

C&E

CORA

Collector & Emitter

September 1994

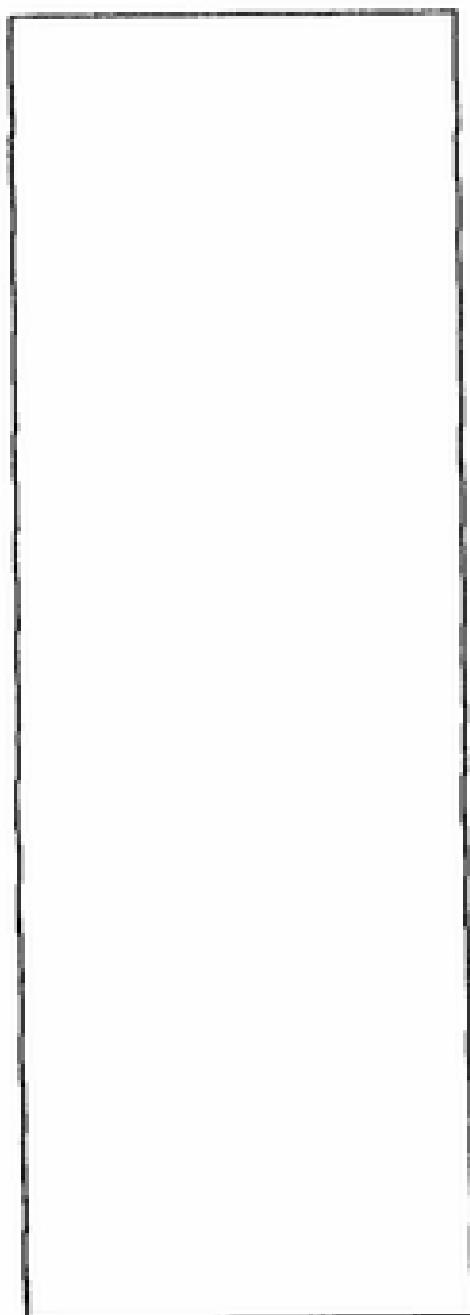
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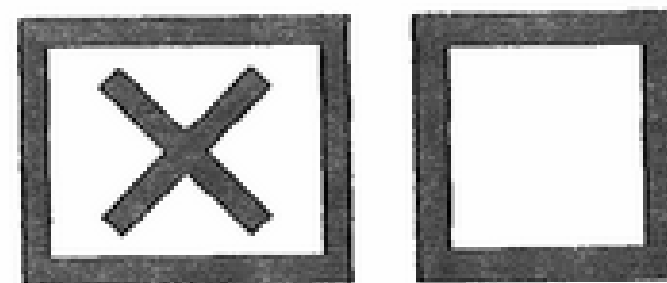
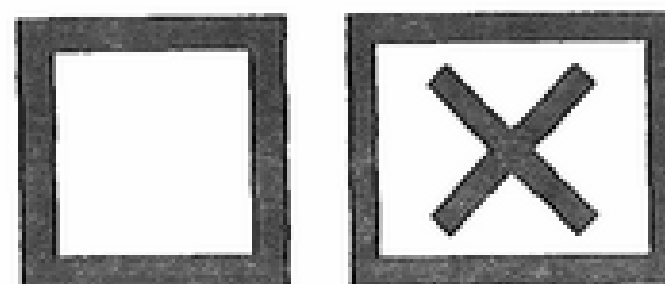
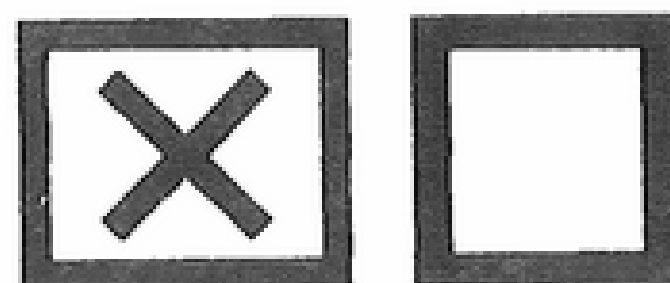
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C&E's First Centerfold !!

C. O. R. A. Elections



Start Planning For Ham Holiday #22

Let's Hear Your Ideas !!

ARES Annual Simulated Test - 8 October 1994

Altus Area News - A Trail Is Found To the Southwest

VHF Book Review - How and What to Explore in VHF

CORA

Collector & Emitter

Harold C. Miller, KB1ZQ/5
Editor

Central Oklahoma Radio Amateurs, Inc.

President: Rick Masters, N5WNR
Vice President: Kathy
DeGraffenreid, AA5RU
Secretary: Jim Buswell, N5BEQ
Treasurer: Tom Mangham, K5LDI

Dear Subscriber:

PLEASE help us keep your information up to date. What time, where, when, who are your officers, editors, and their phone numbers. Check your entry, it can be changed. If there appears to be a mistake, check with your club officials. We can't do a thing about it if you don't. Below is a sample label:

4	94/07	2
DOE, JOHN E.		KASABC
1234 SW 56th STREET		
RADIOVILLE, OK		74321

The "4" means Autopatch Club, "94/07" means the year/month dues expire. The "2" is for postal rates.

Dear Secretary / Treasurer:

When you want a change of any sort to your membership, you must fill out completely a subscription slip. Watch for the date you received their funds and the date the subscription expires. Have your slips, or list of deletions submitted by the 22nd of each month. If there is anything about C&E subscriptions you need to know, please contact us.

September 1994

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Oklahoma City, OK 73143-
5942

1. Aeronautical Center ARC Meets: 1930L, 1st Thursday, FAA, S. MacArthur, OKC Pres: Dick Russell, KJ3VV 733-2141 Sec/Tr: Brad Nelson, KJ0W 793-9470 VP: Chuck Bryant, KB5ZVZ 737-0423 Editor:	11. Edmond Amateur Radio Society Meets: Odd Months, 1400L, 3rd Sunday, Edmond EOC, Even Months, Dinner, 3rd Friday Pres: Lee Vaughn, KA5WB 348-2961 VP: John Thomason, WB5SYT 340-1798 Sec: Kay Sage, KB5LDO 341-8971 Treas: Sue Snyder, N5VWI 341-8753 Editor: John Thomason, WB5SYT 340-1798
2. Oklahoma Central VHF ARC Meets: 1100L, 3rd Saturday, Neighbor's Restaurant 3401 N. Classen Blvd, OKC Pres: J. Frank Feilds, KB0QJ 789-8469 VP: Bill Noland, WA5FWD 354-5018 Sec: Joe Buswell, K5JB 732-0676 Treas: Ellard Foster, W5KE 789-6702 Editor: Joe Buswell, K5JB 732-0676	14. Cimmaron Amateur Radio Society Meets: 1930L, 1st Thursday, WK5Y Playhouse 827 S. 13th, Fairview Pres: John Medley, N5WVU VP: Kenneth Monahan, KB5SOM Sec: Dennis Painton, WK5V 764-3599 Treas: Nadine Painton, N5PMH 764-3599 Editor: Kenneth Monahan, KB5SOM
3. Mid-Oklahoma Repeater, Inc. Meets: 1900L, 1st Tuesday, Favorite's Cafe, 36th and S. Western, OKC Pres: Scott Walsh, N5NYS 787-3804 VP: Larry Benedict, N5VYC 728-7824 Sec: Earl Draper, AB5TF 360-6850 Treas: Robert Moose, N5QKI 720-0073 Editor: Dean Ward, N0PAD 681-4606	15. South Canadian ARS Meets: 0930L, 2nd Saturday, Red Cross Bldg North OU Campus, Norma Pres: Don, KJ5KB 321-1673 VP: Mike Winkel, N5SOF 366-8639 Sec: Keith, KB5FCI 329-2213 Treas: Bill, N5UMH
4. Oklahoma City Autopatch Assn. Meets: 1930L, 3rd Tuesday, Salvation Army Bldg N.W. 50th and Penn. (Back Door) Pres: Brad Nelson, KJ0W 793-9470 VP: Mike Fields, KB5WIC 720-9123 Sec: Perry Jenkins, KB5TOT 354-5075 Treas: Cheryl Brassfield, KB5WQR 685-8070 Editor: Mike Fields, KB5WIC 720-9123	16. Edmond Amateur Radio Club Meets: 1900L, 2nd Monday, Various Locations Pres: Mark Northcutt, WD5DYI 755-4672 VP: Wendell Cochran, WB5ISO 396-8224 Sec/Tr: Kay Northcutt, WD5DYJ 755-4672 Trustee: Dennis Orcutt, WB5ISN 340-0034
6. Altus Association Meets: 2nd Thursday, Check Daily Net on 146.79 / 146.82 for current location. Pres: George Mayetko, AA1IJ 266-3357 VP: None Sec/Tr: Mike Brown, KC5AWB 481-6665 Editor: Mike Brown, KC5AWB 481-5928 Hosp: Vallie McClain, KC5AHX 477-3357	18. Great Plains Amateur Radio Club Meets: 1415L, 1st Sunday, Home of N5LRR 2914 Osage Dr, Woodward Pres: Bob Bayles, WB5GAX 254-3561 VP: Andy Taylor, N5LRR 256-4017 Sec/Tr: Rod Ford, WB5OVT 923-7683 Editor: Freida Patterson, N5EQX 256-2111
9. Wheatstraw Amateur Radio Club Meets: 1430L, 2nd Sunday, Location Varies Pres: Joe Hyatt, WA5GHK 375-3783 VP: Leo Peil, WZ5H 886-2998 Sec/Tr: Joe Garland, WA5FLT 893-2660 Editor: Ralph Wilder, WA5PFK 623-5421	Central Oklahoma Radio Amateurs Meets: 1930L, 4th Tuesday, Salvation Army Bldg N.W. 50th and Penn, OKC (BackDoor) Pres: Rick Masters, N5WNR VP: Kathy DeGraffenreid, AA5RU Sec: Jim Buswell, N5BEQ Treas: Tom Mangham, K5LDI 677-5291 Editor: Harold Miller, KB1ZQ 672-7735

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C. O. R. A.

Central Oklahoma Radio Amateurs, Inc.

Minutes of the 26 JUL 94 meeting:

The meeting was called to order at 7:36 p.m. by President Rick, N5WNR and the following Directors and Guests representing 7 of the 11 member clubs were present:

ACARC - Larry Koeffelholz, N5SOY

VHF - Ellard Foster, W5KE

Bob Ashby, W5HXL

MORI - Robin Graham, N5SPA

Elizabeth Edwards, KC5GLP

Toy Graham, AB5ET

OCAPA - Chuck Wilhite, K5NK

John Guida, NJ1V

John Brassfield, N5SAM

EARS - Steve Hamlin, KG5IP

Lee Vaughn, KA5WIS

SCARS - Mike Winkel, N5SOF

Mike Brown, WG5C

EARC - Phil Wolfenbarger, N5HIP

C&E Ed. - Hal Miller, KB1ZQ

Vice President - Kathy DeGraffenreid, AA5RU

Treasurer - Tom Mangham, K5LDI

Secretary - Jim Buswell, N5BEQ

Visitors/Alternates were: Bill Edwards, NW5M, Garland Jennings, NQ5Y, Linda Graham, (no call), Jerry Sproul, KJ5KP, and Randy York, KA5ZZX

The minutes of the July Meeting and the Treasurer's Report were accepted as distributed.

REPORTS - C&E: Hal KB1ZQ requests everyone's patience in the change of Editors and seeks input for future issues since the current one is in hand.

VEC : Unknown.

OLD BUSINESS:

Committees for HAM HOLIDAY #21 (HH 21) 29-31 July 1994

PUBLICITY - No report/er(s), no time left for hamfest publicity.

FACILITY - Tom, K5LDI discussed the floor layouts and the discussions he'd had with the Fair Board to supply enough tables and chairs.

DEALER / AWARDS - John, N5SAM requested an ICOM -737A for the Grand Award and that a choice be made for the Pre-registration Award

TALK-IN - Robert, N5QKI relayed that there was no report to be given.

PROGRAMS - Discussion included reminders of the need for PRINTED schedules.

PRE-REGISTRATION - Jerry, KJ5KP reports receiving 621 so far.

SECURITY - Phil, N5HIP was asked to take care of security again this year.

FLEA-MARKET - With the current illness of Don, K15TP, the two Mikes, N5SOF and WG5C, report having four volunteers to take over.

SCHOLARSHIP - Jim, N5BEQ displayed the T-shirt logo "proof" and a copy of the "transfers" for the fund-raising T-shirts.

BREAKFAST - QCWA has scheduled Sunday Morning breakfast at Days Inn as it did last year.

REGISTRATION - Steve, KG5IP will attempt some streamlining this year in view of the "ticket-takers" requirement.

BANQUET - Jim, N5BEQ announced "A-J'S BAR-B-Q" will cater "ALL YOU CAN EAT" in the Hobbies Arts and Crafts (HAC) building.

NEW BUSINESS:

On the motion from Chuck, K5NK and Seconded by John, NJ1V, it was decided to choose the ICOM-281H for the Pre-Registration Award, none opposed.

The next meeting is scheduled for 23 Aug 94 at the usual time and place. This meeting was adjourned at 8:29 p. m.

Jim, N5BEQ
Secretary

above, but let's not forget that the TOP PRIORITY was to improve our ability to back up our word that amateur radio operators are communicators in time of emergencies and disaster.

Now it is time for us to drill ourselves further in these abilities, in just one short month we will have our annual Simulated Emergency Test (S.E.T.) exercise. If and when we are involved in a true disaster, we are on borrowed time, and at any moment it could run out, we will need all the manpower we can muster. There will be no time to look up in a book to see what we should be doing

Many of you would respond. we would function together much more smoothly if you would participate in our test exercise, it could mean the difference between saving lives or losing them. Please, make the decision that you will be a part of this. Especially we want as many ARES and RACES members as possible to help. In a disaster there will be a place for everyone, you do not have to be a member of ARES or RACES to join in this exercise or to participate in a disaster.

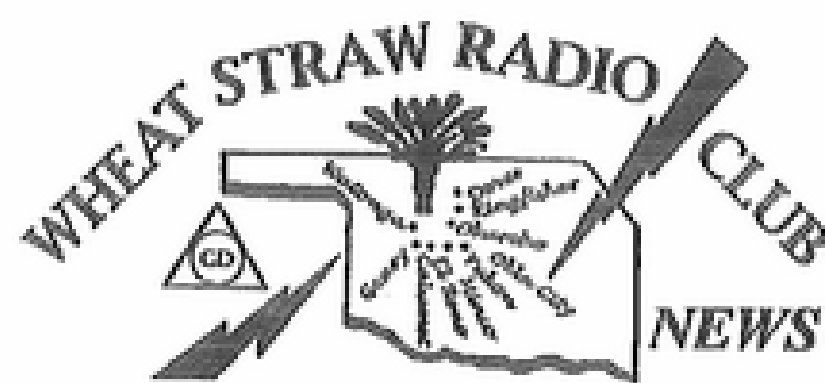
I recently stated at a club meeting, that since there are so many that go to field day, it seems to me we would have many more than we do helping with these drills. We also need more involvement in the weekly nets that are for accomplishing the same objectives. We will be looking for you. Our S.E.T. Exercise will start 0900L Saturday, October 8th 1994. All stations should monitor and check in on the 146.22/82 repeater and stand by for further assignment.

Jim L. Jones, K5PER
Oklahoma County EC
634-5235

ANNUAL SIMULATED EMERGENCY TEST OCTOBER 8th 1994

QST, QST, QST All Amateur Radio Clubs and all members of respective clubs. Many of you joined in on the action at several field day sights. That occasion was a great time for socializing in eyeball QSO's, I think indulging in all the good food was a top priority, as well as QSO's on the airwaves. I would not minimize any of the





Wheat Straw August Meeting

The annual dinner, and August meeting was held August 14, 1994 at the Canadian shelter at the shore of Canton lake. The cool front had partly gone through, leaving at times a little bit of mist.

There were thirty nine folks present for dinner and the meeting. We had five Park Rangers as visitors. Jim Beierschmitt works as a Ranger through the summer months, and is the high school principal at Gage, OK.

John Dudley is a US (GS?) 9 Park Ranger. Ray Robertson and David Louthan are new Rangers; both are graduates from North Western State College. The other Ranger had to go before I could speak with him.

The Rangers showed us a film on predators, and the advantage of their being. They are not known to kill except when they are hungry. People in the group who enjoy nature sure did enjoy the mountain scenes.

After the film was over, the Rangers played a game with four volunteers from the club. Each had the name of one of the predator animals seen in the film. Each of the four, one at a time, turned his back to the other members, who asked questions that could be answered with yes or no. This went on until the person could guess what his animal's name was. It was a lively game.

The widow of Richard, N5AUA, donated some ham items to the club. Someone made a bid on an item, so Vice President Leo, WZ5H, just auctioned each of the items off. We appreciated the gift.

The club celebrated Jim Williams, K5VRL's birthday by singing happy birthday to him.

The September meeting will be held Sunday, September 11, at 2:30 p.m. It is

planned to be at the City Hall in Calumet. Drive south from the stop light one block and then turn west and go half a block. The City Hall is located on the north side of the street.

Johnny Fish, K5GBN, will be net control for the next month.

I hope I do not put anyone in a bind, but the meeting was this afternoon, August 14. It is impossible to get mail out and delivered in OKC by the 15th. I will try to do things differently next month.

Wheat Straw September Meeting

Meeting was called to order at 2:20 by president Joe, WA5GHK, with twenty four members present. Joe called for self introductions.

Sickness: Jane, N5NZU, from Weatherford, is in the Presbyterian hospital, room 767. She is taking treatments and the family requests your prayers.

It was also reported that Stu Kennedy is in a hospital but I did not find out where. We may find out on the air.

Secretary, Joe, WA5FLT, read the minutes of the August meeting. They were approved as read.

Johnny, K5GBN, gave a technical committee report on the repeater. He said, "There is a background noise part time which has not been found and the SWR is high on the antenna." The tower needs someone to climb it and check it out. The transmitter is still putting out 50 to 58 watts. That is about what the transmitter is set for. Other than that, no problems found.

All present were asked to sign two get well cards, one for Jane, N5NZU, and other for Stu Kennedy.

There was no old business.

New business: Christmas dinner was the first subject. Tom, N5IKN, made a motion that the club go back to the End-O-Main to eat. The motion was seconded by Ray, K5LLX. During the discussion Wanda,

KC5GTW, wished to eat somewhere else. In the discussion it was decided that Ralph, WA5PFK, would check with the End-O-Main for prices and availability. Joe, WA5GHK, is going to check a restaurant in Kingfisher, then we will decide.

Voting for the October meeting: It will be at Eischen's Bar in Okarche. Instead of being on Sunday, October 9, it will be Saturday, October 8. Dinner will be served at 1:30 p.m. Chicken for every two persons. Wanda, KC5GTW, will make the arrangements.

After a call or two for the next month's net control, Ralph, WA5PFK, volunteered. Tom, N5IKN, said he would help when needed.

The Wheat Straw has some code tapes that can be copied if anyone can use them.

Reports are that Leo, WZ5H, is thinking of starting another radio school. Leo is out of pocket for verification right now.

Before the meeting adjourned, Joe, WA5FLT, showed a twenty minute tape titled, *The History of the Telephony*. When the telephone was being invented it was envisioned as a service, not a product. If it could be invented it would be considered an improvement over telegraphy.

After two years, or so, the telephone uses shot up and gave a lot more people jobs. Congress put the phone under the Telecommunications Act. As development continued the phone was used in World War I from ground to air. On January 15, 1915, the first coast to coast phone call was made.

The president used it to keep in contact with the armed forces, and with Pearl Harbor.

In 1934, the FCC was formed under the Department of Commerce for regulation of telephone use.

It is an interesting film to see if you get a chance.

The meeting adjourned for refreshments such as home made ice cream, cakes of sev

eral kinds, Joe's famous hot sauce that he made, and chips and fresh vegetables. There was lots of fellowship enjoyed by all.

Ralph, WA5PFK

C&E Reporting

I was getting discouraged about the CORA C&E and thinking about resigning as Wheat Straw reporter.

When I got the August issue I was surprised. I wish to thank Harold, KB1ZQ/5 for accepting the Editor's position. He started off with a bang. The issue is a good one, with interesting articles, and a table of contents. It is the first time pages have been numbered, that I can recall. And, I enjoyed the comments from the YLs and XYLs. My wife read the chit chat and enjoyed it. I think this was the first time she commented about the C&E.

Now all you club members do have an article for your reporters. Give your reporters something to write about.

Back in the early 1950s I remember the Willard Battery Co. slogan, "Through service we grow," and I still believe that.

Many thanks go to Joe, K5JB, for his services to the C&E, and to past Ham Holidays, and above all for the memorial he wrote for Joe, WA5ANF, and Frances Harding. Their love and loyalty will forever be remembered.

Madstone for Rabies Treatment

When I was a child living in East Texas, I remember the parents talking about mad dogs and madstones. My uncle had left a small dog with us for a while. One evening, just at suppertime, the dog jumped up and bit my brother, who was just a little older than I. The dog bit him high on the calf of his leg. The dog would not turn loose; the older boys tried to beat him loose, but finally had to kill the dog.

I read an article written by Mae C. Harman, about the madstone. Mae wrote that in about 1910 her cousin got bitten by a rabid dog. (The Pasteur treatment was yet to come.) Someone told the family that a man about five miles down the road had a mad-

stone. The only transportation was a team and wagon owned by her father. Her father took Mae and her cousin to the man with the madstone.

Mae said that she, "...did not remember if the stone was boiled in milk or not. (It could have been.) The stone was placed on the wound and left until it fell off." It was then put in a bowl of milk, and the milk turned green. This process was repeated until the milk quit turning green.

It must have worked because the boy had no ill effects and lived to be an old man.

There is a question where these rocks came from, and what the geological name of this grey sponge like rock would be. Who knows how many other remedies of nature are out there?

(Ed: Madstones were solidified hair balls that came from stomachs of ruminants. K5JB)

ARRL August 29 News Letter

Slates Set for ARRL Elections

The nominating period for the offices of ARRL Director and Vice Director in eight divisions is closed. The election committee has certified the eligibility of the candidates without any opposition. The election committee declares the nominated persons elected.

Congratulations go to: Tom Comstock, N5TC, who was reelected West Gulf Division Director and to Jim Haynie, WB5JVP, who was re-elected Vice Director.

Hurricane Season Frequencies Listed

3815	Inter-Island 75 meter Net
7165	Antigua/Antilles net
14275	Amateur Radio/RedCross
14283	Health and Welfare Traffic
14303	Health and Welfare Traffic
14316	Maritime Mobile Net
14325	Hurricane Watch Net
21310	Health and Welfare (Spanish)
14185	Caribbean Emergency
7115	Caribbean Maritime Mob. 120Z
3808	Caribbean Weather (1030Z)
21390	Interamericas health and welfare
21400	Transatlantic Maritime Mobile

7208 Waterways

(The ARRL Net Directory lists many state and regional related traffic nets.)

D.C. Group Plans World Radio Event

Amateurs in Washington plan to sponsor a World Radiosport Team Championship in July 1995.

It would be patterned after the WRTC held in Seattle in 1990. Radio event "WRTC-95" will be held within the IARUHF Championship contest held annually in July.

If you wish to enter, you must send an application not later than December 31, 1994. The application can be obtained by writing to: Eric L. Scace, K3NA, and Howard Leake, W6AXX, the administrative office, in care of Hayman Systems, 14700 Sweitzer Lane, Laurel MD, 20707-5905. (fax: 301-470-1580)

From the W5YI Report

Insurance for Hams by Hams

is a slogan of a new amateur radio insurance plan underwritten by the Great American Insurance Group. The program was developed by Bill Hill, W3IBT, a ham for 38 years. The program that Bill has put together has no membership fee. The cost at this time is 1.5% of insured value. The deductible of \$50.00 is lower than most home owner's plans. There is a minimum premium of \$25.00. Anyway it may be worth looking into if the plan continues to develop.

Outstanding Public Service

FCC San Diego office Engineer Jerome V. Man, K9AAH, was honored at a ceremony held at the FCC in Washington D.C. on June 27. Jerome was awarded the FCC's 1994 Catherine Forster Public Service Award for saving a person's life in distress. Using a sophisticated radio direction finder he guided the Coast Guard to the scene.

Remember

Remember thou shall not ration justice. Law, order and justice is for all.

Ralph, WA5PFK



VHF Club NEWS

W5LOW
Elmer Gueckler Memorial
Station

Minutes of August Meeting

Meeting was called to order at Neighbors Family Restaurant at 12:00 p.m. with 13 members and guests present. The secretary read the minutes from the July meeting. Treasurer Ellard, W5KE, gave his report. Both the minutes and Ellard's report were accepted by formal motion. Ellard also announced that he had an enjoyable visit with Pat and Jerry Wetmore, KD5IS, at their home in Eagle Nest NM July 15.

The August watermelon fest will be at the Bethany Lyon park August 26. The Aeronautical Amateur Radio Club is buying the watermelons and we are paying for the shelter.

The wiener roast will be at Bethany Lyon park September 16. Since the C&E won't be out in time a calling committed of Fred, W5NL, and J.R. (Bob), KB5WVE, will try and notify members.

With that taken care of we adjourned at 12:11 p.m. Joe, K5JB, Secy

More about Joe, W5YPN

Ken, WA5DTL, was kind enough to send me the following message with interesting tales about Joe, McKinzey, W5YPN, who passed way July 21, 1994. I mentioned in last month's C&E that I didn't know much about Joe. Here is Ken's message:

Hi Joe, I just read about Joe W5YPN in the C&E, and hated to hear about his passing. I have known Joe since I got my novice in July 62. I was a freshman at Northwest Classen HS and lived at 4805 N. Independence. I met Joe while throwing a paper route from 39th to 43rd. He was on my route. I remember walking by his house and seeing his garage door open and seeing old Hammerlund and other brands of equipment. He used a vertical on the side of the house and had a capacity hat on the top, because his favorite band was 75m AM. Joe,

the reason he was well versed about air conditioning, is he and Mr. Bates were in the business together. They had a company on Main, east of Penn. called Bates and McKinzey's Refrigeration Service.

Mr. Bates also had a son named Danny, who got his novice and held the call WA5DTM. As you can see, we must have been in the same testing session, ha. I used to work for Joe during the summer and used his car to pick up parts around the downtown area.

I remember during one trip, turning on his radio which was crystal controlled on 3825 kHz. I called CQ and can't remember whether I made a contact or not, but when I returned to the company, Joe mentioned that he had a receiver in his office and heard me and said to leave it off. I was sure embarrassed. har.

Danny Bates later changed his call to a new 1x2 or some such, and is living in Houston, TX. He gets on 82 from time to time on his trips to Okla. City. When I left home and got married I lost touch with Joe, except for seeing him at past Ham Holiday's and maybe catching him on 146.82 or 75m SSB.

CUL sir 73 de Ken WA5DTL

I thanked Ken then and thank him again here for taking the time to fill me and the C&E readers in on Joe. Joe, K5JB

Starset Modification for Radio

This article was originally published in January 1982, and was specifically written for the Icom IC-2, which was current at the time. Hal, KB1ZQ, showed me a couple of Plantronics Starset headsets he owns and indicated that modification instructions would be interesting to him. He said that they are showing up in flea markets from time to time. The model he owns is the supervisor's model which already contains a handy-dandy push to talk switch. The model covered by this article is the ordinary telephone operator's model. Plantronics Starsets are the headphones that hang on the ear, have a flexible tube leading to an ear plug, and have an adjustable voice tube that the operator positions alongside the mouth.

They are usually beige in color, and come in a blue vinyl carrying pouch.

The original article began with a reference to an October 1981 *ham radio* magazine article, but it is unlikely many of you will be able to get your hands on that one. That article showed ways to provide current to power the Starset's electronics. We pick up from the original article:

Since the Icom IC-2 family of radios have a novel microphone circuit (current source is available at the hot mike lead and drawing current keys the rig) adapting Starset type headsets is very simple. Also, describing the modification doesn't take long.

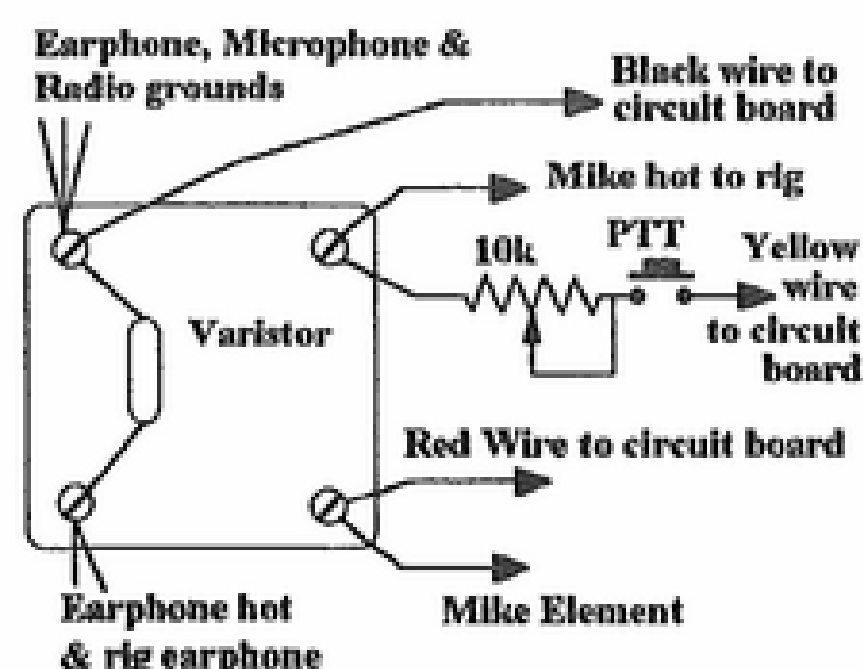


Fig. 1 Terminal Block

First order of business is to open the little box containing the quarter inch two phone plugs. Disconnect the wires and remove these plugs. They can be stashed in the junk box for another project. Remove all the rest of the wires going to the terminal block. The terminal block will be used to reconnect the wires in the new configuration. For convenience of explanation, I assigned wires to the terminals as shown in Figure 1. Some wires will have to be lengthened. Rearranging terminal assignments may reduce the problem but it is hardly worth the bother.

Notice how the little sleeves are used on the screws bolting the box together. Be sure and reinstall these sleeves the same way to prevent shorts. Figure 2 shows the configuration of the circuit board. In the *ham radio* article three of the diodes are removed but this is unnecessary. Besides it takes longer to describe. Notice the four wires attached

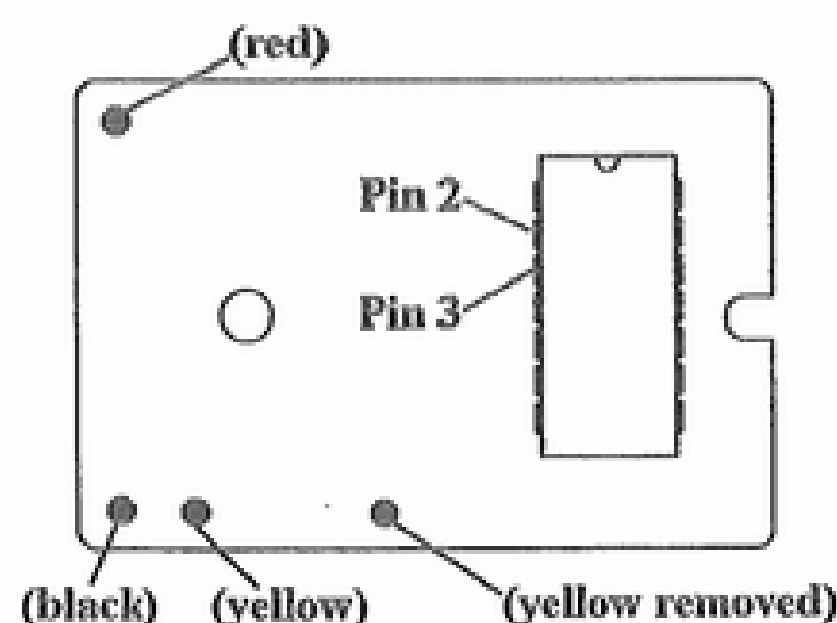


Fig. 2 Circuit Board

to the circuit board, two yellow ones, a red one, and a black one. Now, two yellow ones would sure be confusing, so remove the one along the edge of the board, as indicated in Figure 2. Find pin 2 of the IC. On the foil side of the board solder a jumper from pin 2 to pin 3. This will ground one side of the balanced output.

The function of each of the three remaining wires is now:

Red wire is audio input.
Black wire is ground.
Yellow wire is audio output and + power.

The box can now be prepared for a momentary contact, normally open, push button switch (PTT) that will be wired as shown in Figure 1. I found it convenient to locate the PTT switch in one of the holes left by the phone plugs. I placed a washer under the nut to permit tightening the switch to the case half of the box. The lid secures the installation. In my model, I ran the cable for the headset through the other hole vacated by a phone plug. I selected grommet that would make a snug fit to the cable and with some lacing cord, made it even "snugger". Anchoring these cables is very important because they will get jostled about and cause nothing but misery if short or open circuits appear when you are demonstrating your "toy".

It will be necessary to find a suitable length of cable to make the reach from the box to the rig. I found a pretty flexible piece of coiled cord that had shielded wire for the microphone audio. I fed one end into the hole vacated by the headset wire and treated with the snug grommet trick. I connected

the other end to a couple of phone plugs, a miniature one for the earphone jack and a subminiature one for the microphone jack. This cable should be long enough that the rig will not be too close to the headphone's electronics or RF pickup could be a problem. I have not found it a problem with the IC-2 but I didn't make a practice of "goosing" the thing with the antenna while transmitting. On some of the other radio equipment, I had to shield the interior of the box, but that is a different modification story.

The 10k pot, wired as a rheostat, shown in Figure 1, could be replaced with a fixed resistor if one knew what the value should be. I placed a ten-turn pot behind the PTT switch and held it in place with the wire connecting to the switch. After everything was wired I adjusted the thing to get proper level on the transmitter.

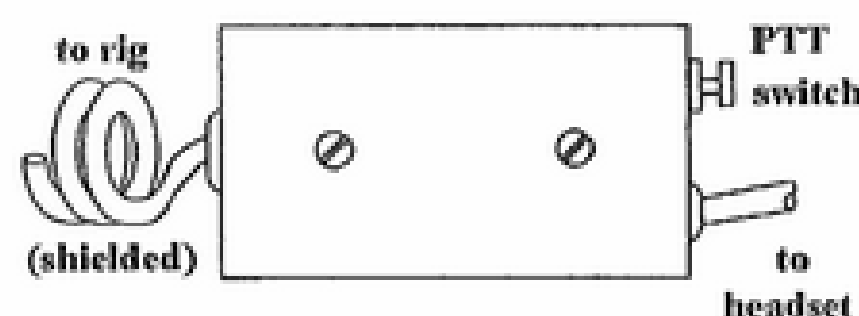


Fig. 3 Cable Layout

With the lid installed, the box looks like Figure 3. There is no reason yours has to look like mine though, so feel free to be creative. An alligator clip can be glued to one side of the box so it can be attached to a belt or belt loop. The box should be hooked on the opposite side of the body from the radio to improve RF isolation. I found that while driving, a nifty way to operate was to lay the radio on the dash of the car and clip the box to a crease in my trousers. This put the PTT switch within easy reach. I used hot glue to attach the clip to the box.

When one uses this particular model of Plantronics headset, a peculiar effect will be noticed by listeners and the reports one gets are sometimes disconcerting, or at least, interesting. When sound pressure level to the headset microphone is below a certain level, 12 dB attenuation is inserted by the IC in the box. Eight milliseconds after sound level rises, the 12 dB attenuation is 63% switched out. This is pretty fast attack time. The decay however, takes 275 ms after

speech stops. This has the effect of cutting background noise by 12 dB after a speech pause. Have someone try to explain that to you sometime on the air!

If someone wants to connect one of these things to another type of rig he might give me a call. There are so many variables it is difficult to cover many of them here. If there is sufficient mike gain in the rig, it may be possible to eliminate the amplifier altogether. If not, it is necessary to supply a current source to the amplifier to simulate the telephone line for which it was designed. Have fun! Joe, K5JB

Wireless?

Anyone who thinks radio is wireless ought to look behind my desk! Or, take a look above my roof!

Joe, K5JB

75M Weather Net

I overheard O.C. WA5OUV, asking for some help on the daily weather net that meets around 6:00 p.m. on 75M (I think on 3900 kHz). He particularly needs logging stations in the Oklahoma City telephone calling area who can relay the weather reports to the National Weather Service. Check with O.C. if you can help. Joe, K5JB

Thought for the Month

Once upon a time, a lion ate a bull, and he felt so good that he roared and roared. Upon hearing the lion, a hunter came and killed him with one shot.

Moral: When you are full of bull, keep your mouth shut
Ralph, WA5PFK

Effortless Answers

Father, while helping his son cram for a test: "Harold, do you know who built the ark?"

"No...ah..."

"Correct, what is used to conduct electricity?"

"Why...er...."

"Right again, now what is the unit of electrical power?"

"The...what?"

"Well done, young man! I can see you have been studying."

Ralph, WA5PFK

S. C. A. R. S. NEWS

South Canadian Amateur Radio Society

MONTHLY MEETING

The September meeting for SCARS was held on Sept. 10th at the Red Cross in Norman. About 35 members were present when Mike, N5SOF, called the meeting to order at about 9:38 a.m. VP Mike chaired the meeting because Don KJ5KB, was out of town.

VP Mike had each member present introduce themselves and if they had an item to sell or buy do it at that time. I guess Bill, K5KDR, got his bee problem taken care of as he didn't ask for any free advice.

CORA Report

CORA report was given by Don, K1STP. Don mentioned that it was important for the representatives from SCARS to attend the monthly meeting as new officers were going to be elected and also mentioned that anyone and everyone is invited to attend these meetings, which are held at the Salvation Army at N. 50th and Penn. Call Don for time and date.

VE Examinations

VEs were present to give tests for anyone that needed to upgrade or go for their Novice test. It was mentioned that everyone should have a look at their expiration date on their ham license and don't let them expire. There is a two year period after they expire before you have to take the tests all over again. Ed, N3US has volunteered to have a cw class after each meeting to teach the dreaded code. Ed said he would start with 1 word a minute and work up to 13 wpm or whatever. So if anyone is interested, stay late after next month's meeting and start learning the code.

As everyone knows, we have had our share of troubles with the intown receiver and the repeater itself and even the UHF repeater gave us some problems. Ken, N5BEW, should be given a vote of thanks

Collector and Emitter, September 1994

and a pat on the back as he worked hard to get the repeater back on the air. The intown receiver is up and running at Ken's house and still needs some fine tuning, but Ken took a short vacation and with Don gone, it will be some time before we can re-install the receiver on top of the stadium.

FINANCIAL REPORT

When Bill, N5UMH, gave the monthly report, he did mention that the club's kitty was getting kinda low and that dues are due the 1st of December and that we still have some bills that are due and SCARS might run low. We might have to have a fund raiser to finish out the year, and that it is important for everyone to pay his or her dues on time. Now I do realize that this is only September, but we still have several months left and several bills due.

Mike, N5SOF, had stopped by the tag agent and picked up some forms for ham plates, so if anyone is interested, talk to Mike.

Ed, N3US, also mentioned that the packet cluster station was back up and running again on freq. 144.910. Ed pointed out the advantages of connecting to the station and what a boost it was to DXing.

NEW COMPUTER

The club's computer was delivered by Howard, N5HZU, Bill, N5UMH and Keith, KB5FCI on Friday the 9th of Sept. All programs are loaded that we might need and still have plenty of space left on the hard drive.

DOOR PRIZE?

Since no one was really interested in this month's door prize, it was voted on to donate it back to the club. Meeting was adjourned at 10:07 and a few of us left immediately for the candy store to look at all of the radios that Icom had on display.

-30- Keith, KB5FCI

-----ANNOUNCEMENTS-----

VE exams on 3rd Monday of each month sponsored by C.O.R.A. 1800 @ Salvation

Army HQ at NW 50th and N. Penn, Oklahoma City.

VE exams on 3rd Saturday of each month are held at 0900 in Math Science building at Rose State College in Midwest City.

VE exams on 1st Sunday of each month sponsored by M.O.R.I. 1400 @ radio station KOMA, 820 SW 4th Street, Moore, OK

VE exams on 4th Tuesday of each month are held at 1800 in the Shawnee Public Library, 101 N. Philadelphia.

VE exams on 2nd Saturday of each month sponsored by SCARS are held at 1000 at Red Cross in Norman.

VE exams on 4th Saturday of each month are held times are 1830 for code and 1900 for theory, at the Wilson Center in Altus, OK.

Amateur Radio licensing classes sponsored by Edmond Amateur Radio Society starts September 25, 1994 at St. John's Catholic Church (9th and Litter, Edmond) at 2:00 p.m. Contact Frank Tassone 341-1124

Hams on the Southeast side of Oklahoma City meet at various locations for lunch on Tuesdays from 11:00 - 12:00 a.m., to find out where they meet listen to 146.22/82.

Hams from all over Oklahoma City meet at various locations for lunch on Thursdays at 11:00 a.m., to find the lunch location of the day listen to 146.22/82.

Hams from around the central Oklahoma area meet Fridays at 7:00 for supper, coffee, friendship and overall story telling at the Skyline Restaurant on 15th and Eastern in Oklahoma City.

MORI sponsors a transmitter hunt each week, alternating between north and south Oklahoma City at 7:00 p.m.. The hunt frequency is 147.470MHz. Check on the 146.07/67 machine for the hunt announcement.

Newsline

News from around the world courtesy of
Amateur Radio Newsline.

ARRL SAYS NO TO P5RS7

If you made one of ham radio's rarest contacts with a 1992 to 1993 P5RS7 DXpedition claiming to be in North Korea here's news you may not want to hear. The American Radio Relay League says contacts from that event will NOT receive credit under the League's DX Century Club, or DXCC, program. League officials cite discrepancies in documentation submitted by DXpedition organizer Romeo Stepanenko, 3W3RR.

This is a big disappointment to DX chasers, North Korea has no amateur radio activity. When the DXpedition was organized, tens of thousands of hams saw this as a rare chance to snare a contact with one the most sought after countries in the world. Now those hams are being told, it doesn't count.

The decision to refuse credit is not a big surprise to many DXers. Questions about proper documentation were raised shortly after the DXpedition ended in January, 1993. The League sez documentation supporting the DXpedition did not establish that North Korean authorities granted operating permission. And again according to the League, the documentation fails to establish whether the operation actually took place in North Korean territory. It's not the kind of decision DXer Bob Russell, W4DZZ, wanted:

"Oh, I hate to hear it, I really do." Russell, W4DZZ.

At the center of controversy is Romeo Stepanenko, an enigmatic amateur radio operator whose worldwide activities are frequently shrouded in mystery. Nine days before the League announced its decision refusing DXCC credit, Romeo 'poke with Newsline while attending the Huntsville, Alabama Hamfest. He says he operated from two North Korean military bases. "I operated from North Korea from

December of '92 to January '93. It is very hard DXpedition and we made around 35,000 contacts." Stepanenko, 3W3RR. Stepanenko sez getting permission was no simple task.

"Is very long story. I made the submission four years long. I talked with around 200 guys in Northern Korea, in Russia and everywhere and I keep all those guys together, all the information together and I pay some money." Stepanenko, 3W3RR.

Bob Russell is frustrated at losing out on being able to claim a rare ham radio contact, but he supports the League's decision:

"If he did not in fact have proper documentation and did not conduct that thing according to all the rules then I say that is the way it ought to be." Russell, W4DZZ.

Dave Cisco, W4AXL, has a card recognizing his contact with Romeo's North Korean operation. Now, Cisco sez, that card has a lot less value:

"Well I was hoping, certainly since I took the time and effort then to work it, I was hoping it would count. But, there'll be another time." Cisco, W4AXL.

Not everyone is as supportive of the DXCC decision as those in the south-east. On the west coast the refusal to certify P5RS7 for country credit is causing some DXers to be openly critical of the DXCC program and the American Radio Relay League. They say that it's the ham community and not the DXCC desk that determines country status.

They say that they waited years for someone to put North Korea on the air and regardless of how it came about, they want it accepted by the League and their QSL cards accepted for DXCC.

FINES WILL BE COLLECTED

The FCC will continue to issue and collect fines against regulatory violators in various services including land mobile, citizens band, emergency services and Amateur

Radio. This, even though a federal appeals court has ruled that the practice of issuing base forfeiture fines in other telecommunications services is illegal on constitutional grounds.

On July 14th, A Washington, DC Court of Appeals ruled the FCC's revised method of assessing fines against broadcasters, cablecasters and telephone companies was improper because those most affected by the 1991 change had not been given time to comment on it before the regulation was enacted. The court said that the FCC knowingly failed to give all interested parties the opportunity to comment on the policy change before it was adopted. Since the base monetary forfeiture amounts in all services were raised simultaneously, it was expected that all outstanding fines based on the new rates would be canceled or placed in limbo.

But that's not the case. Washington insiders say that the FCC appears to be taking a very narrow view of the Appeals Court decision. While it may be unsure what it will do in regard to broadcast, cable and telephone related violations, the FCC appears to have decided that the decision affects these services only. The bottom line appears to be that the Commission will continue to issue very large monetary forfeitures based on its 1991 revised schedule in all services not directly covered in the Appeals Court decision. This means that at least a half dozen hams facing major fines will have to pay up or take the matter into the federal courts.

LACK OF DIVERSITY

The Federal Communications Commission has revised its rules to give minorities and women a better chance to bid for a new crop of wireless communications licenses, including two-way paging and messaging services.

The new plan is designed to make it easier for minorities and women to acquire new wireless communications licenses. It responds to complaints that the original rules were not adequate. Under the arrangement, minority and female owned companies will be entitled to a 40 percent bidding credit, rather than the existing 25 percent. That means a company would

ORSI Repeater List

September 4, 1994

OUTPUT LOCATION RPCALL AREA

29.640 Tulsa	WB5VXK TULSA	146.775 Mounds	WB5NJU TULSA
53.050 Mustang	KB5XM OKLAHOMA CITY	146.790 Ardmore	W5BLW SOUTH CENTRAL
145.110 Ardmore	KD5XW SOUTH CENTRAL	146.790 Altus	WB5KRH SOUTHWEST
145.110 Tulsa	N5RFX TULSA	146.805 Lawton	N5PYD SOUTHWEST
145.130 Chouteau	WA5NKR NORTHEAST	146.805 Tulsa	WA5LVT TULSA
145.130 Chickasha	WA0AQO OKLAHOMA CITY	146.820 Oklahoma City	K5JL OKLAHOMA CITY
145.150 Edmond	WA5CZN OKLAHOMA CITY	146.835 Tulsa	N5OHM TULSA
145.170 Tulsa	N5NNF TULSA	146.850 Muskogee	W5EJK EAST CENTRAL
145.190 Purcell	WB5RAP SOUTH CENTRAL	146.850 Oklahoma City	W5PAA OKLAHOMA CITY
145.210 Levi Mountain	W5TQE EAST CENTRAL	146.865 Thomas	KB5TOO WEST CENTRAL
145.210 Oklahoma City	N5VYC OKLAHOMA CITY	146.880 Norman	N5MS OKLAHOMA CITY
145.230 Liberty Mounds	N5XBE NORTHEAST	146.880 Tulsa	WA5LVT TULSA
145.230 Blackwell	N5ANV NORTH CENTRAL	146.895 Miami	WB5OKX NORTHEAST
145.230 Davis	N5ZHC SOUTH CENTRAL	146.895 Ada	KA5CXT SOUTH CENTRAL
145.250 Pawhuska	KY5J NORTHEAST	146.910 Lawton	W5KS SOUTHWEST
145.270 Tulsa	N5FWX TULSA	146.910 Broken Arrow	WA6HNO TULSA
145.290 Enid	W5HTK NORTH CENTRAL	146.925 Oklahoma City	N5VYC OKLAHOMA CITY
145.310 Blackwell	WB5MRE NORTH CENTRAL	146.940 Enid	K5BBI NORTH CENTRAL
145.310 Lawton	N5VBP SOUTHWEST	146.940 Tulsa	WA5LVT TULSA
145.330 Oklahoma City	WN5J OKLAHOMA CITY	146.970 Ponca City	W5HZZ NORTH CENTRAL
145.350 Stillwater	WB5KQL NORTH CENTRAL	146.970 Ardmore	N5AO SOUTH CENTRAL
145.370 Nowata	K4RGV NORTHEAST	146.985 Pawhuska	KY5J NORTHEAST
145.370 Oklahoma City	N5KUE OKLAHOMA CITY	146.985 Oklahoma City	W5NZS OKLAHOMA CITY
145.370 McAlester	W5CUQ SOUTHEAST	147.000 Anadarko	WA5ERM SOUTHWEST
145.390 Shawnee	W5SXA OKLAHOMA CITY	147.000 Tulsa	NE5Z TULSA
145.410 Poteau	N5NHU EAST CENTRAL	147.000 Tulsa	NE5Z TULSA
145.410 Oklahoma City	K5VFN OKLAHOMA CITY	147.015 Seminole	W15F EAST CENTRAL
145.430 Atoka	WB5VUE SOUTHEAST	147.030 Oklahoma City	WD5AI OKLAHOMA CITY
145.430 Sapulpa	KF5YP TULSA	147.045 Cyril	KB5LLI SOUTHWEST
145.450 Fairview	WK5V NORTHWEST	147.045 Tulsa	N5RFX TULSA
145.450 Owasso	N5FER TULSA	147.060 Pryor	KB5ZB NORTHEAST
145.470 Broken Arrow	AB5M TULSA	147.060 Norman	N5BEW OKLAHOMA CITY
145.490 Oklahoma City	WA5CZN OKLAHOMA CITY	147.075 Stone Bluff	N5OHM TULSA
145.490 Antlers	K15KC SOUTHEAST	147.075 Fairview	WK5V NORTHWEST
146.610 Cahunet	K5GDE OKLAHOMA CITY	147.090 Claremore	N5OK NORTHEAST
146.610 Hugo	KB5JTR SOUTHEAST	147.090 Choctaw	AB5H OKLAHOMA CITY
146.625 Holdenville	WB5OFC SOUTHEAST	147.105 Guthrie	KA5EOS OKLAHOMA CITY
146.640 Cavanal Mtn	N5ZS EAST CENTRAL	147.105 Hitchita	K5KW EAST CENTRAL
146.640 Kingfisher	WD5GLD OKLAHOMA CITY	147.120 Fort Supply	N5TBX NORTHWEST
146.640 Granite	W5CHE SOUTHWEST	147.120 Tulsa	K5EXF TULSA
146.655 Bartlesville	W5NS NORTHEAST	147.135 Broken Bow	N5UWT SOUTHEAST
146.655 Coalgate	KA5CXT SOUTHEAST	147.135 Edmond	KA5WIS OKLAHOMA CITY
146.670 Oklahoma City	N5VYC OKLAHOMA CITY	147.150 Enid	W5HTK NORTH CENTRAL
146.685 Eufaula	W5JDH EAST CENTRAL	147.150 Guymon	KY5C PANHANDLE
146.700 Oklahoma City	KN6UG OKLAHOMA CITY	147.150 Arbuckle Mtn	N5ZHC SOUTH CENTRAL
146.700 Tulsa	WR5AFW TULSA	147.165 Shawnee	WN5Z OKLAHOMA CITY
146.715 Stillwater	W5YJ NORTH CENTRAL	147.180 Lawton	KB5ZSX SOUTHWEST
146.730 Woodward	WA5PLW NORTHWEST	147.180 Tulsa	WD5EVU TULSA
146.730 Duncan	WDSIYF SOUTH CENTRAL	147.195 Seminole	KD5VQ OKLAHOMA CITY
146.730 Clayton	WA7WIY SOUTHEAST	147.210 Oklahoma City	K5JL OKLAHOMA CITY
146.745 Muskogee	W5EJK EAST CENTRAL	147.225 Okmulgee	W5GA EAST CENTRAL
146.760 Bartlesville	W5NS NORTHEAST	147.240 Tahlequah	N5SDP EAST CENTRAL
146.760 Oklahoma City	KB5XM OKLAHOMA CITY	147.240 El Reno	KG5AA OKLAHOMA CITY
146.760 Elk City	WB5FBU WEST CENTRAL	147.255 Stillwater	K5FVL NORTH CENTRAL
		147.270 Pawhuska	N5ZQW NORTHEAST
		147.270 McAlester	N5JMG SOUTHEAST
		147.270 Anadarko	WG5M SOUTHWEST
		147.285 Ada	WB5NBA SOUTH CENTRAL

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147.300 Bixby	WD5EVU TULSA	443.850 Lawton	W5KS SOUTHWEST
147.300 Lone Grove	WA5BUP TULSA	443.900 Oklahoma City	AD1S OKLAHOMA CITY
147.320 Newcastle	WB5EDN OKLAHOMA CITY	444.000 Del City	WR5G OKLAHOMA CITY
147.330 Muskogee	WA5VMS EAST CENTRAL	444.000 Broken Arrow	WA6HNO TULSA
147.340 Oklahoma City	WD5AII OKLAHOMA CITY	444.100 Oklahoma City	N5VYC OKLAHOMA CITY
147.345 Tulsa	NE5Z TULSA	444.100 Altus	WD5BBN SOUTHWEST
147.360 Vinita	WA5ICW NORTHEAST	444.100 Tulsa	WA5LVT TULSA
147.360 Sharon	NC5C NORTHWEST	444.150 Newcastle	WB5FWE OKLAHOMA CITY
147.360 Chandler	WB5EDN OKLAHOMA CITY	444.200 Oklahoma City	WD5AII OKLAHOMA CITY
147.360 Lawton	W5KS SOUTHWEST	444.200 Tulsa	WB5ISN TULSA
147.375 Enid	N5HEL NORTH CENTRAL	444.250 Chouteau	WA5NKR NORTHEAST
147.375 Texhoma	W0PFJ PANHANDLE	444.250 El Reno	K5LDL OKLAHOMA CITY
147.390 Forgan	N5AKN PANHANDLE	444.300 Oklahoma City	K5JL OKLAHOMA CITY
147.390 Durant	KJ5OH SOUTH CENTRAL	444.300 Tulsa	K5LAD TULSA
147.390 Lawton	AB5J SOUTHWEST	444.350 Norman	N5KUK OKLAHOMA CITY
147.390 Tulsa	WB5NJU TULSA	444.350 Claremore	WA5VPO TULSA
224.060 Spencer	KI5CW OKLAHOMA CITY	444.375 Ardmore	KD5XW SOUTH CENTRAL
224.160 Chandler	WA5CZN OKLAHOMA CITY	444.375 Vinita	WA5ICW NORTHEAST
224.200 Oklahoma City	AH9B OKLAHOMA CITY	444.400 Enid	W5HTK NORTH CENTRAL
224.340 Muskogee	W5EJK EAST CENTRAL	444.425 Spencer	KI5CW OKLAHOMA CITY
224.440 Oklahoma City	K9KK OKLAHOMA CITY	444.450 Broken Arrow	WA5ICW TULSA
224.560 Talihina	K5QA SOUTHEAST	444.475 Cookson	W5TQE NORTHEAST
224.600 Durant	N5KFS SOUTH CENTRAL	444.500 Cavanal Mtn	N5ZS EAST CENTRAL
224.700 Norman	N5JBK OKLAHOMA CITY	444.500 Bethany	N5HIP OKLAHOMA CITY
224.760 Poteau Mtn	N0EOQ EAST CENTRAL	444.500 Fort Towson	KB5MGO SOUTHEAST
224.840 Edmond	N5PTE OKLAHOMA CITY	444.525 Coweta	NM5X TULSA
224.860 Poteau	WC5I EAST CENTRAL	444.550 LINDSAY	NF7T SOUTH CENTRAL
224.880 Oklahoma City	WN5J OKLAHOMA CITY	444.600 Hitichita	N5TZA TULSA
224.960 Edmond	WA5CZN OKLAHOMA CITY	444.625 McAlester	KA5BVP SOUTHWEST
439.250 Guthrie	KA5EOS OKLAHOMA CITY	444.650 Altus	WD5BBN SOUTHWEST
442.025 Pawhuska	KY5J NORTH CENTRAL	444.700 Ponca City	W5HZZ NORTH CENTRAL
442.100 Norman	N5TKS OKLAHOMA CITY	444.725 Tulsa	WV5T TULSA
442.150 Oklahoma City	KA5ETA OKLAHOMA CITY	444.750 Norman	N5KUK OKLAHOMA CITY
442.250 Oklahoma City	KG5AA OKLAHOMA CITY	444.775 Bartlesville	WD5DWT NORTHEAST
442.300 Tulsa	WD5EVU TULSA	444.775 Oklahoma City	N5KUE OKLAHOMA CITY
442.325 Oklahoma City	KJ5XB OKLAHOMA CITY	444.775 Dougherty	KB5CEN SOUTH CENTRAL
442.625 Oklahoma City	WB5ISN OKLAHOMA CITY	444.825 Enid	N5HEL NORTH CENTRAL
442.625 Sand Springs	WB5ISN TULSA	444.825 Duncan	WD5IYF SOUTH CENTRAL
442.700 Oklahoma City	W5PAA OKLAHOMA CITY	444.825 Okmulgee	KB5HDP EAST CENTRAL
442.850 Edmond	KB5SCG OKLAHOMA CITY	444.850 Oklahoma City	WA5CZN OKLAHOMA CITY
442.900 Edmond	N5PTE OKLAHOMA CITY	444.875 Woodward	WN5LUI NORTHWEST
442.900 Talhina	K5QA SOUTHEAST	444.900 Stillwater	K5FVL NORTH CENTRAL
443.000 Chester	WD5GUG NORTH CENTRAL	444.925 Laverne	N5TBX NORTHWEST
443.000 Tulsa	N5RFW TULSA	444.925 Oklahoma City	KB5XM OKLAHOMA CITY
443.100 Muskogee	WA5VMS EAST CENTRAL	444.950 Tulsa	WA5LVT TULSA
443.100 Oklahoma City	WN5J OKLAHOMA CITY	444.975 Guymon	KY5C NORTHWEST
443.150 Edmond	KA5WIS OKLAHOMA CITY	444.975 Kingfisher	WD5GLD OKLAHOMA CITY
443.200 Enid	WD5GUG NORTH CENTRAL	449.650 Chandler	WD5CIG OKLAHOMA CITY
443.300 Cleveland	WB5MPU TULSA	449.875 Tulsa	N5JZ TULSA
443.400 Tulsa	N5LWO TULSA	1282.100 Mustang	WB9VMY OKLAHOMA CITY
443.500 Oklahoma City	K5EBT OKLAHOMA CITY	1283.100 Oklahoma City	WN5J OKLAHOMA CITY
443.550 Oklahoma City	WD5CIG OKLAHOMA CITY	1284.850 Oklahoma City	WA5CZN OKLAHOMA CITY
443.600 Enid	WA5OUB NORTH CENTRAL		
443.700 Norman	N5BEW OKLAHOMA CITY		
443.725 Tulsa	N5WX TULSA		
443.750 Tulsa	N5FEK TULSA		
3.800 Tahlequah	WA6EAW EAST CENTRAL		
443.800 Ada	WB5NBA SOUTH CENTRAL		

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E. A. R. S. NEWS

Edmond Amateur Radio Society
Edmond, OK

Happy Fall to one and all ! As this is being written the day time temperatures feel Summer while the morning and evenings possess a late Fall about them. Boy, doesn't the Fall have a very uplifting-encouraging tone to it! What the Summer destroys, the Fall freshens and renews. Here is hoping your summer was tolerable, if not fun, while we look forward to those great Fall outdoor activities.

Ham Holiday 1994

As usual, I am a month or so in arrears, so I wanted to acknowledge the super time we all had at Ham Holiday '94. The registration was handled by Steve Hamlin, KG5IP, and family along with several EARS members who filled out the forms, handled the money, pointed in the correct direction and served as the Welcome committee. We used Lee's table for providing EARS membership information and equipment, of which, several found new owners. There is something neat about the visiting that occurs at Ham Holiday. Often, we see some of our friends there, which we do not see elsewhere. The new equipment dealers sure had some neat appearing antennas, equipment and text materials.

We see the interfacing of amateur radio and computers in such a setting as Ham Holiday. Many thanks to all the dealers, new and used, who continue to make our Ham Holiday a pretty darn neat place to be. Our friends at OK Comm Center appeared busy, productive and making plenty of new patrons. I enjoyed seeing my old amigo, Henry and his wife, Tina, of GLA Systems out of Caddo Mills, TX. Henry, WB5TYD, brings a Western frontier spirit to amateur radio that should remind us that our hobby is bigger than a duckie antenna. It was fun to see and visit with Chuck, K5NK, Dave, N5CG, and Frank, N5FM. Wonder why all those neat fellows have one by two calls ? We must give recognition to Jim, KB5YHT, for his

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weather seminar at Ham Holiday. Jim did a great job and we are glad he is an EARS member. It is people like Jim, who have special expertise, that make EARS a great group. Be sure and thank the workers who put on Ham Holiday so the rest of us can enjoy the fruits (ripe, but not too ripe) of their labor.

Speaking of Ham Holiday, EARS needs three representatives to C.O.R.A. (Central OK Radio Amateurs), the governing group which puts on Ham Holiday. The new year is starting which will culminate in Ham Holiday '95. CORA meets monthly to plan and organize all of the stuff that it takes to pull off a major hamfest. Be sure and get with club officers to express your interest in representing EARS in this endeavor.

Board Meeting

The latest Board meeting was held on 8-17-94 at the EOC with pretty standard agenda items discussed. All Board members were present (which nearly caused a celebration) to be advised the current EARS roster lists 99 club members which I believe is the high water mark of the year. Income for the month was based on membership dues while expenses were for (in descending order) battery back-up for the repeater, telephone monthly payment, and gift of appreciation. Discussion was held regarding the September 24th UCO parade and the September 25th CROP Walk. Substantial help is needed in each function to provide proper event coordination. Perhaps these events will be over by the time you read this and you were of momentous help having saved countless lives, ran hundreds of pieces of traffic and used up a near infinite number of talkie batteries but at least the event (s) were given recognition by the Collector & Emitter, if not, Larry King.

We also discussed the Yaesu 757 (Club Station) being repaired by Yaesu with expected return soon. It is getting close (be sure and use mouthwash for the next month or two) for 1995 EARS Officer election. Well actually, officer elections are held at the November business meeting. Have you noticed how frequently the word actually is being used now- I know, you actually had not noticed.

Dinner Meeting

On Friday August 19th, EARS had their dinner meeting at Johnnies Charcoal Broiler on Britton Rd. A large turnout of EARS constituents observed the missing food phenomenon a la DeMand. Gosh, what a surprise when a calamity occurs, SKA is always present. Ya want to know his partner in crime ? I will not give you trouble causer # 2's name, first or last. A hint is in order... we start with a ladder, do you know what those horizontal pieces you place your foot on as you ascend the ladder are called ? If you still need help, kindly contact N5DBM for clarification.

Jim, K5PER, presented a talk on AMSAT and ARES, as a means to generate interest in a variety of activity among EARS members. We appreciate you spending time with us that evening Jim, and bringing us up to speed on satellite communication and the amateur radio emergency service. Clarence, KB5RR, offered his rolodex type identification system for sale to EARS members as a fund raiser for the scholarship stipend. He received mucho orders and had to get out the Big Chief Tablet in order to keep with the demand (actually, request). Thanks to all those who came to the dinner meeting and showed support to your amateur radio club.

Miscellaneous

I just talked with John and Opal King and learned about John's neat CW contact with an Iowa station (KB0LOK). KB5BLE tells me the operator lived on a Iowa farm, was a nurse but would have to have significant levels of vitality to match John's. Sounds like a good contact to me, John. Keep up the good work ! KB5BUK advises me of the following October Birthday's for EARS members:

J.D. Keeling, KF5TM October 1st
Jana Thomason, N5KMJ October 16th
Kyle Granger, KB5KIU October 20th
Marlin McGee, N5LZF October 20th
Kathy Stearns, KB5KIJ October 21st
Dee Mize, WD5FHR October 25th
Ken Stepp, N5DBM October 28th
James Heathcock N5XCT October 31st

Opal, as always, it is nice to have you and John a part of EARS. Sue, N5VWI, was

kind enough to update me on new members. We are now into triple digits-100 members! New EARS members include:

Bill McMillan- KC5HQQ
Frank Morrison-WD5JAY
Ronald Quam- KC5IQF

Welcome to these new EARS members! We hope your affiliation with EARS is a productive-enjoyable time. Please contact any EARS officer in order to make your membership more enjoyable for you.

Upcoming Attractions

=>Saturday-October 1st, 12 noon, Siren Test-Contact Edith, KA5YPX
=>Wednesday-October 19th, 7 p.m. Board Meeting-Contact Lee, KA5WIS
=>Friday-October 21st, 6:30 p.m., Dinner Meeting. To be hosted by Clarence, KB5RR, and Marion.
=>Each Monday at 8 pm, EARS Information Net. 147.135 +
=>Each Saturday, 8:30 am coffee at Grandy's

73 de John, WB5SYT
EARS VP and Editor

C. A. R. S. NEWS

Cinnaron Amateur Radio Society

The meeting was called to order on the 1st September at 7:30 p.m. with five members present. Discussed what to plan for a club social activity. It was decided to have a BUGER COOK-OUT at Canton Lake Canadian Area on September 24th. Everyone is to meet at the Boat Dock at 4:00 p.m. No other business was discussed and the meeting was ajourned.

The repeaters are doing fine, awaiting the little touches to fine tune them.

Last months C&E was not delivered due to subscription slips not being forwarded to the CORA treasurer; thus the computer did not print labels for CARS. Hopefully this has been taken care of.

Reported by Kenneth, KB5SOM

On the Air

Listings of Nets on local repeaters or sponsored by CORA members:

ARES - Oklahoma County Thursdays @ 8:00 p.m. on 146.22/82.

Packet check-in on 145.07

Salvation Army - Second Saturday of the month @ 8:00 a.m. on 146.22/82.

HF 3900kHz; Packet 145.07

AMTOR @ 8:30 a.m. 14.064mHz

Night Owl - Daily @ 10:30 p.m. on 146.07/67 with alternate 146.325/925.

OKC Swap-n-Shop - Saturdays @ 10:00 a.m. on 146.22/82.

Geritol - Daily @ 8:00 a.m. on 145.41 minus input.

Edmond Info - Mondays @ 7:00 p.m. on 147.135/735.

QCWA Chp 63 VHF - Thursdays @ 7:00 p.m. on 145.41 minus input.

QCWA Chp 63 HF - Sundays @ 8:00 on 3856.5kHz.

Wheatstraw - Wednesdays @ 9:00 p.m. on 146.01/61.

Purcell - Mondays @ 8:00 on 145.19 minus input.

Cinnaron - Tuesdays @ 9:00 p.m. on 145.45 minus input.

Altus - Daily @ 8:30 p.m. on either the 146.19/79 or 146.22/82 repeaters

operating awards and a variety of off air events and special opportunities. The January, 1995, issue of *CQ* will be a collector's item. It will include a special section devoted to the magazine's 50th anniversary. Articles will trace the past half century in ham radio as well as the "real world," and will offer highlights of *CQ*'s own history. Advertisers will have special opportunities, as well. And many *CQ* columnists will look back at how their specialty areas have changed and developed over the past 50 years. Plans are also being made for a variety of off air events, commemorative products and promotions.

10 METER BEACON DATABASE

KD4DPC says that he is trying to develop an up to date beacon list for 10 meters. If you are a beacon keeper or use beacons to estimate propagation on ten meters, please send him any information you have. If possible include the call sign, antenna type, power output, location and any other pertinent facts. Reports can be sent to SEBA, Post Office Box 5391, Wilmington, North Carolina 28403.

GHANA

In DX, word that the Central Arizona DX Association have big plans for the upcoming contest season. Their operations from Ghana begins October 26th. It runs through to November 4. Listen for 9GSTL in the *CQ* World Wide SSB Contest on October 29 and 30. QSL via Jack Sheldon, Jr., PO Box 31898, Mesa, Arizona 85275-1898.

IYG ON THE AIR

The Israeli Youth Group will hold several field day like operations in the near future at the Sea Of Galilee. The working bands will be HF, 2 meters and 70 centimeters. On the low bands the modes will be SSB and CW. On VHF and UHF it will be FM. For this event the special call sign will be 4X4IYG. QSL to Ohad Miller 4Z9CHB, 12 Ha'ari Street, Haifa 33190 ISRAEL. This also reminds us to wish a very happy Rosh Hashanah, that's a happy Jewish new year to our listeners who are of that faith.

Newsline (Con't)

only have to pay 60 percent of the winning bid to the government. Also, bidding credit will be available for 10 of the 30 regional licenses. Prompting the change is the fact that none of 10 nationwide wireless licenses auctioned ended up in the hands of a minority or female owned company. The agency also announced that it will hold its second airwaves auction on October 26, when regional licenses for these services will be on the block.

CQ ANNOUNCES PLANS FOR 50TH ANNIVERSARY CELEBRATION

CQ magazine will celebrate a half century of service to amateur radio in 1995 with a special anniversary issue, a new group of

ALTUS AREA NEWS

Altus Area Amateur Radio Association

Let's try this again one more time:

Meets: 1900L on the 2nd Thursday of each month. For meeting location, check with the round table net that meets every night at 2030L on either the 146.790 or 146.820 Altus Repeaters.

The new current officers for Altus area are:
Pres: George Mayetko, AA1IJ 266-3357
VP: None
Sec/Tres: Mike Brown, KC5AWB 481-6665
Editor: Mike Brown, KC5AWB 482-5928
Hospitality: Vallie McClain, KC5AHX 477-3357

Altus Association: Southwest Oklahoma's Do it all club!

OK so we still don't have a club logo. That is only because we can not narrow down our activities to a lone symbol or area of main focus. Why? Well, let's just say for the sake of brevity here, that Altus has something different going on each and every week of a given month.

Well come on now, I must be pulling your leg you might think. Not so by a long shot. We have grown so much during this past year that we have outgrown our old meeting place at the North Main Fire Station in Altus and now we search each month for a site that will accommodate our ever increasing membership.

We are still locked into the 2nd Thursday of each month so that much for now still seems to be etched in stone. As far as a regular meeting location, well your best bet is to catch the Altus Area Round Table net that meets every night at 2030 on either the 146.790 or the 146.820 repeater machines.

For the past few months we have bounced around between the city library and the local college campus in Altus, so for the present time, check the net for a location on the next meeting site.

Collector and Emitter, September 1994

Now since several meetings and activities have come and gone since our last communication within these pages, I thought that I would just touch on a few of the highlights from the Altus area and bring everybody up to speed on our current "goings on".

New call signs have been trickling in a few at a time and many a happy face has been seen among the operators in the local area. I won't say just how long some folks were waiting on their long overdue upgrades, but John (old KJ5WR) went through three hunting licenses, four radios, two vehicles, a couple of elections, and tons of sweat before the blessed event of his upgrade hit his doorstep. Now that AB5WQ is official for John, you would think that we all could get some well deserved rest, not so all ye holders of HTs within ear shot. This local alligator was not content on being a past holder of the famed green monster award because as of last week's meeting, he has earned the newly christened "mobile alligator" trophy for his vocal efforts while being transported to and from home, work, and play.

Vallie, KC5AHX was recognized for her outstanding support of this year's Summer picnic and was presented a certificate of appreciation by Jim, N5UJB at our August regular meeting.

James, AB5NT has announced that starting with this month, there will be V.E. testing held in Altus on the fourth Saturday of each month until further notice.

At our last meeting held on Sept 8th, the membership voted on a committee to head up this year's Christmas banquet and also a committee to check into the possibility of getting the club into a "we build it" repeater project. More on both of these items will be discussed at the Oct. 13th meeting.

Mike, KC5AWB introduced one of his hairbrain ideas at the last club meeting and believe it or not folks, this one may even get off the ground judging from the initial response thus far.

The club has tossed around the idea of starting a local awards program for the past

several months now and after several nights of group brainstorming, this is what has emerged.

The "A to Z" award. In a nutshell, I wanted something that could be earned by all radio amateurs and at the same time, open it up to all amateur radio frequencies, not just those associated with HF. Basically to earn this new award, all a person has to do is collect confirmed voice contacts by QSL card within one specific radio band. 26 contacts must be made with 26 different licensed operators and the last letter of their call sign is used for the collection letter. Once you have collected 26 different callsigns, with the last letters completing the english alphabet from A to Z, that's it. You then are qualified to obtain the award.

What's that you say? Where's the catch? Well yes there are a few rules and stipulations that effect the earning of this new award. All confirmed contacts must be within one certain band such as only 40 meters, only 2 meters, etc. You can collect your 26 different QSLs for any of the bands but all contacts must have been made after "9 September 1994". That's right, everybody has to start out fresh. No dipping back into your stack of wall paper QSLs and collecting the letters A to Z cause they don't count. For a complete set of the rules and guidelines governing this new award, a simple SASE sent to the following address, will quickly have you up and running:

Altus Association, P.O. Box-73, Altus, OK 73522-0073.

Well that's about all the news from the Southwest corner of the state for this time around. As always, you are always welcome to drop by and visit us sometime in the future. We always have something going on at any given time, so come on over and eyeball the friendly faces behind the fastest growing club in 5 land. Don't forget, if you are reading this now, don't forget to thank one of your Elmers the next time you get together.

From the editor's desk, 73 and CUL
Mike, KC5AV

Great Hearing from the Folks at Altus again, Keep it up.
The Editor

O. C. A. P. A. NEWS

Oklahoma City Autopatch Assn.

Minutes of the OCAPA August 16, 1994 meeting:

The meeting was called to order by Tom, WA9AFM at 7:30pm.

The minutes of the last meeting were read by John, N5SAM seconded and passed. Treasurers report was read by Mike, N5VTT, seconded and accepted.

TECHNICAL COMMITTEE - Mike N5VTT reported that the phone line to the repeater has been replaced and an additional line has been installed. The 147.21 and 444.3 are still the primary patch machines.

SALVATION ARMY - Assistance is still needed for the second Saturday Salvation Army net. Check with Frank, N5FM before 7:30 am if you can help.

CORA - John NJ1V encouraged all to attend the Sept CORA meeting. Officer election is the main order of business.

OLD BUSINESS:

Hal KB1ZQ has composed and delivered a thank you letter to his former Air Force unit for their equipment support during field day.

NEW BUSINESS:

John NJ1V was the chairman of the nomination committee for OCAPA officers. The committee recommended:

Brad, KJ0W remain as President - Elected by acclamation

Mike, KB5WIC as Vice President - Elected by acclamation

Nominations from the floor for Secretary
Cheryl KB5WQR - declined
Ruth N5RJM - declined
Perry, KB5TOT as secretary - Elected by acclamation

Nominations from the floor for Treasurer

Chuck K5NK - declined

Cheryl KB5WQR - Elected by majority vote. Clarence W5LDF was second.

A raffle was held with prizes going to:
Gene KJ5GX \$20 gift certificate to Oklahoma Comm Center; Mike, KB5WIC \$20 gift certificate to Oklahoma Comm Center

Tom, WA9AFM an ARRL Antenna Handbook donated by Clarence W5LDF

ATTENDANCE 36

Meeting adjourned at 8:35 p.m.

John, N5SAM
Secretary

BOOK REVIEW

THE VHF "HOW TO" BOOK A GUIDE FOR ALL AMATEURS

Written By Joe Lynch, N6CL

My husband brought this book home about a month ago, Joe had asked Hal to read it and tell him what he thought of it. Hal read it and then asked me to read it and tell him what I thought. Hal, KB1ZQ holds an Advanced Class License and I'm a No-Code Tech. Hal felt this book might open my eyes to some new possibilities instead of my seeing my ticket so limited. He was right.

This book is written in a way that hams, old timers as well as new comers to the hobby, can understand and expand their horizons. Joe includes hints to make things run smoother, reference material to refer to if needed, and suggestions of where to ask for added help from other hams in your area.

The book does contain a lot of technical information but is written in such a manner that the material does not become confusing nor is it too simplistic. The words come alive, making it seem as if Joe is sitting there talking to you. He shares with you, the reader, his love for the hobby and his own personal experiences from being a ham for many years.

Topics covered in the book are as follows:
PART I covers VHF+ operations telling

frequencies and modes of operation, such as DX, EME and SSB/CW. It then goes on to detail the proper way to design your own station and the correct way to install antennas, both mobile and fixed station. Shack construction and safety issues are also covered in a separate chapter. FM Repeater and FM Simplex operations are described in detail, Satellite basics are another issue to explore, being given the easiest satellites to work with minimum equipment.

The digital modes are covered with Packet operation telling the ins and outs of VHFMAIL. Weak signal operations such as Earth Moon Earth (EME) are described. PART II goes into the different types of Weak signal communications available to operators, such as Sporadic-E and Field Aligned Irregularities (FAI). Working over distances via tropospheric and meteor scatter paths are topics for discussion. Auroral, F2 and Transequatorial (TE) propagation is covered briefly.

VHF+ contesting and awards are of some interest giving possibilities of contesting to No Code Techs. Have a sense of adventure, try mountain topping and/or rover operations.

The art of sending and receiving QSLs, and finally the appendix is full of a wealth of useful information.

For myself, I plan to attempt to talk Hal into getting a 6 meter rig, antenna and try a little Dxing on my own. If I run into problems, I have Joe's book to turn to. This book is a must for any ham shack's library and will save you a few headaches as well.

I forgot to mention that Joe, N6CL is the editor of the column "VHF PLUS" in CQ magazine, and has been since 1991. He is also the ARRL section manager for the state of Oklahoma. He was first licensed as WV6PDE in December 1960. He has earned many college degrees and has taught school on all levels, public, college and for the FAA. HE knows his subject matter very well.

Thanks for opening my eyes, JOE!

LINDA, N1LPN

M. O. R. I. NEWS

Mid - Oklahoma Repeater, Inc.

September Meeting Summary

The regular meeting was held at Favorite's restaurant on Tuesday, Sept. 6. Call to Order was at 7:16 p. m. by president Scott Walsh, N5NYS.

Introductions followed for the 39 members and guests present...great turnout!

The August minutes were presented by Earl, AB5TF then the Treasurer's report by Robert, N5QKI both reports were accepted by the membership.

The Foxhunt report was given by AB5TF and N5NYS.

The VE report was given by Toy, AB5ET.

Martin, KN6UG gave the Technical Committee report. The 146.67 transmitter is to be moved up 300 feet, and a backup receiver will be added - among other improvements. More tower cleanup needs to be done. Hopefully, he and Craig, N5VIS, won't have to spend ANOTHER week of vacation working on the tower - these guys deserve a medal!

The CORA report was presented by Rick, N5WNR who related that the name of the CORA scholarship has been changed to the Joe Harding Memorial Scholarship. Also, a committee was named to investigate alternate facilities for Ham Holiday. Rick then entertained discussion and questions regarding future Ham Holidays and other items relating to CORA.

There was no Old Business.

New Business:

A motion was made by Martin, KN6UG to determine the cost of producing a newsletter. After discussion, the motion was seconded and passed.

Collector and Emitter, September 1994

A nominating/calling committee was formed in preparation for the upcoming October officer elections.

The meeting was adjourned at 8:49pm.

Earl Draper, AB5TF
Secretary

Saturday Night Foxhunts

"Who are you trying to talk to?", the officer said as he approached the car. We had pulled into the parking lot of a closed business to take a bearing on the "fox", and I guess the 3-element beam hanging out of the car window aroused his suspicion. "Surely he doesn't think we're crackpots looking for UFOs", I said to myself. Thankfully, he was satisfied with my brief explanation of amateur radio transmitter hunting, and he smiled as he waved us on.

As it turned out, we were still several miles from the transmitter site. More surprises awaited us when we finally located the "fox" in a Del City park which wasn't on the map. John, N5SAM and family were the foxes for the hunt, and had prepared a wonderful picnic for everyone. What an evening! Good food, fun, and fellowship... there's no better way that I know of to spend a Saturday evening.

The hunt was won by Dale, KB5ZWQ and Steve, KB5TOG (who also won the previous week's hunt). They'll be the foxes on the next southside hunt September 17.

If you'd like to join in the fun, meet the group at the starting point any Saturday evening between 6:30 and 7:00pm. We alternate each week between the north and south side of OKC - the northside starting point is the Denny's at N.W. 63rd and May, and the southside starting point is the Denny's at I-240 and S. Penn. Maps are available at the starting point, and hunt coordination is on the 146.67 repeater. Hope to see you there!

Happy hunting!

Earl, AB5TF

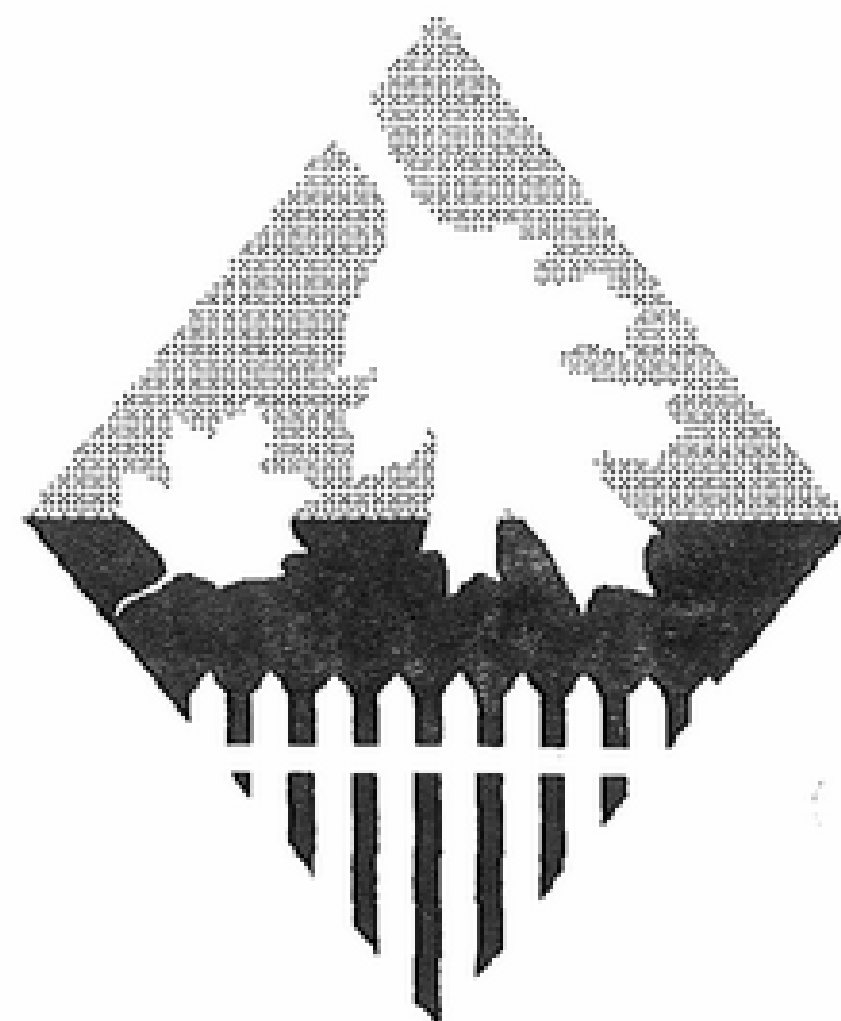
Old October, by James W. Riley

Old October's purt' nigh gone
And the frost is comin' on
Little *heavier* every day--
Like our hearts is thataway!

Leaves is changin' overhead
Back from green to gray and red,
Brown and yellar, with their stems
Loosenin' on the oaks and e'ms;
And the balance of the trees
Gittin' balder every breeze --
Like the heads we're scratchin' on!
Old Octobers purt' nigh gone.

I love Old October so,
I can't bear to see her go --
Semms to me like losin' some
Old home relative er chum --
'Pears like sorto' settin' by
Some old friend' at sigh by sigh
Was a - passin' out o'sight
Into everlastin' night!
Hickernuts a feller hears
Rattlin' down is more like tears
Drappin' on the leaves below --
I love Old October so!

Can't tell what it is about
Old October Knocks me out --
I sleep wel enough at night --
And the blardest appetite
Ever mottal man possessed, --
Last thing et, it tastes the best!
Warnuts, butternuts, pawpaws,
'Iles and limbers up my jaws
Fer raael service, sick as new
Pork, spareribs, and sausage too. --
Yit, for all, they's somepin' 'bout
Old October knocks me out!



Technical Corner

Keplerian Elements-1

DXers say, "If you can't hear 'em, you can't work 'em!" In space communications, there is a variant, "If you can't find 'em, you can't work 'em!" In short, working amateur radio satellites requires a 'visual' on the spacecraft using the various tracking program available. However, there is one element (several actually) that is missing; Keplerian Elements.

Keplerian Elements, or "Keps", are the bits of information tracking programs use to predict a satellite's position. Literally, "Keps" are a snapshot of a satellite's location at a specific time and date. Unlike travel on the Earth's surface where a two-dimensional plot (latitude & longitude) will give you a good position, in space you have to reference three dimensions, reference to the center of body the satellite is orbiting, speed, orbit shape, and drag (just to name a few).

"Keps" have one primary function: give a tracking program a reference to predict the location of a satellite's orbit.

Now, a bit of history before we move on. "Keps" get their name from Johann Kepler, an 17th century Austrian mathematician, who devised three laws of planetary motion. We won't discuss them here but, these laws provided the foundation for plot the path of orbiting bodies in space.

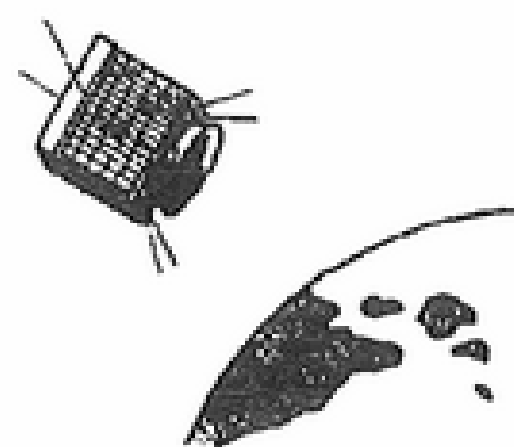
There are eight "Keps" needed to predict an orbit: Epoch, Inclination, Right Ascension of Ascending Node (RAAN), Argument of Perigee, Eccentricity, Mean Motion, Mean Anomaly, and Drag. Let's take a quick look at a recent set of "Keps" for OSCAR 13.

"Epoch" - as mentioned, "Keps" are a snapshot of a satellite's position; the Epoch is the day and time the 'picture' was taken. A typical Epoch would look like this: 94244.06465693. The '94' indicates the year, 1994. The Julian Day is indicated by the '244'. The '.06465693' is the time of day as a percent of the day; this equates to one hour, thirty-three minutes, and six seconds

into the day. All together, this 'snapshot' was taken on 1 September, 1994 at 01:33:06.45 UTC. This is an important element as it sets the timing for predictions.

"Inclination" - this is a measurement of the plane of the orbit as compared to the equator of the earth. The number is usually between 0 and 180. An orbit at or near 'zero degrees' would be an equatorial orbit; at '90 degrees', it would be a polar orbit. An typical Inclination would look like this: 57.7457. The Inclination also give you a clue as to how high in latitude the spacecraft will go; in this case, about 57 degrees north and south latitude.

"Right Ascension of Ascending Node" - better known as "RAAN", this is the most difficult element to explain. The RAAN is usually between 0 and 360 degrees. A typical RAAN would look like this: 233.4755. Simply put, the RAAN is the angle (measured from the center of the Earth) between the point the Sun crosses the equator and the point the satellite crosses the equator.



"Argument Of Perigee" - like RAAN, Argument Of Perigee is an angle formed during the orbit of the satellite. A typical Argument Of Perigee would look like this: 349.2254. This indicates an Argument of 349.2254 degrees. Like RAAN, it is quite difficult to explain.

"Eccentricity" - orbits are not perfect circles. Kepler's first law declares orbits to be an ellipse. Eccentricity is expressed between zero and one. The closer to zero, the orbit is almost a circle. Closer to one, the orbit is long and narrow. A typical Eccentricity would look like this: .7231019. This orbit would be very elliptical.

To this point, we have only discussed the orientation of the satellite to the body it orbits. Now we'll look at what determines the size and distance of the satellite.

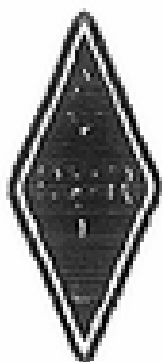
"Mean Motion" - to know where the satellite is in its orbit, we have to know how many orbits it completes in one day, i.e. its 'motion'. A typical Mean Motion looks like this: 2.09726877. In this case, the satellite travels around the Earth just a bit over two times per day.

"Mean Anomaly" - to track our satellite, we have to know its position along its orbit. Scientists have divided a satellite's orbit into 256 points. Why, I'm not sure but, they seem happy with it. The "MA" is akin to a milemarker on the orbit. Zero is at perigee (when the satellite is closest to the Earth), and 128 is half way through the entire orbit at apogee (when the satellite is furthest from the Earth). MA is used by AMSAT as a standard reference to change modes of operation. Example: OSCAR 13 might be shut off from MA 0 to MA 50; in B Mode from MA 51 to MA 160; S Mode from MA 61 to MA 80; and back to B Mode at MA 81.

"Drag" - this factor is also known as Decay. Contrary to what you might think, near-space around the Earth does have an extremely thin atmosphere. This, combined with the effects of gravity, cause the satellites orbit to spiral down. A typical Drag element looks like this: .00000319. Drag is normally used to adjust the results of orbital calculations to account for the Earth's effect on the orbit.

There you have it! Keplerian Elements in a nutshell. Yes, they're confusing and mysterious but, never the less important if we are to have successful amateur satellite operations. If you wish to read further on the subject of Keplerian Elements, the *Satellite Experimenter's Handbook* published by the ARRL is a great place to start. However, if you don't understand them don't worry, the tracking program does.

Next in our series, we'll discuss the various formats used to transmit Keplerian Elements and 'tricks of the trade' on loading them into a tracking program.



A. R. R. L. Bulletins

From ARRL Headquarters
Newington CT

DX Bulletin 52

DXAC Vote Results

The DXAC (DX Advisory Committee) has voted 8 to 7 to reject a proposed revision to Section I. 10 of the DXCC rules to reinforce rules against the unethical action of making a contact for DXCC purposes with a call sign other than that issued to the operator. The majority felt that this could adversely affect club and other multi-operator stations--including DXpeditions. The minority felt that this rule change was necessary to prevent observed abuses.

The DXAC also rejected (by a 14 to 1 vote) a petition for new DXCC Country status for the --Turkish Republic of Northern Cyprus-- (TRNC). DXAC members stated that the TRNC did not meet DXCC Criteria Point 1, Government.

In a third matter, the DXAC voted 11 to 4 to set a minimum size for new DXCC countries. The DXAC recommendation says, a DXCC country shall be a natural land mass of a size adequate to support a reasonable amateur radio operation. In the case of islands, the surface shall be dry at all times during high tide, and the physical characteristics may not be changed or modified. This includes the use of man-made operating structures. Each case will be judged on its own merits. Implicit in the recommendation is that operation from an island must take place from the surface of that island.

The minimum-size recommendation now goes to the awards committee for action.

ARRL Bulletin 68

Ballots have been counted in the Section Manager election for Western New York. The results are William Thompson,

Collector and Emitter, September 1994

W2MTA, 840. Scander Astafan, WS2W, 381. Thompson was declared elected. His term of office begins October 1, 1994.

Nine other Section Manager positions were not contested. The following were declared elected.

In Connecticut, Betsey Doane, K1EIC.
In Idaho, Don Clower, KA7T.

In Minnesota, RndyY Wendel, N0FKU.

In North Dakota, Roger Kurti, WC0M.

In Ohio, David Kersten, N8AUH.

In Oklahoma, Joseph Lynch, N6CL.

In Southern Florida, Richard Hill,

WA4IFK.

In Puerto Rico, Guillermo Schwarz,
KP4DDB.

In the Virgin Islands, Ronald Hall, KP2N.

ARRL Bulletin 69

The following is a list of the FCC's most recently issued call signs as of August 1.

District	Group A <u>Extra</u>	Group B <u>Advanced</u>
0	AA0RW	KG0OO
1	AA1JV	KD1VZ
2	AA2TB	KF2WQ
3	AA3IF	KE3NT
4	AD4UV	KR4XT
5	AB5VT	KJ5ZS
6	AC6DS	KO6FG
7	AB7DK	KJ7BA
8	AA8PM	KG8KK
9	AA9LL	KF9WU
	N. Mariana KH0I	AH0AU
	Guam WH2F	AH2CU
	Midway Is ++	AH4AA
	Hawaii AH6NN	WH6WD
	Amer. Samoa AH8K	AH8AG
	Alaska ++	AL7PS
	Virgin Is. WP2O	KP2CD
	Puerto Rico ++	KP4XE

District	Group C <u>Tech/Gen</u>	Group D <u>Novice</u>
0	++	KB0OKY
1	N1SUN	KB1BJW
2	N2ZZY	KB2RFN
3	N3TBF	KB3BEH
4	++	KE4PKY
5	++	KC5IVA
6	++	KE6KYY
7	++	KC7EUY
8	++	KB8UIY

9	N9YCQ	KB9JAN
N. Mariana	KH0DL	WH0ABA
Guam	KH2KA	WH2ANK
Midway Is	KH4AG	WH4AAH
Hawaii	WH6CRH	
Amer. Samoa	KH8BG	WH8ABB
Alaska	WL7WJ	WL7CHS
Virgin Is.	NP2HQ	WP2AHU
Puerto Rico	++	WP4MRJ

++ All call signs in this group have been issued in this area.

TEN COMMANDMENTS OF MORSE!

Here are MY ten commandments for learning Morse code; Jeff N2TDU @ N2KZH.NJ

1. Stop sending out packet bulletins complaining about the CW requirement!
2. Stay off packet until you learn it!
3. Don't waste time replying to this message since I won't read it!
4. Throw all microphones in the trash!
5. If you have an HF receiver, listen to W1AW and other CW on HF!
6. Get a program like Super Morse for your computer!
7. Use cassette tapes but do NOT rely too much on them for practice!
8. Try sending CW on a practice oscillator even though sending isn't required on the test anymore!
9. If you have HF privileges and want to increase your speed, forget ALL that I have said and get on the AIR! It sure helped me!
10. And finally! If at first you don't succeed, then try and try again.

73 de Jeff N2TDU @ N2KZH.NJ

Edited for C&E by Mac, K2GKK

ALTERNATE CURRENTS: Life As We Knew It

By S.A. Kelly (AB5MT)

Everything that follows has a direct relationship to ham radio. I will leave it up to individual to decide how.

How many of you remember the ViewMaster Viewfinder? For those who don't, it was a little red deal that looked like a pair of binoculars except of course that you couldn't actually see through it. It had a slot in the top where you could insert these little round cards that had photographic slides set in them--I think it was about eight or ten slides per card--and there was a little lever on the right side of the thing so you could rotate the card and view the slides. The fancier Viewmasters took batteries and supplied their own light for viewing the slides but as I'm sure you can remember from your own childhood, once the batteries died or the little light bulb burned out on something it stood a good chance of winding up in the back of the closet, or under the bed. The best ones simply required that you point them toward an outside light source (sunshine pouring through an open window worked just fine) to view the slides.

Back when I was a kid they had slides like The Seven Wonders of the World and The Grand Canyon. You could literally take a trip around the world and never move from your comfortable position laying backwards on the bed (you know, when you put your head down there at the foot-end). If you're like me you (even at this ancient age) occasionally try to reach back and recapture a little bit of your own past. In this instance don't bother. They still make ViewMaster Viewfinders but they stopped making decent slides for them somewhere along the way. Unless, of course, you have some burning desire to view Barney, or Batman, or the Little Mermaid.

Here's the question: were we smarter as children than the children are today? Or is it perhaps that adults challenged our intellects more back then because it was assumed that we might eventually develop into intelligent human beings, as opposed to the ignorant monsters being bred in this "enlightened" day and age?

Ouch!

Here's another:

Back when I was a kid, waaaaay back before cable television or satellite, I used to love to stay up late at night and watch t.v. Back then you only had three stations (well, four if you counted the Public Television station but that usually shut down around 10 p.m. largely I think because they didn't want to have a bunch of old folks passing out on the couch waiting up to see Austin City Limits). Sometime after midnight, about the time Shock Theatre came on I think, my bedroom bathed in the flickering glow of the black and white t.v. while the rest of the house was dark and silent, I would begin to feel as if I was a part of a very small community...a select few people scattered about across the land who were in on a secret that nobody else knew. We lived out in the country on various ranches throughout most of my early childhood, and at one or two o'clock in the morning, as dark and as quiet as it was, it was very easy to imagine that I was one of just a very few people who were awake while the rest of the world slept. It became a type of situation (and this has happened to me many times in my life, for which I feel very fortunate) where I not only enjoyed a particular time in my life, I was AWARE that I was enjoying that time which is to say that I was conscious of the fact, even while it was occurring, that I would later look back and have fond memories of it.

But as usual, time passed. I got older and I realized that there are no select clubs. The simple fact of the matter is that there are people awake all over the world all of the time. I'm not a kid anymore and I don't stay up late at night watching television mostly because I have to get up and go to work the next day. But that's not the main reason. The main reason has something more to do with the fact that if you have cable television you are never (even if you are a child) ever going to mistakenly feel as if you are part of a select "late-night-t.v.-watching" group because there are fifteen bazillion channels and three-quarters of them are on the air 24 hours a day.

The question, then, is...

What, if anything, does this have to do with ham radio?

You wake up at 2:30 a.m. and for whatever reason you can't get back to sleep. You get up and go into the shack and turn on the HF rig...tune around awhile. Not much happening so you pick a frequency somewhere in your favorite band and tune the rig. If you're like me you reach across the desk and turn on the electronic keyer.

You call CQ.

You call CQ. Suddenly, out of nowhere, someone answers. What the hell are they doing up at this hour? What the hell are YOU doing up at this hour?

In one fell swoop you have gone back. From your own comfortable place you have reached out across God knows how many miles...and suddenly you are once again a member of a very select group of people involved in a very specific activity.

Learn the code. Get on HF.

Lets go back in time...

October 2 to November 1, 1994 Schedule of Events:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2 2:00 p.m. MORI VE Exams 2:15 p.m. Great Plains	3	4 7:00 p.m. MORI	5	6 7:00 p.m. Aeronautical Center 7:30 p.m. CARS	7	8
9 2:30 p.m. Wheatstraw	10 7:00 p.m. EARC 	11	12	13 7:30 p.m. Altus Arm	14	15 9:30 a.m. SCARS 10:00 a.m. SCARS VE Exams
16	17 6:00 p.m. CORA VE Exams	18 7:30 p.m. OCAPA	19	20	21 2:00 p.m. EARS C&E Deadline	22 9:00 a.m. VE Exams (RSC) 11:00 a.m. VHF Club
23	24	25 7:00 p.m. Shawnee VE Exams 7:30 p.m. CORA	26	27	28	29
30	31 Halloween 					

ARRL DX Bulletin 57

EUROPA UPDATE. FR5HG/E continues to be very active, especially on 40 meter CW. The operator has also been checking into the French DX Net. This operator sends very fast CW and could possibly be a professional radio operator. Michel, FR5HG, plans to sign /E for a 45-day stay. Activity will include CW, SSB and RTTY. QSL via F6FNU.

SOUTH GEORGIA ISLAND DXPEDITION UPDATE. Vince, K5VT, has joined the team of operators which includes WA3YVN and WA4VQD. The group will operate three HF stations, all bands, CW, SSB and RTTY. Word has it that they are well equipped for low and WARC band operation. Equipment was put aboard the research vessel Abel J in June and is expected to arrive in the Falklands around October 8. The team will arrive in the Falklands on December 23 and plan to operate the low bands and the WARC bands for about five days while awaiting departure for SGI.

FEDERATED STATES OF MICRONESIA. Kazu, JA0VSH, and his wife Miyuki, JG0PBJ, will be on the air from Pohnpei October 1 to 10 signing V63KZ and V63MP, respectively. Listen for them on CW and SSB on 160 through 10 meters. During their evening hours, only CW will be used. Miyuki is a very new DXer, so please be patient. QSL via CBA or the JARL bureau.

LAOS. Gaby, XE2GV, is expected to be active soon as XW8KPL. His length of stay is unknown. Listen for him on 20 and 40 meters, SSB only.

ZAMBIA. Brian, 9J2BO, has been active signing 9I30ZIN, as Zambians celebrate 30 years of independence.

NAMIBIA. Sometime around the middle of October, Kjell, SM7DZZ will be on from Namibia as V51/SM7DZZ. And later this year he will be return to Mozambique to operate as C91Z. QSL via his CBA.

NAMIBIA. Pete, N0AFW, will be heading up a group of five operators to be active in the CQ WW SSB Contest. They will arrive on October 24 and depart on November 6. Operators include N9NS, AH9C, WA0PUJ, NH6UY and host V51GB. The contest callsign will be V59T, and outside the contest the operators will use their own callsigns /V51. Some satellite gear will be brought along. QSL all via WA2FIJ.

HONDURAS. Ernesto, HR1ERL, will be signing HQ1T for the next two months and will be active on several nets. QSL via HR1FC.

CAYMAN ISLANDS. Mark, N7MCA, and Ron, WJ7R, will be active as ZF2MC in the CQ WW SSB Contest Octover 29 and 30. Outside of contest hours, ZF2MC will operate mostly SSB on the low bands and ZF2RV will be on CW. There is a chance of some RTTY and AMT^{OR} operating. QSL ZF2RV/ZF8 via WJ7R. ZF2MC/ZF8 via N7MCA. Also look for ZF2JI in the CQ WW SSB Contest by John, K4IIF. QSL via KG6AR.