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

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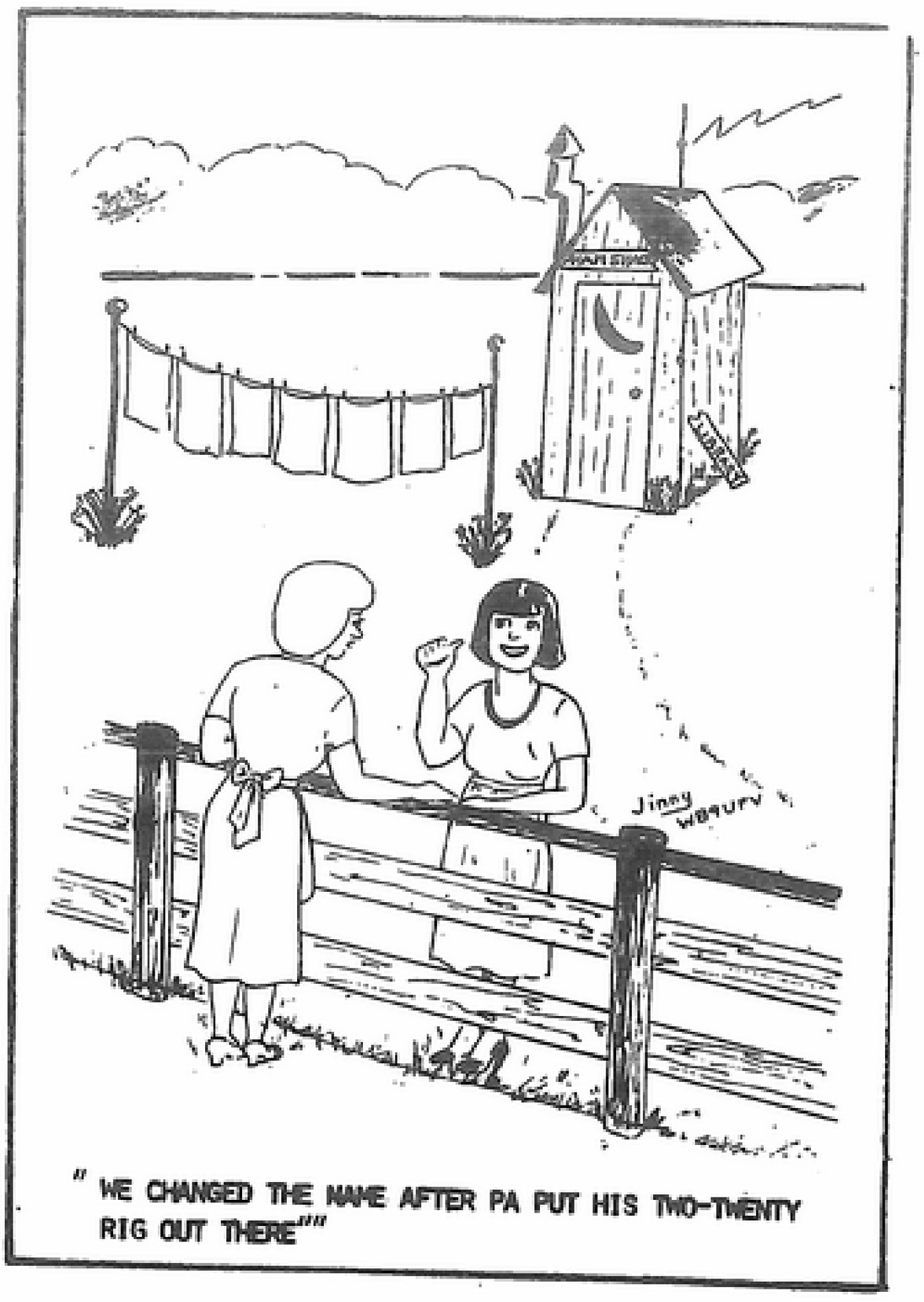

" WE CHANGED THE NAME AFTER PA PUT HIS TWO-TWENTY RIG OUT THERE""

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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OUARC	Nathan Kirby	KB5BF	364-7979	Contributing Editor, Mike Salem, N5MS			

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American Red Cross Bldg, 10th & Hudson

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V-P	Al Prince	WB5KCU	
Sec	Joe Buswell	K5JB	732-0676
Treas	Ellard Foster	W5KE	789-6702

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Oklahoma Military Academy 36yh & Grand

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

CENTRAL OKLAHOMA RADIO AMATEURS
MEETS: 7:30 PM, 4th Wednesday, Red Cross Bldg., 10th & Hudson. Alley entrance.

Officers are listed above.

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

Pres	Bob Bratton	N5AIP	782-3073
V-P			
Sec/Tr	Janice Simms	WB5WMN	477-0921

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Amateur Radio News Service

Club
NEWS

WSLOW
The Elmer Gaddis Memorial Station

MINUTES OF SEPTEMBER MEETING

MEETING WAS CALLED TO ORDER AT 8:05 PM BY PRESIDENT KEN, WB5KHU, WITH 19 MEMBERS AND GUESTS PRESENT.

BOB, W5HXL, ANNOUNCED THAT IT WAS TIME TO CHOOSE REPRESENTATIVES FOR CORA. ELLARD, W5KE, BOB, W5HXL, AND CLARENCE, K5YAQ, WERE NOMINATED AND ELECTED.

THE CLUB EXPRESSED THE OPINION THAT HAM HOLIDAY BE ENCOURAGED TO GROW AND BE HELD AT LINCOLN PLAZA OR PLACE OF SIMILAR QUALITY.

NEXT MONTH'S MEETING WILL BE AT THE PAVILLION AT LAKE OVERHOLSER. IT IS RESERVED FOR 7 TO 9 PM OCTOBER 20 FOR A PICNIC. THIS WILL BE A BRING YOUR OWN CHOW AFFAIR.

PRESIDENT KEN PRESENTED A PROGRAM ON CONTROL SYSTEMS USING MICROPROCESSORS. HE GAVE A BRIEF HISTORY OF SOLID STATE DISCRETE AND INTEGRATED CIRCUITS CULMINATING IN THE MICROPROCESSOR. HE DESCRIBED THE FUNCTIONS OF A MICROPROCESSOR AND MANY OF THE APPLIANCES AND APPLICATIONS WHERE THEY ARE FOUND.

SING A TELEGRAPH KEYER AS AN EXAMPLE, KEN PROCEEDED TO DEVELOP THE THOUGHT PROCESS-ESINVOLVED IN PROGRAMMING A MICROCOMPUTER. HE DEFINED THE CONDITIONS, DREW THE FLOW CHARTS AND PROCEEDED TO PROGRAM THE MACHINE. UNFORTUNATELY THE MICRO-COMPUTER DEVELOPED AN OPEN CIRCUIT SOMEWHERE AND REFUSED TO COOPERATE. THERE WAS NO DOUBT KEN HAD DONE HIS HOMEWORK THOUGH AND I BELIEVE IT WOULD HAVE WORKED, IF THAT IS ANY CONSOLATION, KEN.

JOE, K5JB, SEC'Y

WHEN IN DOUBT, BROADCAST!

AFTER CLUB MEETING, C. Y., WB5TKG, RELATED A STORY WHICH ILLUSTRATED A POINT HE WANTED TO MAKE REGARDING LAST DITCH EFFORTS IN EMERGENCY COMMUNICATIONS.

LATE ONE NIGHT HE WAS LISTENING TO THE TWO METER REPEATERS WITH HIS PUBLIC SERVICE BAND RECEIVER, (HE PICKS UP ALL THE REPEATERS WITH ONE SETTING ON THE DIAL.) WHEN HE HEARD A STATION MAKING A CALL FOR HELP. IT WAS ABOUT ONE AM AND THE OPERATOR WAS MAKING A GENERAL CALL STATING THAT HE HAD AN EXTREME EMERGENCY. NO ONE WAS RESPONDING.

C. Y., WHO HAS NO TWO METER TRANSMITTING EQUIPMENT, CALLED TOM, N5GE, AND ASKED HIM TO TRY AND FIND THE GUY WITH THE PROBLEM. TOM TRIED ALL THE REPEATERS UNTIL HE FOUND THE STATION. THE STATION WITH THE EMERGENCY WAS AT THE SCENE OF A SERIOUS ACCIDENT WITH INJURED PEOPLE ON HIS HANDS. TOM TOOK THE INFORMATION AND CALLED THE APPROPRIATE AUTHORITIES.

THE POINT THAT C. Y. WANTED TO MAKE WAS THAT IF ONE IS FACED WITH AN EMERGENCY AND CANNOT GET A RESPONSE HE SHOULD AT LEAST BROADCAST THE PARTICULARS SO SOMEONE MONITIORING CAN RESPOND. FOR EXAMPLE, AN AMATEUR WHO IS OUT OF WALKIE TALKIE TRANSMITTING RANGE MAY HEAR THE BROADCAST AND BE ABLE TO REACT. C. Y. PUT IT SIMPLY, "IT'S BETTER THAN NOTHING."

JOE, K5JB

LOCAL AMATEUR AVIATION HERO

ABE CROOK, W7LLP, BECAME HERO FOR THA DAY AT C. E. PAGE AIRPORT(FORMERLLY CIMMARON) SEPTEMBER 10. COL. CROOK, AS HIS FELLOW CONFEDERATE AIR FORCE MEMBERS CALL HIM, WAS ON HAND TO HELP SALVAGE A SERIOUS SITUATION ON THE P-38 LIGHTNING WHICH WAS BROUGHT IN BY A CAF MEMBER FOR STATIC DISPLAY. THE P-38 HAD BEEN REPAINTED AT DOWNTOWN AIRPARK AND A WARNING ON THE FUEL FILLER FOR AN OUTBOARD WING TANK HAD NOT BEEN REPLACED. THE WARNING HAD BEEN PLACED THERE BECAUSE OF A LEAK IN THE TANK. THE LINEBOY, NOT KNOWING THIS, DUTIFULLY FILLED THE DEFECTIVE TANK.

WHEN FUEL WAS DISCOVERED DRIBBLING OUT OF THE SEAMS IN THE WING, COL. CROOK PITCHED IN TO DRAIN THE TANK. SOUNDS SIMPLE? NOPE. WHEN I DISCOVERED ABE, HE WAS LYING ON THE WING WITH HIS SHOES OFF (NEW PAINT-REMEMBER?) DIPPING A CLOTH IN THE TANK AND WRINGING IT OVER THE SIDE. THEY ONLY FOUND AN ESTIMATED FIFTEEN

GALLONS IN THE FIFTY GALLON TANK SO ABE AND ANOTHER COLONEL SPENT THE WHOLE DAY UNFASTENING WING INSPECTION COVERS AND DRAINING THE REMAINING THIRTY FIVE GALLONS WHICH WERE LOOSE IN THE WING.

ABE, ALTHOUGH HE DOESN'T SMOKE, WAS A BIT NERVOUS ABOUT THE WHOLE PROJECT. THE AIRPLANE IS PRICELESS, HIS HIDE EVEN MORE SO, AND SEVERAL HUNDRED PEOPLE WERE STANDING AROUND WAITING TO SEE THE "FORKED TAIL DEVIL" FIRE UP HER ALLISONS AND GIVE THEM A SHOW. ABOUT FOUR THIRTY IN THE AFTERNOON, THE AIRCRAFT WAS BUTTONED UP, ENGINES STARTED AND ANOTHER MISSION UNDERWAY. UNDER THE CIRCUMSTANCES, I GUESS THE CROWD WAS NOT TOO DISAPPOINTED WHEN THE PILOT GENTLY TOOK OFF AND SLOWLY TURNED AND CLIMBED FROM THE AIRPORT AREA AS THOUGH HE WAS FLYING A THIRTY FIVE YEAR OLD ANTIQUE WITH A WING FULL OF FUEL VAPORS. NO HIGH SPEED PASSES, NO ROLLS, NO DAZZLING DISPLAYS THAT AFTERNOON BUT A SUCCESSFUL MAINTENANCE ACTION BY GROUND CREWS OF THE CONFEDERATE AIR FORCE. THANKS COL. CROOK! JOE, K5JB

TROUBLESHOOTING DEVICE

A NEW TROUBLESHOOTING INSTRUMENT FOR TESTING SEMICONDUCTORS IN OR OUT OF CIRCUIT HAS BEEN PLACED ON THE MARKET BY HUNTRON INSTRUMENTS INC. I HAD AN OPPORTUNITY TO GIVE A SAMPLE OF A HUNTRON TRACKER A TRIAL RUN ON A FEW PARTS AND EXPERIMENT AND EXPERIMENT WITH A FEW DEVICES OF DIFFERENT TYPES ON ANALOG AND DIGITAL CIRCUIT BOARDS.

THE TRACKER LOOKS LIKE A SMALL OSCILLOSCOPE WITH A 2" BY 3" CATHODE RAY TUBE SCREEN. IT HAS TWO PROBE LEADS AND THREE IMPEDANCE RANGE SELECTOR SWITCHES. THE TWO PROBE LEADS ARE PLACED ON TWO TERMINALS OF THE DEVICE UNDER TEST AND THE RESULTING SCOPE TRACE DISPLAYS THE VOLTAGE VS. CURRENT CHARACTERISTICS OF THE SEMICONKUCTOR JUNCTION INVOLVED. IT FUNCTIONS JUST LIKE A CURVE TRACER EXCEPT THAT IT AUTOMATICALLY LIMITS VOLTAGES AND CURRENTS TO SAVE LEVELS AND COMPENSATES FOR CIRCUIT LOADING CAUSED BY COMPONENTS WHICH ARE IN SHUNT WITH THE DEVICE UNDER TEST. THE MANUFACTURER CLAIMS THAT THE INSTRUMENT WILL TEST IC'S, BI-POLAR TRANSISTORS, FET'S, DIODES, LED'S, ZENERS, _NIJUNCTIONS, ETC. IT WILL ALSO WORK ON CAPACITORS.

IT IS CERTAINLY ADVANTAGEOUS TO BE ABLE TO TEST COMPONENTS IN CIRCUIT BECAUSE NOT ONLY IS IT FASTER BUT THERE IS LESS CHANCE OF DAMAGE TO COMPONENTS AND CIRCUIT BOARDS CAUSED BY HEAT AND PHYSICAL ABUSE OF REMOVAL. THERE ARE TWO DISADVANTAGES WITH THIS INSTRUMENT. THE FIRST IS THE NECESSITY OF THE OPERATOR TO KNOW WHAT CHARACTERISTICS THE CURVE DISPLAYED SHOULD HAVE. IN GENERAL A SEMICONDUCTOR JUNCTION WILL SHOW SHARP BENDS IN THE CURVE; GENTLE BENDS GENERALLY INDICATE LEAKY CONDITIONS. EACH COMPLES DEVICE WILL HAVE DIFFERENT CHARACTERISTICS AND THE ONLY WAY THE OPERATOR CAN TELL IF HE HAS A GOOD PART UNDER TEST IS TO COMPARE IT WITH A KNOWN GOOD PART OF KNOW FROM EXPERIENCE.

THE SECOND DISADVANTAGE IS THE PRICE. THE TRACKER COSTS APPROXIMATELY $700, A MERE PITTANCE FOR THE TWO WAY RADIO SHOP BUT A BIT STAGGERING FOR THE EXPERIMENTER. IF YOU ARE INTERESTED, INFORMATION IS AVAILABLE FROM HUNTRON SALES INC., 15123 PACIFIC HIGHWAY NORTH, LINWOOD WA 98036. JOE, K5JB

UNIVERSITY OF OKLAHOMA W5TC WR5AFW

Alpha Sigma Delta Radio Society since 1931 146.28/88

CLUB HOLDS FIRST MEETING

Alpha Sigma Delta Radio Society held its first meeting on Sept. 13. A review of last years accomplishments was presented: (1) Painting Hamshack walls (2) Putting"Junque" in attic (3) Placing sturdy wooden operating table and wood swivel chair in shack (4) Repair of clubs only transceiver, the Heathkit SB-102 (5) Repair and rerouting of coax (6) Participation in engineering week, SET, and Field day by the club (7) Start of WR5AFW machine update by its trustee Mike Salem N5MS. While items (1) through (6) are important to users of W5TC, item (7) is of importance to all Norman area hams. Mike Salem has written in this publication about the addition of the microprocessor. While Mike's "Fathering" of the repeater is greatly appreciated by on-campus and Norman area hams, a sincere thanks goes to Roger Ryan, WA5JXX who works with Mike on the machine and is currently writing the software for the microprocessor. We, the many, owe a lot to these few. The meeting was attended by 14 persons of which 10 were new additions:

	David Drumright, 1018 Arkansas, 360-2574	
	James Gardner, 317 Wadsack, Apt. F, 321-8779	
	Ed Fuller, 1627 Cross Center Dr., 325-2037	
WB5RQB	Lee Hardy, 318 Cate Center Dr, Rm. 5343, 325-5645	
	Gayland Kitch, Wilson Center, Box 5686, 325-2968	
WD5GKZ	Dan Orr, 348 1st Johnson, #803, 325-0951	
	Peter Richeson, Cate Center, Box 5046, 325-2459	
CP5KD/W5	Eddy Tejada, 1325 W. Lindsay - 8, 360-2738	
WB5QLF	Alan Wormser, 1400 Asp (Walker 1238E), 325-2209	
WD5EKT	John Wustenberg, 529 E. Walker Tower, 325-1979	

Also in attendance, were Mike Salem N5MS, James Koerner N5OU, Kenny Hutchinson WB5RXZ, and myself. The officers were elected for the 1978 -1979 school year:

President	James Gardner
Vice President	Dan Orr
Secretary	Gayland Kitch
Treasurer	Linda Kirby

The major officers being on campus residents should help make the clubs school year activities more relevant to the students. The total ham community in the Norman area is a mix of the O.U. students and the Norman area residents. The Norman area residents provide a degree of stability for the club by their year round support of WR5AFW. The repeater simply could not exist with its present degree of reliability without the stabilizing influence of the Norman hams. The repeater is the morter that binds the Norman area hams to hams from around the country who are students at O.U. While the operation of the repeater is important, the operation of W5TC and the on campus activities of the club are equally important. The University of Oklahoma is an internationally recognized University and perhaps even one of the great universities in the nation. The majority of these young people don't even know what ham radio is or what a fun and useful hobby it can be. Surely, one of the most important priorities of an on campus amateur club is to inform students of what ham radio is and how easy it is to become a ham. Perhaps this is what our new president had in mind when he placed first priority on having a novice class. With the help of Norman area hams, this class can become a reality in October. The on campus part of the club needs to be strengthened so as to effectively reach all students and to participate in emergencies and other public service endeavers. This should be a goal common to all hams in the area. Today's students are indeed tomorrows leaders. Graduates of O.U. each year fan out across the United States. If they become hams while students on campus they will surely fondly remember their

Amateur radio triumphs and failures with the other students and Norman area hams. Perhaps even lasting friendships will be made that will be kept strong not by long distance but by schedules on 20 meters. Yes, the possibilities are indeed exciting. but possibilities can only become fact if the mundane duties of club operation are faithfully carried out. Nothing can kill a clubs activity quicker than leaving it all up to the president. It has got to be an all hands effort. We must all carry out those small duties so vital to effective overall club operation. Committees must not only complete their work, they must effectively solve the problem the president assigned to them. When a person knows he cannot perform a duty by a certain day, he must notify one of the club officers that he cannot perform the duty so the officer can request someone else to get the job done. It hurts a club double when a job goes undone and the person who was to do the job says nothing before the deadline and thus prevents another person from completing the task. In club operation, this is truly the definition of "dropping the ball". Just as detrimental are the "don't volunteer" members, I've seen this in many of the ham clubs I've visited. Whether it's in Oklahoma City, Norman, Altus, O.U., Tulsa, Dallas, the "don't volunteer" member hurts his club just as much as the guy who "drops the ball". The "don't volunteer" member never has to worry about dropping the ball because he never picks it up. Perhaps he is lazy or perhaps his fear of failure is so great he never accepts a job so he will never have to worry about failure. No matter what the club, I feel sorry for this guy because he is really missing out. It reminds me of a quote which I've long forgotten the author. "To try and fail is nothing, but to have not tried at all is to suffer irreplacable loss of what might have been."

Whether its the O.U. Amateur Radio club or some other club, the choice of whether our clubs reach out or withdraw inward is up to us. Do you truly help your club or are you one who "drops the ball" or "doesn't volunteer". If you truly help your club, this coming year, you will have ENTHUSIACTION, which is enthusiasm combined with action An unbeatable combination.

LAST YEARS OFFICERS

Thanks to "Kirk" Kirkland WB5MJM, 1977-78 Vice-President for his part in the club. A special thanks to Kenny Hutchinson WB5RXZ. Kenny really worked hard to make the club go last year and hard won progress was realized. Kanny showed the gritting determination a successful president must have. O.U. ARC says thanks to Kirk and Kenny.

FORD MICHAEL, WA5AIP, VISITS IOWA

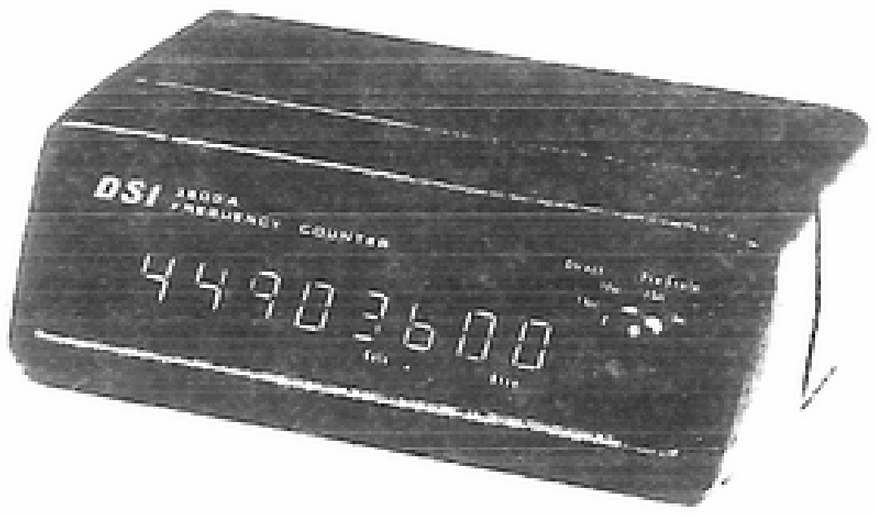
Ford Michael, one of the grand old men of the Norman ham community, recently visited Iowa on a short vacation. He took his two meter rig with him and had fun working repeaters along the way. That new Wilson synthesized rig really performed well in accessing those odd-ball repeaters up north. Ford brought pictures of his trip to the Saturday moring coffee at the Norman Red Cross building.

DEAN WADDELL GETS HAM LICENSE

Dean Waddell, owner of TD's Communications, finally received his technician license from the FCC. His call is N5AMV. Dean was real glad to get the license since he passed the Technician exam during the April FCC visit to Oklahoma City. Dean had to submit a second form 610 to finally get his long awaited license. Dean's old call sign was W5YKW. Congrats Dean on your patience.

Nathan Kirby KB5BF

Ham Gear for Licensed Hams



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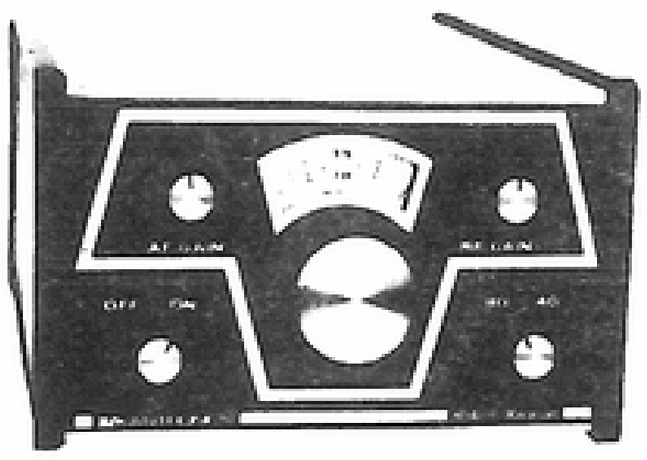

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BILL BRODIE K3TGY/5

"A NIGHT AT OBSERVING"

Central Oklahoma Severe Storm Warning

I sure did enjoy the article in the C & E last month entitled A Night At Radar, storm warning. Been wondering for the past twenty years just what you all do at the command post in controlling the weather data. Glad to know there is some activity going on and you all are on the ball, and I know you are.

I started watching for tornadoes back about 1931, when I was in high school. Got our first automobile so we could run out to the edge of Norman town, about Berry and Lindsay street, all dirt roads, and watch the yellowish color of the approaching storms and cyclones as they were called. Even in the late 1940s on 75 meters weather fronts were being reported to the radio systems, especially in N W Oklahoma after the Woodward storm.

Now it is different. We no longer worry about the high winds and hail and those that blow over signs. It is the more technical data, that of twisters or tornadoes that we watch for. Such is now computerized for us electrically by the red dot on the tube. Not much help for us color blind people.

But I still go out watching anyway. A little further out on highway nine, west of Norman. Out to the wide open places where weather can be seen for miles around. When a storm front does finally hit there is nothing to do but turn the car either into the wind or as the horses do, back into it. Just be careful not to back into a mud hole. The car might shimmy and shake a bit but as long as you are on the ground you are safe.

Sometimes heaven does break open and cleanse your soul. If you dont believe in electronic dry cleaning just experience a streak of lightning hit close enough by to splatter mud on your car and you will surely be in church the next Sunday.

Of course this is not the conditions that are needed at Net Control center so such is not to be reported unless in the darkness of the storm you get the feeling your car is floating in a circular motion above the ground. That is the condition when we hope the red light will come on.

Well, I have my car wired so when a black cloud approaches in the west I plug in both my Heath Kits and Amplifier, 22-82 and 28-88, my tunable CB receiver, so I can keep up with local activity, and the police radio receiver....then I start out. The car radio is not much good in a storm.

But when the sterm is over and the stars begin to twinkle again how nice it is to hear the net went well and the grateful THANK YOU given from Net Control, the 73s and going QRT. That is a good feeling unless y@u happen to be turned over in a ditch somewhere and no one remembers you checked into the net.

AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.

W5PAA

RANDOM WORDS FROM THE PRESIDENT

If you missed the Aeronautical Center Club meeting in September, you missed a really fine program. Larry Vorheis, K5RJR, combined the craftsmanship of model aircraft building and design, with the electronics of remote control to present what to me was one of the most interesting programs in quite some time. Larry's skill was realized by all, and I received many nice comments following his program. Thank you Larry for a very fine job.

Having received several "comments" concerning the .25-.85 repeater, and because of the "alligator" effect we seemed to be having, We have reduced the output power of the repeater to 50 watts. This seems to be a fair "trade-off" and the repeater seems to be doing quite well. This is an open repeater, and we do welcome any and all users.

Our fall Amateur Radio classes got underway the 13th of September with a first night enrollment of approximately 25. I want to take this opportunity to give my special thanks to Gill Gilbertson, W5RB, C.Y. Chandler, WB5TKG, Pat Sherrill, N5PS, Charlie Greene, WA5JGU, and Joe Buswell, K5JB, for their help in getting this class session off to a good start.

73,Bob Graham, WB5NSV

Minutes of the Aeronautical Center Amateur Radio Club For Sept. 78

The meeting was opened with a round of self introductions. There were 39 members and guests present. President Graham said that the repeater has been reduced from 120 watts to 50 watts to try to reduce problems with Muskogee. The club now owns a computer. Plans are to address the labels for the Collector and Emitter. He also said that the Collector and Emitter needs some advertisers so if you know of someone interested in advertising in the C&E get in touch with Joe Harding, WA5ZNF.

Radio Classes will start Sept. 13 from 7:30 until 9:30PM at the Red Cross on 10th Street in Oklahoma City. Gil, W5RB, and Bob WB5NSV, are heading it up. CCRA directors from ACARC are Robby, AAØO, Jim, K5PER, and George, W5NTL. ACARC voted in favor of continuing HAM Holiday at Lincoln Plaza next year. Joe, K5JB, said the Okla. Traffic and Weather net which meets daily except Sun. on 3900 KHz. from 17:45 local time until about 18:10 local, needs operaters in the OKC telephone area to log the weather and phone it into the Weather Bureau. The program was given by Larry, K5RJR, on radio controlled airplanes. He brought three models and gave a very interesting program. The meeting adjourned for refreshments at 9:45PM.

Submitted by Bill Oliver K5KDR, Sec. & Treas.

FOR SALE OR TRADE:
NC183D (National) general coverage receiver. Receives broadcast band thru 6 meters (500KHz thru 55MHz). Jess Speer, 321-7302.

FOR SALE:
Yaesu FL-2100B Linear amplifier, about 5 months old, less than 2 hours of use. $400.00 Carl, WB5QNK, 360-1819.

FOR SALE:
Johnson KW Match Box antenna tuner with directional coupler and SWR meter. Looks brand new. $170 Firm. Jess, W5SQJ, 321-7302.

Note: For roller inductors and tuner parts and other electronic parts, see Jess Speer's swap table at Texhoma.

ALTUS AREA

AMATEUR RADIO

ASSOCIATION

PRESIDENT - Bob Bratton, N5AIP

SEC./ TRES. - Janice Simms, WB5WMN

The ALTUS AREA AMATEUR RADIO ASSOCIATION met at 7:30 p.m. Thursday, September 14, at the North Main Fire Station. In absence of President-Bob Bratton, Secretary - Janice Simms, WB5WMN called the meeting to order. There were 23 present at the meeting. After introductions and welcome to the visitors the Treasurers report was given. All members who are past due with their dues will have until Friday, November 10, 1978 tomake renewal, otherwise your club membership and CQRA subscription will officially end with the December issue. Renewals may be made by sending $5.00 to: Ham Club, % Janice Simms, WB5WMN; 209 Mockingbird Dr. N.; Altus, Ok. 73521.

Congratulations to E. L. Biddy, WD5CNW who recently received his EXTRA CLASS LICENCE in only twenty-one months after receiving his Novice licence. Bob Bratton also has a new call. He is N5AIP;

Committee reports were also given. Reporting on the recent Novice Class were instructors Mike Schenkel, WD5HXS; and Chuck Smith, WB5MJS. Congratulations to two new Novices - Cathy Horn, KA5HPR; and Major Bailey, KA5CES. Fred Mayer and Stephen P. Defebaugh are still waiting. Chuck reported that an interest to start Amateur Radio Classes in Tipton had been called to his attention. Anyone interested in Amateur Radio classes or knows anyone interested are urged to contact Cal Hunter, W5ZUS; Drawer F; Tipton, Okla 73570 at (667-5508) or Chuck Smith, WB5MJS, 313 W. Mercury; Altus, Okla. 73521 at (477-1098).

The Hamfest originally scheduled for Saturday, September 23, has been postponed until Saturday, October 14. We will be in activities at 10:00 a.m. and run all day ending around 4:00p.m. at the South Shore of Lake Altus (Quartz Mountain State Park). Tenative plans are being arranged for the south pavillion as you enter the park on the right side of the road. Details will be available at a later date. Swap and display tables will be the responsibility of each individual who desires to set up. Lunch will be served at 12:00 p.m. The club will provide hamburgers, chips and soft drinks. Those members attending the event who desire, are asked to bring extra dishes to complete the spread - potatoe salad, baked beans, desserts, etc. (NOTE: This is strictly on a volunteer basis.) Everyone interested in Amateur Radio is welcome to come and join in. Committee members include: Bob N5AIP, Pots W5LTU, Chuck WB5MJS, Steve W5KI, Dwight WB5KRH, Kenneth WD5BBT, and Fred. The committe will meet on Tuesday, October 10, 7:30 p.m. at the Friendship Inn to confirm the final arrangements.

Dwight Dennis WB5KRH, reported from the Southwest Repeater Association that two new guy assemblies with torque bars have been added to the tower at the repeater site. Loren Simms, WA5CBF, reported that call books are still available from the repeater association for $1.00.

Dave Horn, KØJPX asked for volunteers to help with the Black Beaver Boy Scout Council rocket demonstration to be held later in September or early October. Contact Dave Horn, 917 Windsor; Altus, Okla. (482-5071) for details if you could be available.

MEMBERSHIPS PAST DUE: - Cal Hunter, Brent Haught, Danny Watson, Cecil Brownlow, Bud Smith, Deanna McEndree, Phil Simms, Kenneth Ingram, Bob Henry.

October dues - Phil Whitman , Robert Parks, Phillip Walker

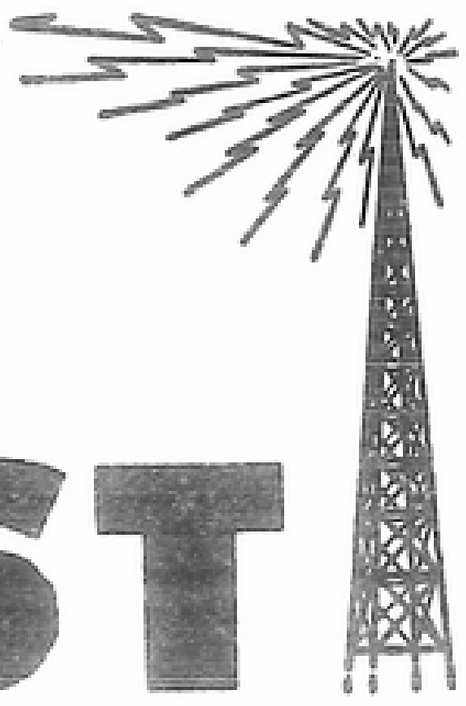
November Dues - Jerry Rochelle, Steve Norris, Ralph Shockley, Willard Holt, Joe McDonald.

December Dues - Loren Simms, Janice Simms, Mike Schenkel

NEXT CLUB MEETING - OCTOBER 12, 1978 - 7:30 p.m. North Main Fire Station
Final details and arrangements will be made.

Janice, WB5WMN

Altus Area Amateur Radio Association



HAMFEST

Saturday, October 14, 1978

10:00 a.m. – 4:00 p.m.

Swap and display areas available.
(tables must be furnished by individuals)

No registration or fees –
Just come and enjoy
fellowship and activities.

For further information contact:

Bob Bratton, N5AIP 129 E CLEVELAND
MANGUM, OK (782-3073)

Chuck Smith, WB5MJS 313 W. Mercury
ALTUS, OK (477-1098)

THE BIG SIGNAL
OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

ANTENNA TOWER - - LEGAL OR....?

Recently, KTOK newscaster Gene Molter made reference (during one of his newscasts) to an Oklahoma City ordinance which impacts on amateur, TV and CB antenna installations. Now, before you pass over this item too quickly, let me hasten to point out that his interest in the subject was more than just a news item. Gene is known in amateur radio circles as WD5IOE.

I chatted briefly by telephone with Gene about the subject and later phoned the Code Administration Office (Room 402, 200 W. Walker) for additional information, and would like to offer the following for your consideration:

The referenced ordinance covers towers which are permanently secured in the ground and are located in a single-family-dwelling residential area. First of all, the height of the tower is restricted to 35 feet overall. If a taller structure is desired, one must obtain a variance from the Board of Adjustment (and that costs a little, too).

To get the show on the road, a permit must be obtained from the Code Administration Office (cost is about $15.00). With your permit application, you must also submit (1) a legal description of the property upon which the antenna tower will be located; (2) the actual street address; and (3) two drawings. One of the drawings should describe in detail the type of structure (materials, guying, dimensions, etc.) and the other a plat plan showing the structure location. (Nothing to it, eh?)

It appears that the ordinance is not too well known and, consequently, many antenna towers may have been "planted" without first having obtained the necessary permit. For a bit of solid insurance, it might be prudent to get one if you have a tower in place, even though it's after-the-fact. Through the course of our discussions, it was brought out that no serious problems should be experienced in completing the transaction. It could come to pass, however, that some individual in the neighborhood might suddenly become offended by the "decoration" adorning your premises and file a complaint. With no permit in hand, the City could force a removal of the structure at your expense. Failure to comply with the order would net a healthy fine on a daily basis until compliance was effected.

More detailed information might be obtained by visiting the Code Administration Office and personally reviewing the ordinance.

Joe - WA5ZNQ

* * * * * *

It has been said that exercise eliminates fat. If that is true, someone please explain why so many gossips have double chins!!

* * * * * *

FROM HR REPORT, WEEK OF AUGUST 25, 1978

TELEPHONE INTERCONNECTION will be prohibited for both the General Mobile Radio Service (UHF-CB) and the Industrial Radio Services, effective October 16. In a Report and Order on Docket 20846, the Commissioners decided that the autopatch and other direct radio-telephone links being provided to users by GMRS and industrial system operators are indeed common carrier functions and not appropriate to those services.

Though This Week's Decision does not bear directly on Amateur autopatch and phone patch use, it certainly indicates a train of Commission thought that could bode ill for Amateurs.

* * * * * *

THE BIG SIGNAL NEWS

OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

There are no highlights of the September meeting to report since paste-up falls one day prior to our meeting. So, we will report on what has taken place to date.

The building, for the severe weather warning system, is progressing nicely but slowly. At the present time we are waiting for about three more yards of concrete to be donated. The stemwalls are poured, but now the floor has to be taken care of. It is hoped that by the time of this reading, it will be history. The rest of the building, of course, waits for the finishing of the floor.

We still need about 200 concrete blocks. If you have any you can donate, no matter how small amount, please contact Frank N5FM. Also, a lot of other types of materials are needed. If you think you could donate anything of use contact Frank. He will be most anxious to hear from you.

The October meeting will be a regular business meeting. Make plans now to be in attendance.

Hobe, WB5MLN, announced that Wilbert Tidwell WD5ADQ has been accepted into the Autopatch Association.

From the President

Frank reports that the relays are now here to put the autopatch back on the air in fine shape. It should be in use by the time you read this.

Also, Frank notes that the amateur radio booth at the Omni-Plex is becoming one of the main attractions. So, get your rig, get out there, and put it on the air. The antennas are up and just waiting to be used.

People to Contact

Input for the C&E: Contact Karen Recer WD5HBX

Ideas for programs at business meetings: Contact Chuck "Sully" Sullivan WB5YLZ

For Membership in the Autopatch Association: Contact Hobe Burgan WB5MLN

TEN METER MOBILE - QRP

According to the October issue of HRH, as of the 22nd of November 1978, non type-accepted CB rigs can no longer be used. Since 23-channel sets were never type-accepted, this, in effect, puts them off the air. In order to remain legal, CB operators will have to use type-accepted 40-channel sets. So, what better time to put yourself on ten meter mobile! Be a friend to a CB'er. Buy his 23-channel set, for a small nominal fee, and then convert it and get on ten meter SSB mobile. It's a blast! See you around 28.600

Henry N5IH

For Sale

KLM Multi-7 two meter FM rig with memory channel: Contact Henry N5IH

Mid-Oklahoma Repeater Inc.

A NON PROFIT ORGANIZATION
OF RADIO AMATEURS DEDICATED TO PUBLIC SERVICE

The resignation of Bill, WA5Raq, as reporter is regrettable, and leaves a gap, not easily filled - he did a good job, & will be missed.

In the interim, this substitute will endeavor to take up some of the space in C&E, and take the job off of the president. Hopefully, one or two may read it.

This contribution is for this monyh only - perhaps John will permit further articles, of whatever dubious value. This article is being written from memory only, because I didn't know at the meeting I would be interested in writing, and made no notes. - Oh, Well!

The meeting was called before I got inside the room - I was too busy shooting a little "bulloney" - so I may have missed something. If any of this is inaccurate, or something omitted, tell me about it.

The first order of business I recollect was the appointment of a committee for nominating next year's officers, as follows: Fred, K5HFN,-Marvin, K5HQP- Jerry, W5MCJ-Sid, W5KOZ. Luck to them!

The next serious item consisted of a review of repeater law violations, and various sins committed in regard thereto - - -

No business may be conducted over the phone patch, PERIOD. There have been violations of this in the past, and Ma Bell, as well as the FCC,take a jaundiced earview of this. The only use of the repeater is supposed to be within the OKLAHOMA CITY WIDER TELEPHONE DISTRICT, as far as the patch is converned! For personal use and convenience only. It can be used to call for help in an emergency, or to call police, if necessary. The trustees are to be congratulated on their job, they deserve a lot of recognition.

There was a question about the use of the repeater phone patch to call Weather & Time. Since no business was involved personally, objections were hard to understand, and an occasional call has been heard on the air, inchallenged.

This was discussed on the Night Owl Net, and Jim, WB5SJX, I think, came up with the explanation that satisfied me, and maybe everyone else. As I recollect the conversation - It seems that though the ham may not be conducting business matters, the advertising pitch constitutes a violation. As I understood Jim, this has been a widespread question, and he has discussed this with a nember of hams in other cities - with general agreement as to the above.
He suggested using the government weather forcast number, also listed, and avoiding the advertising pitch and the wrath of the FCC, even if thethe trustee was not present to cut it off.

A good idea, I think, and maybe no objections - it's completely non-commercial. Of course there is quite a bit of tape to listen to.

If there was anything else, I disremember - meeting adjourned for coffee and doughnuts - those delicious doughnuts! And them mean, viscious little calories! I guess a fellow doesn't have to eat the doughnutsbut they are sure hard to resist.

Well, I think it is time to sign, and maybe you had patience to wade through this. Don't know if I will be on next month - although, I will try it again if John desires. At least, I filled up some space in the C&E if the editor doesn't edit this contribution into the waste basket.

Regards, George, WB5NMK

* * * * * *

Amateurs in Eastern Oklahoma, Western Pott and Southern Lincoln county who are interested in forming an Amateur Radio Club closer to their home QTH, transportation is getting rougher, and can make it to the city of Choctaw should call and leave your name & call sign, phone number and address to: 390-8131 (till 3 pm), 390-8250 (3 to 6 pm), 390-2983 (after 6 pm) for additional information.
This should appeal to amateurs, or would-be amateurs who find it too difficult to make other club meetings in the area. WB5OHK

TEN-TEC

hy-gain

DenTron

TPL

YAESU

KENWOOD

Mosley

Oklahoma Ham Shack

P. O. BOX 20131
OKLAHOMA CITY, OKLA. 73156
(405) 722-2638 *After 6:00 P.M.*

Cushcraft

Wilson

AMCOMM

ROTORS

Ameco

TIME TO GET YOUR ASCII IN GEAR DEPARTMENT

Computer freaks better get ready and dig out those licensing manuals and code tapes because ASCII is coming to the ham bands! On August 18, 1978, the FCC issued a Notice of Inquiry and Further Notice of Proposed Rulemaking seeking comments on standards to be used for the adoption of the American National Standard Code for Information Interchange (ASCII) in the Amateur Radio Service. This means that all those people who had gotten around to purchasing computer terminals for use on their systems would now be able to get double duty from them on the ham bands. Tack the computer onto the terminal and you could have some pretty exotic information exchanges when two computers got together and started honking it on on the ham bands.

The Commission's further Notice of Proposed Rulemaking started back in April of 1976 when the Commission proposed to substitute a maximum authorized bandwidth table for the present emission table in the amateur rules. This means that instead of listing the types of emissions that you could use on various frequencies in the amateur bands, an amateur could use any type of emission as long as the bandwidth that he occupied was within the maximum bandwidth proposed for the frequency in use. As a part of that original proposal, the Commission also proposed to remove all rules concerning radio teleprinter signals, allowing the use of any type of radio teleprinter code so long as the signal was kept within the allowable maximum bandwidth. The Commission noted that the substitution of a maximum allowable bandwidth table for the present emissions table was met with much unfavorable response, but most of the comments filed by amateurs indicated a favorable response to the use of ASCII on the ham bands. Since no specific proposals or standards were proposed, the Commission is now proposing to accept comments on standards to be adopted for the use of ASCII.

The use of ASCII on the ham bands could be one of the most significant FCC decisions in recent times. It would literally thrust amateur radio into the computer age. RTTY buffs previously were dedicated amateurs whose fascination for the printed page and some of those mechanical clanking monsters known as the Model 15, 19, 28, etc. led them into one of the more interesting areas of amateur radio. However, with the present proliferation of computers among amateur radio operators and the general population, we may see an increase in RTTY service associated with computer interconnection that could rival the explosion of two meter FM. No computer buff would be considered complete unless he had his system on line to an amateur station. The ability to communicate long distances between computer systems without the use of phone lines could mean an increase in the amateur population as computer hobbyists began studying code and radio theory to get licensed. Although present technology simplifies somewhat the use of Baudot to ASCII converters, Baudot is still a very cumbersome way to transmit information when dealing with computers.

What is ASCII? Well, if you don't know, it might be time to briefly review its structure and purpose. ASCII is a code for the exchange of information. Each character in the code is comprised of seven binary data bits, each bit being either "0" or "1". For example, 0100101 represents the character "R" in ASCII. At the present, the use of ASCII is not permissable in the Amateur Radio Service. §97.69(a) of the Amateur Rules requires that the transmission of RTTY signals must be done by means of "a single channel five-unit (start-stop) teleprinter code." This is the Baudot Code which is the only code recognized for amateur transmissions. With the advent of the growth of computers for both business and home use, ASCII, however, has replaced the Baudot code as the most popular code for information exchange in use today. Its popularity is due in part to the fact that a seven unit code has a capacity of 128

different characters (2^7 = 128), whereas Baudot, a five-unit code is limited to 32 characters (2^5 = 32), or 64 characters when upper and lower case characters are used. ASCII has been officially adopted by the National Bureau of Standards as the standard code for information interchange in the United States.

Some of the standards that the Commission are considering for the use of ASCII are Data Transmission Rate, Use of the Parity Bit, Synchronous-asynchronous transmission, Least Significant Bit-Most Significant Bit considerations. Well, what does this all mean? Let's discuss them in order from the Commission's proposed rulemaking.

One of the main differences between ASCII and Baudot is that ASCII is commonly sent at speeds far greater than Baudot. In ASCII and in Baudot, the baud is the rate of data transmission, and represents the number of data bits sent in one second. The four standard baud rates recognized by the Commission for amateur Baudot are 45, 50, 56.25, and 75 baud. Contrast this to the standard baud rates recognized by the ANSI for ASCII of 110, 150, 300, 600, 1200, 2400, 4800, 9600, and 19,200 and even higher. Of course, the bandwidth of radio transmissions with these higher baud rates would change considerably. In proposing the use of ASCII, the Commission must consider if similiar standards to those recognized by the American National Standards Institute (ANSI) be adopted? In other words, should the Commission adopt various speeds for each frequency proposed to be used for ASCII or should they allow any speed as long as it stays within a particular bandwidth? Should the speeds be specified rates or should the Commission just specify a maximum speed? If the Commission should specify standard speeds, what tolerance from these speeds should be allowed? What speeds and what emissions should be proposed for particular frequencies in the amateur service?

The Commission must also determine what permissible deviation from the mark signal to the space signal be for frequency shift keying and if this permissible deviation should be related to the data transmission rates. Also, what should the highest permissible fundamental modulating audio frequency be for A2 or F2 emissions and should this be related to the data transmission rate?

The Commission should also decide what type, if any, of error detection should be included in data transmission. This would particularly involve the use of a "Parity Bit." ASCII itself is merely a seven-unit code, but the method of sending that code can vary in a number of ways. The first way it can vary is the use of a parity bit. A parity bit is sometimes employed to assure that each character sent is received correctly. For example, taking the character "R" mentioned above as 0100101, lets assume that the two parties to an ASCII exchange have agreed that the parity bit shall be "even" then the person sending the character "R" will also send an eighth bit, a parity bit, and the transmission would look like this: 01001011 (the parity bit has been underlined). Because the two parties to the transmission have agreed that the parity bit is even, the receiver of the communications would see that the number of data bits represented by the number "1" was even, and that the character was received correctly. If, for some reason, the parity bit made the number of data bits represented by the number "1" odd, the receiver of the communications would recognize that there was a mistake in the reception of that particular character. In other words, the use of the parity bit allows additional information about the character being sent to be received by the receiving station in order to assist him or her in determining if the character was received correctly. Assuming that parity for the letter "R" was "1", the receiving station would check to see if a "1" was received for the eighth bit. If it was, the odds are great that the character was correctly received after comparing the character received to its parity bit and they are the same.

What determines parity? Parity is obtained by adding up all the "1's" and "0's"

in the data character. For example, for the letter "R", parity would be determined as follows:

0 + 1 + 0 + 0 + 1 + 0 + 1 = 11 ("R" = 0100101)

The 11 is in binary and of course is the number 3. But this is not important for the purpose of determining parity. Since only one parity bit can be sent, we will drop the first 1 and select the last one as the parity bit. This means that the parity bit (the last bit of the sum of all the 0 and 1's in the character) will be a function of the total number of 1's and 0's in each character. This means that if there are an odd number of 1's in the character (such as above), the parity bit will be a 1. If there are an even number of 1's in the character, the parity bit will be a 0.

Actually, as mentioned above, the parity bit for each separate character could be anything agreed upon by the parties, but the method for determining parity in the previous paragraph is a convention used that allows the parity to be calculated from the character directly. Since the parity bit is a function of the entire character, it tells the receiving station whether or not the signal was correctly received. When the receiving station receives the "R" sent above and adds up the 0's and 1's and finds that they total up to 11, then compares the parity bit to this total, it has some assurances that the character was received correctly. If one of the data bits was dropped due to poor transmission quality or, say, a static crash, then if that missing data bit was a 1, the sum would be 10 instead of 11. When comparing the parity bit, the receiving station would know that an error in transmission had occurred and could undertake steps to correct the character.

Parity is only one method of error detection. There are other multibit methods that have some use. Notice that parity is not exclusive. That is, if you were to have two errors in a single character and they both involved 1's, then the parity bit would still agree with the character that came in and no error in parity would occur. However, parity does offer a first line defense against errors being made in data transmission.

The Commission has also indicated that it must decide whether or not ASCII should be used in a synchronous or asynchronous mode. Or, for that matter, whether any convention should be specified at all. Either mode is designed to tell the receiving station when information is about to be sent. In an asynchronous transmission, there is a bit added to the beginning and end of each character. The bit added to the beginning of the character, most commonly "0," is called a start bit and tells the receiving station that a character code will follow. The bit added to the end of the character, most commonly "1," is the stop bit and tells the receiving station to end operation until it gets another start bit. This means that the relationship between the time that the character is sent and the previous character received is unimportant. Each character sent is preceded by a start bit and ended with a stop bit and is a separate independent data event for the purpose of reception and unrelated to the timing of other characters sent.

In contrast in synchronous transmission, there is no start or stop bit added to each character. Rather, there is a start character which is sent at the beginning of each message and it is followed by a steady stream of data bits until a stop character is received telling the receiving station that the message is ended until another start character is sent. It can be seen that a lot depends upon synchronizing the timing between the transmitting and receiving station and that if the timing breaks down, then a whole stream of data is lost until a stop character is sent and the receiving station awaits another start character. The successful transmission of data depends upon the two stations being sychronized by the start character.

The advantages of asynchronous versus synchronous transmissions are fairly odvious. With asynchronous transmissions, timing is not nearly as critical, and information can be transmitted at no particularly required rate or speed. However, you also use up a lot of time transmitting an extra two bits per character. An asynchronous transmission would look like this (with parity):

"R" = 0010010111

which would be broken down as follows:

"R" = 0 0100101 1 1

start "R" parity stop

Each character in an asychronous transmission is sent in a 10 bit code. In contrast, a synchronous transmission is only an 8 bit transmission, but timing between the data bits must be properly timed so that a receiving station will know whether or not to determine whether a "1" or a "0" has been sent. The receiving station will look to a particular interval of time and determine if a "1" or "0" was sent during that time and then move on to the next interval. Odviously, higher rates of data can be transmitted with synchronous transmission for a given baud rate.

Finally, the Commission must determine whether or not to impose a standard for determing which data bit is sent first. Within any one character, the bits are identified by b_7, b_6, b_5, * * * b_1, where b_7 is the highest order, or most signficant bit, and b_1 is the lowest order, or the least significant bit. The most common order of sending data bits is in the order of least significant bit to most signficant bit. However, two stations might want to make a different arrangement and send the data bits in a different order. Other stations, not expecting this convention, would be unable to decipher the message sent. The Commission wants comments as to whether or not it should adopt standards determining the order of the data bits.

The Commission has requested comments to be made regarding the proposal on or before November 15, 1978 and reply comments on or before December 15, 1978. As usual, you must file an original and five copies. If you wish each Commissioner to have a personal copy of the comments, then you must submit an additional six copies. If you cannot afford to make such a massive contribution to the Xerox Corporation or others, you can submit a single copy of your comments in any form, provided that the correct Docket number is specified in the heading (Docket No. 20777) of your comments. All comments and reply comments should be addressed to the Secretary, Federal Communications Commission, Washington, D.C. 20554.

ASCII will cause an increase of usuage of the amateur bands for the exchange of computer to computer transmissions. The possibilities are exciting. The Commission expressed some disappointment that favorable comments were not received on its proposal to substitute a maximum authorized bandwidth table for the emission table presently in use. They thought that by specifying bandwidth only and not emission and type, that this would encourage experimentation as to various types of emissions and concurrently allow them to deregulate further. It is odvious that the Commission did not want to institute a proceeding which would require them to examine standards for transmissions (such as the ASCII docket) and establish and police those standards on the amateur bands when the mood of the Commission in the past few years has been self-regulation and minimizing Commission involvement.

As far as experimentaion being discouraged, it appears to me that the presence

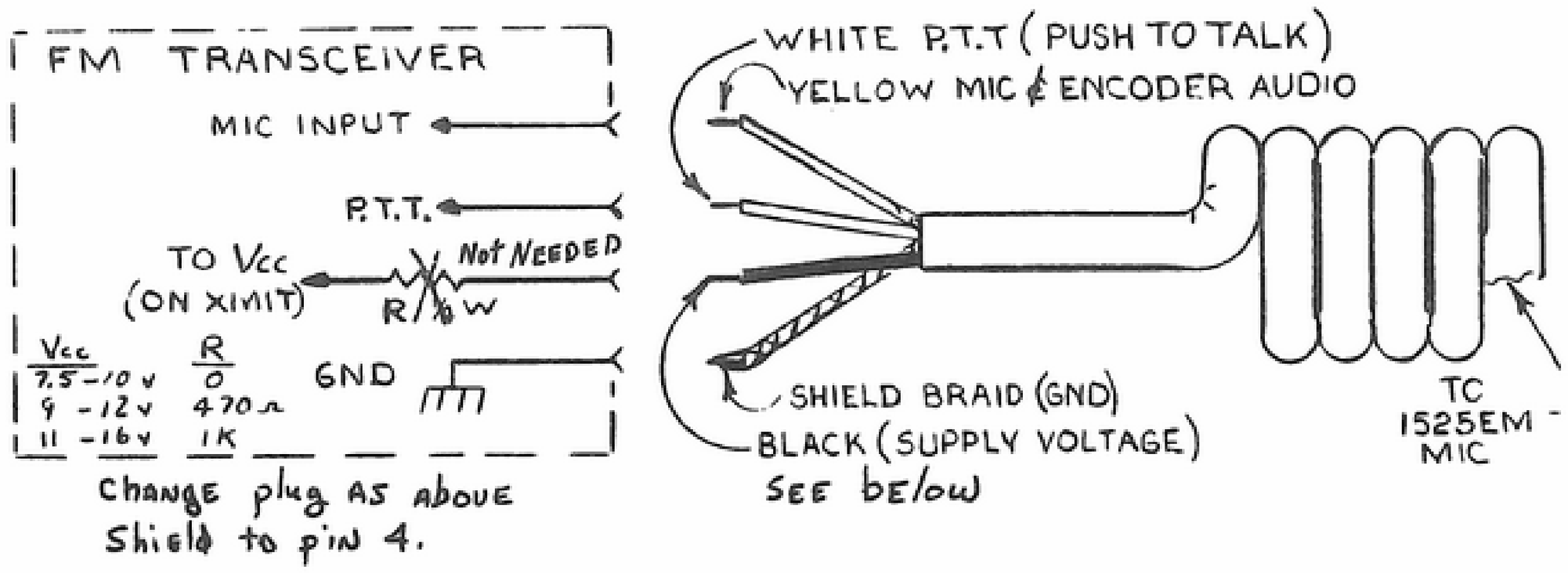
of a bandwidth table instead of emission table would not necessarily encourage experimentation by amateurs. The medium has never been the message in the amateur service for a large majority of the amateur population. It is true that there are a few dedicated people whose interest is in improving communications systems and information transmission, but they are a distinct minority. Most amateurs concentrate on information transmitted and not its bandwidth efficiency in transmission. Meanwhile, to impose only bandwidth limitations would mean that considerable inconvenience to amateur operation would result from the fact that a particular transmission could turn up on any frequency to the consternation of stations close to that frequency. In any case, the Commission will not drop the present emission table and continue to press ahead with the adoption of ASCII for use on the amateur bands.

Micheal Salem N5MS

MATING THE DRAKE 1525EM MICROPHONE TO YOUR ICOM RADIO
(A Marriage made in Heaven)

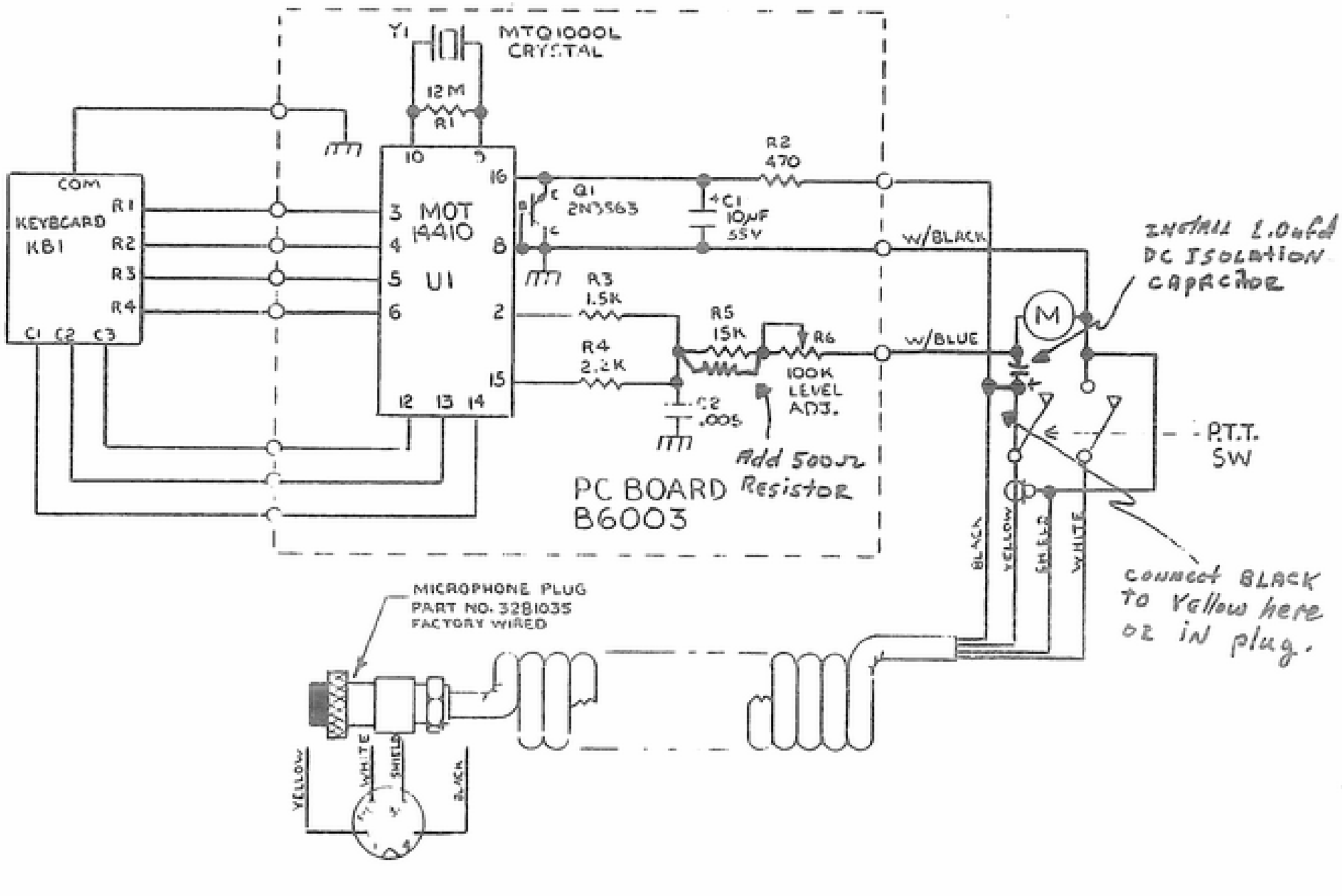
A recent sojourn to Texas resulted in a stop by the ICOM East location out in Richardson (not to far from the Motorola C & E,or Meca,to many HT and Motorola devotees). The avowed purpose was to drop off the IC-230 to have the cobwebs blown out and a retuning. I heard a rumor that Icom will retun a working radio completely, both transmitter and receiver, for just $20.00. I checked this out with my IC-30A and it cost just a little more since it needed a few parts replaced to come back up to power, but it worked great when I got it back. The IC-230 has had a small audio problem for a couple of months and had not been retuned since I dropped it off the front seat of the car. These Icom radios are very clever, but service information is very lacking from the manufacturer. The only alternative is to drop it off at your friendly service repair station. In any case, while I was at Icom, I had an occasion to ask the service manager if they got many calls about interfacing the Drake 1525EM TT encoding microphone to the Icom radios. Whereupon, he whipped out a sheet that they have been passing around which shows interconnection for the Icom 22S, 245, 211, and 215. The circuit is shown below in Figure A.

FIGURE A.



The next odvious question was how do you modify an IC-230 and IC-30 A for this change without changing the 3 conductor plug? The answer is to put the voltage to run the pad down the same line as the microphone audio and use a 1.0 ufd capacitor to isolate the microphone circuit from the D.C. Remove the 4 conductor jack on the Drake microphone and install a 3 conductor jack available from your local parts store. The capacitor is installed in the radio by removing the four screws that hold the microphone together and popping the

FIGURE B.



microphone open. Attach the black and yellow lead together as shown in Figure B and put on the new connector. The Black-Yellow lead is the power-audio lead. The white lead is the PTT switch and the shield is ground. Refer to the ICOM schematic for the IC-230 or IC-30A. You will need to make a modification inside the radio by running 12 volts to the microphone lead on the chassis of the radio. You may want to put that through a 680 to 1,000 ohm resistor for current limiting in case you should accidentally short the mike audio to ground. This will save the fuses.

This is a rather quick and dirty way to install the encoding microphone. The method that I preferred was to remove the three conductor jack on the radio and replace it with a four conductor jack and then rewire it for the same configuration as used in the IC-22S . This is shown in Figure C. Audio goes to pin 1, the white PTT lead to pin 2, the +12 volts (through the appropriate resistor) goes to pin 3, and ground is pin 4. I preferred this method because I have umpteen number of friends who have IC-22S radios and Drake microphones and should I have any type of microphone failure, I can always borrow one of theirs for use on my radio. One caveat here, however. The three conductor jack on the IC-230 and IC-30A is a bear to remove. Icom glued it to the plastic chassis making it virtually impossible to budge with a pair of pliers. I had to remove it by completely taking the front panel off the radio and attacking the jack with a drill. I drilled completely through the jack and removed the bakelite containing the three pins. I then crushed the jack with a pair of vise grips and finally loosened the glue enough to remove the nut holding the jack to the radio.

Icom seems to feel that the audio levels from the Drake mike is not enough to drive the bejabbers out of their low input impedance radios. Accordingly, as you can see in Figure B, they feel that it would be appropriate to parallel a 500 ohm resistor across the 15K series resistor R5. I have not had any problems myself driving either of my radios, but if you are using a wide band system. It could be a problem. Notice how Drake cleverly adjusts for rolloff of high frequencies by adjusting R3 to a 1.5K resistor instead of the 2.2K resistor used for R4. Pin 2 and pin 15 of the MC14410 are the high and low

group outputs so you can compensate for a radio that has low frequency or high frequency rolloff by playing with these two resistors, R3 and R4. Some Icom radios have trouble with touchtone pads because the first input capacitor of the microphone circuit is too small. I have heard of this problem being solved by removing this capacitor and increasing its value by about 10 times or so. Might want to go to a .5 ufd to be safe. If the audio sounds all right, but the touch tone pad doesn't work, change R3 and R4 if you don't want to dig into the radio.

One more final note. Make sure that the DC blocking capacitor you use for the IC-230 and IC-30A three pin conversion has a working voltage of at least 15-25 volts. If you pull out the input capacitor of the microphone circuit as mentioned in the previous paragraph, make sure you replace it with a capacitor of working voltage greater than the 12 volts that will be placed on the mike lead to run the pad.

Micheal Salem N5MS

RETURN TO THE AGGIE JOKE DEPARTMENT

Anybody get their feelings hurt about the Aggie jokes I ran last month (except H.O., I already know about him)? No? Good, well, here are a few more to chew on. By the way, I understand the Aggie Joke Hotline (toll free number) 1 800 AGGIE IQ was tied up quite a bit last month from the large number of calls it received.

An Aggie went into a pizza restaurant and order a pizza to go. The waiter asked him if he wanted the pizza cut in six or eight pieces. "Six," the Aggie replied, "I don't think I could eat eight."

Did you hear about the Aggie who tried to blow up a school bus and burned his lips on the exhaust pipe.

Then there was the Aggie who thought a bigamist was a widespread fog over Italy.

Did you hear about the Aggie who went to the hospital for an appendix transplant?

I met an Aggie the other day who thought Gatorade was welfare for crocodiles and Nixon was one of Santa's reindeers.

Did you hear about the Aggie who thought that Red Buttons was a rash you get on your fannie.

Then there was a guy who started to tell an Aggie joke to another fellow. The fellow stopped him and said, "Now wait a minute, I'm an Aggie." The first guy said, "That's O.K., I'll go slower."

Had enough? That's all for this month. You don't know how much trouble it is to write down all the Aggie jokes I hear each month to save them for this column.

Micheal Salem N5MS

I WISH

I WISH SOME ALL-WISE, AND ALL-SEEING SEER WHO IS INTERESTED ONLY IN GETTING TO THE TRUTH OF THE MATTER WITH FAVORIIISM TOWARD NONE WOULD TELL ME --

WHY HAMS, WHO ALL WILL AGREE ARE AMONG THE WORLD'S FINEST PEOPLE, WILL CLOSELY PURSUE SPECIFIC HAM ACTIVITIES, AND IMMEDIATELY BECOME LOUDLY CRITICAL OF FELLOW HAMS WHO PURSUE OTHER HAM ACTIVITIES WHICH, PERHAPS, INTERFERE WITH THEIR FEW ACTIVITIES TO A DEGREE.

WHY HAMS WILL, AT TIMES, EXPRESS THEIR INDIVIDUAL DISPLEASURES WHILE "ON-THE-AIR" FOR FORCED HEARING WITHOUT REBUTTAL FOR THE MANY WHO ARE MONITORING THE FREQUENCY.

WHY A HAM, WHO IS THE SOUL OF COURTESY AND COMPASSION IN HIS DAILY CONTACTS WITH PEOPLE, BECOMES AN "ON-THE-AIR" AND IMMEDIATELY LOUD RESENTER OF ANY INSIGNIFICANT INFRINGEMENT ON WHAT HE FEELS ARE HIS "RIGHTS."

WHY HAMS, WHO ARE WONDERFUL PEOPLE, BUT NOT NECESSARILY QUALIFIED FOR EXECUTIVE DECISION, BURDEN THE EARS OF ALL "ON-THE-AIR" LISTENERS WITH LONG SPEECHES AS TO HOW THEY FEEL THE AFFAIRS OF AMATEUR RADIO SHOULD BE CONDUCTED. W5KY

(FROM TULSA REPEATER ORGANIZATION, COURTESY WA5FSN)

BAFFLE-GAB THESAURUS

As any self-respecting bureaucrat knows, it is bad form indeed to use a single, simple cord when six or seven obfuscating ones will do.

But where is the Washington phrase-maker to turn if he is hung up for what Horace called "words a foot and a half long"? Simple. Just glance at the Systematic Buss Phrase Projector, or S.B.P.P.

The S.B.P.P. has aptly obscure origins but appears to come from a Royal Canadian Air Force listing of fuzzy phrases. It was popularized in Washington by Phillip Broughton, a U.S. Public Health Service Official, who circulated it among civil servants and businessmen. A sort of mini-thesaurus of baffle-gab, it consists of a three-column list of 30 over-used but appropriately portentous words. Whenever a GS-14 or deputy assistant secretary needs an opaque phrase, he need only think of a three-digit number--any one will do as well as the next--and select the corresponding "buzz words" from the three columns. For example, 257 produces "systematized logistical projection," which has the ring of absolute authority and means absolutely nothing.

Broughton's baffle-gab guide:

	A	B	C
0)	Integrated	Management	Options
1)	Total	Organizational	Flexibility
2)	Systematized	Monitored	Capability
3)	Parallel	Reciprocal	Mobility
4)	Functional	Digital	Programming
5)	Responsive	Logistical	Concept
6)	Optional	Transitional	Time-Phase
7)	Synchronized	Incremential	Projection
8)	Compatible	Third-Generation	Hardware
9)	Balanced	Policy	Contingency

"Going for a little waddle?"

A group of beachcombers found a milk bottle with a water-soaked message in it. Obviously, someone needed help, but no one could read the message. They took the bottle to the local authorities and waited eagerly for the results. Finally this message was deciphered:

"Two quarts of milk—no cream."

A restaurant near the United Nations headquarters in New York has a sign in the window: "All languages spoken here." A patron asked the waiter, "Who speaks 'all languages' here?"

Waiter: "The customers."

Flirtation: attention without intention.

The first day of the season, the fisherman caught a huge trout and threw it back, then caught a medium-sized specimen and tossed it back, too. Finally, he kept two small ones.

An onlooker asked the angler why. His answer:

"Small pan."

Alaskan lover: "What would you say if I told you I'd drive my dog team 100 miles to say 'I love you'?"

Alaskan lass: "I'd say that's a lot of mush."

After interviewing the gentleman on his 99th birthday, the reporter thanked him and added:

"I hope I'll be around to talk to you on your 100th birthday, next year."

"Why not? You look healthy enough to me."

Youthful figure: the answer you get when you ask a woman her age.

Wife: "Here's a story about an uneducated man who met a woman and became a scholar in two years."

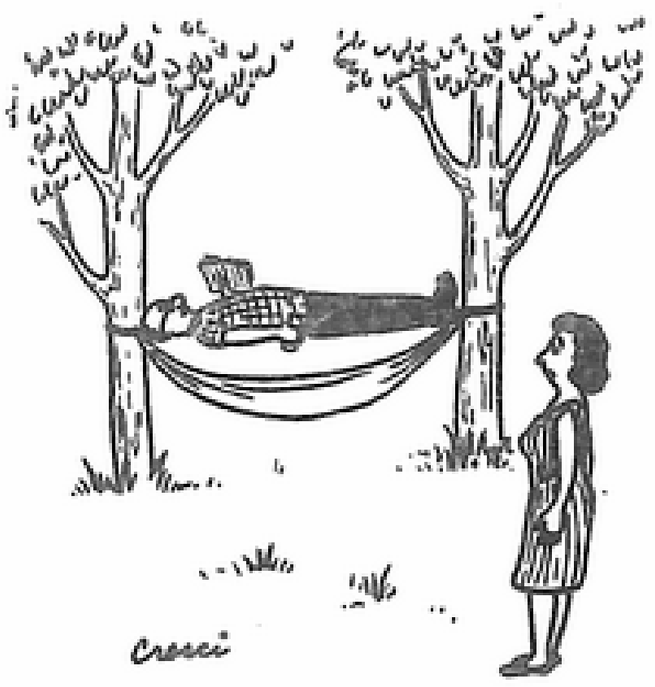
Husband: "That's nothing. I know an intelligent man who met a woman and made a fool of himself in two days."

Memory lapse: when you remember today that yesterday was your wedding anniversary.

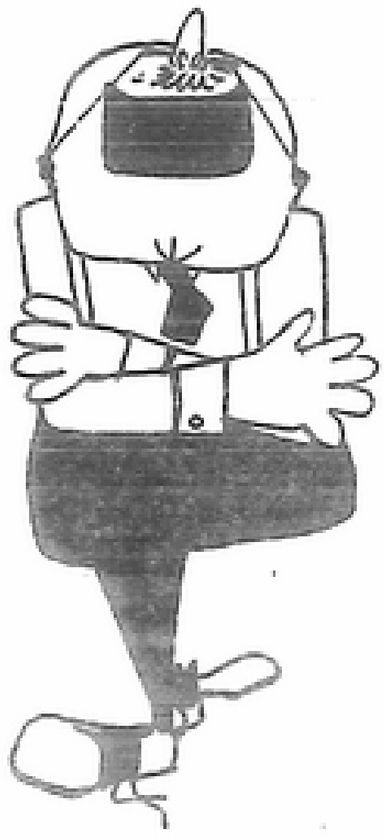
A group of motorized campers hired a guide for their month-long trip through the Southwest. As the days passed, it became apparent that the caravan was totally lost. An angry camper turned to the guide and complained:

"You told us you were the best guide in Texas."

"I am," he replied, "but now we're in Mexico."



"Now that you're retired, George, you've got to learn to relax."



Timely advice: If you have time on your hands, you'd better check your wristwatch band.

"How many miles per gallon do you get with your new economy car?" a man asked his neighbor.

"Oh, about four. My teenage son gets the other 21."

"You think so much of your golf game that you don't even remember when we were married." the wife pouted.

"Sure I do, honey. It was the day I sank the 40-foot putt."

Modern dance: an art form that has developed by leaps and bounds.

A factory advertised for a skilled mechanic, offering a salary of $200 a week. One man applied but wanted $400.

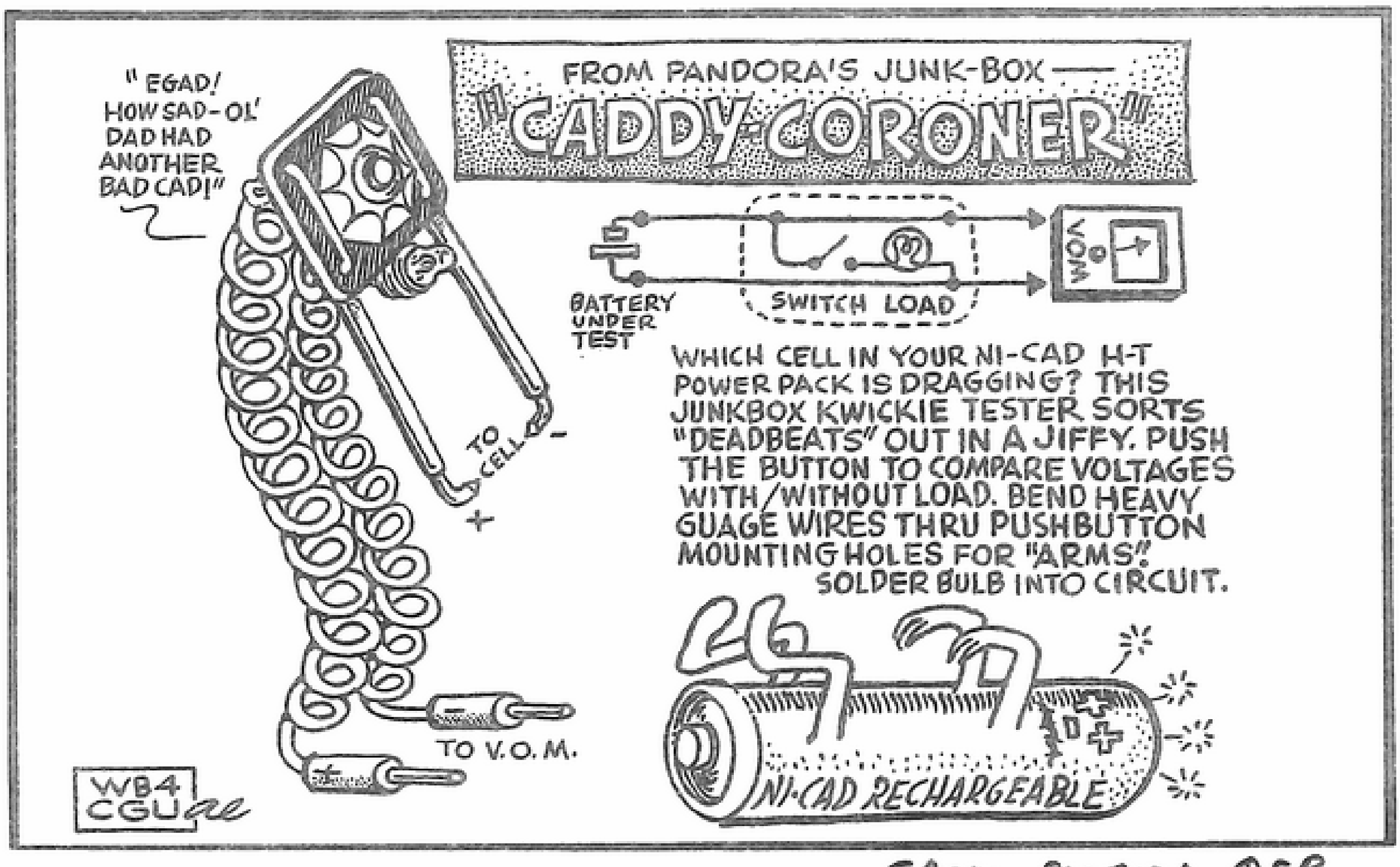
"Are you an experienced mechanic?" the personnel manager asked.

"No," was the candid reply, "but I don't know the job, so I'll have to work twice as hard."

The highway patrolman stopped the beat-up old car because he thought it in unsafe condition. After looking it over, he asked the driver how he got along without a speedometer.

"Well," he replied, "when I'm going 15 miles an hour the fenders rattle; at 25 the windows shake loose, at 30 the motor starts knocking. By then I know I'm going flat out."

REPEAT BY REQUEST



FROM FLORIDA QSP

Late-Night Amateur Radio is ALIVE

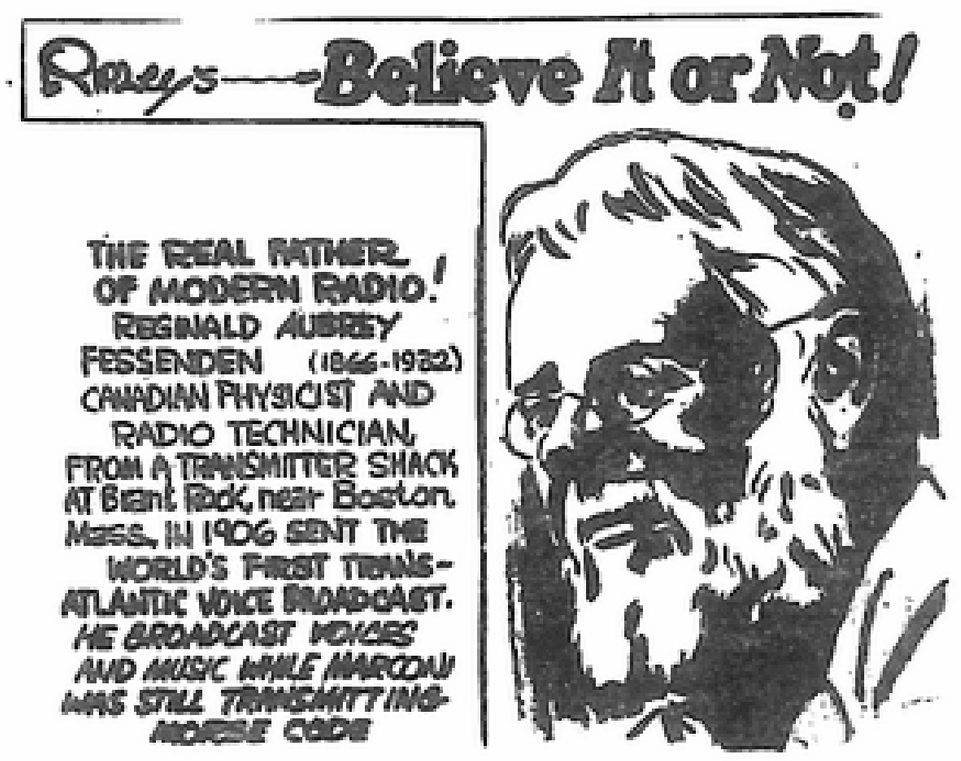
AFTER THE TEN O'CLOCK NEWS AND JOHNNY CARSON'S MONOLOGUE, MANY OKLAHOMA AMATEURS ARE FINDING SOMETHING REFRESHING ON TWO METERS. MOBILES OUT-AND-ABOUT, LATE-SHIFT WORKERS, AND RELATIVELY DISTANT HAMS KNOW OF IT, TOO. IT'S CALLED THE NIGHT OWL NET, THE BEST WAY TO KEEP IN TOUCH WITH AMATEURS IN OKLAHOMA.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

The Night-Owl Net
146.07/.67 Oklahoma City

FOR SALE: Galaxy GT 550 Transceiver, 10-80 mtrs, with 115vAC power supply in SC550A loud speaker cabinet and 12v mobile power supply. Good rig for either base station or mobile. Lee,W5VZY, 942-0177.

FOR SALE: Regency 2B. 1 & 15 watts. Crystals for 34/94, 37/97,22/82, 28/88, 07/67, 81/21, 60/00. Price $100. Mobile mounting bracket and mike. Lloyd Benton, K5YTW, phone 732-4987.

FOR SALE: Heathkit 1G102 RF generator - Hustler 4BTV vertical, 10-80m- Yaesu FR 101S receiver - Yaesu FT 101E transceiver - Yaesu YC601 display. Reuben, WD5FKF. phone 691-1070



IF ONLY . . . . .

It was tired-hot, sticky-humid and dark. The meeting had been a good one, productive but long. Coffee lasted a little longer than usual, but his committee was making headway this time.

The 18 miles of Interstate didn't really beckon his efforts but it was the best route, quick, and she was expecting him home.

"Strange," he thought, "not to see any other cars on the road tonight, not even one long-hauler. And it was their time of night to rack up the miles..."

The kids were finally asleep, kitchen cleaned up, porch light was on for her man: "he should be home any minute," she thought," he works so hard for others." The shower felt good, as did the bed, though empty till he was home, the only distractions being the crackle from his "shack." Surely, he won't mind, just this once, she felt so sleepy; not turn it off, just the volume down where she won't hear, she can sleep, he can wake her when he comes in, she writes him a note, it's set on his mike, she falls asleep so easily----.

When he was lucid again, it felt like the inside of a pot-bellied stove; hot and cramped and pitch black. What hurt? He couldn't see, no sounds, no light -- then it was there, red, vicious "GEN" and another "OIL." He turned off the key. He was uncomfortable, started to squirm. Searing pain! His leg was trapped up behind the dash. He was almostprone but his head was resting on the right seat back. The car was sitting at a nose-yawed, right-down, abnormal angle. "Where was he?" The thought made him move, there's that pain again. His arm too, trapped, between the seat and its back, he was almost sitting on it. His other arm was free, he licked it and almost passed out: his own blood.

It seemed like forever but just under two minutes after his car stopped rolling- when he finally found his talkie, no breaks, power good, could it hit the repeater? Only chance he had - no car lights, "where's the highway from here, I'll bet they can't see me," the sound of his voice shocked him clear - headed: Headlights, flashers, smell for gas, listen for water, sparks, insects, birds, cars, RADIO: "This is K5AZ calling emergency, does anybody read me?"

Interminable silences followed each transmission with nobody answering his calls. He was getting out, he was hittin' the repeater, after ten minutes he'd gotten no answer - after fifteen he did, after twenty he finally gave the last location he could remember seeing on the road, within another five minutes he was in an ambulance on its way to a hospital, they might save his leg, "dunno 'bout his arm." He awoke in white, looking directly into his wife's concerned gaze as she smiled down at him, then kissed him. He would survive, in one piece. Though busted now, he would heal, and limp, and be in pain for a long time, and be weak from loss of blood.

If onlys: if only his amateur radio club had had an emergency first aid course..
if only the club members had practiced remote rescue...

His savior had been a non-amateur with a scanner which he locked on frequency when he heard "emergency" and dialed the phone conference-call to the Police Dept., Highway Patrol, and Fire Department's Rescue team. Then he had to wait, and wait, and wait, till finally he heard a location, 18 minutes and 39 seconds after locking on.

If only he'd given me his last known location, direction, speed, if only he knew a lot of people can only listen.....

Anonymous-

FOR SALE: AR-40 Antenna Rotor with 100 ft. of control cable. $45. Call Jack Iman, Wb5SVN, 677-8537.

Any current TEN-X member wishing to help form a local TEN-X chapter, please call Coy, N5OK at 691-1194.

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OCTOBER HAM HAPPENINGS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	MORI MEETING & AUCTION 3	4	OU 5	ACARC 6	SIREN TEST (NOON) 7
8	9	10	11	ALTUS AARA 12	13	ALTUS HAMFEST 14
15	16	AUTOPATCH —… 76 17	18	OU 19	VHF 20	SIREN TEST (NOON) 21
BEAVER HAMFEST (NO KIDDING) 22	EDIT C&E 23	24	CORA 25	26	HAMARAMA 27	HAMARAMA 28
HAMARAMA 29	VHF CLUB MAILS C&E 30	 31				

See page 2 and/or individual club sections for details