

## CoCoFest '86

Well, CoCoFest '86 is finally history. It was a long time coming, but the months of hard work paid off (to some extent, anyway). I hope those of you who attended had a good time. I would have liked to have seen many more in attendance, but that's life.

The 250 paid attendees were witness to some terrific bargains and some spectacular seminars. I didn't get to see any of the latter, however, because I remained close to my booth throughout the event.

I would like to thank all those who presented seminars: Joe Dubuc and James Jones (DS9), Loyd Dorsett (educational software), Jim Seals (packet switching), and Bill Holland (weather satellites). I overheard many people raving about all the programs.

More thanks go out to all the dealers who attended. They included Dorsett Educational Software, BCD Electro, Tandy, Pacetratics, Ellard's Ex El, Herb Reed, Kermit Scott, and yours truly. Some of the bargains included \$45 COCO IIs, \$10 cassette recorders, and \$10 TVs!

Special thanks to Spectrum Projects of Woodhaven, NY, who could not attend, but donated DISK UTILITY 2.1 as a door prize. You can find their ads in RAINBOW each month. The

(CONTINUED ON PAGE 2)

HAM HOLIDAY?  
REVISITED

It was a success if you can believe what everyone was saying, BUT there must have been something that was the matter, could be changed or could be improved. Now that a few days have elapsed THEY are talking about Ham Holiday on the air and it appears that there were a few dissatisfied people. There were about 900 people who registered and they received some \$6000 worth of prizes plus numerous programs, both for the hams and the non-technical programs for the women and any men who wanted to attend.

Then there was a healthy flea market and dealers galore who had the new stuff

Plenty of action there.

WELL, as you noticed below there are a couple of coupons that you can fill out and mail or better yet just call Joe, WASZNF at (405) 737-1044 and give him (or Frances) your comments ---- GOOD or BAD -- as long as it is constructive. How can we correct it?

You will have to attach a sheet of paper to the coupon or just send the piece of paper. Your signature is not required.

It's up to you! Price, flea market, dealers, non technical programs, location and anything else that you may have to say. Remember every cent received is paid for facilities and then a last minute rush to spend the balance - all for prizes. Think about it-

## GREAT PLAINS A.R.C.

MSNGH Repeater 146. 13/73

## CUCUMBER ICE CREAM ?

Those of you who didn't make the August 5th monthly club meeting really missed out on something this time. We had a meeting/picnic combination held at Crystal Beach in Woodward with fourteen hams and six guests attending. Freida, N5EOX, and I decided we had to do something with the leftover hamburger meat from Field Day activities so we decided on Sloppy Joes for this meeting. Next month we have to get rid of the left over Sloppy Joes so another picnic is scheduled for the September 2nd meeting. We hope this meets with everyone's approval. President Windel agreed, but of course he would! Freida and I will get together, plan the menu and let everyone know what to bring on one of the nets. A short meeting was held for fear that the homemade ice cream might melt. We had a delicious meal, great fellowship and everyone seemed to have an enjoyable time. It worked out pretty well - along with the Sloppy Joes and fixings we had five flavors of ice cream-vanilla, chocolate, banana, banana nut and cucumber (disguised as Butterfinger. Several horror stories on ice cream making were shared by us beginners. We even had one club member, KOCIO, attending who came out of the woodwork from up there somewhere in Kansas when he heard about the picnic. We

(SEE CUCUMBER PAGE 4)

YOU ATTENDED HAM HOLIDAY?  
WHY?

You spent \$10, \$12 or more to attend and I hope you had a good time and got your moneys worth. How about that \$6,000 and better in prizes. Good ones at that. Now spend 22c on a stamp and tell us what:

- 1: You liked. List them all.
- 2: You DID NOT like. List them all.
- 3: Any suggestions? Make them and we will see if we can carry them out!

If you live in the Metro Oklahoma City area just pick up your phone and Dial 737-1044 and give Joe or Frances your comments.

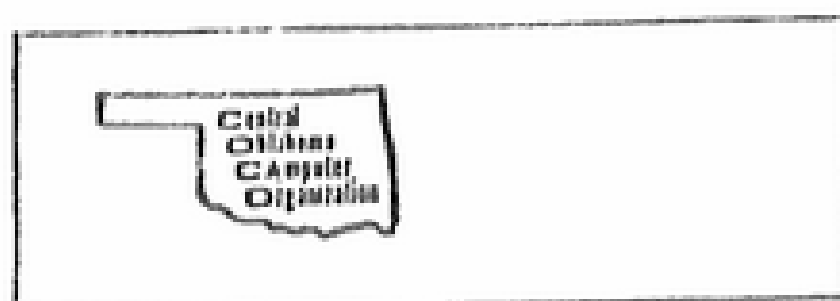
This offer expires September 10

DIDN'T ATTEND HAM HOLIDAY  
WHY?

Please do us the favor of telling us why? A stamp only costs 22c and your time will be well spent. Just put it down, maybe we can correct the problem and everyone will be the winner. We really care about you.

1: Any suggestions? Make them and we will see if we can carry them out!  
Write: Joe Harding, 1020 Arthur Drive  
Midwest City OK 73110

If you live in the Metro Oklahoma City area just pick up your phone and Dial 737-1044 and give Joe or Frances your comments.



next time you need some software, consider Spectrum Projects, and don't forget to mention CoCoFest. Who knows? They might contribute another door prize for CoCoFest '87.

Speaking of door prizes, we must have given away 30 or 40 altogether. Sam Murr took charge of the drawings and did a great job.

I thoroughly enjoyed talking to all the people who came by my booth. The big rumor going around was that the CoCo III is about to debut. It will allegedly feature 128K (maybe more), 16 colors, and OS9 will be the built-in operating system, replacing RS-DOS. Look for it soon, but don't hold your breath.

Before I forget, I would like to thank all the people who helped make CoCoFest a reality. Through their hard work and commitment CoCoFest came off without a snag. I won't mention all their names because the list is too long and we all know who they are. Thank you.

-- Martin Schiel, 670-6891

President Sam Murr called the meeting to order at 9:00 AM on August 9, 1986. 96 members and guests attended.

#### Announcements

1. There's a new amateur radio store at 1722A S. Kelly Avenue in Edmond. They have computer accessories for all major brands.

2. SpecCom has amateur radio software for the CoCo.

3. The CoCo III is more than a rumor. It's fact. Later this month Tandy will begin delivering the new CoCo. It'll feature both TV and monitor output, 64-color pallet, and 128K of bank-switchable memory, expandable up to 512K. The CoCo III will retail for \$220, but Bob Pace is selling it for \$199. There's some question whether it's 100% upward-compatible with the previous versions. For more information, check CoCoNet. David Coburn uploaded onto CoCoNet some info that he had obtained from CompuServe.

4. The Enid chapter of the COCO held its first meeting on July 28, 1986. Nine people attended, including the Sands brothers, the Woodsons, and the ubiquitous Roberts family. Jim Sands was elected president, Duane Woodson claimed the vice presidency, and Wilma Woodson prevailed as secretary and treasurer. The Enid chapter will hold future meetings on the third Monday of each month at the Pizza Inn just north of the intersection of highways 70 and 81.

#### Old Business

1. CoCoFest wound up costing the club \$370, but we attracted 99 non-members.

2. As you know, we all count on you to contribute programs for the monthly swap disks. If you have written or modified any programs you'd like to share with the club, place those programs on the disks you exchange. Don't forget to place write-protect tabs on them to alert Harold of the treasures contained within.

3. On a more somber note, David Coburn announced that Jim Miller, a long-time member of COCO, Inc., died in an automobile accident several months ago.

#### New Business

1. The Red Cross is moving to a new location on Lincoln Boulevard. Hopefully, they'll permit us to follow. To that end, I moved and Fred Cundeiff seconded that we donate \$100 to the Red Cross. Sneaky, huh? The motion passed by voice vote.

2. Everyone liked the Collector & Emitter's new format.

3. Future programs:  
Sep - telecommunications  
Oct - CoCo III  
Nov - MUSICA (Cathy Coburn)  
Dec - printers and printer drivers

4. Drive 1 on CoCoNet is almost full. On Monday Harold will purge many old files.

5. CoCoNet update: The 5 meg hard drives are here. Bob will connect the power supply and controller, and, before long, the hard drive will replace one of the 8" floppies on the net... Bob has a 1200

baud modem. Bill Holland received an identical modem as a retirement present from the gang at FAA. Bob hopes that Bill will have some time to work on 1200 baud software now that he's retired. So, before too long, CoCoNet might have 1200 capability... The net was off-line for an hour and a half a few weeks ago when Mustang lost power during an electrical storm.

6. Robby Runyon donated \$100 from his used disk enterprise. Thank you again, Robby. Your contributions help keep this club solvent, and we sincerely appreciate all your efforts.

7. Let's welcome new members Jack Gant, James Jones, Kevin Kaderabek, Jim Mosier, Gene South, and David Tolman.

#### Hardware Problems

1. Robby Runyon asked if anyone knew anything about Rolm modems, but no one did.

2. Herb Reed wanted to know about Anodex (sp?) 9500 printers, but no one knew anything about them either.

3. Sam Murr and Ron Sonheim modified their disk controllers based upon Bob Pace's presentation at last month's meeting. Now, their controllers can accommodate two DOSes.

4. Bob Pace is selling 5 megabyte Seagate hard disk drives for \$80. Controllers are available from Western Digital for around \$100. You will still need a power supply to provide the 3 1/2 amps required to start the motor and the 1 1/2 amps required to sustain it.

#### Software Problems

1. Greg Marzec wanted a banner program for the DMP-100 printer. Bob Striegel recommended BANNER (for Gemini printers) or MARQUEE. Howard Wilson volunteered to put a banner program on CoCoNet and on a future swap disk.

2. Randy Eastner had a problem with the DESKMATE printer driver when printing on a DMP-100. The first line on the second page indents too far when the left margin is set to anything other than 0. Evidently there is a bug in the program, according to some

(MORE ON PAGE 4)

**1 AERONAUTICAL CENTER ARC**

MEETS: FIRST THURSDAY, FLIGHT STANDARDS  
BUILDING, FAA, SOUTH MACARTHUR 7:30 PM  
PR JACK IHAN, W5SWH 677-8537  
VP TOM HANSHAM, KSLDI 677-5291  
SE GLORIA SEIGNIOUS, W5JPH 722-1740  
TR BOB PACE, W5CJG 376-3569  
EDITOR: GLORIA SEIGNIOUS, W5JPH 722-1740

**2 CENTRAL OKLAHOMA VHF**

MEETS: 10:00AM THIRD SATURDAY, RED CROSS  
10TH & HUDSON (BACK DOOR) OKLA CITY  
PR JERRY METHORE, K5S19 524-5080  
VP HUGH BENSON, K506Y 946-0023  
SE JOE BUSWELL, K5JB 732-0676  
TR ELLARD FOSTER, W5KE 789-6702  
EDITOR: JOE BUSWELL, K5JB 732-0676

**3 MID-OKLA REPEATER**

MEETS: 8:00PM FIRST TUESDAY, OKLA CIVIL  
DEFENSE, WILL ROGERS BLDG., STATE CAPITOL  
PR DOC BOWERS, K5M 942-7738  
VP TIM RAUSCHER, K5HUG 848-9910  
SE MIKE SANBUCCO, K5TSO 672-9176  
TR SID GERBER, W5KOZ 737-1050  
EDITOR: MIKE SANBUCCO, K5TSO 672-9176

**4 OK CITY AUTOPATCH**

MEETS: 7:30PM THIRD TUESDAY  
PR DON ROOKER, W5H 721-2119  
VP DON SAUNDERS, W5ISS 721-0404  
SE CHARLES HOFFERBER, W5FHU 340-4468  
TR ART HERMANDEZ, K5SKK 354-9724  
EDITOR: DON ROOKER, W5H 721-2119

**5 OKLA UNIVERSITY ARC**

MEETS: 7:30PM SECOND TUESDAY (SEP-NOV)  
119 WILSON CENTER, 1334 S JENKINS  
PR LUKE HOAN, K5BAY 325-1775  
VP JOHN MUSTENBERG, K5M 325-2382  
SE PETER RICHESON, K5COI 329-3217  
TR GREG SMITH, K5LTH 366-1641  
EDITOR: GREG SMITH, K5LTH 366-1641

**6 ALTUS ASSOCIATION**

MEETS: 7:30PM SECOND THURSDAY  
NORTH MAIN FIRE STATION (CD) ALTUS  
PR WIGHT DENNIS, W5KRN 482-2498  
VP  
S/T MIKE SCHEMKE, K53XN 482-1797  
EDITOR: MIKE SCHEMKE, K53XN 482-1797

**7 BICENTENNIAL (76er) ARC**

MEETS: 7:00PM SECOND TUESDAY, OGIE BLDG,  
SE 3RD & E. K. GAYLORD BLVD.  
PR DONALD DUCK, W5SH 691-4199  
VP TED VANLANINGHAM, W5JNT 262-1675  
SE JERRY SPROUL, W5AUI 354-2061  
TR  
EDITOR: JIM SEALS, K53XN 381-2045

**9 WHEATSTRAN ARC**

MEETS: 2:30PM SECOND SUNDAY. LOCATION VARIES.  
SEE CLUB SECTION FOR DETAILS.  
PR JOE GARLAND, W5FLT (CALUMET) 893-2660  
VP JOHNNY FISH, K5GBN (CALUMET) 893-2227  
S/T GEORGE MASCHIND, K56GL (OKARCHE) 263-7614  
EDITOR: VIRGINIA BENEDA, W5END (MATONGA) 623-7935

**10 CENTRAL OKLA COMPUTERS**

MEETS: 9:00AM SECOND SATURDAY, RED CROSS BLDG  
NW 10 & HUDSON, BACK DOOR.  
PR SAN HURR 324-6443  
VP TOM HANSHAM, KSLDI 677-5291  
S/T MARTIN SCHIEL 670-6891  
EDITOR: MARTIN SCHIEL 670-6891

**11 EDMOND AR SOCIETY**

MEETS: ODD MONTHS, 3RD SUNDAY, 2:00PM EDMOND  
EOC. DINNER, EVEN MONTHS, 3RD FRIDAY.  
PR BOB MCCOY, W5BUJ 348-2032  
VP LEE VAUGHN, K5N1S 348-2961  
S/T AMBER THOMASON, K5VEK 478-4615  
EDITOR: AMBER OR BOB THOMASON 478-4615

**12 QUARTER CENTURY W A**

MEETS: QUARTERLY AT VARIOUS PLACES.  
NET: 3855 KHZ SUNDAY AT 3:00AM.  
CHM ROBERT RUNYON, AA00 373-1818  
VCH GENE MAILON, K5OLE 341-8289  
S/T HOWARD BAKER, W5AS 721-5453  
EDITOR: ROBERT RUNYON, AA00 373-1818

**13 KAY COUNTY ARC**

MEETS: 7:00AM THIRD THURSDAY  
PIONEER DRIVE-IN BANK, PONCA CITY OK  
PR DAVE LAND, K5FXI 762-8616  
VP STEVE SCOTT, K5SGK 762-0117  
S/T HARRY BEATTIE, W5DPR 765-3862  
EDITOR: CHARLES NORTH, W5EYD 762-8136

**14 CIMMARON ARS**

MEETS: 7:30PM THIRD THURSDAY, W5FUD SHACK  
827 S 13, FAIRVIEW  
PR STEVE SCHOONMAKER, W5FUP 886-3274  
VP BILL SIMPSON, W5MOX 883-5523  
SE MADINE PAINTON, W5FMH 764-3599  
TR BETTY DAY, K5RTH 227-3462  
EDITOR: JACK DAY, W5SZ 227-3462

**15 SOUTH CANADIAN ARS**

MEETS: 9:30AM SECOND SATURDAY, RED CROSS BLDG  
NORTH DU CAMPUS, NORMAN  
PR JEFF WYKE, K5ED 329-6762  
VP FRANK RIZZO, W20CH 321-2899  
TR MONTE BATEMAN, W5RZY 329-7485  
SE LINDA BRANDT, W5DMH 321-5081  
EDITOR: DAVIS EGLE, K5SIT 321-7570

**16 EDMOND AR CLUB**

MEETS: 7:00PM SECOND MONDAY. SEE CLUB  
SECTION FOR LOCATION AND TYPE  
PR MARK NORTH CUTT, W5DYI 755-4672  
VP BOB MOORE, K5ETA 799-1765  
S/T KAY NORTH CUTT, W5DYJ 755-4672  
EDITOR: MARK NORTH CUTT, W5DYI 755-4672

**17 OK CPM USER GROUP**

MEETS: 7:30PM SECOND THURSDAY OSU,  
ROOM 307  
PR WILLIAM COOTER 360-2141  
VP JIM WHITE 364-5289  
S/T JOY WELTON 789-0280  
EDITOR: WILLIAM COOTER 360-2141

**18 GREAT PLAINS ARC**

MEETS: 7:30PM FIRST TUESDAY  
WOODWARD PUBLIC WORKS BLDG.  
PR WINDLE HATCHETT, W5PLM (FT SUPPLY) 766-3561  
VP LEWIS PATTERSON, W5KFK 256-2111  
SE LOIS FORD, K5PYA 923-7683  
TR FREIDA PATTERSON, W5EOX 256-2111  
EDITOR: LOIS FORD, K5PYA 923-7683

**19 OKLA INDEPENDENT ARC**

MEETS: 7:00PM SECOND TUESDAY  
SOUTHWESTERN BELL OFFICES, PONCA CITY  
PR DAVE WHITE, W5LUI 745-5707  
VP VERNON TREIDER, W5ANV 767-1571  
SE GLEN BISHOP, JR, K5PUB 767-1031  
TR BIL WICNY, W5WCO 762-3297  
EDITOR: DOUG EVERITT, W5DUB 359-0069

**20 ARDMORE ARC**

MEETS: 7:30AM 2ND SATURDAY, CORRAL RESTAURANT  
INFORMAL: EVERY WEDNESDAY, 221 9TH NW  
PR GENE SOUTH, W5IJA 223-8252  
VP HOWARD ROBINSON, W5FAB 223-5726  
SE JIM CHILCOAT, W5JCX 226-6816  
TR JOHN HERLYN, W5FZD 223-9543  
EDITOR: JACK GANT, W5GH 223-2619

**21 TRI-CITY ARC**

MEETS: 1ST THURSDAY OF THE MONTH.  
PLACE:  
PR ROBERT DOLTON, K5RHU 379-2365  
VP RON PHILLIPS, W5WPU 382-1856  
S/T J. B. BILLS, K5SHU 379-3992  
P.O. BOX 655, HOLDENVILLE OK 74848  
EDITOR:

**CENTRAL OKLA RADIO AMATEURS**

MEETS: 7:30PM FOURTH TUESDAY, RED CROSS  
BLDG. 10 & HUDSON OKLA CITY (BACK DOOR)  
PR DON SAUNDERS, W5ISS 751-0404  
VP JIM BUSWELL, W5BED 236-0368  
SE KATHY WHITED, W5NDD 799-1457  
TR SUSAN ST LAURENT, K5SLG 324-8180  
CON/CON: CHARLES HOFFERBER, W5FHU 340-4468

CORA COLLECTOR & EMITTER (USPS 116-150) IS  
PUBLISHED MONTHLY BY CORA, INC, 1020 ARTHUR DR  
HIDWEST CITY OK 73110. SECOND CLASS POSTAGE  
PAID AT OKLA CITY OK. SUB: CORA MEMBER 43.00  
PAID SUBSCRIPTION: \$7.00 PER YEAR.

POSTMASTER: SEND FORM 3579 TO:  
CORA, 1020 ARTHUR DR, MIDWEST CITY OK 73110

EDITOR: JOE HARDING, W5JHF 737-1044  
CIRCULATION: BOB GRAHAM, W5NSV 677-8685

## COCO CONTINUED

comments which appeared on the CompuServe CoCo SIG.

3. Bob Striegel cautioned people to adjust the stepping rate in line 1310 of T.BAS, the new TELEPATCHed TELEWRITER boot program, to a rate their drives can accommodate. Otherwise, I/O errors will result when T.BAS attempts to load TW64.NEW.

### Doorprize Winners

OS9 PASCAL - Erik Petrich  
Punch-Q-Dex - Curtis Rush  
OS9 - Bob Striegel  
Cool It fan - Mike Holland  
stapler - Susan Roberts  
August used disk - Daniel  
Jamet  
printer paper - Bob Lutz  
disk sleeves - David Coburn  
Assembly Language Program-  
ming book - Archie Washington  
Assembly Language Program-  
ming book - Al Ingle  
Color Graphics - Toby  
Striegel  
Color Graphics - Greg Marzec  
Flight Simulator - Jeff  
Chappell

### Program

Sam Murr made a video presentation on ELITE FILE. He covered all the main menu options and used his own school file to demonstrate them.

ELITE FILE, like other data base management systems, allows one to keep track of lists in an organized manner. The program can sort all the records based on any field. The global change feature allowed Sam to "promote" all his students from their old grade to the new in one fell swoop.

ELITE FILE provides a convoluted procedure for printing reports. The method of laying out reports is more primitive than with COLOR PROFILE, which allows one to enter headings and data in specific columns on the screen.

Thanks, Sam, for a very thorough and enjoyable presentation. I'm a sucker for those video tapes.

### Editorial

Members, how do you feel about setting up club librarians who would maintain copies of programs and video tapes? I think we can all see the benefits of being a librarian: direct access to all the best public domain programs. To the

## CUCUMBER

all along that would get him down but really missed the rest of you that weren't able to attend this time. Maybe next month we'll get to see you!

### HAM HOLIDAY RECAP

An enjoyable discussion was held by all those from this part of the world who were lucky enough to attend Ham Holiday in Oklahoma City this year. Everyone agreed that a good time was had by all. Gerald, W65Z, said he really enjoyed all of the programs and the rest of us agreed. We would like to commend everyone who had a hand in pulling it off so superbly. We heard that attendance was down a little, but that seems understandable with economic conditions being what they are in the area. Thanks from the PGPARC!!

### SANTA CLAUS IN JULY

We had three fortunate ones that didn't come back from Oklahoma City empty handed. Lee, W5HGH, won a pocket radio which I think a granddaughter will eventually make off with and Freida, N5EOX, won a VCR master control unit which a granddaughter immediately confiscated. The OM had Marine Reserves that weekend so our participation was severely limited. We made it to the Navy-Marine Corps MARS meeting, the joint MARS meeting, renewed some old acquaintances, made some new ones, had

associated documentation, and to video tapes such as the one Sam produced for this month's program.

Responsibilities would include copying programs (or loaning out the diskette and letting the "customer" make his own copy), loaning video tapes, and keeping track of who has what. The advantages outweigh the inconveniences by far.

If there are enough volunteers, we might want to have several regional librarians so that no one has to travel too far to borrow the programs and tapes. Since COCO, Inc. would provide the diskettes, prospective librarians should have double-sided drives to reduce the cost of diskettes. Incidentally, I happen to know of someone who has 2700 diskettes left over from CoCoFest, and he's willing to make a deal.

Let's discuss this issue at the next meeting. Prepare to do some volunteering. See you next month.

a delicious dinner with our friends Bob and Ann Tierney from Bartlesville and that was about all during Saturdays schedule. Our Sunday schedule was also limited and we left our tickets with W5HGH who was going to stay for the dawning. Upon arrival back in Woodward area, we received a 2 meter call from Lewis, W5KFK, who asked us to come by to discuss an important matter. All kinds of things ran through our minds before we arrived at their QTH. Once inside, Lewis and Freida just pointed to a big box and said "There it is" The OM attacked with restless abandon and the poor box didn't stand a chance. Once the smoke settled, I found that I was the proud winner of a Dentron GLA 1000C amplifier. Notice that I, Loid Ford, (from a typing error on my name tag) was the winner and NOT Rod, W50VT. What a nice surprise!! My sincere thanks to Lee, Lewis and Freida for all their efforts. Yes, Virginia, there is a Santa Claus - even in August. It sounds like the Ham Holiday organizers really outdid themselves on prizes this year. Thanks again!! The OM thinks he's going to confiscate it. Ha Ha and Bah Humbug!

### GREAT TRIP

John, N5AVV, made it back home just in time to hop on his trusty steed and head to the August Club Meeting. He was sunburned and full of stories about his recent trip through Colorado on his new Honda Goldwing cycle. John has just about all the conveniences of home aboard this bike and accompanying trailer including a two meter rig. Sounds like he had a great time.

### THE TECHNICAL PORTION

The OM while reading a recent computer publication (or more likely looking at the pictures), stumbled on an interesting tip for all of you computer lovers. It seems that someone discovered that WD-40 could be sprayed on computer printer ribbons extending the life of those expensive little critters. This technique only works with cloth ribbons and serves to spread the ink around from the top and bottom of the ribbon to the middle where the printhead hits it. We tried it on the ribbon on our Commodore MPS 803 printer and found it to really work. I wonder what all that black stuff running down the outside

**CONGRATS:** To our newly elected officers for the coming 12 months. Elected at our August meeting were Charles, N5FMU, president; Dave, N5GQY, vice-pres.; David, KF5EB, secretary and re-elected as treasurer was Art, KF5DK.

**THANKS:** To all those who gave me their help and support during the past year. And thanks to the membership for putting up with me during some difficult times.

**WELCOME:** New members Bill, W5BLX and Woody, W5SJFE. (There was a third new member but I failed to get his name and call - sorry.) Welcome to OCAPA.

**HAM HOLIDAY-WHAT A BLAST:** My first-ever flea market table was an overwhelming success. Enjoyed watching the parade of prospective buyers and meeting new friends. Saw a lot of old friends, too.

**HAM TAGS:** Most hams have call sign tags on their cars so that (theoretically) they will be recognized by the authorities when entering an area where communications assistance is needed. (I say "theoretically" because some local small-time "Barney Fife" types have been known to refuse admittance to anyone trying to help, no matter who they are.) If you've been wondering how to get your tags, try this: call the special tags office at 521-2468 in Oklahoma City. Tell the nice clerk that you're a ham and you would like an application form for your amateur radio car tags. Give your address. Your application form should be in your mailbox in a few days. The cost for these tags in Oklahoma is ONLY \$2.00. For this you get TWO tags - one for each end of the car. You have until October 1 to order yours, so do it today.

By the way, when the state legislature passed the law that created these ham tags, the FCC regs were a little different. The application states that you must have a "conditional class or better" license in order to have ham tags. Don't you believe it. Ham tags will be issued to any licensed ham, no matter what

class license is held.

**REPEATERS - TWO METERS:** 147.21 was zapped by lightning Thursday nite before Ham Holiday. It really did a job on the delicate innards. Every time a component is replaced another is found to be inoperative. This machine will be returned to service as soon as the tech crew can get it all untangled. Meanwhile, back on 146.82.... The autopatch has been activated and the autodialer will soon be in operation here too, just as it is on 147.21. The access codes for these features are the same on .82 as they are on .21. Mail box access codes will be changed to accommodate the autodialer.

**REPEATER - SIX METERS:** A UHF linking system is in the works to replace the telephone line. The techs have obtained some equipment and are in the process of adapting it to the repeater.

**REPEATER - UHF:** 444.3 is up and motoring along quite well. Try it. If you're not familiar with UHF, you'll be pleasantly surprised. UHF wave propagation is a little different from two meters. You'll find your signal into the repeater from places where VHF just won't hack it.

**LAST COLUMN:** As yours truly steps out of office, my duties of writing this column also cease. It's been fun. I think this column was the best part of the elected term. Hope I caused a stir in some small way.

**OVERHEARD:** "We can stop worrying about keeping up with the Jones - they've declared bankruptcy."

A man went into a coma after receiving a bump on the head and did not awaken for twenty years. After getting his bearings, he called his broker. His hundred shares of AT&T were now worth \$8 million, his shares of General Motors were worth \$6 million, his holdings of Xerox had advanced to \$15 million, and so on. The man figured he must be at least a billionaire. Just then the telephone operator came on the line and stated, "Your three minutes are up, sir. Will you please deposit 75 thousand dollars."

The most exhausting thing in life is being insincere. That is why so much social life is exhausting.

Sign in the art department of an advertising agency: All orders for delivery yesterday must be placed before noon tomorrow.

I forget who said, "The trouble with vacations is that it's such a long time paying for such a short time playing"

On a Golden Gate park bench: Wet Paint. Watch it or wear it.

The children were at camp and the parents were having a quiet Sunday breakfast. "Gosh, I miss them already," the mother sniffed. "Me too," the father retorted. "Why don't you knock my coffee over and rub jam in my hair?"

A couple shopping for a new car were stunned by the price for a compact model. "That's almost the cost of a big car," they protested. "Well," replied the salesman, "if you want economy, you have to pay for it."

**ED SED:** "If all else fails - read the manual."

**ED SED:** "I'm too busy to be organized."

**ED SED:** "Postmen never die, they just lose their ZIP."

**ED SED:** "Courtesy is contagious, start an epidemic."

**ED SED:** "Drive like hell and you'll get there."

A hospital is a place where hams are cured.

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+  
- ICOM IC-BP3 REPLACEMENT BATTERIES AND CELLS -  
+  
-  
+ INDIVIDUAL CELLS WITH INSTRUCTIONS \$2.30 EACH POSTPAID +  
-  
+ SEVEN CELL PACKS WITH INSTRUCTIONS \$20.00 POSTPAID -  
+  
-  
+ SEND CHECK OR MONEY ORDER WITH NAME, ADDRESS AND +  
-  
+ ITEMS WANTED TO: CLO DON, 7014 N.W. 61, BETHANY, +  
-  
+ OKLAHOMA, 73008. YOUR ORDER SHIPPED PROMPTLY. +  
-  
+  
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No one shall walk upon the street in Elko Nevada without wearing a mask.  
 It's against the law to gargle in public in Louisiana.  
 It's illegal to hunt or shoot camels in Arizona.  
 It's illegal to dance cheek-to-cheek in Compton California.  
 It's illegal in Pueblo Colorado to raise or permit a dandelion to grow within the city limits.  
 City ordinance in Los Angeles prohibits poking a turkey to see how tender it is.  
 In Hanford California people must not interfere with children while jumping over water puddles.  
 It's illegal at Lake Charles Louisiana to let a rain puddle remain in your front yard for more than twelve hours.  
 It's illegal in Walden New York to give a drink of water to anyone unless you have a permit.  
 It's illegal to slap a man on the back in Georgia.  
 In Washington D.C. all taxicabs must carry a broom and shovel.  
 It's illegal in Vermont to whistle underwater.  
 A Kansas game rule prohibits the use of mules in hunting ducks.  
 In Cleveland it is illegal for more than two people to drink out of the same whiskey bottle.  
 It's illegal to march your goose down the main street in McDonald Ohio.  
 Turtle racing is illegal within the city limits of West Key Florida.  
 A Ft. Madison Iowa law requires the fire department to practice for fifteen minutes before attending a fire.  
 It's illegal in Carrizosa New Mexico for a man or women to go unshaven.  
 In California a housewife may go to prison if she doesn't cook her dusting cloth after using it.  
 In Rochester New York firemen on duty must wear ties.  
 A Colorado law forbids the serving of food in a room used for any other purpose.  
 In Kansas it's illegal for eating places to serve ice cream on cherry pie.  
 It's illegal in New York City to have a deck of playing cards in an apartment located within a mile's radius of an armory.  
 It's illegal in Texas for anyone to milk any cow that is not his own.  
 It's illegal in Portland Maine to tickle a girl under the chin with a feather duster.  
 It's illegal in New Hampshire to pawn the clothes off of your back.  
 In Rochester Michigan anyone bathing in public must first have his suit inspected by a police officer.  
 It's illegal in Denver to shoot jackrabbits from the rear window of a streetcar.  
 It's illegal in Knoxville Tennessee to lasso a fish.  
 In Oregon a dead juror cannot serve on a jury.  
 It's illegal in Tusculum Alabama for more than eight rabbits to reside on the same block.  
 It's illegal in Alabama to put salt on any railroad track.  
 It's illegal in Dayton Ohio for women to be a bellhop.  
 In Houston Texas dogcatchers are required to be psychoanalyzed to determine if they are qualified to chase stray dogs.  
 It's illegal in Dyersburg Tennessee for a girl to telephone a man asking him for a date.  
 In New Jersey it's against the law to slurp your soup.  
 In St. Louis Missouri it's unlawful for milkmen to run while on duty.

TNX, Wayne, NGHCE

From Mt Wilson ARC Newsletter

Wish I could do a personality profile study on owners of the various types of HAM equipment. I'm sure there are "Kenwood" and "I-Com" people just as there are "Poodle" people and "Great Dane" people. Most hams are pretty set in their ways and very loyal to their brand of equipment. To me, there doesn't seem to be that much difference, but I certainly wouldn't want to expound on the virtues of Yaesu in front of a Drake-Line person.

My personal favorite is the Kenwood. Actually, my Kenwoods, as I have one for two meters and one for HF. And that is not necessarily because they work any better than any other radio. (The HF rig isn't working at all, as a matter of fact.) So why did I buy the TS120? Because I liked the 2500. And why did I buy the 2500 and not the Yaesu or the I-Com? Because the Kenwood was cuter. The OM has no understanding of the qualification "Cute." He can understand functional, efficient, good signal-to-noise ratio, reliability, digital readouts, ease of tuning, and all the various other qualifications in a rig but not that the rig is "cute." Actually, the term is for all practical purposes undefinable. The only example I could give the OM was this. If someone came up to me and asked why I married you, I'd just say, "Because you were cute." He just shook his head and walked away muttering.

73, 88, and 807s, Mary, WOLKB

From: Longmont SPLATTER

#### HOW TO REPAIR YOUR EQUIPMENT

1. Approach the ailing equipment in a confident manner. This will give the instrument the (often mistaken) idea that you know something. This will also impress anyone who happens to be looking, and if the equipment should suddenly start working you will be credited with the repair. If this step fails to work, proceed to step 2.

2. Wave the handbook at the instrument. This will make the equipment assume that you are at least somewhat familiar with the sources of knowledge. Should this step fail, proceed to 3.

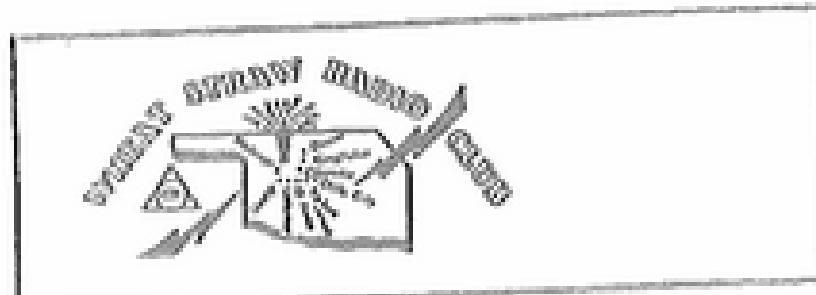
3. In a forcible manner, recite Ohm's Law to the instrument. (Before taking this step, refer to some reliable handbook and be sure your knowledge of Ohm's Law). This will prove to the equipment beyond a shadow of a doubt that you do know something. This is a drastic step and should be attempted only after the first two steps.

4. Jar the equipment slightly. This may require anything from a three to six foot drop preferably on a concrete floor. However, you must be careful with this step because, while jarring is an approved method of repair, we must not mar the floor. Again, this is a drastic step, and if it fails there is nothing to do but to proceed to step five.

5. Add a tube, resistor or capacitor. This will prove to the instrument that you are familiar with instrument design. Also this step will give the equipment an added load to carry and will thereby increase your advantage. Should these five steps fail to work, you must proceed to the most drastic step of all. This step is seldom needed and must be used only as a last resort.

6. THINK.





### Lake Canton Meeting

There were 44 folks present and accounted for at the August meeting which was held in the Canan pavilion at Lake Canton.

As everyone assembled, a presentation on "How to remove your keys from a locked automobile" was given by local County Officers, assisted by the Oklahoma Highway Patrol and Lake Rangers. After the presentation, everyone gathered for a period of grace and then to the excellent food that was prepared by the wonderful chiefs in our group. The meeting was called to order a bit late (1440), but can you imagine trying to control over forty people when there is still food on the table!

We have received our Charter of Affiliation from the ARRL and a letter explaining how to set up a Charter Party was read by the President. We will try to have this affair the 3rd Sunday of September at the Weatherford Park (that will be the 21st of September at 2:30pm instead of the regular meeting date of the 14th).

It was reported by Ron, WD5PGD, that the Woodward group is in the process of putting up some new equipment on the "101" tower. This will include a voice repeater on 147.36/.96 and a digipeater for packet radio. The digipeater will be linked to the U.S. Weather Service Office at Oklahoma City. The radar station that the fellows operate in the northwestern part of the state will be moved to the air park.

Discussion was heard about the possibility of having code practice on the repeater (146.01/.61). It was moved and seconded that we have the code practice Mondays and Thursdays at regular net times. (That will be 9:00pm until the time changes, then it will be at 8:30pm.) The code sessions will start as soon as possible. If you copy our code practices please let us know by checking in or sending us a card. We are interested in knowing how we are doing and will not put the squeeze on you to join the club.

Do not forget that the September meeting will be the 21st and not the 14th. This is our annual watermelon feed so plan to drop by and say hi!

73 from WA5FLT, "the Pres."

(Brought to you by the wonders of Packet Radio via K5JB)

### National Weather Service/Packet Radio

Oklahoma NWS, Oklahoma City Office, has requested a meeting between the packet community and the Weather Service to discuss NWS's usage of Amateur Packet Radio. The OKC office of the NWS has a packet station and needs our input as to the type of information we desire during periods of severe weather. At this time the Weather Service can provide us via packet radio, radar rainfall intensity charts and are planning on providing the Oklahoma Thunderstorm Outlook.

Now we, the amateur packet community, need to get on the ball and let the NWS know exactly what we do want in terms of weather information via packet radio. The Weather Service can very easily overload our level 2 packet system and until level 3 networking becomes available we MUST decide what, if any, information we would like the Weather Service to provide.

This meeting is set for September 8th, 1986 at 1pm in the Oklahoma City office of the National Weather Service. Of course not everyone involved in packet will be able to attend. But PLEASE let your ideas/wishes/etc be known!

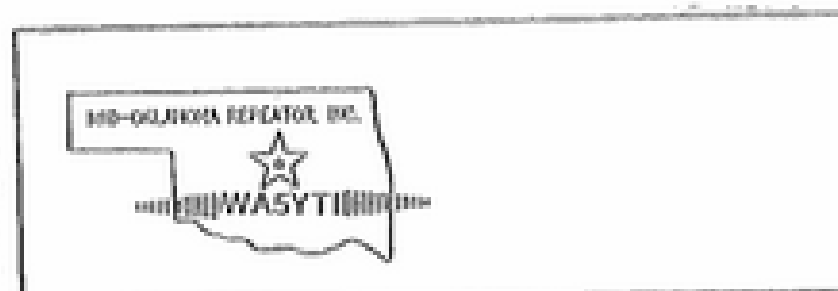
If you have any ideas or suggestions as to the direction this meeting should take, please drop me a note or reply to this notice. I would appreciate any information concerning other areas that may already have a packet/NWS system in operation.

## ARDMORE

At the 9 August breakfast meeting, after other business was finished, election was held for new officers for 1986-1987. The new officers, to take over at the September meeting, are: President-Glenn Hamilton KESES V, President-Ken Frakes WBSWPC Sec.-Robert Griffin WBSVKA Treas.-John Merlyn WDSFZD

The meeting was given a beautiful finishing touch with a video program given by Charles Dibrell, W5BLW, on Alaska, along with a map showing his points of interest during his recent tour there.

We were pleased to have seven visitors attending along with the members and families. If you are in the area any second Saturday morning before 7:30 please join us for breakfast at the Tower Restaurant. Hit the .97 repeater. Jack, W5GM



Our August club meeting was a picnic affair with a small but quality group. Thank you everyone who attended.

By now I suppose that rumors are rampant. Our President, Doc, KX5W, has reluctantly resigned his post. In a letter to the officers Doc stated that due to the slow economy in Oklahoma, he has been forced to move back to 7 land to continue in his present line of endeavor. Thanks for your efforts as president, Doc.

The vice president will take over the functions of the office of President for the remainder of the term. The acting President is Tim Rauscher, KA5MUG.

To all members of MORI - it is not too early to begin thinking of the right people to railroad into the office for the coming year. Those who do not want to be railroaded ought to volunteer! Seriously, we will need a slate of candidates for the elections in November. de KA5MUG

### MORE EARS

out of the garage and we opened windows ect. to clear the air in the house.

I have left batteries on "auto" for perhaps up to a year in the past without any problem, I suspect that a cell shorted causing too much voltage and current for the remaining cells. What did I learn? About a month ago the same thing happened again with the battery powering the TNC station in my attic. I caught it early before the whole house was toxic.

Both batteries were the Delco Freedom batteries (both the latest style) which I don't like anyway, that is why they are not in my cars!

Advice: If you have a similar arrangement I suggest that you locate the battery out of doors or use a vented to outdoors marine battery case. I am going use a marine battery case and high temperature snap switch in my future setup. Think about it. My TNC is back on line after some repairs due to the above problems.73 de N5BUJ-Bob McCoy

# Salem

## A WRITE OF PRIVACY (That's Right, You Write)

For several months now I have been following the controversy regarding the Electronic Privacy Act now working its way through the Congress. It first came to my attention several months ago when J Fields KB9QJ brought me a copy of Senate Bill 1667 that he had procured from one of the representatives. I have been holding onto the copy for some time now and following the changes in the W5YI Report and other national radio journals. Some of the changes have been fast and furious. Much has seemed to be misguided. But the net effect if this legislation passes will be the enactment of an unenforceable law which the Justice Department of the United States has indicated they will not enforce and the possibility that it will make criminals of people who tune the airwaves for enjoyment.

SB1667 is known as the "Electronic Privacy Act". It follows a line of concern on the part of cellular operators and others in the mobile phone business that persons may intercept and listen to radio signals. Quite frankly, it is a little difficult to go into it in sufficient detail to explain what the problem is, but it will suffice to say that the explosion of the use of scanners, especially scanners that can listen on the mobile telephone channels and has spawned a serious concern for the lack of privacy for those users who buy this service. And that is the root of the problem. (Ah, you knew that I was getting around to money). Cellular service is going to be big business. I must get at least a phone call or letter in the mail a week from somebody begging me to take a cellular system off their hands. The development of cellular technology has substantially expanded the number of users who can occupy a given number of channels. Years ago, mobile phone service emanated from single sites located in each

area. Depending upon demand, the local phone company installed a limited number of channels. The number of simultaneous conversations that could occur depended upon the number of channels in a given area. Channels could rapidly become saturated with just a few users if they heavily used the systems.

Cellular now offers not only frequency diversification, but also geographical diversification. Rather than concentrating on single sites located so as to cover as wide a space as possible, sites became small so as to limit their range. Each cell had a limited number of channels and coverage was expected to be complete within the cell and when you passed from the geographical location of the cell, you were "handed off" to another cell. Thus it became possible to greatly expand the number of channels that you could reuse as well as expand the number of users on each channel.

Such an expansion of the capability of these mobile phones led to a substantial expansion of users. The "Dick Tracy" mobile wrist radio had finally arrived. Users had come to expect a reasonable expectation of privacy with their home telephones. Ordinarily, they expect that nobody will be legally listening to their conversation without a court order. This trust and expectation of privacy also follows the technical requirements for interception. Telephone tapping generally requires a physical connection to your telephone or at least a close proximity for inductive pickup. It was possible to determine, at least in your home, whether someone was intercepting your phone calls. Once you left the premises, you basically place your privacy in the hands of the telephone company. Under Section 605 of the Communications Act of 1934, the telephone company generally cannot listen to your phone conversations except for the purpose of determining trouble and repairing.

Now, I have a problem determining whether or not we really have an expectation of privacy in or around our home anymore. This is supposedly protected by the Fourth Amendment of the United States

Constitution, but it has taken a beating in the last several years. For example, is a private conversation in your home protected from interception by third parties? Well, there supposedly is a section of the United States Code that makes it a crime to intercept third party conversations in the Safe Streets Act. I guess that it is enforced. It has been on occasion been used here in Oklahoma, especially in the wiretap context.

But, does it apply to some of the new technology that permits the interception of voice conversations in a private home by beaming a laser against a glass window, then intercepting the reflections from the window. Voice conversations that occur in a house make the windows vibrate. These vibrations are in time and follow the speech that occurs inside the house. By focusing the returning laser beams on a photocell, you can hear the conversations inside the house. Definitely a reason to have curtains on your house windows.

Well, now, let's be sensible, you say. This is an interception of a voice third party conversation which is clearly protected by the law. Well, I like to play these what if games because it always allows me to guess where a court might go if confronted with the question. Is there a rationalization that could be used by a court that might allow the interception of these "laser" conversations without a court order? (A law enforcement officer can legally intercept conversations of third parties in person or by wiretaps if permitted by a judicial officer who must be convinced that "probable cause" exists to believe that the subject sought under the warrant might be found through the interception).

I think that a court could "rationalize" such a interception by laser. The Fourth Amendment protects by prohibiting "entry into the home." This is the primary evil to which it is directed and the Supreme Court has said so on numerous



occasions. It has been expanded to protect telephone conversations and other circumstances where the citizen has a right to an "expectation" of privacy. I might add that all this hullabaloo we have been recently hearing about Supreme Court Justices who are "strict constructionists" could mean that these judges in the future might not read the words "expectation of privacy" in the Constitution. And if the principal evil of the Fourth Amendment is to prevent entry into the home, then a laser interception would not be prohibited.

Well, I digress too much. It is easy to get worked up about these things. Anyway, the long and short of the Electronic Communications Privacy Act is that people who use cellular telephones might expect (or in the view of the cellular operator, should expect) the same expectation of privacy with the use of their telephone in their car as they expect with the telephone at their home. On the other hand, there are millions of scanners out there and scanner enthusiasts who are saying, "Don't bet the ranch." I suspect that the scanner market has expanded so rapidly the past few years because of that quirk of human nature that seeks sources of information, no matter how trivial. It doesn't take an anthropologists like Desmond Morris to reach the conclusion that the human animal of the specie is an inquisitive animal, constantly wanting to know what is going on around its environment. Even if the information sought and obtained is trivial in nature. I guess that the founding fathers were certainly aware of this and a corresponding desire on the part of the same human animal to jealously protect its own privacy. It is a paradox in a way. I am interested in what you do, but when it comes to me, mind your own business.

Cellular conversations are not only available with scanners, but also with an ordinary UHF TV. I have heard of people tuning in the local cell with the television. It doesn't take specialized equipment. I haven't done it and if I had, I wouldn't admit it. And for those people who are paying by the minute, they might expect that the

least the cellular operator could do is provide them an expectation of privacy of their telephone conversation by radio. Well, the cellular operator did not really think of this when the design of the cells was coming down the pike. I don't think that they expected that there would be a lot of scanners capable of covering the 800 Mhz band. But that was a technical as well as a tactical mistake. It also underestimates american ingenuity in making a buck. If people want cellular scanners, then there are people who will make them.

To cellular users who found that their conversations might be divulged to others, a concern set in. To cellular operators who found that new customers might quit the service because of the lack of privacy, it became a business threat. So, they look for a solution. And it came to them. Get Congress to pass a law. Like Will Rogers said, when he tells a joke, he is only having a little fun, but when Congress makes a joke, it's the law.

There is also another saying. "People who love sausage and the law should not watch either one being made." And so it goes. The ECA was intended to make it a crime to "willfully access" an electronic communications system. The original bill made it a crime that was punished by a fine of up to \$250,000.00 and imprisonment for not more than a year if the access is made for purposes of commercial advantage, malicious destruction or damages, or private commercial gain.

If you really didn't have any purpose in mind for accessing the system, the fine was not more than \$5,000.00 and the jail term was not more than six months. So the casual interception was still pretty expensive. There were also other provisions that allowed the person who was intercepted to sue for civil damages from any person who might have intercepted his transmission. The recovery includes actual damages, attorneys' fees, costs and a statutory damage of not less than \$500.00 and not

more than \$10,000.00. The statutory damages are damages that are presumed under the law and do not have to be actual damages.

I don't have a copy of the latest bill and modifications. I should make it clear at this point that even these early bills carried exceptions from the penalties for amateur and citizen band services. They also excepted other stations for the use of the general public, which relates to ships, aircraft, vehicle, or persons in distress or police or fire communication system readily accessible to the public.

These exceptions initially made some amateur radio proponents decide that the bill did not affect us. But as the scope of the bill became clear, it became more evident that it would substantially affect the right of every citizen, and not just the amateur radio operator, to have access to the airwaves. Several national organizations, including the ARRL, suddenly took a more in depth look at the bill.

In the House of Representatives, the Bill is known as H. R. 3378. It just recently passed the House Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice. It still has some to go including approval by the Senate and its various subcommittees.

The W5YI Report detailed some of the features of the House version that emerged from committee.

"A new definition of electronic eavesdropping has been proposed. Instead of "acquisition of the content", it is now "interception of the transmission of the content."

A penalty of up to a year in jail and \$10,000 fine would be imposed on those intercepting certain transmissions not intended for the general public in the shortwave band . . . such as remote broadcast pickup stations operating around 26 Mhz and perhaps ship-to-shore radio telephone conversations. Any encrypted (scrambled) transmissions are also protected.

Fred W5YI points out some contradictions and inconsistency in the bill. For example, if you listen to the old 150/450 Mhz carphone service, you could get a 1 year in jail and \$10,000 fine, but if you listen to a cellular phone call, it would only be six months and \$500.00 fine.

Cordless telephones are also not covered since they are communications that are easily intercepted. I guess that it depends upon what you mean as easily intercepted. With a modern scanner, any telephone conversation on cellular or the old IMTS band is "easily intercepted." Some portable telephones that have both channels in the 49 Mhz band are also easily intercepted and they can be received with the same Bearcat Scanner that picks up the old IMTS.

Broadcast services not intended for the public (such as FM subcarriers) are also covered under the act. Private fixed microwave links, FM subcarriers, and broadcast auxiliary or remote pickup stations are also specifically protected.

Specific exemptions are written for all amateur radio, CB and GMRS communications. Also excluded are broadcast stations (natch), the others I mentioned previously, civil defense, public safety, marine, aeronautical, governmental, law enforcement or persons in distress.

One thing that really bothers me is this idea of interception of signals "readily accessible to the general public." I think that this is a term that can carry a lot of potential for abuse. It could be selectively interpreted to make illegal that which might have been considered legal under the bill.

One other matter that I am particularly troubled by is that if the cellular industry wants privacy, then the technical capability that creates the need for a bill like this also places within their hands the ability to ensure at least a reasonable expectation of privacy. IC's and modern electronics makes scrambling and encryption as

easy as pie. Why not take advantage? The Act is also intended to protect data transmissions by radio. Encryption with a computer is simplicity itself. Voice encryption might be a little more difficult, but that only means that you have to put 10,000 transistors on that chip instead of only 5,000. And if you digitize the voice and use bit shifting techniques, you offer an encryption technique that might be virtually unbreakable. It would certainly eliminate all but the most interested listener who would probably violate the law anyway and listen if he wanted.

At the same time, as a person who respects privacy, I am always certainly in favor of legislation that expands the right of privacy as this bill appears to do. But that is the rub. I am not sure that it expands a right of privacy, but only creates a false expectation of privacy. Again, you must be a student of human nature. People are going to listen if the equipment is available, whether it is only for a minute or all day. There will always be those with this curiosity. Does the Congress of the United States have to make these people criminals? And what about a law that is virtually unenforceable unless it, by itself, leads to widespread constitutional violations in its enforcement? What this means is that if you are suspected of interception of the transmission of the content of certain radio communications, a police officer can go to a judge and seek a warrant to search your house for the evidence of the "crime". Considering the widespread use of scanners, it seems to me that this privacy bill trades the right of privacy to a telephone conversation in my car for that same right of privacy in my house. And I am not unwilling to do that so that some cellular company can make a buck. Besides, with a law like this, cellular users will only think that they have an expectation of privacy. This is the position of a recent letter addressed to members of the subcommittee by the EIA. They said that a cellular user will only have an illusion that there is any protection.

Other problems about the bill have surfaced out of the Justice Depart-

who told the subcommittee that they would not (and probably could not) enforce scanner or (TV) cellular listening. A result would be the passage of a law that is not going to be enforced. "It's basically bad public policy to create a law that everyone knows will not be enforced . . . It brings about a disrespect for the law. . . It weakens everybody's faith in the criminal justice system. We are not talking about difficult enforcement. What we are talking about is an impossibility, unless we are willing to violate people's Constitutional Rights and go into their own homes . . ."

I am glad to see that the Justice Department still capitalizes "Constitutional Rights." But they have hit the nail on the head. They will not want to violate "Constitutional Rights" unless there is a clear advantage to do so, say, for example, to capture a criminal who they don't know is in a house, but is suspected. A warrant for a search for a scanner or the illegal use of a scanner would be the ticket of admission. But, you say, there might be a criminal inside and isn't that worth the risk of such a bill to capture this person? And my response is that warrants and searches are conducted for reasons less than certainty. And "probable cause" is substantially less than certainty. And besides, the use of the warrant to search for scanner instead the real purpose is a subterfuge because the possible use of a scanner "illegally" will always exist if there is a scanner in my house and that means that they can come in my house anytime because the "crime" of illegal reception is so broad.

If you are interested in heading off a law that will not be enforced (unless they want to) or closes the public airwaves to your use, please write Senator Boren or Nickles and detail your objections. There have been several articles in other recent magazines with more info that this article. See 'Em.

Micheal Salem N5MS

## HAM HOLIDAY UPDATE

Landagoshen! I hate to say that I really didn't think too much about Ham Holiday this year almost until the day I went to Oklahoma City to attend. Even forgot to pre-register, so that just seems to increase the chance that everybody else has to win something. Not that preregistering would really give me a chance to win. I don't think that I have ever won anything like that except a TVI filter several years ago at Dallas Hamcom.

The plan this year among the doughnut shop crew was to meet on Saturday morning like we always do at The Doughnut Stop in Norman, take on a cup of coffee and an apple fritter, then hike up to the City. Chas KA5UPM was up for the deal. But Roger WA5JXX was going to be out of town, preferring a trip to Ol San Antonio for the Folklike (oops, I think that is Folklife) Festival. Roger has for several years attended this event and has been trying to get me down there. Unfortunately, this year, the Festival fell on the same weekend as Ham Holiday. He checked out and flew south. I stayed for the flea market.

It seemed to me that the flea market this year at Ham Holiday was up. Not in numbers, but in quality. I saw several items that I gave serious consideration. Eventually, I settled on a couple of things that really got my curiosity. One was an Icom IC-2N. Didn't know what it was, but it looked good. This version of the Icom radio is not normally available to my knowledge here in the States. It is some special version apparently sold for use in China or someplace. I don't know if I would get in trouble for buying it so I won't mention who I got it from.

The IC-2N is just like the IC2A except that it only works between 144 and 145 Mhz. The 5 khz switch is wired as a switch that allows you to swap between the main dial and a fixed simplex frequency on 145 Mhz. The radio only goes on 10 Khz steps. With a little modification (he said) it would go on packet. Oh, yeh, it only covers simplex and has no

duplex channels. Well, that is a radio of limited use. And the conversion to a full fledge IC2AT would be a lot of work. Icom simply omitted all the parts on the board for duplex operation and the touchtone pad. Well, I like a challenge. Besides, where could I buy a packet radio for just \$75.00?

It took a little bit of finagling to free the radio up to transmit between 144 and 148 Mhz. Not only did Icom omit some parts, they also added some that muted the transmitter and receiver outside those limits. I rewired the radio like an ordinary IC-2 and it still only transmitted between 144 to 146. Well, at least I picked up a megahertz and it would work on packet now. After some digging, I figured out that they had added a resistor from the bcd switch to the transmitter mute circuit. A clip with a pair of diagonals and the radio worked the entire band length.

It will take a little more work to get it to cover 5 Khz steps. That will require a couple of coils and some diodes. I ordered the parts from Icom and they only cost a couple of bucks. I went back and bought another one of these radios because I thought that it would make a good remote base for the Shackmaster or the ACC RC-850 repeater. The only problem is that use a radio with simplex/duplex. Well, back to the Icom order desk. It would take a couple of crystals (about \$10.00 each) some more coils, a couple of diodes and capacitors and some resistors. Still, I think that it will be less than \$30.00 for the deal. Besides, it will keep me out of trouble on Saturdays for awhile, at least until football season starts.

I bought a couple of other items including some bargain 24 volt open fram power supplies. They went for closeout prices along about 4 O'Clock or so. And I found a fairly expensive aluminium chassis for just a buck. Same place as the power supplies, except I bought it earlier in the day. I spent some time looking through the flea market and then perused the commercial exhibits. I was glad to see that Bill Brodie is now back in business with radios and computers. I always look at

the stuff that BCD Electro has because they seem to have new things all the times. I spent some money there and at the other small parts dealers.

I wasn't able to get back on Sunday since I had some work at the office that had to get out. I also didn't have a chance to attend the packet forum, but did go by there later to hook K5JB up for dinner. I understand that Joe and Bob WA5BQX did a whizbang job. It is amazing to me that packet has grown the way it has since JB, myself and WA5FLT first got those three TNC-1s. We had a lot of people wondering what all the gibberish on the air was. We first started out on WA5TOO's 147.99/39 Mhz repeater, then when I put up a little better antenna, we were able to make a simplex path. You know packet has arrived when people are starting to swap TNC's in the flea market. I also saw a large crowd at the program. I am not going to say that Bob and Joe singlehandedly killed the flea market, but a lot of fleas left when their two hour program began. And 145.01 Mhz has been busier than ever.

I never did find out who won the big prizes. It wasn't me and I guess that is all I care about. It seems like attendance and exhibitors are down from previous years, but I certainly enjoyed myself and picked up a couple of projects to work into my normal rotation. I also stopped by the QCWA booth to buy some ARRL books, but they were almost all out of anything I was looking for. Well, next year.

Only bad thing about Ham Holiday is that it ends the hamfest season. But that is only to be replaced by football season and I can live with that at least until January. That is when the dry season starts for almost four months until Dayton in April. Of course, the preplanning has already started. I have my airline tickets and motel reservations in hand. Now, it just a matter of waiting.

Micheal Salem N5MS



## Minutes of August Meeting

There weren't any. The watermelon feed was held instead of a meeting. I had my calendar marked wrong and thought it was being held the same night as the the C&E paste up, so I missed it. Jerry, KD5IS, advised me that there were about 14 folks there. As I remember the weather wasn't all that good and might have stifled some from attending. Between my traveling, my forgetfulness, we aren't doing too swift at this newsletter thing. If you want to find out what is going on, I guess you will just have to go to the club meetings, or at least, drop in on Saturday mornings for coffee and to check things out for your own selves. Joe, K5JB, Sec'y.

## Ham Holiday

What a blast! Again, I would like to thank the hard working committee members who sacrificed their time and enjoyment of Ham Holiday so we could enjoy the goings on. I regret that I have to split my time between programs, the flea market, and plain-old eyeball rag chewing because I like them all and hate to miss any of it. I think I did more visiting than anything. It is one time I get to visit with the folks I hob knob with on HF and every hamfest I never fail to meet a bunch of new ones. Joe, WA5IMO, from Vinita, is one of those folks you hear on the radio for 15 years and you are certain you must know what he looks like after that long. Wrong! He came up to me Sunday morning and started chatting and I had to ask him who he was. Boy! Did I feel dumb!

There were several Packeteros there and we had a sell-out crowd at the packet radio programs. With the help of Bill, WA5FMD; Joe, WA5FLT; and, Bob-Robert, WA5BQX, we put on a pretty respectable show. The demonstration was pretty shallow because of the large number that were there and difficulty they would have seeing details of what were going on, but I think we did OK under the circumstances. Had we been true crusaders we would have had a packet station or two set up for the duration of the hamfest so more people would have been able to get hands on experience.

Larry, WB5MPU, who runs a WA7MBL PBBS and HF gateway at Lake Keystone did a real generous thing. I was discussing social problems with PBBSs with him and learned for the first time that he was running the 'MBL code. That system, and the WORLI code that runs on the XEROX 820s, has a message forward-

## Success Probability With Various Digipeaters in a Path

		One way single link probability					
		0.7	0.8	0.9	0.95	0.98	0.99
Nr.	0	0.490	0.640	0.810	0.903	0.960	0.980
	1	0.146	0.300	0.566	0.758	0.897	0.947
	2	0.026	0.103	0.341	0.593	0.814	0.903
	3	0.003	0.026	0.178	0.431	0.718	0.848
	4	0.000	0.005	0.080	0.292	0.616	0.786
	5	0.000	0.001	0.031	0.184	0.513	0.718
	6	0.000	0.000	0.010	0.108	0.416	0.646
	7	0.000	0.000	0.003	0.059	0.328	0.574
of	8	0.000	0.000	0.001	0.030	0.251	0.503
Digs.	0	2.0	1.6	1.2	1.1	1.0	1.0
	1	6.9	3.3	1.8	1.3	1.1	1.1
	2	38.0	9.7	2.9	1.7	1.2	1.1
	3	347.1	38.8	5.6	2.3	1.4	1.2
	4	5219.7	211.8	12.5	3.4	1.6	1.3
	5	129349.5	1577.7	32.4	5.4	1.9	1.4
	6	5281351.3	16065.5	96.8	9.3	2.4	1.5
	7	#####223579.9	335.6		17.0	3.1	1.7
Digs.	8	#####4252505.5	1348.4		33.4	4.0	2.0

Table 1. Effect of Digi number on round trip S frame probability

ing capability and can really do some neat things if you know how to address a message to someone within range of a gateway on the HF packet network. He sensed my enthusiasm and gave me his personal copy of the operating handbook. I felt rather guilty about taking it so I did a quick scan that evening with the intention of giving it back the next day, but he had gone home. I am glad I got to know him better and glad he is on packet!

I suppose I could add the message handling capabilities to the PBBS I put together for the Apple but I have not been inspired to do so. Having a 'MBL PBBS within range raises my enthusiasm a bit, but not quite high enough to put it ahead of some other projects...

## Why All The Retrys?

For you packeteros who like to look at numbers I have some for you to look at.

While I was making preparations for The Ham Holiday preparations, I tried to think of the things that cause problems getting packets through successfully. Without going into all the details covered in the various network proceedings, where scholarly amateur radio packeteros dig into all of those kinds of things

I attempted to reduce one of the factors to simple terms and got into trouble. It is an often observed fact that longer packets have more trouble getting through than shorter ones. Particularly noticeable is the ability to make a connect and then not be able to get hardly any information through. Also, it is logical to assume that the more times a packet has to be trans-

mitted through digipeaters, the lower the probability of success. I thought I had a brainstorm and would have the old computer crank out some numbers to illustrate the effect so sometime between Friday night and Saturday morning I started on a spread sheet and printed out some numbers for the packetero program. Those of you who were there observed the results of going off half cocked! The numbers were worthless.

Never the less, I was still curious and got Davis, KD5IT, into the thought process. After mulling it over a bit, he sent me a message that said he thought that the basic assumptions were sound so I went back to the spread sheet program and proceeded to take a closer look at the numbers.

The April 1986 TAPR Packet Status Register Quarterly contained a table of probabilities that has been republished in various other places, mostly with errors. It shows the result of having digipeaters in a path and bases its assumptions on an equal success probability between each station in the path. It also makes no distinction regarding the length of packets. Naturally, acknowledgments and connect requests are shorter than 256 character information packets so I remained awfully curious about how to make a second approximation. I think I have the process figured out but there might still be errors in my thinking. I will leave the critique up to the statistician out there!

The PSR table shows, for example, that if the per hop success probability is 0.9 (90%) and no digipeaters are in the path, since there is a round trip involved, the probability of 0.81 of success. That seems reasonable since 0.9 times 0.9 equals 0.81. If a digi-

peater is involved, the probability drops to 0.66, which is 0.81 times 0.81. (For the math majors,  $P = p^{2*(N+1)}$  where N is the number of digipeaters.)

I had a problem with this because all packets are not the same length and even connect requests (SABM packets) are longer if they go through a digipeater because they include seven more characters (octets) for each amateur call involved. I reasoned that a longer packet would have a higher probability of a noise hit, if the noise could be assumed to be random. The results look like Table 1.

The results look pretty awful but they are only a little worse than those in the table published in the PSR. The lower half of the table represents the numbers in the top half, divided into 1.0 to show how many tries you would have with the probabilities shown. Since the numbers looked so bad, I assumed the per-hop probability must usually be pretty good or we wouldn't ever get anything through. I took a rather fine cut at the numbers above 90% because that is where we usually operate unless we are sadistic about it. I got a charge out of the way the spread sheet handled the try counts with 7 or 8 digis because that is what I imagine the operator is thinking about that time!

These numbers are nifty but not all that useful for understanding when a path is worth pursuit or not. We have all observed that after making that connection, "The band goes to pot!" That ain't the case. Look at Table 2. It shows the effect of adding some information to your packets after a connection has been made. This table does not include the digipeater effect and shows how probability declines for information frames containing from 32 to 256 characters. These numbers are based on the supervisory frame probability raised to a power proportional to the increase in packet length. It takes into consideration the increased information frame length only because the address increased length already contributed to the observed round trip performance of the supervisory frame.

For example, If you find that a 128 character packet is taking an average of a little over 2 times every time you transmit, you might find that a 32 character packet will go OK seven or eight times out of ten (0.76 probability).

An interesting effect of looking at the numbers generated on the basis of observed path reliability with digipeaters is that tables generated with digipeaters in the path show a higher calculated reliability, but it must be kept in mind that those numbers are relative to the basic probabilities involving supervisory frames and, as table 1. shows, we take our first

Success Probabilities for Various Information Frame Lengths							
		Observed Supervisory Frame Round Trip Probability (Nr. Digis = 0)					
		0.7	0.8	0.9	0.95	0.98	0.99
Info.	0	0.700	0.800	0.900	0.950	0.980	0.990
Frame	32	0.396	0.560	0.760	0.875	0.949	0.974
Length	64	0.224	0.392	0.642	0.806	0.919	0.959
	96	0.126	0.274	0.543	0.743	0.889	0.943
	128	0.071	0.192	0.459	0.684	0.861	0.928
	160	0.040	0.134	0.387	0.630	0.834	0.914
	192	0.023	0.094	0.327	0.581	0.807	0.899
	224	0.013	0.066	0.277	0.535	0.782	0.885
	256	0.007	0.046	0.234	0.493	0.757	0.870

Transmission attempts per packet							
	0	1.4	1.3	1.1	1.1	1.0	1.0
Info.	32	2.5	1.8	1.3	1.1	1.1	1.0
Frame	64	4.5	2.6	1.6	1.2	1.1	1.0
Leng.	96	7.9	3.6	1.8	1.3	1.1	1.1
	128	14.0	5.2	2.2	1.5	1.2	1.1
	160	24.8	7.5	2.6	1.6	1.2	1.1
	192	43.8	10.6	3.1	1.7	1.2	1.1
	224	77.6	15.2	3.6	1.9	1.3	1.1
	256	137.3	21.7	4.3	2.0	1.3	1.1

Table 2. Effect of Info Frame Length on Circuit Success Probability

Combined Effect of Digi No. and Info. Length Assumed one way probability for SABM: 0.9							
		Length of data in I frame					
		0	32	64	96	128	160
	0	0.810	0.684	0.578	0.488	0.413	0.349
	1	0.566	0.404	0.288	0.206	0.147	0.105
Nr.	2	0.341	0.206	0.124	0.075	0.045	0.027
	3	0.178	0.091	0.046	0.023	0.012	0.006
of	4	0.080	0.034	0.015	0.006	0.003	0.001
	5	0.031	0.011	0.004	0.001	0.001	0.000
Digis.	6	0.010	0.003	0.001	0.000	0.000	0.000
	7	0.003	0.001	0.000	0.000	0.000	0.000
	8	0.001	0.000	0.000	0.000	0.000	0.000
Transmission attempts per packet							
	0	1.2	1.5	1.7	2.0	2.4	2.9
	1	1.8	2.5	3.5	4.9	6.8	9.5
Nr.	2	2.9	4.9	8.1	13.4	22.1	36.7
	3	5.6	11.0	21.7	42.6	83.5	163.9
of	4	12.5	29.1	67.7	157.2	365.1	848.2
	5	32.4	89.0	244.6	672.7	1849.6	5085.8
Digis.	6	96.8	315.0	1025.3	3336.8	10859.5	35342.3
	7	335.6	1292.7	4979.7	19182.3	73891.9	284638.0
	8	1348.4	6147.8	28030.3	127801.5	582698.4	2656756.0

Table 3. Reliability of Various Digi Nrs and Info Lengths With Basic One Hop Probability of 0.90

licking when packets have to be repeated in the first place. Tables 3., 4., and 5. represented an attempt to bring it all together and show the combined effect of numerous digipeaters and various information frame lengths. Tables 3. and 4. differ in the basic assumed reliability. The first one assumes 0.9 and the second one assumes 0.95. To take a little finer cut at the smaller packets, I included Table 5. which shows frames having from 20 to 100 characters in the info area. These last three tables require the assumption of success probability be-

tween one pair of stations in a path and that number is a wild guess at best. The only benefit of using an estimate for that number is to keep something constant so the other variables can be studied. You think we have a bunch of tables here? Can you imagine the tables that would be required to show the effect of a real path that has various levels of reliability between stations! Remember that to calculate these tables it was assumed that the interference with a packet was random noise (either receiver or externally generated). This assumption is not valid with collisions. A collision general-

ly will occur at the beginning of a packet if both transmitting stations can hear each other. If they can't hear each other, collisions can occur any time during a packet transmission and the effect persists during the duration of the interfering packet, hardly a random distribution in time. Analysis of collision effect would take a more rigorous analysis than I am willing to tackle (this weekend anyway, HI!). Joe, K5JB

#### AEA PK-232 Notes

I found the following comments on Compuserve's Hamnet. There are a couple of locals using AEA's PK-232 on packet but I do not have my notes handy to mention who they are. The PK-232 is a box that does packet, Morse, Baudot, ASCII, and ANTOR and is software switchable for HF and VHF modulation and data rate standards.

#: 45570 S9/Packet/RTTY/ANTOR  
13-Aug-86 20:34:14

Sb: PK-232

Fm: Paul Williamson, KB5MU/6 75265,367  
To: All

I finally got a chance to look at a PK-232 today at Ham Radio Outlet. I have a couple of observations to share.

The manual is pretty impressive! It's thick and dense with information. I can't imagine what it would be like to dive into this manual as a novice to RTTY and packet. It might be a bit overwhelming.

The radio A/B switch is just a switch. Nothing fancy. I was sorta hoping that it would be software controllable so that a gateway could be operated (non-real-time) with a single PK-232. No such luck.

They've brought out parallel TTL data to pins 13-19 and 21-25 of the RS-232 connector. This is the same data that's going to the UART, so you could run a direct parallel connection to your computer instead of the parallel RS-232 lines. Neat idea. BUT! Some computers and terminals use these pins for other functions. If you hook up all 25 wires (as you might naturally do with a ribbon cable), you may destroy parts of the PK-232. Bad news. So, tell all the new PK-232 owners out there to be careful. A safe approach would be avoid anything but pins 1-8 and 20. In a quick once-over, I didn't see any mention or warning of this in the manual; I caught it on the schematics.

#: 45602 S9/Packet/RTTY/AMTOR  
14-Aug-86 22:04:53

Sb: PK-232

Fm: Eric Rosenberg WA6YBT 73307,110  
To: All

This came off our local BBS here in Harrisburg:.

Combined Effect of Digi No. and Info. Length  
Assumed one way probability for SABM: 0.95

		Length of data in I frame					
		0	32	64	96	128	160
Nr.	0	0.903	0.831	0.766	0.706	0.650	0.599
	1	0.758	0.643	0.546	0.463	0.393	0.334
	2	0.593	0.463	0.362	0.283	0.221	0.173
	3	0.431	0.311	0.224	0.161	0.116	0.084
	4	0.292	0.194	0.129	0.085	0.057	0.038
of	5	0.184	0.112	0.069	0.042	0.026	0.016
	6	0.108	0.061	0.034	0.019	0.011	0.006
	7	0.059	0.031	0.016	0.008	0.004	0.002
	8	0.030	0.014	0.007	0.003	0.002	0.001

		Transmission attempts per packet					
		0	1.1	1.2	1.3	1.4	1.5
Nr.	1	1.3	1.6	1.8	2.2	2.5	3.0
	2	1.7	2.2	2.8	3.5	4.5	5.8
	3	2.3	3.2	4.5	6.2	8.6	12.0
	4	3.4	5.2	7.8	11.7	17.7	26.6
	5	5.4	8.9	14.5	23.8	39.0	63.7
Digs.	6	9.3	16.5	29.2	51.9	92.2	163.8
	7	17.0	32.7	63.1	121.6	234.5	452.2
	8	33.4	69.9	146.3	306.2	641.0	1341.5

Table 4. Reliability of Various Digi Nrs and Info Lengths With Basic One Hop Probability of 0.95

Combined Effect of Digi No. and Info. Length  
Assumed one way probability for SABM: 0.9

		Length of data in I frame					
		0	20	40	60	80	100
Nr.	0	0.810	0.729	0.656	0.590	0.531	0.478
	1	0.566	0.459	0.371	0.301	0.244	0.197
	2	0.341	0.249	0.181	0.132	0.096	0.070
	3	0.178	0.117	0.076	0.050	0.033	0.022
	4	0.080	0.047	0.028	0.016	0.010	0.006
of	5	0.031	0.016	0.009	0.005	0.002	0.001
	6	0.010	0.005	0.002	0.001	0.001	0.000
	7	0.003	0.001	0.001	0.000	0.000	0.000
	8	0.001	0.000	0.000	0.000	0.000	0.000
		Transmission attempts per packet					
		0	1.2	1.4	1.5	1.7	1.9
Nr.	1	1.8	2.2	2.7	3.3	4.1	5.1
	2	2.9	4.0	5.5	7.6	10.4	14.2
	3	5.6	8.6	13.1	19.9	30.4	46.3
	4	12.5	21.2	36.0	60.9	103.1	174.6
	5	32.4	60.9	114.6	215.6	405.7	763.3
Digs.	6	96.8	202.4	423.1	884.7	1849.6	3867.1
	7	335.6	779.6	1811.1	4207.2	9773.6	22704.6
	8	1348.4	3480.4	8983.5	23188.1	59852.5	154489.7

Table 5. Reliability of Various Digi Nrs and Info Lengths With Basic One Hop Probability of 0.95 And Shorter Info Frames.

Hsgd TR Size To From @ BBS  
Date Title 1308 BN 708 ALL  
KC3BN 860815 PK-232 ENCOUNTERS.

I HAVE PK-232 I HAVE IS SERIAL NUMBER 165. HERE ARE SOME THINGS THAT AREN'T IN THE MANUAL.  
1. THEY DON'T TELL YOU THAT YOU NEED 3 AA ALKALINE CELLS FOR MEMORY BACKUP.  
2. WHEN YOU BACK UP THE MEMORY BY PUTTING CELLS IN YOUR BATTERY HOLDER, YOU'RE LOCKED TO THE PK-232 TERMINAL BAUD RATE AT THE TIME YOU DID THE INSTALL. IF YOU PLAN TO SWITCH TERMINAL TO PK-232 BAUD RATES YOU WILL HAVE TO BREAK THE BACK-UP CIRCUIT AND ENTER

ALL NEW PARAMETERS, INCLUDING YOUR CALL ETC. WILL ADD MORE AS I FIND THEM. FRONT END WORKS AS WELL AS MY ST-6 WHEN WORKING WEAK SIGNALS ON RTTY. HF PACKET SEEMS TO BE IN THE SAME AREA BUT I HAVE NOTHING TO COMPARE IT TO BUT THE ST-6 ON 170 HZ SHIFT.

THIS IS BOB, KC3BN @ AK3P

There you have some early comments. I will try to identify the local chaps who have them so you can ask them yourselves about it, or I might be to grab one myself! Joe, K5JB



# The South Canadian Amateur Radio Society

## JULY MEETING

The club held its monthly meeting on Saturday, July 12, at the Red Cross. The meeting was called to order at 9:30 am by vice-president Frank, W2OCM. The meeting was attended by 25 members and a guest, NW5M, from Del City.

## SCARS FIELD DAY

The SCARS field day effort was an outstanding success this year. Operations began early with Ken, KA5EFJ, arriving at Reaves park at 6am Saturday, June 23, to hang the pennant line around the shelter. Louis, KD5WA, Mark, N5BZR, and Ken, N5BKN, showed up about 9 am to set up the antennas and radios. Mark brought the Red Cross van which had a 4 kw generator fueled off the main tank. The generator ran continuously without refueling for a 28 hour period. Three radios were set up initially, Mark's ICOM 745, Ken's Kenwood 430, and the club 720. Louis had two 3.3 MHz doublets fed with 450 ohm ladder line which with match boxes were used with the 430 and the 745. A 20m dipole also with a match box was used with the 720 which was intended for the Novice/Tech station. Monte, WB5RZX, brought a Commodore portable computer which was used for logging and as a terminal for the packet station which ran on a 10 watt 2m radio with a mag mount 5/8 wave antenna on the roof of the Red Cross van. A coffee pot, several large water jugs and coolers, and a floor fan provided most of the comforts needed for the operators and the spectators.

There was quite a crowd at the 1 pm kick-off. Andi, KA6PKJ, and Louis started the 24 hour contest period operating on 20 m and 40 m phone. The 20 m band was hot and Andi logged quite a few before giving up the bench.

The top operator was Andi with a total of 324 contacts. Monte followed with 234 and Mark was third with 81. The other operators were:

Peter Richeson  
Louis Russell  
Marshall Maddox  
Davis Egle

Ken Neptune  
David Medders  
Gene Johnson  
Bob Rabin  
Frank Rizzo  
Ken Esadooah  
Frank Donaldson  
Steve Moore  
Jean Bateman  
Ron Knickerbocker  
Bill Oliver  
Joe Green

## Other statistics:

937	Total Contacts
808	Total Unique Contacts
2	Transmitters
1	Packet Station
1	Novice/Tech Station
100%	Emergency Power
24	Hour Operation
800	Bonus points

Publicity was sparse this year but an OU Daily reporter showed up at 1 pm Sunday, just in time for the end of the contest. He got a few great photos of the group taking antennas down! Big scoop, huh?

## Amateur List

SCARS will be mailing an updated list of the amateurs in the Norman areas to all paid members of the club this next month. If you haven't paid your dues this year, your name will be dropped from the mailing list.

## August Meeting

The regular monthly meeting was held on August 9 at the Red Cross in Norman. Frank, W2OCM, called the meeting to order at 9:38 am. Forty members and guest attended the meeting.

## All HAM Family

Among the guests at the meeting were Dick, WD8KEL, and Ann, WD8KEO (Enjoys Eating Out) who are Steve's, NI3W, parents. For you who have not been paying attention, Steve is Andi's, KA6PKJ, OM. The Wolfe's have seven hams in the family. In addition to Dick, Ann, Steve, and Andi, there are Tim, WD6AMC, Theresa, KA6RLA, and Rick, KB6ADX. Try getting to the radio when that family gets together! Must be quite a queue. And now we know why Andi did so well at FD. If you don't talk fast at the Wolfe's, someone will grab the mike.

## Got a Gripe?

Frank, W2OCM, formed a complaint committee for the club. The committee consists of Frank,

KA5EFJ Jerry-W5MCJ, and Davis-KD5IT. K5PL This group is to field and WD5GTC resolve any complaints brought KA5MIZ by SCARS members regarding W2OCM operation of the repeater or N5BEW other matters of concern. If you N5IQJ have a gripe, don't beat your N5HJG mate or scream at your kids or N5BZV take it out on other club members, call one of the complaint N5BZS committee. We'll get it worked K5KDR out. KA5AXQ

## CORA Reps

Frank also appointed Louis-KD5WA, Mark-N5BZR, and Dave-K5PL as the club's representatives to CORA. Marshall-N5ITQ, Gary-WB5ULK, and Bill-K5KDR were appointed alternates.

## Welcome back

Gary Skaggs-WB5ULK moved to Arizona about 15 months ago to take a job as a choir director. Well he couldn't stay away from Okie land so he's back and active again in SCARS. If you don't remember Gary, he was and is again the (or one of the) resonant voice of the National Weather Service.

## Money Pot

Monte, WB5RZX, reported a balance of \$265 in the club treasury.

## Election Help

Upon the recommendation of Frank W2OCM the club approved a donation of \$75 to the election campaign of Gordon Jones, who is running for reelection as the district 2 commissioner for Cleveland county. Several club members also volunteered to help in Gordon's effort.

## Next Meeting

The regular monthly meeting will be on Saturday September 13 at 9:30 am in the Norman Red Cross building, 1205 Bailey Drive. See you there!!

----- KD5IT -----

## LAST OF GPARC

of the printer is? Maybe we used too much WD-40! Anyway, enjoy and savor this portion on extreme technical know-how because it's probably the first and last until we get a new editor at the GPARC.

73,

Lois (or Loid) N5JGQ

KA5COI  
KD5WA  
N5ITQ  
KD5IT

## EDMOND AMATEUR RADIO SOCIETY

We had a fantastic dinner meeting last Friday Night at Crocketts. The attendance was fantastic. There were around 46 members there to enjoy the meal and fellowship. Welcome to Leo, K0LOT, who joined. We also had several visitors.

Congratulations to Jamie, KA5WKP, our newest Tech. Jamie is the daughter of Donna, KA5Y8P. They are the only Mother/Daughter team in EARS. She is our first female teen Tech. We are very proud of you Jamie!!

Frank, KA5WGS asked that I pass on a very big thanks to all that helped during his recent tragedy, the loss of his brother. Also for all the support during his son's surgery. By the way, my last report was that his son was doing just fine.

Zoning Regulations (ZR) and Restrictive covenants (RC), in Edmond have recently been investigated by Charles, N5PMU. Height, Placement, and towers have been researched. It was agreed by the Ears Board of Directors that the city needed correction. N5PMU has been appointed to head a task force to influence changes to the ZR. As it stands, the City Engineer may disconnect power to your house for RFI!! If you want info on the Edmond ZR or on how to check your RC, call N5PMU H)340-4468 or W)949-4116.

As the C&E goes to press we are putting the final touches on the Seminar "You and Ham Radio." This is not a first for Ham Radio but a first for our club so I would appreciate any comments any of you might have, good or bad. We need feedback as we develop our program for next year.

All of our efforts have been directed toward the seminar and the classes. A lot of interest has been generated by the public toward our classes so, members get ready, we have a big fall ahead of us.

If anyone has any old PL 259 or any other connectors that require soldering, please save for the technical class. Lee, KA5WIS will need several for the students to practice their soldering.

I was talking to Charlie,

W5GA, in Okmulgee the other day and he invited all to feel free to use the Okmulgee repeater 147.225+ anytime you are in the area. It does have good coverage. I have visited with him from Edmond on 10 watts.

Donna, KA5Y8P, is in charge of the committee to place late edition Ham Radio magazines in various waiting rooms around town, of course there will be a phone number on the back for anyone interested in our hobby. Please call KA5Y8P if you have any magazines available. The next business meeting will be held Sept. 21, 1986 which is on a Sunday.

If anyone would like to become involved with the EARS group, give our Secretary, Amber, KA5VEK a call. Her number is 478-4615.  
73 BOB KAOCVK

FROM the PRESIDENT....

If you are reading this in the SEPT issue of C&E then I guess that I managed to get it to Joe in time! I am also submitting a reduced copy of our club's logo (patch) to be used with future C&E articles from our group.

Mary Wells, KA5WHI, headed the committee that designed our outstanding logo. Thank you Mary. Many people received the logos in time for the 4th July parade; if you haven't paid two dollars for each patch you received then please do so. EARS isn't out to make money on the patches but we would like to break even.

Thank You to the many club members that helped with the registration booth at HH 86 this year; we were successful at this endeavor. Cash flow balanced with tickets (ect.) that we sold. We collected a total of \$4,492.25 during the three days of registration. Total tickets for HH 86 were 889; 541 pre-registration and 348 sold at the door. HH 86 was a great success.

Those who think that Ham Holiday could be better should quit complaining and start helping with the plans for next year; become your club's CORA rep or at least offer your help to CORA. Too often those who complain are those who complain, in other words no one is going to listen to you if all you offer are complaints. Please offer

yourself along with your ideas, if that isn't possible then make sure your club is represented at the monthly CORA meetings -- perhaps you should complain to your club's rep or do you even know who they are?

If you didn't make the banquet you missed a swell time at a reasonable price. Programs were great this year and I'll bet they are even better next year, maybe all three days. Yes the admission cost does deserve some review as do some other items. EARS representatives for CORA are: Frank, KA5WGS; Lee, KA5WIS; & Bob, N5BUJ.....talk to us...

I would like to welcome all our new members to EARS. We are proud to have you in our organization.

FYI - EARS is purchasing a package of ARRL books to donate to the Edmond branch of the Oklahoma County Library. This is one example of EARS commitment to amateur radio and our ARRL Special Service Club designation. John Thomason, WB5SYT, will be handling the arrangements.

FYI - A couple of months ago we (wife & I) noticed an odor in the garage and around the house. I at first thought it to be sulfuric acid like in smell. My wife later thought it was like sewage gas. We noticed the odor first in the evening, I searched the house and yard and didn't find a thing. Next morning the odor was noticable even in the house; I again searched for some sort of sewer problem but came up empty handed. I went on to work and discussed the problem with Bob Thomason. Bob, KAOCVK, is a senior staff engineer (senior means over the hill in this case!) at the place where we both work. He asked if I had any batteries. I then saw the light. I originally had associated the odor as sulfuric in nature but my wife in her usual way had changed my mind (women are good at that). I now was worried about the odor or fumes even more so. I rushed home expecting the battery that I have in my small attic room for a 24 hr TNC to be the culprit. No problem there though. I then check another battery left on "auto" charge all of the time in my garage, wow was it hot... I got it

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**VOLUNTEER  
 EXAMINER  
 PROGRAM**  
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V.E. tests are held the third Monday of each month at 6:00 P.M. at the Oklahoma City Red Cross at 10th and Hudson. These sessions are conducted under the WSYI Program and are sponsored by C.O.R.A.

Scheduled test sessions through June 1987 are as follows:

1986  
 September 16      October 20  
 November 17      December 15

1987  
 January 19      February 16  
 March 16      April 20  
 May 18      June 15

In our July test session we had a total of 10 candidates with Wendel (WDSAGY) taking home a 20WPM code certificate, Jerry (KASZYZ) and Audie (KASZYT) going from Novice to Tech, and Ed (WSOEC) going from General to Advanced.

Our Ham Holiday test session on August 1st had us testing 23 people at Lincoln Plaza. Travis Frakes and Ray Newell are two new novices; Brad Frisbie went from no license to Tech; Don (KB5ABS) and James (KASZZG) went from Novice to Tech; John (NSBNU) went from General to Advanced; and Carol (KSCPZ) and Jerry (KFSMB) took home 20WPM code certificates.

Finally, our regular August session at the Red Cross had us testing 14 candidates. Perry (WSMGZ) and Jerry (KFSMB) went from Advanced to Extra Class; Eddie (KASWYE) went from General to Advanced; Tony (KA0VFN) and Jamie (KASWKP) went from Novice to Technician; and Tommy (KASQKZ) went from Technician to General. Also, Karen Jobe took home a 5 WPM code certificate.

We would like to remind you that these test sessions are for all license grades: from novice to extra class. Walk-ins are accepted. When attending a test session, please bring the following:

1. A filled out form 610.
2. A pen or pencil.
3. Calculator (if desired).
4. Your driver's license, or other suitable ID if you are a minor.

CONTINUED ON NEXT PAGE

OLD HAM CLUB  
 The Oklahoma City Community College Amateur Radio Club (OKCCCCARC) is once again struggling to get off the ground!

The first fall meeting will be held during the week of September 8. Exact date to be determined.

OKCCCCARC is open for full membership to all students, faculty and staff at OKCCC and for associate membership to any interested amateur in the OKC area. (The only difference is that associate members cannot vote on the bylaws). Dues are \$5 per year (EDITORS NOTE: Better add \$4.20 for a subscription to the C&E) with a \$1.25 surcharge for associate members to balance the student fee money made available by OKCCC.

The ham station at OKCCARC currently is a Drake R7 receiver, and a Hammerland transmitter and receiver loaned by Bill, K5JJJ. The antenna is a tri-band beam at about 45 feet with rotator. Plans include an 80/40 meter trapped doublet or similar wire antenna, and of course, a 2-meter vertical. The full technical facilities of the Community College are also available to club members.

The direction of the club has yet to be determined with an initial strong emphasis on training of Novice hams and up-grading of licensed hams.

We invite you to join us or visit us or help us or all of the above as we try to build South OKC a strong viable Amateur Radio group. Give me, Bill or George a call for more information on both club meetings and the Novice classes. 682-7508 for me.

Don, WASTAW

ARTS FESTIVAL  
 Once again Oklahoma City Community College is hosting their annual Arts Festival Oklahoma. The Festival will be held in the North Amphitheater Area at OKCCC on August 30-31, and September 1.

The displays will be open to the public from 10am-8pm. Additionally there will be live entertainment every day with a special appearance by country singer B. J. Thomas on Saturday evening.

Now I know everyone is wondering why the C&E got such a personal notification!

Here's why. HELP!!!!

The budding OKCCCCARC (see other article in this issue) is trying to recruit enough amateur radio operators with 2-meter capability to provide communications for this annual event. We would like to become a permanent part of the operation and show just how useful ham radio really is!

We have identified eleven possible positions to be filled each day. They

CONTINUED ON NEXT PAGE

\*\*\*\*\*  
**HAM  
 HOLIDAY  
 AFTERMATH**  
 \*\*\*\*\*

This article could have just as easily been entitled:  
 HOLY MACKEREL, TWELVE BUCKS.

Everyone talks about the better mouse trap. Well we feel we built a pretty good one with the last Ham Holiday. That's not to say that it can't be improved on, and your suggestions, comments and involvement are always welcome at the C.O.R.A. meetings held the 4th Tuesday of each month at the Oklahoma City Red Cross.

The cost of Ham Holiday tickets, and where the money goes, was the topic of discussion for many. This article is being written as a means of better informing the local ham community.

Major income items were:  
 Your tickets \$ 9,750  
 Dealers \$ 1,020  
 Total \$10,770

(Many hams are not aware that dealers pay for the privilege of setting up shop at our convention).

Major expenses were:  
 Facilities \$ 4,300  
 Prizes \$ 6,525  
 Total \$10,825

There were 887 registrants at an average cost of \$11.00 which totaled approximately \$9,750.

There were 30 very nice prizes given away on Sunday that averaged \$220 each. Based on the number of people attending Ham Holiday, you had a 30 to 1 chance of winning a prize.

*Truism: No one winning a Major Prize ever complained about the cost of tickets after winning the prize.*

From your \$11.00 ticket, \$4.37 went to facilities (which included security and dealer booth decorations), and \$6.63 went to prizes. We do not have detailed information from other ham conventions, but we are willing to say that you would be hard pressed to find a better return on your convention dollar.

We hope this answers some of the questions you may have concerning our convention. The

CONTINUED ON NEXT PAGE

(EDITORS COMMENT: The huge joint meeting of all clubs in the Metro area, for that matter in Oklahoma, is a good one that is long past due. Few clubs CONSISTENTLY have good Technical Programs. With all the talent available in the metro area WE should have a good one each month. This will give the clubs more time for business and socializing.

## ARTS FESTIVAL

### CONTINUED

range from net control to information booth to parking assistance. All volunteers will get free soft drinks, a T-shirt and a chance to see the festival at no charge. This includes the live entertainment shows including B.J. Thomas.

We hope that many of you will share your Labor Day weekend with us and enjoy both the opportunity to help and the Arts Festival Oklahoma.

A pre-festival party will be held on Wednesday evening, August 27, to hand out name tags, T-shirts, etc.

For more info and to sign up for the fun, call Don Graham, WASTAW, 682-7508 (work) or 346-9457 (home) or George Williams, NSBNC as listed in C&E roster.

Don, WASTAW

## VE PROGRAM CONTINUED

5. Original ham license (you keep).
6. Xerox of ham license (we keep to process with your test).

If you do not have a form 610, one will be provided. A \$4.25 fee will be charged, and this fee covers as many elements as you successfully continue to pass (you lose nothing by aiming for the highest license and it gives you the opportunity to see what you may be in for at future tests).

Novice tests are available and are free of charge.

We hope to see you at the next test session.

Ron - ND5S

**HH AFTERMATH** CONTINUED regular members of C.O.R.A. work very hard to bring home a successful Ham Holiday. Every dollar brought in is paid out either through facilities, prizes, programs or very modest operating expenses. There are no personal rewards other than the satisfaction of a job well done.

Ron - ND5S  
Facilities Chairman

## Q. R. Zedd

### ZEDD HAS USUAL GREAT SUMMER

It has been a fine summer for Q.R. Zedd, world's greatest DXer and all-around wonderful person.

Zedd, A5A, who lives just a hoot and a holler south of town, established a new record in late July when he worked all stations in less than 24 hours. He topped off that achievement by working WA5MLT on August 1. With the help of his loyal and ever-faithful companion, Tondelayo, he also got all the towers on Honor Roll Ranch repainted, and launched his second personal communications satellite, Zedd-2, during the first week of August.

Zedd had planned to let NASA launch Zedd-2 "as my patriotic duty, to boost their morale," but NASA couldn't get ready, so Zedd launched from the shores of Lake Thunderbird, using a launcher he put together from spare parts bought at a Johnson Space Center flea market last Fall.

"Zedd-2 is working real good," the great man said. "So far I have worked all Jupiter and three stations in South Dakota, which is also a feat."

Asked about DX plans for the winter season, Zedd said he is staying loose because of Tondelayo's delicate condition. As is well known locally, the darling girl, blond, nubile and dynamite with a Bencher keyer, had to suspend her tapdancing lessons a month ago. It has been widely assumed that she is in the family way.

Zedd revealed that his personal tests indicate the new solar cycle is under way. He has observed four high-latitude sunspots on the face of Old Sol within the past three weeks, and worked Cleveland on 75 at high noon on the 28th -- sure signs that things are looking up. He called "QRZ" on 10 meters just the other day and had to call in Ten-10 International and three volunteers from the South Canadian Amateur Radio Society to help him get the frequency cleared by nightfall. For the record, he and his aides from SCARS worked 37K.

"This is going to be a great sunspot cycle," Zedd said. "I expect by next year

this time the flux will be up near 180 and the K Index will be 1. That will put the Zedd Factor at 275, at least, meaning I will be giving lucky DX stations an average of 275 contacts an hour on all bands, all modes."

Work is proceeding nicely, the great man revealed, on his new walk-in linear. The poured concrete building has dried nicely and the water-cooling towers are in operation. As soon as OG&E gets the new power lines installed to power up the transformers, Zedd will go operational.

He plans to conduct initial tests on his Ardmore-to-Liberal, Kansas, longwire starting about October 1.

Meanwhile, nothing more had been heard by presstime about events following the recent visit of Russian DX ace Boris Badenov and his constant companion from Box 88, the raven-haired Natasha Bullwinkle. Badvenov, as loyal readers will remember, had implied dire plans to unseat Zedd as world's greatest.

Oklahoma Collector & Emitter is, as usual, sparing no expense in trying to track down the nasty Badenov's scheme. So far, our enquiries to Box 88 and Pravda had yielded only an engraved invitation to sunbathe at the Chernobyl Nuclear Spa. We shall persist.

As for Zedd --

"What, me worry?" he chortled, and headed off for the old fishing hole, his electronic flyrod over his shoulder. Over the hill ahead of him, the big bass swam up into shallow water and fought amongst themselves to be first on his hook.

He gave several of them a break.

-- KU5B

A gentleman today is a man who holds the door open for his wife while she carries in the grocery bags.

A husband was berating his wife for her extravagant spending. "How many times do I have to tell you, he shouted "that it's economically unsound to spend money before you get it. "Oh, I don't know about that," the wife snapped. "This way, if you don't get the money, at least you've got something to show for it."

Most of us at one time or another are like the man who was overheard telling his wife, "Now look, I know what I know, and it's no use trying to confuse me."

# FAST SCAN DX 'ING

A REAL INTERESTING PROGRAM  
BY

BOB EDLUND W5DS

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WEDNESDAY OCT 8, 7:30 PM  
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EVERYONE INVITED

Bob, a retired FAA Engineer, has applied his energy, time, and talents to many facets of Ham Radio. His interest in Fast Scan TV and his remote location (near Crescent) forced him to use some elaborate antennas and pre-amps to capture signals from the "big city". He will probably have something to say about these??? Come find out!

Recognizing a drouth of good programs, a brainstorming session at a recent ACARC "non meeting" led to a concept of ONE MONTHLY JOINT MEETING OF ALL clubs for a good Technical Program (no business) and of course refreshments.

ACARC is kicking this off with Second Wednesday meetings in October and November. CORA is invited to pick this up and carry on in 1987.

WANTED: KENWOOD 7400-0. Must be in good condition.  
Bob, W5MCM, 946-6840.

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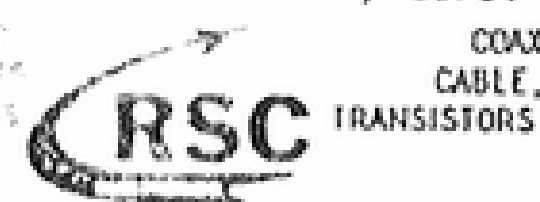
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	LABOR DAY 1	M O R I GREAT PLAINS 2	3	AERONAUTICAL 4	5	6
7	8	76'ers O U OIDAR 9	10	ALTUS AREA CP/M 11	12	ARDMORE S C A R S C O C O 13
WHEATSTRAN 14	VE EXAMS Red Cross Bldg. 6:00 15	AUTOPATCH 16	17	CIMARRON KAY COUNTY 18	19	VHF CLUB 20
E A R S 21	22	C O R A 7:30 Red Cross 23	24	25	EDIT NIGHT for C&E 26	27 74
28	29	30	The managing editor assumes no responsibility for the data contained herein.			
SEPTEMBER						



THE ZANY NEWS FREQUENCY  
By JOE, WASZNF

With the last issue of the Collector & Emitter we changed the rules (again) due to changing printers so here are a few things to remember if you are going to present anything for publication. If you can't meet these criteria just give it to us any way and we will make it fit. After all the C&E motto is "ALL THE NEWS THAT FITS - WE PRINT". (We reserve the right to edit).

COLUMN WIDTH: Type it 3 in. wide. If you can't do that just send it in a couple of days early. We will reset it.

NO "Blue Lines": We don't need them. Have a new method of putting the paper together.

NO PICTURES: (Except PMT's) for a while. If submitting PMT's make them 3 or 6 inches wide.

USE A DARK RIBBON (BLACK) ON YOUR TYPEWRITER OR COMPUTER.

Since all clubs meet at least a week before paste up night it would sure be nice if each editor would "complete his contribution" and mail, hand carry or otherwise get it to me as soon as possible. I have a computer and modem. It is a Color Computer, a Radio Shack DCM-3 modem, and Mabel2, Colorcom+ and ColorCom. We can surely figure out a way to get yours and mine together. I am also into packet radio, maybe we could use that. I'll try anything. Don't know much about it but will try.

I use Telepatch (Telewriter) Elite Word, and have VIP in the way of word processors. I can use each of them but prefer Telepatch

IF POSSIBLE: Send your copy in as soon as possible after your club meeting or that new technical article hits you.

There is a lot of work to pasting the C&E up after we get the copy. As you recall this is a group effort, no one makes a cent off of it, heck it's just for fun.

Joe, WASZNF

TNC'ers USING COMMODORE 64's: Want a converter to operate your 64 from 12vdc for emergency or portable operation? Will design and build them if enough hams are interested. Advise if dc supply for a disk drive is also desired. Call me at 949-9102. Ken, at Video Electronic Service, 2308 N. Mac Arthur.

WA5CZN says,

Are You Rundown?

Spiritual Batteries Need A Charge?

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