



CIMARRON

This has been an eventful month for CARA! Some good news and some bad news. The bad news, of course, is the death of Sheryl Baker, N5MQZ, a member of CARA from Canton, Ok.! Sheryl became a SILENT KEY July 13th! Our deepest sympathy goes out to her husband, Robert N5MPH, and to the family!

The good news is that Field Day is over....and truly...a good time was had by all....whats a few buffalo gnat bites among friends? Denny WK5V, and Nadine N5FMH were perfect hosts...he even mowed the grass (no sand-burs), and set up the ole Donicker in a convenient place. What more could you ask? The best of all was, of course, the best of all spreads...broiled burgers, potato salad, baked beans, plenty of chips....and finished off with the best home-made ice cream I have ever eaten!

In spite of all this frou-frou, there was a fully operative radio station set up....CW...two voice positions and two meter on handhelds. Everyone had a part and no one was overworked except perhaps, Steve KF5SW, and Denny who stayed to the bitter end and thus inherited the job of striking camp! Jack N5LBN and Terry N5MLT also deserve credit for their assistance.

Besides these aforesaid old faithfuls....Ray AB5Z was present, and Leo WZ5H and Ann, Ruth WX5Y, Dede N5FUN, Jack NN5Z, Betty KASRTW, Jack N5LBN, and several guests....Travis Tidwell, Malinda Gould, Misty Hubble and Nadine's brother and sister-in-law from Alva! (I apologize for not getting their names written down)!

In other news....the CARA upgrade exam Saturday July 8th. was a bomb! There was only one contender for glory....our very determined Terry, who can copy 20 wpm anywhere but at a test session. I guess its just too hot to think about upgrading...or perhaps we just didnt do enough advertising.

I just talked to WG5EV Jerry from Enid and he says they are planning a swap fest and upgrade on Nov. 4th. at the Convention Hall.

Ray AB5Z, and Ann are starting their annual motorcycle trek today!

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CORA

MINUTES

The July 1989 meeting was called to order at 7:05 pm on the 25th with President Frank, AA5GI, in the chair and the following present:

MORI - Tom Mangham K5LDI
Charlie Greene WA5JGU
76ers - Jerry Sproul N5AUH
Jim Buswell N5BEQ
EARC - Phil Wolfenbarger N5HIP
EARS - Lee Vaughn KA5WIS
Steve Hamlin KG5IP
OCAPA - Chuck Wilhite K5NK
SCARS - Donald Schader KB5ABS
C & E - Joe Harding WA5ZNF
EX-OFFICIO John Thomason WB5SYT

Visitors and guests: Joe Lynch, N6CL, Bob Lang N5KUE and Bob Ashby W5HXL.

Following self-introductions the Minutes of the previous meeting were accepted as distributed.

The Treasurer reported the Ham Holiday balance up to \$3,915.93 and the C&E balance up to \$1,307.38 with all other figures remaining as reported at the previous meeting. His report was accepted as presented.

During HH-89 Committee Reports it was announced that QCWA had cancelled the formality of its Breakfast Sunday morning due to insufficient numbers reserving in favor of an informal breakfast of its group in the Governors Club. The facility has agreed to our offer to "split-the-difference" exclusive of rented room quantity. There was a little discussion about requesting the ARRL National Convention here in 1991 or '92 and using the Fairgrounds as a site or going back to the Myriad. Pre-registration has received \$4,406.50 for 544 so far. Bingo Committee has bought some good prizes. Due

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GREAT PLAINS A.R.C.

W5NGH Repeater 146.13/73

The club had its annual homemade ice cream and watermelon feed on August 6, following its monthly meeting. There were so many different flavors that it was hard to pick which one I wanted first. The cakes and the cookies didn't last long either. This is one meeting that always draws a big crowd.

Northwest Oklahoma Service Net manager Andy Taylor, N5LRR, reports 12 sessions, 138 check ins, and 6 pieces of routine traffic handled for the month of July.

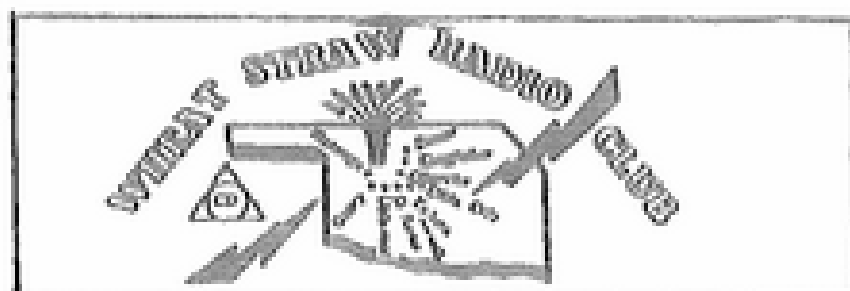
Andy has been making some noises lately about an antenna party at his house. His fire-damaged house is still several months from completion, so he is needing a fair sized crew over to help hang the antennas and run the coax. Andy has also promised to furnish the milk and other refreshments.

Lewis Patterson, W5KFK, is in South Community Hospital in Oklahoma City following bypass surgery last Wednesday. Last report was that Lewis went through the surgery well and is on his way back to health but is still in the intensive care unit at this time, which is normal. We hope that you are doing well and feeling much better, Lewis.

On July 9, 1989, president Windle Hatchett, WA5PLW, called the meeting to order. There were 13 members and one guest present.

The main topic of discussion was the emergency trailer. The trailer has been rebuilt by Lewis, W5KFK, and has been stored in his shop for the last several years. Plans are being formed to finish this

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I apologize for not getting an article in time for the last issue. Ham Holiday has come and gone, everyone seemed to enjoy it. There were three Wheatstraw members names drawn WO5B Ed was the first, he drew a computer with monitor. N5FOR Mary drawing a Ditty Bag with some goodies in it. K5LDL Glen was not present to get his prize. We are already looking forward to next year.

The August meeting was held on the 13th at the Big Bend Shelter at Canton Lake. A covered dish dinner was served at 1:30. We had a cold rain all day, but there were 32 dedicated amateurs and visitors there. Everyone seemed to have a cool, good time. We wish to welcome four new members to our club who joined at the meeting. They were N5MPH Robert Baker, KB5FWZ Timothy Baker, KB5FXD Sonny Adams, and N5NUP Tom Adams all of Canton. These are some of the amateurs that WZ5H Leo has taught, we congratulate, and welcome all of you.

The September 10th meeting will be held at 2:30 pm in the Mead Park at Weatherford. It will be the annual watermelon feed for refreshments. For details and directions check in to the Wheatstraw Net each Wednesday night at 9:00pm. The month's net control will vary from club members.

WA5PFK Ralph

wheatstraw from last month

Field Day came and went, our club did not score well in contacts. We did score very good Saturday night. We really had a feed. Big Ed brought his favorite hamburger meat already seasoned and made into patties. Bringing his grill and mesquite wood Ed cooked the burgers. The girls provided the salads and all the trimmings. There were thirty five members and guests present for the event.

Sunday morning breakfast consisted of fried eggs, Jimmy Dean and Blue and Gold sausage, home made pan cakes on the spot. Topped off with home made cinnamon rolls and coffee. It sure was a good

thing the word didn't get out before breakfast, because President Bush and his family would have probably flown down on Air Force One for breakfast. I understand N5KCO Neal was responsible for having a portable toilet and having two tents set up, thanks to Big Ed and Neal, along with all who were involved.

The July 9th meeting was a picnic lunch in Roman Nose State Park, Watonga. WA5WHJ Harold and KB5FOR Mary located the area and reserved it by going out before seven o'clock, putting out the table cloths, etc. Thanks to both of you. Lunch was served at 1:30 so those who wished would have had time to go to church. The meeting started at 2:30 with 27 present. After the meeting there was lots of fellowship, but we certainly missed those who could not make it.

JOSEPH C. KOLB

Another Wheatstraw member you should know, is Joseph C. Kolb. Joe, as we call him, was born in Edmond Ok, the youngest of five children. His father was basically a carpenter and a baker. Growing up Joe spent ten years in the Edmond public schools. The last two years of high school at Saint

Gregory in Shawnee. Playing in the Edmond Band, Joe lived a modest life growing up. After high school he went to college at Central State for one year. At the age of 18 his life was interrupted by World War II. Joe was drafted into the Army.

July 30 1940 Joe became a licensed amateur radio operator, he doesn't remember a particular incentive. He

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CORA MINUTES

CONTINUED

to normal difficulties with any bank, the Treasurer asks ALL to put out the word that all checks must have the CORA name included in payee. The talk-around frequency for CORA officilas will be 147.995 MHz.

A motion was made, seconded and withdrawn until next meeting to abolish the Scollarship Program.

There being no further business the meeting was adjourned at 8:23 pm.

The next meeting would be at the usual time and place on 22 August 89.

Secretary, Jim N5BEQ

CIMARRON

CONTINUED

They are going to spend the next two weeks, with four other Motorcycle Maniac couples following that white line to Maine...and if all goes well, to Nova Scotia! Ernie Bill Martin and Wilma, Bob Campbell and Delores, Loren and Winneta Marsh and Don and Gale Cox all are planning on seeing the world from the seat of a super cycle. This group has been doing their thing every summer for years and therefore I know it must be fun!

Still, it reminds me of the note left by an old cavalryman on his empty saddle..."I'm saddle sore and weary...sick to death of bacon and beans....bury me where I fall"!

Next meeting of CARA will be August tenth, at the ole WX5Y Playhouse. BE THERE OR BE SQUARE!!!!!!

73's Jack NN5Z

GREAT PLAINS

CONTINUED

project and find a permanent home for the emergency trailer. Hopefully, we'll never have to use this piece of equipment for real, but it'll be nice to be prepared.

Northwest Oklahoma Service Net manager Andy Taylor, N5LRR, reports 13 sessions, 155 check ins, and 8 messages handled.

Andy, N5LRR, and Sandra, N5OKF, recently suffered an electrical fire at their home in the wee hours of the Fourth of July weekend. The fire started from an air conditioner outlet in one of the bedrooms. The house and shop received a lot of damage from the fire and the smoke and water didn't help. They lost a lot of their possessions including clothes, furniture, and radio equipment. Luckily both Andy and Sandra were unhurt. Andy said about all he got out with were his glasses and his new shoes. They hope to be back in their home within 3 or 4 months.

The Sooner State 10K Run was held on June 25 at Crystal Beach Park in Woodward. The amateurs helping with communications were Willis, N500, Lorene, N5LEP, Bob, WB0GAX, Windle, WA5PLW, and Leon N50KE.

The next club meeting will be held August 6th at the city maintenance building. Please plan to attend as this is the annual Homemade Ice Cream and Watermelon meeting and get-together. Bring some different flavors of ice cream and your appetite. Leon N50KE

1 AERONAUTICAL CENTER ARC

MEETS: FIRST THURSDAY, FLIGHT STANDARDS BUILDING, FAA, SOUTH MACARTHUR 7:30 PM

PR TED ANDERSON, NYSN 685-4016
SE BOUG TEACHMAN, WODXA 392-5458
AsPR HAROLD TODD, WASVAQ 685-3685
AsVP CHARLIE GREENE, WASJGU 943-5631
EDITOR: BILL OLIVER & LUKE ELLIS 329-6333

2 CENTRAL OKLAHOMA VHF

MEETS: 11:00AM THIRD SATURDAY, THE BRICKS RESTAURANT, 3100 N PORTLAND, OKC

PR JACK HUSE, NBSZKZ 691-1152
VP FRED BOARDMAN, WSNL 427-2505
SE JOE BUSWELL, KSJB 732-0676
TR ELLARD FOSTER, WSKE 789-6702
EDITOR: JOE BUSWELL, KSJB 732-0676

3 MID-OKLAHOMA REPEATER, INC.

MEETS: FIRST TUESDAY, 8 PM, COUNTRY HOMESTEAD RESTAURANT, 3100 N PORTLAND, OKC

PR BOB MOORE, KASETA 799-1765
VP JERRY METHORE, KDSIS 524-5080
S/T LINDA MOORE, KASNAV 799-1765
EDITOR:

4 OK CITY AUTOPATCH

MEETS: 7:30PM, THIRD TUESDAY

SALVATION ARMY, NW 50 & PENN
PR ROBERT SHAN, WASBQI 341-4763
VP DENNIS PATTERSON, WOSCSM 495-0769
SE LEONARD HAMSTEIN, WSMEL 789-7201
TR LARRY DAVIS, KF5JN 722-4564
EDITOR: CHUCK WILHITE, KSNK 721-4926

5 OKLA UNIVERSITY ARC

MEETS: 7:30PM SECOND TUESDAY (SEP-MAY)

119 WILSON CENTER, 1334 S JENKINS
PR FRANK DONALDSON, NS1QJ 329-4172
VP JOHN MUSTENBERG, KESN 325-2382
S/T JIM GREENSHIELDS, WDSHPU 321-9981

6 ALTUS ASSOCIATION

MEETS: 7:30PM, SECOND THURSDAY, NORTH MAIN FIRE STATION (CD) ALTUS

PR FRANK FERITTA, AASIT 482-1398
VP NONE
S/T MIKE SCHENKEL, WSVXU 482-1797
EDITOR: MIKE SCHENKEL, WSVXU 482-1797

7 BICENTENNIAL (76er) ARC

MEETS: 8:00PM SECOND TUESDAY
OKLA CITY COMMUNITY COLLEGE, ROOM 2NS

PR DENNIS HUSSEY, KASGTH 524-4760
VP BILL SKIPPER, KBSBS 392-4612
S/T JERRY SPROUL, NSAHU 354-2061
EDITOR: CHRIS EVERETT, KB566Y 364-6794

9 WHEATSTRAW ARC

MEETS: 2:30PM SECOND SUNDAY. LOCATION VARIES. SEE CLUB SECTION FOR DETAILS.

PR PERRY JONES, WSHGZ (MXford) 772-6063
VP GEORGE MASCHIND, K5GGL (OKARCHE) 263-7614
S/T JOE GARLAND, WASFLT (CALUMET) 893-2660
EDITOR: RALPH WILDER, WASPFK (HATONGA) 623-5421

19 OKLA INDEPENDENT ARC

MEETS: 7:00PM SECOND TUESDAY
SOUTHWESTERN BELL OFFICES, PONCA CITY

PR VERNON TREIBER, Jr. NSANV 767-6260
VP TRUMAN STINER WBSNRE
SE GLENN COKER, NSMFC
TR JIM DEL TORTO, KSFL 762-1221
EDITOR: MIKE MORRIS, NSJJR 765-6260

11 EDMOND AR SOCIETY

MEETS: 000 MONTHS, 3RD SUNDAY, 2:00PM EDMOND EOC. DINNER, EVEN MONTHS, 3RD FRIDAY.

PR HAROLD WELLS, WASZKX 623-5191
VP MARTIN McGEE, NSLIS 947-4968
SE DANN ROWELL, NSKND
TR GLORIA GUINN K8S8GN
EDITOR:

18 GREAT PLAINS ARC

MEETS: 2:15 PM FIRST SUNDAY
WOODWARD PUBLIC WORKS BLDG.

PR MINOLE HATCHETT, WASPLW (FT SUPPLY) 766-3561
VP BOB BAYLESS, W80GAX NONE
SE ROD FORD, W830VT (SAGE) 923-7683
TR FREIDA PATTERSON, N5EOX (WOMD) 256-2111
EDITOR: LEON CARLISLE, KB5C2T

13 KAY COUNTY ARC

MEETS: 7:00 PM, THIRD THURSDAY, SEP-MAY, PIONEER VO-TECH, PONCA CITY OK

PR MIKE MORGAN, NSLPZ 765-9539
VP STEVE HUSTON, K8SDOR 762-4726
S/T HARRY BEATIE, W80PR 765-3862
EDITOR: DAVE LAAND, KDSFX 762-8616

14 CIMMARON ARS

MEETS: 7:39 PM SECOND TUESDAY
WXSJ PLAYHOUSE, 827 S 13, FAIRVIEW

PR JACK KELLY, NSLBN (405) 227-4515
VP RAY BARNES, AB5Z (405) 274-3334
SE DENNIS PAINTON, WXSJ (405) 764-3599
TR NADINE PAINTON, NSFMH (405) 764-3599
EDITOR: JACK DAY, WNSZ (405) 227-3462

15 SOUTH CANADIAN ARS

MEETS: 9:30AM SECOND SATURDAY, RED CROSS BLDG NORTH OU CAMPUS, NORMAN

PR ANDI WOLF, WUSN 799-5150
VP DORINDA SKAGGS, NSIVA 799-5363
SE KEN BROWN, NSKUK
TR MONTE BATHAN, W8SRZX 329-7485
EDITOR: KEN BROWN, NSKUK NONE

16 EDMOND AR CLUB

MEETS: 7:00PM SECOND MONDAY. SEE CLUB SECTION FOR LOCATION AND TYPE

PR MARK NORTHCUTT, W8SDYI 755-4672
VP WENDELL COCHRAN, W8SISO 943-4308
S/T KAY NORTHCUTT, W8SDYJ 755-4672
TRUSTEE: DENNIS ORCUT, W8SISN 340-0034

CENTRAL OKLA RADIO AMATEURS

MEETS: 7:00PM FOURTH TUESDAY, RED CROSS BLDG. 10 & HUDSON OKLA CITY (BACK DOOR)

PR FRANK TASSONE, AA561 341-4945
VP DORINDA SKAGGS, NSIUA 799-5363
SE MARSHALL MADDOX, WUSP 360-3205
TR TOM HANSHAM, KSLDI 677-5291



OKLAHOMA
INDEPENDENT
AMATEUR
RADIO

These notes are from the 08 August 1989 meeting.

The 7 o'clock meeting started promptly at 7:12, which is O.K. as I had just arrived.

The plans for the Ponca City Ham Fest were discussed. Since all the preparations were progressing so well we decided to have the 1989 Fest in September 1990.

The CORA membership was discussed and the membership cards were filled out by all present. Dave DeTorto was to get cards to the other members. Y'all at CORA take real good care of these cards now!

The Digipeater has been moved. This took care of the PACKET RACKET on the .31 machine. It now has interesting chirps, probably from a scanner. Well, if it's not one thing.....

We started a discussion on linking the .31 machine to the MORI system. This evolved into a disseratalon on the basic purpose of Voice Repeaters. It was quite interesting, and not totally inappropriate. Battery backup power was also discussed again.

There was a short discussion about having programs at the meetings. I'm sure we'll come up with some good ones again this year!

73
NSJJR
Mike

FOR SALE: Drake TR7 General Coverage Transceiver with 250 and 500 hz cw filters, 6 khz am filter, RV7 remote VFO, PS7 matching power supply, MS7 matching speaker, MN 2700 2 KW matching antenna tuner and service manual. Power supply and transceiver have fans. Mint condition with original boxes. Mike thrown in at no extra charge. Chuck Wilhite, K5NK. 721-4926.

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Minutes of July Meeting

Meeting was called to order at 1228 p.m. by President Jack, WB5ZKZ, with 17 members and guests present. Minutes of previous meeting were approved as published in the C&E. Ellard, W5KE, gave the Treasurer's report.

Fred, W5NL, briefed the group on plans for staffing the Ham Holiday flea market table. Bob, W5HXL, showed the flyer he prepared for the event. Jim, K5VRL, and Jack, WB5ZKZ, volunteered to be added to the list published in last month's minutes. There will be no video presentations because of the expense of a power drop to the table. Bob, W5HXL, advised that he had some freebie "youth passes" for Ham Holiday.

Plans were announced for the annual joint Aeronautical Center ARC and VHF Club watermelon at Bethany Lyons park, Friday August 11, starting about 6 p.m. All amateurs are invited.

Happy Birthday greetings were offered to Meg Benson, YL of Hugh, KA5DGY.

It was decided that future luncheon meetings would be held at Favorites, 3701 S. Western. The next meeting will be September 16. Meeting adjourned at 12:42 p.m. Joe, K5JB, Sec'y

Absent Mindedness

I never was noted for being a good clock watcher, but this summer I haven't done too good a job of watching the calendar either. Joe, WA5ZNF, informed me the day after he pasted up the August C&E that I had missed the first issue since he started editing the thing. It was just as well as I had a week vacation and spent it in Southern Colorado family gathering and would have had a heck of a time putting something together that month.

Then, I let the joint Aeronautical Center, VHF Clubs' watermelon feed slip by. I didn't check the calendar until a week after that happened.

Jim, K5VRL, reported that the watermelon feed was attended by 35 to 40 people, the weather was perfect, and there was enough watermelon to go around. The only noteworthy thing

to report was that one watermelon was spoiled. I am sorry I missed it.

One thing that I didn't let slip by was Ham Holiday! Ham Holiday was darned good this year, I thought. There was some kind of preparation work done this year to get the number of dealers in here and fill up the flea market the way it was. Unfortunately, I didn't make it all the way through the flea market before it evacuated Saturday afternoon. There were a lot of quality people and things in there. I carted out a couple of shopping bags within the first half hour. On Sunday, I even found just the relay I needed among the sparse few that were left. Thanks to you who worked to put it on this year!

Besides the routine things I do around the ham shack, I guess the thing that kept me occupied most the last two months has been familiarizing myself with a new computer that runs the Unix operating system. With help from Joe, WA5FLT; Jim, KB5XN; Paul, N5PT; and Dave, K5PL; I was able to get the thing up and running to my satisfaction. The major achievement was getting TCP/IP and the companion mailer running on it.

I work harder at making things easier than anyone I know. In order to make changes to the IP program suite portable between the Unix and MS-DOS machines, I had to test the changes I made on both machines, not that there were a lot of changes, but some of the earlier programmers who had worked on the code failed to preserve the portability that was originally designed into it.

J, KB0QJ, is running the Unix version of TCP/IP on his computer - directly on the air - and it seems to be running fine. I am running mine on a slip link (a serial protocol) to the computer that is actually on the air. This enables me to pop up on either machine, connect to the other machine and transfer files at 9600 bps. When text files are thus transmitted, the end-of-line convention of one machine is converted to the convention on the other and the results require no subsequent processing for normal use.

The Unix machine at home is linked to one at work over the phone line and ultimately I would like to be able to sit down at the terminal at work and rip off a message to someone on packet.

I mentioned to a couple of audiences at Ham Holiday that if they would like

to play with TCP/IP in areas remote from Oklahoma City I would spread the IP address assignment activity around. There is no need for me to personally assign every IP address in Oklahoma, though it would be a good idea to let me know is on so we could coordinate routing details. The first one from outside the central Oklahoma area to ask for an address was Chuck, WB5MJS, in Altus, so I gave him a block of numbers to play with. I doubt he would have a lot of luck with TCP/IP unless he gets some of his buddies within shouting range to get on too, so he will be able to use the block of addresses. I am kind of surprised that a place like Tulsa has not spawned any IP activity. I passed the word along with a couple of Northeastern Oklahoma Packeteros to let me know if any TCP/IP curiosity developed in their areas.

One of our most recent IPeros to get on the air is Wanda, KJ5C. I was saddened to learn that her husband, Aaron, (A.B.), N5ETU, passed away a week ago. I understand he suffered pain but I didn't notice it as I chatted with him and Wanda during Ham Holiday. Our sincerest sympathy goes to you, Wanda.

I chatted with Jerry, KD5IS, the other day and all is fine in Angel Fire, NM. He didn't take his packet gear with him so we had to resort to the twisted pair. I expect I'll fire up the airplane before the summer is over and join Jerry and Pat on the back porch discussing how the poor folks are doing...

The newest IPero to get on the air locally is Terry, K5HP. I first met Terry years ago when he worked in Elk City and was involved in 2M voice repeaters. He has always been a curious sort and was ripe for the experimentation that TCP/IP provides. If you are getting tired of the same old routine on packet, check with Terry or me on how to get in on the fun.

I have some plans to hook up a 2M port on IP using the old standby K5JB experimenting frequency of 146.415. There will be no conflict with the BBS operating there and there will be minimum confusion if we do some goofy link level protocol. I may set it up at 1200 bps at first but plan on seeing how fast a baud rate we can cram into a voice bandwidth. Since TCP/IP supports some really nifty file transfer capabilities we need to establish some practical port that is locally accessible without adding to the load of the existing network. One thing I really want to try is higher speed.

I missed out on a real bargain in HAPN modems last month. There were five of them for sale for \$150.00 but I was too late. Someone else bought them. I guess we will be ordering them from HAPN (real soon now). Well, let's look at what came in on the wire... Joe, K5JB

Computer Networking Conference

This is from Compuserve's Hamnet, where it was posted August 5th by Andy Freeborn, N0CCZ:

The 8th Computer Networking Conference (read PACKET RADIO) will be held in Colorado Springs on the 7th and 8th of October 1989.

If you plan on presenting a paper, please contact Lori Weinberg at ARRL headquarters for an author's package. Deadline for receipt of camera-ready papers is August 28.

On Saturday Oct. 7th the speakers will be presenting their papers describing the latest in packet radio RF, digital, networking and satellite developments. This session will be held in conference facilities at the Air Force Academy. Hosts will be TAPR, AFA ARC, AFA Cadet ARC, RMPRA & ARRL. On Saturday eve there will be an attitude adjustment hour at the Marriott.

On Sunday Oct. 8th the ARRL Digital Committee will meet in open session at the new Colorado Springs Marriott.

Also on Sunday the Rocky Mountain Packet Radio Association will host their annual Packetfest at the Marriott. This year's Packetfest will feature speakers in attendance for the conference. The RMPRA session will consist of tutorial, discussion, Q&A presentations, as well as demonstrations

Conference headquarters (and hospitality room) will be at the Colorado Springs Marriott. Special conference rates are: Single room, \$45; extra person in room, \$13. Reservations must be made by September 6th. After this date there is no assurance that space or the special rate will be available. When calling for reservations, call the Marriott direct at (719) 260-1800 (do not use the Marriott 800 number). To get the special rate be sure to identify yourself as a member of the "ARRL Networking Conference"

A conducted tour of the Air Force Academy is planned for those arriving before 3P.M. on Friday, October 6th.

Private transportation will be used so please indicate your interest in this tour when sending in your registration. There will be no charge for the tour.

Special activities for those ladies accompanying their ham spouses are being arranged for Saturday. Drop a note to Karen Garbee, N1FED, 4390 Darr Circle, Colorado Springs, CO, 80908 to get the details. Karen can also be reached at (719) 495-0091, Compuserve 76430,3323, or karen%winfree.uucp@ucsd.edu.

Registration for the conference is \$20.00. This fee includes the conference, one bound copy of the 8th Networking Conference papers, refreshments throughout the day of the conference, lunch at the AFA Officers Club (transportation will be provided) and use of the Marriott hospitality room. Extra copies of the bound conference papers will be available for \$12.00 each.

In order that suitable arrangement are made to accommodate all in attendance it is important that you register before October 2nd. Send your \$20 registration fee (make checks payable to Andy Freeborn), along with your name, call, address and telephone number to:

Andy Freeborn, N0CCZ, President TAPR, 5222 Borrego Drive, Colorado Springs, CO 80918. Telephone: (719) 598-8373

PacComm Tiny-2 TNC

Here is some information for those of you who may be using PacComm Tiny-2s or Micropower 2s. It was posted by Gwyn, W1BEL, PacComm's owner, on Compuserve's Hamnet, August 8 as a reply to a Tiny-2 owner:

Bill,

We mailed final manuals to everyone and some upgrade info. Obviously it didn't get to everyone. There are several circuit improvements which have been made over the life of the TINY, and some may be of interest to you. Two of the mods would surely be of interest: EMI reduction and a modem fix. The EMI reduction fix was offered in the letter which was sent along with the final manual, so you missed doubly on that. Just upload your current address and I'll send you the manual and info/ parts for the two upgrades.

I'm just ad-libbing here at the keyboard - the only other upgrade note I remember concerns making the connected signal on the RS-232 connector

to have RS-232 voltage levels. The early models had that pin only as TTL.

(Ed. note: I am using one with the TTL signal on one of the BBS ports and it has been no problem so I guess it depends on the characteristics of the computer sensing the connected signal. - JB)

There have been major additions to the firmware since you purchased your TINY-2. We are shipping code comparable to TAPR's 1.1.6 with a number of additional commands, including KISS, P Persistence, a node clutter removing command, and more. The biggest change is the Personal Message System option. It offers full compatibility with WORLI BBS systems and allows reverse forwarding of messages generated on the TNC. Lots of fancy features in that code. Our pricing for upgrade EPROMS is \$12 unless you are upgrading from non-PMS to PMS in which case the fee is \$25. Subsequent PMS upgrades would then be \$12.

If you had the MICROPOWER version of the product, there are even more improvements. All the above, plus a fully featured printer port to drive a parallel printer without the need for a terminal, hardware clock chip support so the time is never lost when power is removed, and a remote I/O capability (still not fully developed, but available for use.)

That's a long answer. I'll look for your reply. 73, Gwyn

This isn't the reply, but a related message regarding some modifications to the Tiny-2 audio circuits. These modifications will always be controversial - I have played with them myself and can't see much real difference whether there is a bunch of audio twist or not. Audio twist is an unbalance between the levels of the high and low tones. More on my observations after these two messages. The first is one relayed by Jon, WB2MNF for N2MH. It was posted on Hamnet August 13:

These are some modifications I've had to make in mine for use around the shack. Some of them may not be applicable to your unit(s) but I'm passing them along anyway. Also, the source of the modification will be noted.

1. Printer driver - printer driver doesn't reliably work with CMOS driver chip. This mod from Pac-Comm.

a) Cut trace between U9 pin 35 and U6 pin 1.

b) Strap U9 pin 35 to nearest ground.

2. Transmit audio - transmit audio is too high - when get it in proper range, the pot is very critical and all the way down. - My modification:

a) replace C27 (.1 uF) with 100K resistor

b) replace C8 (.1 uF) with 10 uF electrolytic. + end goes to R11.

(I think the low end should be boosted - Carson's/Shannon's rule, you know)

(Ed. note: Transmit audio may be too high in his application, but it may be marginally low when driving a low impedance rig like a commercial GE or Motorola rig. With the roughly 500 Ohms presented by my Icoms, it is just about right. - JB)

3. Receive audio - Carson, Shannon and me again.

a) replace C7 (.1 uF) with 10 uF electrolytic. + end goes to pin 4, U16.

4. Setting of modem bias pot with instruments (not just setting to a voltage and walking away) - me again!

a) put a loopback plug into the din connector

b) put the tnc into calibrate mode

c) generate both high and low tones and note voltage with DVM on pin 8 of the modem chip.

d) take the difference in voltage between low and high tone and divide by two.

e) have tnc generate alternate mark and space tones

f) tune 100K bias pot for the voltage calculated in step (d).

g) restore tnc back to normal.

73, Mark

I have performed these mods and have found them to be helpful. I also added the TAPR DCD mod, which also helped.

73 de Jon

Here is a reply from Eric Gustafson who has done extensive testing on packet audio, published several papers on the subject, and, I believe developed or was involved in developing the TAPR DCD modification referred to above:

Jon,

I read your posting of MICRO-2 mods. I am glad to see that the TAPR DCD mod was added and perceived to be an improvement. However, I have some reservations about the rationale and effect of the audio response mods

that were mentioned. If it is convenient, could you get the author of those mods to expound on exactly what "Carson's/Shannon's Rule" has to do with the need to boost the low end of the audio range for the modem?

I have interfaced (for commercial applications as well as HAM) literally dozens of different brands and models of NBFM radios for 1200 baud AFSK packet use and not one of them needed to have the low end of the audio range boosted. In fact, since most brands under preemphasize on TX and over de-emphasize on RX, it is usually the high end that could stand to be boosted.

Worse yet, the vast majority of amateur signals I monitor are running FAR too much audio so that the TX deviation limiter is being driven to saturation. Driving the deviation limiter strips ALL pre-emphasis off the transmitted signal audio. Since the receiving station has no way to know that this happened, it applies (at least) full de-emphasize. This results in tones going into the demodulator that have 6 dB/octave twist in favor of the LOW tone. Since the demodulator works best with equal amplitude tones on its input, I have trouble seeing how boosting the low end further has any benefit.

Fortunately, the cap value changes referred to don't really change the input network audio response significantly so no harm is done. For example, on the TX side, the low frequency cutoff point is lowered from approximately 200 Hz to about 2 Hz. Both corner frequencies are well below the point where there is any energy in the modem audio.

The demodulator decision point setting referred to in point #4 is definitely a good idea. Easily 70% of the problems with these modems in this area have been related to the incorrect setting of this very critical bias on the chip (TCM3105). The adjustment range for this setting should be greatly restricted. As it stands, very minor tweaks to the adjustment pot can completely destroy demodulation. Using looped back audio and adjusting for 50% duty cycle recovered data while sending ZEROES (CAL - D) results in correct operation of the demod. We normally use a 'scope for this rather than a DVM. 73, Eric

Like I said, the audio questions are controversial but one point is important. Many people way overdeviate their radios with TNC audio and the results are more performance degrading than anything I have observed. I was a beta tester on the Tiny-2 design

and was asked to particularly note the effect of the bias adjustment on the TCM3105. I found you could crank it all over the place and as long as the modem chip could decode anything, it could decode everything almost down into the noise, assuming the signal was decent to start with. I seldom see any of my TNCs miss a packet and I have never looked at the bias on any of the ones using the TCM3105. Kantronics KAM owners might have made some similar observations, since those units also use the TCM3105.

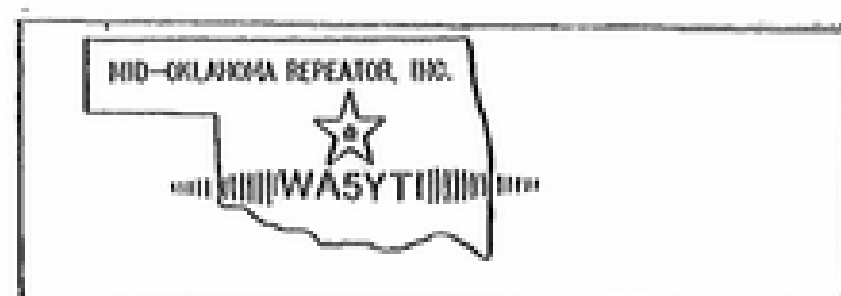
The little tidbit on how to set the bias is worth putting the highlighter to and filing away though. I am gonna try it sometime.

What I have found is important is the effect of the transmitter's microphone impedance on the twist of the transmitted tones. Since the Tiny-2's transmit audio is a series circuit of Rs and Cs, a low impedance microphone will cause a loss of the low frequency components more than the highs.

I don't know how Eric calculated the low frequency cut-off point of the Tiny-2 audio circuit but my calculations show that the change from .1 uF to 1.0 uF would have a significant difference if the microphone load is low impedance. The reactance of a .1 uF capacitor at 1200 Hz is about 1300 Ohms and there are two of them in series in the Tiny-2, making the series capacitive reactance about 2600 ohms, which is significant with respect to the 2.2K resistor in the series circuit.

I avoided the effect of low frequency roll-off by adding some series resistance, about 5K between the transmit audio output and the output connector. There was another reason for doing this...I wanted to be able to run two TNCs in tandem, one with AX.25 code and one with KISS. The TCM3105 emits a continuous transmit tone and PacComm added a power FET to shunt this tone. This shunt effect would load the audio from a second TNC so I simply isolated the shunt with the 5K resistor. Of course, this would not be necessary in a normal installation, but I think I get better tone balance by unloading the TNC audio output a bit.

Like I said earlier though, I really haven't been able to detect a lot of difference. There are a lot of more differences caused by collisions than this minor audio question cause. There also seem to be a lot of avoidable retrys caused by mal-adjusted transmit and receive audio levels. Joe, K5JB



The joint July-August meeting was held at Ham Holiday and two representatives from TRO were in attendance. We had a very nice meeting and a very nice meeting place -- which brings us to the next subject: The September, October, and November meetings will be held at Warr Acres Library, 5901 NW 63. Due to the library closing promptly at 9 pm, we need to get started on our meeting a bit earlier. We would like to have everyone present by 7:30 pm in order to get out on time! At the September Meeting, Stu, KD5DL, is going to present a program about conversion of 11-meter transceivers to 10-meter sideband and/or FM. This will be held on Sept. 5.

On Aug. 18th, Oklahoma history was made! A joint effort between MORI and American Airline Amateur Radio Club of Tulsa created the link from OKC to Tulsa between the MORI's .34/.94-444.1-224.1 system and American Airline Club's UHF repeater 449.875 (minus offset). This is an open system -- anyone is welcome to use and enjoy the repeaters. If you are using VHF, there will be times when that input is PL'd. This will be due to band conditions and interference problems. We do not want to keep both ends of the system tied up by band conditions, etc. The PL, once again, is 141.3 (4A) (or ICOM code 22). If you do not have PL in your radio, simply input 94* which will put the VHF receiver into carrier access. It will stay in carrier access for approximately 5 minutes after the last transmission, then it will revert back to PL. This system is the result of about 2 years of work by both OKC and Tulsa. We thank the American Airlines Club for the work they have done in getting their end "up and running". There is much, much more dreamed of. Hopefully, the repeaters to the southwest, south and north will be coming on line shortly. Due to the wide-range coverage and several repeaters coming on line, we are going to try not to use the autopatch on the .34/94-444.1 repeaters. If it is absolutely needed, ask for a control operator to assist you and the patch will be enabled.

The trustee/maintenance crew would like to have the assistance of all members. We are receiving interference from one or more amateurs in the metropolitan area. PLEASE check the input and see if you can locate this person or persons. The help would be appreciated. When we get the information, we will be in touch with the FCC and other authorities.

Would like to mention in closing that the time spent at Ham Holiday this year was as enjoyable as any that I have attended in the past and better than some. Thought that there was a job very well done by Frank, AA5GI, and the others who helped in planning Ham

Holiday this year. We heard many favorable comments. The following remark is a personal one, not one that is made by MORI: I hope that Frank has another year to do an even better job!

Hope to see one and all at the September meeting -- remember, Sept. 5, 7:30 PM, Warr Acres Library.

Bob, KA5ETA 73

Chuck has a clock that will run eight days without winding. Wonder how long it would run if he wound it?

Dis you hear about what happened to Bob Ashby? He was driving in a long ground rod and struck oil!

HAM HOLIDAY XVI - 1989

WINNERS

Pre-Registration Award: WA5HPJ Norm Deemer, Kenwood TM-731A

-----	Mary Kielhorn	Code Practice Oscillator
W05B	Ed Engrecht	IBM Personal Computer
N5KUN	Ron Heyenga	TNC-2 Packet Radio / Tee-Shirt
W5JGJ	O.B.Ramsey	MFJ 949D Tuner / Cap
N5FZT	Jim McGhee	Yaesu FT-23R
N5OCM	Dan Goodhead	Alinco DJ 500T, rubber duck spare
K5LDI	Tom Mangham	Alinco ELH 230G11 Amplifier and "Nuts & Volts" subscription
-----	Cheryl Williamson	Alinco DJ 100T / rubber duck
K5IRO	Ben Allen	Personal Portrait by Judy MacDonald
KB5IKG	Alfred Warren	MFJ 422B Keyer / Cap
WA5G0I	A.O.Boord	Table Choice from HamTronics
W5OU	Gordon Jones	Astron RS 20A Power Supply
N5OTO	Bill Jermyn	220 MHz Isopole / Cap
KA5ZPH	Joe Harp	MFJ 401B Keyer / Tee-Shirt
N5MPV	Don McNeill	Astron RS 20M Power Supply
WB5HLR	Doug Deer	10 M Bugcatcher Antenna
K5LHB	Jim Cruse	FCC Rule Book, 2M Mag. MT. Antenna, "WorldRadio" subscription
KB5BGH	Gloria Guinn	MFJ 910 / Tee-Shirt
K5SKA	Bill Demand	Tri-band VHF mobile antenna / Tee-Shirt
N5BEW	Ken Esadooah	MFJ 280 / 2-M Mag Mt Antenna
KB2AW	Dolph Grolock jr.	Portrait by Judy
KA5WIS	Lee Vaughn	Frequency Counter / Ruler digital clock
WB5KAK	Doug Brown	Diskette File box / Cap
WB5IXZ	Nel Selfridge	TRS 80 Disk File
W5EOD	Hugh Reynolds	Disk file / Cap
KA5WHI	Mary Wells	Coax Switch, Connectors, Tools
KA5QPZ	John Stafford	Rubber duck / Tee-Shirt
N5KUK	Ken Brown	Hi-Q BalUn
AA5GX	Arlene Cline	Mag Mt Antenna / "WorldRadio" sub.
N5NUK	Bill Wilburn	Multi-band antenna / Coax Switch
KR5P	O.D.Shaddox	ARRL Handbook / "WorldRadio" sub.
WD5FIS	John Bigler	Surge Protector
K5HK	Chuck Wilhite	Digital World Clock
KA5WJV	Dennis Stepp	Cushcraft 2-M Antenna
WD5G	Dave Downing	" 6-band Vertical Antenna

Grand Award: N5LAP Steve O'Donnell Yaesu FT-757 GXII



Well ... the month of July is over along with all the activities of that month. So what have we been doing with ourselves? I won't remember all of the names, so please forgive me for not mentioning them.

HAM HOLIDAY 1989

What an event as usual. Again this year our club handled the registration for CORA and everything seemed to go very smoothly. The many programs, testing, larger dealer areas and even a larger flea market was a tremendous success. All this under one roof and air conditioning to boot. It's worth it. Equipment seemed to be very plentiful this year from HF to GIG and prices seemed to be reasonable, at least for what I wanted. EARS had a hospitality room this year for members and several took advantage to rest and relax for a while.

EARS WINNERS

Joe Harp - keyer

Lee Vaughn - frequency counter

Mary Wells - grab bag

Bill Wilburn - antenna

Gloria Guinn - antenna match

We wish to thank all the dealers who participated at Ham Holiday and graciously donated these and other prizes.

UPGRADES

Marlin McGee - 13 wpm code

Tommie Guinn-Advance written

Kyle Granger 13 wpm code and Tech written

Jim Richardson-General written

The ARRL Forum was lead by Joe Lynch and Jim Haney and they did a very good job in answering questions thrown at them. Good Job Guys !!

The talk from Frank Tassone, CORA PRES., 1990's HAM HOLIDAY will be bigger and better. If you didn't get to come this year or see exactly what you wanted, then plan on attending next year.

EARS presented a \$500.00 scholarship to Ed Granger to further his education, which was presented by Harold Wells at the closing ceremonies. Ed has written a very nice letter in appreciation of the scholarship. If you know of anyone

who might be interested in the scholarship next year, get in touch with Donna Guinn, KA5YSF, a scholarship committee member or a board member.

Following is Ed Granger's letter to the club: Dear Members of Edmond Amateur Radio Society:

I am very honored to be the recipient of the 1989 Bertha Watson Memorial Scholarship. Your dedication to and support of the community of Edmond through the scholarship and through the many other projects, makes EARS one of the most significant group of volunteers in Edmond.

To each of you I extend my sincere thanks and appreciation. 73 Ed Granger, KB5DZU

EARS will be starting our annual classes September 17. If you know of anyone who would be interested in becoming a HAM, please call Phil, N5HIP 789-0681 or Tommie, KA5WAV 341-3886. Last year we had several members of our class go to General and Advanced license. Phil will be needing teachers and volunteers to help individuals who need it during the classes. Cost will be around \$25.00 for Novice and text books. Tapes will be around \$5.00 for the extra practice.

We will meet at St. John the Baptist Catholic Church at 9th and South Litter at 2:00 pm every Sunday unless noted during the classes.

REMEMBER!!! EARS HAM CLASSES SEPTEMBER 17. EVERY SUNDAY - 2:00 PM AT ST JOHN THE BAPTIST CATHOLIC CHURCH.

NOMINATING TIME AGAIN

Anyone interested in being on the Nominating Committee please contact a board member as time is running short. There are only two meetings scheduled for business before then.

EARS ANNUAL HAMPOUT !!

The next Hampout will coincide with the Texhoma Convention during the last weekend in October. There will be rooms and cottages available as well as camping sites for all those who want to attend. I am sure there will be a flea market and several dealers plus the quiet of the country side and great fellowship. Details will be announced on the net and in later articles in the C&E. A call to the State Offices delivered prices from \$85.00 for lodge

The South Canadian Amateur Radio Society

The August meeting of SCARS was held at the Red Cross on Saturday morning, the 12th. The president, WJ5W was absent (doing botanist things) and the meeting was called to order by vice prez Doriada, N5IUA. Treasurer Monte, KB5RZX reported that about \$1245 was in the account. The minutes of the July meeting were published in the C&E and were approved as published.

Old Business:

The Olympic Festival was a big success in spite of the heavy rain on Sunday morning that forced the cancellation of the final bicycle events. The general impression is that the whole thing came off quite well.

New Business:

Another bicycle race, the O'Connell's cup, has requested club assistance for a criterium event around the campus area on September 16th. Steve Wolfe is organizing the helpers for the event and he thinks that about ten hams will be needed to cover the course.

Ken, N5BEW received a letter from KE5EB thanking SCARS for the assistance in getting the duplexer set up for the Norman Police Amateur Radio Club repeater. This is a new club forming in Norman and SCARS members were invited to join if they wished.

To maintain continuity in the club minutes the Mini Baha was mentioned.

Committee reports:

The technical committee reports that the power supply for the in-town receiver burned up late in July. After the back-up battery went dead the in-town system failed. Ken, N5BEW and Ken KA5EFJ found and repaired the problem and the system seems to be back up and running in good shape now.

NWS - Nothing to report.

ARES - Nothing to report.

CORA - Ham Holiday was a big success. Several SCARS members won prizes at the Sunday drawing including; N5BEW, a mobile speaker and antenna; W5OU, a 20 amp power supply; N5KUK, an antenna balun; and N5KUM, a MFJ 1270 packet TNC.

The meeting adjourned at about 10:00 am with the usual door prize drawing. W5UUX won a mobile speaker.

Ken, N5KUK

ELECTION NEWS

New officers were elected at the August meeting for 1989-1990. A very heated election was held for the office of President. The nominating committee had not been able to find a worthy opponent for the present King, Bob Robert, however, those in attendance saw fit to nominate two rather distinguished individuals from the floor, that being Mr. Ronald Reagan and Mac, K2GKK. Both these individuals were not in attendance to accept nominations. With Bob Robert and our so-called past president of vice counting the ballots, it was determined that Mr. Roberts will continue as King for another term of office.

The election of a new Vice-President was most dramatic. Three fine gentlemen were nominated for that office, N5KXI, KASPSF, and W5JDH. With N5KXI being on vacation, he was not able to present a speech and W5JDH rabidly opposed his nomination. The final count showed that KASPSF, Mr. Jim Bartlett to be the new choice of the people. It will be interesting to see if he contributes more to the club than the outgoing one.

For secretary, we are stuck with the same fellow for another term. W5MEL finally found a piece of paper and a pen to take minutes, so after heavy balloting, it was decided that he should be given another chance.

The treasurer's race was no contest. In fact, no one ran against the present caretaker of the club's funds, KF5JN, Larry Davis. Larry is so good at the job, that he was elected even though he won't be able to attend the meetings for the next semester of school.

Probably the hottest election was for a new club editor. It seems that everyone wants the job. I suppose that there are many club members who have a great desire to get even with the present editor and this sparked the balloting. Personally, I felt there was no one who could do a better job than myself, so after a lengthy speech, I was appointed again without opposition.

HAM HOLIDAY

I would like to congratulate all those who had a hand in Ham Holiday

this year. Frank, AA5GI worked his tail off as did others too numerous to mention. I personally think this was one of the best conventions we have had in years. Frank had a fine group of dealers on hand and from the ones I talked to, they were all very satisfied with their sales. I understand he has them already on the waiting list for next year. Yes, I heard gripes that some felt it didn't impress them at all and it wasn't a very good convention. Even some in our club made comments to that affect. Well brother, if that is the way you feel, read on. You are just the person we are looking for.

OCAPA AND CORA

As the new officers are elected for OCAPA for the coming year and new ones will soon be elected for CORA, I would like to encourage our club to become more active in CORA. I will admit that I personally have been very lax in working with CORA the last few years. I can remember the days when our club was well represented at all the CORA meetings. Members of our club held responsible positions such as officers and in charge of various duties. CORA needs a lot of good volunteers, so why shouldn't our club help out? I am happy to report that at the last club meeting, it was decided that we would send at least three voting delegates to all CORA meetings. One thing to keep in mind is that CORA meetings are open to one and all. Even though you might not be a club representative, you can still attend and voice your opinions and offer suggestions. So, if you don't like the way things are done, there is no one to blame but you. Come on down and offer your suggestions and help.

K5NK MORE EARS

suites or single cabins (sleep 8) to \$3.00 primitive campsites. A price for everyone. So come on down and join in on the fun.

V H F PARTY

Several members will be taking on the nation in a VHF PARTY sponsored by the ARRL, September 16-17. It will be held at the OAK CLIFF Fire Department. This is located 1 mile north of Waterloo Road on Bryant in Logan County. 2 Meter SSB, UHF SSB, Satellite and packet are being discussed as possible modes of communication. If you are interested, contact Lee Vaughn, KA5WIS, or Joe Lynch, N6CL, for details.



served in Europe as a radio operator in the infantry for three years. They used very little code in the infantry.

After discharge Joe attended Seminary School in Oklahoma City for one year, two years in Saint Louis MO. Four years in San Antonio TX. He was ordained in 1953.

Father Joe joined the Wheatstraw ARC in 1978. He has kept his same call, and holds an Advance Class license. He enjoys radio when he can, Father Joe is busy all the time, he does the mowing at the church, the parish, the hall and gardens. Besides visiting the hospital, homes, he pastors three churches. Having a plane and doing his own flying, he likes to travel. Father Joe is a good friend to all religions, races or creeds.

In 1980 Father Joe went to Guatemala, 1982 to Israel and Jordan, 1984 to Italy, 1986 to Portugal, 1986 back to Guatemala. In the Spring of 1988 he went to Italy, and along with other priest met with Pope Paul. In the Fall of 1988 he visited Greece and Turkey. During his travels he has very interesting knowledge of traditions and events. Traveling to Mexico several times, and speaks several languages. It has been indeed a pleasure for us to be associated with W5JEBB, Father Joseph C. Kolb.
WA5PFK

REPEATER IMPROVEMENTS

Lee, KA5WIS, Bob N5KUE, Brad, KB5CDE, and many others have worked on the repeater for several weekends. They have made several improvements and hopefully coverage and signal strength will be as strong as usual. Changes are too many to mention even if I could remember what they were. There are many more being talked about so stay tuned. There have been improvements at the EOC also and I am told we can now get into the NWS in Norman direct, which is pretty good.

INDIVIDUAL IMPRESSIONS

By Charles E. Maupin, W5HQM

R.H. "Bob" Ashby, W5HXL, began his radio career about 1930 when he, along with other kids in his neighborhood got interested in crystal sets using galena (lead sulfide ore) crystals with a "catwhisker" as an early day point contact diode detector. These were sold at the five and dime stores for a few cents. He and I attended Harding Jr. High at about the same time. Living in the Classen High School district, we both transferred to Central High for the same reason - to study electricity and radio under Paul Bell who had the only such courses in town. At Harding, Bob checked out an old spark gap book in the library and proceeded to build a spark transmitter using a Ford coil and go on the air. Though he didn't make contact with anyone, he soon discovered the broad-band interference capability of such a rig and gave it up before being cited by the Federal Radio Commission for radio interference.

At Central, Bob spent all his time outside of required classes in the radio room building projects and practicing International Morse code using a wind up Instructograph punched tape machine. I remember Bell giving me a project to adapt this machine to continuous operation with an endless loop instead of its normal reel-to-reel method of operation. Bob built a 6-tube superhet described in the ARRL 1936 handbook and a transmitter using an 807 RF amplifier modulated by a pair of push-pull 6L6's. He used this first on the 10 meter band and later on the 160 meter band. I got my first ham ticket in 1938 as W5HQM. Having no rig built up, I borrowed one of Bob's to make my first transmission on 40 meter CW. Bob assisted Bell in building and installing sound systems for the school auditorium and football games at Taft stadium. I remember him giving a lecture-demonstration on oscilloscopes before a full classroom. We had a tone wheel Hammond organ in the auditorium on which the history teacher Raymond Ryder would play concerts during the lunch hour.

When Bell was called to active duty with the 45th Division in the early '40s, Gerald Tuma, W5BEP, took over his classes. Bell told Tuma if he needed help to call on Bob. So

Bob helped Tuma come on board as Central High instructor. Bob and Vance Dewey, W6HWA, got interested in 5 and 2.5 meters. Bob built a 2.5 meter receiver using a 954 acorn tube as RF pentode and a 955 triode as super-regenerative detector with 2 inch copper tubing as quarter wave transmission lines. Vance built a transmitter using a Bliley 28 MHz crystal frequency multiplied to the 2.5 meter band. Several hams also built walkie talkies using a '30 triode super-regenerative oscillator-detector and a '33 audio modulator/amplifier powered by a 45 volt B battery and dry cell A batteries. They talked to each other around town attracting attention by the public who wondered why these guys were walking around talking to themselves! Other radio buffs and hams at Central during this time frame included Alfred Ashley (a close buddy of Bob who later wrote Nav-Aids course material for CAA and influenced Bob to come to work at CAA (later FAA) in the Directed Study correspondence program, Carl Dalbey who served as radio officer in the U.S. Merchant Marine during WWII and survived two ship sinkings but was lost in a third sinking, Bill Huffman, W5HFE, who went on to a career in FAA, Bennett Basore, W5ZTN, James Bostick, Hadley Bowman, etc.

Before Bob left highschool, he had prospects of a summer relief job at a local AM station so he got a copy of Nilson and Hornungs' "Questions and Answers" and crammed for a commercial operator license. He took a bus to Dallas and passed the requirements for a Radiotelephone First Class license. This automatically qualified him for a Class A amateur license with privileges in all phone bands. Bob tried CW but never cared for it though later he saw service in the Signal Corps as a field radio operator using CW.

On graduation from Central, Bob went to O.U. While studying electrical engineering, he served as transmitter engineer at WNAD, the campus AM station. During Bob's senior year, Gerald Tuma was hired as Prof. of E.E. at O.U. Again Bob helped him come on board as classroom instructor. Gerald was busy with graduate work and would ask Bob if he had his homework complete for the day. He would then borrow it and use it in his class lecture. One day he told Bob he needed to have more time to work on his doctoral dissertation and it would help if the classroom were empty when he arrived. Bob spread

the word and Gerald got more time to concentrate on his paper.

Bob finished his BS in EE degree with major in Communications in 1942. WWII was in full swing. Bob was in the enlisted reserve which allowed him time to finish the degree before induction. His classmates had all received commissions and by Bob's graduation time the service was saturated with officers (all chiefs but not enough indians). So poor Bob was stuck with a choice between cook and truck driver. He managed to hold out for radio school however, and ended up a field radio operator. While waiting for assignment, O.U. had Bob teach about 40 students electronics in preparation for duty at Wright Field in Dayton, OH. The Army held up Bob's assignment until the class was finished and Bob suspects collusion between O.U. and the military.

Bob has been active in most ham clubs in the OKC area including the 6 meter net which later became the Central OK VHF Club. The Aeronautical Center Amateur Radio Club, QCWA and CORA which he helped organize. He has served in offices of all but one club and is a "can do" participant in the ham activities of central Oklahoma.

After WWII, Bob was employed for a time at Quick Charge, Inc. at 10th and Eastern which built high current battery chargers and did electroplating and job work. He also worked at KOCY and KOMA. While at KOMA, Dick Page resigned as Prof. at O.U. and Bob was asked to fill in until the end of the semester. He then taught college classes during the day and worked a night shift at KOMA. After his first employment by CAA, Bob spent several years working on oil field equipment in mud control. Then he came back to FAA and worked at the Aircraft Services Base, finally filling the office of Chief of the Nav-Aids and Communication Section of the residence school. At that time I was an Electronics Engineering Instructor in the Instrument Landing System Unit and Bob became my Section Chief. He retired a few years later while I continued on till my retirement in July 1979.

Presently Bob and his wife Rosalyn like to move about in a travel trailer, wintering in Florida and summering in the mountains.

Q. R. ZED cont.

"Your Elmer! Your Elmer!"

Homer's forehead wrinkled. "I am? I thought I was Homer."

"You are Homer," Zedd bellowed, breaking one window. "The term for the person who helps another one get into this hobby is *Elmer*. Not Arnold."

Homer turned and stared at us in the bleachers. "Pleasta meetcha, Arnold. I... uh...."

"When did I say you could operate?" Zedd shouted.

"Right now!" Homer yelled back.

"I didn't say that!"

"Yessir, yes sireebob, rootie-toot-tooin' you did!"

"When?"

"You said, if I got a perfect record on them Novice test, I could operate your CB with you as warrant officer."

"You mean *control operator*, you idiot!"

"Ten-four! Lemme at 'em. I am going to work me some Exxon!"

"That's DX!"

"Shazam!" Homer tried to push Zedd out of his chair.

"Wait a minute, wait a minute," Zedd groaned. "When did you get a perfect score on the novice exam?"

"Yesterday!"

Zedd's face went slack. "You passed?"

"Negatron! But this time my score was perfect! I got ever' one of 'em wrong!"

Zedd's legendary patience seemed to come into play just as those of us watching felt sure the top of his skull would blow off. With incredible effort he calmed himself.

"Maybe," Zedd told us, "this is not a bad thing. If he works a station or two, it might inspire him."

So saying, Zedd vacated his throne-like swivel chair. "Sit down, Homer."

Homer sat. He was so excited he forgot to monitor the size of the bubble he was blowing with his gum. When he grabbed the desk mike, it broke the bubble, leaving the mike draped over with slobbery pink rubbery stuff.

"There are stations on frequency wanting to work me," Zedd explained calmly. "What you do, Homer, is you key the mike and say 'QRZ from A5A.'"

"Right!" Homer screamed. "QSB of the Triple-A'."

"QRZ from A5A," Zedd gritted through his teeth. "Here. I'll write it

down. -- Okay. Then when you hear a station's call, you tell him he's five and nine, and you write his callsign down in this here logbook. Have you got that?"

"Got 'er!" Homer shrieked. "Stand back, boys, the master is going to work!"

Homer keyed the mike.

"QTH of the AAA!" he yelled: "Ten-four, good buddy, how's it look on them flipside? Got a bear in the air and a bear in the grass, and back them hogs up another mile, it's getting real fragrant up here! What's your handle, good buddy, and what's your twenty, come on back?"

At this point the microphone was released to the accompanying sound of three of Homer's fingers being broken in Zedd's grasp. As Homer howled and peeled out of the swivel chair in agony, going to his knees on the floor, Zedd whipped a huge revolver out of the shack desk and pointed it at the nerdlly one's head.

"Q.!" yelled WU5W. "No!"

Zedd hesitated, the hammer fully back on the old sixshooter. He looked at us and then he looked at the whimpering dork on the floor and then he looked at the ceiling.

Slowly he uncocked the thumb-buster.

"Boys and girls," he sighed, "you are right. Shooting this jerk in the head would accomplish nothing. I might empty the gun and not hit his brain cell. Get up, Homer. Go home. Study. We'll try again some other day."

Homer clambered to his feet. "I am working hard, Mr. Zepp, I truly, truly are! I have almost got that L letter down now! I will make you proud of me yet, I promise!"

"So long, Homer."

"Huh?"

"So long."

"So long *what*?"

"Forget it."

"Forget *what*?"

At which point some of us, unable to endure witnessing more of Zedd's torment, headed home, just a hoot and a holler north of the ranch.

-- KU5B

STOLEN: from W5VXU, M. K. Schenkle, 1211 S Main, Altus OK 73521, PH-405-482-1797, 4 sections of Rohn 25G tower, top section, 3 regular sections and base plate for self supporting base. Base had all three legs bent and one leg broken off just above the base plate with that broken piece still inside the leg of the first regular section. If located please contact me or

BICENTENNIAL AMATEUR RADIO CLUB

"To Promote Radio Communications"

The Bicentennial (76er) meeting was held at 8:10 P.M. August 8, 1989 at the Oklahoma City Community College. President Dennis Musser called the meeting to order.

The next meeting will be held at Dennies Restaurant on Meridian and Reno in OKC at 7:30 P.M. A dinner social will be at 7 P.M. This date will be September 12, 1989 so mark it on your calendar.

The minutes of the last meeting were read and approved with no changes.

The treasurer reported that the bank balance was \$ 531.01 at present. No bills are pending.

Repeater Report was that the repeater was now removed from the South Community Hospital and is now back at Dick Baker, WB5TMW. The unit is now under service. A power supply and an ID unit that were rebuilt are already on the machine.

New Business was the announcement of the President resigning. The notice of resigning of the position of President is effective immediately following the meeting. Dennis Musser wishes to thank all for the support over the two years. He said that he will continue to be a member of the club.

From the club members, we wish to say Thank's for your support over the years and your many hours of preparation and other duties that you have done.

There was no old Business to report.

The meeting was closed at 8:30 P.M.

the Altus PD. Am offering a \$20 reward for information leading to the recovery of the torer. Be assured the theif will be prosecuted when caught.

More than two capacitors in series:

$$C_{\text{total}} = \frac{1}{\frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3} + \text{etc.}}$$

SUN	MON	TUE	WED	THU	FRI	SAT
	OCTOBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	SEPTEMBER			1	2
3 GREAT PLAINS ARC	4 Labor Day	5 MORI	6	7 AERONAUTICAL CENTER ARC	8 First Quarter	9 SOUTH CANADIAN ARS
10 WHEATSTRAW ARC Grandparents Day	11 EDMOND CLUB	12 O U 76'ERS CINMARON ARC OIDAR	13	14 ALTUS AREA A R A	15 Full Moon	16 CENTRAL OKLAHOMA VHF CLUB
17 EDMOND SOCIETY	18 VE EXAM 6 PM RED CROSS BLDG	19 OK CITY AUTOPATCH	20	21 KAY COUNTY A R K	22 Last Quarter	23 1st Day of Autumn
24	25	26 CORA CORA CORA CORA CORA CORA	27 77	28	29 EDIT NIGHT FOR C & E New Moon	30 Rosh Hashonah

Q. R. Zedd

HOMER GETS TO OPERATE

"Shazam!" yelled the nerdlly voice as the front door of the hamshack flew open. "I are here to operate them radio, ten-four?"

Q.R. Zedd, A5A, world's greatest DXer, spun around in his swivel chair at the No. 1 operating position. Speaking into the boom mike attached to his forehead with a yellow rubber suction cup, the heroic one sent out the message that broke a thousand ham hearts around the globe:

"QRX. QRX. This is A5A, taking a short break. All stations, QRX."

As Zedd paused, the vox dropped out on his transmitter and the 3-500Zs in his desktop linear began to cool, changing from the cheery red that had lighted the hamshack to a dull pink and then to dimness. Those of Zedd's adoring fans in the hamshack bleachers

removed the special goggles we had been wearing against the tube glow, and for the first time we could see the rustic dumbdumb who had so rudely interrupted today's 10K morning by Zedd, holder of our only 1x1 call sign.

It was, of course, Homer Klott, the impossibly ignorant dork who has been studying for his novice license for several years now under Zedd's tutelage.

"I are here!" Klott chortled, clomping into the shack. "Whoopdie-do and razzmatazz! I are QSB and QRM! Lemme at them microphone thing and I will start doing CQSK 23 meters, or the gas meter if the twenties ain't on!"

Zedd stared at the nerdlly one with the expression of a saint: a combination of sadness, resignation, and heartfelt yearning to commit murder. The rest of us took this opportunity to look Homer over, too.

Windstorms in early summer had caught Homer outdoors, and his propellor-equipped beanie was last seen headed for Ardmore along with two plastic garbage cans and an old Volkswagen. The rest of his outfit, however, was complete.

He was color-coordinated from head to toe. The egg drippings on his chin matched his yellow bandana,

which nicely complimented the gravy globs on the front of his Tex Ritter sweatshirt -- that part of which could be seen over the top of his tie-dyed bib overalls. Even the wet tracks left on the hamshack tile by Homer's white lizard boots matched his tan-and-yellow motif.

Homer looked truly happy and excited. He didn't even seem to mind the small sparrow that had landed sometime earlier on the horizontal shelf of his protruding front teeth. The sparrow, perched happily in front of Homer's left nostril, seemed happy too.

"What are you doing here, Klott?" Zedd demanded. "Your next lesson isn't until tomorrow night."

"Roger, over and out!" Homer screamed. "But tomorrow night I have got to go to the city to take the test again, so I have got to postpone my next lesson till after that. But what I are here for right now is, you promised me I could operate!"

Zedd flinched. "I did *what*?"

"You said!"

"When?"

"You said, when I started having you be my Arnold --"

"Your Elmer!"

Homer's eyes glazed. "Huh?"

CONTINUED ON PRECEDING PAGE