

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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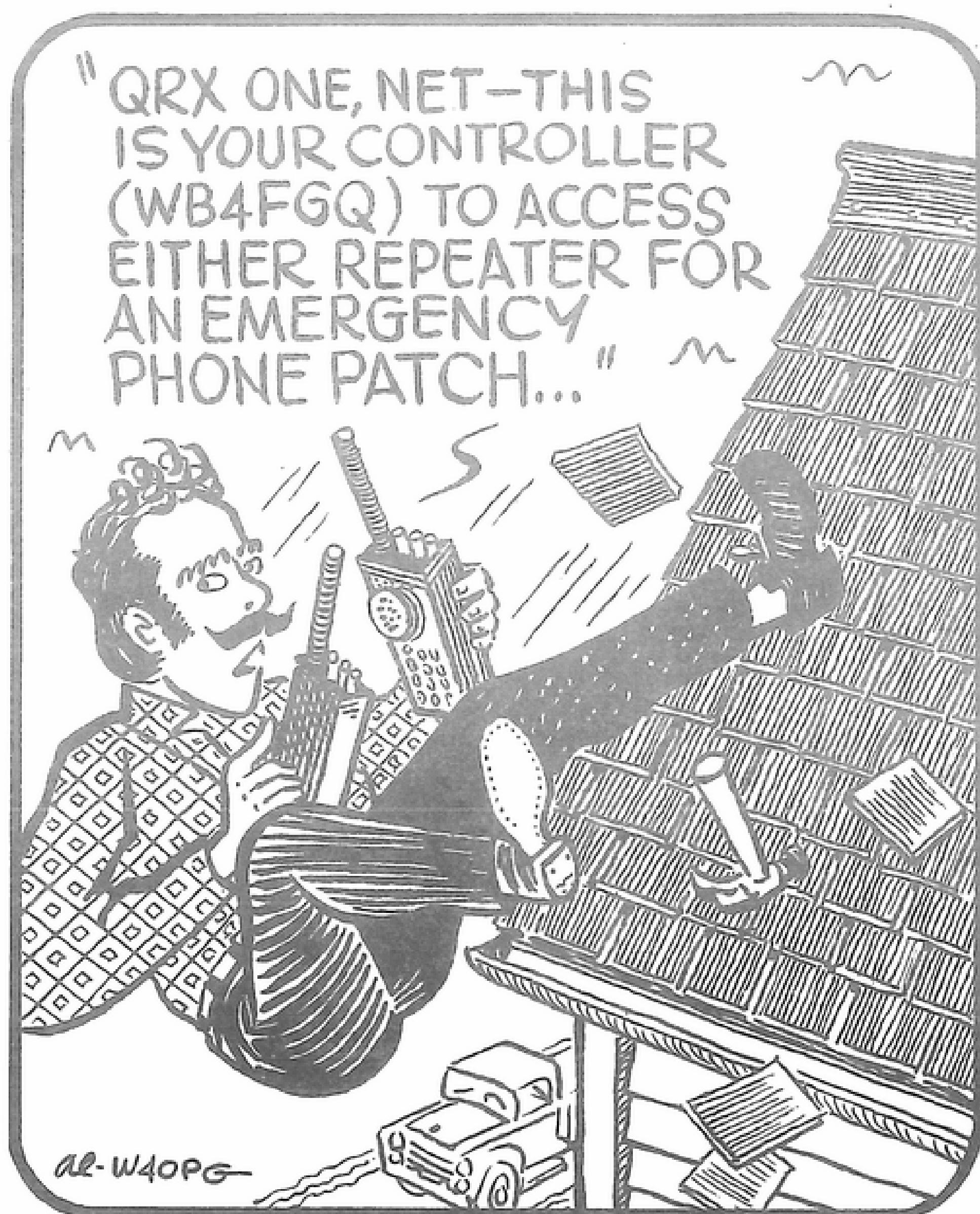
AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

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Volume 5

March 1979

Number 50



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MEETING HIGHLIGHTS

As has happened so many times this year, paste-up comes one day prior to our meeting. But since this month's meeting is concerning the severe weather in our area we will talk about net procedures. As last year the net check-ins will be done by quadrant of the city with out-lying areas being, more than likely, called first. The NCS will call for calls ONLY! After your station has been recognized the NCS will probably ask for your location, at which time give your location as of your weather map, in other words the grid coordinates.

We want all amateur stations to check in if at all possible, but we expect that if you check-in to follow Net Controls' instructions to a "T". If this is not possible for you to do, then please do not bother to check-in. In the case there are some checked-in that will not follow instructions do not be surprised if the NCS calls them down ON THE AIR. It could be embarrassing!!! ENOUGH SAID

FROM HRH

BROADCAST INTERESTS MAY THREATEN the U. S. Amateur Radio WARC position far more than the question of sharing 220 MHz with Maritime. U.S. international broadcasters, not satisfied with the 865 kHz of new high-frequency spectrum proposed for them in the Commission's carefully worked out WARC Report and Order, are now waging a behind-the-scenes battle to double that amount at the expense of other users. If they succeed it will mean cuts for the other services whose expansion was proposed in the U.S. position, and, in the process, will destroy much of the carefully worked out agreement achieved by various government agencies and industry advisory groups during the past several years.

FCC'S PROPOSED PROTECTION of its monitoring stations from potential interference could have an impact on Amateurs in the vicinity of any of the Commission's 13 monitoring facilities. Those stations are located in Allegan, Michigan; Anchorage, Alaska; Belfast, Maine; Douglas, Arizona; Ferndale, Washington; Fort Lauderdale, Florida; Grand Island, Nebraska; Kingsville, Texas; Laurel, Maryland; Livermore, California; Powder Springs, Georgia; Sabana Seca, Puerto Rico; and Waipahu, Hawaii.

CW ABILITY WOULD NO LONGER be required but only "recommended" for the Amateur Service, the FCC proposed in its just released final Report on WARC 79. Article 41 of the international regulations now requires that operators of Amateur stations shall have proved ability in Morse code, with the proviso that governments can, if they wish, waive the CW requirement above 144 MHz. Under the FCC's proposed change in Article 41, it would only be recommended that Amateur operators should have demonstrated Morse code ability, without any reference to frequency limits. This change would, the Commissions said, permit governments to develop their own licensing requirements.

FOR SALE

KENWOOD TS900, POWER SUPPLY, & SPEAKER- The Cadillac of HF transceivers \$750.; DRAKE "C" Line - R4C, T4XC, AC4, MS4, & noise blanker. Costs over \$1500 new, the best twins ever made will never be outdated by WARC 79, \$1025.; New Klitzing 2 meter all transistor linear amp 10w-180w out \$275.; Vanguard 2 meter converter- 28 MHz IF \$30.; HB 2 meter SSB transmitting mixer \$25.; Ameco HF Preamp \$20.; 2 meter Yagi's \$5.; 2 new F9FT 21 element long yagi for 432 MHz \$40 each.; Two 6 meter long yagi's, 5ele & 6ele Lots of other parts & goodies. What do you need?? Marshall K5MB

HEATH SB401 & SB303 +6M transverter & 50w amp - all perfect - BK solid state scope WB5Z0J, Paul 6702180

STANDARD 2 METER HT SR-C 146, with TT pad, 94/94, 34/94, 07/67, 22/82, & 81/21, leather case, and 0-15v & 0-75ma battery charger. Henry N5IH 7223848

FOR SALE: Icom 21A with DV21 VF0, has 94/94, 34/94, 16/76, 22/82, 28/88, 52/52, 03/63. Bob, WD5EVP, 632-1708. \$375.00.

WANTED: Model 28 Teletype. Carl, WB5DJQ. 454-3194 evenings; 478-1413, days.

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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

President	Mark Northcutt	WD5DYI	842-1086
Vice President	Chuck Wilhite	K5NK	721-4926
Secretary	Nathan Kirby	K85BF	364-7979
Treasurer	Ron Recer	WD5FRQ	751-5378

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BIARC Bill Riddles	N5MM	OKCAP Henry Isreal	N5IH 722-3848
ALTUS Mike Schenk	K5VXU	MORI George Lee	WB5MMK 946-2754
OUARC Nathan Kirby	K85BF 364-7979	CARC Richard Edwards	KA5ALO
MARC Virginia Beneda	WB5MTH 825-3302	TECHNICAL WRITER Mike Salem, N5MS	

PARTICIPATING CLUBS FOR CORA COLLECTOR & EMITTER:

AERONAUTICAL CENTER AMATEUR RADIO CLUB
Postal Station 18, Okla City OK 73169
MEETS: 8:00 PM First Friday each month
Flight Standards Bldg, FAA Aero Center

Pres	Bob Pace	WA5CJG	376-3569
V-P	Bill Oliver	K5KDR	329-6333
Sec	Bob Graham	WB5NSV	677-8685
Treas	Sam Gover	WA5WHO	

MID-OKLAHOMA REPEATER
MEETS: 8:00 PM First Tuesday of Month.
Okla City EOC, 4600 N Eastern

Pres	Chuck Wilhite	K5NK	721-4926
V-P	Bill Atkins	N5AH	737-6984
Sec/Tr	Jim Jones	K5PER	634-5235
Dues:	Sid Gerber, 829 Bouse, MWC	73110	

OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB
MEETS: 8:00 PM, 1st & 3rd Thursday
Rm 449, Carson Engineering Center.

Pres	James Gardner		321-8779
V-P	Dan Orr	WD5GKZ	325-6951
Sec	Mark Proting		329-1452
Treas	Nathan Kirby	K85BF	364-7979

ALTUS AREA AMATEUR RADIO ASSOCIATION
MEETS: 2nd Thursday, 7:30 PM
North Main Fire Station [CD]

Pres	Steve Norris	W5KI	
V-P			
Sec/Tr	Mike Schenk	K5VXU	

WHEATSTRAW AMATEUR RADIO CLUB
MEETS: 2nd Sunday, 2:30 PM. Location
varies. See Calendar on back page.

Pres	Marvin Stokes	WA5JHB	893-2221
V-P	Ted Vanlangham	WD5JNT	262-1675
Sec/Tr	Ralph Wilder	WA5PFK	623-5421
Act	Joe Hyatt	WA5GHK	375-3783

OKLAHOMA CENTRAL AMATEUR RADIO CLUB
323 NW 10th, Okla City OK 73103
MEETS: 8:00 PM Third Friday each month.
American Red Cross, 10th & Hudson

Pres	Ken Ford	WB5KHU	528-8770
V-P	Al Prince	WB5KCU	
Sec	Joe Buswell	K5JB	732-0676
Treas	Ellard Foster	W5KE	789-6702

OKLAHOMA CITY AUTOPATCH ASSOCIATION
MEETS: 7:30 PM 3rd Tuesday of each month
Oklahoma Military Academy, 36th & Grand

Pres	Frank McCollom	N5FM	751-3577
V-P	Henry Isreal	N5IH	722-3848
Sec/Tr	Hobe Burgan	WB5MLN	751-1646

BICENTENNIAL AMATEUR RADIO CLUB [76'ers]
MEETS: 7:00 PM, 2nd Tuesday each month
Air National Guard, Will Rogers Airport

Pres	Mark Northcutt	WD5DYI	842-1086
V-P	Joe Ramage	WB5TDW	685-4814
Sec	Joe Couch	WD5BMP	282-4353
Treas	Don Duck	AE5N	

CHOCTAW AMATEUR RADIO CLUB
MEETS: 2nd Thursday, 7:00 PM
Indian Meridian School Cafeteria

Pres	Frank	AB5AH	
V-P	Gary	WB5WHF	
Sec			
Treas			

CENTRAL OKLAHOMA RADIO AMATEURS
MEETS: 7:30 PM. Normally on last Tuesday,
but see calendar. Red Cross Bldg.

CORA officers listed above.





Random Words From The President;

Our regular meeting was held Feb.2,1979 We discused every thing from field day to Ham Holiday, and speaking of ham holiday, our club is responsible for the ladies activities this year. Our committee is now trying to plan these activities and we need input from the ladies as to what they would like to see. So if your wife has any suggestions or would like to be on the committee please have her call me at 376-3569 after 4:30 pm, WE NEED YOUR HELP!!!!

Our program for the february meeting was presented by Mr. Mike Riley the area sales engineer with TEKTRONIX. Mike brought with him to the meeting a very nice Spectrum Analyser and presented a very good program on it's uses in the communications field. The program was received very well by every one, thank you Mike for your intrest in our club, and for the good program.

Our program next month will be on MICROPROCESSORS and how they might be used by you. The program will be presented by Mr. Ken Sliger and Mr. Martin M^CCormic from our own local HIGH TECHNOLOGY store. Come on out all you computer bufs.

It was also my pleasure at our last meeting to present to Mr. Bob Ashby W5HXL a very well deserved CERTIFICATE OF MERIT for all he has done to help our club through out the years; thank you Bob.

I have been monitoring the 25/85 repeator for about 10 hours a day, and have over heard a number of conversations about the use of the auto patch, and who is or is not a control station. At the present time we only have four(4) control stations for the repeater. A control station must have a transmitter that will operate on the 450 mhz up link control frequency and know the proper control codes to send to the repeater. According to the F.C.C. rules a control station must be able to control the repeater on a frequency above 220 mhz if radio control is used. SO when you use the auto patch on 25/85 you do not become a control station. Let me also say this if you misuse the Auto Patch you not only are jeopardizing your amateur license, you may cause the F.C.C. to rule that auto patches are illegal on the amateur bands, there by affecting all AMATEURS, so think before you call.

Congratulations to MAC K2GKK, who is our new central Oklahoma frequency coordinator.

73, Bob Pace, WA5CJG

Minutes of the Aeronautical Center Amateur Radio Club 02/02/79

Bob Pace called the meeting to order at 8:01 P. M. George, W5NTL, gave a report on CORA activities. President Pace thanked Robby, AA00, for serving last year as one of the clubs CORA directors. Ham Holiday is approaching and our club has the ladies programs. This was discussed. Holly, N5ABL, volunteered he and his wifes services for handling the bingo. Bob Ashby, W5HXL, was presented a certificate of MERIT for outstanding service to the club. The clubs emergency generators was discussed. George, W5NTL, the W5PAA station manager reported that he has received the xformer for the keyer and has it repaired. President Pace auctioned off last years call books. The program was given by Mike Riley of Tecktronix. He talked and demonstrated a spectrum analyzer. A very good program. Thanks Mike. The meeting was adjourned for refreshments at 9:10 P. M.

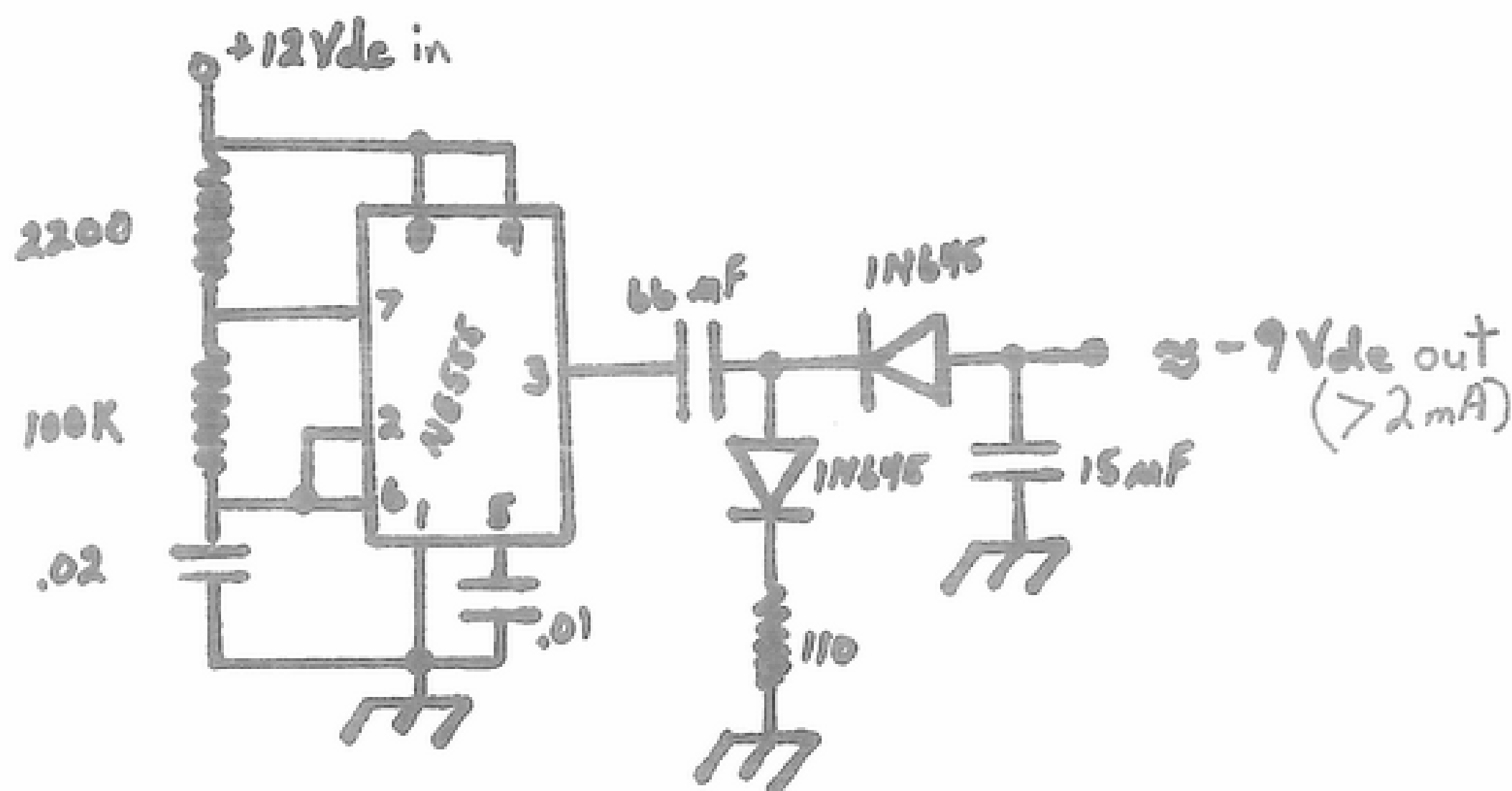
Minutes by Bill Oliver K5KDR
for Bob Graham WB5NSV sec.

FOR SALE: Collins 75S3, Serial #10202. Round emblem, in excellent cond. complete with 200Hz, 2.2KHz, and 6KHz filters. Super buy \$400.00- Robby AA00.

March 1979



I would like to take this opportunity to thank Bill Oliver, K5KDR, for filling in for me at the last meeting of the ACARC. As some of you are already aware, my wife was in the hospital, keeping me quite busy. Because of this, I was quite unprepared for this issue of C&E. So I dug into my box of little used circuits, and came up with the following "negative power supply."



Bob Graham, WB5NSV

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ALTUS AREA
AMATEUR RADIO
ASSOCIATION

President - Steve Norris, W5KI
Sec/Tres. - Mike Schenkel, K5VXU

The Altus Area Amateur Radio Association general membership meeting for February was called to order by President Steve Norris, W5KI. There being no old business, the financial report was given followed by a brief discussion of a proposed semi-annual calendar of programs and events. Among the possibilities discussed were how to obtain locally available talent as well as various films and slides from outside sources. This calendar will be published soon for distribution to all members.

Dwight Dennis, WB5KRH with the aide of Loren Simms, WA5CBF then presented a film depicting the various killer tornadoes that rampaged through the South and Midwest some years ago as well as a series of slides showing the results of the Tipton tornado activity.

A rather lengthy roundtable ensued reflecting the many questions of the members reference this year's tornado season and the amateur's role. The consensus of opinion showed that as radio operators and communicators our talents can best be used in communicating. Loren presented a rather good outline of Procedures and Guidelines for Southwestern Oklahoma Severe Weather Net operations.

Finishing the evening's business was a discussion on this year's Jackson County Free Fair. There being no opposition, it was decided that we would participate with final plans to be made later in the year.

Steve then adjourned the meeting to the coffee shop for the usual eyeball meetings and java.

FOR SALE: ICOM 21 with 10 sets xtals \$260.00. IC22S \$160.00. Contact Jerry Bryan 405-667-5341.

FOR SALE: Leaving and must liquidate. All absolutely mint. Drake T-4XC, AC4, R4C & MS4, 500 Hz filter, 10M xtals and dust covers. Rohn 25 tower, Ham M rotor, Classic 33 beam, house bracket, rotor mount, cable, mast and Ringo Ranger. Also Murch Matchbox, homebrew R4C freq counter and matching console with SWR/Wattmeter phone patch, 2 ant coax switches and fan switch, 2 calendar/clocks. RG-8 including PL-259 and RG-58. Price? Most reasonable offer. Contact Terry Taylor, WB5JFM 3601 Ranch Rd East, Altus, Phone 405-482-3494.

FOR SALE: Don Bruner, WB5IEK, 789-1910, wants to sell an IC-215 FM Icon with crystals for 07/67, 34/94, 22/82, 28/88, 16/76 & 52/52. Equipped with Nicad batteries & can be recharged from cigarette lighter or any 12 volt source. Wants \$200, possibly negotiable, might consider Wilson handi-talkie in trade.

STOLEN: Type 100 RCA Handytalkie, number Moo574K. If anyone sees or hears anything about this radio, contact Jim Williams, K5VRL. There is a reward for recovery.

FOR SALE: Swan 350-C, with Power supply & speaker. Mint Condition, 10-80 SSB/CW, 520 watt PEP, \$350.00. Dave, WD5IMX, 737-0723.

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Mt-Oklahoma Repeater Inc.

A NON-PROFIT ORGANIZATION
OF RADIO AMATEURS DEDICATED TO PUBLIC SERVICE

Our last meeting was held late, Monday, February 12 - after being postponed twice because of *slightly* cool conditions, sprinkled with a generous portion of that pretty white stuff that causes all sorts of misery to travelers (and fun for the kids). They didn't dismiss school for snow and cold conditions when I was a kid - you either walked it or missed, and was counted absent.

our meeting was attended by one of the biggest numbers of people that I believe I have ever seen there. Couldn't hardly find a place to light! Meeting was called to order by president Wilhite, K5NK, and business discussed and recessed for coffee and dunkers. Meeting was reconvened after the break and more business was discussed, and the program presented.

A new piece of equipment was demonstrated to the club (new to me at least) by Ken, K5VVZ, as a possible cure for headaches pestering 2-meter operators. It was explained at the meeting, it was portable, and looked simple to use. Could be quite useful for certain purposes. If any of the St(R)ay-a-ways of the membership want to know about it, ask a person that was there - better yet, some of you absent birds might fly into the club and see what's cooking at the meetings. It's your club, you ought to be there, if possible.

An interesting movie was shown by Bill, K5SKA, showing the erection of a radio tower and station, at Central State University, I think. It was a tall tower. They showed an inside view of it from the top - made you want to hold on even though you knew it was a movie. It showed the various stages of erection and how it was put together. Quite interesting to see how those cranes can lift things so high in the air. those are versatile machines, used for both construction and destruction. I read long ago about a 400 pound wrecking ball breaking loose and went sailing and rolling down a street. No one was hurt fortunately. At the plant where I used to work, I saw one fall over with a 45 ton tank it was setting up. The machine was rated for 35 tons. All the workers scattered like a flock of chickens - I don't think they knew they could move so fast. I'm sure their boss didn't! I was sitting in my car, and the boom missed me by about six feet. They asked me what I did and I told them I just sat there, I couldn't do anything else.

We have new trustees on two repeaters, according to my information - 34/94 is Jim, K5VRL, and on 449.1 it is Joe, K5JB. Thanks to the former trustees for all of their efforts and time. They did a great service.

Program chairmen were elected for the coming year, Fred, K5HFM and Jerry, K5MCJ, (or railroaded, as someone put it). Let's wish them luck -- I have a hunch that it takes quite a lot of talking to persuade some of the program prospects to put on their specialty or subjects.

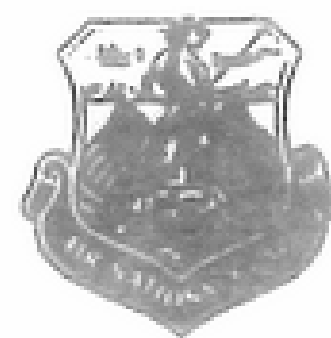
We are indebted to Sid, W5K0Z, for this gem:

Arlie Garvin and his wife Pat have five licensed amateurs in the family. Tie that, if you can! Pat says that she has five hams for every meal, Hi! They are: Arlie, WB5NKC, Pat, WB5NKD, Ted, WB6OY0, Rachel, WB5UCM and Mark, KA5DRD. Quite an accomplishment; congratulations, Arlie and Pat. By the way, how did you get your wife and family interested? My wife won't even listen to me about the subject, well everyone can't win them all - she tolerates it anyway. (Ed.: The facts and the answer to George's question would make a good story, Arlie.)

FOR SALE: Don Bruner, WB5IEK, 789-1910, wants to sell an IC-215 FM Icon with crystals for 07/67, 34/94, 22/82, 28/88, 16/76 & 52/52.



THE DIGEST AMATEUR RADIO CLUB



FROM YOUR CLUB EDITOR

As my business continues to keep me hopping almost constantly, I begin to feel like that butcher who sat down on his meat grinder: He got a little behind in his work!!! But here we go once again with another few lines of club news, general comments, notable quotes, and slight foolishness.

The last '76ers meeting was really interesting. Our treasurer Don, AE5N, told the members we needed more than one hundred more dollars before we would have enough money (appx \$500 total) to purchase a duplexer for our 16/76 autopatch repeater. We passed the hat and, in less than five minutes, took in an additional \$128. You people are really great! I'm very proud to be associated with you. WOW! What club spirit!

The club now has 96 paid members -- and more than 70 of them were in attendance for that hat-passing episode and a very interesting program about radio direction-finding which was presented by Bill Skipper KB5BS. Many comments were made concerning chasing bootleggers and yours truly was, of course, involved there too.

--- And speaking of that subject, you may remember our BOOTLEGGER OF THE MONTH for January: "Bud" (using call sign WA5JNT) is no longer with us. With the help of C.Y., WB5TKG; Charlie, WB5ZKY; Mark, WD5DYI; Jerry, N5AUP; Ron, WD5FRQ; and Karen, WD5HBX, he was again tape recorded and triangulated upon. I then drove to his house, certified his field strength, mode, and frequency in the presence of witnesses and called his telephone number. After about five sizzling minutes on the twisted pair, I believe I can say with certainty that the 1900 block of NW 35th street won't be the source of any more bootlegger RFI.

The '76ers amateur radio license classes are in full swing again this semester. Come check us out Thursdays from 7 to 9pm. We all learn quite a bit from each other's experiences. I surely want to say thanks to Mac, K2GKK, for some very interesting lectures concerning amplifier classes of operation, tube biasing, alternator noise, etc.

Mac's YF (and please note that I didn't call her an ex-YL) Barbara, KA5BJS, showed me an interesting non-schematic that looks like this:



I'm sure that we can see that it resembles a Voltswagon pulling a mobile Ohm

The activity on the club's 16/76 autopatch repeater continues to increase from month to month. Please fire up and check us out. We welcome travelers, guests, and prospective members always. Our dues are \$2 per year and we ask for a \$10 repeater support fee from those persons who use the '76 machine on a regular basis.

Special thanks to Chuck, K5NK, for his comments elsewhere in the last C&E about the use of our old expression "73", pronounced "SEVEN-THREE". I have heard several operators say that they had never heard that pronunciation clarified for them. Good work, Chuck -- I'm gonna' lay some 'o them numbers on ya' for that (mercy sakes).

This month, lets take a few lines to welcome three very dynamic new members to our club: Greg, WD5INZ and Bills WB5QMY and KB5BS. They are very impressed with the '76ers and we hope to remain deserving of their allegiance.



THE BICENTENNIAL
AMATEUR RADIO CLUB



This is really a great month for CORA, too: The Wheatstraw Amateur Radio Club voted unanimously to affiliate with her. I'm not a Wheatstraw member, but I was very proud to have been in attendance at their meeting last month when they made that important decision (and thanks to Jim, K5VRL, for his supportive comments right before the voting took place). Also, their club reporter is Virginia, WB5WTN, my mother-in-law! Hence, you won't find mother-in-law jokes in my column

I'm sure most of you have heard of the Wheatstraw Amateur Radio Club before. They have been in existence more than 20 years and serve a large area of West-Central Oklahoma: Kingfisher, El Reno, Calumet, Okeene, Okarche, Watonga, Hitchcock, etc. They are a very dynamic organization involved in communications education and public service, as well. They operate an excellent repeater facility on 146.01/61.

Yeah, gang, I know this column is from the '76ers, but I couldn't think of a better way to welcome the Wheatstraw bunch into CORA than to tell you about them. Their president is Marvin Stokes, WA5JHB, and the club secretary is Ralph Wilder, WA5PFK, two old friends of mine.

Welcome to CORA, Wheatstraw Amateur Radio Club, from your friends the '76ers! -- just what I said to Jim, K5VRL when he upgraded to general class after almost twenty years -- IT'S ABOUT TIME!!!

In this issue, you'll find Wheatstraw comments from my mom-in-law Virginia, WB5WTN. Her St. Patrick's Day blarney sounds very Irish-Catholic for a German-Protestant!

73 (pronounced SEVEN THREE),

Bill Riddles, N5WM
'76ers Club Editor

Minutes for February Meeting

There were 71 members and guests at this month's meeting. This is great because we only have about 105 members. Don, AE5N, gave the treasurers report, and reported Jack, WD5VAE, gave \$100 for our duplexer. Bill, N5WM, promptly passed the hat and came up with another \$132.

Coy, N5OK, made the motion, seconded by Tom, N5AOZ, to authorize Don to check prices and to buy a duplexer up to the amount in the account at that time, motion carried.

Field day was discussed and Dick, WB5TMW, needs a few good men and ladies. Bill, KB5BS, Gave an interesting program on DF.

Joe, WD5BMP

Once upon a time a very nice doctor bought a very nice house; however, it needed a few plumbing repairs. A plumber was called and in less than a day everything was in apple pie order.

But when the plumber presented his bill the doctor caught his breath and said, "holy cow, man! I don't make that much in a day and I am a doctor." The old plumber replied, "well, don't feel bad--when I was a doctor, I didn't either."

Joe, WB5TDW

FOR SALE: Galaxy 300 Transceiver, w/ power supply, excellent condition, \$200.00.
Dan Orr, WD5GKZ, phone 325-6951

FOR SALE: Heathkit SB-401, transmitter w/full crystal pack. Will match any 10-80 m receiver. Manual & cables. \$235.00. Dick, WB5TMW, phone 685-2867.

Oklahoma Repeater Society, Inc.

The regular meeting of the Oklahoma Repeater Society, Inc. was held on February 3, 1979, at the Holiday Inn, Enid, Oklahoma.

Officers of the Society and guests Jack Gant, W5GM, West Gulf Division Director from Ardmore and Leonard Hollars, WA5FSN, S.C.M. of Oklahoma, from Kingfisher, were introduced by the President of the Enid A.R.C., Hosts for the meeting.

President Dan Schroedar called the meeting to order and asked Jack Gant, W5GM, to update the group on League business. Jack explained the necessity of the dues increase, the new members of F.C.C. and the need for informing these members of Amateur Radio. He went into some detail about WARC and ITU. He said the amateur community is the best prepared for the meeting in September 1979 it has ever been.

Leonard Hollars, WA5FSN, told of activities in Oklahoma, BPL awards, the need for more reporting of station activity and net reports to him for his report to League headquarters.

Minutes of the last meeting were approved as read.

The Treasurer reported a fat till of \$190.10.

There were no reports from the Legislative or Technical Committees.

The license tag bill, introduced by Wolf was discussed.

Pat Devlin, WA5EPS, gave a report on a recent Judicial Ruling of the Appellate Court in favor of Ray Wade, K5JCM. In short: His neighbors objected to the tower and antenna. They sued and won. He appealed and the Appellate Court said the neighborhood community had nothing to say about what effect the tower and antenna would have on the beauty etc. of the neighborhood so long as it didn't interfere with them or their property.

Pat Devlin, WA5BPS, Frequency Coordinator has a new committee to help him with the job he has apparently been doing alone. Members are: Dan Schroedar, K5FVL, Stillwater, Charles Dibrell, W5BLW, Ardmore, Jim Stine WD5SJX, Stillwater, D.C. "Mac" Macdonald, K2GKK, Oklahoma City, Bill Reid, WD5DFH, Mooreland. These members will assist Pat in the difficult task of frequency coordination.

There was no old business to bring before the society.

New business was discussed by Pat Devlin, WA5BPS, on the F.C.C. rules on Autopatch operation. After some discussion, a motion was made, seconded and passed for Amateurs to carefully watch autopatch activity.

Suggested reading for all amateurs: QST January, 1979, Washington Mailbox, page 68 and QST February, 1979, Washington Mailbox regarding third party traffic.

See U at the next meeting

73

John Shaw, WB5UOE
Secretary, Board of Directors ORSI
Box 310
Beaver, Oklahoma 73932
405-625-3368 Home Telephone

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- - - - Bill, WA5RAQ + + + +
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INDEXES EXPLAINED

Each of the four CORA C&E indexes has included articles of general amateur appeal regardless of club affiliation. Club business as such has been omitted from the indexes. However, some items within the club business sections were thought to have some value to all amateurs, so these statements were indexed. Some of this material lacks a heading and some articles have headings that are not very descriptive of the contents. I've changed or added some titles, so an index listing may not be readily apparent on the referenced C&E page. At any rate, each index listing is a subject that should be found on the page number given.

My work with the indexes has convinced me that there are many excellent articles in the four years of CORA Collector and Emitter magazines. Browse through them or research a particular subject that may concern you. Even the back issues can be useful and informative.

+++++++ Bill, WA5RAQ -----



Club
NEWS

WSLOV
The Elmer Goodwin Memorial
Station

MINUTES OF FEBRUARY MEETING

MEETING WAS CALLED TO ORDER AT 8:02 PM BY PRESIDENT KEN, WBSKHU, WITH 22 MEMBERS AND GUESTS PRESENT. AFTER SELF INTRODUCTIONS, BOB, W5HXL, GAVE THE CORA REPORT. HE DESCRIBED THE NEW HAM HOLIDAY BADGE PROCEDURE AND THE ARRANGEMENTS FOR PURCHASE OF A FLOPPY DISC MEMORY FOR THE AERO, CENTER CLUB COMPUTER. INCREASE IN HAM HOLIDAY REGISTRATION FEE WAS MENTIONED. COMMITTEE CHAIRMEN WERE ASKED TO BRING THEIR PROPOSED BUDGETS TO NEXT CORA MEETING.

A MOTION TO CO-SPONSOR AN OKLAHOMA QSO PARTY FAILED. A MOTION TO EXPRESS CLUB PREFERENCE THAT HAM HOLIDAY BE HELD IN 1980 PASSED.

ANNOUNCEMENT WAS MADE CONCERNING THE ANNUAL SEVERE WEATHER MEETING TO BE HELD TUESDAY, FEB. 20, AT CHANNEL 9, SPONSORED BY AUTOPATCH CLUB.

ELLARD, W5KE, GAVE TREASURER'S REPORT AND MEETING AJOURNED AT 8:37 FOR SOME EQUIPMENT SWAPPING AND REFRESHMENTS. JOE, K5JB, SEC'Y

NEW KIDS ON THE BLOCK

WELCOME IS EXTENDED TO THE CHOCTAW AMATEUR RADIO CLUB WHICH JUST JOINED CORA. GOOD LUCK AND GLAD TO HAVE YOU ABOARD! *

*ALSO, WELCOME WHEATSTRAW!

WERE ARC TRANSMITTERS MYTHICAL?

AN ARTICLE BY A GENERAL ELECTRIC OFFICIAL IN THE DECEMBER 1978 ISSUE OF MOBILE TIMES DECLARES "AN ARC IS A STEADY CURRENT PHENOMENON AND DOES NOT CAUSE VOLTAGE TO BE INDUCED INTO A NEARBY CONDUCTOR." AND, SO, AFTER ALL THESE YEARS I LEARN THAT THOSE ARC TRANSMITTERS I STUDIED ABOUT IN STERLING'S RADIO MANUAL WHILE PREPARING FOR A COMMERCIAL RADIO OPERATOR LICENSE WERE JUST FIGMENTS OF IMAGINATION! (THAT WAS IN THE DAYS BEFORE COMMERCIAL OPERATOR LICENSES WERE SPLIT INTO TWO CLASSIFICATIONS: RADIOTELEGRAPH AND RADIOTELEPHONE.

ARC TRANSMITTERS, NOT TO BE CONFUSED WITH SPARK TRANSMITTERS, GENERATED A CONTINUOUS WAVE. THE VAST MAJORITY WERE RADIOTELEGRAPH BUT ONE COULD MODULATE AN ARC TRANSMITTER. THE VERY EARLIEST RADIOTELEPHONE TRANSMITTERS WERE MODULATED ARCS. SOME ARC RADIOTELEGRAPH TRANSMITTERS WERE VERY POWERFUL, RUNNING HUNDREDS OF KILOWATTS. MOST, THOUGH, WERE SHOPBOARD TRANSMITTERS THAT RAN TWO TO FIVE KILOWATTS.

ARCS DIDN'T TAKE KINDLY TO START-AND-STOP KEYING; SO MANY WERE KEYED BY SHORTING OUT TURNS IN THE INDUCTANCE COIL THAT DETERMINED THE TRANSMITTING FREQUENCY. THIS CREATED A "BACK WAVE" THAT COULD BE VERY CONFUSING TO COPY! AND, OF COURSE, THAT "BACK WAVE" CAUSED INTERFERENCE THAT NEVER WOULD BE TOLERATED TODAY.

THE EARLIEST ARC RADIOTELEPHONES WERE MODULATED BY PLACING A CARBON MICROPHONE IN SERIES WITH THE ANTENNA LEAD. OTHERS USED THE SATURATED-CORE PRINCIPLE; A TWO-WINDING IRON-CORE TRANSFORMER WAS PLACED IN SERIES WITH EITHER THE ANTENNA OR GROUND LEAD, EITHER ONE WINDING IN THE RF PATH AND THE OTHER WINDING CONNECTED TO A CARBON MICROPHONE AND ITS ANCILLARY BATTERY. (THE FIRST RADIOTELEPHONE STATION I EVER CONTACTED WITHOUT PRE-ARRANGED SCHEDULE USED THIS PRINCIPLE OF MODULATION. IT WAS A VACUUM TUBE TRANSMITTER, NOT ARC. ARCS DID NOT WORK WELL ABOVE 500 KHZ AND THEREFORE WERE NOT USED BY AMATEURS AFTER THE RADIO ACT OF 1912 MOVED AMATEURS ABOVE 1500 KHZEXCEPT FOR A FEW WITH SPECIAL CLASS OF LICENSE. INCENTIVE

LICENSING DATES FROM 1912

TO GIVE THE GE SPEAKER HIS JUST DUES, HE WAS SPEAKING OF THE EFFECT OF STRAY SPARKS AND ARCS GENERATED BY MOMENTARY CONTACTS. IT IS THE SPARK PORTION OF THAT SPARK-ARC COMBINATION THAT CAUSES THE INTERFERENCE WE ALL DETEST. CARL, W5JJ

FT-101 MODIFICATIONS

THE NOVEMBER 1978 ISSUE OF AMATEUR RADIO CONTAINS AN ARTICLE OF VALUE TO OWNERS OF YAESU FT-101 TRANSCEIVERS. THAT TRANSCEIVER IS SUSCEPTIBLE TO OVERLOAD FROM STRONG SIGNALS. THE ARTICLE DESCRIBES TWO SIMPLE MODIFICATIONS THAT, BOTH DONE, CURE THE PROBLEM. THAT ISSUE SHOULD BE AVAILABLE IN THE ACARC CLUBROOM AT THE AERONAUTICAL CENTER. CARL, W5JJ

PLASTIC ENCAPSULATION

ONE MORNING WHILE LISTENING TO CHARLEY, WA5JGU, AND ROBBY, AA00, DISCUSSING POTTING OF ELECTRONIC PARTS, IT OCCURRED TO ME THAT I MIGHT PASS ALONG SOME OF MY EXPERIENCES WITH PLASTIC ENCAPSULATION.

PERHAPS SOME OF YOU HAVE SEEN THE MOTOROLA HT BATTERY CHECKERS THAT WA5AOB, N5MS AND MYSELF HAVE MADE. IN ORDER TO PRESERVE SOME ORDER TO THE PARTS WHILE THE DEVICES ARE CARRIED AMONG KEYS, COINS, ETC., IN THE POCKET, WE POTTED THE DEVICES IN CLEAR PLASTIC.

ONE BALUN I WOUND ON A FERITE TOROID WAS POTTED IN CLEAR CASTING RESIN ANOTHER WAS POTTED IN SILICONE RUBBER. THUS INCAPSULATED, THEY ARE NOT ONLY SECURE FROM THE WEATHER, THERE IS MORE RESISTANCE TO ARC-OVER CAUSED BY DIRT AND MOISTURE ACCUMULATION WHICH MIGHT PROVIDE CONVENIENT CURRENT PATHS BETWEEN HIGH VOLTAGE PARTS OF THE COILS.

IT IS NOT TOO OFTEN ONE WOULD BUILD A CIRCUIT AND FEEL SO CONFIDENT IN ITS RELIABILITY THAT HE WOULD FOREVER FORSAKE THE ABILITY TO CHANGE COMPONENTS. HOWEVER, IF FOR THE SAKE OF PROTECTION OR JUST "CLASS" ONE DESIRES TO ENCAPSULATE A CIRCUIT I'LL GIVE A FEW CLUES NOT INCLUDED IN THE INSTRUCTION ON THE CAN. I'LL SAVE THE INSTRUCTION FOR ENCAPSULATING FIDDLE BACK SPIDERS FOR AN ENTOMOLOGY MAGAZINE

CLEAR CASTING RESIN, THE MATERIAL ARTISANS AND CRAFTPERSONS USE TO MAKE PLASTIC GRAPES, AND SUCH, IS A SPECIAL GRADE OF POLYESTER RESIN MANUFACTURED TO BE CLEAR RATHER THAN TINTED LIKE THE RESIN USED TO BUILD FIBERGLASS BOATS AND CAR BODIES. DYES ARE ADDED TO THE RESIN WHEN IT IS USED FOR ORNAMENTAL PURPOSES. THE RESIN IS A THERMO-SETTING TYPE, MEANING THAT IT SETS UP WITH HEAT AND DOES NOT SOFTEN IF REHEATED. THE REACTION WHICH TAKES PLACE IS EXOTHERMIC, MEANING HEAT IS RELEASED WHEN THE MOLECULES PERFORM THEIR CROSSLINKING.

HEAT WHICH IS RELEASED, COUPLED WITH A HIGH THERMAL COEFFICIENT OF EXPANSION AND SHRINKAGE WHEN CURING, CAUSES ONE OF THE PROBLEMS TO WATCH FOR WHEN USING THE STUFF. IN LARGE BLOCKS, ONE INCH CUBE, OR LARGER, SIGNIFICANT HEAT CAN BE GENERATED AND HAVE DIFFICULTY BEING RELEASED. THERE CAN BE TWO UNDESIRABLE RESULTS. IF THE MIXTURE IS TOO HOT, GAS CAN BE EVOLVED AND THE MATERIAL WILL BUBBLE. THIS MESSES UP THE CLARITY. LARGE VOLUME CASTINGS, IF COOKED OFF TOO HOT WILL CRACK DURING CURING BECAUSE OF SHRINKAGE. THIS PROBLEM IS AGGRAVATED IF THERE IS A SOLID OBJECT IN THE RESIN WHICH WON'T YIELD TO THE SHRINKING RESIN.

INSTRUCTIONS ON THE CONTAINER GENERALLY COVER THIS CONDITION, ADVISING TO USE LESS HARDENER IN THICKER SECTIONS. A THICK SECTION MAY USE TWO DROPS OF HARDENER PER OUNCE OF RESIN. A THIN SECTION MAY USE TEN DROPS PER OUNCE. SINCE CASTINGS SEEM TO TAKE FOREVER TO SET UP, IT IS NORMAL FOR ONE TO ADD A LITTLE EXTRA SHOT OF THE "JUICE" TO SPEED IT UP. FOLLOW THE INSTRUCTIONS CLOSELY AND WITH THE SUGGESTIONS THAT FOLLOW YOU SHOULDN'T HAVE ANY PROBLEM.

ONE WORD OF CAUTION; THE HARDENER IS POTENTIALLY VERY DANGEROUS. IT IS METHYL ETHYL KETONE PEROXIDE AND IF IT GETS IN YOUR EYES WILL MAKE YOU GO BLIND! THERE IS NO ANTIDOTE. BE VERY CAREFUL WITH IT.

TO MIX THE RESIN AND CATALYST I USE A PAPER MEDICINE CUP WHICH IS GRADUATED SO I CAN MEASURE THE RESIN USED. I WOULDN'T ADVISE USING THE YL'S MIXING CUP BECAUSE YOU WILL HAVE TO DISCARD IT WHEN FINISHED. I GENERALLY USE A TOOTHPICK TO BLIND THE HARDENER IN WHEN MIXING SMALL BATCHES BECAUSE IT MAKES IT EASY TO "PICK" BUBBLES OUT OF THE LIQUID. MIXING SHOULD BE GENTLE OR AIR WILL BE MIXED INTO THE RESIN AND THE BUBBLES WILL MAR THE RESULTS.

FOR A MOLD I TRY TO USE A SMOOTH CONTAINER THAT WILL HAVE THE FINAL SHAPE OF THE FINISHED ITEM. FOR THE BATTERY CHECKER, I USED THE METAL BOX THAT FUSES CAME IN. I WIPED THE INTERIOR WITH SILICONE GREASE TO MAKE A VERY LIGHT FILM TO KEEP THE RESIN FROM STICKING TO THE MOLD. ALUMINUM WOULD BE A POOR MOLD MATERIAL BECAUSE POLYESTER RESIN HAS AN AFFINITY FOR ALUMINUM AND, IN FACT, MAKES AN EXCELLENT ALUMINUM ADHESIVE. STYRENE PLASTICS ARE NO GOOD FOR MOLDS BECAUSE THE RESIN ATTACKS STYRENE CAUSING IT TO WRINKLE UP LIKE A PRUNE. POLYETHYLENE IS UNEFFECTED BY POLYESTER, UNLESS IT GETS TOO HOT, AND MAKES THE BEST MOLD. ONE ITEM I HAVE FOUND USEFUL IS THE PROTECTIVE CAP FROM AEROSOL CONTAINERS. IF THE INSIDE IS SMOOTH WITHOUT A MANUFACTURER'S LOGO, IT MAKES A PERFECT MOLD. POLYETHYLENE CAN BE IDENTIFIED BY ITS "GREASY" FEEL.

IF THE MOLD IS A SMOOTH ONE, THE ITEM TO BE INCAPSULATED SHOULD BE DONE "GOOD SIDE DOWN" BECAUSE THE TOP SURFACE OF THE RESIN WON'T BE AS GOOD AS THE SURFACE AGAINST THE BOTTOM OF THE MOLD.

NORMALLY THE CASTING IS POURED IN TWO STEPS. THE FIRST POUR IS MADE WITHOUT THE ITEM TO BE ENCAPSULATED. THIS ALLOWS SOME SPACING BETWEEN THE FINAL FINISHED SURFACE AND THE SURFACE OF THE OBJECT. AFTER THE FIRST POUR HAS DEVELOPED SUFFICIENT RIGIDITY TO SUPPORT THE OBJECT, SOME MORE RESIN IS MIXED AND POURED INTO THE MOLD. THE OBJECT IS CAREFULLY LAID IN THE LIQUID AND AIR BUBBLES ALLOWED TO ESCAPE. SUFFICIENT RESIN IS THEN POURED OVER THE OBJECT TO GET THE DESIRED DEPTH.

SO FAR SO GOOD--HO HUM YOU SAY? WELL HERE IS A LITTLE KNOWN FACT THAT SHOULD GRAB YA. POLYESTER RESIN IS CURED MORE QUICKLY IN THE PRESENCE OF ULTRAVIOLET LIGHT. ALL YOU OUT THERE WHO MAKE CIRCUIT BOARDS KNOW HOW TO USE ULTRAVIOLET LIGHT TO SET THE RESIST. DID'JA KNOW IT WAS POLYESTER RESIN?

IF YOU DONT HAVE A HANDY DANDY ULTRA VIOLET LIGHT, BORROW ONE FROM A DISCO HEAD OR RIP ONE OFF FROM A HIPPY. THEY ARE POPULAR FOR MAKING POSTERS AND FALSE TEETH LOOK WIERD. IF YOU DONT MIND A FEW BUGS IN YOUR TROPHY, TAKE THE MOLD OUTSIDE INTO THE SUNLIGHT. DON'T BOTHER SETTING IT IN FRONT OF THE WINDOW, GLASS FILTERS OUT THE UV. IF YOU MUST USE A COVER, USE PLEXIGLAS ® OR LUCITE ®. THESE PLASTICS WILL PASS THE UV.

WHEN THE OBJECT HAS CURED FOR A DAY OR SO, THE TOP SURFACE WILL PROBABLY BE STICKY. I GUESS THIS IS CAUSED BY EVAPORATION OF THE CATALYST OR MIGRATION OF SOME UNDESIRABLE PART OF THE MIXTURE TO THE SURFACE. IN ANY CASE, I JUST REMOVE THE STICKY PART BY WASHING IT IN WARM WATER AND A KITCHEN CLEANSER LIKE COMET ®. THIS PRODUCT IS ABOUT THE BEST FOR GETTING THE RESIN OFF THE FINGERS IF ONE IS CARELESS. REMEMBER THE CAUTION ABOUT GETTING THE STUFF IN THE EYES. THE CATALYST IS PRESENT IN SMALL QUANTITIES IN THE MIXTURE AND COULD CAUSE SERIOUS PROBLEMS WITH THE EYES.

IT IS NOT ALWAYS POSSIBLE TO REMOVE THE STICKYNESS BY WASHING SO SOME MEANS OF MECHANICAL REMOVAL MAY BE REQUIRED. I USUALLY POUR THE MATERIAL IN ANY HANDY MOLD AND CUT AWAY THE UNWANTED PORTIONS WITH A SAW. THE ROUGH SURFACES ARE SMOOTHED BY GRINDING ON 400 GRIT WET OR DRY SANDPAPER. I LAY THE SANDPAPER ON A FLAT SURFACE

IN THE SINK AND ALLOW WATER TO TRICKLE ON IT. THE PROCESS CAN BE SPEEDED UP BY STARTING WITH 180 GRIT PAPER UNTIL DEEP SCRATCHES ARE REMOVED AND THEN USING 400 GRIT TO REMOVE THE SCRATCHES CAUSED BY THE 180 GRIT. AFTER THE 400 GRIT, THE PLASTIC SURFACE WILL HAVE A FROSTY APPEARANCE WHICH CAN BE POLISHED OUT WITH WHITE AUTOMOTIVE RUBBING COMPOUND AND A CLOTH. THE RESULTS ARE OPTICALLY CLEAR. OTHER POLISHING COMPOUNDS SUCH AS JEWELERS ROUGE SHOULD WORK FINE ALSO.

AS MENTIONED EARLIER, LARGE OBJECTS CAST IN POLYESTER CANNOT COMPRESS AS THE RESIN SHRINKS ON CURING SO IT IS DIFFICULT TO OBTAIN A CASTING WITHOUT CRACKS. ONE THING THAT CAN BE DONE, IF OPTICAL CLARITY IS UNIMPORTANT, IS TO ADD GLASS POWDER TO THE RESIN. IT CAUSES THE SHRINKAGE TO BE LESS AND RETARDS THE HEATING ACTION. I GOT SOME GLASS POWDER FROM A FRIEND WHO HAD USED IT FOR MODELS BEING MADE IN A PRECISION FOUNDRY. THE ONLY SUBSTITUTE I COULD FIND IS SYLOID, A SILICA POWDER AVAILABLE FROM COPE PLASTICS, 105 NE 38 TERR., OKLAHOMA CITY. IT COSTS \$1.95 FOR 8 OUNCES. RECOMMENDED MIXTURE IS TWO OUNCES PER QUART OF RESIN SO TWO BUCKS WOULD GO A LONG WAY. I HAVE NOT TRIED IT BUT IT SHOULD WORK AS WELL AS MY GLASS POWDER SINCE IT IS PROBABLY THE SAME THING.

MOST BUYERS OBTAIN CLEAR CASTING RESIN FROM HOBBY SHOPS. IT IS ALSO AVAILABLE FROM COPE PLASTICS. A PINT COSTS \$2.95, A QUART COSTS \$3.95 AND A GALLON COSTS \$10.95. THESE PRICES INCLUDE CATALYST. THE RESIN IF STORED AT ROOM TEMPERATURE WILL BEGIN TO GELL ALL BY ITSELF IN A YEAR OR SO. SEEMS LIKE IF ONE GETS A SPECIAL PURPOSE MATERIAL LIKE THIS, IT ALWAYS GOES BAD IMMEDIATELY PRIOR TO USE. I KEEP THE STUFF IN THE REFRIGERATOR. THE LAST PINT CAN I BOUGHT LASTED ME ABOUT 6 YEARS BEFORE I USED IT UP. IT WAS GOOD TO THE LAST DROP.

ANOTHER PROBLEM WITH USING POLYESTER RESIN AS A POTTING COMPOUND FOR ELECTRONIC PARTS IS THAT SOMETHING IN IT CAN GET INTO SOME OF THE COMPONENTS AND KILL THEM. OBVIOUSLY IF IT GETS INTO A POLY-
STYRENE CAPACITOR, IT WILL WRINKLE IT INTERNALLY. I HAD A COUPLE OF LIGHT EMITTING DIODES DIE A FEW DAYS AFTER POTTING. IT ONLY HAPPENED ONCE SO IT MAY HAVE BEEN THAT THE DIODES WEREN'T TOO WELL SEALED AND WOULD HAVE DIED ANYWAY.

THERE ARE OTHER POTTING COMPOUNDS DESIGNED FOR THE PURPOSE BUT I HAVE NOT USED ANY OF THEM. SILICONE RUBBER IS USED AS A BASIS FOR SOME POTTING COMPOUNDS AND THERE IS EVEN A CLEAR VERSION THAT IS DESIGNED TO BE CUT INTO FOR COMPONENT REPLACEMENT. I SAW A HEART PACEMAKER WHICH WAS POTTED IN A MATERIAL WHICH LOOKED LIKE SILICONE RUBBER.

SINGLE COMPONENT SILICONE SEALER LIKE BATH TUB CAULK, AUTO SEAL, CLEAR SEAL, RTV 102, ETC., ARE GOOD FOR SEALING BUT WILL NOT CURE TOO WELL IN THICK SECTIONS. EXPOSURE TO MOISTURE IN THE AIR IS NECESSARY TO START THE CURING REACTION AND THICK SECTIONS OF THE SUBSTANCE WON'T FEEL EFFECT OF THE AIR MORE THAN A QUARTER OF INCH BELOW THE SURFACE. I SMEARED A LIBERAL COAT OF SILICONE SEALANT OVER A BALUN I EXPECTED TO HANG OUTDOORS. IT WORKED FINE. IT HAS BETTER DIELECTRIC STRENGTH THAN AIR. I SALVAGED A PLATE CHOKE WHICH HAD A TENDENCY TO ARC-OVER BY PICKING THE CARBONIZED VARNISH OUT OF IT AND WORKING SILICONE SEAL INTO THE SPACE AROUND THE WIRES. IT WORKED FINE.

THAT IS ABOUT ALL THE TRIVIA I CAN THINK OF ABOUT POTTING. I WILL BE GLAD TO ADD ANY EXPERIENCES YOU HAVE HAD. JOE, K5JB

SELECTIVE CALLING ANYONE?

MAC, K2GKK, AND I CHATTED ALL THE WAY BACK TO THE CITY FROM THE ORS MEETING IN ENID. WE MOSTLY TALKED ABOUT HAVING SELECTIVE CALLING OF INDIVIDUALS ON A REPEATER BY USING TOUCHTONE (R) DIGITS. I HAVE A CIRCUIT BREADBOARDED. ANY INTREST? BETTER CIRCUITS? JOE, K5JB



MARCH GREETINGS
AN' TOP O' TH' MORNIN' TO YA'



With all due respect to St. Patrick, the festive day for Wheat Straw members is Sunday March 11, upstairs in the Gold Room of Citizens National Bank in El Reno at 2:30 PM, where we will assemble for a Little Business and a Lot O' Blarney. If you are not familiar with the location just give a call on 01-61 and someone will be standing by to give assistance.

The February meeting was held in Calumet. The weather man came through with a lovely day and 31 members and guests took advantage of the opportunity and attended an informative and enjoyable afternoon. One order of business was to become affiliated with CORA, so be sure to scan this little publication to keep in communication.

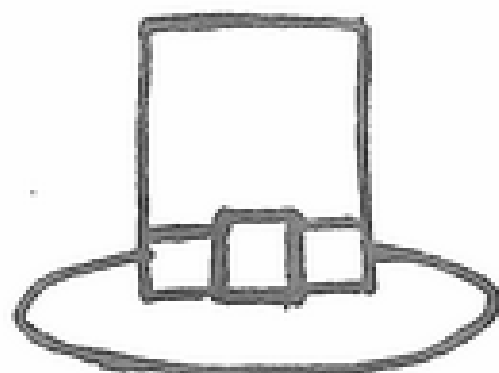
Several interesting topics were discussed. The Lawton Ham Fest coming in March, how much Ham Holiday has been enjoyed, the Repeater Society meeting in Enid, the legality of call letter license plates. also; the new 25 watt Pace 2 meter machine made it's debut.

George K5GGL gave us an up-date on repeater improvements. You fellows who devote your time and energy to keeping us on the air deserve a BIG vote of THANKS. Usually in our democratic society we expect some to be brawn and others brains, but you guys do both - and I'm just democratic enough to sit back and enjoy the fruits of your labors. Hat And a big bundle of Shamrocks goes to Ralph WA5PFK for taking net control this month. This is an open net conducted at 8:30 PM each Wednesday evening and all who care to join us are invited to "jump in".

Harold "Bus" Blum presented a program on Micro Processors and Computers. He has assembled kits and put together a lot of technical "know how" in these fields; and is ready to begin classes of instruction in the fall, so if you - or anyone you know is interested in electronics be sure to contact Bus. This would especially be good for high school seniors interested in electronics as a career to give them a firm foundation for college courses.

Of course the highlight of the afternoon was the home made goodies, February red punch, and coffee served by the Calumet ladies (This is our main order of business you know). If you havn't been attending the meetings I would encourage you to do so, and bring your wife and/or husband as the case may be. This is an informal club and we really do have a good time getting acquainted. Also I hear rumors that another interesting program is in order for March.

So Color Me Green
an'
YU'ALL COME!



73
WB5WTN - Reporter

BRAND NEW Regency HR2B Transceiver in factory-sealed box. Also includes crystal pairs for 146.55 & .58 simplex, and repeater crystal pairs for 146.61, 64, 67, 76, 82, 88, 94, and 147.03. Plus a WE tone pad without case. All new & complete \$185. Bill, N5WM, 842-0092 OKC

For Sale: 2-meter FM Motorola Compa Base Station with GLB synthesizer. 60 watts output high power of 5 watts low; excellent receiver; built-in 120 volt AC power supply; with mike & manuals. \$165 complete. Cecil Shelton-K50K-1212 SW 92, OKC phone 6913632.

C.O.R.A.

Central Oklahoma Radio Amateurs, Inc.

F.C.C. EXAMS SLATED FOR LAWTON HAMFEST IN MARCH

CORA has received an announcement from the Lawton-Ft. Sill Amateur Radio Club regarding its hamfest to be held March 24th and 25th at the Montego Bay Motel Complex, Lawton. This is the same location as last year's get-together.

Highlight of the hamfest will be the F.C.C. Amateur Examinations on Saturday. This will not be a walk-in test. A completed 610 form must be sent to the address below to make an appointment. Only 100 appointments will be accepted, so mail the 610 as soon as possible. Testing will begin at 8 a.m. Saturday.

Pre-registration closes March 21st at \$4.50 per person. Admission will be \$5.00 at the door. Banquet tickets are \$6.25 with pre-registration required. Flea market tables may be requested early subject to availability at no cost.

For further details and pre-registration form, send to: Lawton-Ft. Sill Hamfest, Box 892, Lawton, OK 73502. Remember: there's not much time.

CHOCTAW CLUB ADDED TO CORA ORGANIZATION

I am pleased to formally announce the addition of the Choctaw Amateur Radio Club to the CORA effort. As of the January meeting the Board of Directors has approved the request for the Choctaw club to affiliate. We admire the efforts put forth by this new group and look forward to a close association and representation from them.

LET'S DO MORE

We are making efforts to encourage other clubs in Oklahoma to affiliate with CORA. As of this writing, we have had inquiries from at least three other clubs in Oklahoma. We are also planning a detailed mail campaign to all ARRL affiliated clubs and clubs on our exchange mailing list in the state. If any of you know of any interested clubs, send the addresses to the C & E mailing address. It's better to have duplicate information than to pass up a club that might be interested.

There is no reason why CORA can't expand into a complete statewide organization representing every club. We already have the fine Altus club in our group, and we really appreciate their cooperation and contribution to Collector and Emitter. It would be great to have input from clubs in Tulsa, Enid, Muskogee, Lawton, Duncan, Ardmore, Stillwater, Ponca City, Elk City and others. Clubs could distribute their news monthly for a fraction of the cost PLUS know what is going on elsewhere in the state. Oklahoma amateur radio could have a great cooperative future. Try to imagine the possibilities and send us some names and addresses.

HAM HOLIDAY 1979

All details of Ham Holiday are in the hands of the various committee members. CORA has received approval from Jack Gant, W5GM, ARRL West Gulf Division Director, to hold the hamfest as the Oklahoma State ARRL Convention again this year. This adds to the importance of Ham Holiday '79 and also insures adequate representation of ARRL officials and publications. Since most of you have broken-in your 1979 calendar, make sure to have July 27, 28, and 29th circled as a big weekend for amateurs. Watch the CORA column for other details as we progress.

Mark, WD5DYI

STOP THE PRESS MOMMA, HERE'S ANOTHER ONE

It's only a matter of next month's formality at the CORA meeting to accept the Wheatstraw Amateur Radio Club to our ranks. The invitation has been out to them for awhile, and we are glad to "informally" welcome them aboard. See their news, plus other comments, in other pages of this issue.

- 73 - Mark, WD5DYI

CORA MINUTES

The January meeting of CORA was called to order on the 30th at 7:31 p.m. by President Mark WD5DYI with 19 attendees.

Old business: Paul WA5HTL moved and Zack WB5QPI seconded that CORA provide \$350.00 to Joe WA5ZNF to purchase a stamping machine and 2,000 blanks to make button-style badges for Ham Holiday '79, colors and artwork, if any, to be decided later. (Ed Note: Do you know a good quality, skilled artisan who'll work cheap? Notify your CORA rep.) The motion carried with no abstentions.

Bob W5HXL moved and Ellard W5KE seconded that CORA invest \$25.00 to renew our membership in Personal Communications Foundation. Motion carried and address provided PCF will be "CORA, Post Office Box 15013, Oklahoma City, OK 73155.

Ron WD5FRQ moved and Don AE5N seconded \$5.00 pre-registration fee, \$6.00 at the door; Bob W5HXL moved an amendment and Chuck K5NK seconded that fees for "HH79" registration be \$4.00 in advance and \$5.00 at the door. The amendment passed after much discussion about inflation and services to be rendered, etc., including the agreed-upon recommendation to apply to AARL to hold its State Convention concurrently with HH79.

New business: Bob W5HXL moved and Merri~~ll~~ WB5PTQ seconded that the "Choctaw Amateur Radio Club (CARC)" be accepted into CORA membership. Motion carried unanimously. CORA and CARC members will be so informed at their next meetings and in the Collector and Emitter.

Bob W5HXL made the motion and Chuck K5NK offered the second that CORA donate \$300.00 to the Aeronautical Center ARC for half the cost of a floppy disc memory system for CORA's and ACARC's computer system. Motion carried. Details of ownership, if any, and repay, if any, will be worked out later.

Bob W5HXL moved and Chuck K5NK seconded that CORA authorize Mark WD5DYI to get a postal box for HH79 registrations. Motion carried.

Announcements: Each CORA rep will mention to their respective clubs and report any feedback to CORA about interest in a "QSO Oklahoma Party," or the like.

Carl W5JJ will chair the publicity committee for OCARC and CORA HH79. Any mail should be addressed to CORA mail box (see above).

Next meeting, 27 February 1979, CORA will finalize the budget for HH79 and requests proposed budgets from each committee ready for presentation and acceptance.

Meeting was adjourned by 9:40 p.m.

Respectfully submitted for the secretary



JIM BUSWELL

CHOCTAW AMATEUR RADIO CLUB

Pres., Frank Carter, AB5H, 391-3394
V-P, Gary Chambers, WB5WHF, 390-8250
Sec./Treas., R.G. Edwards, KA5ALO, 390-8297

CHOCTAW AMATEUR RADIO CLUB

Our last meeting was held Thursday, Feb. 15 at 7:00 p.m. in the Indian Meridian School.

We had several items of both old and new business--some was resolved, and some was discussed.

Well, to make the minutes of the meeting short, we did lay some more plans for Field Day, coming up later this year.

And then--and then--and then we turned the program over to Gary(WB5WHF). Gary presented the "Hows of a Printed Circuit Board". No, no, not the electrics, but rather how to make the elusive critters work--by building them right. Gary brought some samples of home-brew boards for comparison. They were all combined into 1 unit, a 40 meter rig--complete. I think most everyone would have to say, they were neat, very neat.

Also, I overheard Frank(AB5H) mention that him and Gary had been thinking a lot about fishing lately!

Speaking of Frank, he has reportedly been working places like Tasmania, Surinam and I think even a Portuguese station.

I just spent a little time with D.L.(K5EGQ) and found out that he's a fine guitar player. Lest we dwell on my qualifications as a critic, I've been playing a git-fiddle(guitar) since 1958, and I say D.L. is good, very good!

Well, I've not heard of anything else happening but I do have some observations to make.

Besides "Hammin'", Amateurs seem to like to eat, sleep, talk, fish, play guitars and other instruments, and probably all sorts of things that other people do. I think that should show that "Hams" are, after-all, just people..contrary to some people's idea of what a Ham is or should be.

Richard Edwards KA5ALO

The following article was lifted from the Australian "Amateur Radio"
COAXIAL CABLES AND CONNECTORS

Did you ever wonder why the coaxial cable you specified was called "RG/U," or the connector that goes with it was called a "BNC"?

The "RG" designations came about through a United States Navy system designed to be compatible with a huge government stocking and numbering system. The letters don't mean anything themselves. "RG/U" always indicate a cable; and the corresponding "UG" a coaxial connector. The number in the designation refers only to the order in which cables were developed and then approved by the military. They have no relationship to the cable diameter or electrical characteristics.

Connector type designations have a more interesting story behind them. The UHF connector referred to its "ultra high frequency" operation. In the early days of World War II, 200 MHz was ultra high frequency. But not for long. As engineers developed higher frequency systems the need for coaxial connectors with better performance arose.

Today's popular "N" type connector was developed by, and named after, a man in the Bell Laboratories named Neill. The "HN" type soon followed as a high voltage version of the "N."

The "C" type connector was named after its developer, Cal Concelman, an engineer at Amphenol RF Division and its predecessor companies.

As smaller cables came into use, the "BNC" connector was developed jointly by Concelman and Neill. Hence the "N" and "C". The "B" comes from an old type "B" connector. No one knows what the "B" meant. (It has been suggested that it meant "bayonet.") The next logical step was to name the threaded version the "TNC".

from the trustee...

the Tulsa Repeater Organization

In January, your trustee and three other club members got involved in a lively discussion on the Denver, Colorado 34/94 repeater regarding autopatches. In a recent "Washington Reports" article in QST the FCC indicated they were not only upset with "business" calls on autopatches but also cited several other examples. Among these were an amateur calling a friend to impress them with the "phone in his car" and a husband calling his wife to let her know he was on the way and to see if she needed anything. As one Denver ham put it, this whole thing reeks of censorship. The FCC indicated that new rules regarding all third party traffic might be forthcoming.

I can fully appreciate the FCC in being concerned about business calls. This is clearly not in the scope of Amateur radio. But, I'm wondering if pressure from the telephone companies and the radio common carriers might be showing through. I was not at all surprised that a member of the Denver club admitted that the autopatch was a motivating factor in getting his ticket. He also said that his interest in the other facets of ham radio have flourished since he got on the air. How many of our newer members were motivated by the autopatch? I'll bet there were a bunch! And I'll say they are a good bunch. They are the gung ho group that gets involved in public service projects, weather watch and repeater maintenance.

Lets look at some history. When the founders of the TRO put on the first repeater, there were no rules for repeaters in FCC Part 97. As repeaters grew and became more numerous, it became apparent that rules were necessary. The hams were instrumental in writing these rules. The first, docket 18803, was very restrictive, but repeaters were here to stay. No

one can deny the boost given to amateur radio by repeaters. Through input from the amateurs, the original rules were written and as we demonstrated our abilities, these rules were relaxed.

But what is happening to autopatches? We invented the things--but who is writing the rules? Where is the input from the amateur community? Don't yell at the ARRL--have you told them what you want? What you think? They are stuck between a rock and a hard place and are trying to defend what they "think" the hams want. The FCC is getting intense pressure from outside sources to wipe out autopatches all together.

It's a fine line indeed between a ham calling his friend to impress him with his "phone in his car" and a friend inviting a friend into his shack to impress him with his ham station. Both serve to interest people in amateur radio. And the husband calling his wife--let us suppose he is driving home in a blinding snowstorm. Is this not technically welfare traffic? Is her mind not at ease?

I'm not saying that I approve of all of these superfluous types of calls BUT I do think it is up to us to police ourselves.

It's hightime we get off our duffs and let the ARRL, the FCC and maybe our congressmen know what we want. We need to write a set of rules specifically addressed to autopatches. These rules need to be restrictive enough to show the FCC and the pressure sources we intend to "clean up our act" but also rules we can live with. Whether we like it or not it looks like rules are coming. We'd better write our own than have someone write them for us.



Thanks to Russ WA6TLK for his article last month. This month John Nelson has written the editorial. John is one of our real old timers in Norman and it is fascinating to hear him talk about these early days of radio.

KB5BF

Early Radio in Norman by John M. Nelson W5AVK

There is much history to be learned in Norman, Oklahoma if one will only listen to an old timer and record what he hears. Did you know the OU radio club once had a TV station in the 1920's?

My first real contact with the air waves was by crystal set. I mean a cat whisker touching a piece of galena, to a coil of many turns on an oat meal box, with a stolen telephone receiver to hold up to my ear. WNAD and WKY were the only stations heard except when DX rolled in.

That was in 1924 when we moved to Norman. From the crystal set stage, I graduated to the one tube and then two tubes, which made the batteries run down faster. Then the short wave craze hit and about 1927 I found that I was not the only kid in town building ham sets. There was Bill Smythe W5LJ, and Lloyd Flood W5BLB, and OU's W5TC. Well there were several more before that time, the only one I knew was Early Coston NU5AAI, who had his ham station in the rear of the bicycle shop on Main Street. Early has been with the FCC since before the war. Then another old timer still with us and as active as ever in Norman and the University is Jay Kelso W5QC. Jay got on the air way back when.

To obtain a station license in the late 20's and early 30's, we had to fill out a form in detail and send to the Federal Radio Commission, and in due time we received the call sign which was good for one year. In 1933 licenses were extended to two years. The Radio Division of the Department of Commerce issued temporary amateur operator licenses to operate the station. Good for one year also. If you did not get around to becoming proficient at ten words per minute code groups, you could apply again. I had several temporary operator licenses before I was brave enough to go to Dallas to take the exam. Moths and time have taken care of the oldest licenses in the files.

Of course, you know we high school kids could not wait for our tickets to get through the red tape in Washington, so we used the call W5 Question Mark around town, and sometimes we would be heard some way further down the road.

With a one turn loop around the grid coil of the 210 tube oscillator and connected to a carbon telephone mike, we had something we called Loop Modulation. Now you modern hams spend hundreds of dollars for these fancy sets and gadgets but let me tell you that in those days our voices could be understood just as well.

Some of these voices are still around. Ed Page W5AQV; Ken Miller W5AOC; Jack Luttrell W5BVR; Eugene Culp W5BDM; Hugh Metcalf W5BIF; Chas. Hetherington W5EHX; Early Coston W5CZT (NU5AAI); Jay Kelso W5QC; and even me, John Nelson W5AVK.

We held an ARRL convention in Oklahoma City about 1932 and we made a lot of noise sending code with our car horns. We toured the new OG&E electric generating plant at Belle Isle, which was way north of town. Each car was decorated with some kind of call sign, or some had a burned out 211 or 203A stuck in the radiator cap. W50J from Fredrick, astounded us by installing a radio set in his car so he could listen to music as he went down the road. He had a loud speaker too.

Prof. Tappan, EE instructor at OU, gave us an authentic eye ball history of amateur radio. He told us the story that when he was a boy they set up two spark gap transmitters and crystal set receivers at the county fair. You could send messages from one tent to a friend on the other side of the fair grounds in another tent. Then later get together and compare notes while looking over the out of this world new wireless invention.



But the boys show had to be shut down after a while because wireless sparks flying through the air might set fire to other tents in between. Funny thing about it, Mr. Tappen said, was that they did not know whether it would or not.

In 1931, we had a five meter network in town using single tube oscillators with AM modulation. If you were good enough with Old Dutch cleanser you could grind yourself an xtal out of tourmaline. At W5TC we built a transmitter doubling down to five meters using two 204 tubes with two thousand volts, AM modulated with 212D's. Resonance was indicated by tuning the grid leads inside the tubes from white hot down to red hot. We made many tests on different antennas for EE thesis. Still have a copy of my files and even a picture of that old rig.

One weekend, we put a five meter transmitter atop the elevator town at the university Union Bldg. Turned the transmitter on and took off for Dallas to see just how far we could hear it. When we returned on Monday to turn it off all we had was a charred mass of radio equipment. The wooden racks, tables, chairs, all burned up in a pile and no one know anything about a fire.

Along about that time, the six storage batteries, being charged in a lead lined box, blew up and repositioned all the equipment from the back of the audio control panels in the studio of WNAD, right through the ceiling. No one heard that explosion either.

I have given away nearly all the old parts and keys and carbon mikes and Bee Hive insulators and copper tubing tank coils...even the old call books and Handbooks went to some Ham Museum in Texas. The last item I have to give away is the most treasured of all, My Memories.

John Nelson W5AVK

UPGRADES

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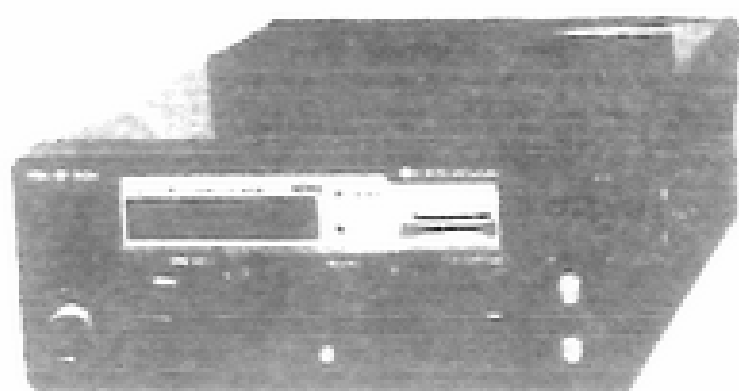
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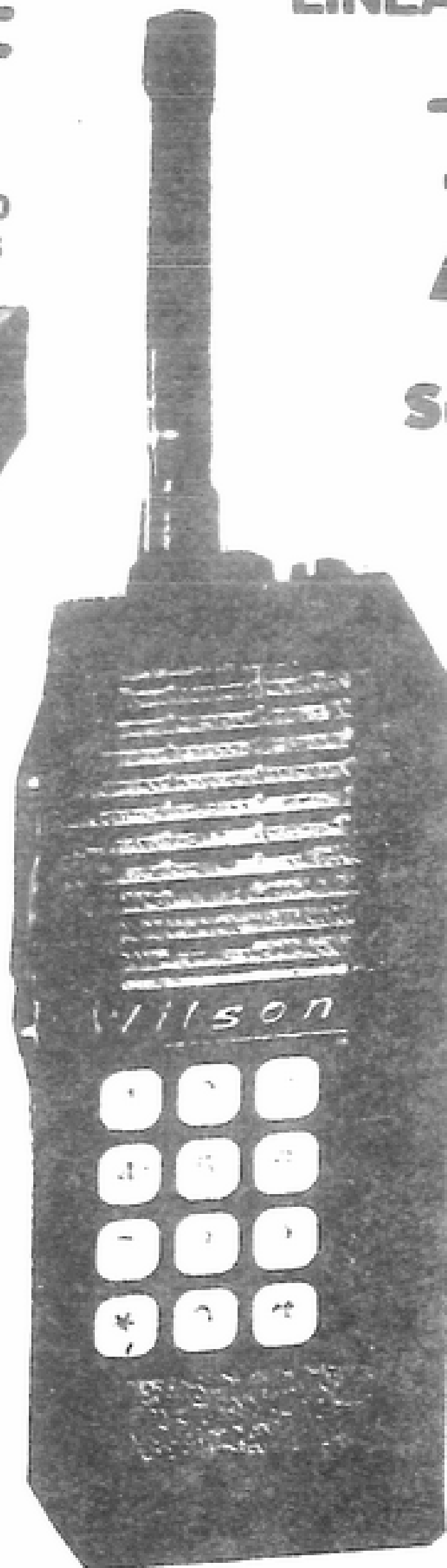
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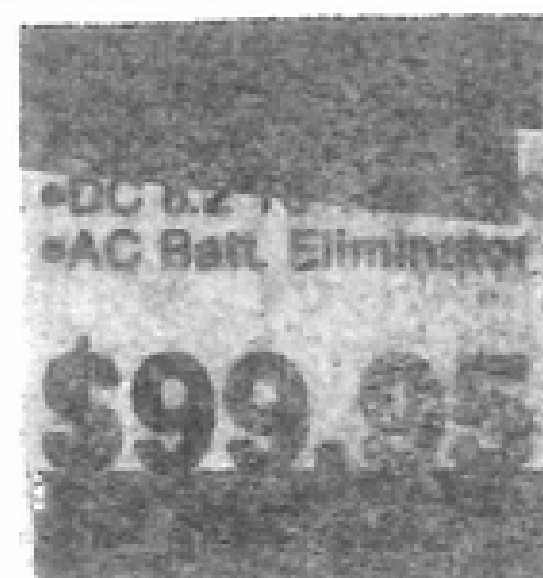
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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1  CLUB	2 ACARC meets	3
4	5	6 MORI meets	7	8 Altus, Choctaw meet	9	10
11  meets AW	12	13 76ers meet	14	15  CLUB	16 OCARC (VHF)	17 St. PATRICK'S DAY 
18	19 EDIT C+E	20 AUTOPATCH meets	21	22	23	24 LAWTON HAMFEST
25 LAWTON HAMFEST	26 ACARC MAILS C+E	27 CORA meets	28	29	30	31

See page 2 and/or individual club sections for details

[illegible]

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