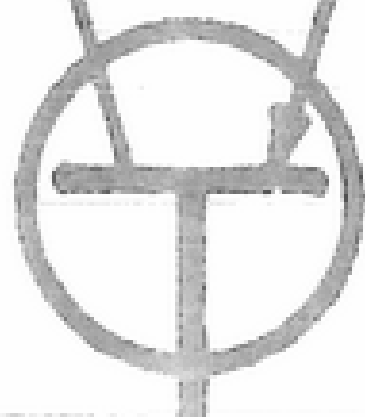


Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER

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AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

VOLUME 3

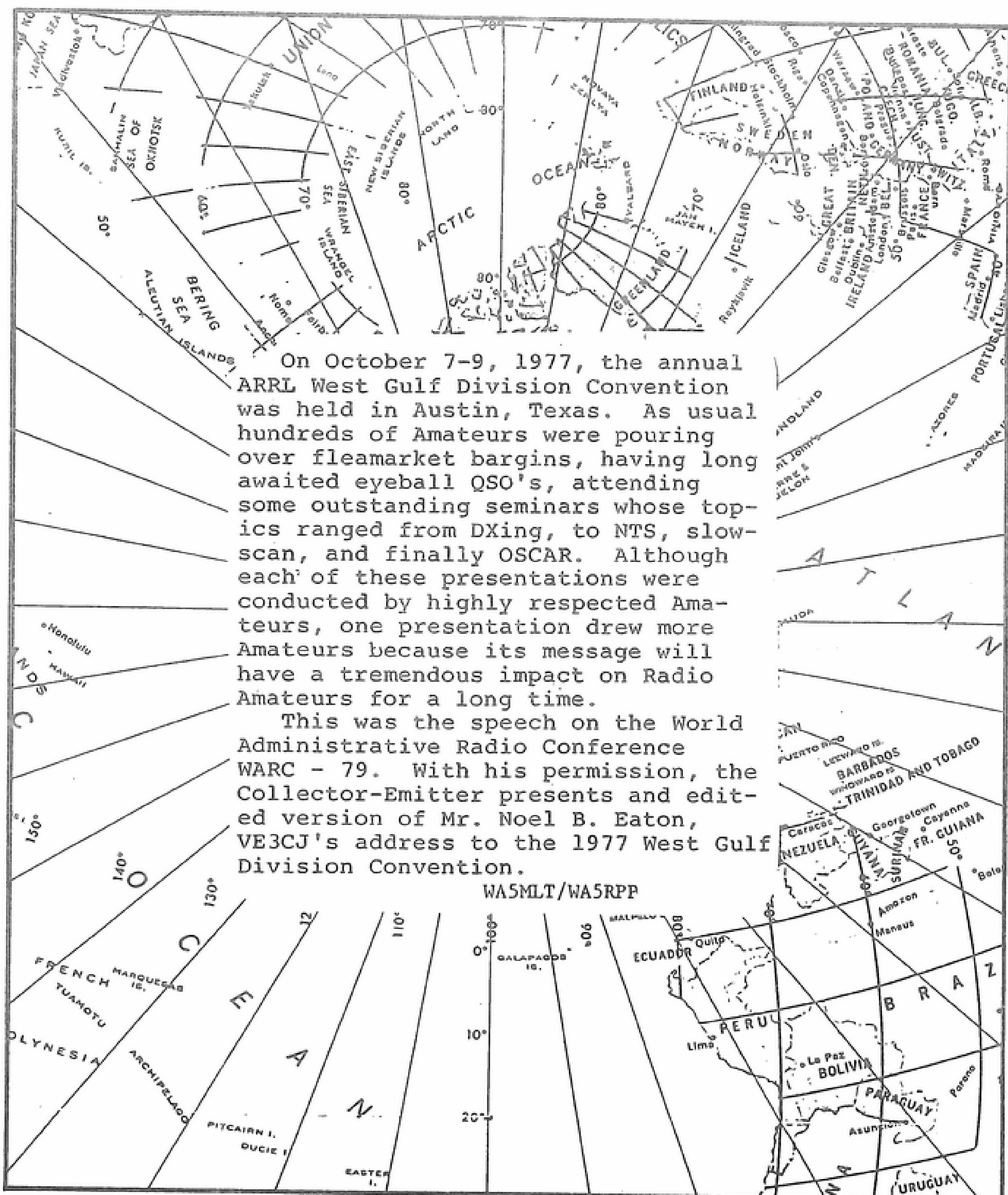
NOVEMBER 1977

NUMBER 34

On October 7-9, 1977, the annual ARRL West Gulf Division Convention was held in Austin, Texas. As usual hundreds of Amateurs were pouring over fleamarket bargains, having long awaited eyeball QSO's, attending some outstanding seminars whose topics ranged from DXing, to NTS, slow-scan, and finally OSCAR. Although each of these presentations were conducted by highly respected Amateurs, one presentation drew more Amateurs because its message will have a tremendous impact on Radio Amateurs for a long time.

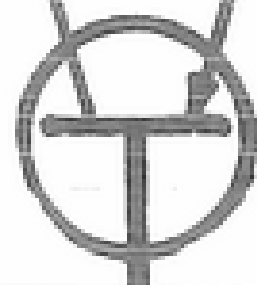
This was the speech on the World Administrative Radio Conference WARC - 79. With his permission, the Collector-Emitter presents and edited version of Mr. Noel B. Eaton, VE3CJ's address to the 1977 West Gulf Division Convention.

WASMLT/WASRPP



Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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

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A REPORT ON WARC - 79

Noel Eaton, VE3CJ
Vice President, ARRL

Thanks very much. Actually, I had no hesitation in coming here. I have not taken my shots to come down. I have those coming up on Tuesday, when I get home to go to Africa. But, I felt no fear or hesitation in coming to Texas, because I have been here before and I found the welcome was marvelous.

Again, let me thank you for asking me. I like speaking about Amateur Radio and WARC - 79 and, although I am grateful for what Jack (Gant) said earlier about the importance of the work I am trying to do, it is by no means a one-man job. It is a team effort on which a lot of us are working.

I propose this morning to talk a few minutes then answer a few questions you might have. I would point out that I am by no means an expert on the U. S. position, because the U. S., although it is the largest of the IARU societies, is only one of ninety-eight, and for that reason, I can not possibly be a specialist on the U. S. I would perhaps commit to knowing something about the Canadian position and their WARC preparations, but that's just because I am a Canadian and I accidentally happen to be involved in it.

I suppose all who are a member of the League and many who are not have read about WARC 79. What is it? Well, in the first place, it is a conference of the ITU. You know, this leads me to say that a great many of us who are involved in this work have the unfortunate habit of using abbreviations, initials, and other kinds of governmental "gobble-de-gook" that make it very difficult for most people to understand what we are talking about. So, let start off to try to explain and unscramble the alphabet soup we use.

First and foremost, there is the ITU itself. ITU stands for International Telecommunications Union. It is an arm of the United Nations, although it is very much older than the U. N. It was founded well over a hundred years ago. Originally, it was a means to establish telegraph rates, telephone rates later, and then technical standards. Today in Geneva, we have an organization to which practically every country in the world belongs, and this is the one that gives us our Amateur frequencies. Without convening the ITU regulations, no country can give its Amateurs or any service frequencies which the ITU has set aside for Amateur purposes, except under most unusual circumstances. It's run, like any other big organization, by a big conference every once in a while of everybody. In between, it's run by a thing called the administrative council. And, it really is the one that does all the administrative work of calling conferences.

It has two assisting organizations that you'll hear us talking about all of the time: IFRB and CCIR. The International Frequency Registration Board, which is just exactly what it is and the CCIR which is French for the Consultative Committee on Radio which helps with technical advice. The ITU can ask what are the problems in sharing frequencies in space. The CCIR brings together its experts and explains this to them. From time-to-time, they hold all kinds of conferences. Like governments they never describe things very carefully. They hold administrative conferences where they discuss and decide on everything except administration. And, that is why WARC 79 is called the World Administrative Radio Conference 1977. Here they will discuss everything except the administrative part of the ITU. For administrative matters, they will hold a plenty-pot conference that deals with the house keeping.

There has been a trend recently, because the administrative conferences have gotten so big and unwieldy, toward special services conferences. You have heard about the space conferences, the satellite-broadcast conference, the aeronautical conference coming up next February, and the maritime conference. These are special service conferences. We never get one of our own, because we are not big enough or important enough.

The last big administrative conference was in 1959. Next is 1979, almost two years from now. It will run for the last ten weeks before Christmas. This is a trick. They figure that if they run it for ten weeks, and I really don't think they are going to finish in ten weeks and there are a lot of people that share that opinion, they will get people to work very hard to get home before Christmas.

Now, things have changed between these two conferences. Back in 1959 there were about 85 countries. They were largely the countries of the Americas, and the countries of Western Europe, the developed countries, if you please. They had a pretty good understanding of Amateur Radio. In spite of that, at every conference there has

continued-

been since the beginning, we have taken somewhat of a beating as the other services have discovered the advantages of the higher frequencies and taken advantage of it. What makes this frightening, if you want to use that word, is the fact that since that time the ITU has grown from 85 to 153 countries and it now includes all the developing countries, many of whom have no interest in, or appreciation of, Amateur Radio. This is what makes it very, very difficult for us. Simply because at the ITU, it is exactly as it is at the United Nations...one country, one vote.

There has also been a tendency in that time for the conferences to change from being conferences of engineers, people who knew the technical details of what they were talking about, to being highly political. In other words, you'll find that from the States you'll have FCC people. You'll also have a large number of people from state. In Canada, people from external affairs will attend. These are political advisors. Because these new countries that I was talking about have a tendency to vote for political reasons, and boy does this get dangerous, and because they can gang up on you, and there are more of them than there are of the people who support Amateur Radio, the conferences are conducted much differently.

At these conferences, IARU or any other group can not attend except as an observer. At one time, we were automatically admitted. There were five organizations originally set up by the ITU who could automatically come to any conference: the United Nations, International Red Cross, World Health Organization, and IARU. However, now no one is admitted automatically. What you have to do is be put on a list and they let you come in by vote. I have never heard of anyone being refused, although countries have been refused for political reasons. So, we go only as observers. We cannot speak unless we are asked to or unless we request permission, which is an extremely dangerous thing to do. It means we have to get anything that we want said, said for us by some government.

What does this conference do? Well, it goes over the frequency allocation table. The other thing that is very interesting, from our point of view, is Article XLI. The one that covers the Morse Code requirement and third-party traffic agreements. These are the things in which we are very interested; although, we discuss other things. The unfortunate thing is that the ITU has absolutely no enforcement power. If people don't want to go along with what they decide, they don't have to. There is no way to force them.

The danger of such an organization was seen long ago, more than fifty years ago, by the ARRL. The ARRL took the lead in getting a group of National Societies to form the IARU: International Amateur Radio Union. About 15 of them there were in 1925 for preliminary discussions in Paris; 25 in 1926. Now we have 98 or 99, but there are less than 3,000 Amateurs in the world who are not represented by a national society and the IARU. So, we certainly have the bulk of Amateurs with us as long as they are members of their national societies. IARU has a lot of very fancy objects in it, a constitution provides promotion of the art, and development where no society exists. But, the real purpose of IARU is to provide protection of our privileges. This is the most important job that it does.

One society provides the Headquarters for the whole 99. This has always been ARRL. Frankly, it's because we have been the only people who could afford it. And, this brings up the interesting question, why a VE is President of IARU. It is because we are a bi-national society, and I am sure there are a great number of advantages to that to both sides of the border. The only other thing that IARU does that you personally come in contact with is that it issues the WAC (Worked All Continent) certificates. There are no dues and for that reason the load has to be carried by our society, namely, the League.

Some years ago, some people in different parts of the world thought that there were some advantages in having a regional organization. They decided originally in Europe that there were many things they could do locally which a world-wide organization was not set up to handle. They founded, what they called, IARU Region I. Now, the ITU on its allocation of frequencies splits the world into three regions. Region I is Europe and Africa and all of the USSR; Region II is the Americas'; and Region III is Asia, Australia, and the rest of the world. They do a lot of regional things we would not want to do on a world-wide basis, such as band-planning and emergency nets. As you can understand in Europe, you cannot do this kind of thing on a national basis. And this makes it very necessary to have some organization which can deal with all these countries at once. These regional organizations, I am very happy to say, are now taking over a great deal of close association with the societies in preparation for WARC 79, because the approach in many cases cannot be quite the same in all regions of the world.

Basically, there is the background and now let's talk about the problem we are immediately faced with. What are we doing about it?

Well, we have known for some years that this conference was coming in approximately 1979 or 1980. We have been doing a lot of preparation for it. But, you could

continued-

not do much until you knew when the conference was and what the terms were. It's the opinion of many people, not only Amateurs and many government people, that because of the development of satellites and cables the pressure on the higher frequencies would be less. Well, it's a nice charming thought, but you should see what some of the broadcast services want and what the maritime services want. The pressure may come from different people, but the pressure is going to be very heavy on HF and it's going to be extra-super-heavy on many parts of VHF and UHF. We used to think, you know, that there were thousands of megahertz up there in the tall figures. No way. They are just being gobbled up hand over fist by all kinds of services.

There is very little we can do to protect ourselves once the conference is started. As I explained to you, we can be there, we can talk to the various government delegations, but the real work we have to do is long before. This is because every government starts off as soon as the conference is announced making preparations for it. Bigger countries start farther back. The U. S. and Canada have been working for about two or three years in their preparation. The United Kingdom and most of the European countries have started, but many of the smaller countries of the world have not even started at all. So, it seemed to us that the first thing we had to do was establish a common request. What did we want?

At three conferences, which were held in the three regions Hong Kong, Miami, and Warsaw, each region adopted, I am very thankful to say, a position paper, which had been drawn up at IARU Headquarters. It is almost identical, there are some minor differences, but we drew up what we think we need to carry us through approximately the next 22- to-23 years, to about the year 2000. You'll be interested in knowing that we estimate that by that time there will be something like four million licensed Amateurs in the world. You might also be interested to know that the most Amateurs in any one country is not here in the States but in Japan. For the last time I was there, two years ago, the figure they gave me was 375,000. You should hear 2-meters in Tokyo. (Response from audience) We therefore have now got a common position. About that time, I made a decision, not a very bright decision, that not all the brains in the world were in Newington. Having been a Director for fourteen years, I already felt that way. I got together what we now call the international working group. Which is myself, Vic Clarke, W4KFC who is the Vice-President of IARU, and a representative from each of the three regions and one from Headquarters. We are meeting about every six months to make sure that everything is being done that should be done. The very first thing we did was draw up a standard position paper which any of the smaller societies could use in approaching its government. It has been produced in enormous quantities and several languages. There is nothing secret about it and we have distributed this to all the societies in the world and said, "Here is the basis we think you should use in approaching your government." It gives the reason, the background, the frequencies, and all the rest of it. We are now up-dating that at our meetings. Through circulation all over the world, I am happy to report, nearly every society has used it as the background for the approach to its government.

Finally, I am sure someone will say, "What can I do personally to help," because at that point most of you would like to help. We have had a great many offers. There is very little that an individual can do. Support your National Society, of course, is the first: your behavior on the the air here, but for heavens sake, most important overseas. Time and time again at Geneva conferences of the ITU, someone from IARU will be told by a government man from, you name it, take your choice, one of the smaller countries, the behavior of some of the Amateurs who come visiting my country from Europe, Canada, the U. S., South America, wherever they come from, is absolutely dreadful. I was approached once by a chap from Guiana who related an incident about a visiting Amateur who after two days was conducting third-party traffic to his home in Canada using a 30L-1 amplifier, both of which were not permitted. The chap says, "Do you think I'm going to vote for that kind of service, one that can not behave in my country?" These countries are new and let me warn you they are very proud and very nationalistic. They are not going to have anyone from abroad breaking their regulations. So, if you have the opportunity to go overseas, behave and respect their regulations.

The other thing, if you have any contacts in any of the countries that you think might be useful, or if you have anything that you would like to suggest, we want to hear it. Frankly, to contact some of these countries is one of the most difficult things in the world. We find in many countries in Africa and in Asia there are practically no Amateurs at all. Let me emphasize, that it is absolutely impossible for me or anyone else to walk into these countries and tell or even attempt to suggest to a government the way it should vote in 1979. That is interfering in their internal affairs and it is extremely dangerous and could lose us votes quicker than anything else. (CONTINUED ON PAGE 15)

CAN AN OLD TIMER RETURN?

Many of us, for an assortment of reasons, have had to discontinue our amateur operations. We have been out of date with present practices of the art. We are now retired, have time, and wish to reestablish our amateur activities. Some still hold their license, some must start over. We are at a loss to comprehend the advancements over the years. We need help. Where do we go?

We remember the SW-3, the TPTG 210 transmitter, loop modulation, and copper tubing from the auto store annealed in our parents furnace, some could wind our tank coils. Making our own tank condensers, making fixed capacitors with pieces of glass and tinfoil. They were immersed in wax to seal them against moisture. Cutting laminations and winding our own transformers, etc.

With this background, even with reading the new periodicals, we are awed by P-N-P or N-P-N, repeaters, autopatch, rabbits, alligators and processors, DSB, SSB, SSSG, electronic keyers, digital readouts, synthesizers, transceivers and transverters.

Whatever happened to the decrement, RF ammeters, VAR couplers, crystal detectors, heli-coils, rotary spark, HF transformers, quenched gaps, mercury arc rectifiers, "Y" cut crystals, Marconi antenna and counterpoise, carbon double button mike, the Kellogg tube, UX 200, UX-201, 210, 250 (1st modulator tube), Reinhart's Osc circuit, TRF receiver, and the great advancement - the Super-Het?

Well we may have memories of that age but we want to join the present of amateur radio. We do need some help. We are requesting it. We do not feel we should be integrated with the raw beginner but helped on our own level. WHERE DO WE GO?

Carl A. McKay, W5FMR
1st licensed 1929, W9IDZ
6109 SE 10th Midwest City
Phone 733-0393

FOR SALE: Wilson 1405SM, 1-5 watt switchable with crystals 52/52, 07/67, 22/82, 34/94, 63/03 and 81/21. Touchtone pad, leather case, charger, speaker mike and 10.7 xtal filter. \$350. Paul, W5ZVB, 789-7534.

FOR SALE: Cushcraft VHF twist, 10 el, vert/10 el horiz. w/50 ft RG 214 coax, \$35. Hygain vertical 18AVTWB, like new, \$60. Hilary McDonald, N5AX/W5UNF, phone 794-8672.

FOR SALE: EICO 753 tri-band SSB/AM/CW transceiver, w/ AC & DC power supply, electronic keyer, Vibroplex key, D104 mike, Hy-Gain 18AVQ 10 thru 80 trapped vertical. \$225. + Heath HW7 QRP transceiver, 15, 20, 40m. Home built Accu-keyer, \$70. + Jerry Sproul, WB5ZFK, 354-2061.

FOR SALE: VHF Craig pocket scanner - like new, 4 channel high & low band, 4 std or nicad 'AA' cells, great for monitoring 2 & 6 meter repeaters & comml. Case w/ belt clip, collapsible whip & rubber duckie. 146.67, 147.21, OKC police N&S(2), OHP(2). New \$150/Sell for \$115 or trade for R/C model gear. Oscar Staudt, WB5GCX, 734-2586+ 282 6504.

FOR SALE: Wilson 1405SM 2m hand held, 1 or 5 watt, monolithic xtal filter, tone pad, rubber duckie & whip, leather case, nicads, external mike/speaker, charger, antenna jack to PL25n patch cable. 52/52, 34/94 22/82, 07/67, 81/21, 13/73 xtal. Cost \$470/Sell \$350. Oscar Staudt, WB5GCX, Office 734-2586 Home, 1-282-6508 (Guthrie)

FOR SALE: 2 KW 12VDC gasoline driven generator. 133 amps. Up to 21 open circuit volts, can be used for light welding. Complete w/ helmet, welding cable & rods. Cas & Cables to charge up to 10 batteries. \$250 - or make offer. Don, WA5TAW, 733-3044.

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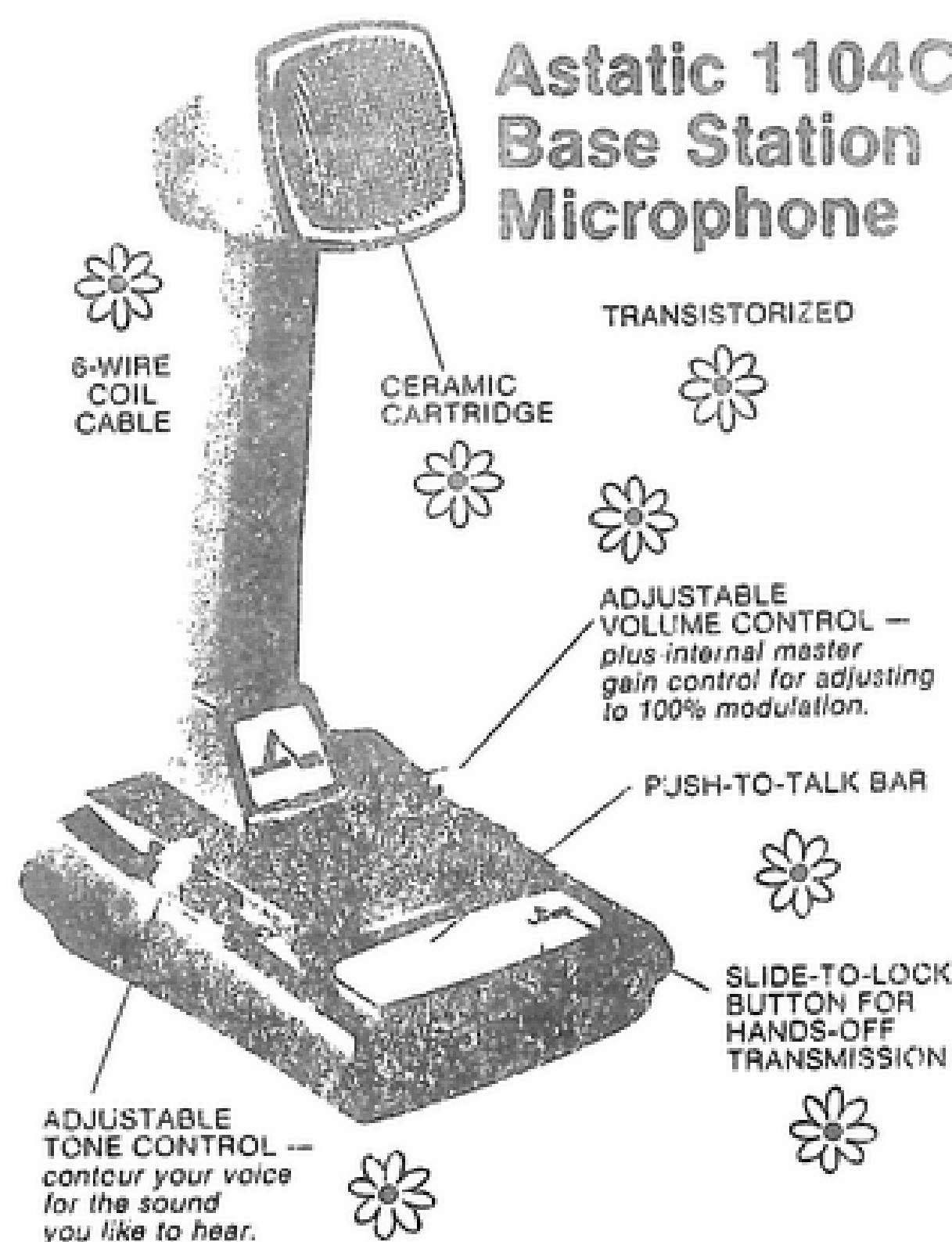
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NOTABLE ISSUES FROM THE PRESIDENT

Another month has rolled around and caught me with nothing writ!
Time sure flies when your having fun or have none to spare.

Bill Brodie, K3TGY, gave us an outstanding program on satellites and the AMSAT/OSCAR program. It was so good, in fact, that I forgot to mention the progress on the December meeting arrangements. Thanks for an excellent presentation, Bill, and I hope you will consent to come back again for other subjects. We had a very good turn out, in spite of two ARRL conventions and a holiday weekend!

The November program will definitely be worth attending. Bob Pace WA5CJG, has consented to show us the ins and outs of making printed circuit boards. He will tell us how from start to finish, and even has a demonstration of the process. If you have the slightest interest in making PCB's, I'm sure your time will be well invested. I'm certainly looking forward to it!

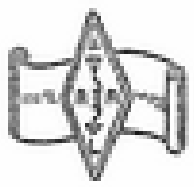
The December meeting plans have been finalized as to the meeting place, but the program has not been finalized. On December 2, at about 7 pm the ACARC will meet at Val Genes in Penn Square, Peacock Room B. There will be a minimum line charge of \$2.50, for anyone going through the food serving line, regardless of age. If the food you select comes to more than the minimum, you will be charged more than the minimum. At the present pricing, I'm sure no one will have much difficulty eating at least \$2.50 worth. There will be a limited number of chairs in the dining room for those few persons wishing to attend without eating. This establishment has required us to tell them within 5% how many will attend, and in order to comply, I have elected to have a pre-registration. There is a coupon at the end of this letter, for you to fill out and mail to George Lagaly, to be received NO LATER THAN November 29. This coupon will then be placed in the hat at the meeting and a drawing will ensue. There will be several pre-registration doorprizes awarded. If you phone in your intent to attend, or your coupon arrives later than November 29, you will not be eligible for the drawing. Mail your coupon to: George Lagaly, 7920 N.W. 18th Street, Oklahoma City, OK 73127. His routing symbol for Aeronautical Center employees is AAC445C. His home phone number is 789-4073. If you pre-register and find you cannot attend, please notify him by phone prior to November 30. You will have to be there when your coupon is drawn in order to win a prize. Send no money.

The antenna party for October 22 was cancelled due to technical problems encountered in mounting the new rotator. Another will be forthcoming.

If you have an opinion or information regarding the Personal Communications Foundation, please be at the November meeting to express it before it is voted on, or forever hold you piece. We will also finalize the AMSAT membership.

There comes a time, for everyone of us, that he should pull his soapbox from beneath the bench and say what he thinks. The following is my personal opinion as a Amateur of Radio, not as president of ACARC. This opinion does not necessarily reflect the views of ACARC, CORA, the Collector and Emitter, of any other member of these organizations.

I read in HR Report, that Wards, Sears, and Bennett Bros of Chicago, are now marketing 2 Meter transceivers with little or no warnings as to the amateur license requirement. I read today that two hand-held



W5PAA

units with 146.152 MHz Channels were used by two non-amateur police-men-burglars to commit a crime, and it was discovered by a non-amateur with a scanner receiver! This type of thing will be increasing without bound if sales of amateur gear is not controlled.

Think about this for a microsecond or so. Why would a company the size of those mentioned above want to come into a market the size of the Amateur equipment market? If we had 500000 amateurs, and assumed 300,000 would want to get on 2 meters, I can name at least 15 manufacturers making the equipment, so assuming everyone wants two units and each manufacturer gets an equal share of sales, each can sell about 40,000 units. To those large companies, thats small potatoes! So if I wanted to increase my potential sales, and had no Amateur Radio scruples, I think I would place a very nice ad among or near similar types of equipment, expressing the increased number of channels available if you get one of these jim-dandy units. This should appeal to anyone who feels crowded in the spectrum, and open up sales to the worlds largest market, CB. In no other way can I justify messing around with such a pitting market when I deal in huge volumes!

We should now, immediately, before very long, and quickly, get ourselves off our posteriors, quit sitting there fat, dumb, and happy, and write all of our senators, representatives, and anyone else who is in a position to help, the FCC, and even the manufacturers and these mentioned companies, stating the problem and your opinions on it. The senators and representatives should be told to support point of sale controls, license proof, and legislation to make the penalties for buying illegally stiff, and penalties for selling equipment illegally a heluva lot stiffer, and make it enforcable! If we don't stop this thing, we won't be able to recognize repeater operation as we know it today, in the not to distant future! Don't just give lip service, ACT!! Support your ARRL and Amateur Radio!

So much for that. I can't think of any more right now, so I will close and look for you at the November meeting.

73, Bill, W5NI

I will be at the December 2, 1977 meeting of the ACARC.

There will be _____ in my party. _____ will be eating at Val Genes.

To be eligible for a door prize, this coupon must be received by ACARC not later than November 29, 1977.

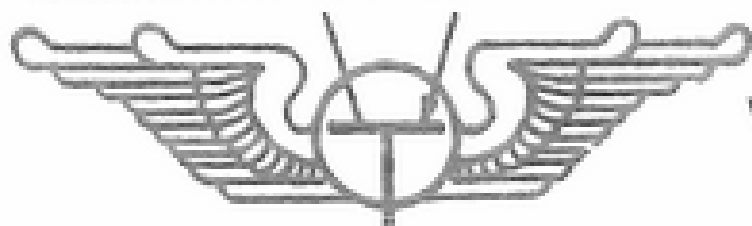
Send to: George Lagaly, 7920 N.W. 18th Street, OKC 73127

October Meeting: Once again your secretary has misplaced the minutes of the meeting, but they will run up in my ham shack, commonly referred to around the house as "the pit".. I'll publish them next report time.

Apologies to Joe WB5YKD who had about 5 pages of red hot DX news for the column this month, and we couldn't get together for it by copy time. However next month we will start earlier and get the copy on



AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.



WSPAA



time.

Don't forget the CQ Worldside DX contest phone portion 0000 GMT Oct. 29 thru 2400 GMT Oct. 30, and CW from 0000 GMT Nov. 26 thru 2400 GMT Nov. 27. For both contests exchange only signal report and your zone.

Robby, W5JES

FOR SALE: 2-Meter Station
IC-230 Transceiver
KLM-140 140 Watt linear amplifier
30 Ampere power supply
Twin II-element cushcraft beam

The whole thing for \$500 or will dicker on individual items.
Gene Taylor W5GC 686-2781 or 685-1118.

TECHNICAL REVIEW

-W5JJ-

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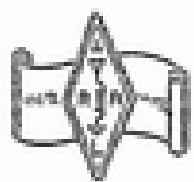
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WORLD RADIO, Oct, has its usual number of excellent articles on publicity, procedures, and activities.

HAM RADIO HORIZONS, Dec (whoops!) forges rapidly to the forefront

CORA Collector & Emitter



W5PAA

units with 146.152 MHz Channels were used by two non-amateur police-men-burglars to commit a crime, and it was discovered by a non-amateur with a scanner receiver! This type of thing will be increasing without bound if sales of amateur gear is not controlled.

Think about this for a microsecond or so. Why would a company the size of those mentioned above want to come into a market the size of the Amateur equipment market? If we had 500000 amateurs, and assumed 300,000 would want to get on 2 meters, I can name at least 15 manufacturers making the equipment, so assuming everyone wants two units and each manufacturer gets an equal share of sales, each can sell about 40,000 units. To those large companies, thats small potatoes! So if I wanted to increase my potential sales, and had no Amateur Radio scruples, I think I would place a very nice ad among or near similar types of equipment, expressing the increased number of channels available if you get one of these jim-dandy units. This should appeal to anyone who feels crowded in the spectrum, and open up sales to the worlds largest market, CB. In no other way can I justify messing around with such a pitting market when I deal in hugh volumes!

We should now, immediately, before very long, and quickly, get ourselves off our posteriors, quit sitting there fat, dumb, and happy, and write all of our senators, representatives, and anyone else who is in a position to help, the FCC, and even the manufacturers and these mentioned companies, stating the problem and your opinions on it. The senators and representatives should be told to support point of sale controls, license proof, and legislation to make the penalties for buying illegally stiff, and penalties for selling equipment illegally a heluva lot stiffer, and make it enforcable! If we don't stop this thing, we won't be able to recognize repeater operation as we know it today, in the not to distant future! Don't just give lip service, ACT!! Support your ARRL and Amateur RADio!

So much for that. I can't think of any more right now, so I will close and look for you at the November meeting.

73, Bill, W5NI

I will be at the December 2, 1977 meeting of the ACARC.

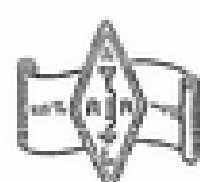
There will be _____ in my party. _____ will be eating at Val Genes.

To be eligible for a door prize, this coupon must be received by ACARC not later than November 29, 1977.

Send to: George Lagaly, 7920 N.W. 18th Street, OKC 73127

October Meeting: Once again your secretary has misplaced the minutes of the meeting, but they will run up in my ham shack, commonly referred to around the house as "the pit"... I'll publish them next report time.

Apologies to Joe WB5YKD who had about 5 pages of red hot DX news for the column this month, and we couldn't get together for it by copy time. However next month we will start earlier and get the copy on



AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.



W5PAA

time.

Don't forget the CQ Worldside DX contest phone portion 0000 GMT Oct. 29 thru 2400 GMT Oct. 30, and CW from 0000GMT Nov. 26 thru 2400 GMT Nov. 27. For both contests exchange only signal report and your zone.

Robby, W5JES

FOR SALE: 2-Meter Station
IC-230 Transceiver
KLM-140 140 Watt linear amplifier
30 Ampere power supply
Twin II-element cushcraft beam

The whole thing for \$500 or will dicker on individual items.
Gene Taylor W5GC 686-2781 or 685-1118.

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of magazines having useful information. For instance, "That First QSO" should be read not by just every Novice but by every Technician, General, Advanced, and Extra! The author blows it, though, by, after cautioning the reader to use Q signals correctly, using QSO repeatedly to mean Contact instead of I can communicate with, which, of course, is its actual meaning! Other articles deal with antennas, power supplies, building practices, and the understanding of passive components in circuits.

FOR SALE: A whole stack of 19-inch rack panels. Some steel, some aluminum, some pressedwood. Some large, some narrow, some virgin, some used. All good. Take the whole collection for \$10.00. W5JJ, 789-3788.

THE NEW B-A CATALOG

Have you seen the 1978 catalog from "Beerstein and Applebox?" It will remind you of the good ol' days. It actually has something than the usual run of Jap-junk that clogs the catalogs of the other mail-order firms. Shows amateur lines, too.....even list it before CB! That must tell a significant tale.

According to the cover, this Catalog #78-1 costs \$2.00. It was sent to me free, and I bet you could get one at no cost, too. If you plan to do any building, it may save your hunting through a dozen stores.

QCWA MEETINGS

The QCWA will have their next two meetings on Nov. 6, and Jan. 29, 1978. Both meetings will be held at 01:00 P.M. at the Val Gene's 1801 Penn Square.

At the first meeting an appointing committee will be selected for a new slate of Officers for the coming Year. At the second meeting there will be an election of Officers. Lets all be present for both meetings.

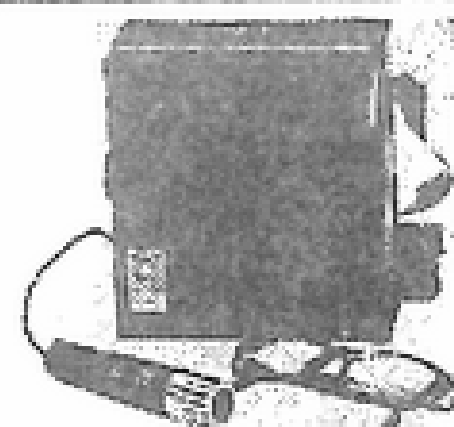
ARRL WEST GULF DIVISION CONVENTION

The next ARRL West-Gulf Division Amateur Convention will be held in El Paso, Texas in 1978 on the Labor Day Week End. This should be a good convention, and right next to OLD MEXICO.

VOICETTE

THE AFFORDABLE, RELIABLE,
PORTABLE P.A. SYSTEM

A LIGHTWEIGHT ECONOMICAL
PUBLIC ADDRESS SYSTEM
BUILT FOR GROUPS
OF 10 to 100 INDOORS
OR OUT



\$79⁰⁰ FOR COACHES
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TEMPO VHF/ ONE PLUS

The Tempo/ONE PLUS offers full 25 watt output or a selectable 3 to 15 watt low power output, remote tuning on the microphone, sideband operation with the SSB/ONE adapter, MARS operation capability, 5 KHz numerical LED, and all at a lower price than its time tested predecessor... the Tempo VHF ONE.

The Tempo VHF/One Plus is a VHF/FM transceiver for dependable communication on the 2 meter amateur band • Full 2 meter coverage, 144 to 148 MHz for both transmit and receive • Full phase lock synthesized (PLL) • Automatic repeater split — selectable up or down • Two built-in programmable channels • All solid state • 800 selectable receive frequencies with simplex and +600 kHz transmit frequencies for each receive channel. Price: *CALL*

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AND ACCESSORIES

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CALL FOR BILL AT 405-794-0406

° MICROWAVE
MODULES °
VHF/UHF
LINEAR
TRANSVERTERS



"F9FT"
"VHF/UHF"
"OSCAR"
"ANTENNAS"

TEMPO FMH-2, FMH-5 & FMH-42 (UHF)

6 channel capability • selectable 1 or 2 - 1 or 5 Watts output • Solid-state • Battery level meter • Earphone jack • Built-in charging terminals and separate charging jack for Ni-cad batteries • Flex antenna • Carrying case standard • Excellent frequency stability allows use with booster amplifier for high power output over 100 Watts • 8 AA batteries or 10 AA Ni-cads.*

* Not furnished.
FCC Type accepted models available.

THE MIDWEST DIVISION ARRL CONVENTION

Over the years we (my YF and I) have attended many conventions in the West Gulf and Rocky Mountain Divisions, plus a gaggle of National Conventions but never one in the Midwest Division, although I originally was licensed in it (Nebraska, Jan. 1932). This year, we decided to be Good Neighbors and motor up to Wichita.

The Wichita gang had planned well. Their programs were excellent and ran smoothly. Anything on the negative side was the fault of Hotel Broadview and not the convention committee. Because of the hotel facilities, the convention activities were spread over three floors. The banquet was served buffet style. We stood in line one hour and twenty minutes before reaching the serving line... ..and there were many others still awaiting....waiting very impatiently.

The "Gift Committee" (not prize) functioned well. Drawings were made hourly and the result posted where you could see who got what. All but the two main "gifts" were issued by this means. Then on the final day, only two numbers were drawn from the mixing drums. It went quickly and smoothly. Of course, they had flat ticket stubs in the drums, which meant there was no actual mixing. Even at that, I heard no bitching about consecutive numbers being drawn. You didn't have to be present to get a "gift". If you were not there, it would have been Mailed to you.... a thoughtful arrangement.

The Convention drew only about 500, a guesstimate given to me by a chap on the registration desk. The "gifts" were small in number and value. But, then, who attends a Convention just to see if Lady



Luck smiles upon him?

There was ample room for dealer displays. There were many, all good. Most dealers displayed the same merchandise, though.

The Swap Shop was stuck off in a remote corner of an upper story section. It was just as well.....I didn't see anything I would haul home even if it were free!!!

-W5JJ-

The following courtesy of WORLD RADIO:

QSL??

Hugh E. Gibson, W8DSE, USN Ret., wrote to us regarding an article he had seen in a Michigan newsletter. In it an amateur stated that the signal QSL meant, "I have received your transmission completely and receipt for same."

Hugh informs us that it means nothing of the kind. It does mean, "I'm acknowledging receipt," and that's all it means. No amateur has the right to change it. It is correctly used in answer to the query, "QSL? Can you acknowledge receipt?"

This signal was originated in the old days when communication range was short and many ships at sea could not be reached by radio. The traffic was broadcast and when the receiving station got close enough to the transmitting station he would be asked, "QSL? msg(s) so and so," and the receiving station would acknowledge with a QSL or ask for the message if he had not received it.

The signal has never meant 'R' and was never designed to be used in that manner. The procedure sign 'R' should always be used when in direct contact.

Hugh served in the navy many years and is very familiar with that procedure as the navy stations NPL, NPO, NPM and other high power stations used to transmit messages from one station to the other for ship operators like Hugh to pick up.

The main reason for the procedure and operating signals is to save time and certainly NO time is saved by incorrectly using QSL in place of 'R'. It's almost as bad as sending "Will you QSP my msg to Detroit?" when all that is necessary is "QSP, Detroit?"

Thanks to Hugh for the above information.

WA5FFK Don Moore, has been reported alive and well
in TI2 land San Jose, Costa Rica. and can be heard
Sat. at 3PM and Sun at 4PM on 14305 net, or Mon,
Wen, and Fri. at 6PM on 21325 or 14260Mhz
WB5NHZ Henry

WANTED: WA5FFK is looking for a small, light weight
HF amplifier, similar to SB200, contact WB5NHZ
Henry Ball 321-5852

W5OU/W5FPN

When Norman's amateur radio operators participated in the ARRL Field Day last summer, they used the call W5OU. Some of them may not have realized it, but the call -- belonging normally to Gordon Jones of Norman -- was more than a good, easy to remember one.

That's because Gordon, under his extra call and under his former call of W5FPN, really IS Norman, Okla., to many amateurs around the world.

One of my first contacts as a novice was with a man in New Jersey who told me that he knew of Norman because "my old friend Gordon Jones lives there." Since that contact, I've heard virtually the same remark from Kentucky, Florida, Arizona and the Canal Zone. A QSL from Kentucky recently showed the operator at his desk, with a display of QSL cards in the background; prominent in the display was -- of course -- one of Gordon's cards.

He got interested in amateur radio back before World War II, as a grade-schooler. "It was 12 years before I got my first ticket, hacking it out on my own in books and listening to code records," he recalls. "One good thing, though. By the time I passed the test and got a receiver, there wasn't any real QRM that sounded as bad as the scratch on those "bleeped" records."

Even at that, Gordon's early times in radio were not a total joy. He was working with an old receiver that jumped off frequency every time a door slammed. His transmitter wasn't much better. He actually got discouraged and let his ticket lapse in 1955, but renewed his interest -- and his license -- in 1957.

"I got active again just as the sunspot cycle peaked," he remembers, "and I became a 10-meter wildman. I had a 5-element beam on 10, and man, I worked the world on 50 watts."

Gordon remembers not only a succession of home-brewed beams and long-wire antennas, but can even tell you the dates they went up . . . and in some cases fell down again. At one time he had four long-wire antennas stretching from his home into a nearby city park, where he tied them to trees. He could switch them in pairs to form V-beams, and worked all bands, including 160 meters, with his 50 watts.

"People on the coasts wouldn't believe I was running only 50 watts"

Living now on a farm east of Norman, Gordon has considerably more sophisticated equipment than he once had. He operates a Collins KWM-2 transceiver and a Heathkit SB 220 amp into a whumping resonant tuned rhombic tuned with a Johnson matchbox. The unterminated antenna is six wavelengths on a side for 20 meters, and one end is aimed toward an old friend, VK5BB, in southern Australia.

Just for the record, Gordin has something loke 240 or so confirmed DX countries, "most of them on 10." He does have 75 or so on 75-meter phone, too. There used to be certificates you could get for working 25 amateurs on certain Pacific Islands, or, say, two dozen in the Canal Zone, and W5OU's shack could be wallpapered with such if Gordon were interested in hanging them. Incidentally, he has never bothered to send in for any endorsements on his initial DXCC, which he picker up "I don't know, quite a few years ago now."

It's comforting for a relative newcomer to the hobby to know that Gordon also considers the FCC tests as a real trial, even though his call proves he has passed everything those guys can dish out. It wasn't always thus, however.

He says he took his extra in 1966 or 1967, and busted the code the first time. "I don't know what it is about the FCC tests that can turn strong men into jelly?" he says, shaking his head.

"I was going along great, and busted my pencil. I got the shakes so bad I couldn't crank more lead up, and then I turned into a convulsed spaz." The failure "made me mad."

He went home, put his microphone in a plastic bag, and worked CW exclusively for months. When he took the test the next time he took two pens. Although he is not often active with his key theese days, he can still casually copy at least 25 WPM, producing speed-written printing that can be read by a stranger.

You may hear W5ou on Norman's 28/88 machine any day. He's active, in between jobs as county surveyor, and sometimes in the evening from

his home. He sticks close to home as much as he can, to be with his wife, Janet and children Jason, 4, and Amanda, who just turned 1.

Or you may run into him some Tuesday or Saturday in Norman, when hams get together for coffee and conversation. Chances are he'll be the guy who ISN'T talking about his latest DX.

Jack, WB5TZZ

continued- From Page 5

Well, there it is at the moment. I know one question you will ask me... "What do you think our chances are in 1979?" I can't tell you. I think the days of 3.5- to 4.0-megahertz being entirely ours, I think are over. I think 7.0-megahertz is going to be adjusted a little bit. I don't know how we'll come out, better or worse. 10-15-20, I think perhaps, we'll be all right.

The new bands that we've asked for, 10-18-24-megahertz, well, your guess is as good as mine. As you know, in the Fifth Notice, which came out recently, the U. S. is not supporting 10-18-24-megahertz. They have supported a little band at 25-megahertz. I am happy to tell you Canada has supported 10-18-24. The USSR has made a statement; they will support 10-18-24. The United Kingdom, I think is going to. But what about the rest of the world, I couldn't tell you. They are excellent frequencies for broadcast and fixed services and it's going to be tough to get it away from somebody else.

...Published with permission of Noel Eaton
WA5MLT/WA5RPP

Next month we will present the question and answer period that followed Mr. Eaton's presentation.

CROSSTOWN REALTY, INC.

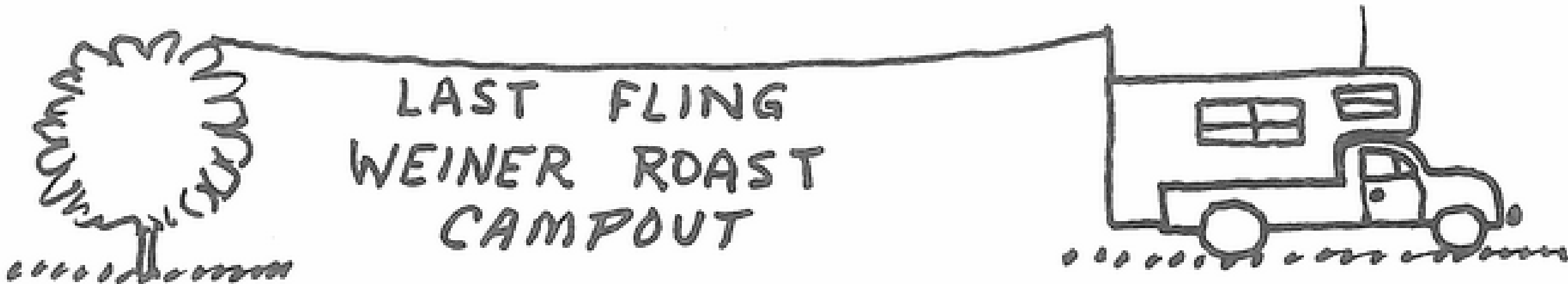
TAKE HEART! CROSSTOWN Realty now offers a complete residential sales program backed by a staff of highly trained residential property experts. They will be able to assist you in all aspects of the real estate transaction.

If your thinking about moving, drop by or call and let us show you how we can best serve you with our advanced marketing techniques.

921 S.E. 66 Okla. City, OK 73149

631-0535

FOR SALE: An OU back-to-school special! Motorola HT-220, VHF version, crystaled & tuned to 28/88, w/rubber duckie & battery pack - \$75. Tectronix 517A scope, good to 200MHz, power supply, needs minor repair \$150 = W/4 foot enclosed roll around rack \$225. Don, WA5TAW 733-3044.



The annual "LAST FLING (before winter) WEINER ROAST & CAMPOUT" is scheduled for the weekend of November 19,20 at Little River State Park on Lake Thunderbird. Thats on Highway 9 about 12 miles East of Norman. Plan on making the weiner roast Saturday about sunset, or bring your Camper, Trailer, Pup Tent, etc and stay the full weekend. Bring your own food, and firewood if you have some handy. W5HXL

Mid-Oklahoma Repeater Inc.

A NON PROFIT ORGANIZATION
OF RADIO AMATEURS DEDICATED TO PUBLIC SERVICE

BUSINESS

TRIPLE FEATURE AT NOVEMBER MEETING * * *

1. Program on DF by Bill, WB5SXG
2. Door prizes
3. Election of 1978 officers

Meeting, November 8, 1977, 8:00PM local time at E O C,
4600 N. Eastern, Okc. Eyeball starts at least by 7:30PM.

CHRISTMAS MEETING

Dinner, December 9 at Humble Harth, 4850 N. McArthur.
Lots of room at HH they tell me
Door prizes

ANNOUNCEMENT FROM MARK, WB5SLA

Mark and Linda are the proud parents of an 8 lb, 1oz. baby girl,
born 19 October 1977. Her name is HEATHER.

FOR SALE Two Hammarlund Super-Pro receivers, \$50.00 each.
One has frequency range of 0.5 to 18 MHz
The other has a range of 1 to 46 MHz.
Mark, WB5SLA. Call 722-2607

FOR SALE 7' tall equipment rack with standard 19" width. \$95.00
Mark, WB5SLA. Call 722-2607

NEW? ELECTRONIC PRODUCT Electronic Enclosures are listed as "new" in
the '78 Allied Electronics catalog, page 195. Features: Precision
molded plastic, high dielectric strength. Molded internal tracks
hold up to 4 PC boards without the use of any fasteners, spacers or
insulators. May be fully or partially encapsulated or potted.
Variety of shapes, sizes and mountings. Plain bases or with plugs
or terminals. Dimensions are approximately in the range of 1 1/2
to 3 1/2 inches. There are some smaller potting and encapsulating
boxes listed at the bottom of page 195.

BITS, BYTES & MICROS

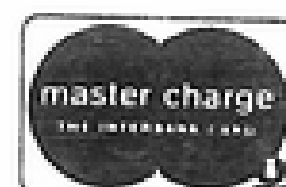
the computer store

2918 N. Mac Arthur Blvd.
Oklahoma City OK 73127

Charles Gibson
David Kearns
Jeff Kearns



Phone 947-5646



Bill, WA5RAQ

The advent of computers and microprocessors into amateur radio finds some of us short of computer knowledge. I have attended computer programs and read computer-related articles, and found I needed a basic understanding of the principles, plus some definitions of words and phrases found in the computer world. I made a study of some basic material and compiled this article. It covers many of the most basic facts. The study helped me understand computers a little better. I hope it is helpful to you.

The article is essentially non-technical. Each time a specialized new word or phrase appears it is capitalized and explained briefly. The coverage is not extensive, so further pursuit of the subject is recommended.

I GENERAL DESCRIPTION AND USE

A COMPUTER is a device that can perform arithmetic and logic operations on data and provide the results of its operations automatically. It can handle huge quantities of data in an extremely short time. There are various sizes of computers. Some fill a large room and have several major components. They range downward to desk top units. Some computers serve special purposes, others are for general use. The DATA are information to be processed such as accounting figures, inventory lists, machinery operations to be controlled, etc. The PROGRAM is the instructions provided to the computer that tells the computer what to do with the data. A computer is not a brain, it cannot think for itself. It can do only what it is told. A computer follows the logic that is programmed into it. No computer can operate in any other way. It can recognize faulty information if it has been so programmed. The MEMORY is the section that retains data in various stages of processing, as well as its program information. The memory may also be referred to as STORAGE. More recent computers seem to be able to learn. Actually, they have an expanded memory capacity and much more imaginative programming. The act of running through a program stamps that program into the computer's memory.

The HARDWARE is the computer equipment. The SOFTWARE is the program, uses, and data. READOUT is the output results from the computer and can be in various forms such as printed pages or information on a TV screen.

A few broad areas of computer use are: Business systems, scientific and engineering analysis, information retrieval and automation.

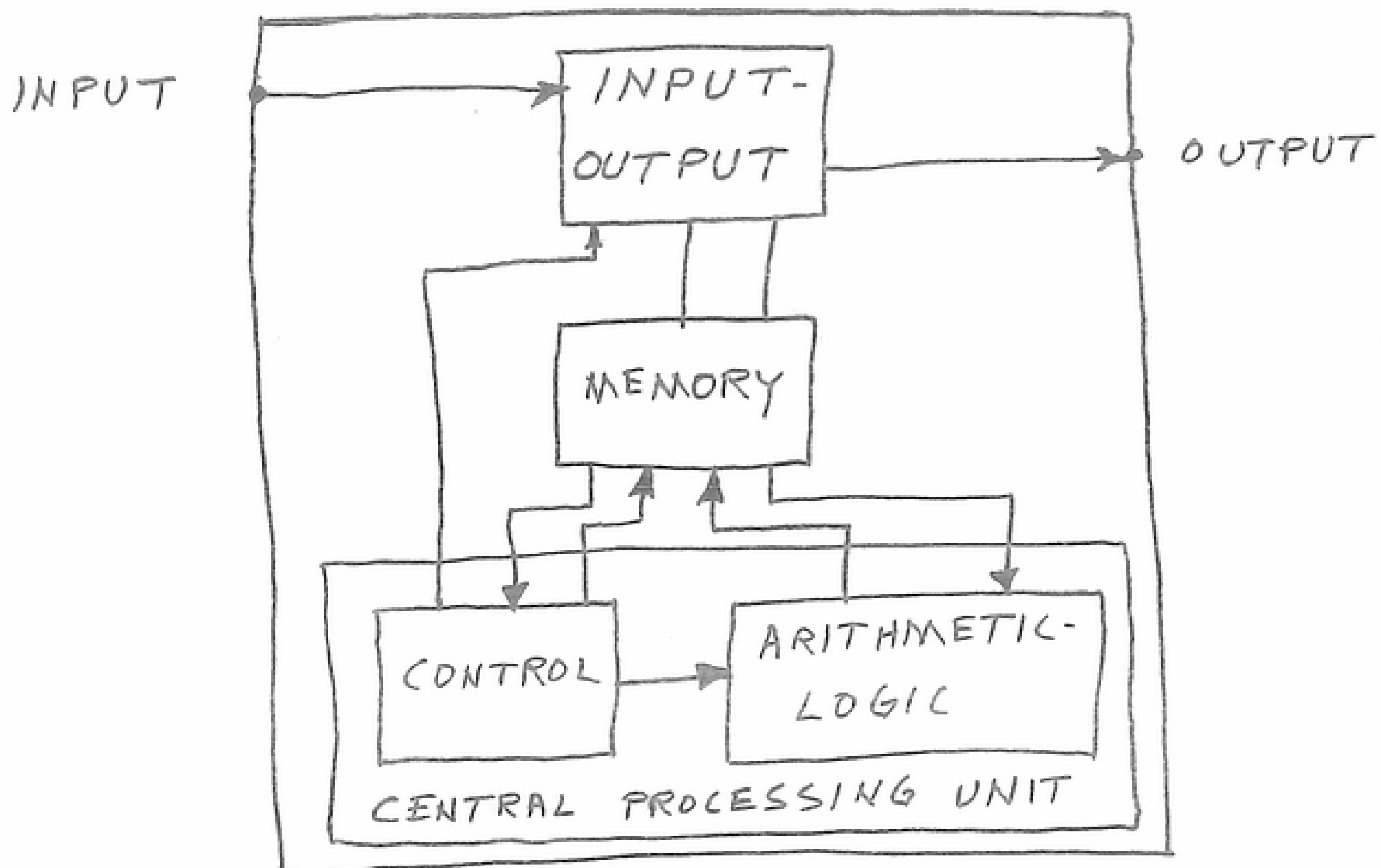
A computer is limited by the number of operations it can work on at the same time. It is limited by the storage capacity of its memory. The computer is so complex that setting it up to solve a new and substantial problem involves high costs and long delays. Equipment cost is a limiting factor in some potential applications.

II INSIDE A COMPUTER

A simplified block diagram of the major computer sections is shown on the next page. The lines show the flow of information and the arrow heads indicate the direction of flow.

The INPUT-OUTPUT section is sometimes abbreviated I/O. Since computers and people do not speak or comprehend the same language, some means of communication is needed. There must be a means or device that can feed data into the system and a means for getting understandable information out of computer storage. The I/O section provides this go-between.

continued



Simplified diagram of a computer.

The **CENTRAL PROCESSING UNIT** or **CPU** contains an **ARITHMETIC-LOGIC** section and a **CONTROL** section. The arithmetic-logic unit performs the calculations. The **CONTROL UNIT** is where the program is interpreted. It controls the operations in the arithmetic unit, performing logical or decision making operations. The CPU operates at an extremely high speed, approaching the speed of light. The program guides the CPU in everything it does. The program controls the flow of data into and out of the CPU. Also the program must control other components of the computer system, such as a readout printer.

STORAGE or MEMORY. Data held in storage devices that are connected into the computer system, available for programmed use in processing, or for reference, are classed as **MAIN** storage. Data held apart from the computer are in **AUXILIARY** storage. The distinction is whether or not the data are available on demand by a program in the computer. All data and program to be processed go into main storage. This is the only access route to the CPU for three reasons:

1. To keep data and programs in line and under control of a master program.
2. To maintain a rapid flow in and out of the CPU.
3. To perform these functions at a speed comparable to the CPU's ability for processing.

PROGRAMMING. One of the earliest programming methods was by patch board. Every time a new program was needed, the patch board had to be torn down and rebuilt. The plug board was an improvement. Different plug boards could be inserted for different programs. One could build a library of plug boards for the various jobs the computer needed to do. Next, some decision making ability was built into computers. Then machines were developed that permitted the entire program to be put into the machine all at once along with the data to be processed. In the **INTERNALLY PROGRAMMED** computer, the instructions to control the computer's operation are stored in its memory and can be manipulated and changed just like the data to be processed.

continued

III A CLOSER LOOK

There are two kinds of computers, digital and analog. An ANALOG is something similar or parallel to something else. The input to an analog computer is smoothly varying. An analog computer measures the input, comparing it with some reference. No further consideration will be given to analog computers in this study. DIGITAL is calculation by numerical methods, using individually distinct units. Data is fed into a digital computer one unit at a time. There are two major digital systems, the DECIMAL system using ten digits to the base 10. We use the decimal system when we count money. The BINARY system is used in computers and has two digits: 1 and 0, and uses the base 2. Two of the reasons that digital computers use binary instead of decimal are: Electronic circuits readily represent the entire range of counting by one of two states- on or off. The second reason is that less circuitry is required to represent binary than if decimal were used.

Information is handled in computers in the form of WORDS. Each word in a particular computer contains a definite number of bits. Some other computer may have a longer or shorter word. Each word contains data and program information such as memory location, indexing information, etc. The memory location is the ADDRESS.

A REGISTER is a temporary storage place where the answer to part of a problem is held while other parts are worked out.

IV SYSTEM COMPONENTS

A computer SYSTEM consists of the units described above mounted in a MAIN FRAME with PERIPHERAL units to provide expanded operation or more efficient use of the computer system or both. Some peripheral units are:

- Magnetic devices (for input or output)

 - Tape, disk, core, drum

- Input readers

 - Punched cards, optical, magnetic ink, punched paper tape

- Other output devices

 - Page printer, cathode ray tube or TV display, plotter.

Two devices connected together must INTERFACE, that is they must be compatible. Interfacing may mean the conversion from analog data to digital or from people language to computer language.

The peripheral devices that are capable of storage may be used for main storage to expand a system's capacity, augmenting the internal storage capacity. A peripheral storage device may also be used for auxiliary storage.

Auxiliary storage may best be illustrated with an example. Data from a card reader are recorded on a magnetic tape. The latter is much faster of the two when used as computer input. The data are held in auxiliary storage on the tape until the computer is available, then put in the computer much faster than the card reader can do the job. Actually the cards constitute a form of auxiliary storage, we have just converted to another form. Information recorded in auxiliary storage form may be filed as a permanent record or used for future processing.

Another important input/output peripheral is the TERMINAL. Terminals may be locally installed or used at remote places hundreds or thousands of miles distant. Telephone lines may be used, permitting installation of a remote terminal almost anywhere. A terminal may be a keyboard for input, a cathode ray tube readout for output or may contain both keyboard and CRT. Terminals may communicate with each other without going through the central computer. Terminals may be elaborated to contain mini or microcomputers to relieve the load on the transmission line and central computer. Such a terminal is a SMART or INTELLIGENT TERMINAL.

continued

V SYSTEM OPERATION

A computer system must be used as efficiently as possible because of its high cost, and the cost of wages and salaries paid to people who work with the system. Also important in time and money are such factors as the nature and amount of data in a run, the type of read-outs needed like whether a TV presentation or printed pages will be needed. The results of computer processing may need to be as current as possible. Other processed data may be quite useful if it appears once a day, week or month. Some data are one-time only.

Industry has found many uses for computer action that appears to be instantaneous. Recent technical developments make extremely fast computer action possible. One of the fast devices is the CPU. Some of the peripherals are very slow by comparison. Those with mechanical action are slow. Magnetic and paper tape machines and page printers will probably always be much slower than the CPU. Newer machines and devices are made faster as techniques are developed.

A stack of punched cards may be placed in a card reader and READ by a magnetic tape. This is an OFF-LINE operation since the CPU is not involved. Greater overall speed of computer use is achieved because the tape is much faster than the card reader. The taped data may be fed into the computer at some convenient future time.

Data may be fed directly into the computer as it is available or the data may be accumulated, then processed as some is collected. The latter is called BATCH PROCESSING.

WRITING information consists of taking information that has been stored in the computer's memory from the memory and putting it on another medium, such as printed page or magnetic tape.

Gaining access to the information that has been recorded on magnetic tape is a form of SERIAL ACCESS. This type of access provides unequal time and ease to the various elements of data like selecting a particular musical selection on a long tape recording. Serial access may take a long time - minutes to get a readout. A faster readout is accomplished by RANDOM ACCESS. One form is a readout from core memory. Random access is the ability to select any element of data with equal ease and speed, like selecting a book from a shelf.

A brief look at an imaginary airlines computer system will provide us with the final definitions of specialized words and phrases, but they are not peculiar to the airlines industry. The Gooney Bird Airlines has remote terminals in several cities and the home office. Long distant lines connect the terminals with the home office central computer. Each terminal has a keyboard for input directly to the computer and a TV screen for direct readout from the computer. Each terminal is used to enter reservation information and to read out reservation and flight information. Operation of the terminals is ON-LINE because they operate directly with the computer. They are TIME SHARING since any or all of the terminals may be operated any time. The central computer keeps everything separated and coordinated. The operation is REAL TIME because the computer completes its processing while a customer is standing at the ticket office window in the process of getting his ticket and the information. Computer action is simultaneous with the data action.

I hope this review of my own recent study will help others get started on computers.

0 1 1 0 0 0 1 0 0 1 1 0 0 0 B I L L W A 5 R A Q 1 1 0 0 0 1 1 0 1 0

FOR SALE: Eighteenth century high-boy by elderly lady with reinforced drawers.



OCTOBER MEETING HIGHLIGHTS

The October meeting kicked off as scheduled on the 18th with Joe - WA5ZNQ presiding (our president was forced into a Tuesday night college class for this semester). Brief reports were presented by the secretary-treasurer and several committee members.

As we had announced, a special program centering around microprocessors/computers was introduced. Three experts did a fantastic job in explaining fundamentals and their application and presented an actual demonstration of some of the equipment involved. Numerous questions were well fielded and we, at OKCAP, are appreciative of the efforts and time expended by Dave Ballew - K5WMY, John Waldvogel - W5UNA, and Bill Brodie - K3TGY.

CORA BOARD

The Oklahoma City Autopatch Association takes this opportunity to congratulate the new officers of CORA and to wish them great success for the coming year.

Two of our members were elected as officers: Frank Arnold - W5PDH, Vice-president and Zack Zachry - WB5QPI netted the Secretarial post.

Frank McCollom - N5FM is serving on the committee which will search the area for a suitable site with adequate facilities for Ham-Holiday 1978. OKCAP will have the responsibility for manning the facilities for this go-round. Note that Marshall Williams - K5MB, and Merrill Scott - WB5PTQ will serve in our behalf as co-chairmen of the site facilities committee. Should they solicit your assistance in serving on their facilities committee, please be generous with your time and efforts. This is a real challenge.

SPECIAL NOTICE

Oklahoma City Autopatch membership rolls are now open for a limited time. Those amateurs interested in:

6 Meter Repeater
2 Meter Repeater
2 Meter Autopatch
UHF Repeater
Severe Storm Warning Net

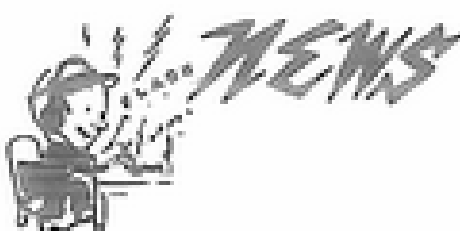
who wish to join, contact:

H. T. Burgan - WB5MLN
Secretary-Treasurer, OKCAP
2504 N. W. 119th St.
Oklahoma City, Okla. 73120
Area Code 405, 751-1646

DO IT TODAY

FOR SALE: CLEGG 27B, in perfect condition (why buy crystals?). Only \$200.00.
Guy - K5GL, Area Code 405, 787-9547.

ROBOT Slow-Scan Camera and Monitor. \$400.00. Call Guy - K5GL,
Area Code 405, 787-9547.



NOVEMBER - DECEMBER MEETINGS

There is no scheduled meeting for the Oklahoma City Autopatch Association in the month of November.

Several members of our organization have suggested that consideration be given to rescheduling the December meeting to an earlier date in order to avoid conflict with the Christmas holiday. Further, it was recommended that something other than the regular meeting format be considered for this one session. A "Dutch-treat" type dinner to include the wives and girl friends for an evening of fellowship and eyeball QSO's was one recommendation.

WHAT ARE YOUR THOUGHTS ON THE SUBJECT???? Please let us know within the next couple of weeks so that the executive committee might put something together in time to announce it in the November issue of Collector and Emitter. Contact either Hobe - WB5MLN or Joe - WA5ZNQ. Phone listings are in the front of this publication.

HR REPORT . . . No. 172, October 21, 1977

PROPAGATION OCTOBER 24 - NOVEMBER 8. Zurich reports a whopping 44.1 smoothed sunspot number for September, a new Cycle 21 high. With the peak still several years away, predictions by some experts for a low cycle peak can almost certainly be scrubbed! Oak believes 150 or even higher is possible.

October Has Been moving along in comparable fashion, and activity for the rest of the month should be just as high if not higher. Regarding the CQ contest weekend, conditions should be at a normal to above-normal level as the contest begins but may well decline as the weekend proceeds. This suggests the best DX "worms" may go to the earliest birds.

Except For Possible flare-induced upsets, no polar disturbances are predicted for the forecast periods. With this in mind, the contest "when and where" takes on the following complexion:

160/80; peaks at the local sunrise to West Pacific and Southeast Asia and local sunset to Europe and West Asia. Continuous darkpath openings to Africa, South America, and the South Pacific will swing from east to west.

40; similar to 80 but opening earlier and closing later with additional rarer geography available in Asia.

20; local morning and evening openings to all parts of Asia. Europe all day with some signal reduction around local noon. Africa best afternoon and early evening. For Asia, long paths earlier than short path in the AM, and long paths later than short paths in the PM. 20 will offer the most variety as well as quantity.

15; swinging east to west, starting with Europe, then Africa, South America, and the Pacific - all easy pickings, opening early in the AM and staying open into the evening. East Asia AM and West Asia PM openings are very likely.

10; all kinds of possibilities, basically on the same pattern as 15 though not as optimistic for the polar paths unless conditions rise well above normal. East and west coast DXers may, because of location, find some variations.



"ET TU, BRUTE?"

Frank McCollom - N5FM recently traveled to eastern Tennessee. In the course of his happy wandering, he exercised his mobile rigs to access as many posted 2-meter repeaters as possible. Surprisingly enough, he found that a good percentage of the machines were down and of those accessible, several seemed to display untold operating problems.

The moral of the story, fellers, is that problems we may experience with our machines from time-to-time are not unique or ours exclusively. The other guy gets his share, too.

FOOD FOR THOUGHT

The other morning W4XXX and I were in QSO on the local repeater. He asked me for my telephone number and I replied with it. A couple of minutes later my phone rang. The caller asked if I was W4XXX, and I said "No, you have the wrong number." Before I could hang up, he asked if I was WA4WKL, I said "Yes." He promptly hung up. As he hung up, I could hear a 2M rig on his end. Just then I got one of those gut feelings that something was wrong.

I recalled 1969 when I was in Houston, Texas. There was a major theft ring operating in that city. The victims were picked out after giving descriptions of QTH's, rigs, whereabouts, work habits, who's at home at what time, etc. We all like to brag on our gear and keep informed of each other's locations when mobile, but remember any cheap public service band portable radio can pick up the 2-meter amateur band. You never know who is listening.

I suggest we all be a bit more cautious. I remember in Houston moving vans cleaned out several homes while the occupant and family were mobiling out to the country for the weekend.

--Barracks Amateur Radio Club--Barracks Bugle.

NOTE: The above article appeared in Worldradio, September, 1977, and is truly "Food for thought."

DX NEWS, de Guy - K5GL

DX Calendar:

DOMINICAN AMATEURS MEET	November 12/13th.....Puerta Plata.
SEANET CONVENTION	All the SEasia DXers will be in Bangkok.....November 19/20th.

<u>CQ WW DX CW TEST</u>	<u>November 26/27th</u>
-------------------------	-------------------------

Juan Fernandez	K4YFQ at CEØZ for the CW good works.
Grand Cayman	All bands by W8s and friends for the CW Test.
Navassa	W4s and friends across the CQ CW test.
Saipan	KG6SW by K7VPF
Curacao	PJ9CG back for the CW Go-Round....
Guernsey	DLs planning GU action

ARRL

The FCC's action in the Repeater Docket 21033 has a number of groups scrambling to maintain some order in implementing a band plan for the new band segment which runs from 144.500 to 145.500MHz. A band plan has been developed by NARC of California which is being accepted by other Repeater Councils. If you are not yet in on the development, it might be advisable to contact the ARRL or the Repeater Advisory Committee.



ALTUS
HAM
CLUB

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

The Ham Club met 13 Oct. 77 at 1930 hrs. at the North Main Fire Station. Loren, WA5CBF called the meeting to order. Deanna, Sec. asked that the minutes be approved and read the Treasury report. 23 persons were present. Welcome to our visitors from the ham class.

Richard, WB5PUF, gave a report on the ham class. Code progress is speeding up. The class is doing exceptionally well in all phases. All class books have been received. A special thanks goes to Marvin Moore, Mgr. Radio Shack in Lawton, for his special efforts in ordering class books.

Deanna gave a report on the ham fest. Oldest call was Dick, W5FW, Lawton. Attending from farthest distance was Darwin, WB5HZH T.D.Y. from Chanute AFB, Ill. Thanks to Wesley, WB5TSS, Wichita Falls for bringing his trailer load of true treasures.

Loren, WA5CBF, checked with the Altus Public Library on the books donated by the club. They are being utilized but not enough. The club is searching for its book, "200 METERS AND DOWN." It has been loaned and not returned.

Dwight, WB5KRH, reported on the Sept. 17 & 18 trip up repeater mountain. Dwight reported a sore hurt body. Making the trip were Dwight, WB5KRH, Loren, WA5CBF, Chuck, WB5MJS, Don, WB5NRQ and Chuck, WD5BBN. Thanks to Don, WB5NRQ and Chuck, WD5BBN for the tower climbing. The tower was raised to 50 ft. and a new DB304 8 bay "J" pole antenna was installed.

Loren is working on the President's yearly report on club activities. It was suggested that Bob Mayotte, Jackson County Civil Defense Director, receive the "Collector & Emitter."

Dave, KØJPX, has donated a trailer frame to the club. The chassis will be cut down to fit an old MARS generator allotted to Bob, K5LYM. It will be the clubs own mobile power plant for emergency use. Flood lights will also be installed.

Those persons who haven't sent in their \$2.00, need to do so by the Dec. club meeting.

Congratulations to Dave Horn, KØJPX, for winning the Okla. Section with 600,000 points in the Fall Classic Radio Exchange Contest held Sept. 25 & 26.

We need to be thinking of persons to take office in Dec. Loren has stated he will decline to run for President next term. Election will be Dec. 3.

Refreshments this month from Janice, WB5WMN and Shirley Stevenson. Next months volunteer is Kenneth, WD5BBT, and Deanna, WB5UMH.

Dues paid by Bob Parks, K5LYM, E.H. Simms and Phillip Walker. Chuck, WB5MJS made a motion to adjourn, 2nd by Richard, WB5PUF. Motion carried. During the refreshment break, we got a share of Shirley Stevenson's birthday cake. Happy 21st!

Next meeting Thursday, November 10.

73's

Deanna, WB5UMH

WB5AUF and W5HFU left Oklahoma City about 0500 on the morning of October 7, 1977 on our way to Austin, Texas for the Amateur Convention. Soon we found that we were not alone as we tuned the two meter repeater, and soon we were joined by WA5ILT and his YF and daughter. The caravan proceeded on south with several "Pit" stops, and we found ourselves in Austin without delay.

After going up to the registration desk we found that our envelopes were handed to us, and all stubs for drawings had already been placed in the containers and ready for the convention.

Friday evening we went on a boat ride up the Austin Lake for about ten miles. A two piece orchestra consisting of a piano and banjo strummed out all the old songs. Our money was of no value on this boat trip. A bar was set up in one end of the boat where soft drinks, 807s, and 3-1000z were served. At the other end of the boat were served hors d'oeuvre that were so hot that the soles of my shoes were smoking. The Captain of the boat had a sign up on the wall to the effect that all marriages performed by him were for the duration of the voyage only. Everything was very orderly and we arrived back at the Austin Hilton Inn before midnight. I forgot to say that a dinner was served by the Riverboat Commodore at their restaurant about ten miles north of Austin. It was some site to see the fine homes built up on the bluffs on each side of the lake.

The Amateur Convention went along about as expected. Walter A. Crook, WB5AUF had a capacity crowd to view his Slow Scan Television Display. Another Amateur had a Satalite QSO for the Convention. QCWA had a special meeting, and told a good joke which my wife wouldn't let me put it in this report. The Flea Market was a success. I saw one Amateur pick up a vibraplex key in good condition that sold for a dollar. I didn't reach for it in time to get it.

When this fine Convention was over we all started home using our two meter rigs to keep in touch with each other. I forgot to say that the Grand Prize was won by Anita Townsend from Norman, Okla. who is the wife of H.O., WA5ILT. As we started north towards Oklahoma City, a report came over the two meter radio that K5INE had been fired upon by a rifleman, and both his rear auto glass and side door glass had been shot away. He was afraid that his wife had been shot, but it turned out all right as his YF was only covered with flying glass. A rifleman was seen nearby. The Highway Patrol took over and we didn't hear how it turned out? Now I am sold more on two meters than ever before. All of us arrived in Norman and Oklahoma City without incident.

Ivan, W5HFU

TECHNICAL CORRESPONDENCE-CHICKEN FOOLER ETC. REVISITED

The response to a recent construction project published in the C & E (Sept. 1977) has been most gratifying. Several attempts to reduce and reproduce the circuit for the Deluxe "Chicken Fooler, Egg Boiler, and Time Out Timer," have met with tumultous success. Several well known homebrewers have consulted with the author concerning possible Printed Circuit layouts (it may not be entirely obvious at first that layout can be critical, i. e. where the hen "lays out" the egg determines several critical functions). In addition, a large midwestern manufacturer of integrated circuits has contacted C & E's research department concerning a possible IC mask layout reducing the entire circuit to the size of a gnat's belly button. This would indeed be a boon for repeater operator's everywhere.

The flurry of excitement closely parallels that which accompanied the unveiling last spring in these pages of the special repeater on a chip manufactured by Semiconductor Hybrid Analog Microcircuits, Inc. (See C & E, April 1977). Similar techniques to those incorporated in the APR/1B-S will be utilized to reduce the masking difficulties (Again the eggsact positioning of the chicken will constitute a critical adjustment).

Therefore we are grateful for the following correspondence from Jack Bickham WB5TZZ with regard to the technical operation of the CF, EB, TOT circuit:

Mike, Thanks for your helpful suggestions for a deluxe chicken fooler, egg boiler, and time out timer in the C & E. You may want to note in the publication next time that your technical discussion failed to note that the hot plate (H) is wired in parallel with the light bulb (G) although it is shown clearly in the schematic (Ed. note, this is just like the little ground symbol used in electronic schematics, although no direct connection is shown, there can be no doubt that these two circuits are in parallel. C & E will try to standardize its schematic procedures to avoid future misunderstanding). Failure to note this wiring provision would likely result in (a) a raw egg or (b) continuous wiring to house current if available resulting in much pleasure to an electric company which shall remain anonymous (Ed. note, the initials are O. G. & E) and premature failure of the hotplate heating element. For your information, I am at work on a mod which would replace the bird (C) with a pop-up toaster modified to throw toasted bread completely out of the toaster. The change in toaster weight from its bread-loaded state to its discharged state may be expressed (spelling error, this should be eggspressed) in the equation $(T + B) - (T - B) = F$, where F is the force required to drop the tone arm on the record player (D). This mod will not only provide toast with the egg, but make the bird completely unnecessary; perhaps you could eat him for lunch (Ed. Note, Actually, the preferred use of the toast is to stuff the bird along with other essential elements of good chicken dressing). The only problem I can see it that you might need a larger generator (F) or a bigger squirrel to turn it. 73, Jack WB5TZZ.

I think that it is a remarkable that such interest has been shown in the CFEBTOT. However, I would make one slight correction in the formula offered by Jack. The weight of the Toaster (T) plus the weight of the Bread (B) does not correspond to the formula shown. The term T is unnecessary in the formula and the equation reduced to $2B = F$. The equation is best solved in terms of dynamics instead of static analysis and the old formula $F = MA$. Depending upon the strength of the ejection mechanism of the toaster, it may be assumed that should the toast fall far enough, it will reach a terminal velocity governed by its surface area. This may reduce the higher order terms of the equation. Thus the answer will be approximate and not eggsact. However, good job Jack. This man is no local Yokum.

Micheal Salem N5MS

SIGN OF THE TIMES DEPARTMENT - CLASSIFIED AD SECTION

While perusing through the local newspaper this weekend, I found a classified ad which started a double take on my part. I reprint it in its entirety:

Going in ham, selling CB, SSB, almost new, worth \$350,
w-B antenna, coax, mobile hookup, \$150. Many Extras.
call _____.

Despite the fact that most of those people who take ads for the local newspaper don't know a coax cable from a hot dog, I was impressed with this ad on two counts. First, that someone felt it important enough to get out of CB that he would consider a \$200 loss on his investment just to bail out. Second, that he would announce it to the world via his wanted. The impression that one is left with is one that has been emphasized in these pages many times and that is that CBers can and do constitute an important resource and source of new amateurs. It is not uncommon that many of our strongest citizens of the amateur population started out at one time with an interest in CB. I, for one, would like to see more ads like this in newspapers across the land. It is up to us to make sure that when someone comes in and wants to ask questions about amateur radio that he gets straight information from people interested in seeing amateur radio grow.

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COLUMBUS, DALLAS, COLUMBIA AND OTHER GREAT CITIES

I tell you, the OU Football season this year has been a backbreaker. In a fit of foolishness this summer, I signed up for the OU Alumni tour to Columbus for the dreaded battle on September 29 with the Buckeyes. In addition, the Dallas trip is a regular stop during the season and a couple of us have sort of gotten into the habit of making the Missouri game in Columbia the last 4 years. I quickly contemplated my dwindling resources and decided that a cautious approach to all these activities would prevent a football overdose and a financial crisis. In the meantime, I whiled away the hours by researching out what my radios would be to me as I flew the not so friendly skies to Ohio.

We left the day before the big game in Columbus at 6 O'Clock A.M. (Ugh) the nicest part about the flight were the two lovely girls who acted as flight attendants on the way up. The Southern Airlines DC-9 was just a few minutes late, but as soon as we were airborne, Jeanie (she graduated from Auburn and had just flown in from Atlanta where the plane was based) and the others were dishing out fruit salads and scrambled eggs. Bobby (a friend traveling with me and a football fan par fanatic) wanted to take Jeanie's picture. She couldn't understand why. I then tried to convince her that we were a Playboy camera crew and that she could be a star in our next pictorial called the "Girls of Southern Airlines." I don't think that she was entirely convinced, but she let us take her picture anyway. I asked her if she wanted any 8 x 10 color glossies. She said no.

Columbus was clear and nice, but cold. We checked out our rental car and drove down to the Hotel in beautiful downtown Columbus. I wasn't exactly in the best of shape having a suspected tooth infection which kept the right side of the roof of my mouth in flames. And worse yet, there was no type of liquid anesthetic on the plane (seems like the caterer had screwed up). Oh, well, I immediately began checking out the repeater scenery. The ARRL Directory lists several repeater systems in Columbus including a 16/76, 37/97, 81/21, and a (of all things) 93/33. The UHF systems were only one, a 449.6/444.6 system sponsored by the OSU (that's kind of strange to think of) ARC. I foolishly neglected to consult with K5HMD (who as a K8 spent quite a bit of time in Columbus while stationed at Dayton) about the best systems and the quickest

way to make friends with those Woody fanatics. Unexpected assistance came from Jack WB5TZZ who grew up in Columbia and graduated from Ohio State. He made a list of hot spots and restaurants that he considered must visitation. (Heh, heh). At least in a few categories, forewarned is forearmed. My dental difficulties kept us from making full use of the list Jack gave me, so I passed it around the plane to a few other deserving Sooner fans and I later found that it was all it was cracked up to be.

K5HMD later told me that most of the repeater systems in Columbus have ker-chunker eliminators. You must keep a carrier on for at least 4 seconds continuously before you can hear a tail. Then, as long as the repeater remains active for a reasonably continuous period of time it is operational. If it remains inactive for a while, the systems shut up. I listened to several systems and tried to break in, but only once did I manage it with any success. The location from the hotel was not the best.

That night after dinner, a bunch of sooners were fueling up in one of the local lounges in the hotel (That's when Bobby made his famous, "I am not a Buckeye" speech). Some poor Cretin had carried one of those auto horns that play Boomer Sooner and a 25 pound battery. He kept setting it off in a small room and just about Boomer Soonered us silly. What was even more remarkable is that he carried it on the airplane and touched it off once there. This could have been grounds for definite justifiable homicide. Its use at the football game in historic Ohio Stadium along the banks of the Olentangy River made much more sense.

All this time, I neglected to discover that right next to the hotel was a museum that housed several exhibits, including spacecrafts and a special pendulum that rotated with the earth's motion. Going up to my room on the 14th floor, I glanced out the window and was sure that I saw a TH6-Dxx Beam. Later in the daylight I was sure of it. Unfortunately, it was too late to investigate at that time. While walking down the main drag on Friday night, we passed one of the state office buildings (the Capitol is in Columbus) and I saw a digital clock. Ho Hum you say? Well, this clock was more unusual than that. The readout was not in decimal, but binary coded decimal. I am not sure what use anybody but a EE could have made with it, but it was fascinating. I was able to figure out the BCD grouping after sneaking a quick peak at my watch.

Friday afternoon, we drove the car down to the campus and checked out the stadium. I made some arrangements with the Sports Information Office and then we spent some time walking over the campus. This place is huge. My understanding is that there are about 55,000 students enrolled in the place. The "campus corner" extends for 5 blocks at least and the Student Union has the ultimate class of having a MacDonald's and a Pizza Hut. The stores are filled with football paraphernalia and Woody memorabilia. Most prominent are the Woody Baseball Hats (I jestingly suggested that they have tear away bills). We examined the sideline markers and I secretly determined that they were of the tearaway variety. It would appear that Woody's ranting and ravings are (to some extent) part of a well rehearsed act. The construction at Ohio State is typical of land grant colleges and is very impressive. The campus extends for miles including all of the special projects west of the Olentangy River.

No need to discuss the football game. It has been well covered all ready. I will add only one personal note. During the last 3 minutes of the game I was walking the sidelines. There was no doubt in the minds of all those Buckeyes that they had won the game when they defeated the extra point. The shock of the onside kick recovery stupefied a few, but they still felt they could win it. The field goal left many of them on the ground. Many of the fans were walking out of the stands like so many poleaxed buckeyes. They left seat cushions and in some instances gave them away to the Sooner loyalists. Truly, some of the

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way to make friends with those Woody fanatics. Unexpected assistance came from Jack WB5TZZ who grew up in Columbia and graduated from Ohio State. He made a list of hot spots and restaurants that he considered must visitation. (Heh, heh). At least in a few categories, forewarned is forearmed. My dental difficulties kept us from making full use of the list Jack gave me, so I passed it around the plane to a few other deserving Sooner fans and I later found that it was all it was cracked up to be.

K5HMD later told me that most of the repeater systems in Columbus have ker-chunker eliminators. You must keep a carrier on for at least 4 seconds continuously before you can hear a tail. Then, as long as the repeater remains active for a reasonably continuous period of time it is operational. If it remains inactive for a while, the systems shut up. I listened to several systems and tried to break in, but only once did I manage it with any success. The location from the hotel was not the best.

That night after dinner, a bunch of sooners were fueling up in one of the local lounges in the hotel (That's when Bobby made his famous, "I am not a Buckeye" speech). Some poor Cretin had carried one of those auto horns that play Boomer Sooner and a 25 pound battery. He kept setting it off in a small room and just about Boomer Soonered us silly. What was even more remarkable is that he carried it on the airplane and touched it off once there. This could have been grounds for definite justifiable homicide. Its use at the football game in historic Ohio Stadium along the banks of the Olentangy River made much more sense.

All this time, I neglected to discover that right next to the hotel was a museum that housed several exhibits, including spacecrafts and a special pendulum that rotated with the earth's motion. Going up to my room on the 14th floor, I glanced out the window and was sure that I saw a TH6-Dxx Beam. Later in the daylight I was sure of it. Unfortunately, it was too late to investigate at that time. While walking down the main drag on Friday night, we passed one of the state office buildings (the Capitol is in Columbus) and I saw a digital clock. Ho Hum you say? Well, this clock was more unusual than that. The readout was not in decimal, but binary coded decimal. I am not sure what use anybody but a EE could have made with it, but it was fascinating. I was able to figure out the BCD grouping after sneaking a quick peak at my watch.

Friday afternoon, we drove the car down to the campus and checked out the stadium. I made some arrangements with the Sports Information Office and then we spent some time walking over the campus. This place is huge. My understanding is that there are about 55,000 students enrolled in the place. The "campus corner" extends for 5 blocks at least and the Student Union has the ultimate class of having a MacDonald's and a Pizza Hut. The stores are filled with football paraphernalia and Woody memorabilia. Most prominent are the Woody Baseball Hats (I jestingly suggested that they have tear away bills). We examined the sideline markers and I secretly determined that they were of the tearaway variety. It would appear that Woody's ranting and ravings are (to some extent) part of a well rehearsed act. The construction at Ohio State is typical of land grant colleges and is very impressive. The campus extends for miles including all of the special projects west of the Olentangy River.

No need to discuss the football game. It has been well covered all ready. I will add only one personal note. During the last 3 minutes of the game I was walking the sidelines. There was no doubt in the minds of all those Buckeyes that they had won the game when they defeated the extra point. The shock of the onside kick recovery stupefied a few, but they still felt they could win it. The field goal left many of them on the ground. Many of the fans were walking out of the stands like so many poleaxed buckeyes. They left seat cushions and in some instances gave them away to the Sooner loyalists. Truly, some of the

spoils of victory. As the bus was careening out of town back to the airport, a lady was standing by the side of the road looking for joyous sooners. When a busload would loom into view, she held up a hastily worded sign that said, "Thanks for winning." Truly one of the darker days.

The hasty retreat back to the airport and we greeted the team as it was getting on the plane, then we adjourned to one of the local bistro inside the airport for more victory celebrations. Uh oh, here comes the guy with that damn boomer sooner horn again. Oh, I guess I hardly noticed it.

Coming back, the partying continued aboard the airplane. I got hooked into doing a few Carnac jokes and we had a fresh bevy of stewardesses bringing dinner around. This time, one of them wanted a complete set of pictures from the "pictorial" and I stopped short of offering her my phone number and address. Maybe the news travels fast.

I took the time to turn the HT-220 on and took a quick spin of the dial for my eight different receive frequencies. It is quite impressive how signals seem to boom in when you are flying about 30,000 feet. However, the airplane body makes for a very effective Faraday Shield necessitating holding the radio near the window.

Two week later, we ventured down to Dallas. My radio complement included the 450 Handie-Talkie, the two meter HT-220 and an IC-230. Dallas operation is quite entertaining and we located a few minor trouble spots with the aid of the rig. Directions were easily obtained and except for the ball game, the trip was enjoyable. I can't talk anymore about this weekend.

Next week came the trek to Columbia. This is a rather extensive drive just for a football game and to make it interesting, we generally break it up into two parts. Friday nite up to Kansas City, stay overnight and check out the action, then down to Columbia the next day. This time, I had ample reinforcements. WB5POW joined the caravan and provided the transportation (much to our delight as I will explain later). WD5FVI and myself took turns riding shotgun and operating the extensive complement of radios that went along with us. The collection included an IC-230, IC-30, a Radio Snack Charlie Brown radio, two 2 meter HT-220's, one 450 HT-220 and a (heh, heh) 75 watt PA system in Larry's car. I had the remarkable foresight to record Boomer Sooner on my tape recorder as we were getting ready to depart Norman. I grabbed a patch cord and cut off the phono connector and attached it to the PA which was hastily installed in the car and voila, a 75 watt 300,000 meter transmitter. The usefulness of such a system as we were driving into downtown Columbia Saturday morning was a thrill. Never have I seen such a reaction as the surprized expressions and clenched upraised fists and Missouri peace signs. Doesn't seem to me that these people are good sports about this whole thing. As we were driving in, I hooked up the 01/61 repeater and talked to WBØKZS, the trustee. He didn't have the repeater in the repeat mode, but was operating it like a remote base from his front room. He also informed me that there was a 16/76 repeater which was located on the Veterans hospital which had pretty good range. I was surprized that a City the size of Columbia only supported two small repeater systems. The isolation of Columbia deep in the heart of Missouri would dictate much more communications need. The way out of town was found much more easily with the system 16/76 and a helpful station giving us instructions down Highway 163 to Jefferson City. The Jeff City repeater was 6.40/7.00 and we found some more friendly assistance on the trek down to I-40. Coming into Tulsa, I talked to WB5ANM on his way back to Drumright and asked him to relay to my parents that we made it back. As we were coming back, we kept a sharp eye for Sooner fans returning from the game. The PA was still doing FB and we would give them a couple of chor-uses as we passed them. It is strange to be driving down the highway in Missouri at 12 midnite and then to suddenly be serenaded by the sounds of boomer sooner.

It was some cause for surprize. I think that the roughnecks that we met in Springfield were most appreciative as we were sitting in a gas station and they saw the radios and asked what we were doing. They said that Boomer Sooner at about 75 watts was just fine with them.

We had great sport with the CB radio. It proved quite useful, especially on the way back for avoiding traffic jams and two separate accidents. The noise was obnoxious, but it was still quite useful to keep an ear peeled to the radio. I didn't have a regular antenna and we had to use a two meter clip on. The transmitting range was limited somewhat, so we spent most of the time listening.

All in all, the best directions came via two meters. Repeaters in Wichita, Kansas City, and Columbia provided our best directions. The CB really shown when trying to discover road conditions just up the bend. To some extent, you might say that the coverage of the two systems complemented themselves.

We arrived back at 2:30 in the morning. I thought about the traveling I had done in the last month. It just wasn't as difficult as it has been before because we had the radios along. Glenn, WD5FVI used to hate traveling with me before he got his license. Now, he recognizes the inherent usefulness of traveling with radios. The trip to Missouri was the most fun because there were three amateurs in the car. (We used the HT's for communications during the game and coordination after the game). The convenience is just terrific. Thank goodness, most of the good games the rest of the season are within walking distance of my house here in Norman, but if I have my druthers to travel, I'll always take a radio or two.

Micheal Salem N5MS



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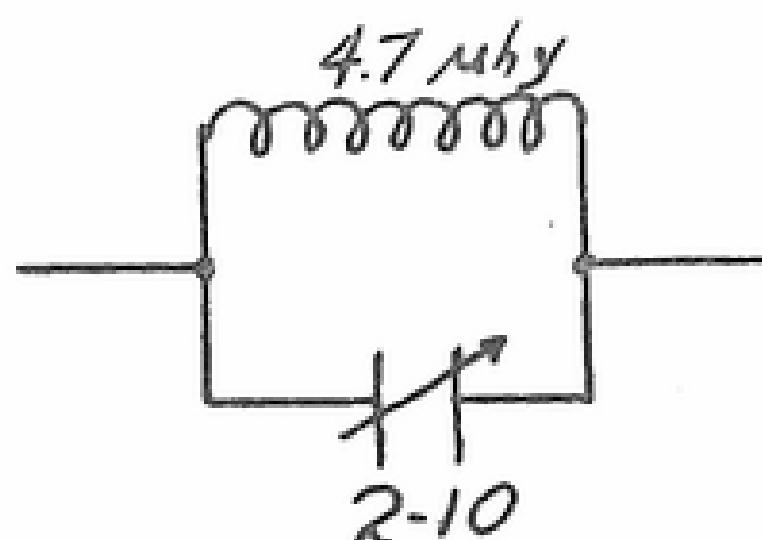
BILL, WD5YDM

SPURIOUS SIGNALS FROM THE KENWOOD TWINS

Under certain conditions, spurious signals may be transmitted by the Kenwood Twins that are not 40db below the desired signal as specified by the manufacturer. This condition occurred on the W5PAA club station twins on 20 meters while operating at approximately 14.040 MHz CW. The club station was called by a local amateur operator who reported interference to a national net near 14.320 MHz. Investigation using another receiver revealed a strong spurious signal was being transmitted about 14.320 MHz, that was less than 20db below the desired signal at 14.040 MHz. As the desired frequency was raised toward 14.100 MHz, the spurious signal lowered toward 14.250 MHz. The two frequencies converged until they reached a crossover point and began to separate so that desired operation above the crossover point produced a spurious signal below the crossover point. Desired operation at 14.300 MHz produces a spurious signal around 14.060 MHz. This condition also exists on the 40 meter and 15 meter bands and was reported by another amateur on the 10 meter band. The spurious signal is caused by a high level of fifth harmonic from the VFO.

The spurious signal can be reduced to the required 40db or more below the desired signal by adding an anti-resonant trap (parallel tuned circuit) consisting of a 4.7 uhy inductor paralleled by a 10 pf trimmer capacitor at the output of the VFO. This can be installed in the VFO compartment if the components chosen are small. Remove the yellow wire from the output terminal on the VFO board, connect one end of the parallel circuit to the terminal and connect the yellow wire to the other end of the parallel circuit. The capacitor should be adjusted to minimize the spurious signal. This modification reduced the spurious signal from less than 20db below the desired signal to about 50db below the desired signal. The modification was only made to the R-599 receiver VFO since the spurious signal from the T-599 transmitter was about 40 db below the desired signal as required. However, on some twins it may be necessary to modify both units.

George B. Lagaly, W5NTL
Station Manager, W5PAA



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ORDERS TO GO

CLOSED SUNDAY

SPECIAL ANNOUNCEMENT FOR QCWA MEETING Nov. 6, 77

Doctor Vernon V. Sisney, Psychologist will have the program for this meeting. He is witty, has a sense of humor, and no one will go to sleep at this meeting. All Amateurs are invited to this special program whether you are members of QCWA or not, and this meeting place will be at Val Gene's Restaurant at Penn Square, at 01:00 P.M. Go through the line and we will all eat together.

THE AMERICAN RADIO RELAY LEAGUE, INC.

HEADQUARTERS SOCIETY OF THE INTERNATIONAL AMATEUR RADIO UNION

ADMINISTRATIVE HEADQUARTERS NEWINGTON, CONNECTICUT, U. S. A. 06111

Carl Drumeller, W5JJ
5824 NW 58th St.
WARR Acres, OK 73122

September 21, 1977

Dear Carl:

In recognition of your fine efforts which prompted Governor David L. Boren to proclaim Amateur Radio Week, the Public Information Office proudly presents this Certificate of Merit with our thanks.

The issuance of this certificate and the services for which it was issued have been recorded on a permanent record sheet of all such services by amateurs. We hope that you will continue to serve the public with your knowledge, spirit, and dedication to amateur radio.

73,

Bobbie Chamalian, WB1ADL

Bobbie Chamalian, WB1ADL
Public Information Specialist

MEMORY STORAGE It is only because human beings can remember so much and so well that it has been possible to develop the intricate code of symbols we call speech. The memory capacity of even an ordinary mind is fabulous. Consider how many faces we can recognize, how many names call up some past incident, how many words we can spell and define, and how much minutiae we know we have met with before. Estimates that in a lifetime, a brain can store 1,000,000,000 (a million billion) "bits" of information - Isaac Asimov

I can never remember the call letters, but I always forget the handle.

Strange how much you've got to know before you know how little you know. Anonymous

One machine can do the work of fifty ordinary men. No machine can do the work of one extra-ordinary man. - Hubbard

+++++

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Minutes of club meeting, 6 October 1977:

Meeting called to order at 9PM by Kim Elmore.

Kim Elmore, incumbunt president, discussed details of membership.

Election results of 1977-78 officers conducted by Kim Elmore:

President- Kenny Hutchison, WB5RXZ, by acclamation.

Vice-President- Kirk Kirkland, WB5MJM, by majority over
Wayne Smith.

Secretary- Nathan Kirby, WD5GWG, volunteered, due to no
nominations.

Treasurer- Mike Salem, WA5EPK, by acclamation.

New president assumed control of the meeting.

Editor to "C and E" appointed by president- Bill Howell,
WD5HJL.

CORA representative appointed- President assumed this duty.

President asked for discussion on meeting nights. Majority vote:

Room 161- Student Union, 1st wednesday-business & special
program 8PM.
3rd wednesday-social 8PM.

It was pointed out by the president that the club station would need
some work to get it into order.

President asked for program ideas for monthly program on 1st wed.

President discussed engineering open house to be held the 11th and
12th of November. Kim Elmore is committee chairman. Planning meet-
ings are being held every thursday 5PM in Willoughby Lounge, Felgar
Hall.

Vice-President updated membership on current amateur events in local
area:

Jack Bickham, WB5TZZ, needs hams to join the emergency net
and emergency procedure courses to be held soon by Jack.

Bill Oliver, K5KDR, long active in novice training may be
setting another novice class soon.

Cleveland County Amateur Radio Society is being established.
Shack and meetings will be at new Red Cross building on
North Campus every 3rd saturday morning at 9.

Floor yielded to Kenny Hutchison, President.

Procedure on obtaining the key to the station explained:

Dr. Bill Cronenwett, faculty advisor, will issue key to
each member that is recommended by a club officer.

President asked club secretary to handle the recommendation
procedure.

-more-

President asked for dues to be paid. These persons have paid dues and are authorized to pick-up their keys at Dr. Cronenwett's office, room 219 Carson Engineering Center.

<u>NAME</u>	<u>PAID TO</u>
Kenny Hutchison	Aug 78
David Ihle	Aug 78
Harold Lee Hardy	Dec 77
Alan Jones	Dec 77
Nathan Kirby	Aug 78
Jess McKenzie	Dec 77
Richard Mullins	Aug 78
John Nelson	Dec 77
David Bryan White	Dec 77

MEMBERS THAT OWE DUES FOR FALL 77:

Kin Elmore, WB5CLC
Bill Howell, WD5HJL
James Jones, WN5RKQ
Charles McCown, WN5UVX

President adjourned meeting at 10:20 PM. Nathan Kirby WD5GWG

NOTICE:

If you have anything to submit to this section of the C and E, get in touch with Bill Howell, WD5HJL at 321-2765 or 733-1341.

Surprise! I bet everyone is surprised to see the OU Amateur Radio Club have an article in the C and E again. My name is Kenny Hutchison, WB5RXZ, and I was "elected", or shall I say appointed as there were no other nominations. The club's Vice-President is Kirk Kirkland, WB5MJM. Our Secretary is Nathan Kirby, WD5GWG, who seems to be very interested in club affairs. Treasurer is old faithful, Mike Salem, WA5EPK. Club Editor is Bill Howell, WD5HJL who just recently recieved his license.

At a club officers meeting (which only half the officers attended), we set priorities for the club. 1st priority is getting membership in the club to 35+, secondly, replacing or repairing antennas, 3rd, storing unneeded equipment (recently accomplished), 4th, revise the By-Laws. One other item of business was discussed, NO keys to the club station will be issued unless you are a paying member of the club, THIS WILL BE ENFORCED!

I hope everyone will come to the meetings (1st and 3rd wednesdays at 8:00 PM in room 161 in the Student Union) as we have some terrific programs scheduled(details next month).

I guess that's it for this month, remember if you live in or around Norman, come to the meetings, or else the club will die! Kenny Hutchison WB5RXZ

ANOTHER VIEW "CODDLED HAM"

CODDLE: To boil partly; To soften by hot water.

Websters first definition/

This type of coddling is one of the prime factors why some amateurs are reluctant to support some of thier local dealers. I have been boiled on more then one ocasion by more then one local dealer.

I have recieved that special 50% above retail price .

I have been offered that 25¢on the dollar tradein.

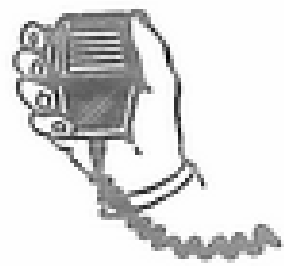
I have waited months for a dealer to order an item.

I have seen those young aspiring novices leave a store with three times the things they needed.

I have seen those guarantees that last till out the door of the store.

There are bad dealers, But luckily we have some good dealers who treat a ham as the type of customer he is.

If local dealers want Amateurs business let them greet the ham ,If not with discounts; with fair and equitable prices, reasonable trades, and prompt courtious service. This is all we can and must demand. WB5NHZ , Henry



THE ZANY NEWS FREQUENCY

By JOE, WA5ZNF

Last months C & E was a super big one because of among other things it included an up to date roster (well nearly) of all of the amateurs who are CORA members through their membership in one of the participating clubs. Due to the time lapse between preparation by a very fine lady, Rosy Halley, with an assist by my Frances, and the computerizing and printing, courtesy of Harold Plunk, K5GBF at no cost to CORA, there may have been a few left off and I am sure some 1x2 calls didn't get in. Maybe by next update they will all be correct. By the way, if your entry was incorrect for any reason just send a postcard to Box 15013, Del City OK 73115 and it will be changed in an upcoming supplement. TNX again to those mentioned above.

* * * * *

NOW FOR SOME MORE THANKS AND RECOGNITION - - I started out to recognize as many of the people as I could who contributed to the award that was featured on the front cover last month, for even though it displayed my name prominently there wouldn't have been room to list all that were really responsible for the award. This is the third time I have written this little accolade and it still doesn't express my gratitude for all the help and cooperation but in looking back to the first issue of the CORA Collector & Emitter one name has been in the masthead as editor since the start, others have done real good jobs for a time but one, Joe Buswell, K5/JB/WA5TRS, has been there with superior contributions every month, not to mention the "physical" help to me.

Too many others to list have contributed articles that have brought us national recognition not only in this contest but by all of the times we have been reprinted in national magazines and club papers. So, to the Club Editors, CORA officers, collators, staplers, folders, banders, mailers, ad sellers and everyone else who has helped - TNX.

* * * * *

Would you like to have a nice award certificate for your shack wall? - All you have to do is get with it like Carl, W5JJ and get some recognition for amateur radio in the newspapers, radio or television and let me know about it. The certificate that I have to be presented to Carl wouldn't reproduce but the latter accompanying it is on page 32.

* * * * *

FOR SALE: or FOR TRADE: or WHATEVER - - If you are a CORA member you are entitled to run your "classified" ad free of charge, always subject to space availability, for almost anything you have to sell, trade or give away, as long as you are not in business. But - you can enhance your chances of getting it in if you will get it to your club editor in time for him/her to type it before paste-up time. Look at the calendar on the back page each month to tell when it is due. It doesn't have to be typed but if you can prepare it, single spaced, lines 7 inches long, black, dark typewriter ribbon it will help.

* * * * *

1 DOWN AND 29 TO GO - - I was out of town a couple of days this last month and that must have been the days that at least 29 people tried to get in touch with me to give me business card ads, for that is the amount of \$30 annual contracts we need to keep going without a raise in subscription prices.





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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2  ARC	3	4 ACARC	5
6	7	8 MORI	9	10 ALTUS HAM CLUB	11 	12
13	14	15 76ers	16  ARC	17	18 OCARC	19 WEINER ROAST and...
20 CAMPOUT	21	22	23	24 THANKS- GIVING	25	26
27	28 EDIT C&E 	29	30	MORI MAILS C&E DEC 1	ACARC DEC 2	

See page 2 and/or individual club sections

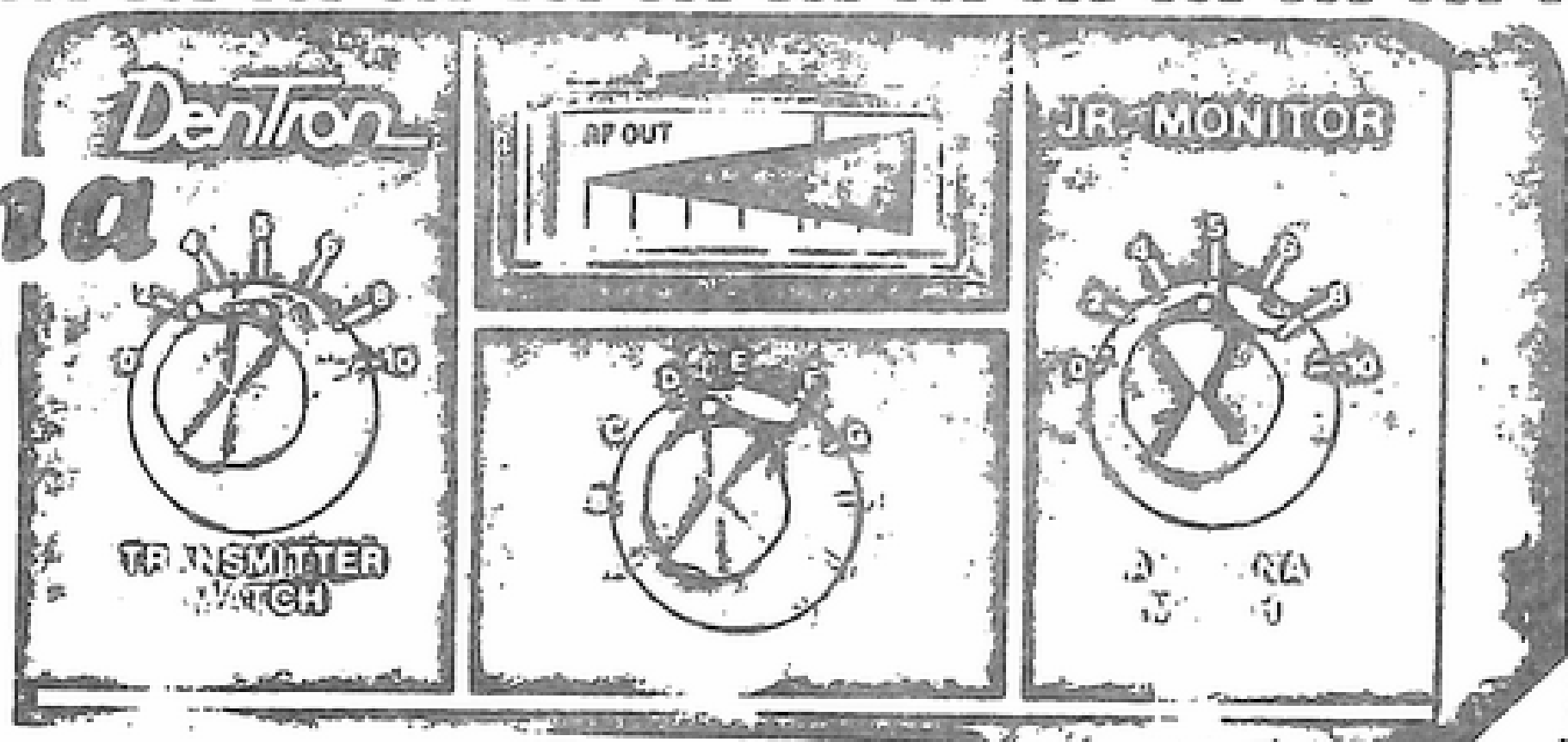
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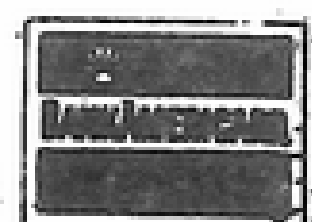
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