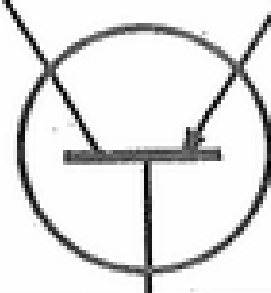


CENTRAL OKLAHOMA RADIO AMATEURS
COLLECTOR AND EMITTER



50¢

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VOLUME 9

AUGUST 1983

NUMBER 103

76ers ICE CREAM SOCIAL

*Bring your own
ice cream, cakes,
cookies, swimsuits,
etc.*

*Ice Cream Social
and
Game Time*

*Tuesday,
August 9, 1983
7:30 pm
Granada Village
club house
2400 S. MacArthur*

*y'all
come,
76ers*





CORA COMMENTS

The August meeting was not an official meeting but it was held anyway on Tuesday evening at the Red Cross.

LADIES Committee- Everything ready.

MEN'S Programs-34/94 all set up for programs. Everything else is OK.

BANQUET-70 tickets have been sold. There will be some available at the door.

FLEA Market-109 tables reserved. Others will be available at the door early Saturday morning.

PARKING-No changes. If you park in the MYRIAD parking, you must pay \$2 every time you go in. Still free parking outside.

COMMERCIAL Exhibitors-54 tables have been reserved. A few have asked for tables but did not enclose money to pay for them. This is being straitened up by the Chairman.

As you can see this was a short meeting held to see if there was any thing that needed clearing up. It seemed that everyone was ready for Ham Holiday which happens/happened Friday.

Don't forget the Official Meeting which will be held at the MYRIAD on Saturday. It is for all the clubs, especially for those away from Oklahoma City.



The July Wheatstraw Radio Club meeting was held in El Reno this month. The best ones in the club attended. We did notice that a few of the regulars were absent. The V.P. KA5DUO was absent. I don't know where he was but was not in ElReno. The sec/treas was home feeling too poor to come. He had just got home from being in the hospital. The word is that he is feeling alive again now. Ray AB5Z and Sue got on the motorcycle and were somewhere in Canada. They are back now and talk like they had a gud time. I missed a few more, but in the absence the sec we had to press into service a substitute, so we picked on the CORA president. Ted WDSJNT to keep the notes. NOW if he can read them to Ralph, we might have some minutes read at the next meeting, which will be at Canton Lake at the Canadian shelter which is somewhere near the airport. The Great Plains Club and Cimmaron Amateur Radio Club have been invited to join us there for a covered dish picnic. Anybody else who would like to come is welcome to come on out. .52 will be the freq to use when you get in the area. after the usual or otherwise discussions the meeting was adjurned to the punch and cookies and brownies etc. they were as good as usual

date to remember: 2nd Sunday of August 1:00pm
at canton lake.
see you wed.nite 9:00 on .01-.61

K5gg1



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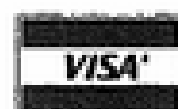
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THESE CORA MEMBER CLUBS PROMOTE AMATEUR RADIO

<p>1 AERONAUTICAL CENTER ARC MEETS: 8:00pm First Friday. Flight Standards Bldg., FAA, S. Macarthur</p> <p>PR K5LDI Tom Mangham 677-5291 VP AF5X Jess McKenzie 329-1543 SE KA5JCX John Mooney 794-8519 TR K5RJR Larry Vorheis 789-9629 EDITOR: John Mooney, KA5JCX 794-8519</p>	<p>13 KAY COUNTY AMATEUR RADIO CLUB MEETS: 7:00pm Third Thursday Ponca City EOC</p> <p>PR WB5YRN Delbert Foiles 762-4479 VP WA5UBO Marsh Pronneke 363-2526</p> <p>S/T KA5PUB Glenn Bishop, Jr. EDITOR: Rick Long, WD4CEP 767-1871</p>
<p>2 OKLAHOMA CENTRAL VHF CLUB MEETS: 10:00am Third Saturday. Red Cross. 10th & Hudson(Back door) Okla City.</p> <p>PR WA5HTL Paul Asplin 787-4286 VP KD5IS Jerry Wetmore 524-5080 SE K5JB Joe Buswell 732-0676 TR W5KE Ellard Foster 789-6702 EDITOR: Joe Buswell, K5JB 732-0676</p>	<p>14 CIMMARON AMATEUR RADIO ASSOCIATION MEETS: 7:00pm Second and Fourth Mondays. Place varies. See club section.</p> <p>PR KI5P Major Bailey 227-2061 VP WB5ECM Dennis Painton 764-3599</p> <p>S/T N5FMH Nadine Painton 764-3599 EDITOR: Jack Day, N5FMQ</p>
<p>3 MID-OKLAHOMA REPEATOR, Inc. MEETS: 8:00pm First Tuesday. Okla City EOC. 4600 N Eastern</p> <p>PR N5EPV Bob Allen Unlisted VP KD5DL Holly Stewart SE KA5CXW Fred Taylor 528-1537 TR W5KOZ Sid Gerber 737-1050 EDITOR: Susie Atkinson, KA5FED 842-8014</p>	<p>15 SOUTH CANADIAN AMATEUR RADIO SOCIETY MEETS: 9:30am Second Saturday. Red Cross Bldg., North OU Campus. Norman</p> <p>PR K5KDR Bill Oliver 329-6333 VP KA5MIZ Bob Rabin 360-6996 SE KA5EFJ Ken Neptune 321-7789 TR WD5GTC Gene Johnson 321-6759 EDITOR: Sam Barrett, WA5RPP 321-2601</p>
<p>4 OKLAHOMA CITY AUTOPATCH ASSOCIATION MEETS: 7:30pm Third Tuesday. Okla City Fire Training Center. 800 N Portland</p> <p>PR N5IH Henry Israel 722-3848 VP K2GKK D. C. Macdonald 672-4947 SE WB5NDO Kathy Whited 799-1427 TR K5GL Guy Liebmann 787-9545 EDITOR: "Mac" Macdonald, K2GKK 672-4947</p>	<p>16 EDMOND AMATEUR RADIO CLUB MEETS: 7:00pm First Thursday. See club section for location and type.</p> <p>PR WD5DYI Mark Northcutt 755-4672 VP WB5MLX Glen Cochran 942-7148</p> <p>S/T WB5UIY Stan Van Nort Unlisted EDITOR: Stan Van Nort, WB5UIY</p>
<p>5 OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB MEETS: 7:00pm Second Tuesday(Sep-May) 119 Wilson Center. 1334 S Jenkins</p> <p>PR KA5BAY Luke Noah 325-1775 VP</p> <p>S/T KA5LZN Greg Smith 325-3218 EDITOR: Greg Smith, KA5LZN 325-3218</p>	<p>18 GREAT PLAINS AMATEUR RADIO CLUB MEETS: 7:30pm First Tuesday Civil Defense room, Woodward courthouse.</p> <p>PR WB0PGD Ron Tice 994-2138 VP KOCIO Larry Ellis (316) 582-2889 SE WB0QGW Carla Tice 994-2138 TR NC5C Gerry Ford 256-5382 EDITOR: Carla Tice, WB0QGW 994-2138</p>
<p>6 ALTUS AREA AMATEUR RADIO ASSOCIATION MEETS: 7:30pm Second Thursday North Main Fire Station (CD) Altus</p> <p>PR KA5MPK Gary Alexander 482-0857 VP</p> <p>S/T KA6RTX Bill Flattery 482-1155 EDITOR: Bill Flattery, KA6RTX 482-1155</p>	<p>19 SOUTHEAST OKLAHOMA AMATEUR RADIO ASSN. MEETS: 7:30pm Second Monday. Location varies, contact a club officer.</p> <p>PR WB5TTU Ron Henson 326-5418 VP WB5ULI George Weldon 326-5672</p> <p>S/T WD5FUE Orville Kaley 326-3650 EDITOR: Ron Henson, WB5TTU 326-5418</p>
<p>7 BICENTENNIAL (76ers) ARC MEETS: 7:00pm Second Tuesday. OG&E Bldg. SE 3rd & E. K. Gaylord Blvd.</p> <p>PR N5BFD Jim Hopkins 947-0043 VP WD5JNT Ted Vanlaningham 262-1675 SE N5AUH Jerry Sproul 354-2061 TR WA9AFM Tom Webb 737-6716 EDITOR: Bruce Goff, KC5CR 751-7192</p>	<p>20 ARDMORE AMATEUR RADIO CLUB MEETS: 8:00pm First Wed. Red Cross Bldg. Informal, 8:00pm other Weds. 221 9th NW</p> <p>PR W5HJ Tom Banks 226-3350 VP WB5VBK Fred Innis 223-1709 SE WA5YOM Tim Vandagriff 223-3582 TR W5BLW Charles Dibrell 226-0589 EDITOR: John Merlyn, WD5FZD 223-9543</p>
<p>9 WHEATSTRAW AMATEUR RADIO CLUB MEETS: 2:30pm Second Sunday. Location varies. See club section.</p> <p>PR KA5FUU Tom Johnson(El Reno) 262-5631 VP KA5DUO Leo Peil (Canton) 886-2996</p> <p>S/T WA5PFK Ralph Wilder(Watonga)623-4521 EDITOR: George Maschino, K5GGL 263-7614</p>	<p>CENTRAL OKLAHOMA RADIO AMATEURS, Inc. MEETS: 7:30pm Fourth Tuesday. OKC Fire Training Center. 800 N Portland</p> <p>PR WD5JNT Ted Vanlaningham 262-1675 VP K2GKK D. C. Macdnald 672-4947 SE N5BEQ Jim Buswell 236-0368 TR K5GGL George Maschino 263-7614</p>
<p>12 SHAWNEE AMATEUR RADIO CLUB MEETS: 8:00pm Second & Fourth Tuesday Shawnee City Hall (EOC)</p> <p>PR KD5NX Jay Tingler 273-3033 VP N5CGZ David Stanley 273-4226</p> <p>S/T W5TQZ Herbert Holton 598-5984 EDITOR: Earl Couch, WB5ZBA 589-3212</p>	<p>CORA Collector & Emitter (USPS 116-150) is published monthly ny CORA Inc., 1020 Arthur Dr, Midwest City OK 73110. SECOND CLASS postage paid at Oklahoma City OK SUBSCRIPTION: CORA members \$3 others \$6 yr.</p> <p>POSTMASTER: Send Form 3579 to: CORA C&E, P.O. Box 15013, Del City OK 73155</p>
	<p>MANAGING EDITOR: Joe Harding, WA5ZNF, 737-1044</p> <p>CIRCULATION MANAGER: Bob Graham, WB5NSV, 677-8685</p>

ELECTION *** ELECTION *** ELECTION

NEXT MEETING

16 August 1983

(3rd Tuesday)

The August OCAPA meeting is THE MOST IMPORTANT meeting of the year. All current members are encouraged to attend the August meeting for election of new officers. If you don't vote, you have no reason to squawk about the ways in which your dues are spent or the directions YOUR club takes.

The August Annual Election Meeting is set for the usual time and place: 16 August (3rd Tuesday), 1930 CDT, Oklahoma City Fire Department Training Center (800 North Portland Avenue). BE THERE!!!! BE THERE!!!! BE THERE!!!!

EMERGENCY TRAILER**EMERGENCY TRAILER**EMERGENCY TRAILER

Field Day vividly demonstrated that more people need to be trained in set-up, operation, and maintenance of our Emergency Trailer. Currently we have only three or four fully trained personnel. This is woefully inadequate for emergency readiness or operation. We anticipate that a real emergency would require a 48-96 hour operational period. Allowing 8 hours per shift, this would require 6-12 operators. At least 25 trained people are needed to ensure adequate coverage for this requirement. Accordingly, the September meeting will be held as a training session for field set-up, operation and maintenance of the emergency trailer. We need help!!!! If you are willing to work on an emergency deployment team member, please attend the September meeting. If you truly wish to be helpful in an emergency, you must be prepared! OCAPA membership is NOT mandatory. Come to the September training session to get prepared.

Ham Holiday X will be history by the time this issue reaches you in the mail. Many fine programs were on tap for hams and non-hams.

OCAPA was well represented in the Saturday fashion show at Kerr Park in downtown OKC, with Vicki Adkins (N5DLM), Barbara Israel, Debbie Guschke, Sue Wilhite, Barbara Macdonald, Judy Macdonald (KA5BJS), Lois Duck, and Sue McGlynn (N5CTT) modelling finery from the salons of Rothschild's.

Although quite a few of previous year's commercial exhibitors have quit the amateur radio scene, we still had virtually the same amount of commercial display area. The following were confirmed as of 25 July:

Arnold Company
BCD Electro
Ellard's Ex-El
Golden Link
Heathkit Electronics
Journal/20
Leading Edge Distributors
Martin Engineering
Megamart
Missouri Radio Center
PCS Computers
QRZ DX
Radio, Inc.
R&G Electronics/Pacetrronics
Sparky's
Texas Towers

Call Badges
Small Parts and Goodies
Test Equipment and Parts
Men's and Women's Jewelry
Ham and Test Eqpt, Computers
Commodore Computer Newsletter
Surge Protectors
Towers and Tower Products
Computers and Software
Amateur Radio Equipment
Computers and Software
DX Bulletin
Amateur Radio Equipment
TRS-80 Color Computers
Hats
Amateur Equipment, Towers

Over 700 pre-registered this year and well over 100 tables were set up in the flea-market area.

Ham Holiday X is sure to have been a rousing success. We will enter our second decade in 1984.

This will be my last OCAPA C&E column as I have "dis-agreed" to run for office for the coming year. I view the past year with mixed emotions (like watching your mother-in-law drive your new Mercedes off a cliff). When I started last year, I had high hopes that the monthly C&E column could be a tool to greatly increase participation by our members. Those hopes were not realized as participation increased only slightly. A few more members have jumped in to help but that was probably due to their own inclinations anyway.

One consolation was our first go at Field Day. By any criterion, our Field Day operation was a success. The same people who are ACTIVE in our club in other ways made Field Day happen.

It is disheartening (at best) to active members that so many others seem to consider themselves as "customers" rather than members of the club. Members have a "say" in the functioning of the club and a responsibility to help it run. YOUR club needs more members and fewer customers. What are YOU going to be?

Do you have ideas about what your club should be doing? Don't expect the members and officers to read your mind. Put your ideas in writing. Your editor will have them published in C&E as long as they are not libelous or slanderous.

I wish you all good health, good DX, interesting QSOs, and reliable equipment. I hope you will provide input to your incoming editor.

Mac
K2GKK/5



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Salem

WOLF CREEK PASS FOLLIES OF 1983

For years, I have had Joe K5JB regale me with tall tales from the tall pine country of Wolf Creek Pass, Colorado. It is not unusual for Joe to slip away from the rest of us down here at sea level for a trip to the 8200 foot splendor of the Colorado mountains. Now, I like a mountain as well as the next person, but what really peaked (to coin a phrase) my interest was the fact that these quarterly or so forays usually involve a HF transceiver or two. I have even set up over the Fourth of July at my parent's house to talk to Joe while in Colorado. Once I had borrowed a transceiver of the QRP variety (Heathkit HW-8) and ran my Hy-Gain Tape Dipole literally up my Dad's flagpole out in front of the house and Joe and I met a series of schedules. Just to make it interesting, he dropped the power on the TS-120 (as well as to save battery life). I was running all of a bonecrushing 2 or 3 watts. A similar experiment on a trip to Dallas for the OU-Texas game met with disaster when a screw loosened on the VFO adjustment and while I thought I was scanning the band, I actually never moved off a frequency that was cluttered with noise. I thought that it was the local power plant a couple of floors below and considered taking a fire axe, ala Carrie Nation, but the time constraints involved with all the carousing and festivities made me just scratch my head and put the radio back in the box. I opened it up when I got back and the loose screw was quickly diagnosed and repaired.

Low power portable CW operation was fun for awhile. But there were a variety of setbacks, especially that it was a lot of work. I tried the HW-8 a couple of more times before delivering it back to WB5YWO, its owner. By this time, I had gotten my Swan 350 back up and running and a two week project had updated it considerably with a calibrator, semibreakin CW, and sidetone among other items that escape me at the moment. This is still a grand old radio, but the technology has just moved too fast. I bought the Swan many years ago new when I was just a pup about to get out of high school. I had hauled it a couple of times to school and strung an antenna from the dorm room. When I moved into a house off campus, I planned to put it back up, but never did. It really didn't matter, I craved more radio in less package.

My search narrowed to a TS-130. Eventually, I acquired one and used it at the house for quite some time and occasionally took it portable. Eventually, I moved it to permanent portable duty and even acquired a couple of liquor cases at ham com a couple of years ago that it fit in just snugly. The other case contained the tape dipole, a couple of phosphor bronze longwires, a matching network, tent stakes, breakaway string, key, 4 amp nicad battery and an 8 amp battery charger/power supply. This worked great. I have taken it a couple of times to Dallas for the OU/Texas game and other places and the combination works fine.

Joe and I have talked about a Wolk Creek excursion before, but it was alway difficult to arrange without enough notice to get away from the office. Anyway, Saturday before the Fourth of July, Joe called me on the repeater and tracked me down for a phone call. He said that he had a wild hare to go to Colorado for the Fourth of July and did I think that I could get away? A check of the schedule and some fancy rearranging cleared the deck and after putting out a couple of fires and talking to my secretary, I went back to the house to assemble the station. Since it would be just the two of us in his 182 birdcraft, he imposed no weight limitation, so I narrowed it down to the radio, camera, a sack of work type reading material and a small bag of clothes. I

found my priorities intact as we loaded the airplane and realized that the bulk of the storage area was taken up by radio equipment. Joe had wanted to leave at 6:00 a.m. the next morning and I talked him into 6:15. He didn't show up until 7 or so and I was there by 6:15. He said that I messed him up by not being late. Sniff, I suppose that there are those who can rationalize anything. If he had been doing something like sleeping I probably would have been upset that he was late, but he was actually getting a dose of weather information from the computer so that was OK. I went to a local restaurant and had a cup of coffee and a sweet roll and glanced at a couple of magazines I had brought along.

The flight was uneventful until we got to Cimarron. This trip is straight west and the ground slowly rises until Cimarron and then it rises a whole lot. Joe flew for the first couple of hours and then he let me take it for an hour before getting to Cimarron. This is very close to the Boy Scout ranch at Philmont and this is where the mountains begin. After flying over the VOR at Cimarron, the first pass goes over the mountains into Eagle's Nest Lake. To the right was the Eagle's nest ski area. To the left was Angel Fire. Now this was getting to be an experience because I have never flown into an area where the ground was taller than the plane's altitude and we were at 11,000 feet. As we approached Angel Fire, we had the option of following the mountain road or peeking over the next pass to see if we could see Taos. There it was, so we just sneaked over instead of following the road. After flying over Taos, the Rio Grande River, the Taos VOR, we turned slightly northwest to look for a jagged mountain pass that Joe called just simply "The Rock." And he was right. The Rock is a magnificent granite structure that even Prudential would be proud to own. As we darted through the pass I snapped a couple of shots of this 1500 foot mountain. After leaving the Rock, we angled slightly to the right and followed a local broadcast station in Pagosa Springs where we intended to land at Stephens airport. After we found the town, Joe wanted to fly into the Wolk Creek Pass area to see if he could catch a glimpse of the cabin where we were going to stay. He had studied the maps on the way out and even though he assured me that there was 4 miles or so between the 14,000 foot mountain peaks and that was plenty of room, I still thought that it was a tight fit. He was right. We buzzed the cabin a couple of times and I tried to snap off a couple of shots, then we scooted back to the airport.

Joe's visits to the area have been with a good friend of his, Bob Harper. Bob had began to build a cabin some time ago and took a couple of weeks each year to catch up on the construction. Bob, Jim (his brother-in-law) and their two nephews came to the airport to meet us. Pagosa Springs is actually 16 miles or so from the cabin and the cabin itself is only about 8 miles from the pass. The area offers a magnificent view of several mountain peaks including Pagosa Peak and Treasure Mountain. The snow is still at the top of the peaks and the cabin area itself is around 8200 feet.

The first item of business was to get the antenna up. Joe bragged on how quickly he could get the antenna strung out, then hoisted up around the cabin. He has described to me the slingshot method of placing weights through the branches of tall trees for the purpose of pulling rope and wire skyward. Unfortunately, after getting the 75 and 40 meter antennas strung out, we ran into a snag in the form of a snag in the tree. Several years of pulling string through the tree had bruised the tree to the point where the bark had begun to wear through then the tree began to ooze sap which made pulling string through it difficult. Meanwhile, as we were tugging and digging

AUGUST-CORA Collector & Emitter

through the tree, the antennas and their string supports quickly became a morass of wire and rope. JB belched and moaned about this mess and this had never happened before and so on and so on. We finally compromised by taking down the 20 meter antenna and was finally able to get the 75 and 40 antennas on line and up about 35 feet at the apex of the inverted vee. There are a lot of trees around the cabin and it was not easy to figure out where to tie the ends of the antennas, but some fancy footwork got them all tied down.

I suggested to Joe that one way to prevent having to work through the sap would be to go with Bob into town and get a pulley or ring, then pull this up into the trees and run another rope through that. The antenna could then be raised and lowered through the pulley or loop. I have been using this method at my house for about a year or so because I have nothing to support the antennas except trees. As the trees would sway, the antennas would loosen and tighten until eventually, the wire would be cold worked along the point of the contact with the center insulator and eventually break off. The first one I put up lasted less than a year. After reworking the ends in the trees with a pulley and weight, I have had the last antenna up for over a year. Joe did get into town the day before we left and bought some rope, but he didn't need a pulley when he found a short piece of chain which he cut a link from to use as a pulley.

The antennas tuned up fine, which was good, because I didn't feel like venturing outside in the evening because of the mosquitoes and flies. I had the tuner to take care of any variations. Actually, the mosquitoes and flies didn't wait for evening to sally forth. They usually got to it about mid morning and they were big. Some of them looked like twin engine jobbers coming for a landing. They also made no noise in the thin air, so it was like a Pearl Harbor attack. The flies were also vicious and they could be just as pesky. Bob said that they usually don't get that many flies or mosquitoes, but the rains had been especially heavy this year. Right. I am sure that every fly and bug in the mountain heard I was going to be there. That is just the way things operate in my life. In any case, the thin air was a blessing of sorts, because the flies and mosquitoes were a little slow on takeoff and as a result, it was very easy to kill them with your hands. Life outside during certain times was a constant swatting and hitting. The temperature would get up to 80 degrees or so and that coupled with the altitude gave the bugs a definite density altitude problem. At night, I stayed inside or up on the porch away from the bugs on the ground. The porch was about 15 feet up. The bugs didn't seem to frequent the area because it was off the ground, I guess. The percentages for them was to stay close to the ground.

I really didn't have time to make up schedules before we left, but I did get ahold of WB5YWO and we set up a couple. On the way out of town, I woke Roger WA5JXX to see if he would take the hint and meet us on 40 meters, but he really didn't catch on until the second day or so. Joe had previously told Fred KA5CXW that he would n't have HF gear along, but we got Jim to call him and let him know that we would be set up. Band conditions were generally not so hot. Signals changed quite a bit. I did have good success with Jim and Fred on Monday for quite a while in the afternoon. Jim and I met a later schedule on 75 meters about 10 or so. Signals weren't that bad either. Joe got on after rearranging the antennas on Tuesday and ran some relays for the Taco Net. He apparently has talked to these guys quite a bit. They run a health and emergency net from southern California. Joe rambled on well past bedtime with apparently booming signals.

We didn't just intend to sit around and radio. On Monday, JB and I and the two nephews went hiking CORA Collector & Emitter-AUGUST

down by the river about 3 miles or so to see if we could find a snow weather station that is part of the snow depth reporting service. This meteorological station is one of numerous data reporting stations that are going into use in the mountain areas that report their data by meteor scatter back to a central office on a 40 Mhz frequency. There was a description of the system some time ago in the C & E. Snow fall is tied to important economical factors including irrigation, farming, as well as the skiing industry. Joe had seen the station in previous years, but we could not find it this time. An article had appeared in the local Pagosa paper about this new method of reporting the data by the use of meteor scatter. Apparently the old station which had to be checked by hand had been replaced with one of the newer ones. We hiked until we couldn't run away from the mosquitoes and turned around and came back.

The area is peppered with numerous mountain streams that run pure cold mountain water. The two boys wanted to stop and take a drink from every one that we passed. I was considerably more cautious. The area had become more and more populated and there were a lot of campers in the park. The boys couldn't understand my reluctance to drink the water until they were talking the next day about horseback riding. Mathew said, "Boy, that horse I rode today was dumb." Why? "Well, he was walking along through stream and he would just stop and start eating the grass along the stream." Really? And that was not all. Matt also recounted how this dumb horse then made a contribution to the water flow. Little wonder I don't drink mountain streams.

Joe and I had to perform a little work for our lodging. This primarily centered on helping Bob and Jim on various projects when we felt like it. Bob is quite the industrious fellow and he is doing a great job. I swore Joe to secrecy to not tell anyone how much help I was, but I did get involved a little in the various activities. Not bound for an office bound worker who thinks that manual labor is a Mexican patriot. Some of the work actually involved digging holes and pouring concrete. Both of which I have some familiarity since I did some of each when helping my father while growing up. I got pretty good at ducking out on the work. My dad generally drafted my two older brothers for the work relegating me to the status of the 97 pound weakling. This was, of course, not true, I weighed more than 97 pounds. I played the trumpet in the band and I just didn't want to injure my fingers. Come to think of it, I also played the piano.

I don't know if it was the mountain air or what, but I was ready to come back. Joe broke the antennas down Wednesday morning and I packed up the station. Bob took us into town and the two boys earned a ride around the patch in the airplane. The weather was clouding up, but there was nothing of consequence. This time I got to fly all the way back turning the controls over to JB just as we were entering the pattern to land an Expressway. We got back just shortly after the Police Helicopter had crashed from trying to carry a small tow truck in the air. I thought I saw something down by the runway and Joe called the Unicom for an advisory. She responded with everything under the sun, then said "Oh, yeh, the police helicopter crashed just west of the runway, so you might look out for it."

Well, the trip was fun, but I was glad to get back. The radios were a lot of fun. I haven't sent out any cards for it, but nobody asked. I talked with WD5HPU on 40 meters about a week or so ago while he was in Colorado and I later found out that he was about 10 miles from Wolf Creek on the other side. Now that is a coincidence. Jim was using very low power (about 15 watts) and a bumper mount antenna. I could just barely hear him but he had me on my home station. We barely managed a two way exchange

before the band dropped out. Tried it about an hour later and didn't make it. Jim said that the nicad battery he was using was not too stout and was dropping off in voltage. Well, live and learn. If he had chosen to string up an antenna in the trees, and run a little power, we might have had a chance. By the way, Jim indicated that it took him about an hour and a half to drive from Cimarron to Taos through the mountains. We managed it in about 15 minutes in the birdcraft. The normal driving trip is about 14-15 hours. Our total round trip was under 9 1/2 hours. We used about 5 hours on the way up and that included a stout headwind and some goof off time trying to find the cabin. The plane really beats driving. Now if we could just figure out a way to trail an antenna out the plane

Micheal Salem N5MS

MORE ELECTRIFYING NEWS-LIGHTNING

I had a couple of comments on last month's article concerning lightning and lighting protection under the new NFPA #78 Standard. K5JB suggested that I should have drawn the last figure using a 70 foot antenna since that is a minimal optimum height for an effective DX antenna. He's right. I limited myself to only that height that one could legally erect an antenna to in Oklahoma City. It was not intention, merely dictated by the lateness (or make that earliness) of the hour. Got to get started on these articles before 10 O'Clock of night. The fact that I do that should be obvious to everyone who checks my syntax and sentence structure. (Especially that nice person, who corrected the article in a red pencil and sent it back to me). Since I don't use a computer to write my articles (Actually, this is not true, I use a 10 digital computer which is connected to the end of my arms) I don't have the benefit of second thought and a peek at the Funk and Wagnalls (Now, see, I don't know if I spelled that correctly). I stopped redoing my articles a second time many years ago and I feel like I should apologize to the countless C & E readers who refuse to let their children read my articles for fear that they might pick up a bad habit or two that the local English teacher could not correct.

Anyway, I have redone the chart ala K5JB's suggestion. A 70 foot antenna would provide a protection area as shown below:

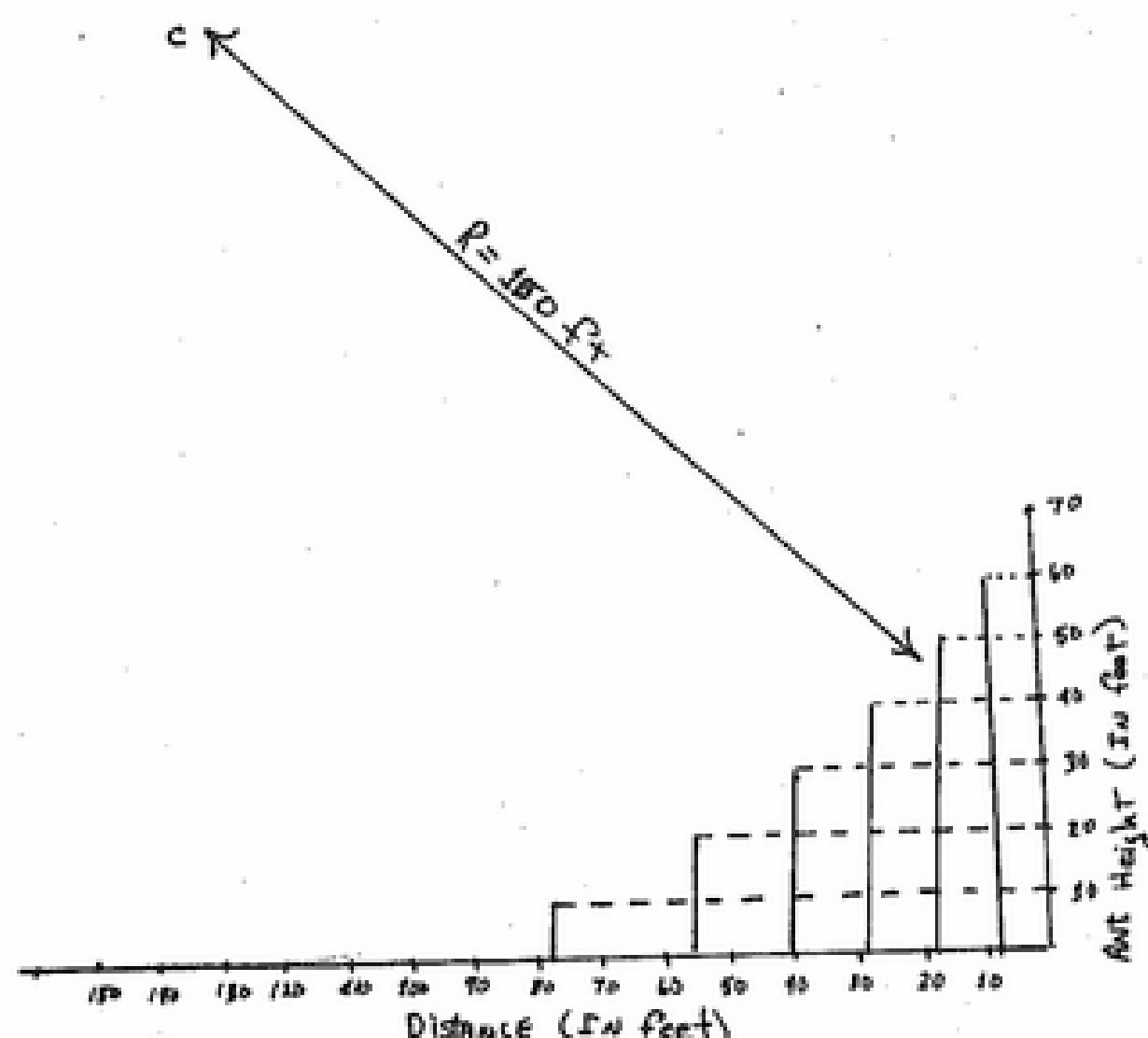


Figure 1. Graphical representations of sphere of protection for a 70 foot antenna support structure. 20 foot high structures are protected out to 55 feet.

Actually the number change for a 70 foot antenna quite significantly. As pointed out, 20 foot high

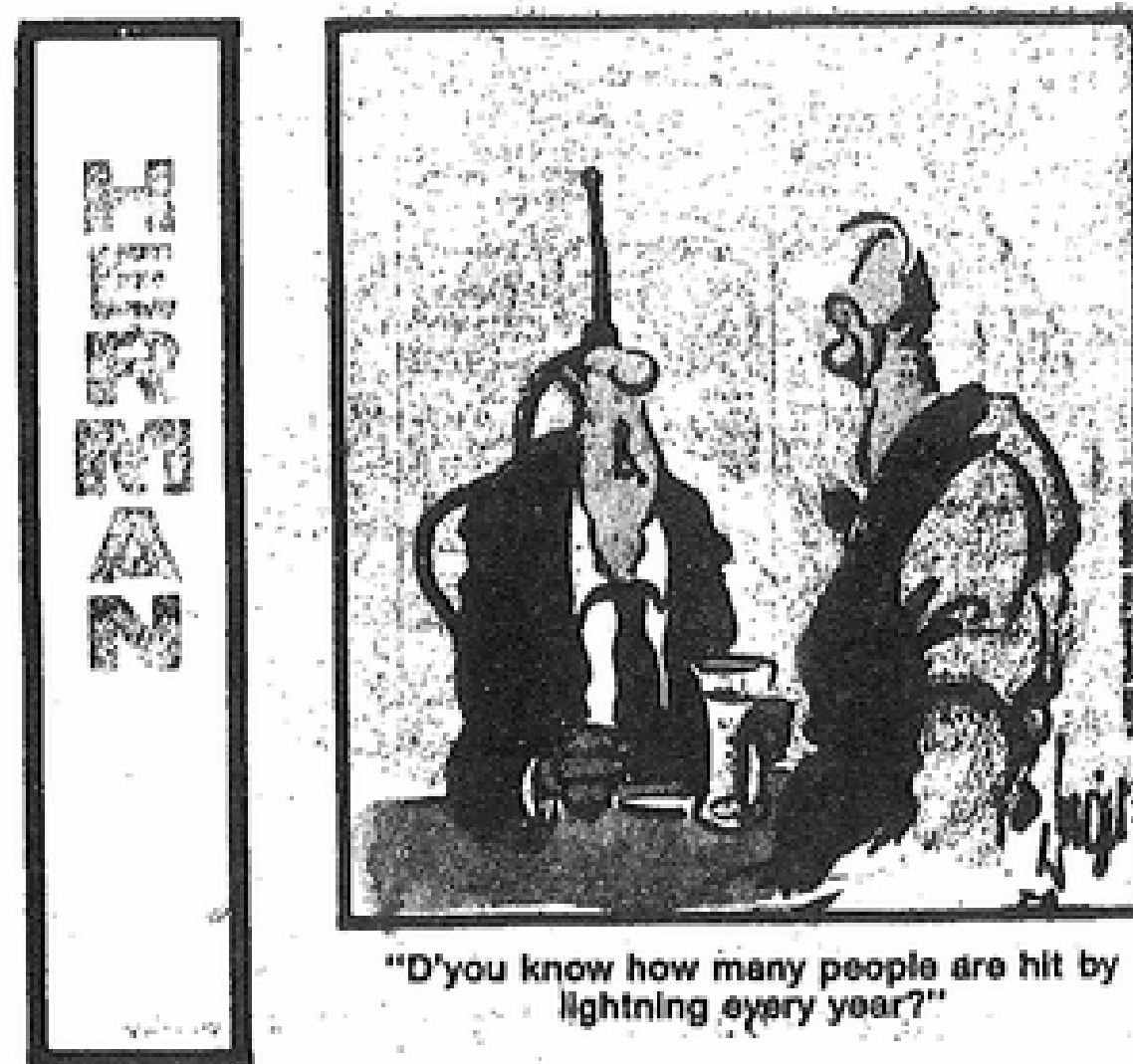
structures can be protected out to 55 feet for 99.5% effectiveness. This compares to 37 feet for a 50 foot antenna support structure. These number can be summarized in the following charts:

Height of object to be protected	Distance of Protection	
	50 Feet	70 Feet
10 Feet	57 Feet	77 Feet
20	37	55
30	22	40
40	12	28
50	X	18
60	X	9

It can be seen that adding 20 feet of height for this example just about adds 20 feet to the Protection Distance for the various heights. Definitely, then the taller the antenna support structure, the greater protection offered from lightning. This is no real surprize. So, my advice to all of you is protect yourself from lightning build 70 foot antenna support structures. By the way, the same limitations I mentioned before also apply. The chart is for the tower only and does not take into account the antenna itself since the antenna is not designed to take a direct lightning strike.

Someone else asked me if it was true that a structure in excess of 150 feet did not protect itself above those heights unless it had ground paths. The answer is essentially yes. A tower in excess of 150 feet can be struck by lightning at those portions of the tower in excess of 150 feet. Lightning will not in every instance strike the top of the tower. It can strike and hit below the top of the tower. Remember, this is for protection levels of 99.5% so there are times when a strike lower than the top of the tower can occur. Also remember, that this tower will still protect objects in the sphere of protection within the first 150 foot of height.

The point is that the tower (or for that matter) should have protection devices spaced along the building above 150 feet sufficient to absorb strikes that occur along a radius of 150 feet. This number basically comes from the fact that the lightning stroke forms in steps and the last step is generally about 100 meters long which defines a radius of 150 feet or a diameter of about 300 feet.



Be Safe--Not Sorry !!

C 1983 United Press Syndicate

Remember, some of these numbers are relative. Lightning is quite unpredictable. To ad some protection to the station antenna could be a stroke of genius.

AUGUST-CORA Collector & Emitter

FCC RULES AND REGULATIONS AGO GO !
(Government Printing Office Division)

Many years ago, I used to have a copy of the FCC Rules and Regulations that I purchased from the Government Printing Office (GPO). They really kept them babies up to date. Many was the time that I got a Transmittal Sheet along with the latest update. That was some service. The subscription basically ran for two years and the cost was pretty nominal.

Well, they discontinued the service. I was reduced to buying copies of the Rules and Regs from various publications including the license manuals. Oh, a couple of times I went over to the Law Library and read the code of Federal Regulations. But they could only be updated by reading the Federal Register. Something I only did as an act of desperation. I also chose not to contribute anything, not even a second look to Dick Bash, so I leave his copies of the Regulations on the table. No reason to do anything to rouse the rabble.

Amateurs weren't the only ones left out of the rules game. The Private Radio Service has not had the rules for several services for quite some times. It is kind of difficult to remember that we are all responsible for these rules as far as adhering to them, but they really weren't readily available.

Well, this is suppose to be remedied and the latest edition of the FCC rules and regs can now be ordered from the Government Printing Office. According to the FCC's Private Radio Bureau, the GPO is making available the October 1982 edition of Title 47, Code of Federal Regulations (47 CFR) Parts 80-End, which includes all of the private radio rules. Title 47 is the Telecommunications Section of the Code of Federal Regulations and contains all of the FCC Rules and Regulations. Title 47 is divided into numerous parts for each of the services under the Commissions jurisdiction.

The latest edition contains in one paper-bound volume the following rule parts:

- Part 81--Maritime Stations in land
- Part 83--Maritime Stations on Shipboard
- Part 87--Aviation Services
- Part 90--Private Land Mobile Radio Services
- Part 94--Private Operational-Fixed Microwave Service.
- Part 95--Personal Radio Services
- Part 97--Amateur Radio Services
- Part 99--Disaster Communications Service.

These rules and regs have been updated to last October 1, 1982. The volume can be purchased from the GPO as "47 CFR, Part 80-End" for \$9.00. Use the stock number when ordering 022-003-95085-1 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. If you are so inclined, you can also order the other three volumes of Title 47 CFR, also revised as of October 1982. These include Parts 0 to 19 ((\$8.50), Part 20 to 69 (\$9.00) and Parts 70 to 79 (\$8.00). The address is the same. Read all about it.

Now this is fine for those of you who will always be just a little behind on your reading because the CFR will not contain the current updates. Well, the Commission has something for everyone. In the process of trying to automate production of copies of its rules and regulations, as of the first of the year, the FCC began producing its rules using magnetic media created by the Federal Register staff for eventual use in Title 47 of the CFR. This material will be reformatted into the FCC's current loose-leaf or pamphlet styles by the Government CORA Collector & Emitter-AUGUST

Printing Office. After initial production, a complete set of revised FCC rules will be produced each year in accordance with the Federal Register's updating schedule. The present volumes will remain available to subscriber's until the new system is implemented or until GPO's stock is depleted. Upon implementation of the automated system, all subscriptions will be discontinued and the rules volumes will be made available through individual purchases. In addition, transmittal sheet will no longer be included in the cost of a specific volume. The FCC says that although the capability exists for issuing transmittal sheets (periodic updates containing recent rule changes) "because of budgetary constraints these will be issued only when absolutely necessary. On the rare occasions a transmittal is prepared, it may be purchased as a separate publication. The Commission currently offers some rules and regulations still in the loose leaf service that the amateur service used to be issued under. Of course, the amateur service rules and regs were discontinued some time ago. Those of you who subscribe to presently available services will receive notifications of the availability of rules volumes and an order form from the Superintendent of Documents at the GPO.

Now, I know that these are not a big seller for the most part. But I am always concerned when a change comes about. The discontinuance of the transmittal documents has got to be a problem. It is not enough that the FCC will discontinue transmittals, but offering them as a separate publication is the problem. How will somebody know when the rules have been modified? Send out a postcard asking the subscriber if they want the new transmittal and if so, then sent 25 ¢ in coin to Merkle Press, etc., etc. This doesn't sound like a subscription. Most people want to get the new rules with the least amount of hassle. And hassle appears to be what the Commission has built into the system. If it costs a little extra to get out the transmittals, then charge a little more. Even \$10.00 a year might be a small enough price to pay for transmittals.

Meanwhile, the Federal Register remains the main source for information regarding FCC (or for that matter, any administrative agency) rulemaking. All NPRM and orders are published in the Register. Most libraries that take the Register usually have it about a week or so after it is published. Those that get it by airmail can look at it in about two days or so. I understand that surface mail cost of the Register is only about \$75-100 a year. And this is quite a bit of paper. You can read about the peanut content of peanut butter and all the other minutia that clutters our governments mind. All the Advisory Circulars of the FAA are published in the Register for those of you who want to know which airplanes are falling apart. WA5JXX and I thought about going together and getting a subscription of our own. Still might do it. If anybody out there is interested in actual subscription information, I will look it up and let you know. Just let me know.

Micheal Salem N5MS

JUST IN THE VIC OF TIME

I know that some of you might think that I hate computers. This is not true. My mother was not frightened by an IBM while carrying me. I did not have a traumatic experience with a computerized parking machine when I was a pup. No, I do like computers. I like word processors, information retrieval computers, number crunchers, and controllers. I do not like video games, mostly because they eat quarters. I do not even necessarily think that they poison the mind of kids, but I am concerned that certain kinds of games that deal

with killing or zapping might engender a kind of attitude that is destructive, but for the most part, in moderation, I don't think that anybody is going to get hurt. But that may be the problem. Moderation is difficult with computers, including video games. When I was in school, I took a class with an engineering professor who said that computers were tools, not toys and although we had authorizations to use the IBM 1170 on the campus, he was not going to give us any assignments, but we could use the computer if we wanted to. I thought that I was a lucky kind of guy. However, one evening I went with a friend of mine to the computer center to check to see if his program had run (they were in to batch processing as the only reasonable way to handle work). I thought, this looks kind of interesting, I am sure that I learned enough reading the book to write a simple program and I would do that while waiting for my friend to correct his program and scratch his head over the gobbledygook contained in the IBM error code manuals. I sat down and typed a simple program, borrowed introduction computer cards from my friends program, duplicated them and slapped them onto the front of my computer card deck and dropped it into the hopper. I came back a few hours later to view the results. Geemennee. I had syntax errors out the wazoo. Well, this won't be too difficult to correct, I'll make a couple of changes and drop the deck back in the hopper. I decided to stay up until 2 a.m. to go over and view the results. This time, still more problems. And so it started. I finally got that program to run, but it was so simple, I felt like I had been bested by the machine. I then proceeded to run other programs and wrote a statistics package that calculated mean, median, mode, standard deviation, variance, histograms, and a variety of statistical tests. I wrote programs that solved the quadratic equation. I spent tons of time debugging other programs of all different types and poring over the impossible to understand IBM books. I even went to the trouble to buy a couple of user's guides for the machine and studied it in class while taking notes with one hand and flipping pages with the other. This lasted for a semester or two before I began to slow down. Whew, this stuff can get you if you don't watch out.

I fiddled with computers several times after that including the big mother IBM 360 that the University had. But that beast was more than my match and although I did get programs to run on it, it was clearly my superior. The thing about the old machines were that you had to have extraordinary knowledge of the machine just to get them to belch. The new modern computers with the advances made in hardware and software are much more user friendly. It is easy to get into computer programming especially with some of the connect the dots manuals that explain everything. Computer literacy is a good thing especially since there will be many computers in our lives. I still don't own a computer except a board level machine similar to the KIM 1 and a couple of programmable hand calculators including a TI-59 with printer. I use these mainly for number crunching. I have built some other machines, but really haven't spent a lot of time with time.

Some of the newer machines like the Vic 20 and Color computer are especially user friendly. The VIC is a small machine and I basically had no interest in it until I saw a CW, ASCII, and Baudot send/receive program that Darrell WA5TOO had purchased for his machine. I didn't think much of the Kantronics interface, but the software was OK. It seemed to work quite well and one night down at Dean's, I stored up a couple of preconfigured messages and got into a QSO with some guy on 15 meters and typed up the response to his first call, punched transmit, then got up for a drink of water, wandered around the room and sat down in

in front of the keyboard just in time to retune the receiver to pick up his response. This was kind of fun and I began to think of maybe acquiring one of these just for the stand alone purpose of RTTY.

The price on these babies has plummeted and my advice to anyone is to not invest anything you can't afford to not recover. Computers that used to sell for over a \$1,000.00 are now going on the market for under \$200.00. For example, I see that Target is advertising the Vic 64 for about \$189.00. This is a machine with a full 64 K of memory. The Vic 20 was going for \$89.00 and even lower. Well, this is now a price that even I can afford to dabble in.

Along with the computers have come the various software cowboys and auxiliary services. I got a copy of a new newsletter called Journal/20 the other day which is designed for the Vic 20. It came from Helen W4HZY in a very nice letter. It arrived after last month's pasteup, but it was very nice to hear from her. She is a former editor of QSP, the publication of the Tampa Bay Repeater Association. At first, I was afraid that my sortie into comments about the various club publications around the country had created another editor comment, but fortunately Helen's letter was very complimentary. Her son, Mike, who lives in Van Alstyne, Texas is the publisher of Journal/20 and she sent me a sample copy and told me she wanted him to meet me at Ham Holiday where he will be exhibiting. Well, Helen, I certainly will do that. And if I should break down and buy a 20, he might get a new subscriber. Never can tell. Anyway, thanks for the letter and I still don't know what the term Gasperilla that always turns up in QSP means.

Micheal Salem N5MS

A MODEM FOR ALL SEASONS-AMD 7910 CHIP

A classmate of mine from college now works for Advanced Micro Devices and he stopped through town the other day to visit. While he was here, I asked him if he could get me on the AMD mailing lists for books and new products. He said that he thought that it could be arranged and I got a variety of documents and manuals from AMD. They are one of the largest second sourcers of certain microprocessor chips such as the 8085 and others. They also make a large number of their own original devices. One of these is one that I expect will revolutionize the Modem industry, the AM7910. This baby is a single chip asynchronous FSK voiceband modem. It is pin selectable for baud rates of 300, 600 or 1200 bits per second and is compatible with the applicable Bell and CCITT recommended standards for the 103/113/108, 202, V.21 and V.23 type modems. Five mode control lines select a desired modem configuration.

This 28 pin chip is virtually a stand alone modem requiring only a crystal, and a few inexpensive, noncritical components plus a data access arrangement (DAA) or acoustic coupler to provide the telephone interface. You will need no external filters, no hybrids, no tuned circuits. All filters are already there. In addition, the chip has all handshake signals, auto-answer, local loopback, back channels, and because it is crystal controlled, doesn't drift with temperature or time. Power supply requirements are +5 Volts. I understand that the price is expected to get below \$100 or so, but haven't confirmed this, I need to call Barry. If anybody is interested, I have one data sheet that you can look over or you may want to write AMD, 901 Thompson Place, P.O. Box 453, Sunnyvale, California 94086.

Micheal Salem N5MS

Coming September 1st, 7:30 pm
on the Teleconference Radio Net

Senator
Barry Goldwater, K7UGA



147.03 MHz & 3900 kHz

Brought to you locally by WD5AI
Edmond Amateur Radio Club



Edmond Amateur Radio Club
P.O. Box 76262 / Okla. City, Ok. 73147

Editor: STAN VAN NORT WB5UIY

TELECONFERENCE NET SHAPES UP

Senator Barry Goldwater, K7UGA, will address Amateur Radio operators across North America via the Teleconference Radio Net on the first of September, at 7:30 pm Central Time. More than 75 thousand amateurs are expected to be listening to K7UGA through TRN's interconnection of over one hundred repeater stations in the United States and Canada.

K7UGA's talk is planned as a question-and-answer session with amateurs on the net to allow discussion of the "hot" topics in Amateur Radio today, and to provide interaction with a large number of amateurs across North America. To borrow a line--when Barry speaks, everybody listens!

Net Control Station for the September 1 net will be Ron Blessin, AF7A. The teleconference bridge engineer will be Lou Appel, KØIUQ, in Minneapolis. The Teleconference Radio Net is a service of the Honeywell Amateur Radio Clubs of Minneapolis, Billerica, and Phoenix.

Senator Goldwater is perhaps the foremost government official to represent Amateur Radio. His efforts in the past have shaped the FCC's policies and rules. His current efforts include legislation to provide for RFI rejection in manufactured electronic equipment, extension of amateur license term from five to ten years, and foundation recommendations on the proposed Volunteer Examination Program, of which he is very much in favor. He is also outspoken on the issue of the No-Code License NPRM, with his negative views closely paralleling the ARRL response.

Locally, the 147.63/.03 repeater will bring the net to central Oklahoma. In addition, a simulcast is also planned for 3900 kHz, plus or minus QRM on lower sideband. The HF operation will allow areas outside the '03 repeater's coverage area to listen in. Both transmissions will originate from the Edmond Amateur Radio Club's station, WD5AII.

EARC's participation will once again be in a listen only mode, and for this reason, the 63/03 repeater's receiver will be disabled during the net.

Net interconnect will be made approximately 7:15. From approximately 7:15 to 7:25, the net plays back pre-recorded interviews with the guest speaker. At the 7:25 time frame, the active talkback repeaters begin to check in to the net. This is a very interesting process, and the pre-net interview and check-in procedure are interesting to hear.

Mark your calendars NOW for the net. The next issue of Collector and Emitter will be delivered too late to remind you. The Teleconference Radio Net is of general interest to all amateurs, and is allowed under the FCC Rules regarding one-way transmission.

Thanks to Worldradio News for the bulk of this report. de WD5DYI

CALL FOR PHILLIP MORRIS

The 63/03 repeater's computer controller features a two-tone sequential paging sequence as part of the new software update. Tones correspond with the standard "reed" frequencies already in use by commercial systems.

The controller is capable of generating low distortion sine wave two-tone sequential signalling, compatible with most tone-only and tone-and-voice pagers, and two-tone sequential decoders. The controller supports all 60 standard frequencies, with one second/3 second signalling. In addition, a single 8 second "group call" tone capability allows simultaneous activation of all pagers with a common second tone frequency equipped with a group call option.

Paging may be initiated over the air or over the phone to allow selective calling of users who do not wish to continually monitor the repeater audio.

A suitable two-tone sequential decoder which is small enough to be built into many radios is the Communications Specialists SD-1A. It includes "call light" latch which stores the page request and may be used to light a lamp or LED. Together with the Mailbox feature (see last month's C&E), lighting a Member's call light and leaving a message in the Mailbox provides a truly enhanced communications

system.

A call to Communications Specialists on their Toll-free number sent a sales brochure my way. The decoders are described as follows:

"SD-1. Two-tone sequential decoder. Available in the frequency range of 268.5 to 2109.4 Hz. This compact unit measures only 1.2 x 1.67 x .65 inches and operates on 6-16 volts DC. It is driven directly from the discriminator with a sensitivity of better than 25mv RMS and a limited maximum bandwidth of ± 2 Hz. It is completely immune to RF. The unit features a momentary open collector output for horn relay, a latched open collector output for a call light and a latched open collector to unmute the receiver audio. Color-coded wires and universal mounting hardware are included. Complete with two K-2 elements. Price \$59.95 plus shipping."

While on the phone with Communications Specialists, the engineer told me that Comm-Spec would be introducing a new version of the SD-1 soon. The new unit will be programmable (instead of the specific elements) and would retain the approximate price and size. He was rather non-committal on availability and said that the future of the unit would be determined by the company designing the IC for the unit. Even though price, size, and availability is still anyone's guess, I think I'll wait for the frequency agile unit.

In any case, a check should be made with Dennis before ordering a decoder. Tones should be assigned to avoid duplication.

USERS MANUAL IN THE WORKS

Members of the Edmond Amateur Radio Club will be given a manual on the RC-850 Controller. Plans are now underway to write a user-oriented publication to help in understanding the many features of the microprocessor-based machine.

Since the controller was placed in operation in July of last year, many new changes have taken place in available features. The manual will provide an overview of the operation and implementation of these features to make it easily understood.

Many members are hesitant to use the repeater to its full advantage. It is hoped that with the publication of the manual, more can get familiar with the convenience and outright fun of the machine.

SCHEDULER WORKING LIKE GANGBUSTERS

The controller's built-in scheduler is working very well. Currently, the repeater goes into three basic set-up states at various times of the day and days of the week.

Morning and afternoon drive-time states allow more time between unkey and courtesy tone to allow more of a chance to break-in on a QSO. The time-out timer is shortened to discourage monologues during this time and as of this report, receive antennas are switched to favor the southwest during these times. This gives us maximum coverage toward the Metro area during the times our members are most likely to be on the road. The ID during these times is cut back to a simple CW "WD5AII/R" to eliminate the yak-yak of the synthesized speech.

Courtesy tones now indicate the set-up state of the repeater. Get to know the pitch and style of the tones and you'll subconsciously know what state the controller is in. As of this writing, morning drive time is 6 am to 8 am, and afternoon drive time is 4 pm to 6 pm. The controller is normalled to its rotating IDs and longer time-out timer between 8 am and 4 pm and after 6 pm.

If there are any questions among the membership regarding the operation of the controller, please call Dennis, Mark, Stan, or Wendell for information.

ONE RC-850 DESERVES ANOTHER

The main instigator in the idea to purchase the controller for 63/03 was Michael Salem, N5MS. He led the "co-conspirators from Dayton" to make the sales pitch to the rest of the membership. Thanks go to him for ordering the unit and for making all those phone calls and arrangements.

Michael likes the controller's features so much that he convinced himself to buy one for his own repeater in Norman. He debated the purchase for many months, and finally succumbed to his desires.

Possibly by the time this report is read, there



MEMORY MAP

HEX	DEC	Description
**NOTE- 8F to AA is copied from A10D - A1B9 at start up **		
008F	143	Wavelength reference
0090	144	Upper cass. wavelength
0091	145	lower cass. wavelength
0092	146	MSB munber of bytes
0093	147	LSB at header (128)
0094	148	Cursor flash countdown
0095	149	MSB "LPTDTB" Baud rate delay
0096	150	LSB baud rate delay
0097	151	MSB "LPTLND" end of line delay
0098	152	LSB End of line delay
0099	153	"LPTCFW" line print column width
009A	154	"LPTLCF" Maximun tab
009B	155	"LPTWID" char. per line
009C	156	"LPTPOS" line print position
009D	157	MSB cloadm entry point
009E	158	LSB cloadm entry point
**note- 009F to 00AA is code to fetch each Basic char. **		
009F	159	INC \$A7 ;Bump LSB parse pointer
00A0	160	" " " " " "
00A1	161	BNE ++2 ; if no carry
00A2	162	" " " " " "
00A3	163	INC \$A6 ; else bump MSB
00A4	164	" " " " " "
00A5	165	LDA fetch current
00A6	166	address ; Basic parse pointer
00A7	167	" " " " " "
00A8	168	JMP \$AA1A ; back to Rom
Through		
00AA	170	" " " " " "
00AB	171	Scratch usage
through		
00AE	174	" " " " " "
00AF	175	Trace flag
00B0	176	MSB Defusr table pointer
00B1	177	LSB " " " " " "
00B2	178	current foreground color
00B3	179	current background color
00B4	180	color in use
00B5	181	color byte for video ram
00B6	182	current pmode
00B7	183	MSB end of current hi-res screen
00B8	184	LSB " " " " " "
00B9	185	number of bytes per hi-res line
00BA	186	MSB start of current hi-res
screen		
00BB	187	LSB " " " " " "
00BC	188	Hi-res base address
00BD	189	MSB start of current X coordinate
00BE	190	LSB " " " " " "
00BF	191	MSB start of current Y coordinate
00C0	192	LSB " " " " " "
00C1	193	current CSS mask (0 or 8)
00C2	194	pset =1 preset = 0
00C3	195	MSB line X end coordinate
00C4	196	LSB " " " " " "
00C5	197	MSB line Y end coordinate
00C6	198	LSB " " " " " "
00C7	199	MSB previous X end coordinate
00C8	200	LSB " " " " " "

If I stop here this month, I can complete the memory map next month. The meeting with the Telephone co. is more important anyway, right!

At the June 30th meeting with the corporation commission there were about 125 people present and one-half were computer types. I dare say, more would have been there if the C&E had been a week early but it was just as will, the room would not hold more people anyway.

The meeting opened with complaints about the increases the Telephone Co. are asking in the tariff effective Jan. 1 1984. These may increase you bill by two or three times! So I hope you don't mind us taking time to voice our opinon of that tariff while we were there.

After all the unorganized people (like me) said their peace, those who had prepared speeches were called to the front. Two of these were noteworthy, Ron Hilbun who was

CORA Collector & Emitter-AUGUST

speaking for us and a John something from Moore,Ok. (I didn't get his last name), John was speaking for the elderly people of Okla.. I can not do Johns speech justice here but if ask at the monthly meeting may try to repeat parts of it.

Ron Hilbun, one of the keepers of flexnet, did us proud with his speech. He elegantly stated what was happening to us and what we would like to see done. Most notable, a change in the tariff causing the trouble. At the least a redefining or classification of the word Computer as it is used in the tariff, so as not to apply to home computers.

South western bells representative at this meeting took the wind right out of our sails. He agreed with us! He said that we, through phone calls, meetings and with the corporation commission had made our point and the Telephone Co. would see what they could do. He was just alittle unclear as to what that might be! My impression of what he said was "Trust Me, Trust Me".


After the meeting was over we, Bob Pace, Bill Holand, Ron Hilbun and Myself, cornered the representative and worked out a solution, at least for now. This is how it goes --- The law requires you to report a Modem but not what is hooked to it! South western bell charges for the computer not the Modem! While the computer is on line it looks for all the world like a terminal, which the Telephone Co. could care less about. Thats all the parts have you put them together yet?

I like the way Bill Holand said it best,"If it looks like a duck, sounds like a duck, swims like a duck then its a terminal!" When reporting your Modem either do not say whats hooked to it or say a 'TERMINAL'. The Phone Co. should not charge you anything, if they do - protest!!

See you at the meeting, Aug. 6 at 9AM.. Holly

PS - As most of you know I've been gone alot the past two months for one thing or another, class reunion, vacation and a knee operation. The last two months I've had alot of help with thing like those monthly cassettes we give to new people at the meetings and I would live to Thank that person. THANKS Bill Courtwright.

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TRILOGY REVIEW

Trilogy is an adventure marketed by Softlaw and written by Kevin Herrboldt and Tim Nelson.

There are really two programs on the disk but you can only load the second one if you complete the first part.

The advanture begins :

This is the second age of the mandorool. You are living in the realm of mandor, beneath the Cimeeon moon. AS one of the royal Ruumuuo, you are a great load warrior - the O'venlo'eer. The sword you wield is the mighty O'sword, which can release powerful fireballs on command.

You must prove youself in combat and go on a quest for the EYE of Dazmor, which is below the castle Argaan, and restore it to it's resting place in forsaken gulch.

You must defeat two opponents before you can get to the white Void which is where the Castle Argaan is located. Your first foe is Narthoks; The Toomoth is the final and most ominous.

MORE - COCO

Once inside the white void you can not get out without the EYE. If you get EYE and return from the white void you'll find yourself in the Ugrek mountains. You must take the Eye into a cave and down into the subterranean world and restore the EYE to it's resting place.

While combatting your way through these adventures you have several commands at your disposal. To use them type the command and press ENTER. There are three commands you may use during the ceremonial combat --- PARRY, ATTACK and fireball. All the other commands listed below may be use within the underground except Fireball.

ATTACK : thrust your sword
 EXTINGUISH: puts out torch (saves light)
 Fireball : sword releases fireball
 Hide : hides you while resting
 Jump : you may wish to jump before you look
 Knock : polite way to enter a room
 LIGHT : Lights the torch
 LISTEN : you might hear thing you need
 OPEN : opens doors
 PARRY : deflects your opponent blows
 PRESS : you may wish to press on a door or ?
 PULL : oposite of press
 REST : revitalizes your strenght
 SEARCH : finds things hidden
 TAKE : used to pickup things like the
 EYE
 TAP : make noise (find cavities in walls)

Use arrow keys to move right, left, forward or backward. shift clear will reset the program.

--- GOOD LUCK ---

HAM HORRORSCOPE

Leo July 23 - Aug 22 You are a quick and intelligent thinker, and people often admire you for your sense of timing in a contest. You are bisexual, which means you tail-end a lot.

MORE EDMOND

may be some new sounds emanating from the N5MS repeater. In any case, we are very proud to have a sister controller among our ranks here in Oklahoma. Good luck with your installation, Mike!

OUR OWN AMSAT, OF SORTS

During the recent Ham Holiday, the '03 repeater's scheduler switched-in a satellite receiver, cleverly placed in the downtown area. This allowed members to access the machine from deep in the bowels of the Myriad Convention Center.

Besides the obvious advantage of good communication from one RF jungle to another (downtown to Broadcaster's Village), the satellite receiver provided experience toward our future voter system. It was determined that our pesky intermod problem is also as strong downtown as in Broadcaster's Village. It also provided field testing of our new receivers and link equipment.

The scheduler was able to switch the downtown unit at 8 am and return it to normal at 5 pm on Saturday, and normal at 2:30 pm on Sunday, after the Drawing.

(EDITORS NOTE: C&E policy is to ignore submissions that are not signed. The following letter was received in a plain envelope, no return address. After reading it, it made so much sense I decided to waive the ID policy so here it is. I wish he/she had ID'd. Joe, WA5ZNF.)

Dear Editor:

Comments in a recent issue of CORA C&E prompts the following comments:

Apathy, Lack of interest, disagreement among members can all create poor attendance at club meetings of any group or organization. Perhaps the biggest culprit of all, and the most often overlooked is the so called "Business Meeting". A refresher course regarding the duties, obligations and responsibilities of both members and officers is in order.

Any club meeting worth its salt must be presided over by an elected officer. Presumably one who was elected by their peers who assumed that by accepting the nomination, they were willing to put forth the effort and leadership necessary for a successful club.

One of the primary responsibilities of the presiding officer to the membership is to **EFFECTIVELY AND EFFICIENTLY CHAIR AND CONDUCT THE BUSINESS MEETING**. Informality and levity within a group are fine, but they have no place in a business meeting. The meeting should be called to order on time, visitors recognized and made to feel welcome, and get on with pending business matters. Discuss and vote the issues at hand, entertain a motion to adjourn, and get on with the fun part of the meeting. (The fun part is whatever you have offered as bait to lure the membership away from their hamshack, TV, ball game or whatever else you have to compete with.)

The members in attendance have responsibilities too. It is a members responsibility to support the club and its officers in all club endeavors. A member also has responsibility to participate in the business meeting, and in a manner that is **THOUGHTFUL AND CONSIDERATE** of others. Wait to be recognized, get up and say what you wish in a **POSITIVE AND DIRECT** manner and sit down so others may have the same opportunity. If you have thoughts and ideas to put across to the membership, **DO IT BEFORE THE BUSINESS MEETING**. A 15 minute, rambling, unorganized discussion has no place in a business meeting.

There is one club in the Oklahoma City area that conducts their meetings in just that manner. They are always well attended.

73,
 The Old Man

WOODY DOES A FAST BURN

Many of you have seen T. Van Woody's beautiful blue motor home with the two antennas, call sign plates and all the accouterments of a ham's rolling QTH.

Don't look now for it is too late. The other night a neighbor awakened them and advised that it was on fire. Sure enough it was an inferno there in the parking lot.

The fire department tried but it was too late. The investigator discovered that the side window had been forced and when frustrated by not finding radios poured gasoline around and set it on fire to cover fingerprints and/or other evidence.

Was the thief attracted by the antennas and call sign plates? He couldn't see from the ground that the radios had been removed.

The South Canadian Amateur Radio Society

SCARS PICNIC.....

The South Canadian Amateur Radio Society held a real summertime event in the form of a picnic on July 9th. Over 20 people showed up which wasn't a bad turnout in light of the fact that many club members had not at that time received their C & E as a result of the usual efficient service of the Post Office. (I finally got mine on the 14th.) Eating and visiting were the events which drew the most participants. The sack race and the three legged race were both won by Ken Neptune KA5EFJ (he was the only entrant). Ken's easy victory in the three legged race is very remarkable since he ran with the handicap of only having two legs. The evening was rounded out by the good entertainment provided by Kevin Neptune (Ken's son) who played the guitar and sang.

BALLOON RACE REMINDER.....

Ken, KA5EFJ is coordinating the SCARS participation in the balloon races at Westheimer Field in Norman on the week-end of August 27th and 28th. Let him know if you can help. He says that he may be a little hard to get in touch with for the next couple of weeks, so keep trying. About 30 volunteers are needed. The next SCARS meeting has been moved back a week and will be held on August 20th (Saturday), and a representative of the OU Police Department will be on hand that day to brief the operators that will be helping on the day of the balloon race. By the way, Ken's phone number is 321-7789.

SCARS MEETING MOVED.....

Well, the place is the same, however the date of the next meeting has been moved to August 20th. This paragraph is for anyone who just scanned the above paragraph. As written above, the meeting has been moved to accommodate the briefing for the persons that will be helping with the balloon race on August 27th and 28th.

-wa5rpp-

=====

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hardware or software, and seemed glad to give a helping hand at any time. John was a true ham's ham, and we'll miss him (and Fran too).

ICE CREAM SOCIAL THIS MONTH AT SIX THIRTY P.M.

Don't miss this month's ice cream social. If you haven't been to a meeting in awhile, this is a good opportunity to get reacquainted with the old gang. For more details, see the front page of this issue.

Bruce KC5CR

CORA Collector & Emitter-AUGUST



BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

Well, I hope everyone had fun at Ham Holiday 1983. Since paste-up is before the convention, I can't give you much of a report on what occurred, but I'm sure it went well.

The 76ers did their usual preregistration duties and the final total of over 700 people was encouraging. Due to the inability of one of our members in fulfilling his duties; Ted WD5JNT was forced to line up all of the programs for the convention, despite the fact that he is C.O.R.A. president and has too many duties already without having to worry about programs. This is just another result of inactivity in the club. If more people would get involved, there would be less work for everyone. Let's see some new faces around.

We need people like KB5BS, WB5VCB, K5UAB, and KD5SX back. Bill, Jim, Ken, Dale, where have you gone?

FLASH: REPEATER IMPROVEMENTS TAKE PLACE

By now, everyone knows that the repeater location has been temporarily changed from South Community Hospital to south 24th and MacArthur. This is so the system can be cleaned out and fixed up with the new circuitry. However, the antenna height was less than idea for good (or even fair) repeater coverage. Several weekends ago, AE5N, WB5TMW, N5EDT, and KC5CR (with a special guest appearance by KA5GTM) all raised the repeater tower to a new height of (gasp) 100 feet. This new height, while not competitive with the height of the repeater it is at its usual location; still resulted in a substantial improvement over the previous coverage at 2400 s. MacArthur. The new antenna array, fed with high quality 'hard-line' coaxial cable, is substantially better than the phased seventeen element beams used beforehand. Although this doesn't hold a candle to the coverage we had on top of the hospital, it will have to do until the for the time being.

The preregistration envelope stuffing contest went well this year; even better than last year, in fact. All work was accomplished in about four hours. People instrumental in this achievement were AE5N, WB5TMW, N5BEQ, KC5CR, WD5JNT, and XYL Venus. The winner of the contest was again KC5CR, who took home the grand prize of 461 stuffed envelopes. Thanks go to all who made this event possible.

KH6JTE LEAVES OKLAHOMA FOR GREENER PASTURES

I'm sorry I waited so long to write about this, but John Galway KH6JTE and XYL Fran KH6JUM have both departed for Fort Walton Beach, Florida. John is in the Air Force, and Florida is his next assignment. The family departed in late May, and it's quite possible we will never get to see them again.

John was an active 76er and served as president of the club for some time as well.

He was a C.O.R.A. representative for some time, and was the Ham Holiday preregistration and registration chairman for two years. John was a computer programmer in the Air Force and his main job was writing training programs for the A.W.A.C.S. planes at Tinker Air Force base. Away from work, he wrote critiques on computer programs for several fine computer magazines. John was generally recognized by everyone as one of the best computer programmers in the nation. He was always there whenever any of us needed some help with

CIMARRON A.R.A.

EDITOR: Jack Day, N5FMQ

The CARA REPORT this month will obviously have to begin with a Field Day wrap-up. For most of us it was a brand new experience.

Little did we suspect when we spit on our CQ FD and trustingly cast it into the air that it would be walked on, kicked around and chewed vigorously about the head and ears.

Still we CARA members are a sturdy lot and when the dust had settled, CARA had racked up 183 sideband and 401 CW contacts. Altogether, with bonus points, we managed to snare 2300 points. Not too bad, considering that KD5YB turned into a pumpkin at the stroke of midnite, and KI5P had put in such a day that he was unable to rise from his sack and walk...leaving the CW position unmanned for several hours.

Thanks to the Denny Paintons, who provided a well swamped out cattle trailer with a top for our radio shack, we got only mildly damp when the inevitable rain blew in.

The portable generator, that hadn't been even turned over in several years, was revived through the heroic efforts of Denny and Major Bailey...running like a champion until ninety seconds before QRT, when it hiccupped and died, never to run again.

It was hectic....it was gruelling...it was exhilarating! Everyone had a barrel of fun and all are making plans to run the table next year.

God and CARA will surely bless our YL'S and XYL'S. They were the best support group a Club ever had. Not only did they provide the life sustaining vittles but worked in the shack as well and the Joe-pot was always there when we needed it. SAAAAALOOOT to the ladies!

The hardy participants included Fred Simpson N5FUO, Ruth Simpson N5FUR, Dede Bailey N5FUN, Brad Bailey KA5ROB, Major Bailey KI5P, Denny Painton WB5ECM, Nadine Painton N5PMH, Laurie Merrill, Mr. and Mrs. Walt Harris WD9BIT, Mr. and Mrs. Dale Dalrymple WD5GUG, Vern Brewer, Mike Mongold, and Jack Day KD5YB.

We were especially happy to have Jerry Bryan WB5LTU of Tipton as a working guest during Field Day. Jerry and his wife Janice are very talented artists and participated in the Art Show in Fairview between shifts on the mic.

The Novice training class has two success stories so far. Ten year old Brad Bailey has his new call sign as noted above, and Betty Day, who, in spite of all the hand wringing, Aced the course! Several more are imminent... Congratulations!

The July 18th meeting of CARA was a good one, with lots of plans put forth. A working booth at the Major Co. Fair, a RACES sub-net for the area, a Fall electronics class, and a mass migration to OC for Cora's HamFest was all enthusiastically discussed.

The Major Co. Repeater Ass'n. also held a short meeting and apportioned the cost of the new Xmtr that replaces the one that self destructed a couple of weeks ago. Its good to hear KI5P ID'ing again on 145.45!

Cara was also surprised by a flyir- visit, during Field Day, from Quentin Raoul Semisolid, the famous International DX Champion. Quentin Raoul, fresh from a triumphant DXpedition in Upper Mongolia, unlimbered his famous WW2 Vibro plex and knocked off 380 CW contacts for us in something under 38 minutes, working two rigs at a time while he chatted with the boys and caught up on old times. When asked why he was back in the U. S. of A., Quentin said that he had heard that some low life, impersonating a DXer, was dishonoring his ex-girl friend with his attentions. "This Zedd is dead"! he said. When told that Zedd had fled, Quentin Raoul merely smiled mysteriously.

Quentin Raouls departure was somewhat marred when he inadvertently unreel his long-line before his Spad had cleared our emergency outhouse....leaving our President waving a rather strained farewell!

IT WALKS THE EXTRA MILE

That's an unusual title for a book review, but it's one well suited for the VHF/UHF Manual written by G. R. Jessop, G8JP, and published by the Radio Society of Great Britain. This book has all the features of other well-written manuals on the subject but does not stop at mere excellence; it "goes the extra mile."

The index of its chapters provides a quick overview of its scope.

1. Historical perspectives.
2. Propagation.
3. Tuned circuits.
4. Receivers.
5. Transmitters.
6. Integrated equipment.
7. Filters.
8. Antennas.
9. Microwaves.
10. Space communications.
11. Test equipment.

Of these, I found "Propagation" to be an excellent example of the "extra mile" concept. Under "Tuned Circuits," you'll probably find ones that you either never knew about or had forgotten! They're all there. And never have I seen in a general manual such a wide-scope yet detailed treatment of filters.

It would be repetitive to describe each chapter. Let's just say that each one has in-depth coverage of its subject. You'll note that construction details are given more emphasis than in the typical American handbook. This feature will be appreciated by the inquisitive and ambitious amateur who goes beyond the "appliance operator" category and builds at least part of his equipment. This is especially applicable to the "Microwave" field, where "off the shelf" components seldom are available.

If you feel that I'm recommending this manual highly, you're right. I feel, strongly feel, that it's truly outstanding and merits a place on the bookshelf (and on the operating table) of every Amateur of Radio Communication and Technology who is interested in the Very High and the Ultra High Frequency portions of the Amateur Radio assignments..

W5JJ

Q S - Something or other !

Louis Kruh, WB2EZX, combines his two hobbies of amateur radio and cryptology by featuring a simple substitution cipher on his QSL card.

The cryptogram, easily solved by substituting its letters for the appropriate letters in the "key" alphabet around the edge of the card, asks for help in his search for cipher machines, books, manuals and other items related to secret writing for his collection. Lou has been interested in cryptology since World War II days and is vice-president of the American Cryptogram Association. The editors of the World Almanac selected him for inclusion in their Book of Buffs, Masters, Mavens and Uncommon Experts. His address is:

17 Alfred Road West, Merrick NY 11566.

Take a look at the QSL card below and if you can help - or need help - let him know.

AZYXWVUTSRQPONMLKJINGFEDCB AZYXWVUTSRQPONMLKJINGFEDCB
ABCDEF GHIJ KLMNOPQRSTUVWXYZ ABCDEF GHIJ KLMNOPQRSTUVWXYZ
WB2EZX
XMCMG TAFWA NCYJC LHMUJ ALTCS HWOIV MJOCY MPPWY HSMND?
Louis Kruh
17 Alfred Road West
Merrick, New York 11566
15
AUGUST-CORA Collector & Emitter

OK DX

De AD1S.

NEXT MEETING—AUG. 8, 1983

Another excellent meeting last month, disappointing only because the restaurant failed to present the promised munchies. We have scouted around and will try a new location for the August meeting.

Everyone is invited to join us at OK DX, August 8, 1983 at FRED GANG'S RESTAURANT, N.W. 39th Expressway, Oklahoma City. I am told the 'Happy Hours' never end at Fred's, and the free Hors D'Oeuvres are very, very respectable. Come any time after 5:30 PM and join us for refreshing stories, DX information and goodtimes.

We are always happy to see new faces at the meetings... remember, we have no officers, no dues, no business meeting...just a relaxing hour or so with folks who share an interest in amateur radio DX'ing.

By the time if you read this, Ham Holiday '83 is history. We hope you enjoyed the big show at the Myriad and came home with an award or two.

The DX bands have been remarkably active, with the chance to work a new one for many folks. Several members worked the 1A0KM station which showed up during the July 9, 1983 weekend. The word is that this station will not return to the air until late this year. Congratulations to Gil, W5NUT who worked the 1A0 for country #315 (on the active DXCC list). That's how you stay on the Honor Roll!

Rumours continue that the recent Spratly Island DXpedition, 1S1CK by DU1CK, will not count as Spratly because the operation occurred on an island claimed by the Phillipines. Thus it will only count as DU... Sorry about that, Doc.

The DX Advisory Committee will soon vote on whether to delete Spratly from DXCC. I suggest that you write the West Gulf Division DXAC representative to express your opinion on this debate.

The ARRL reports that Bill, K1MM has been invited to guest-operate BY1PK, the first American to operate (legally) from the People's Republic of China since 1949. Meanwhile, BY1PK and BY8AA still show up periodically around 14.050 or 21.050 between 0100 and 0200 UTC.

- ON THE BANDS -

S. YEMEN, 70 - we have heard this one before, but here we go again, hoping for some truth this time; scuttlebut has it that J28AZ will operate for a brief time starting around August 26. Everyone would like a shot at this one...scream like a banshee if you hear 70!

KERMADEC, ZL - Jim Smith, VK9NS has been heard to say he has received permission to operate from Kermadec during a combined radio-scientific trip later in 1983 or (probably) early 1984. Jim is collecting donations to help pay off the recent Heard Island

CORA Collector & Emitter-AUGUST

trip plus gather funds for a Kermadec effort. Send donations to Heard Island DX Association, P.O. Box 90, Norfolk Island, Australia 2899.

MALPELO, HK0 - now looks like a sure thing from the Colombian Radio Club. Scheduled arrival should be around October 12, 1983 if all goes according to schedule.

CLIPPERTON, FO - Plans are underway for a DXpedition by a large group of French, Tahitian and American DXers during the month of August 1983. Keep your receivers sharply tuned... and call AD1S if you hear this one!

IRAQ, YI - YI1BGD is still peeking in and out, mostly on 20 meters. Listen on 14.250 Mhz around 0400 UTC on Thursdays for the Arabian Knights Net and possibly Sundays around 0400 UTC on or near 14.205 Mhz. This one is easier to work than he is to QSL...

PALMYRA, JARVIS ISLANDS, KH5 - Those of you that visited the DX program during Ham Holiday already know of the plans to activate Jarvis Island during late October 1983.

The last effort from Palmyra Island did not count for DXCC credit because AD0S could not obtain WRITTEN permission to operate from that privately owned island. Alas, the island is embroiled in litigation and controversy, and still unavailable for ham radio.

Jarvis, however, is a United States wildlife refuge and is off-limits to everyone. But, we have managed to obtain a Special-Use permit for a brief operation from Jarvis. In return, the ham operators will take a U.S. government biologist to study the island wildlife while we "study the propagation."

We have several experts researching the location of Jarvis and we believe that it is MORE than 500 miles from Palmyra. If we can prove this to the DXCC desk, Jarvis may in fact be a SEPERATE country from Palmyra!! You can fill in the blanks... if we can convince the folks in Newington.

Look for AD1S/KH5 from Jarvis Island in October, 1983. We have obtained transceivers, antennae, generators and other equipment, but we are desperately searching for a motorized vessel OR a PBV Catalina "Flying Boat" in Honolulu at this very moment.

The trip from Honolulu is about 1,200 miles or about 240 miles from Christmas Island in the Republic of Kiribati. Suggestions from folks familiar with the Pacific--- or with lots of money are welcome to contact AD1S. Hi.

See you at OK DX on August 8, 1983. Good hunting until the next pile-up. De AD1S.

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COUNTY ARC

How was your Field Day?? Ours was great! The "hard-core" operators were Vern-N5ANV, Dave-WN5LUI, Glenn-KA5PUB, Dr. Paul-KA5PYG, Harry-WD5DPR, and myself. Other people who helped a great deal were Delbert-WB5YRN, Dave-KD5FX, Charlie-N5EYD, Chuck-KA5PYR, Grady-WB5SAG, Bob-N5FUV, Paul N5EGP, Rick-WD5DPW, Marvin-WB0VHC, Sam-WD5BXI, Leo-N5DZO, Cosby-WB5JYC, and Bob-N5PC.

We used the club call, W5HZZ, and had stations on 40M, 20M, 15M, and one spare station that could be set up on 10M or 15M. Dr. Paul brought out his new Kenwood TS-930 to try it out, and it really did a good job...especially after you learn how to operate the thing!! Other rigs which were brought out and used were furnished by KD5FX, N5EYD, and WD4CEP.

The antennas that we used were a Mosely Triband, 2 dipoles—one for 80M and one for 40M, and a "marine special." This last one was an idea from Dr. Paul which consisted of a 20M vertical placed on a "float" with a wire running from the base into the water for a ground. Then we floated the antenna out into the lake and tied it off. Boy, did that antenna work good! If a station could be heard, we could work it.

The Field Day site was located at the Lake Ponca sailboat area. Even though it started to rain during supper, we kept dry under the pavilion and kept on eating and operating. The covered dish supper was enjoyed by everyone that was already there and the other hams and their families showed up.

On Sunday, July 16, the great Ponca City Raft Race was held, and our club helped to provide the communications between the various checkpoints. Vern-N5ANV and Tony-WD5EAA rode down the river with the other rafts. The course was 11 miles long and started just below the Kaw Lake Dam and ended at the Old River Bridge.

The race consisted of two categories: one consisted of factory built boats and the other was the home-made type. Believe me, the most different ones were the homemade. For instance, there was one that floated on large plastic bags filled with empty milk jugs; another floated on empty beer kegs; and several others were made out of tire innertubes and anything else that could float.

The other hams involved were Delbert-WB5YRN, Dave-WN5LUI, Tom-KA5OHU, C.L.-W5ZWM, and myself. Everyone had a great time and a lot of fun just watching the other people.

Tom-N5ZR finally got a low-band rig and is really enjoying it. He can't quite hide his antennas as well as his 2M antenna, but for a single guy he has a lot of stuff.

Charlie-N5EYD is now the new Oklahoma State Editor for the Army Mars newsletter and is really enjoying his job. This gives him a chance to learn to type on his computer.

Harry-WD5DPR and his wife are off again on their motorcycle to the SW part of Oklahoma to another rally, which is about the third one for him this summer. If he can just get his wife to hold the umbrella when it rains or the sun gets too hot, he'll have it made.

Louis-KA5JLZ has been busy this summer with a trip to England and just lately returning from California. Hope he has had time to study and get ready to upgrade in August. We will then see just how good the Heath study guide is. Good Luck, Louis!!

Doc Paul-KA5PYG has joined the Navy Reserves this summer. Can you just imagine a doctor drawing KP? With his luck as with his new Kenwood 930, the dishwasher won't work.

The topic for the July club meeting was "Public Awareness." The report was given concerning Kay County Field Day. The club worked over 700 stations and nearly all states. Also several countries contacted. The report was given by WB5YRN about the Annual Jaycees Great River Raft Race, which the club provided communications for the safety end of things.

Comments about the weekly 2-meter net were brought to light by N5ZR to instill more interest and have more information on the net. It was suggested to have the ARRL and WIAW bulletins broadcasted, and also for training to have all club news information in the form of a message rather than as just comments.

N5EGP, the CD representative from Newkirk, reported comments from people in his area about our weather AUGUST-CORA Collector & Emitter

ALTUS AREA



AMATEUR RADIO
ASSOCIATION

During prior meetings the idea of a transmitter hunt was discussed and very good enthusiasm was noted. However on the day of the of the big bang, July 16 it turned out to be a little puff.

Three hunters showed up with assistance and various types of antenna configuration. K5KCJ and Red, using a four ele. beam. WB5UMH and WD5BBO Deanne and Paul appeared on the scene with a DF loop and musical horn. The horn got more attention than the loop.

Gary KE5BS with his height of near six five figured a dipole would do the job. Yours truly W5UVX hid the one watter with a quarter wave vert. Keyer and motorcycle battery for timer and power. Time set for one min. on four off.

First winner of the 5/8 vert. was Frank, K5KCJ and hunting time was 35 minutes. After he relocated the rig Gary, KE5BS took 65 mins. and took the 1/4 vert for second prize. All in all we had a good time with a little frustration at times when the rig dropped off the air. Deanne and Paul shut down due to some excuse but they are not quitters and are willing to give it another go. My thanks to those who did make a showing and lets do it again.

Members at meeting July 14, 83

FB5LS	Jim	WD5BBV	Ralph and XYL
W5CCV	Joe		Mary
N5FOR	Herb	WA5GOC	Oliver
WD5BBO	Paul	WBOWCB	Ralph
WB5UMH	Deanna	KA6RTX	Bill
KE5BS	Gary		
W5UVX	Les		
W5ZDI	Clyde		
KA5KVU	Dennis		

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nets. Our nets were more professional sounding and had more information broadcast than the Public Service Radio (Police, Fire Dept., OHP, etc.).

There were a few comments about the NEW TELEPHONE RATES. They sure have gone up all over the state.

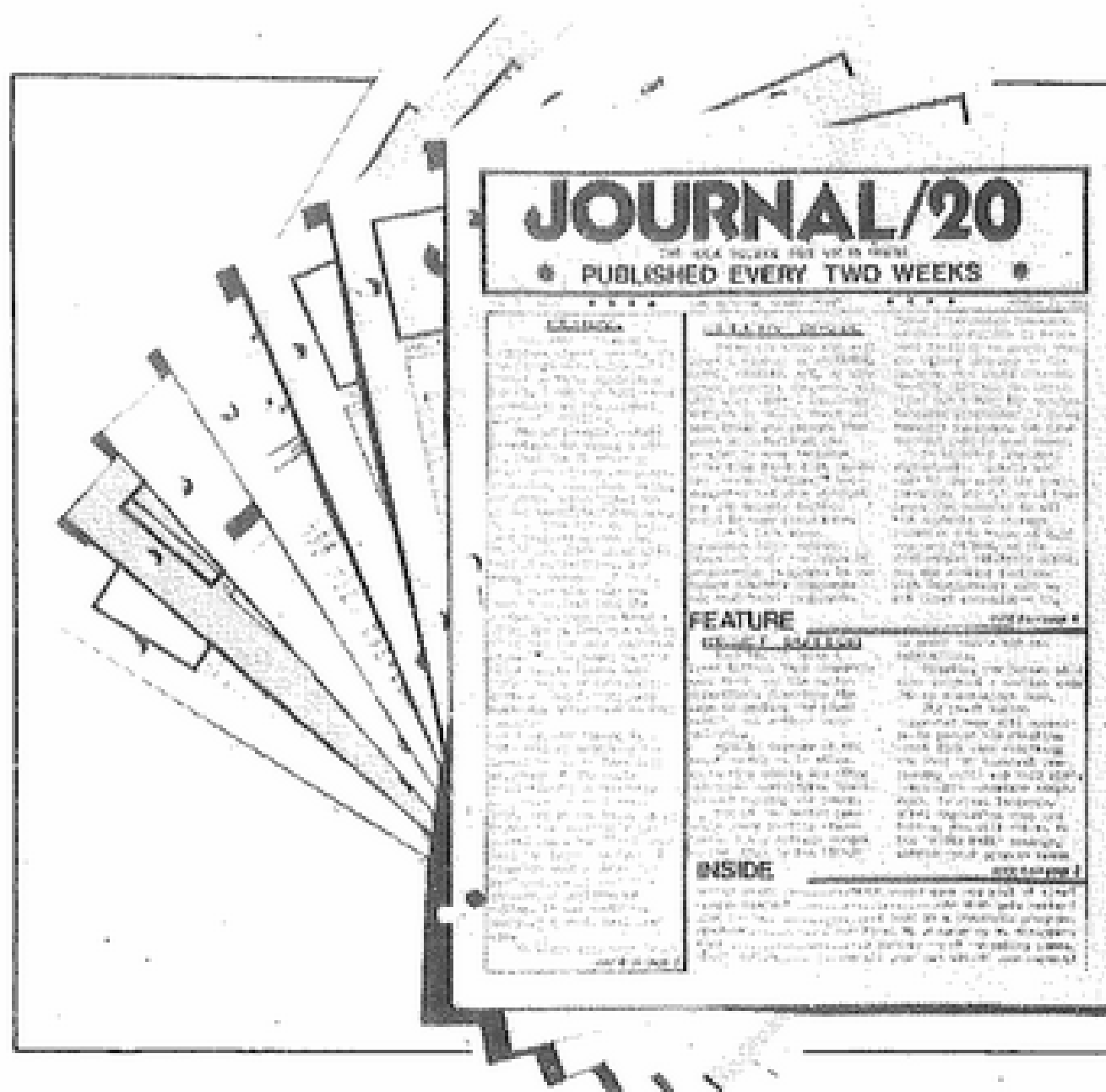
Members present talked about a Novice class again this fall. There are numerous persons expressing a desire to become amateurs and now is the time to start planning for a class.

"Public Awareness"—The club will try to announce club meetings and other club functions in the local newspaper. Subjects of other club functions at which to use amateur radio were discussed.

The topic for the next month's meeting will be "A Mountain DX-pedition" by WD5EAA and N5ANV.

I finally got a word processor for my computer and trying it out on this article. It really makes life a little easier by allowing me to correct any (many) mistakes or to add any news to it. I would like to thank Delbert for some of the news input and for typing up the club minutes, as I was out of town. Until next time.....

73's
Rick--WD4CEP



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I =			$\frac{E}{R}$	$\sqrt{\frac{W}{R}}$	$\frac{W}{E}$
R =	$\frac{E}{I}$			$\frac{E^2}{W}$	$\frac{W}{I^2}$

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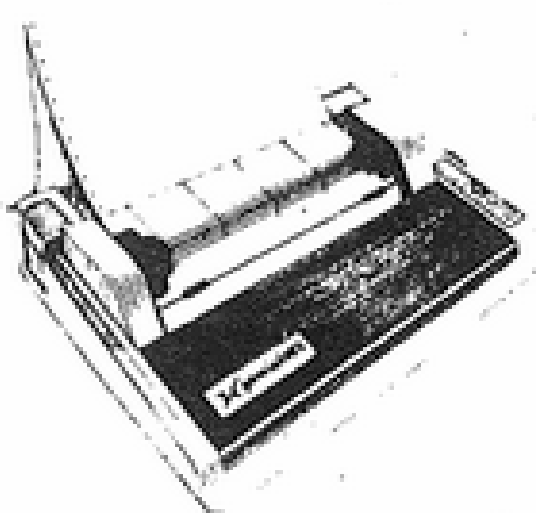
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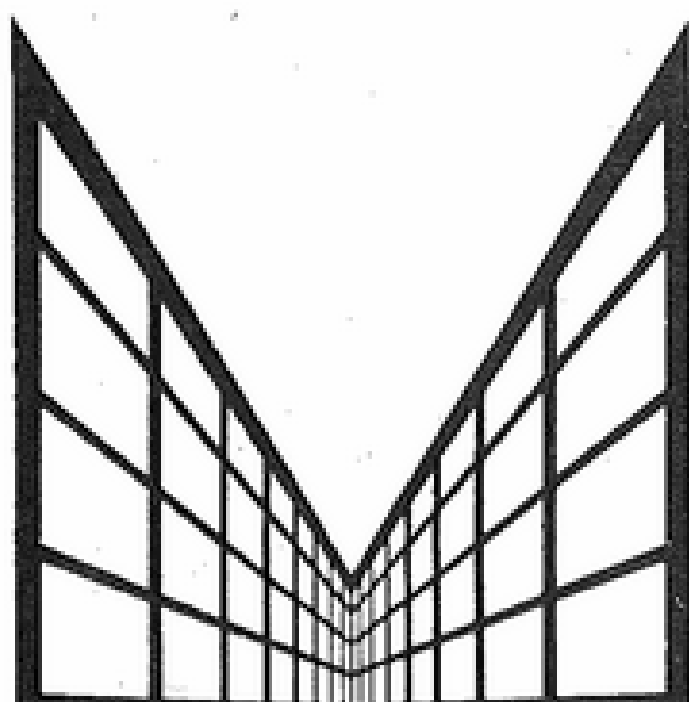
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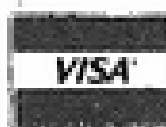
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Q. R. Zedd

ZEDD GONE TO XV; TONDELAYO BEARS UP

DXers around the world set new records for coffee-drinking and staying awake this month as they waited for the first transmissions from Vietnam, the long-absent XV prefix, with the great Q. R. Zedd at the controls.

Faithful readers (if any) will recall that Zedd's long-awaited wedding to Tondelayo Schwartz, his blonde, nubile, 20-year-old QSL secretary, was interrupted right smack dab in the middle of the homily by Rev. Billy Graham last June 18 when word came that the Viets would allow activation of their country for Dx purposes if Zedd would lead the expedition.

Zedd, Russian DXer Boris Badenov, Bill Blast of the famed Blast Off DX Net, and Bill Buckeye, the Ohio immortal, were last seen departing Honor Roll Ranch draped all over Momma Zedd's motorcycle like sausages in a butcher shop. These five great DXers made it to Oklahoma City's Will Rogers Airport in record time, and made a flight to San Francisco, where they connected with a DCA (Dirty Communist Airlines) flight for Vietnam.

Since then, the world has waited for the opening of the DXpedition. It is expected momentarily, and Yagis from coast to coast in this country have glowing red tips as big guns tune up in anticipation of the pileup.

Meanwhile, back at the ranch, things have begun to return to normal. The president has flown west to recuperate at his home place, the Mormon Tabernacle Choir is back in Utah, the other celebrities have winged away, and Donnie and Marie are once again hawking fruit drinks in Hollywood.

Poor Tondelayo, once again alone, was found trouble-shooting an amateur radio satellite that Zedd plans to launch early next year. Ignoring the intense summer heat as well as she could in the electronics tent sheltering the two-ton bird, the dear girl wore a linen tool apron over her tiny yellow bikini with matching spike heels. Her hair was tucked under the headset she was wearing, the better to maintain a watch on the bands for her beloved.

Tondelayo is still torn up about the Vietnam gig and the way her wedding got cut off in the middle. She asked us not to quote her directly because she said she might not express herself as clearly as normally, given the emotional strain, and might disgrace her beloved Zedd, not to mention the Harvard Business School, which recently voted her the cutest graduate in history.

Tondelayo said she understands Zedd's departure from the wedding because she will be available any time, as most women are for the Great One, while Vietnam might change its mind. She said Momma Zedd felt bad, but wired from San Francisco as follows: DON'T FEEL BAD, KEED, WE'LL WORK 70K FOR YOU. MOMMA.

Alas, Tondelayo was not the only girl left behind. For as we were talking, who should stride into the tent, wearing Russian army knickers and a crimson swimsuit bra, but Natasha Bullwinkle, frequent companion of Boris Badenov, the Red ace also off on the expedition.

"No, I don't worry about Boris," Natasha said in response to a question. "I don't got time, and he is not needing worry frfom me or anybody. He is greatest DXer in world, and you better print that, boy, or I am going to come to your house some night and stick you with my knife."

Was Natasha enjoying her stay at Honor Roll Ranch?

"Is okay, I guess, for filthy

capitalist country, but three times they run out of Colorado KoolAid and two times -- twol -- is truck with Twinkies late from Purcell. They better shape up with better hospitality, boy, or I am going to have to stick them with my knife!"

The South Canadian Amateur Radio Society had a meeting to talk about Zedd's latest adventure, and all agreed it is wonderful. The program featured KB5EK telling people how to work Zedd's XV expedition on five bands and two or three modes, and I suppose it was a grand talk but no one stayed awake to find out.

Meanwhile, in Vietnam, NSPS (Nasty Socialist Press Service) reported that Zedd and his party had arrived in good shape on June 22, and were to be given a tour of the country before being turned loose to DX. They had a wingding on June 24 at the Bomb Crater Hotel in Hanoi, and on July 3 witnessed a championship soccer game at Agent Orange Meadows in the countryside nearby. By the 10th of July it was reliably reported that the party was assembling gear for the DXpedition to start, but an unfortunate turn of events involving shooting between the peace-loving people of Vietnam and the peace-loving people of two or three neighboring countries. However, NSPS sent a special communique to the ARRL which read in part:

"We will guarantee the safety of the DXpedition just as surely as we have guaranteed free elections for all the people of Vietnam."

The RSGB Radcom, meanwhile, reported that the Zedd party might not have good radio equipment to work with. But the editor recalled the time Zedd worked 34K on QRP CW from Spratly, using a rig he built out of a cigar lighter and two flashlights. "Fear not," he noted. "The great Zedd will come through."

In Russia, Tass said Boris Badenov was in charge of the expedition.

And so the world waited.

-- KU5B
23 July 1993

Editor, C & E:

How about a big tie of the hat to Clarence, K5YAG? Last night, Friday, 22nd. July, he went to the aid of a stranded zero land motorist. He spent his own money to buy a radiator hose, drove over 60 miles to assist only to have his own car break down and had to be towed home, - long after dark.

Congratulations,
& thanks Clarence.

from Ø7/67-repeater

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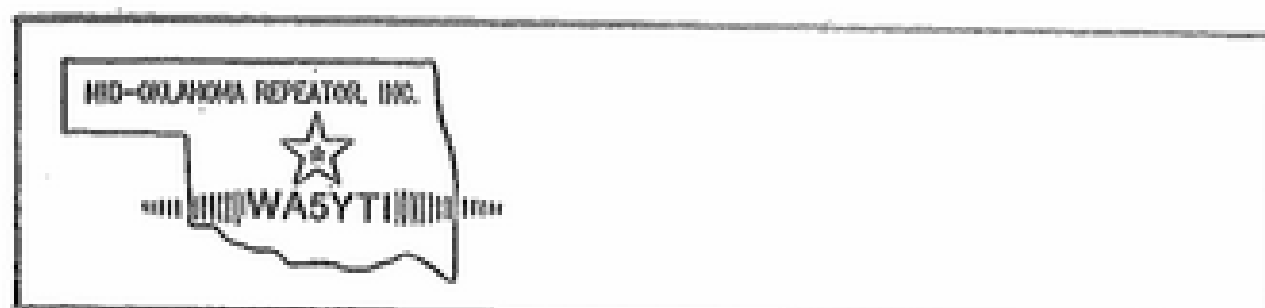
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MOBIL HOME WINDOWS




Hello Everyone!

First, I want to express my thanks to Joe Harding for filling in my space for the last issue of C&E. I don't know exactly what happened last month, but somehow or other we didn't come across the same paths in time. I have a carbon copy of all the things I wrote, but to save time from searching for it - I will briefly state from memory, etc. He had mentioned in his article that MORI had a picnic, and that is true -- we did, and it really was nice, the weather was great, and the crowd seemed to enjoy everything there. I think one of the main attractions was the ice cream provided for by June N5ARV, Jim K5PER, Charlie & Marie WA5JGU, and some others I'm not sure of, and some delicious cake from Garnett Foster. --- Garnett won a bundt cake mix and pan last year at Ham Holiday and invited me over to eat some, and I never did make it, but this was just as good if not better anyway -- thanks Garnett! Hope you win some more this year -- HI! During part of the evening Fred, KA5CXW made an announcement that he could use some more help at Ham Holiday with the ladies programs and prizes, if you are interested you can contact him on the 07/67 repeater or by phone (528-1537). It's not that far off, so remember to come and have a great time.... I was talking to bob WB5PWZ the other day on the telephone, and he requested that if anyone is cleaning house, (ham shacks, too!) etc., and you have any paper-back novels, books, etc., that you want to dispose of, let him know, you

can contact him at his home after 5:40, and he is not there just leave a message and he will get back to you later. Later you will know why he is collecting these, if you don't already. I didn't realize that I had really goofed this year, until I was confronted by some of the members/officers of MORI, but I guess I have not been fulfilling my duties as editor, I do apologize, and I'm not going to make any excuses as to why my loyalty has dropped down considerably, because I really do like writing for MORI, etc., and try to keep you informed with the best of my ability, but like I say people have commented on this, and if you feel that I am not doing a satisfactory job, then perhaps you had better find another editor or otherwise I will continue to write. Maybe I'm not technical enough ??? or something??? I must close this article for now as I am on my way to Ham Holiday, hope to see a lot of you there.....

Susie KA5PED



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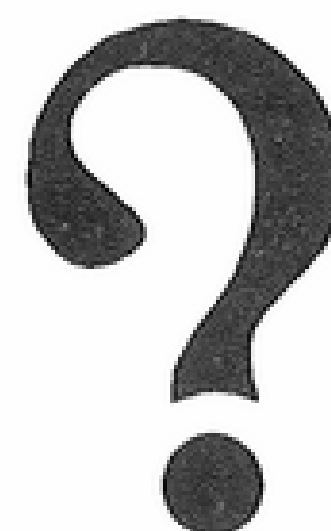
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GREAT PLAINS A.R.C.



ATTENTION ATTENTION

Due to harvest, etc. we didn't have enough members present to hold a club meeting so we discussed various club activities and had a good old fashioned eyeball QSO. Most of us wound up at the Pizza Hut for our monthly "feed-fest". It was a most enjoyable evening even if we couldn't hold a formal meeting.

WB5EDD and his XYL had a B-B-Que and bean cook out and invited all amateurs and weather spotters. There were 50 plus the kids to enjoy a pleasant (even the weather cooperated) evening of good company and lots of good food that was prepared by Oren and Alveda. Everyone had a most enjoyable time!

We were one of those gone during field day. We were at a family reunion in Colorado. The following report was written by K5YZK, with help from NC5C and N5CCV.

Carla WBØQGW

The Great Plains ARC got off to a slow start mainly because of harvest and people on vacations. Finally we located a small trailer for our shack at Crystal Beach at Woodward. N5OO loaned us his generator. NC5C and N5CCV began to put things together. K5YZK came to help and finally the antenna (tri-band beam) was raised with 40 M and 80 M dipoles. About 2:30 the first "C. Q. Field Day" was put on the air, but the coax had been mixed up and the wrong antenna was on the transceiver. It was found that you can make 20 M contacts on an 80 M antenna. About 200 contacts were made all together. A thanks to K5OJ who let us use his call. Those who helped operate were KA5PXX, NC5C, N5CCV, KA5AAE, K5YZK, and WB5MZZ. Gerald made us all hamburgers for supper. A big thanks to Sharon Ford for all the help with our meals. Thanks also to Judy Bowman who helped with food. Those who were seen near the rig or the food were WD5JR, K5OJ, WB5OVT, WB5FWG and WB5EGZ. Thanks to N5CCV for using his pickup to pull the generator and trailer. Thanks also to K5YZK for furnishing the transceiver. Thanks to WA5PLW who furnished us the coax and a special thank you goes to NC5C for all the work he did on the antennas. It was a good field day. Thanks to all who had a part, even the harmonics.

73's

The August meeting of the ACARC will be held on Friday August 19 at 7:00PM in the East Shelter of Bethany Park at NW 36th and Glade. We have once more been invited to share a watermelon feed with the VHF club. Thanks go to Jim Williams, K5VRL for making arrangements and to Charlie, WA5JGU for coordinating. John KA5JCX

July Minutes ACARC

The July meeting of the Aeronautical Center Amateur Radio Club was called to order by Tom, K5LDI at 8:00 PM on Friday July 1, 1983 with 21 members and guests present.

Introductions were held and the Treasurer's report was omitted due to a broken Treasurer.

Charlie, WA5JGU gave the CORA report:
-last reminder for Ham Holiday
-RACES program is looking for volunteers; contact Charlie, WA5JGU or the state Civil Defense if interested.
-money has been allocated to Joe Harding to reimburse him for wear and tear of his equipment used in editing the C&E.

There was no Old Business, and it was announced under New Business that the new controller for the repeater should be here soon. Someone then revealed that Tom, K5LDI and Holly, N5ABL were recently seen on local TV news at the Corporation Commission hearings concerning proposed telephone rate hikes. This sparked a lengthy discussion concerning the effects of ITT divesting itself of local telephone companies. Quite naturally, the discussion then charged headlong into the subject of telephone company charges for computer modem connections. After discussion died down (I think this is still New Business), a motion was made that we should accept the invitation to the annual watermelon feed in August, if invited, with Charlie, WA5JGU to coordinate. Motion was carried.

There being no more New Business, a motion was made to adjourn for coffee and doughnuts, and we did!

John KA5JCX
Sec ACARC

PUBLIC SERVICE WORK STILL OK -- FCC

The Commission's clarification of business communications (Vol. 2, No. 14) has defined "business communications" in the "broadest context."

This has created concern among amateurs who provide public service communications. The FCC's Order has been interpreted by many to prohibit these communications, since they benefit the sponsors of the events. ARRL Counsel Chris Imlay, N3AKD, has asked the FCC for a confirmation that the Order does not restrict amateur communications supporting walkathons and similar events.

James McKinney, FCC's Private Radio Bureau Chief, wrote a letter to Imlay on Tuesday confirming that the Order was not intended to discourage public service communications.

"We want to emphasize that the Order does not prohibit amateur radio operators

from participating in the routine events of traditional public service activities. For example, amateur radio operators may provide communications for municipal parades, marathons, walkathons, Eye Bank activities and the like. Although they may incidentally 'benefit' the sponsor, their main purpose is to provide a service to the public which is the real beneficiary. Direct promotion to assist in the sale of a sponsor's product would, of course, be forbidden....

"The Order was not intended to impose any new restrictions or to cut back on what amateur operators have legitimately been doing all along. What was intended was to alert the amateur community to the fact that the Amateur Radio Service should not be used in lieu of other radio services for the transmission of business messages." (Italics in the original).



Club
NEWS

VOLUME
The Colorado Amateur Radio Club

MINUTES OF JULY MEETING

Meeting was called to order at 10:10A.M. by president Paul, WA5HTL, with 10 members and guests present. Charlie, WA5JGU, gave the CORA report. There was no old or new business and the meeting adjourned at 10:25.

(Relayed to the Secretary, who was absent, by Paul, WA5HTL.) Joe, K5JB

WATERMELON FEED

The August meeting will consist of the annual joint ACARC/OCVHFARC watermelon party. It will be at 7:00 P.M., Friday, August 19 at the East shelter, Bethany (Lion) park, at N.W. 36th and Glade. Jim, K5VRL, has arranged for the place and will arrange for the watermelons. Fellow VHF'ers, your mission is to find this paragraph in the C&E so you can find the watermelons. Joe, K5JB

ANTENNA WAR STRINGIN

I had the pleasure, over the Independence Day weekend, of making a flight up to the old Wolf Creek Pass Colorado Deer hunt campsite with N5MS and doing a little HF operation away from the city lights and noise (incidental radiation, the FCC calls it). If I can predict N5MS' habits, he will have a word or two about the operation but he promised to let me have exclusive rights to the antenna wire/suspension system tangle part of the story. In return for that concession, I promised not to go too hard on him for his lack of coordination as a stringholder. (What a tangled web we weave...etc.)

It occurred to me that some of the C&E readers, being introduced to Amateur radio via 2-meters, may not have yet experienced the joy of going out in the woods and throwing (literally) an HF station on the air to contact the folks back home. One of the elementary requirements is to get an antenna erected. Now, some folks have quite a knack for this. Charlie, WA5JGU, just hooks his coax to the bumper of his tow-vehicle. His camping vehicle is so big it will resonate on any frequency above 3500 kHz. Bob, W5HXL, being a little more elegant, attaches a mysterious assortment of lumped and distributed reactances and resistances to his camping trailer and hooks his coax to that Z-sub?.

My preference is to hoist up some form of wire antenna that more-or-less follows the old 468/F-sub-n relationship. Sometimes, the difficulty in this is the hoisting to reasonable heights. Finally, we get to the point of the story, the hoisting. In order to hoist, one must have something to hoist from. In the Rocky Mountains, below the tree line, the problem is nearly solved. Tree tops over 100 feet high are common. Once a line is passed over the top of one or two of those giants, pulling up an antenna is a simple matter. Passing a line over the top of a 100 foot high tree is simple with a slingshot. There may be other ways to do it but until slingshots become registered or otherwise outlawed, they are by far the most practical tool for getting a line high up in the air. A 3/4 ounce fishing sinker, with fishing line attached can be put in orbit with one. The method I use is tie one end of the line to a soft (or hard) drink can and rewind it from the original spool to the outside of the can. This makes a crude but effective spinner that lets the line pay out with little resistance. If it is not tied to the can, sinker and line will wind up in the next county after the slingshot puts it over the tree. To prevent line fouling, I put the can between my feet, generally pointed in the direction of the tree top, and fire away. After the line is over the desired limb(s), a heavier cord is attached to replace the fishing sinker and pulled over the tree(s) from the original point where the line was shot. The can is used to wind up the fishing line for the next shot. For the heavier line I have had great success with nylon trot line which is cheap and strong.

Thus you have the essential information for getting the antenna hoisted. I prefer to suspend the antenna from the center insulator rather than the ends of the antenna for two reasons. The weight of the coax is more easily managed and the ends of the antenna are more easily acc-

CORA Collector & Emitter-AUGUST

essed for fine tuning.

During this most recent visit to the Colorado site, I found a problem with leaving the strings suspended between the tree tops for extended periods. One of the Spruce trees developed an abrasion where the line had worked on it and had made the trot line sticky with pitch. No matter how hard we tried, we couldn't get the line to go past that point while it was hauling up the antennae (80-40-20 meter wires plus coax). Not having anticipated this problem, I was not prepared with the above mentioned launching device. On an earlier trip I had learned the futility of trying to play David with the sling-it-over-the-head thing. It was necessary to pass a fresh length of nylon over the limb before we could get the antenna center to a reasonable height.

Not wanting to face the same problem the next time I visit that tree, I retreated to reflect on the problem and come up with an acceptable engineering solution to the tree limb abrasion. Mike suggested a pulley but I feared a jam if the line was not properly sized for the sheave. Early the next morning I found the solution lying in the workshop. A short piece of BIG chain yielded a single link that would make an effective substitute for a pulley. They must have had something before they had wheels, right? If I had been next door to a hardware store I would have bought a chrome plated harness ring but out in the woods, an old rusty chain link looked just as good.

The whole antenna was lowered and the chain link was tied to the end of the suspension line hanging from the bruised limb. A halyard consisting of a complete loop was tied through the ring formed by the link and the whole affair re-hoisted to its home 100 feet in the air. For a one-time shot, all this chain link stuff would be unnecessary but there won't be any sticking to the tree limb and the whole thing will be up for years before the 550 cord (parachute line) over the tree limb rots. The halyard can be replaced before it breaks by untying it and using the old line to pull a fresh one through... another good reason for the ring rather than a pulley. it will handle knots. Joe, K5JB

THOSE 20 METER BEACON STATIONS

C.Y., N5EDT, had the idea for this one, in fact he conducted some additional research so this wouldn't look like a book report on a QST article.



Eight beacon stations operating on 14.100 MHz have been set up around the world to enable experiments on propagation, S-meter calibration, watch setting, or whatever. June 1983 QST article by W6SIQ and K6RU describe location and operation of these stations. The table below gives a condensed version of the same information plus longitude and latitude supplied by C.Y.

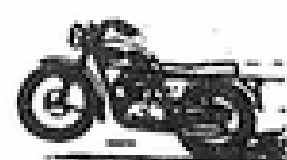
Time Station	Location	Long/Lat
0000 4U1UN/B	United Nations New York	40°45'N 73°58'W
0001 W6WX/B	Stanford Univ California	37°26'N 122°10'W
0002 KH60/B	Honolulu Com. College HI	21°19'N 157°52'W
0003 JA2IGY/B	JARL, Mt.Asama Japan	36°24'N 138°31'E
0004 4X6TU/B	Tel Aviv Univ. Israel	32°4'N 34°46'E
0005 OH2B	Helsinki Tech. Univ., Finland	60°10'N 24°58'E
0006 CT3B	ARRM, Madeira Island	32°44'N 17°0'W
0007 ZS6DN/B	Irene, So Africa	25°51'S 28°13'E

Table 1. Beacon stations on 14.100 MHz

These stations operate in turn following the pattern shown in Table 1. They repeat the cycle every 10 minutes. When each station comes on it sends "QST de (call)" using full power of 100 Watts it then sends a dot and a nine second dash at the same power level. Then, it reduces power 10 dB, sends two dots and a nine second dash. It again cuts the power 10 dB, sends three dots and another nine second dash. It cuts the power a last time 10 dB, sends four dots and a nine second dash. This last one is 100 mW. It concludes its transmission with "SK (call- sign)" sent at 100 watts. The transmission time for one station's sequence is supposed to be 58 seconds, so 2 seconds later the next station should start. Thanks for the tip, C.Y. Joe, K5JB

HAM HAPPENINGS REFER TO CLUB SECTION FOR SPECIFICS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		M O R I Great Plains	ARDMORE	EDMOND Club		C O C O
	1	2	3	4	5	6
	OK-DX	76'ers		ALTUS AREA		
7	8	9 SHAWNEE	10	11	12	13
Wheatstraw		AUTOPATCH		KAY County	Aeronautical Center ARC 	SCARS
14	15	16	17	18	19 VHF Club	20
	CIMARRON EDIT <small>CENTRAL OKLAHOMA RADIO AMATEUR</small> COLLECTOR - EMITTER 	SHAWNEE CORA				
21	22	23	24	25	26	27
					AUGUST	
28	29	30	31			



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