was looking for a water line and found a hydroline. I had never heard of this before, be he explained to me that most of their electricity is produced from hydro-turbines, thus, the power is run through hydrolines. When he told me that his wife wrapped her car around a hydropole, I had no problem understanding what she had done.

Don has fallen in love with Oklahoma City, and especially its ham fraternity. He feels right at home here, and made mention that it wouldn't be hard to move here on a permanent basis. He says that we are the friendliest people he has ever seen, and we make him feel most welcome. Of course, he has managed to miss our tornado season on both visits. He was surprised to find out how much snow and cold weather we have had the last two winters, but still not as bad as in his country.

We fell in love with Don too. He is a very nice man and a person that we would love to have here in Oklahoma. I hope Don can make another visit here before too long. If he does, make a point to visit with him. I think you will find him to be a most enjoyable person to talk to, even if he does have a funny accent. K5NK

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BREEEAAAK

K5NK

One night recently, I eavesdropped on a typical conversation on one of our local repeaters. As one of our local amateurs has stated, listening is a very good way to learn things. It was most interesting, and I would like to share it with you. It could have gone something like this.

This is WD5KFT monitoring. KERCHUNK. WD5KFT, this is WD5FXP, how are you doing Clara? KERCHUNK. Oh, hello John, WD5FXP, this is WD5KFT. It's good to hear you, and I'm doing fine. How are you doing John? KERCHUNK. Very good Clara, by golly, things are fine here and it's good to know you survived Ham Holiday. KERCHUNK. Yes John, I certainly did enjoy Ham Holiday this year, and it was good to visit with you and I enjoyed visiting with your wife. She certainly seems nice. KERCHUNK. Well, Clara, she is a nice gal by golly and she enjoyed meeting you too. KERCHUNK. This is WA5CZN. KERCHUNK. Well, look who's in here with us John, WA5CZN with WD5FXP, this is WD5KFT. It's good to have you join us Doc and I'm sorry you had to miss Ham Holiday. KERCHUNK. Yea, WD5KFT with WD5FXP, this is the voice of beautiful Bluff Creek, WA5CZN. Good evening folks, yep, I'm sorry I had to miss Ham Holiday, but my wife would have killed me if I had not gone to Denver. KERCHUNK. Well, very good Doc, but it's good to have you back home and I know you enjoyed your trip to Denver. Say hello to Doc, John. KERCHUNK. Yea, Doc, WA5CZN and the group, this is WD5FXP, by golly, it's good to hear you Doc. Boy, you missed a good Ham Holiday by golly, but by golly, you would have won all the prizes if you had been here. How you doin Doc? BREEEAAAK BREEEAAAK. KERCHUNK.

Yea, John, stand by, we have a breaker, we must have an emergency. Go ahead breaker this is WA5CZN. KERCHUNK. No Doc, no emergency, I just wanted to get in here with you folks. WA5CZN and the group, this is WD5XXX, go ahead Doc. KERCHUNK. Oh, ok, I thought maybe you had an emergency there the way you broke in Bob. Well, I certainly hated to miss Ham Holiday, but it was just one of those things, I couldn't be at two places at the same time, and I just felt like I needed to be in Denver. KERCHUNK. BREEEAAAK. KERCHUNK. Ok Doc, we have another breaker. Stand by breaker & we will pick you up in a minute. Ok Doc, by golly. Say, I got me a new two meter beam and I got that dood up at the 80 foot level. Boy, I can hit every repeater in the state. Go ahead Clara. KERCHUNK. Ok Doc, neither John nor I won any prizes at Ham Holiday, but we sure had a good time. KERCHUNK. BREEEAAAK. KERCHUNK. Oh, I'm sorry breaker, I forgot about you. Go ahead, this is WD5FXP. KERCHUNK. Yea, WD5FXP, this is WD5ZZZ, boy I thought you guys weren't going to let me in there. I need someone to call the police for me. I just had an accident with a lady and we need some help. Could one of you call them for me? KERCHUNK. Oh sure, WD5ZZZ, this is WD5FXP, I'm sorry, so many people just yell BREEEAAAK, and you never know when it's an emergency or not.

This didn't really happen, but it could have. John, Clara or Doc are not the type who would practice this type of operating. It's easy to yell BREEEAAAK when one wants to join a conversation. It's just as easy to give your call when you want in. Not only is it good operating procedure to give your call when you want to be recognized, but it is also recognized as standard operating procedure that when an emergency does arise, to say "BREAK". This will alert the others that there is an emergency and the frequency should be relinquished to the station with the emergency.

You know it's a bad day when you want to put on the clothes you wore to the party and there aren't any.

You know it's a bad day when you turn on the morning news and they're displaying emergency routes out of your city.

You know it's a bad day when your wife runs off with your clone.

You know it's a bad day when the sun comes up in the west.

You know it's a bad day when your boss tells you not to bother to take off your coat.

I HEARD: OHK is ready to tar and feather NK.....SVN is color blind - can't tell black and orange from red and white.....SJX came to Ham Holiday disguised as a rubber duckie.....PZW yearns to sail the South Pacific.....VZU out baling hay in his front yard.....BFF has 2 bugs that are housebroken.... BEQ upset for not making this column in the last 3 months.....FXP by golly..... TKG making recordings.....BMP out looking for a house which looked something like a boat.....AUP busy pounding brass.....KFT with a quiver in her voice as she traveled a dirt road.....CZN making arrangements for lodging in Houston.....SVN has a hard time telling little old ladies from long-haired hippies.....OZE admonishing a business caller on the auto-patch.....GKK out chasing drunks.....MCJ bought some new old brass.....IH has a fold over tower for sale.....JVD on his \$90??? radio.....BEQ napping during his net control duties.....AUP's words of wisdom are accidental.....5Y made his boss mad.....UKP can drop off to sleep at the drop of a hat.....NBH testing and by.....FXP kerchunking unknown repeaters.....FKF beat SW out of a couple bucks.....INZ had to explain his rabbit hunting antenna too many times.....ØO could do nothing right at Ham Holiday.....JQH fell in love with his rooms at Lincoln Plaza.....FKF has two dogs named after him..... 5C is well suited for retirement since he is naturally lazy.....ETB has closed all air space to birds over his property.....IRO flips his switch at 10:30... KT's radio gets hot when he talks too long.....ZKY reminising his W.W. II flying days.....DYJ giggling while eating Mexican food.....DYI accusing a friend of bribery.....FRQ got rid of his ignition noise.....ERL saw two trees chasing a dog.....CHE yea, roger that.....VVZ finally figured out how that new rig works on simplex.....PWZ has a headache.....SRX has been losing dits.....BEP found out what a bug is.....BEQ whistling.....SJX never liked eats.....CHE yea, roger that.....SRX spends half his time on cw apologizing for his mistakes.....BS is Gung-Ho.....SJV and SJX are hair brothers.....WM is the all American boy.....CTS doesn't have the shape of an XYL.....WM told to keep his hands to himself.....PVL sneezing so he can use Q signals on phone.....GKK throwing up when ???passed his "Threes" to him.....BEQ rolled up his pant leg when NBH was telling all his big ones.....and a whole lot more. K5NK

Calling All Women Amateurs.....

The Oklahoma YL Net meets every Thursday evening on the 146.16/76 repeater (compliments of the Bicentennial Club - 76ers). All women amateurs with technician licenses or higher are invited to check in each week. Net control station is on a voluntary basis, thus giving all YL's an opportunity for training.

Congratulations to the following YL's with recent upgrades: Karen, WD5HBX, Advanced; Mary, N5BCG, Advanced; Mary Lou, N5BAX, General; and N5BLJ, Jerry, General.

The YL Net needs the participation of all YL's in range of the 16/76 repeater. Don't wait another week. Check in this Thursday evening at nine o'clock!

33

Clara, WD5KFT

Wanted to Buy; Heath HW-8 at reasonable price. Jess, 321-7302, W5SQJ

FOR SALE: Drake encoding mike (1525 EM). Like new. \$35. WB5TZZ, 329-1311 in Norman.

!! INTERMOD !! !! INTERMOD !! !! INTERMOD !!

!! 146.52 INTERMOD !!

THE SECOND HARMONIC OF THE OUTPUT FREQUENCY OF THE 07/67 REPEATER CAN MIX WITH THE OUTPUT OF THE 22/82 MACHINE TO PRODUCE THE 146.52 INTERMODULATION PROBLEM THAT IS SO WIDESPREAD IN THE OKLAHOMA CITY AREA.

(146.67 x 2) - 146.82 EQUALS 146.52

WB5TKG

DISASTER AREA COMMUNICATION USING COMPUTERS

The amateurs who handle emergency traffic into and out of disaster areas become very tired by almost constant attention to their job. After a very few hours of this they are worn to a frazzle. What are these amateurs doing? They are PROCESSING DATA!!

A computer can process data without getting tired. If we had computers helping us, we could gain a lot more people-type help, also. Ellard Foster, W5KE suggested in May, 1979 Collector & Emitter, page 4 that "a computer hobbist might be able to catalog names to speed up replies to health and welfare inquiries." A disaster area amateur could use a computer and its operator to keep from getting weary, bleary-eyed and full of coffee. The amateur could sleep while the computer operator (or operators) prepared a tape or disc of health and welfare replies, for instance. One of the computer operators would then awaken the amateur who would review the tape for content. He would then push the button that would transmit the entire group of replies to a nearby control station outside the disaster area. The time of transmission of a group of messages like this would depend mostly on the speed of the tape machine, which can be a matter of minutes.

If a network of amateur-linked computers were set up on time sharing, each station awaiting a reply would have it spelled out across the screen of his or her computer. An audible alarm could be programmed into the system to alert each recipient as the messages arrive. Any of these stations could put messages into the net at any time.

Information on a ham-computer network is given in Ham Radio for June, 1979, on page 64. The title of the article is An Introduction to Packet Radio (Caps Are Mine). This article comments on the marriage of ham radio & computers, explains time sharing, packets, networks and related technicalities. Mr. Hodgson, the author, says that a packet is a uniform bundle of information that is inserted into the network at a very high speed. The operator does not need a "go ahead". Time sharing makes you think you have the whole computer to yourself, he says. This talk of high speed sounds like the disaster area operators will have to work a lot faster. Only the transmission (or recording) of data is fast. The operators may poke along on their keyboards as slowly as they wish.

One computer inside a disaster area that is linked with the outside world by amateur radio could probably accept all kinds of messages and priorities in any sequence. The computer would be programmed to keep it all filed neatly and properly.

Mr. Hodgson, in his h. r. article says, "Sounds complex? Well, it is. But don't forget how inexpensive complexity is becoming. . ."

We all know what wondrous things computers can do. My article is to emphasize this in the area of emergency communications and to urge the present emergency planning sessions to give computers every consideration.

A network of computers with ham radio could be used when there are no emergencies just like our present nets are operating. We could add a few things like playing games and conducting engineering sessions by the "brains" among us.

- Bill, WA5RAQ

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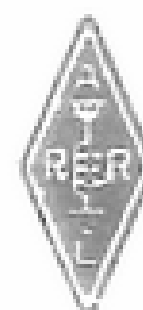
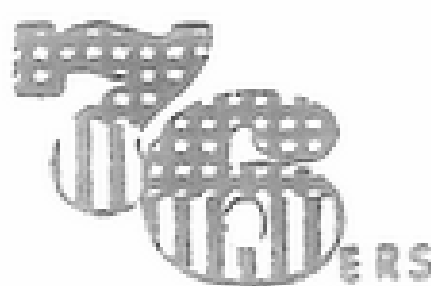
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BICENTENNIAL AMATEUR RADIO CLUB

MEETS: 7:00 PM on the 2nd Tuesday of each month
at Air National Guard - Will Rogers World Airport
President: Mark Northcutt WD5DYI 842-1086
V. P. : Joe Ramage WD5TDW 685-4814
Secretary: Joe Couch WD5HMF 282-4353
Treasurer: Don Duck AE5N 681-0133
Editor : Chas. Kemmerer WA4FLC 632-4653



Sponsored by Oklahoma Air National Guard

There are no minutes this month since the August meeting was replaced with our annual picnic. The picnic was held at Rotary Park and everyone had a great time. Almost everyone remembered to bring something to eat - everyone except K2GKK/KA5BJS. We still don't know who was supposed to pick up the salad on the table at home.

ALL SEVENTY-SIXERS: Your club editor needs material or suggestions for this column. Even if you prefer not to write, I will accept suggestions by telephone.
Call me at: 682-7548 (days) or 632-4653 (evenings)

* * * * *

We are still having hidden transmitter hunts at 2:00 PM on Sundays following the seventy-sixers meetings. The hunts begin at Woodson Park, 29th Street immediately West of Interstate 240 and operate on 146.52 mhz. Come on out and join us!

* * * * *

Your club editor has a new Yaesu FT-227RB purchased at Ham Holiday. This fully synthesized two meter transceiver includes a touch tone encoding microphone and built in scanning with scan controls on the mike. I have several "improvements" in mind for it if I can get a complete set of schematics from the company. I will publish any workable ideas I come up with in this column. One simple suggestion would be to replace the up (or down) scan button on the microphone with a miniature slide switch. When switched on, this would cause the scanner to automatically resume scanning when the busy frequency becomes clear.

WANTED: 6 meter HALO antenna. Woody, W5FMX, 842-1663.

FOR SALE: 6 meter beam, 5 element Cushcraft, New, \$50.00.
6-80 meter Xmtr. Make offer. Dee, WD5IRL, (405) 262-0130.

FOR SALE OR TRADE: 40' Tele-Tower, crank-up, break over. List price \$440.62. Make offer. Heinz, WB5ZGP, 685-2571. Also For Sale: Wilson M-103, 3 el, 10 MTR Monoband beam. \$35.00.

Would the gentleman at HAM HOLIDAY who had the Swan WM-2000 wattmeter please contact Marvin Moss at 1904 Tyler Street, Altus OK 73521. Thanks.

HAMERICKS

There was a novive named SAM
Who realy loved to HAM.
His wife whined she'd ADIOS
If he didn't give up his RADIOS
So for his Amateur Extra he did CRAM!

There was a ham from KENT
Who so much traffic had SENT
Was often heard to MUMBLE
"Sure hope I don't FUMBLE,
'Cause my key is terribly BENT!"

There was a little old lady from WHEELING
Who had a funny FEELING,
So she went to her SHACK,
Gave the old rig a WHACK,
And worked a VU2 in DARJEELING!

(Ed: The above was received in a plain envelope. If th writer will identify himself/herself credit or blame will be given.)



BICENTENNIAL AMATEUR RADIO CLUB

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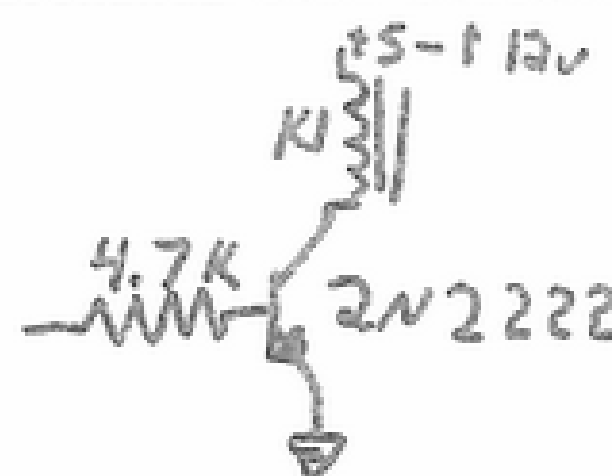
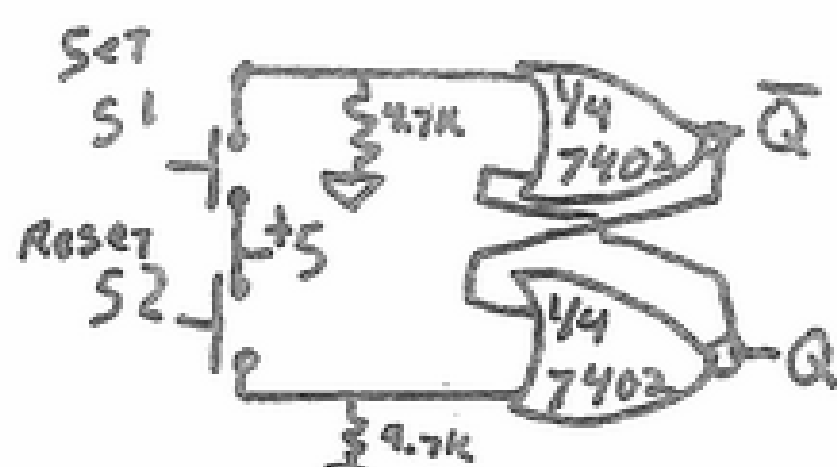


DIGITAL LOGIC-Part Three

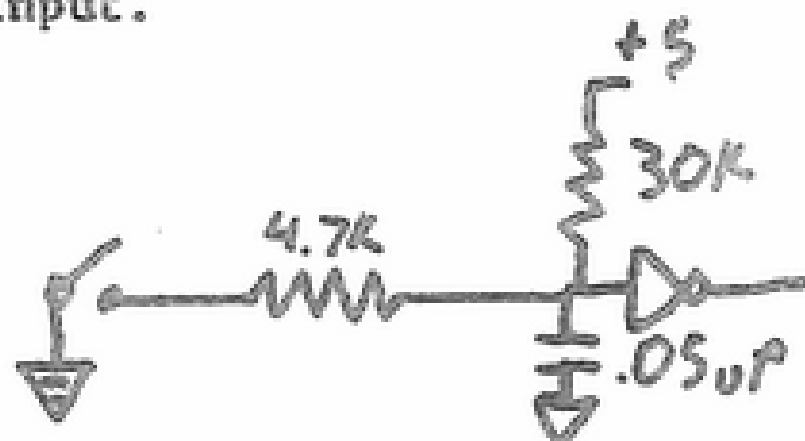
In the past couple of months I told you about six types of 'gates'. They were the OR,NOR,AND,NAND gates. Also there was the Buffer an Inverter. This month I will show you a couple of circuits that use a few of these. The first is made up of two NOR gates. In this configuration they form a RS latch. The circuit has two outputs,Q and \bar{Q} . It has two user available inputs which we will label R and S (reset and Set). Notice the pull down resistors on the inputs. These are to insure that the inputs actually are at a low state when no switch is pushed. If they were not included the inputs would be "floating". The circuit could work without them but it is possible that they would not go low enough without them. The truth table for a NOR gate was in last months article and will not be repeated here. Try to figure out how the latch works.

When switch S1 is pressed the Q output will go high and stay or latch in that state. Even if the switch is released and pressed again the latch will remain latched in the 'set' state. To 'reset' the latch just press S2. The only thing which you should not do is press both switches at the same time. This will not hurt the circuit, but it will cause both outputs to go low. This state is non-stable. Which means it will not persist longer than both switches are pressed. The uses for this circuit is varied but it could replace a mechanical SPDT switch. Although it will only switch voltages.

Here is the RS Latch:



The optional circuit at the right of the latch is for a relay driver if you wanted to control something that required a higher voltage than 5 volts. I have just about run out of ideas to add to this basic lesson in digital logic. Fortunately a few, very few mind you, people have given me the next idea. The next circuit is one simple solution to a very common problem. It is used to cure an annoying problem of keybounce. For those of you that don't know, keybounce is when a switch when closed or open actually closes more than once. The contacts actually 'bounce' apart for a short period of time. This really is not very apparent except when working with digital equipment such as a electronic keyer with dot and dash memories. The circuit in fig.2 is using a simple RC network which has a time constant longer than the 'bounces' width in time. The two circuits below are for a negative going and positive going input.



The resistor should be between 1k to 10k and the capacitor between .01 uf. and 1.0 uf.

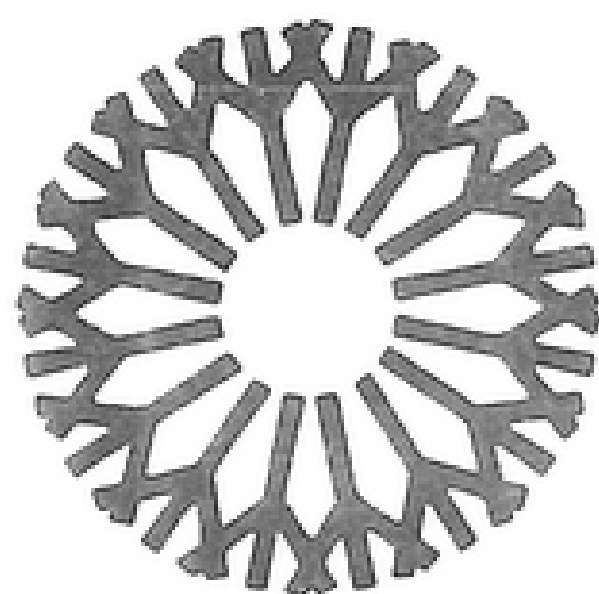
Thats about all that I can say about the simple gates in TTL circuits. It has been suggested that I go into micro-computers. Anyone interested? If There is enough interest in the subject I will be glad to go over the basics but there has to be enough interest in the subject to do it. Please let me or the club editor of the 76ers hear any suggestions. I hope this mini series has helped a few of you out there. I appreciate the suggestions given to me by a few amateurs that contacted me. 73,Lloyd Kirk WB5HUP

See individual club sections for times, places & information.

SEPTEMBER HAM HAPPENINGS						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	OTWN 5:45 p.m. 3.9 MHz DAILY.		ONON 10:30 p.m. 146.07/87 MHz DAILY.	YLNET 9 p.m. 146.16/76 MHz		1
2	3	MORI		O.U.	ACARC	FLEA MARKET N.W. Hwy. at May Ave.
WHEATSTRAW	A.F.MARS 7 p.m.	SHAWNEE 76ers	AMATEUR CLASSES BEGIN @ Red Cross	ALTUS CHOCTAW ATV		8
9	10	11	12	13	14	15
EARS		AUTOPATCH	Ed + C + E @ Red Cross	KAY COUNTY O.U.	OCARC	SCARS
16	17	18	19	20	21	22
23		SHAWNEE	ACARC mails C + E @ Red Cross	WHO'S 67 TODAY?	WHO'S 40 TODAY?	
30	24	CORA	25	26	27	28
						29



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Amateur Radio Identification License Plates will be issued for the calendar year of 1980 and will be available no later than January 1, 1980. You are, however, required to purchase the decal for your regular tag during the month indicated on the tag in order to keep your vehicle currently registered in Oklahoma. The decal should be permanently attached to the regular tag. Failure to purchase these decals on time will result in a penalty.

- (1) Any person, holding a valid operator's license, conditional class or better, issued by the Federal Communications Commission, and who is also the owner of a motor vehicle currently registered in Oklahoma, in which has been installed amateur mobile transmitting and receiving equipment, shall be entitled to two (2) special vehicle identification plates as herein provided.
- (2) The identification plates herein provided for shall be issued to the individual and shall not be transferable from one person to another. The plates may be transferable from one vehicle to another, provided, the applicant notifies the Oklahoma Tax Commission of this transfer.
- (3) Application must be filed prior to October 1. Identification plates shall be in force during calendar year for which issued, unless F.C.C. license expires or is revoked, in which event said plates must be surrendered to Oklahoma Tax Commission within five days.
- (4) Applicants shall only be entitled to one (1) set of special identification plates in any one year.

(detach here)

CUT ALONG THIS LINE

OTC 718-R

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