SECOND CLASS MAIL Postmaster, see page 3

CENTRAL OKLAHOMA RADIO AMATEURS
COLLECTOR AND EMITTER
50¢

Vol. 11 OCTOBER 1985 No. 129

INDEX - INDEX - INDEX

MID-OKLAHOMA REPEATOR, INC.
WA5YTI

EDMOND AMATEUR RADIO SOCIETY

TRS 80C Central Oklahoma Computer Organization

No doubt that the faithful readers of the C&E have noticed that the MORI column has been missing lately. That was brought about by the loss of our secretary/editor, Elise Northern N5HII, who moved out of the area. Treasurer Sid Gerber W5KOZ is acting secretary at this time. MORI has also lost Vice President Bob Gamble N5GRA, who possibly may be heard on HF operating from the Republic of Panama as HP1XBG. We wish them both the best!

Recap of last meeting for those unable to attend: Jim Buswell N5BEQ, gave the post Ham Holiday reports from CORA. A new position in CORA was announced, "Communications Representative," which was created to fulfill the need for a coordinator for local public events needing Amateur communications.

Under the umbrella of CORA, volunteers can be recruited and organized from all affiliate clubs to provide more effective public service to our communities. The person appointed to this post was Gerry Allen, N5GVP. Joe Harding WA5ZNF, gave a status report on the financial condition of the C&E, and a discussion followed concerning the format size. Current large format is here to stay!

Everyone is invited to the upcoming meeting on Tuesday, OCT. 1st, to enjoy the presentation by Tim Rauscher KA5MUG, entitled "SATELLITE TV-- IS IT FOR ME?"

The meetings are currently being held in the Will Rogers Building at the Capitol. If unfamiliar with the area, an easy route to take is I-35 to N.E.36 St. exit, head west to Lincoln Blvd., and turn left (south). Take the Sequoyah/Will Rogers Bldg. entrance at the Capitol. If problems are incurred, assistance is as near as your 2-Meter rig, for the 146.67 machine is monitored by most MORI members on the way in.

Mike, KA5TSD

EARS met in the E.O.C. in Edmond and all proceeded into a good meeting put on by the Red Cross and conducted by David Hackett. It concerned the need to evaluate areas as to damage in the area to actual assessment of damage to individual classifications of the individual dwelling or business. Also to the needs of the people in the damaged area. We will receive more specific information on the evaluation of damage to individual or business buildings the following Thursday which is after this publication. So of course I will have no information to put into this writing.

Following is a list of events for September and October:

Thurs. 9-26 Met to plan for Mini-Field Day. Antenna building. 8 pm.

Sun. 10-6 Novice class at St. Johns.

Thurs. 10-10 Followup on Mini-Field Day. 8 pm.

Sat. 10-19 Mini-Field Day / Antenna building 1:00 pm Home of KC5GN.
Ladies knitting.
6:00 pm Dinner - Bring your own.

Sun. 10-24 CPR & PI Edmond Trinity Church.

Be sure to bring old aluminum antennas or any- thing you have at home that we night build an antenna with.

Boy! If that don't keep us busy for a while I don't know what will.

That's All Folks and you should notice I don't stutttttttttttter.

Bill, K5SKA

Club Dues: $10.00 per year

Meeting called to order by Bob Pace at 9:15 A.M. 94 members/guests attended the meeting on September 14, 1985.

1. Microlink of Norman - if interested in learning more about Microlink contact David Coburn.

2. C&E - Club Editor for COCO is Martin Schiel. We hope to have articles of interest tc many COCO users. If you have an article please get it to Martin. Phone 670-6891.

Joe Harding, Sec-Treas / Editor of the C&E is looking for a program to handle the budget for the C&E. If you have a suggestion, please give Joe a call.

3. Dues - Due to increased costs of the C&E, telephone rate hikes, etc. a recommendation was made to raise the club dues to $10.00 per year. Also that the due date for all dues would be in December. A motion was made and seconded. Discussion was held and the vote was unanimous. All members dues are due in December and will be $10.00 for the year. Persons who join after that time will pay $1.00 per/month remaining in the year.

4. Elections - new officers will be elected at the December meeting. Bob Pace will appoint a nominating committee at the October meeting.

5. Hardware - problems included orange juice on a keyboard (use Freon to clean), a new keyboard interface needed for an old COCO (Sam Mur), a

(CONTINUED, NEXT PAGE)

FALL WEATHER MEET
OCTOBER 15 FAA ADMINISTRATION
WEATHER NET PROCEEDURES-SPOTTER TRAIN

problem with keyboard lock-up (overheating chip).

6. Software - Telewriter-64 on cassette - problem with saving and/or converting to ASCII; PF51 will not work with MODEM 2.

6. Door Prizes - lucky winners included:

Christina Boyer - keyboard
Bob Streigel - power strip
Archie Washington - hex calculator
Byron Kennedy - diskettes
Tim Hogard - disk file box
Jim Seals - game cartridge
Randy Kastner - Model 3 board
Ron Folk - diskette
Larry Griffin - diskette
Hazel Roberts - diskette
Bob Lyons - game
Duane Thurmond - game

Thanks to Nathan Roberts for drawing for the door prizes. Many of the door prizes are purchased with profits from the coffee/donut fund. Our thanks to Jack Cochran and his disk project for donating the hex calculator and diskettes. Also thanks to Robby and the used diskettes for the contribution to the club treasury.

7. MABEL - MABEL may be purchased by club members. See one of the club officers if you need a copy. Please, do not upload MABEL on the net. Cost is $20.00 to non-members.

8. Many thanks to Bill Holland for continuing the excellent program on the disk system. Bill will finish up next month and a new series of programs will begin. Programs will include presentations of software by club mebers. If you have a favorite package which might be of interest to others let Bob know. Larry Griffen will present a program in October.

Hope to see all of you on the 2nd Saturday of October at our next COCO meeting!

Secretary/Treasurer
Kaye Derryberry

HAM HOLIDAY COMMENTS

175 Cards turned in
99 Had questions checked
64 Added comments
12 Had comments only

FACILITIES: 93 Excellent. 56 Good. 12 Poor. 2 Poor. PROGRAMS: 40 Excellent. 63 Good. 36 Fair. 8 Poor. PRIZES: 101 Excellent. 35 Good. 9 Fair. 1 Poor. DEALERS: 90 Excellent. 59 Good. 9 Fair. COMMENTS: Need programs printed. Thanks for all the hard work. Need more programs. Tried to register Friday night, got turned off by snotty remark. Not enough publicity. Some officials had sour attitude. Family ticket, "no winner", not fully explained or understood. Too much dead time on Sunday. Not enough dealers. More equipment dealers instead of parts dealers. Better pre-registration form. Coffee deal was terrible for CORA to have to pay $19.00 a gallon. Don't back away from tech programs. More ladies programs, including Sunday. No ladies prizes. Non-smoking area in drawing room? VE test Saturday instead of Friday. Set up extra chairs for drawing. Banquet too high. Perforate top of name tag. Coffee shop and restaurant closed. Governors Club too expensive. Open flea market on sunday. No programs for Novice, not in hi-tech.

A Boy Scout came home one afternoon. His father asked, "What good turn did you do today?" He answered, "Three of us helped an old lady across the street." Why three of you?" "The old lady didn't want to go."

A father told his son that there would be an eclipse of the moon that night and they should watch it. "OK, dad, what channel is it on?"

THE BIG SIGNAL
OKLAHOMA CITY AUTOPATCH ASSOCIATION, INC.

ONE MORE THING: DIG OUT A COPY OF FCC PART 97 (YOU DO HAVE A COPY OF PART 97, DON'T YOU?) DATED AFTER AFTER OCT '82. READ 97.84. THE FCC DID US A BIG FAVOR HERE. SEE IF YOU CAN FIGURE OUT WHAT IT IS. ANSWER NEXT MONTH IF I DON'T FORGET.

THIS MONTH'S WORDS OF WISDOM: IF YOU DON' LIKE WHAT YOU HEAR, HIT THE "OFF" SWITCH.

(The above two paragraphs "inadvertently" ommited last mo.)

The Sked: Our Oct 15 meeting will be the fall storm spotter training session. We're holding this meeting at the FAA Center in the main building. The FAA center is on South McArthur. Meeting time is scheduled for 7:00 pm.

Training will include briefing on weather net procedures and a spotter's training section.

Instructor for the spotter's training will be Don Devore of the National Weather Service.

ALL AREA HAMS ARE URGED TO ATTEND. Those who wish may take a simple test on weather spotting. Storm spotter's certificates and numbers will be issued to those who pass the test.

Listen for announcements of any changes on 146.82 and 147.21.

Proposed Net Calling criteria for the upcoming season are as follows:

A: The net MUST be called when a severe storm warning is issued by NWS within a 25 mile radius of NWS at Will Rogers airport while under a tornado watch.

B: At net control's discretion, the net MAY be called when a severe storm warning is issued by NWS within a 50 mile radius of NWS while under a tornado watch OR a tornado is spotted within that area while under a tornado watch.

A 25 mile radius from NWS would include the towns of Cashion, Luther, McCloud, Purcell and Chickasha. A 50 mile radius from NWS would include Stillwater, Agra, Stroud, Prague Konawa, Wynnewood, Marlow, Apache, Ft Cobb, Watonga, Hitchcock and Hennessey.

Our next weather meeting will be in February.

On behalf of the club I extend thanks to Larry Mooney, WB5PWY, of the National Weather Service, and to Fred Norman and Wayne Shattuck of KOCO-TV for the fine program at the September meeting It was a very informative program and we all enjoyed it very much.

The News: Our elected Pres., Jerry, N5GVP, stunned the club (not to mention this writer) with the announcement that he must resign his presidency. He's being transferred to the nationnal headquarters of Junior Achievement, Inc. in Hartford CT. Eventually he expects to be transferred to Colorado Springs CO.

We're all sorry to hear he's leaving and wish him the best of luck and success in his new assignment.

As a result of Jerry's resignation, and in accordance with the club's by-laws, Vice Pres. Don, NO5M, assumed the office of President. Also in accord with the by-laws Don appointed Don, WD5ISS, as the new Vice President.

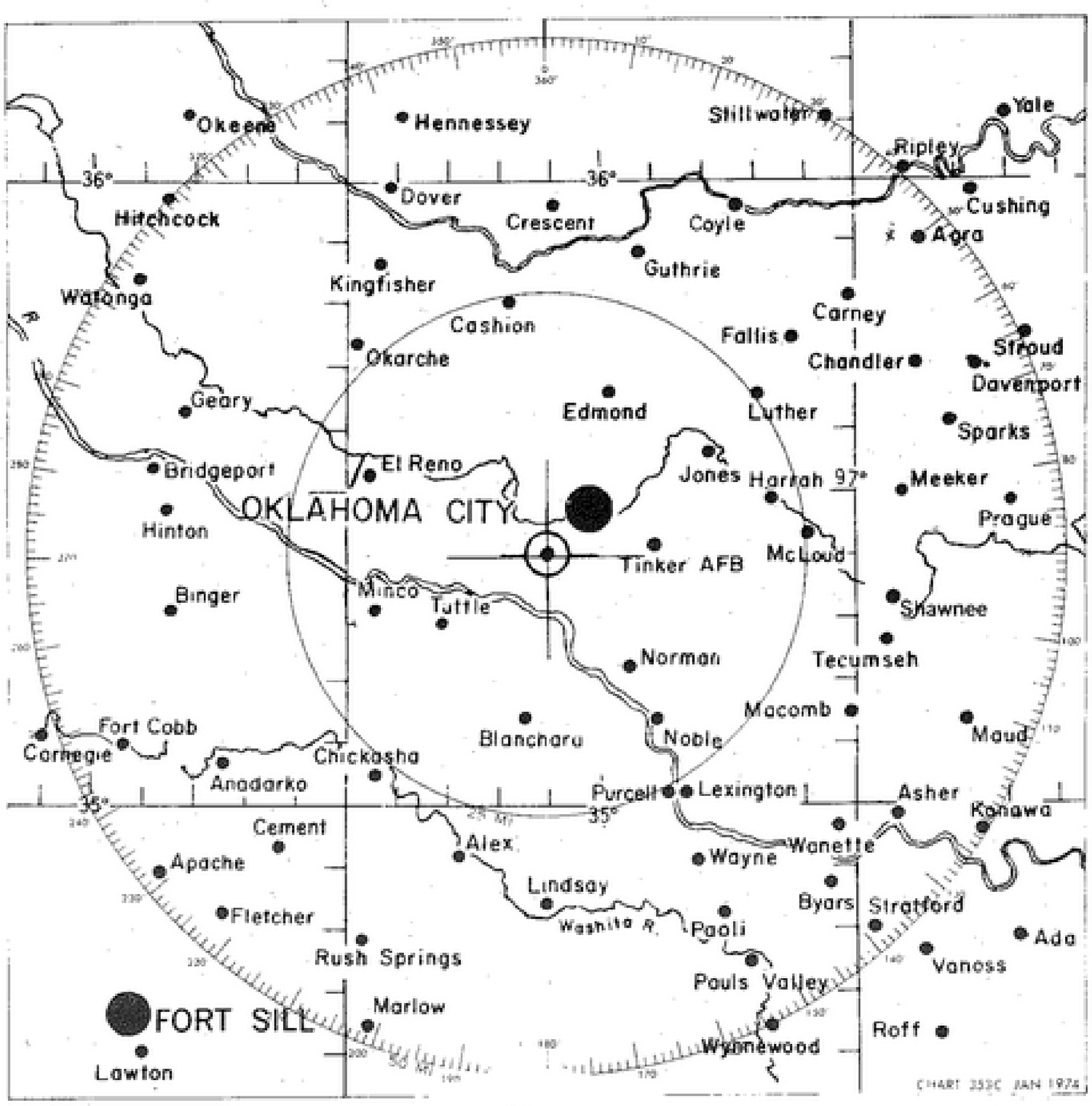
Pres. Don also appointed VP Don (confusing ain't it?) as CORA committee chairman. New VP Don had expressed an interest in continuing with his work in CORA. (Which is fine with me, the Pres.) VP Don will head our CORA delegation and appoint the other representatives. Pres. Don will be an alternate CORA rep.

VP Donexpressed some reluctance about writing tis column, so Pres. Don will continue with that pleasure.

The Executive Committee will meet each month on the Thursday preceeding the regular meeting on the third Tuesday. In October, the Execs will meet in the offices of Sec'y Charles, N5FMU, at Baptist Medical Center on Oct. 10. Those planning to attend should arrive before 6:00 meeting time so that Charles can meet us at the main entrance on the East side of the hospital (upper level parking) and guide us to the meeting room. Talk- in on 146.82.

One more thing: Packet radio is growing in popularity. It is a great addition to our wonderful hobby. However, those who have chosen to explore its complexities may find themselves unwelcome on some frequencies. The raucus blast of a packet transmission may be music to the ears of some, but to others it is an irritation that will soon lead to anger. If you must operate packet radio on a repeater, please use one that has been dedicated to digital/RTTY modes. Please use use simplex whenever possible.

Rermember the off switch,
73 de NO5M



CORA Collector & Emitter (USPS 116-150) is published monthly by CORA, INC, 1020 ARTHUR DR, MIDWEST CITY OK 73110. SECOND CLASS POSTAGE PAID AT OKLA CITY OK. SUBSCRIPTION:CORA member $3 other $6 yr
POSTMASTER: Send Form 3579 to:
CORA, 1020 ARTHUR DR, Midwest City OK 73110
EDITOR: Joe Harding, WA5IMF 737-1044
CIRCULATION: Bob Graham, WB5HSV, 677-8685

Q. R. Zedd

LUCKY NEWCOMERS MEET A5A

Back during the spring, the South Canadian Amateur Radio Society had a licensing class that was really dynamite, and as a result a number of enthusiastic newcomers to our beloved hobby appeared on the scene.

Naturally, after learning how to use the patch on the 06 machine, and which end of the table to sit at during the Tuesday morning coffee drinking, they yearned for new challenges and excitement. Some went back to the code tapes with an idea of upgrading further, so they could join the DX pileups on 20. Others petitioned W5SQJ for a a guided tour of his garage. One even managed a trip through W5OU's driveway lake, and a subsequent view of his big beam, the one in the weedpatch at the foot of the tower.

A few, however, using N5HZU as a spokesperson, sought an audience with A5A.

A5A, Q. R. Zedd, world's greatest DXer and all around wonderful guy, responded recently by working each of the newcomers on 2 meters and sending each one of his gorgeous and coveted QSL cards, the ones with the picture of him and Tondelayo Schwartz, his blond, nubile, 20-year-old QSL secretary and constant companion, on the topless beach at St. Tropez, where Zedd last summer worked 21,200 contacts, including three on the ham bands.

In true wonderful fashion, Zedd magnanimously also invited the group out to Honor Roll Ranch, just a hoot and a holler south of town, for an eyeball QSO and some lemonade or something.

Tondelayo served the lemonade, which distracted some of the younger boys (those under 85) from the conversation. Your intrepid reporter was on hand, however, with his trusty tape recorder, and in Boswellian fashion put down highlights of the talk for posterity.

Here for the record are some of the questions and answers:

QUESTION: With the sunspot cycle at a low ebb, should I go ahead and chase some DX now, or just cool it for a year or two?

ZEDD: Son, there's no use waiting. If you develop good operating habits, there's no reason why you can't work two, three hundred DX contacts this weekend.

QUESTION: Could you give us some hints on good DXing habits?

ZEDD: Sure, boy. No problem. First, you got to listen, listen, listen. You don't work no DX unless you listen a lot. Second, you got to keep the rf in the air. You hear one you want, get right in there and scream and holler, and if you work him, be sure you keep right on calling the next day and the day after that, to get in the log several times.

Third, you need a good tower and beam. Nothing elaborate. Four or five elements at a couple hundred feet ought to be a good starter arrangement.

Fourth, have a good outboard receiver, so you can listen split with your transceiver, and have some memory channels in there, and wheel around with your other receiver as well. Even if you never use some of the equipment you have in the shack, it's real nice to be able to talk about it when you make the contact. The other person is almost always impressed.

Fifth, run enough power to make the contact, and no more. On 20 meters, that's maybe a kilowatt.

Sixth, be sure you get a valid QSL for every DX contact. It don't count unless you get that card to send to Don Search or whoever they got handling that stuff up in Newington these days. If you need to send IRC's, send IRC's. If you need to send a green stamp, send a green stamp. You new fellers need more leverage than us big dogs do, but you can get that valued card if you're just persistent enough.

Seventh, see if you can't get two or three other fellers to work DX with you. That way, even if you sleep once in a while, there's a chance one of your pals will be listening, and call you and let you know somebody is on, right after he's worked the guy and heard him go QRT. Also, if you're in a pileup together, sometimes you can be listening to your pal on one of your extra receivers, and the minute the DX comes back to him, you can jump in there on top of your friend and not only obliterate his chances of making the contact, but make one of your own. Which builds competition and friendship.

Eighth, never tell anybody at the Tuesday or Saturday coffee drinking about anything that's still on; no sense making a rare one easier to catch. But once you hear somebody bemoaning the fact they missed Clipperton, or whatever, and you're sure the expedition is safely QRT, why, you just say you worked them phone and CW on four or five bands. Include a claimed contact on 75, even if you didn't make one there. It's good for your image.

Ninth -- well, there's no sense telling you boys everything all at once. Come back another day and I'll talk to you about tail-ending and good stuff like that.

QUESTION: Sir --

ZEDD: Boy, I like you. You can call me Mr. Zedd.

QUESTION: Mr. Zedd, sir, how can I get my code speed up to a reasonable level?

ZEDD: By "reasonable level," I figger you mean 50 words per minute or so. There's nothing to it. I've known old boys that could send at 50 after just a few weeks in the hobby. All you got to do is listen to your own self sending, and learn to copy as fast as you send. This is known as the "The ear is faster than the hand" theory of learning CW.

QUESTION: Mr. Zedd, what was the most thrilling DX contact you ever made?

ZEDD: I would have to say it was when I was a very small child, and my momma, Constance Wilhemina Zedd, of Mena, Arkansas, took me with her to Africa on my first DXpedition. Well, I was very young at the time, and one of the first contacts I made was Winston Churchill.

QUESTION: You mean the famous Winston Churchill?

ZEDD: Yep. Winnie, as we used to call him, had an eye for the future. He happened to hear I was on, and knowing how wonderful I was going to be, went right down and got himself licensed. I was his first contact.

QUESTION: But I never heard of Mr. Churchill being on the airwaves.

ZEDD: Of course not, son. After he worked me, he sold his rig and never worked anybody again, and finally let his license expire a few years later, during his Blood, Sweat and Tears period. I mean, why would anybody want to work anyone else after they're worked me?

The interview concluded on this note. The youngsters left with tears of gratitude in their eyes. Those of us who could remember our own youth, and imagine their overwhelming joy, smiled.

--KU5B

To make a long story short, there's nothing like the boss walking in.

If some guys ate their heart out, they would break a tooth.

GREAT PLAINS A.R.C.

W5MGH Repeater 146. 13/73

With the starting of school, it seems that the temperature and club attendance automatically rises. The September 3rd GPARC meeting was called to order with 18 members and 5 guests present. We still had a few enjoying the last flings of summer such as the President, Vice President, Treasurer and Activities Chairman. As a matter of fact, two board members and the Secretary were the only officials present. Bart, KE5RB, and I quickly voted for Rod, WB5OVT (as we caught him busy talking and not listening) to be acting President. We thought we had fixed him this time, but as it turned out he had already been called upon to do this job.

Bart and I had worried and plotted needlessly. Have you ever noticed that spouses never tell you anything? It can safely be assumed that poker faced Rod had got his chuckles again.

Harry, KC5OU, is asking that anyone interested in upgrading in this area contact him as he is trying to determine interest and possible testing dates. We are compiling a list of those interested in Novice classes as well. If you know of anyone who would like to become a han, let us know. Class dates will be set in the near future.

Myron, N5HRA and Harry KC5OU, as the responsible parties, announced to the club that a new 10 meter repeater had been signed on in this area on August 14. Harry has already made numerous contacts on this machine. Several club members expressed interest in the repeater.

Windle, WA5PLW, noted that the 147.72/12 repeater had been relocated. He mentioned that the new location was several miles west of the old site and that the coverage pattern had changed somewhat. A new machine is planned for the Mooreland area in the near future which may possibly be linked with the 72/12 repeater thereby increasing coverage dramatically.

CLUB PROFILE

QUESTION: Who runs 10 kilometer foot races, coaches and plays softball, climbs tall towers and is a super active han?

ANSWER: The President of the Great Plains Amateur Radio Club, Gerry Ford, NC5C. As strange as it may sound Gerry does all of these things and more.

Gerry, wife Sharon, and family reside in Woodward OK where Gerry has been employed by the Northwest Electrical Cooperative for 26 years. He has been an active participant in ham radio since 1981 and went from Novice to Extra Class license in two short years. Gerry's success in amateur radio seems to have made him all the more anxious to help others to obtain their radio license. He has helped with numerous novice as well as upgrade classes and has served as Elmer to several of his students. Gerry is also a Volunteer Examiner and has further served our area in that capacity.

He has been very active in the club, previously serving as Treasurer for two years and most recently as President. Gerry has helped to keep our local repeaters, as well as several of us, on the air by using his climbing skills. Those of us who find ourselves strictly "Ground Huggers", really appreciate someone who is able to climb and then not have to pry their fingers loose to be able to accomplish something.

In addition, Gerry somehow finds time to coach softball. His latest endeavor finds him and Sharon playing together on a softball team. Gerry also runs and has this summer competed in a couple of 10 kilometer races.

We of the Great Plains Amateur Radio Club are very proud of Gerry and everything he has accomplished in such a short time. The club is indeed fortunate to have him as a member and also as President.

FINAL STATEMENT

John, N5AVV, after being picked up last month suggested that a new word for my vocabulary this month should be "Hunky Dory". Okay John it has been so documented, possibly mispelled and that's the way it is out here in the GPARC area.

73

Lois, KA5PYA

-FILE ZERO-

I went into travel status again for a while the latter part of August and early September. After some business in Denver, Glo and I wound up visiting the high country on the West slope of the Rockys. For Glo, it was a first time visit. For me, a journy back in time to my childhood.

I am a native of Colorado (East slope), and have relatives strung all up and down the East slope of the Rockys. As I recall, when I was a kid, camping out in the mountains with my folks, there were virtually no paved roads, and places where one could set up camp out of sight and earshot of other people were abundant. Glo and I spent some time back in the fifties on the East slope, and I was saddened to discover even then, that "civilization" had come to the mountains. For all intents and purposes, we never really returned to the state of my birth after that, so we were pleasantly surprised to discover that the West slope still had some places where one could "get away" from the intrusive presence of our fellow human animals.

We Spent some time on Grand Mesa (including the Lands End Road, where they run a CRAZY road race on Labor Day), and some time with one of Glo's sisters on Fruitland Mesa, and some time around the Gunnison area, and some time down on the Colorado/New Mexico border in the San Juans. Wherever we went, we discovered little out of the way places where we could camp which reminded me of my childhood. However, the camping wasn't exactly the same. There is a little difference between camping out of a '35 LaFayette and a two wheel trailer with a tent and chuck box, and a modern Airstream trailer pulled by a diesel pickup truck.

Coloradans often tend to be a bit reclusive by nature. I learned on this trip that wearing an out of state tag (especially from Oklahoma or Texas) can sometimes draw some rude treatment at the hands of the "natives". I'm sure those folks sometimes get tired of being overrun by tourists. Glo and I saw a bumber sticker on a pickup truck out there that kind of summed up the frustration. It read: "Welcome to Colorado - Now please go home!".

We have a short letter from President Elect Leland Smith, W5KL. The letter was received by Howard Baker, W5AS, and is as follows:

"You and your fellow QCWA members there are to be highly commended for the outstanding job you did in serving as tellers in our recent QCWA election.

It must have been a tedious and time consuming job.

As your new QCWA President, I will do my best to guide our Board as we contemplate a number of issues.

Please thank all of your co-workers for me. I hope to get over to visit our Chapter there again next year."

(signed) Leland.

(As most of you know, Leland is a card-carrying member of this Chapter .-ed)

- - - - - - - - - -

We have a new member in George Clark, W5JKK. George's XYL, Mae has a birthday this month and is included in the next item. Welcome George, glad to see ya.

- - - - - - - - - -

BIRTHDAYS for October:

1	Dick Hawkins		W5FW
2	E. Ray Long		W5TY
18	R,E, (Bob) Ard		W5JME
18	R.W. (Bob) Edlund		W5DS
20	Mae Clark	XYL	W5JKK
22	Edna Scheafer	XYL	W5WL
25	Carl Harp		W5NVJ
26	Abe Cornelson		W5LHU
27	Sam Stephens		W5HZD

Happy Birthday to Y'all..

- - - - - - - - - -

The Chapter 63 Traffic Report for the month of August is as follows:

Sessions	4
Check-ins	134
Traffic	18

- - - - - - - - - -

Don't forget the next quarterly meeting will be at the Airport Sheraton, on October 20, 1985. Try to be there... Some important issues will be placed before the membership for discussion and action.

That's all there is from here this month. I hope Chairman Fred has some good stuff for filler.

73 from Rob, AA0O

GREAT SALT PLAINS HAMFEST: Great place for a super Get-Together (Sunday, Sep. 8th). Margaret and myself had never motored to that part of Oklahoma,ie; Great Salt Plains State Park. Gene Nailon, K5D1E, please note that we destinated at 10:30 AM. The park is located 8 miles north of Jet on SH 38. We traveled via IH 35 to Tonkawa and tence west to Jet, but with a breakfast stop @ Perry. The hamfest was held at the Community Center and it was air-conditioned. From the sign-in roster noted an attendance of ninety (90), but understand some later arrivals may have totaled 100. We left early (3 PM) to take in some of the close-by sights, ie the Dam and Wildlife Refuge. Chapt. 63 members attending were: Hortense & Howard Baker, W5AS, OKC; Lynn (Scotty) Scott, N5FMO, Kingfisher; Jo Ann and Norm Wilson, W5PLO, Midwest City. Scotty, a real pleasure to meet you via eyeball QSO as we had only met on Sunday Net. The Wheatstraw ARC held their monthly meeting and according to Johnny Fish, K5GBN, 23 members were present. The covered dish affair (Sunday Dinner) was a great thought. The program also excellent Perry Jones, W5MGZ, Weatherford gave us some expert feats of magic; I know the youngsters present were more than impressed and the OM's & YL's as well. Our thanks to the Great Salt Plains ARC for giving us a real old-fashioned hamfest. In short a great day to visit with "Friends of Old" (not necessarily "Old Friends"). Hope you will repeat same next year.

73 Fred, W5NL

Since the afore described hamfest have thought and discussed with others; that a future quarterly meeting might try a "Covered Dish" type affair. In my opinion, a community type building, such as we have at some OKC parks, and with food warming facilities would be appropriate for a future spring, summer or even a fall meeting?? Such a meeting would serve to fulfill "Change of Pace that many feel we need from time to time. Any ideas and positive thoughts will be well received!!

73 Fred, W5NL

HARMONICS/FEEDBACK/ETC: The Razorback Chapter, No. 90 will have its fall meeting at the new Ramada Inn, Eureka Springs on 26 October. I understand the program will be "Packet Radio", but do not know the speaker. Some of us who are Razorback Chapter members will be receiving a flyer shortly and can be contacted for detailed info. I do know that this date conflicts with the TEXOMA HAMARAMA, which is 25,26,27 October.

FOREST PARK, Ok(NL)Sep.22,'85: Even tho my computer and word processor and printer is back in service, shall continue with ye-olde typewriter; have even invested in a new cartridge (film type) just for fun. Thought it would produce darker type, but instead it produces sharper letters. **Here is the type from the Black Nylon cartridge.** Please note my oft used Date-Line that I adopted sometime ago as a kind of trade-mark. Have often wondered why newspapers do not print an identifying date for their articles. Called a clipping service for some sort of answer. Found that they do add dates to clippings for their customers & also that the Wire Services provide dates that the newspaper reader never sees. You may wonder-why my curiosity?? Merely, that I frequently clip articles and usually pen some sort of date for later recall. Well, enuf of this!! Our chapter 63s fall meeting is still scheduled as announced last month.

FALL MEETING
(Second Notice)

Central Oklahoma Chapter 63's Fall Quarterly Meeting will take place at the Sheraton Inn, Will Rogers World Airport, on Sunday October 20th,1985; noon or thereabouts. Y'all come-members, guests, well wishers, especially the ladies. The Sheraton Inn is just a bit N&E of the Terminal building. Please!! re-read the Sep. C&E for more complete detail.

The time is approximately 12 noon (or before) for leisurly dining in main dining room. Order from menu and entirely you choice. Thence to adjacent meeting room on or before 13:00 hours for start of meeting. This will give ample time for circulating & visiting-rest rooms and the like. We are looking forward to an excellent meeting and just maybe, this change of pace and format will be most satisfactory.

We shall endeavor to keep the business portion very short in order to give our featured speaker plenty of time. However,one item involving Chapter 63's financial status is very important; hence, the decision to provide a hand-out during the dinner.
Our "Featured Speaker" will be Kenneth (Sugar) Smith, Oklahoma City Police Department, Detective Bureau. Among many topics, Mr Smith will cover "Crime Stoppers", "Neighborhood Watch" which same will be of interest to all. We anticipate a spirited meeting and hopefully that Mr. Smith will entertain forum type questions from the floor. Sincere thanks to Larry Watson, W5EIU for enticing Mr. Smith to our meeting.

!!Plan to ATTEND-bring a FRIEND!

VOLUNTEER EXAMINER PROGRAM

V.E. TEST SESSIONS ARE HELD THE 4TH MONDAY OF EACH MONTH AT 6:00 P.M. AT THE OKLAHOMA CITY RED CROSS AT 10TH AND HUDSON.

These test sessions are conducted under the WSYI Program and are sponsored by C.O.R.A. The August session consisted of 16 applicants and we ended up with 10 upgrades and 3 individuals leaving with code certificates. CONGRATULATIONS to all who passed and we encourage those who didn't pass to try again.

This group of VE's has been operating monthly since February and we are proud to have added many new Hams to the radio community.

Test sessions are for all license grades from Novice to Extra Class. Walk-ins are accepted. Please bring a form 610 along, however if you do not have one, one will be provided. A four dollar fee will be charged, and this fee covers as many elements as you successfully continue to pass (you lose nothing by aiming for the highest license and it gives you the opportunity to see what you may be in for at future tests). Half of this fee goes to WSYI for program administration and the other 2 dollars stays here to help defray local expenses (copies, postage, files, etc.) Also, please bring your drivers license for positive identification (in the case of minors, any suitable identification will do.)

By the time this goes to press the September session will be history as the C & E cutoff happens to also be the 4th Monday of each month. HOPE TO SEE YOU AT THE NEXT TEST SESSION.

RON -- ND5S

— — - - — — - —

New Members; We welcome George Clark, W5JKK as our latest member, unless,of course, I may have overlooked someone. Apology if I have. George, was very glad to finally meet you at HAM HOLIDAY-particularly since we have met so many times on two (2)meters and elsewhere. Sometime we need to get together and finalize your Washer Game as something for a future contest at say a Quarterly Meeting.

Just so everyone will know what we are doing I am listing below the number of copies of the C&E that we mail each month.
The first list is for the September mailing. The second list is for the October issue (this one).

SEPTEMBER

1	AERONAUTICAL	123
2	V H F CLUB	34
3	MORI, INC.	240
4	AUTOPATCH CLUB	127
5	O U CLUB	35
6	ALTUS CLUB	25
7	BICENTENNIAL(76er)	14
8	SUBSCRIBER & EXCH	59
9	WHEATSTRAW CLUB	35
10	C O C O	138
11	EDMOND SOCIETY	30
12	QUARTER CENTURY	81
13	KAY COUNTY	29
14	CIMMARON CLUB	11
15	SOUTH CANADIAN	57
16	EDMOND CLUB	51
17	CP/M USERS	60
18	GREAT PLAINS CLUB	29
19	OKLA INDEPENDENT	12
20	ARDMORE ARC	26
	TOTAL	1250

OCTOBER

1	AERONAUTICAL	130
2	V H F CLUB	34
3	MORI, Inc.	242
4	AUTOPATCH CLUB	131
5	O U CLUB	34
6	ALTUS CLUB	26
7	BICENTENNIAL	14
8	SUBSCRIBER & EXCH	61
9	WHEATSTRAW CLUB	35
10	C O C O	144
11	EDMOND SOCIETY	34
12	QUARTER CENTURY	81
13	KAY COUNTY ARC	28
14	CIMMARON ARC	11
15	SOUTH CANADIAN	64
16	EDMOND CLUB	53
17	CP/M USERS	60
18	GREAT PLAINS CLUB	29
19	OKLA INDEPENDENT	11
20	ARDMORE CLUB	26

Kay said, "Getting a word in edgeways on the ham bands these days is like threading a sewing machine with the motor running."

MAYBE HE SHOULD CALL COLLECT

Norm White, WA6JDE, has two telephone lines into his house in North Hollywood on two different exchanges. Whenever he wanted to talk to YF Penny in another part of the house, he'd simply call her on the other number, and she would pick up the phone where she happened to be. However, when the telephone company split up the 213 Area Code in the Los Angeles area into two two different codes, one of Norm's numbers was transferred to the new area code. If he has to call Penny now, it's a long distance call from the front to the back of the house.
Maritime Mobile ARC

Club
NEWS
VILOY

Minutes of September Meeting

Meeting was called to order by President Jerry, KD5IS, at 10:00 A.M. with 8 members present. Ellard, W5KE, gave the Treasurer's report.

Ellard and Joe, WA5ZNF, gave the CORA report. There was some discussion regarding the possible need to raise dues to cover increased cost of printing and mailing the C&E. It was decided at this time that it would not be necessary. The Treasurer can advise the club in plenty of time to raise the dues to avoid financial disaster.

The surplus Ham-M rotor was sold to Tim, KA5NNT, for $50.

The Texoma Hamarama was announced to start the evening of Oct. 25 and continue through the weekend.

The group agreed to plan a weiner roast on a weekend early in November. It will probably be in the Will Rogers park shelter where it was last year.

Steve, W5VCJ, discussed some history on Oklahoma's telephone interconnection laws as they relate to amateur radio operators. (For you newcomers, for years Oklahoma law has protected amateurs from being prohibited to connect phone patches to the telephone network.)

Steve brought the subject up because there are Corporation Commission hearings going on right now that could cause phone charges to change to a charge by the call basis. This would cause a very difficult situation for amateur radio repeaters with autopatches. He encouraged amateurs to make their feelings known to the Commissioners and try and get an amateur radio exclusion from such a tarriff to protect our ability to provide emergency and public service communications.

Meeting ajourned at 10:59 A.M.
Joe, K5JB, Sec'y

Some Battery Notes

Much has been written in previous issues on charging and messing with Ni-Cd batteries and there has been some written about the Globe-Centralab GEL cells, but there hasn't been much written about the sealed lead acid batteries found in the cylindrical form made by GE and Gates. The GE cells appear to be equivalent to the Gates "X" cell which is 1.74 in. Dia. and 2.83 in. tall, not including the spade lugs on the top. They are rated at 5 Ampere-hour at a 10 Hour discharge rate. Each cell has a nominal 2 Volts potential. They have a very low self discharge rate and have the ability of being charged at a high rate, making them really useful for an absent minded but impetulent amateur radio operator who is getting ready for field day the night before.

I recently had an opportunity to play with some General Electric sealed lead acid cells. A 6 Volt battery (consisting of three cells) that had been permitted to lie exhausted for an extended period of time, was going toward the dumpster when I intercepted it for experimentation. When attempts were made to charge it in its intended circuit, the cells appeared to be open circuits; the result, deep six. Further result, I got 'em to play with.

Recalling that lead acid batterys will sulphate when left in a discharged state for very long, and also recalling that the insoluble lead sulphate can be put back into a soluble form with an extended trickle charge, I started an experiment to see if these cells could be brought back to life enough to be useful.

I earlier had some limited success with Globe Centralab GEL Cells by applying a small charging current for an extended period. Some cells recovered and some didn't. It only took one bad cell in a 12 Volt battery to make the battery a bit less than ideal. One battery that has kicked around in N5MS and my junk boxes is a 4.5 A-H battery with a strap soldered across one recalcitrent cell. There is only a limited number of uses one can put a 10 Volt battery to but I did find a few.

The recently acquired GE battery was different though. It was an open construction with external straps between the cells. There was some possibility that bad cells could be excised and a reasonably good battery put to use. This wasn't practical with the three cell battery but it does open up the possibility of recombining surplus cells to make a good battery.

The first thing I did to resurrect the battery was connect it to a constant current charger made from an old flashlight battery recharger, the kind with the hinged cover and arrangement for charging up to 4 D size flashlight cells. It has a diode and a light bulb that looks like about 7 Watts, 120 Volts, for a ballast resistor. With clip leads, I defeated all the safety features and wired the charger to the 6 Volt battery. With the voltage available (170 V peak) the battery showed a very high impedance, causing only a couple of milliamps to flow.

Good enough, thought I. Let's just watch it. When shorted, the charger circuit only developed about 46 mA. I reasoned that if the cells began to draw a significant amount of current the maximum power that would have to be dissipated would be less than 2 1/2 Watts so it would be safe to leave the thing unattended. At first I checked the current draw every few hours. After a couple of days it looked like it was going to be a lost cause but I had nothing to lose by leaving it connected.

My checks grew less frequent until I was only measuring current every few days. It takes a certain minimum amount of charge current to get any thing to happen to a battery. I guess it has something to with energy band gap, or some kind of atomic physics thing.

The results were slow but sure in coming. Gradually, the charge current began to rise. After about 2 weeks, the battery was drawing about 10 or 20 mA and the voltage per cell had dropped to about 4-5 volts per cell. It looked rather dismal but I left them on charge. About the third week things began to happen. Voltage on each cell dropped to around 2 Volts and a full 45 mA was being developed through them. I switched chargers to a voltage and current regulated one that would be capable of putting a little more control into the experiment (and kick into the battery).

When first presented with 500 mA, the battery didn't look too good. Voltage shot up to about 9 Volts. However, in a few hours interesting things happened. Voltage across the three cells dropped to about six volts and started slowly climbing as though it was taking a normal charge. I interrupted the charge to see how it would do on a discharge. With an automotive tail light bulb I was able to draw 350 mA with very little voltage sag. Good show! They were coming to life. At this point I got out some graph paper and started charging them seriously and comparing the results with the curves in the Gates battery book. (Gates has cells that appear identical to the GE cells and, right or wrong, I assume they are identical.)

Near the end of this experiment with the 6 Volt battery, a second batch of cells suddenly became available for experimentation. An uninterruptable power supply consisting of 36 cells suffered the same extended discharge period as the earlier six Volt battery and didn't appear to be coming back to life. The internal charger in the UPS just wasn't showing any life. A coworker and I hooked up an old Hewlett Packard bruiser of a power supply to it and started the rejuvenation process. We initially set the current limit at 40 mA with a dummy load and set the voltage at full tilt, approximately 130 Volts. Initially the battery drew very little current. My coworker grew a little impatent with the thing and split the battery in two to charge one half while he was messing with the other half.

While he wasn't looking a little gremlin got into the experimant and, for some reason when the cells went to low impedance, the power supply got to work with great vigor. One of the cells exploded and several of the others bulged pretty bad. I brought

the whole mess home and hosed it down in the driveway to get rid of the acid. It surprised me that there was very little free acid. The insulator material covering everything was given the "taste test" and only a trace of acid could be detected. It may have been because of the exploded cell's deep discharge state.

Anyway, the ruptured cell was saved in a baggie for show and tell, seven bulged ones were given the deep six and experiments were started on the remaining 10. Because of the previous charging activities, nine of the ten appeared to be on the way to recovery. One still showed about 5 Volts when presented with 500 mA charge.

The good cells were given a charge of 500 mA and the voltage recorded on graph paper every quarter to half hour. The voltage rise compared closely to the curves given in the Gates battery book. When the cells were about 90 percent charged they made a rapid voltage rise and then dropped off as the heating effects lowered the terminal voltage. I found the value of 2.54 Volts per cell to be quite common while still under charge. That number is easy for me to remember because it is the metric to english conversion constant.

The Gates book advises that if constant current is used, the cells should be charged until the cell voltage reaches 2.57 and drop the charge to C/100 or less. For a 5 A-H cell, this would be 50 mA.

The first discharge tests were run without knowlege of how much the capacity should be derated for higher discharge rates. The six volt battery was discharged with an automobile headlight which drew 2.4 Amps. It ran down in about an hour, which is less than the Gates book's curves showed it should have been (about 1 1/2 hours). Cells from the second batch responded better though. They appeared to recover to their specification capacity.

I guess what this all means is that you might encounter some of these little critters on the surplus market and it might be a good gamble to get them even if they appear to be duds. A little patience with charging and nursing stands an excellent chance of bringing the things back to life for that field day operation. Joe, K5JB

Antenna Tuning - The "Hand Effect"

As I mentioned in the Rubber Ducky article last month, there is a rather simple way to determing whether an antenna is too long or too short. This method is particularlly useful when trying to determine whether to cut off or add to a mobile antenna. It sure doesn't help to use this method on the antenna after it is too short but positive indications happen when that is the case.

An antenna acts like a capacitor in parallel with a series combination of an inductor and a resistor. When it is too short, it is capacitive. When it is too long it is inductive. Adding to the capacitive part of the circuit with the hand (or bending the antenna down toward the body of the car) lowers the capacitive reactance of the circuit. If the capacitive reactance is higher than the inductive reactance, as it is when the antenna is too short, the added capacitance brings the circuit closer to resonance, lowering the SWR reading. If the antenna is too long, capacitive reactance is lower than the inductive reactance and adding parallel capacitence lowers it further, worsening the condition and throwing the system further off resonance.

In summary, increased shunt capacitence lowers the SWR if the antenna is too short and raises the SWR if the antenna is too long. To test an HF mobile whip, tie a fishing line to the antenna and bend it toward the car so you can stand clear and read the SWR meter. Joe, K5JB

Packet Racket

There are some new packeteros on the air with Kantronics TNCs now. KC5GN, W5HLZ, and KB5NV have the little buggers and they seem to be doing well. There are a bunch of us watching for little brown trucks to drive up carrying new TNC-2s from TAPR. As I write this, order number 500 should have been shipped. Many of us have numbers in the 400s.

Following are packet station calls heard, heard about, and heard they were building or buying TNCs. It was compiled by Bob, AF5Z:

WB5AOH	Bob	Fort Gibson
KA5BMS	Larry	Sulphur
WA5BQX	Bob	Edmond
KB5BS	Bill	NW39/Meridian
N5BUJ	Bob	Edmond
WA5CJG	Bob	Mustang
WA6CMJ	Bill	Del City
N5DEW	Ron	Edmond
N5DKQ	Bill	Wichita, Ks
WA0DNV		
WD5DYI	Mark	Warr Acres
N0FDL	Don	Hutchinson, Ks
WA5FLT	Joe	Calumet
KD5FX	Dave	Ponca City
WD5GLD	Richard	Kingfisher
KC5GN	Bill	Edmond
WB5HAK	Don	Duncan
W85HLR	Doug	Sallisaw
W5HLZ	Lee	Midwest City
K5JB	Joe	Midwest City
K5KGG		Sherman, Tx
KOLOT	Leo	Edmond
KC5LW		Dallas/Ft Worth
WB5MPU	Larry	Lake Keystone
N5MS	Mike	Norman
WB0MSU		
NF0N		
KA0NCR		
KB5NV	Dave	
KC0OJ		
KB0QJ	Jay	Bethany
W5RFX	Russ	Ardmore
KN0RKY	Larry	Central City
WB5RRR	Sandy	Enid
KD5SZ	Bud	Anadarko
K3TGY	Bill	Moore
KA0TTY	Harry	Wichita, Ks
WB5UIY	Stan	Oklahoma City
WA5VMS	Joe	Muskogee
KB5XN	Jim	Tuttle
AF5Z	Bob	Midwest City

The following news about a GLB item was taken from Vol. 2, Issue 3 of Gateway, the ARRL's packet radio newsletter:

GLB Electronics has released its PK-1L TNC. The PK-1L is an enhanced, CMOS version of the successful PK-1 TNC.

Running with a CMOS Z80A microprocessor, the PK-1L draws only around 25 ma, and it can even be run on a 9-v transistor battery. GLB engineer Ed Jackson, WB2OIF, estimates that the PK-1L would run for about 20 hours from a 9-v alkaline battery. This TNC should be great for solar-powered operation. As well as supporting all the features of the PK-1, the PK-1L will have an on-board watchdog timer, battery-backed-up RAM to store operating parameters in case of power failure, standard DB-25 connectors for radio and terminal I/O, a bit on the radio connector that indicates whether the TNC is connected, and two spare I/O bits available for later expansion. The TNC comes assembled and tested, in a 4.5 X 6 X 1-inch, all-metal cabinet. It should make a great portable or remote station. (From WB2OIF)

On October 13 in Oklahoma City, and surrounding area there will be an ARES drill and Paul, N5PT, asked me if there is any possibility of using packet radio in some of the traffic handling. I said it would depend on the number of people who were willing to take their equipment to the sites being used for traffic terminals.

One of the things that came out of the California fires, where packet radio was used for traffic handling, was the need for at least two people at each terminal (communication terminal, not CRT). The bottleneck was message typing while the operator's attention was needed to maintain the communications link. This is no different than voice networks. It is extremely difficult for one person to operate the radio and deal with the customer at the same time. It is kind of like necking and driving a car, neither activity gets the attention it deserves.

Often the solution requires the operator take more than a passive role in the activity requiring the communications, and this is OK but it leaves a lot to chance because of the variable experience levels of volunteers available at a given moment.

In the California fire operation, it was a full time job keeping the links open. In the post operation critiques it was highly recommended that if computers were being used as terminals for packet radio, a second computer of the same type be available so messages could be entered and edited before

they are given to the packet radio operator, preferably on a floppy disk. Another piece of equipment that is needed for serious traffic handling is a printer. One doesn't just carry the CRT into the other room so the Fire Chief can read his message!

The bottom line is that for effective traffic handling, the ideal communications post would have two experienced operators, two computers, a printer, a TNC, a radio and an antenna. The radio and antenna have to be suitable for the operating condition, in terms of power and performance. This is no small order. Undoubtedly, as we mature in the mode we will be able to round up that kind of hardware, experience, and desire to do the traffic thing but maybe not yet. Bob and I plan on giving it a good shot though. We are talking it up on the air but if anyone is interested in participating in that part of the exercise get in touch with either me or Bob, AF5Z, and we will see what we can do. Joe, K5JB

902-928 MHz Band Opening

From ARRL Letter 9-9-85:

Remember -- we've got it as of 0001 UTC September 28, 1985. It's available to all radio amateurs under FCC jurisdiction in ITU Region 2 holding Technician class licenses and above. Amateur use of the band must proceed on a secondary, non-interference basis; we must not interfere with and must accept interference from the Fixed and Radiolocation Services, and industrial, medical and scientific (ISM) devices there.

An in-depth report on the how, what and why of the 902-928 MHz band appears in October QST. But now hear this, especially amateurs in Colorado and Wyoming: "In the 902-928 MHz band, amateur radio stations shall not operate within the States of Colorado and Wyoming, bounded by the areas of latitude 39 degrees to 42 degrees North, and longitude 103 degrees West to 108 degrees West.

The band is allocated on a secondary basis to the amateur service subject to not causing harmful interference to the operations of Government stations authorized in this band or to Automatic Vehicle Monitoring (AVM) systems. Stations in the amateur service must tolerate any interference from the operations of industrial, scientific and medical (ISM) devices, AVM systems and the operations of Government stations authorized in this band" -- this the text of added Limitation 14 to Section 97.7 of the FCC Rules, in addition to the restrictions on operation and output power imposed in and around the White Sands Missile Range for this band (see the Letter, August 15, 1985); otherwise, the usual restriction of 1500 watts PEP output power applies.

Emissions authorized are NO/N, A1A, A2A, A2B, A3E, A3C, A3F, F1B, F2B, F3E, G3E, F3C, F3F, F8E and PO/N. The interim 902-928 MHz band plan appears in the FCC Rule Book, the 1985-86 Repeater Directory and in the August 29 Letter. One more thing. Among the ISM devices authorized for use in the band (at 915 MHz) are microwave ovens. This is a broad-as-a-barn-door hint that caution is needed if you're going to be getting close to radiated 902-928 MHz energy in your Amateur Radio pursuits. So -- be careful out there.

(Relayed by Joe, K5JB)

FLASH! Hams in space again!

The following is from the Sept 9, 1985 ARRL Letter:

In October, the Federal Republic of Germany will have the first scientific manned space mission of her own: the D1 mission.

German science astronauts Dr. Ernst Messerschmid, DG2KM, and Dr. Reinhard Furrer, DD6CF, will carry out experiments on board the Spacelab, carried into orbit by NASA's Space Shuttle Columbia. They'll also operate an Amateur Radio station aboard Columbia -- DPO/SL. During this Spacelab mission, scheduled to last seven days, startup of Amateur Radio activity is planned for mission day 3, continuing until about 12 hours before touchdown -- this means a stretch of as many as five days during which DG2KM and DD6CF may activate DPO/SL during their free time.

As a rough estimation, six shuttle passes, each offering a maximum of 12 minutes of possible contact time, may be expected per day. DPO/SL's ham-in-space activity will be focused on Europe -- but astronaut-amateurs Messerschmid and Furrer intend to to attempt contacts with other parts of the world, as far as mission parameters and spacecraft flight attitude (among other factors) may permit. During DPO/SL's operating stint in the sky, calls of responding ground stations will be recorded on tape for post- mission evaluation -- to be confirmed by the Deutscher Amateur Radio Club (DARC) with special QSL cards.

When DD6CF and DG2KM are unable to undertake voice communication via DPO/SL, their rig may be operated as a recording beacon: an automatic CQ would be transmitted, followed by a one- minute listening period during which responses would be recorded on tape, with this cycle automatically repeated. Callsigns identified on this tape will also be confirmed by DARC. The DPO/SL transceiver may also be operated as a normal beacon: continuous transmission with callsign inserted, but without receiving periods. This mode may be used for VHF propagation measurements.

The DPO/SL transceiver is a special development, designed and constructed by BOSCH/Germany according to the D1 Mission specifications, using components from BOSCH's mobile transceiver program. It contains a built-in microcassette recorder. RF power output of the rig is 10 watts; this is reduced to one watt for automatic (beacon) operation. Frequency coverage is 144 to 146 MHz, using F3E (FM voice) and F2A (FM Morse) emissions. DPO/SL is equipped to receive in the band 430 to 440 MHz. Receiver sensitivity for a 12dB S+N/N ratio is 0.45 microvolts. Selection of operating frequencies is made from ROM, programmed for 4 VHF transmitting frequencies and 6 UHF receiving frequencies on 25 kHz channel spacing. Frequencies are:

Channel	Downlink	Uplink
0	145.450 MHz	437.125 MHz
1	145.475 MHz	437.175 MHz
2	145.550 MHz	437.225 MHz
3	145.575 MHz	437.275 MHz
4	---	437.325 MHz
5	---	437.375 MHz

Ground stations transmit on the uplink since DPO/SL listens there; ground stations listen on the downlink, since DPO/SL transmits there. Uplink and downlink channels may be "mixed and matched" -- for example, downlink Ch 2 (145.550 MHz) might be paired with uplink Ch 1 (437.175 MHz), the resultant pair being termed "2/1."

It's recommended that circularly polarized antennas, adjustable in azimuth and elevation, be used. Maximum tracking velocity to follow Columbia's orbit: approximately 1.5 degrees per second. At least for receiving, manual steering of the antennas is sufficient, since only low-gain antennas (3dB gain) are required to receive signals from DPO/SL. An effective radiated power (EIRP) of 20dBW is recommended for contacts with Spacelab. This means, for instance, that a 70- cm transmitter with a power output of 10 watts, combined with an antenna providing 10dB gain, would be a good choice.

Astronauts Messerschmid and Furrer may use any of the following operating modes: 1) Ham rig "OFF". 2) Beacon operation with inserted callsign, no receive, 3) Beacon operation with automatic recording of incoming calls. In this mode, the transceiver transmits a CQ in Morse (F2A): "CQ DE DPO/SL RECORD ON TAPE K", followed by one minute of receiving time with automatic recording of calls. Responses to DPO/SL during such operation must be made using F3E (FM voice) 4) Two-way voice QSO operation using F3E.

The normal channel pair will be 3/3 (145.575 MHz downlink, 437.275 MHz uplink). In the event of heavy pileups, the astronauts will change their receiving frequency without notice. In such cases, terrestrial stations will have to choose one of six uplink frequencies with equal likelihood of being heard -- reducing the pileup density for the astronauts by a factor of six.

A 20-meter information service is a possibility. W1AW and The ARRL Letter will provide further details as they become available. (information from DARC) Relayed by K5JB

ARES

The last few months have been hectic for both myself and my family as we have moved out of a house into a cramped apartment (we said we would never live in one again!) and began building the new house, not to mention overtime at work, helping break the three-year old's "Pacifier Habit", etc. We should be moving into the new house sometime around the first of October, however, and I am already eagerly planning where to stash the rig, keyers, reference books, and where the antennas should go and how high (300 feet doesn't sound unreasonable does it?)

Now for the statistics...

August saw a slight increase in participation over the previous couple of months with 55 checkins in 5 sessions for an average of 11 per session. Also noteworthy was the fact that we had four different net control stations take the helm, sometimes on short notice or no notice at all as I found myself unable to call the net. One goal I had envisioned was for the net to be a training ground for new hams on the fine points of net operation, traffic handling, emergency procedure and yes, NET CONTROLLING! Although I don't see myself necessarily as a good model for new or inexperienced hams to follow in net controlling procedure, several of our active net members are taking the lead in showing how it is done. I encourage everyone who is an ARES member (or otherwise) to please try the net control position at some time. Just let myself or Herschel N5ABM our net manager know when you would like to take a week and we will provide you with a few handouts - the callup, an example NCS log, some words of advice; and remember, nobody can do it for you, you have to listen to get the feel of what a good net control does and how he (or she) handles different situations on the net, and you need practice! If nothing else comes out of it, consider the confidence you will gain from knowing you could do it if you had to! ARES meeting A meeting for ARES members was held September 16th at Will Rogers Garden Exhibition Center. A total of 11 came, a large number were contacted but couldn't make it. In attendance:

Jim Buswell	N5BEQ
O.J. Watkins	WB5SRX
Herschel Gordon	N5ABM
Charlie Greene	WA5JGU
Wayne Campbell	KA5LBF*
Mike Sambuco	KA5TSD
Richard Gimmel	KA5TTH
Don Rooker	NO5M
Dave Holder	N5GQY
Sue McGlynn	KE5QN
Paul Thompson	N5PT

* Newest ARES member - WELCOME, Wayne!

As mentioned at the meeting, N5ABM Herschel Gordon has been appointed as Oklahoma County ARES (OCARES) net manager. As net manager Herschel will be responsible for assigning NCS duties weekly, determining net certification criteria and awarding certificates to qualifying net checkins, and for reporting monthly the results of net sessions to the EC and to the DEC. Herschel is a fireball, a former EC of another county and a very capable communicator as he has shown by taking NCS duties on previous nets. Thanks, Herschel!

A portion of the PR (Public Relations) Kit was handed out at the meeting. Unfortunately, its author, Stew KD5DL, was not able to be there but as he explained to me, the purpose of the kit (which will contain a number of press releases and instructions to the amateurs) is to inform the media who will be on hand at a disaster/emergency site about amateur radio. One release is basically background information about amateur radio, another is about ARES and another about RACES. This will enable us as hams on the scene to provide accurate information and a contact's telephone number while we are under the stress of providing whatever communications services are required. Stew suggests that we keep this kit in an envelope in the car's glove box with copies in the second car, or operating desk perhaps.

Simulated Emergency Test

A brief mention was made at the ARES meeting of the SET which will be held nationally October 19th and 20th. Our local test will be scheduled to coincide with the national SET date, and will be during the morning hours of October 19th (sometime between 0600 and 1200 CDT). Monitor 146.34/.94 (146.22/.82 backup) for information about the situation, and be ready to go mobile or on emergency power at the home station. Details will be given at the time the SET begins. This is an important test of our emergency mobilization capabilities so please plan on being available for the few hours that this test will be in progress!

Other things from the meeting - Emergency Plan

Richard KA5TTH and I will be needing help as we begin working on the ARES county emergency plan. We may ask some of you to help and meet with us on the air formulating this thing. We have example plans and some of it is already in place so, volunteer to help!! Also we need to coordinate with the local community plans, Edmond, Midwest City, etc. if they exist and we find out about them.

Charlie WA5JGU gave us some insight into a soon-to-be announced RACES emergency test that will test statewide RACES preparedness.

Jim N5BEQ handed out copies of the siren test results for the last four years as well as a map of Oklahoma City siren locations. Great work, Jim and I know he would appreciate seeing more participation from Oklahoma City area hams during siren tests on first and third Saturdays at 11:45 AM on 146.34/.94

Sue KE5QN, our membership AEC has typed a list of ARES members and their addresses, phone numbers arranged by name and callsign order. This list includes operating capabilities and will be used by the area assistants as needed. Thanks, Sue for all you've done!

A tentative meeting date for the next ARES get-together will be the second Thursday in November, that's November 14th at 8 PM. We will probably have another meeting place, so look for the exact date and time in the next Collector and Emitter or check in to the ARES net. Paul, N5PT, Co. E.C.

MORE ON MURPHY

I have always been curious to know just how it came about that Murphy got lumbered as the poor fellow responsible for all the snags that seem to be an intrinsic part of electronics.

Readers may remember, that in an earlier column, I described how a social misfit named MUR-FE, deported from the land of the Pharaohs of Egypt, finally found his way to the 'Land of the Shamrocks'. Finding the Emerald Isle very much to his liking, he set about his favourite pastimes of procreating, imbibing and spoiling others fun. It is claimed that all those going under the name of Murphy are descendants of this particular Arab.

Now, by another stroke of luck, I have come across the activities of one of his twentieth century descendants. Christened Michael Meehan Murphy, born into the modern era of Science and Technology and claiming to be an electronics engineer, he developed one of the most profound concepts of this new age — MURPHY'S LAW. His real contribution to S&T lay not merely in its discovery but in its universality, application and impact. The law itself is inherently simple but it will form the foundation on which future engineers will build.

In short the law says: "If anything can go wrong, it will".

Michael Meehan Murphy has provided endless examples of the universality of Murphy's Law.

Unfortunately, Mr Murphy fell victim to his own law. He overlooked the fact it applies to *all* things — and not solely to inanimate objects. While avidly courting a lady to whom he had no intention of honorably pledging his troth, she informed him one day there was to be an heir to his hard-won estate. The photo of Mr Murphy was taken just after he received the news. His expression reminds this author of the fellow who read the following in his local village rag —

"Would the young gentleman with moustache and thinning hair, who met the small blonde lady in Brighton last year, please contact her . . . he will hear something that will wipe the smile from his face!"

AR

MURPHY

Beware the fate of Harry Steed,
— was warned, but wouldn't heed;
That Murphy does his nasty best,
Just before a big contest
He's out, a-spoiling bent
Sabotaging some event —
Or messing up the beam, or gear.
So have a thought and a fear
Touch naught that has no need —
Lest you wind up like Harry Steed,
Who spent the week-end on repair
But never did get back on air.

Alan Shawsmith
VK4SS

via W5JJ

kay

The September meeting was exceptional due to the presentation by George Adkins, AD1S.

The slide show of his latest DX-pedition (Nov 1983) to Jarvis Island in the Pacific Ocean, near Christmas Island, was very interesting and informative. It must really be exciting to make nearly 16,800 contacts in just 88 hours. I don't think I would like their work schedule though, 10 hours on and 2 hours off, and I definitely wouldn't like the heat, 105 to 110 degrees F during the day! Several of the club members said they were familiar with the area, but from another time (WW II), and that they had had enough of it! At any rate, the program was thoroughly enjoyed by all. Thanks again to AD1S.

Steve Scott, KA5SJR, brought the new repeater to replace the present 37/97 here in Ponca city to the meeting for everyone to inspect. He had it hooked into a dummy load so that the members could try it out. It works very well and should be in operation within the next few weeks. The repeater will have the talking time option as well as autopatch and other options (to be added later if needed). The transmitter will operate at the 100 watt level and the present coax will be replaced with hard line.

The October meeting is being planned as an open public meeting. The guest speaker will hopefully be a NASA representative. More information on this meting will be passed along on the Monday night 2-meter net on the 146.37/97 repeater at 9:00.

73
KE5XY

LAST CALL, LAST CALL..... TR-7 Users by Drake.. Nwe NB-7 noise blanker avaailable last of production manufactured byDrake. $65 each. Also SL-300, SL-500, SL-1500, SL-1000, SL-4000, SL-6000 filtersfor TR-7 all new. $75 ea. Limited supply. WANTED: Drake MN 2700 antenna tuner. Call 215-271-8898 or write: K3UKW, Tony Musero, 1609 South Iseminger St, Phila. PA 19148.

MONKS

These two religious persons decided to go into business. One was a friar and the other a monk. They decided upon the fish and chip business because it looked profitable. So they opened the shop. Came along the fellow who has to ask the question to make the joke come out. "Which one of you is which?" Said one, "He is the fish friar and I am the chip monk."

The South Canadian Amateur Radio Society

Davis, KD5IT

SCARS HAPPENINGS.....

The South Canadian Amateur Radio Society held its September meeting on the 14th at the Red Cross in Norman. Several members attended, including some from outlying areas. Ken, N5BEW, asked the club to consider obtaining a UHF repeater in order to encourage UHF activity in Norman. The possibility of linking a UHF repeater with the VHF machine was discussed. It was voted to ask Ken to gather information on equipment available, possible sites, and estimated cost and report to the membership at the October meeting.

ARES REORGANIZING.....

KA5EFJ is seeking volunteers willing to serve in the Cleveland County unit of the Amateur Radio Emergency Service. If you are interested in helping in this area of public service, contact Ken, KA5EFJ.

CONGRATULATIONS.....

W5PNO, Joe Hallet and KA5NOD, Warren Cotts were successful in upgrading at the recent VEC exams in Norman. Joe is now Extra Class, and Warren attained Advanced Class status. Congratulations, Joe and Warren.

NOVICE CLASS AND VEC EXAMS.....

All persons interested in instruction in theory and code for the Novice class license test are invited to attend the Amateur Radio License Class sponsored by SCARS. The class begins Monday, September 30 at 7:30 p.m. at the Red Cross Building, 1205 Halley Drive on the OU North Campus in Norman. The class will meet each Monday night for eight weeks. If all goes well, students in the class will also be schooled in theory necessary for the Technician written test during the last weeks of the class.

Call Monte, WB5RZX, at 329-7485 after 6 p.m. for more information.

Another round of VE exams has been scheduled to coincide with the completion of the SCARS Novice classes. Exams for all classes of FCC Amateur Radio Licenses will be given on December 4, 1985. More details will be made available in the coming weeks. For more information, call Sam, WA5RPP at 321-2601.

-wa5rpp-

N O T I C E

To all Persons, Exchanges, New Subscribers, Correspondents, etc. who desire to correspond with the CORA C&E - PLEASE - address your communications to:

CORA Collector & Emitter
1020 Arthur Drive
Midwest City OK 73110

We have cancelled our P.O. Box.

BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

MINUTES FOR SEPTEMBER

Meeting was called to order by the President Don Duck.
Introductions followed.
There was no Treasurer Report due to the absence of the Treasurer
There was no Secretary report due to last months meeting being the Ice Cream Social.
C.O.R.A. Report: George K5GGL game a report and the minutes of the meeting was handed out to everyone. Basically it was about HH85 and status of the C&E. It was voted to raise the cost of the C&E to .35 per member per month effective Sep 1. Joe Harding was present in the meeting and talked about the C&E and how he was going to do the billing himself and get each club up current.
OLD BUSINESS: The repeater controller is still not being worked on due to summer activity but should start back up now that summer is about over. Ice Cream supper was a smashing success, even the swimming was good it was reported.
NEW BUSINESS: Elections will be held at the regular Oct meeting, several people have been suggested for offices.

PRESIDENT: Ted Vanlaningham
Don Duck
Vice Pres: Dick Baker
Wanda Clark
Treasurer: Don Duck
Wanda Clark
Secretary: Jerry Sproul
A.B. Clark
Jim Buswell

Be there next month for the elections.
Meeting was adjourned for the program of the night a film on the manufacturing of Integrated circuits.

Secr.
Jerry Sproul N5AUH

COCO TIPS AND HINTS

When using variables you may use one or two characters. As A=10 or AA=10. But there are some that you may not use! Most are obvious like, TO, IF, GO, ON and OR these will confuse the BASIC interpreter. There are at least two more thatwill do it also - AS and FN - , FN is one of the reserved basic words but I can not find any reason for the AS causing a SN error. Oh, AS only causes the error if you have the Disk Controler plugged in.

Salem

HAM AID (FCC TO THE RESCUE)

First, a couple of bookkeeping chores out of the way. The report last month about Guschke v. City of OKC the good guys lost. Doesn't make any difference that the guys with the white hats (amateur radio operators, natch) were in the fight. There is no joy in mudville (make that Oklahoma City) the suit was a loss, but not really (more on that later).

I write this to clear up any uncertainty regarding the win/loss status of this case. I thought that it might be fairly clear from the context of last month's article, but several people asked about it. One even congratulated me. It is not painful to explain. The Court was fairly clear in its opinion. The FCC has never explicitly preempted amateur radio antennas from local city control. There is nothing specific in any of the amateur regulations. The general descriptions of the importance of amateur radio in all of the many rules and order procedures don't mean anything. What the tenth circuit was looking for was an explicit regulation that the FCC has issued that protects amateur radio antennas. There have been none.

So, in order to make a serious fight, a rule from the FCC is necessary. And, apparently the FCC has done just that. It is not an all encompassing bandaid, but it is the toe in the door to set in motion the kind of protection that amateurs have needed. On Friday of this past week (Sept 20, 1985) I got a phone call from Chris Imlay N3AKD who indicated that the FCC had finally acted on PRB-1, the request of the ARRL for a limited preemption statement concerning amateur radio antenna. The statement was not as strong as the ARRL would have liked, but it is an explicit recognition that city ordinance and regulations that unnecessarily burden the use of an amateur radio station operation by imposing restrictions upon amateur radio antennas that are not the "least restrictive alternative" for cities in meeting their goals of "health, safety and welfare and aesthetics" could be invalid. I don't have a lot of info about this. Chris said that the Declaratory Ruling is 11 pages long and he planned to get a copy to me in the mail. After I have had time to analyze it, might try to write a short article about it next month. But on background, here are some details.

For some time now, amateurs have been at the mercy of cities and towns who look at amateur towers with a slight case of janndice. Some cities impose no restrictions (the City of Norman is such a town). Some places really tighten the screws (some of those screwy places in California and Illinois for example). Oklahoma City allows 35 foot in residential areas. If you are bold enough to travel down to city hall, you can get a permit for 50 feet. Fifty feet is not related to any technical specification as to what would be a good height for the amateur bands (for example, 70 foot or so would put your 14 Mhz antenna about a full wave above the ground and a half wave at 7 Mhz, that is reasonable). While it might seem that the difference between 50 foot and 70 is niggling, that is not the case in both theory and practice. There are lots of amateurs who get along fine with 50 feet or less. But the point is that that is not an optimum height. Many people stop at 50 foot because that is the height restriction in a lot of cities. More stop at 50 feet because they run out of money and above 50 feet, problems multiply with regard to safety and correspondingly, costs start to go up exponentially.

Guschke v. OKC (which I expounded on last month in the C & E) was an attempt establish some technical evidence in Court that would legitimately challenge OKC's height restriction. However, in the absence of an explicit statement of preemption, the District Court (and later the Tenth Circuit Court of Appeals) declined to permit the case to go to trial. There are other cases around the country that have gained some success, some by negotiation and settlement (the Borkowski case in Illinois, for example), others because the ordinance of the City was so restrictive that it effectively prevented all amateur radio operation (K5JB has an excerpt from the ARRL Letter about a case in the Sixth Circuit Court of Appeals which may have a favorable outcome, especially in light of the FCC's recent action in PRB-1).

With the tide turning in certain kinds of litigation around the Country, the ARRL's general counsel N3AKD decided that it was time to ask the FCC for a declaratory ruling of limited federal preemption of regulation of city and town control over amateur radio towers. The time appeared ripe. The FCC had just completed a couple of other rulings in other cases taking away attempts to regulate in a discriminatory manner by local municipalities. The SMATV decision was a specific example. Municipalities had attempted to regulate SMATV systems in motels and hotels in such a way that they did not compete with cable tv systems which generate revenue for the cities. SMATV and other services of that type competed with cable. The FCC issued a Declaratory Ruling preempting regulation by municipalities of SMATV in order to prevent uneven development and restriction of the service.

It might seem strange that the Commission would prevent local control in this fashion especially since the watchword in Washington has been "deregulation" since you know who got in office. Well, deregulation by the Federales doesn't mean regulation by the municipalities. And that is consistent with the deregulation philosophy. If free market values are to prevail, then deregulation means just that. The FCC has been looking at some other targets for preemption including cable tv. Municipalities have been putting a stranglehold on some cable tv systems trying to squeeze every ounce of revenue out of them in these bad economic times. The Commission may not let them do that.

In any case, the time was ripe for a request of preemption to the FCC. Chris indicated that the order came down this past week and may have been timed, in part, because of an FCC response to the Guschke decision by the Tenth Circuit and to prevent a similiar result in the Sixth Circuit case. If so, then good show. But we are not out of the water. The Commission indicated in its order that it had neither the desire nor the manpower to hear the cases. on towers. Rather, they would issue the order of preemption and let the amateurs fight it out with cities in the federal courts to determine where the boundaries should be set. But the specific ruling of preemption is now helpful. Cases to be litigated under the new PRB-1 Ruling should be chosen very carefully. They should be cases of clear overregulation by cities for now. Let the Court gain some sophistication and then move the height up or win a bunch of the ear early cases and cities may not write oridinances of bad nature. In any case, it is a start. An analysis of PRB-1 next month.

Micheal Salem N5MS

BIRTH OF AN ANTENNA SYSTEM

I have a new house. That is really a traumatic statement. First, any inveterate radio collector knows that the mere mention of moving breaks out chills and a sweat. And believe me, it was an emotional event. I still think of the stuff that I hauled out of the old house and threw on the junk heap. Yeh, it might have been stuff that I hadn't used in 15 years, but that doesn't mean that it might not come up next month. I mean I had some really hot items there. The most interesting was the set of Collins Radio PC Cards. If you assemble these 15 cards (suitable for rack mounting), you could have a genuine Collins SSB radio capable of simultaneous transmission of different signals on any of four sidebands. Impressive, huh? I had advertised it in the flea markets for $25.00 as a "Collins SSB transceiver, Some Assembly required ", but never really got any takers. I do have the manuals for it. I thought that it would be a really slick deal to put voice in on one sideband and video for SSTV in the other, but I realized that there would have to be somebody who could receive video on one sideband and audio on the other and the chances of somebody having the exact same Collins rig that I was going to build was just less than coincidental. Sooo, I gave it away.

Well, I got everything in the new house. Now not really everything, a lot of stuff got left behind. But the radio room has a lot of boxes in it. All of the rest of the house is mercifully clear. If I wanted to, though, I could have filled all three of the bedrooms and then some. Fortunately, the previous owner decked a good part of the attic above the kitchen and carport. That took a lot of pressure off the storage problems. I am still debating about building a little storage building around behind the house behind the fence that hide the water fountain. (Why do I have a house with a fountain, I dunno, but it looks great and beats a swimming pool, which is a lot of trouble).

Having got a lot of stuff out of the house I decided to think a little about the antenna. I really would like to put up about 35 foot of tower, but I really don't want to put up any HF beams or anything like that. Still think that I will just put up a couple of simple dipole, but the tower would hold up a DB antenna and a couple of small beams for 450 and two meters. I finally decided to locate it just outside the radio room and toward the back of the house so I could avoid the power lines.

I got a little busy about this time and put the project on hold. Besides there were a couple of things in the house that needed taking care of. Like changing out all the duplex outlet and putting in three wire receptacles. Clean up and organization also took some time over at the old house. I finally got up enough guts to look through the attic to see where I could route cables. Once I got started on this project, I couldn't stop. I routed 8 different cables through the attic to the boxed eaves. I cut a small 4 inch square hole and mounted a light box that was open on the back. It is recessed in the eave and has a flat plate of aluminium that mounts on it with a gasket. I put 4 bulkhead coaxial connectors on the plate and put connectors to match on the cables. One is a Type N bulkhead for UHF. The cables run about 20 feet or so to the room and down an inside wall (easier to get the cables down the wall without having to go past a lot of insulation). I will put another set of boxes and bulkheads in the wall. Where all the cables connect to the bulkheads under the eaves, I will have several lightning arrestors and a large braid strap that will run to a 6 foot piece of copper pipe that has been driven in the ground by running water down it to wash away the dirt. This idea came from K5LDL. I went up to Glenn's to visit him a week or so ago and to see what he had for sale in the old goodie box. I told Glenn what I was doing and he suggested that I not waste my time with some of those old jive copper plated ground rods. He suggested getting an eight or six foot piece of copper pipe, then putting a fitting on one end that would mate to a garden hose, then cut the other end of the pipe at a diagonal, turn the water on slow and proceed to drive the pipe in the ground to the proper depth, disconnect the hose and connect up.

Despite all these excellent suggestions, I have still not got everything the way I wanted. I am trying to put up a short DB products 450 omnidirectional, a 450 Mhz beam pointed toward the city, a 3 element 2 meter beam pointed toward the city to be used for packet., a 40 meter dipole that will hang off the 25 foot pole I am using about six inches using an I-bolt and a 75 meter antenna mounted in the same vintage fashion. So I get criticized for being slow. I have been in the new house about 2 month and still no antennas. I guess that is because I have only been working on it for about 2 weeks and only on the weekends. Well, I will keep plugging away.

Micheal Salem N5MS

AMATEURS HANDLE "EL GRANDE"

I have been scouring the paper the last couple of days reading about the tragic events in Mexico City involving the two earthquakes (the mexicans refer to it as "El Grande"). While it has been a human tragedy of almost unbelievable proportions, it has been a windfall of publicity about amateur radio. While driving around on Sunday afternoon, I heard a story on "All Things Considered" on National Public Radio detailing the part that amateurs have been playing passing "health and welfare" traffic out of mexico city. Some amateurs have been at it five days straight with only minimal sleep. Many people have found out only about relatives through amateurs. The NPR report played a tape of an amateur transmission, a result of a recent clarification by the FCC that allows broadcast stations to play a portion of an amateur transmission as long as there is no reference made to the broadcast in the transmission.

I have also seen several news stories in the papers. One that particularly gets my goat was an AP story out of Seney, Michigan detailing the efforts of an amateur who worked for 5 1/2 hours before establishing a link with the son of a person in Seney who had been concerned for his safety. Fortunately, everybody was OK in Mexico City, but the message got through from Michigan to a female ham in Columbia who relayed a message to the son in Mexico City. What is really important about the story is that the family contacted the amateur in Seney after they saw his 110 foot tower and asked him if he could help. I don't know if he had his tribander atop that tower, but if it took 5 1/2 hours to establish a relay, then he really made an effort. The point is that if he was using the 110 foot tower and it took 5 1/2 hours, then it is reasonable to conclude that he would not have made it if Seney had an ordinance restricting antennas to 50 feet like they do in OKC. City officials don't seem to understand that the ability or probability of communications is affected, sometimes seriously, by height of the antenna. Antenna height and power are two things that help make up for adverse

propagation and interference. It is also clear that if you can't hear them, then you can't work them. I again don't know whether he could hear the stations in Mexico or not, but if he couldn't, that might explain why he needed the relay.

Another false assumption made by cities is that if amateur can talk to a station in a disaster area when there is no disaster, then should also be able to talk to them when there is a disaster, but that is simply not the case. Many stations in disaster areas don't have elaborate stations. In Mexico City, I imagine that the earthquake got a lot of the towers and forced the locals to put up make-shift antennas. Tall antennas outside the disaster area help make it possible to communicate with those stations in the disaster area that are marginally equipped. I imagine that few amateurs in Mexico City have the capability of running their amplifiers, especially if power is out. The modern solid state rig is ideal for running off car batteries. Amplifiers must run on 110 VAC unless one of the new solid state jobbers.

So Oklahoma City, no 110 foot antennas in your fair city. Only weeds that the mayor wants people to pull. Tell you what mayor. I bet you will find a hell of a lot more weeds in OKC than amateur radio antennas and I promise you, antennas are a lot more useful.

Micheal Salem N5MS

NASA IS LOOKING FOR A FEW GOOD AMATEURS

If you have ever wanted to experiment with satellites, NASA has got a deal for you. Beginning in 1989, experimenters will be given two year's free satellite transponder access to a geostationare satellite, ACTS (for Advanced Communications Technology Satellite). NASA is soliciting proposals for "experimentation" on the ACTS "bird." The Public Service Satellite Consortium (PSSC) has been retained by NASA to seek experimenters in the public sector and assist them in the preparation of experimental proposals.

ACTS will be placed in a geosynchronous orbit, eliminating the need for automatic tracking, except on larger antennas. Earth station antennas expect to range from 2.5 to 4.5 meters in diameter (you could use the old TVRO antenna), but the required size depends upon transmission parameters and/or the particular application.

Uplink frequencies (earth to satellite) will lie between 27.5 Mh. and 30.0 Mhz. The satellite payload will translate them to the 17.7 to 20.2 range and retransmit them to earth (this is the downlink). Spot beams on the satellite will be used to illuminate certain population centers, generally. Limited transmitter power is available, so broad coverage of the United States is not planned.

What type of communications mode will be used? Not known, this will depend upon the needs of the experimenter. ACTS is designed around the switched-satellite-time division multiple-access (SS-TDMA) concept, that is, it is a kind of packet-switching with the switch located in the sky. So, more likely than not, specific digitally modulated signals will probably be required, however, a portion of the payload is a simple repeater which might allow point-to-point links using FM or other analog modulation techniques.

There are two concept applications that NASA has in mind for potential users. First, amateurs can propose to build their own earth stations and test them directly on ACTS. Of course, you must be located in a spot beam of the transponder. In this instance, more than ample bandwidth is available for voice, data, slow-scan tv, etc.

Second, amateurs who are located outside of a spot beam may attempt to access ACTS by using amateur band repeaters to reach an ACTS earth station. This is called the shared-access concept, since the earth station may be owned by a commercial experimenter who is willing to share some of the capacity.

If you are interested, you must submit an "expression of intent" to conduct an experiment and a preliminary description of the proposed experiment. You might propose study of the following: earth station evaluation, transmission impairments, rain attenuation compensation, acquisition, tracking and synchronization, propagation and applications. For more information, contact NASA and request the formal "notice of intent" along with the introductory brochure from Ron Schertler, ACTS project experiments. Include a cover letter and a brief description of the proposed experiment. Provide a name of a principal contact, mailing address and phone number, method of funding (satellite time is free during the experimental two year period), earth station location(s), and the measurements expected to be documented. Formal proposals must be sent to Daniel Brandel. Nasa will respond to each expermenter, review the proposals and notify all of accepted experiments. Addresses are as follows:

Ron Schertler
ACTS Project Experiments Manager
NASA, MS-54-6
21000 Brookpark Road
Cleveland, Ohio 44135
(216) 433-4000 Ext. 792

Daniel Brandel
ACTS Program Manager
NASA, Code EC-4
Washington, D. C. 20456

Micheal Salem N5MS

UHF REPEATER ON THE BLOCK

After about 3 years, I have thought about selling my Motorola UHF MSY repeater. This beauty was resurrected several years ago and placed in low power service as a control link for the 88 repeater and has not even hickkuped during that time. In the low power version, it is all solid state including T/R switching. In the high power version (it has an amplifier I am not using), it uses a single tube and runs about 90 watts out with a conduction cooled tube, no fans.

Why am I considering selling it? I have a couple of other receivers I would like to try out and I need the cabinet space. I also have a duplexer that goes with it, but would like to keep it. If you run it low power, I can probably fix you up with a mobile duplexer. High power, I have a Motorola bandpass duplexer, but you will have to talk me out of it.

The most outstanding characteristic of these machine is that they keep on working. The only problem they usually experience is with the tube amplifier, it is an 8072 and a little delicate, but once installed it should work forever, it has for me. I went through and retuned it for the amateur band and will supply you with a set of elements, but not for the amateur band.
It is not cheap, total price, duplexer and all (including the amplifier) could reach about a Kbuck or so, but this includes a cabinet and a lot of work on my part. I don't have to sell it, but will consider all offers. 321-5453, 366-1234 or write 101 East Gray, Norman, Ok 73069.

Micheal Salem N5MS

HAM HAPPENINGS — REFER TO CLUB SECTION FOR SPECIFICS

SUN	MON	TUE	WED	THU	FRI	SAT
OCTOBER The managing editor assumes no responsibility for the data contained herein.		MORI 1 Great Plains	2	Aeronautical 3	4	5
6	QCWA 7	76'ers OU 8 OIRA	9	ALTUS AREA VE EXAMS 10 SEE INSIDE	11	ARDMORE COCO 12 SCARS
Wheatstraw 13 CP/M	EDMOND Club 14	AUTOPATCH 7:00 15 SEE SECTION	EARS 16	KAY County 17	18	VHF Club 19
QCWA 20	21	CORA 22	23	24	25	26
VEC EXAMS TOMORROW RED CROSS BLDG 27	CIMARRON COLLECTOR - EMITTER 28	29	30	31 HALLOWEEN		

ALTUS AREA AMATEUR RADIO ASSOCIATION

Meeting got underway at 7.30PM Thursday Sept 12 at the North Main Fire Station. Present were Chip, N5FJK, Ann KA5WDY, Charley N5DKZ, Evert KB6FLG, Loren WA5CBF, Dwight WB5KRH and Mike W5VXU.

The group was advised that the cost of the C&E had gone up from $3.00 per year to 35¢ per issue and it was decided to absorb the extra cost instead of raising the Club dues.

The financial status of the Club showed we have $352.23 in the bank

Evert McGuffin, KB6FLG became a new member of the Club.

Permission was given for Mike, W5VXU, to be reimbursed $7.00 from Club funds to covers the purchase of postcards which were used to announce the recent ice cream social.

Dwight, WB5KRH, showed off his new siren control boxes which are being installed around the City.

He is confident this will substantially reduce the false alarms on the system. He is also in the process of revamping some of the operations and control consoles in the EOC.

Mike, who is also a member of the USAF Mars program, announced he had received a letter from one of the Army Mars directors. This letter, if it goes into effect, will be of history making proportions in that it shows an Army Mars plan to allow individual Mars members to enter existing nets of the other services using their individual call signs. Apparently the Army is the first to announce this plan. They figure to start this not later than 30 Sep 85 but so far nothing much has come from other sources so keep your eyes open. This could be a very interesting plan with many far-reaching implications and advantages especially in the public service area.

And last, but not least, Bud Smith has upgrdded to Extra with a new call of NV5Y. Of course, now we'll never get him to join us lower types.

Ray's YF asked him to straighten up his ham shack. He asked if it was tilted.

We know a lid who had a strange growth on his neck. (It is known as a head.)

The happiest miser is the man who saves up all the friends he makes - or at least tries to.

There will be Amateur tests given, Novice through Extra, October 10th 1985. Novice will be given free, the other upgrade tests will be at the usual fee of $4.00.

DATE Saturday October 10th
TIME 10:00 am
PLACE KF INDUSTRIES (Plant Lunch Room)
1500 SE 89th Street
Oklahoma City OK
Pre-Registering not required.
(Walk- ins only)
PHONE (405) 794-7398 after 5
(405) 672-5564 after 5
(405) 631-1533 (8:00 - 4:00)
TALK IN 146.550 SIMPLEX

Results of 9-14-85 test: 22 applicants with 62 percent.