

# Collector & Emitter

Central Oklahoma Radio  
Amateurs, Inc. Publication

**October 1999**  
Volume 25, Number 10  
Issue 296  
75¢

Postmaster See Page 2  
For Postal Information

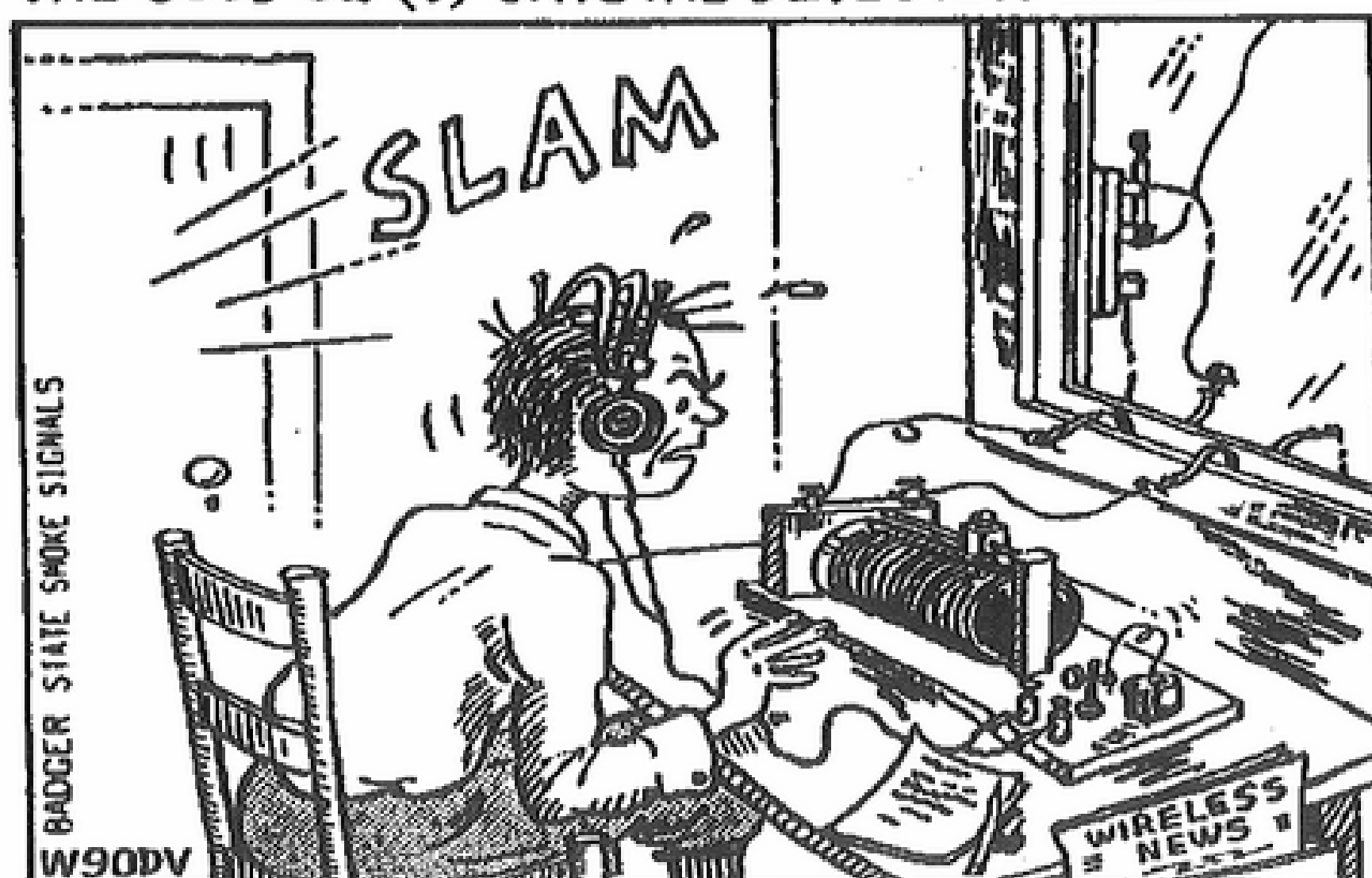
Periodical Mail

**Ham Radio On TV?**

**ULS Update**

**Reach For Space**

**THE GOOD OL' (?) CRYSTAL DETECTOR DAZE**



WHENEVER THE DOOR WAS CLOSED IT WOULD  
JIGGLE THE CATWISKER WIRE ON THE GALENA  
AND YOU WOULD LOSE YOUR STATION.

**Paging & APRS**

**Chasing The Slammer**

**Collector & Emitter****Harold C. Miller, KB1ZQ****Editor****Linda G. Miller, N1LPN****Circulation Manager****Central Oklahoma Radio  
Amateurs, Inc.****President: Harold Miller, KB1ZQ****V Pres.: Tom Webb, WA9AFM****Secretary: Forrest Rush, N5VWF****Treasurer: Perry Jenkins, N5PJ****Web Page –****www.geocities.com/heartland/7332**

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 let us know. Below is a sample label:

99/12 1 2 4 6 MZ  
JOHN E. DOE, KA5ABC  
1234 SW 56th STREET  
RADIOVILLE, OK 74321-9876

The "99/12" means the year/month C&E subscription expires.

Dear Secretary / Treasurer:

When you want a change of any sort to your membership, you must completely fill out 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 Deadline of each month. If there is anything about C&E subscriptions you need to know, please contact us.

**October 1999****VOL. 25, No 10 Issue 296****Collector and Emitter  
(USPS 116-150)**

is published monthly by CORA, Inc. 4216 Spiva Drive Del City, OK 73115-4424. Periodical postage paid at Oklahoma City, OK. 73125

Subscription rates:

CORA Associate \$4.80 per year

Paid subscription \$9.00 per year

**Postmaster:****Send address changes to;****Collector and Emitter****P. O. Box 55600****Del City, OK 73115-5600**

<b>1. Aeronautical Center ARC</b> Meets: 1930L, 1st Thursday, FAA, S. MacArthur, OKC Pres.: Bob Kremer, WA9FCT 381-3182 VP: Chuck Bryant, KB5ZVZ 737-0423 Sec/Tr.: Brad Nelson, KJ0W 793-9470 Editor:	<b>11. Edmond Amateur Radio Society</b> Meets: Odd Months, 1400L, 3rd Sunday, St. John's the Baptist, Even Month, Dinner, 3rd Saturday Pres.: Steve Kuper, KC5RYT 722-5789 VP: Curtis Foote, KC5GEP 359-6514 Sec: David Hartman, KC5UNO 210-5949 Treas.: Gary Carson, KD5CPL 751-0006 Editor: Curtis Foote, KC5GEP 359-6514 E-mail: kc5orp@juno.com
<b>2. Oklahoma Central VHF ARC</b> Meets: 1130L, 2nd Wednesday, Home Town Buffet, 3900 NW 63 <sup>rd</sup> , Oklahoma City Pres.: Bill Noland, WA5FWD 354-5018 VP: Sec: John Dome, KB5WVE 842-3493 Treas.: Jim Speck, W5AI 842-3055 Editor:	<b>14. Cimmaron Amateur Radio Assn.</b> Meets: 1930L, 1st Thursday, WX5Y Playhouse 827 S. 13th, Fairview Pres.: John Medley, N5WVU 580-227-3534 VP: Kenneth Monahan, KB5SOM 580-227-3064 Sec: Dennis Painton, WK5V 580-764-3599 Treas.: Nadine Painton, N5FMH 580-764-3599 Editor: Kenneth Monahan, KB5SOM
<b>4. Oklahoma City Autopatch Assn.</b> Meets: 1930L, 3rd Tuesday, Salvation Army Bldg NW 50 <sup>th</sup> and Penn, OKC (Back Door) Pres.: Glynn Massey, N5WNL 631-2731 VP: Ron McCubbin, KC5QCV Sec: Forrest Rush, N5VWF 842-8486 Treas.: Mark Watkins, KD5CXP E-mail: ocapa@juno.com	<b>15. South Canadian ARS</b> Meets: 0930L, 2nd Saturday, Red Cross Bldg North OU Campus, Norman Pres.: Dennis McCarthy, KC5EVH 447-2012 VP: Tom Miller, KD5ENL 321-7889 Sec/Tr.: Jeff Wyke, KE5EB 329-6762
<b>6. Altus Area Amateur Radio Assn.</b> Meets: 1900L 2nd Thursday, Southwest Area Vo-Tech Center, 711 W Tamarack Altus, OK Pres.: James Molledahl, AB5FS VP: George Mateyko, N1GM 580-266-3357 Sec: Ron Roman, KD5CYW 580-482-8446 Treas.: Fred Cramer, KC5SRJ Editor: Ron Roman, KD5CYW 580-482-8446	<b>16. Broken Arrow ARC</b> Meets: 1830L, 1st Monday, Broken Arrow Community Center, 1500 S. Main, Broken Arrow, OK Pres.: Wayne Hartsfield, KK5AT 918-357-2139 VP: Joe Horn, KC5VPO 918-451-0028 Sec: Jerry Pascal, KC5JKU 918-455-6514 Tr: Harlan Kinney, K9GDK 918-251-2672 E-mail: w5bbs@juno.com
<b>7. Enid Amateur Radio Club</b> Meets: 1900L 4th Thursday, Enid/Garfield County Public Library, Enid, OK Pres.: John Turner, KA7GLA 580-242-6802 VP: Dwayne Posey, KC5QVS 580-237-3218 Sec: Dave Chael, KC5GUD 580-242-3445 Treas.: Bill Wehling, KC5OKG 580-233-5022 Editor: Dick Stricker, NJ5S 580-233-9869	<b>17. Ada Amateur Radio Club</b> Meets: 0900L, 1st Saturday, Salvation Army Bldg 115 N. Oak St., Ada, OK Pres.: Scott Renes, KD5AJL 436-1369 VP: Charles Eiter, KC5TGA Sec: Danny Coffey, KM5LB 436-1271 Tr: Finis Hallmark, KC5YGB 384-5470
<b>8. Choctaw Amateur Radio Club</b> Meets: 1900L 3rd Monday, Eastern Oklahoma Co. Vo Tech, 4601 N. Choctaw Rd, Choctaw, OK Pres.: Dave Downing, WD5G VP: Don McDown, N5ENQ Sec: Jim Harper, Treas.: Ron Ernest, WB9DAF 769-3207 Editor:	<b>18. Lawton Fort Sill ARC</b> Meets: 1900L 1 <sup>st</sup> Tuesday, Great Plains Area Vo-Tech room 301, Worley Center. Pres.: George Summers, KK5QY 580-355-6514 VP.: Charlotte Cole, KB5OJV Sec/Tr.: Danita Haney, KC5YYU 580-549-6817 E-mail: w5ks@rli.net
<b>9. Wheatstraw Amateur Radio Club</b> Meets: 1430L, 2 <sup>nd</sup> Sunday, Location Varies Pres.: Neal Kappus, N5KCO 405-262-1151 VP: Leo Piel, WZ5H 580-886-2998 Sec/Tr.: Johnny Fish, K5GBN 405-893-2227 Editor: Jimmy Payne, W5JEP 580-496-2312	<b>19. Tri-State Amateur Radio Group</b> Meets: 1930L, 2nd Thursday, Woodward, OK Pres.: Jay Kruckenburg, KB5SOO 580-994-2751 VP: James Hand, W5JWH 580-994-6118 Sec/Tr.: Larry Goodwin Sr. KC5NZC 580-886-3283 E-mail: W5OKT@unibuilt.com
<b>10. Oklahoma DX Association</b> Meets: Hamfests and as announced in C&E. Pres.: Bruce Burnette, K5PX 918-455-2599 VP: Lu Fisher, K5YP 580-254-5641 VP: Jerry Chouninard, K5YAA 918-341-2659 Sec/Tr.: Mark Byard, N5OG 580-762-1966 Editor: Nelson Derks, KC5QVV 918-451-1594	<b>Central Oklahoma Radio Amateurs</b> Meets: 1930L, 4th Tuesday, Salvation Army Bldg NW 50th and Penn, OKC (BackDoor) Pres.: Harold Miller, KB1ZQ 672-7735 VP: Tom Webb, WA9AFM 737-6716 Sec: Forrest Rush, N5VWF 842-8486 Treas.: Perry Jenkins, N5PJ 354-5075 Editor: Harold Miller, KB1ZQ 672-7735 E-mail: n1lpn@swbell.net

Deadline for November, 1999 Issue of *Collector and Emitter* is Friday, October 29, 1999. Send all Articles to *Collector and Emitter*, 4216 Spiva Drive Del City, OK 73115-4424 on 3 1/2 inch floppy or e-mail to n1lpn@swbell.net. Articles received after the deadline may not be printed that month. Questions please do not hesitate to call - 405-672-7735 / 405-650-9963.

# Central Oklahoma Radio Amateurs, Inc.

## CORA VE Testing September Session

The September edition of CORA VE testing was held on Monday, September 20, at the Divisional Headquarters of the Salvation Army. These monthly sessions are held on the third Monday of each month at 6:00 PM. Location of the facility is Penn Ave. and Northwest Expressway. Despite the examiners being present and ready for Amateur Radio testing, no applicants showed for the September session.

The next session will be held on Monday, October 18 at 6:00 PM. The CORA VE team will also be at the Edmond Amateur Radio Society (EARS) club station on Sunday, November 7. This is to administer testing to the EARS licensing class and any other applicants. The Edmond testing session will begin at 1:45 PM. The EARS club station is located in the Downtown Community Center, 28 East Main, in Edmond.

Look forward to seeing you at one or both of these sessions.

On behalf of the CORA VE team: John-WB5SYT

### From the President;

Well elections will be held this Tuesday, before you receive this newsletter. Also the contest season has started. Linda and I were able to work the 1999 USAF QSO Party the weekend of the 18<sup>th</sup>. We managed to log a score of 249,332 points. This is a new contest that started in 1997, the Air Force's 50<sup>th</sup> anniversary. We are looking forward to working the CQWW Phone Contest, ARRL Sweepstakes, and maybe the ARRL 10 meter contest.

I purchased a new beam at Ham Holiday and was able to get it in the air a week prior to the big storms that came thru Oklahoma City the middle of August. The Cushcraft X7 / X740 is a seven element yagi based on a log periodic design. The

X740 is the 40-meter add on kit, which acts as a rotatable dipole.

I was able to get the antenna mounted 53 feet above the ground and it is fed with RG-213. My amplifier is out of commission due to some of the cabling still in storage, but using 110 watts I was able to work just about anyone I wanted. The front to back was all right and there are several nulls to the rear, primarily off to the sides. I had to turn the antenna to work weak stations and suddenly they were reporting 5-9<sup>+20</sup>.

Now all I need is to get the 80-meter dipole up and I will have all bands in the HF band on the air again.

The next project is to find a new copy of CT. I can't seem to locate it in the ham magazines. I have looked. I currently have Version 7.06 and would like to upgrade. If anyone has the current address to purchase this software please send me the information.

Also, I think I have found the problem with my using the computer to control my TS-440S. It is in the radio. Wiring or bad chip not sure as of yet.

Well, we are back on the air and working the bands, as work will allow. Happy hamming and hope to hear you on the bands.

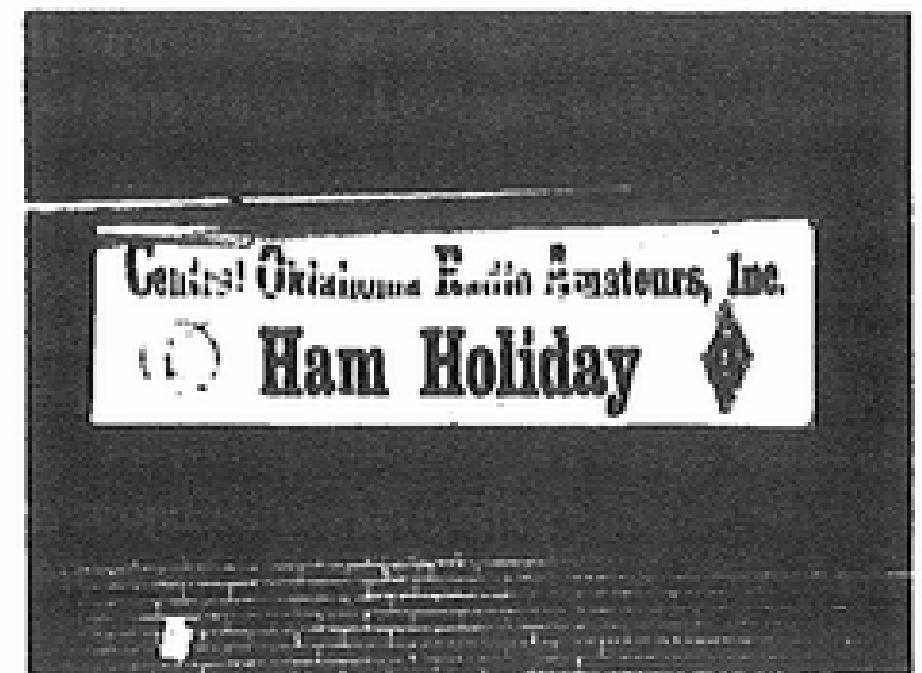
Hal, KB1ZQ

### Ham radio may have TV role

Amateur Radio may play a role in NBC's new show Third Watch, which premiered September 23 (the show's regular time slot will be on Sundays at 8 PM Eastern). Several months ago, ARRL Media Relations Manager Jennifer Hagy, N1TDY, was contacted by a production company staff member who wanted information on ham radio.

At the time, she said that one of the main Third Watch characters would also be an Amateur Radio operator. No word on how large a role ham radio might have.

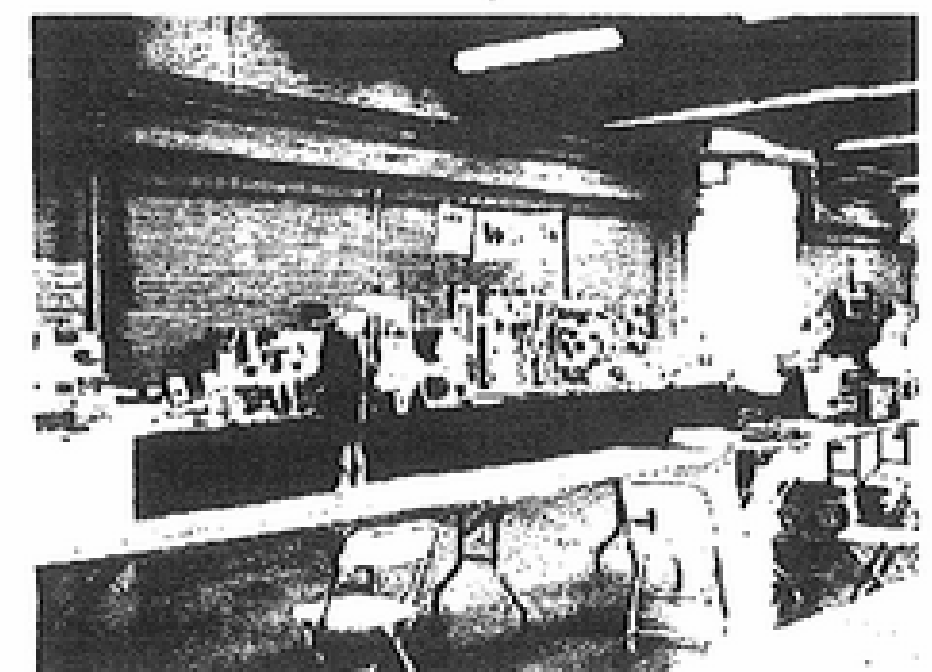
(ARRL Letter)



Ham Holiday Banner



Jim Haynie, W5JBP and Coy Day, N5OK



WB0W's Booth



Mac, K2GKK and Hal, KB1ZQ

These photos were sent in last month, I forgot they were here on the hard drive.

## Chit-Chat

By Linda NILPN

### Following My Heart...

Years ago I met a man whom many had told me I would better off not getting to know. I was told he was not a nice person and one not to be trusted. I did not listen and followed my heart instead. Here is our story.

The first time I met this man was at a meeting and he was standing up for what he believed in with a few other individuals who felt the same as he did. Meeting after meeting, they never backed down from their stand, and tempers flared from the majority group. As time moved on and the difference of views continued, this one man found himself alone in the battle. The others had stopped coming to the meetings.

After one very heated meeting, I felt a pull to walk up to this man. The need to give him a hug was beyond all common sense but I felt it was the right thing to do. Many saw me walk up to him and after witnessing the hug, asked my husband if I had lost my mind? My husband said he wondered at times if I had. No one knew what I had said to this man or what made him hug me a second time.

What I said when I walked up to him was, "I need a hug from you! We may not see eye to eye on what is happening at the meetings and I do not agree with your stand but I respect you all the same." He said if I was willing to take the risk of causing a scene, he was game and he was never one to turn down a hug! We both laughed and hugs were exchanged. From that day on when ever we saw each other hugs were exchanged. Becoming friends was another story.

The man was not sure of me at first or the open friendship I offered so freely. He wondered why I was nice to him and if I had a hidden agenda. Things were rocky and at times challenging. Time was my only way of proving I was seeking nothing more than he was willing to give to me. I was close to his brother and cherished his wisdom. The brother was my Mentor and yet it was a few years before I was told they were related.

When the man's brother became ill, we started turning to each other for support and trying to make sense of it all. It was about three months after his brother had found out he had cancer that I was told his days were few on this earth. I remember showing up at the funeral with a single red rose and crying in the man's arms.

The weeks after his brother's passing, the man and I started talking on the phone weekly. We shared many happy memories during our talks. He had a very wide range of interests. We never ran out of subjects to talk about. He knew I was always reading some book or another and would have me tell him about it. He taught me Oklahoma history as only a native could. He loved to listen to Paul Harvey and would share with me the stories he liked the most. During all of those talks we never touched on the topic which we had stood on opposite sides. It just did not seem important to us to bring up something we already knew how each other felt.

The man's name is Jim Buswell, NSBEQ, and he became a Silent Key in August of this year. I will miss my hugs and the talks we use to have. I will miss his sense of humor, and his down to earth view on life. Jim had a way of keeping most people at an arm's length and would always strike out before someone could strike out at him. Many saw him as a grumpy old man and that is the way he wished them to see him. He was a proud man and had a gentle spirit. He loved cats, a plus in my books. He cared about our ham community and was a VE Examiner. He gave to this community in more ways than I can count.

Jim blessed my life by allowing me to call him friend. I am glad we took the time to get to know each other. Jim believed that Birthdays were only worth celebrating when someone else took the time to remember them. He sent Birthday cards to family and called friends so that they would know that at least one person remembered their special day. It was a side of him he had hidden from many, Jim had a soft heart and protected it well.

Many years ago, I went against the advice of others and followed my heart instead and was blessed beyond measure.

### Holidays are just around the corner...

For me, I somehow missed most of Summer and find it hard to believe it is now Fall. Strange but living through the tornado aftermath was like losing all touch with time. I feel like someone who went to sleep and woke up a few months later. I know I did things during that time, I just did not pay attention to what I did.

So, here we are and it is October. Three months are left in this year before the year 2000 dawns. I have most of my Y-2K stuff ready. Still have water to get and a care package from Texas (nothing beats Texas jerky and dried sausage. That's a hint dad!). I am behind on making Christmas gifts this year. I may just bake a few things and send that instead to everyone as gifts. I may make some homemade jellies and send that as well.

That brings me to my yearly plea for you to share some of those family favorite recipes for our Christmas issue. I know many of you do not spend as much time in the kitchen as mom did. I also know many of you have a collection of her recipes and so why not share a few with us for our holiday issue?

*Personal note:* All of our cats did survive the May 3<sup>rd</sup> tornado. Mr. Spock our 9 year old male, I thought was handling the aftermath the best of all of them. I was with them during those first few weeks until our landlord came to town and was forced to board the cats for 16 days. Spock came home with a lump on his neck. It was a tumor on his thyroid gland and we did everything humanly possible to save him. Still, no matter what you do or how hard you wish things were different, if it is meant to be it will be. Spock died the day after surgery on September 1, 1999. The vet had his remains cremated. We took Mr. Spock's ashes and buried them beside Shane, now they are together once again.

I know they are just cats. Many people in the world we live in today see our 4-legged friends as disposable. After all, they are not human and you can always replace them. Sorry but I disagree. Life is a rare gift and I do not think it should be wasted.

When I decide to take responsibility for a pet be it a fish or a cat or dog, it becomes part of our lives. Hal had worked so hard to stabilize our 55 gallon fish tank about 7



weeks before the tornado hit. We had finally gotten it stable and had about 28 fish in it. The tank was not damaged but without electricity we started losing fish. We had to break the tank down and move it to replace the flooring. I could not just flush them down the toilet, they were not expensive fish but I did not think it would have been right. They were survivors like the rest of us. I did some fast homework and managed to save 17 of our fish. It was not easy but they are now back in their tank and happy as can be. The fish tank is referred to in our home as 'Kitty TV' and it is on 24 hours a day, 7 days a week non stop action.

Until next month...

### Ham Radio aids after Athens Earthquake

Greek ham radio operators were among the first to tell the outside world when a massive earthquake struck near the historic capital city of Athens on Tuesday, September 7th. Called one of the worst quakes to hit the Athens area this century, the magnitude 5.7 temblor toppled buildings and other structures in an Athens suburb, knocking out telephone and other normal lines of communications. According to initial news reports, it was hams who first reported that the death toll had climbed past fifty shortly after the quake rolled through the area. While communications into and out of the area of the quakes epicenter is now nearing normal, one news report says that relief workers fear the number of dead could surpass eighty with yet another eighty to one hundred still missing and feared trapped under the rubble. As this report is prepared, rescue crews are intensifying their efforts to find survivors in the capital's northern suburbs. What specific services that Athens area hams are providing has not been covered in depth in the news reports that we have seen.

*(Newline from published news reports)*

### ULS Update

Things are starting to come together for the FCC as it continues rounding off the sharp edges of the new Universal Licensing system. Rick Lindquist, N1RL, of the ARRL Audio News has the latest: Good news! The FCC has processed a backlog of several hundred applications, some dating back to early August, transmitted by those Volunteer Examiner

Coordinators able to file with the new Universal Licensing System. More good news: It appears that the various ULS Public Access Transaction files, commonly called ZIP or update files, now are available. Web callsign servers use the ZIP files to post current Amateur Radio licensee data on their sites.

Many hams are relishing their new callsigns or upgraded privileges granted since the processing logjam brought about by the ULS implementation in mid-August was cleared. Adam Kittle, KD5IBG, of Converse, Texas, had to wait three weeks from exam session to the day his new callsign was granted on August 27. Many more new callsigns were granted last weekend and this week as the FCC caught up with the remaining backlog. Floyd Brown of Norcross, Georgia, snagged his snazzy KG4EME callsign on September 1. Once the ULS is running smoothly, the FCC hopes to process applications nearly as soon as they are received, cutting the typical wait to just a few days.

No vanity callsigns have been issued since August 4, and there is still no word from the FCC as to when vanity callsign processing will resume. The ULS accepts vanity applications, however. Although it's not nearly as convenient to use as the typical Web callsign server, applicants can obtain their new callsigns or upgrades from the ULS: <http://www.fcc.gov/wtb/uls> by clicking on "License Search" and inputting their name, as it appeared on their application, or callsign.

To confirm license class and reveal additional data, users must click on the pull-down menu labeled "License Options" on the bottom of the screen, click on "Amateur Administration" and click "Go." Amateurs may have to wait a bit longer before doing a Web callsign lookup on one of the Web callsign servers such as UALR, QRZ.com, WM7D.net, or the FCC Transaction Search on ARRLWeb. The FCC first attempted to post a full update ZIP file last week, but the file was corrupt.

Another attempt Wednesday to post a complete update appears to have been successful, however. The FCC has issued a revised file specification for the ZIP files, however, so callsign servers may have to modify the program routines they use to grab the data each day from the FCC's server. The ULS Task Force says it's

tackling issues like these that are being brought to its attention. "We are good at taking criticism and at making improvements," a spokesperson said. The Task Force said ULS Public Access Transaction files will be created each day. The FCC now has requested that applicants needing to obtain an Assigned Taxpayer Identification Number or having other "administrative" questions about the ULS contact the FCC Call Center, toll free, at: 888-CALL FCC (225-5322) and press menu item 2 (those calling from outside the US should dial +1-202-418-0190).

Club station trustees must continue to file on Form 610B, and hams who are trustees for more than one club station need to obtain a separate ATIN for each club. Users with technical questions dealing with the mechanics of ULS registration or access, or having browser problems, should continue to contact ULS Tech Support at 202-414-1250 [ulscmm@fcc.gov](mailto:ulscmm@fcc.gov)

The FCC says the ULS dial-up access has been upgraded to support 56k modems. In the wake of comments and criticisms about the difficulty of having to configure a dial-up connection with a particular browser to file an application, the ULS Task Force says it's planning to convert to electronic filing via the Internet "sometime after the first of the year."

Once it begins successfully processing vanity calls under the new system, the FCC will be able to call the ham radio aspect of the ULS a complete success.

*(ARRL)*



Covertly employed by a government agency with no name, issued an international license with no restrictions, and sworn to achieve one goal: The exploration and understanding of the most extreme fringes of communications technology. You can join the adventures of Doug Xander, perhaps the most technically adept Radio Amateur in the world, by reading:

# D'X FILES

## Episode Twelve: X-Ray Tango Tango - Xanders's Tenna Tips - Part II

Part I of this series covered a few of the advantages of using two half-waves of wire in simple home-brew antennas. This month we'll expand our options by considering antennas built with three half-waves of wire. But, before we get in too deep, let's spend a moment on how to couple a balanced antenna to an unbalanced coaxial feed line. The most popular method is the toroid core 'Balun'.

Most wire antennas are balanced relative to ground, meaning the radiating elements are approximately equal in their voltage potential above ground. This is a good thing as it saves the effort of installing ground radials as a counterpoise and gives the antenna some independence from the effects of varying soil conditions. Dipoles and loops are examples of balanced antennas as no point of the antenna is grounded. End-fed long wires and many verticals are unbalanced with respect to ground as 'ground' is very much a part of the antenna whether real or fabricated.

Although a balanced antenna doesn't need a ground to perform well, please note that a good, solid ground on the coaxial braid near the point of entry into your shack is **STRONGLY RECOMMENDED** for static discharge and lighting safety!

The Balun: A simple device for matching BAL-anced loads to UN-balanced feeds (or vice-versa) and a cousin to the UnUn. Baluns can transform impedances within a limited range, but will go reactive when pressed beyond their limits. I won't install an antenna without a Balun, and I don't expect them to 'fix' a shoddy install.

The most common Balun is the 1:1 ratio shown in Figure 1. A Guanella 'Current Balun' is built with 7 - 9 bifilar turns of 12 gauge enameled 'magnet wire' on a 125 $\mu$  (Mix 61) T-240 Ferrite toroid core and is generally considered superior to the three-wire Ruthroff 'Voltage Balun' we've seen in the *ARRL Handbook* for many

years. The Reisert Balun is built on the same core material, but with 5 - 7 turns of a small diameter Silver/Teflon coax like RG-142 instead of a pair of enameled wires. You can substitute RG-58 or RG-8X, but don't pull the turns too tight as the center conductor may try to cut the foam dielectric, which encourages an arc, short, or impedance bump inside the coax.

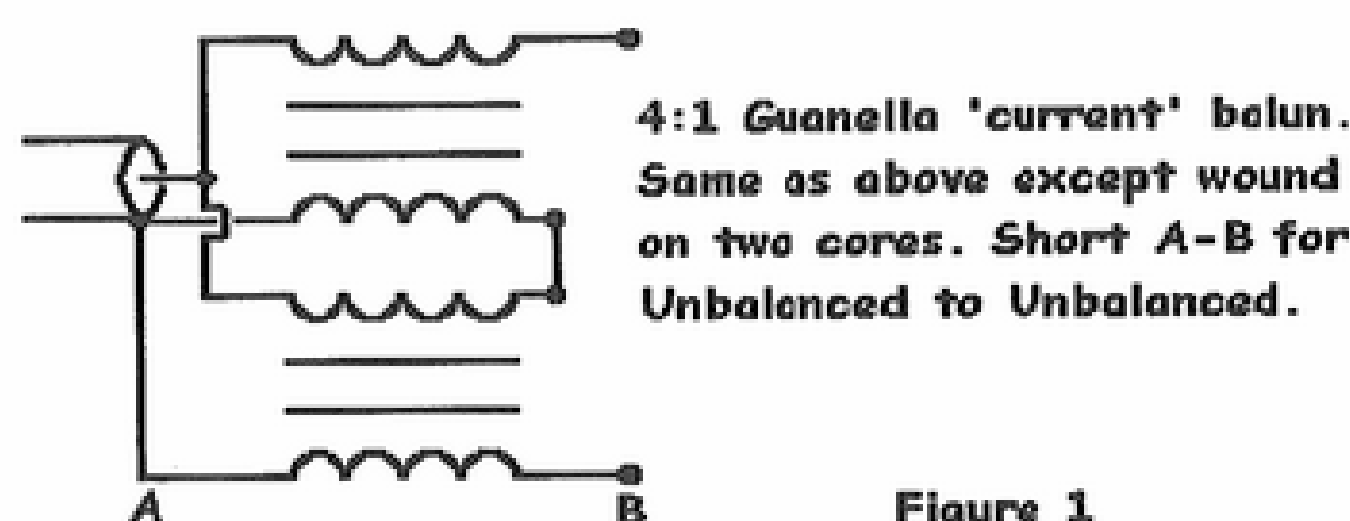
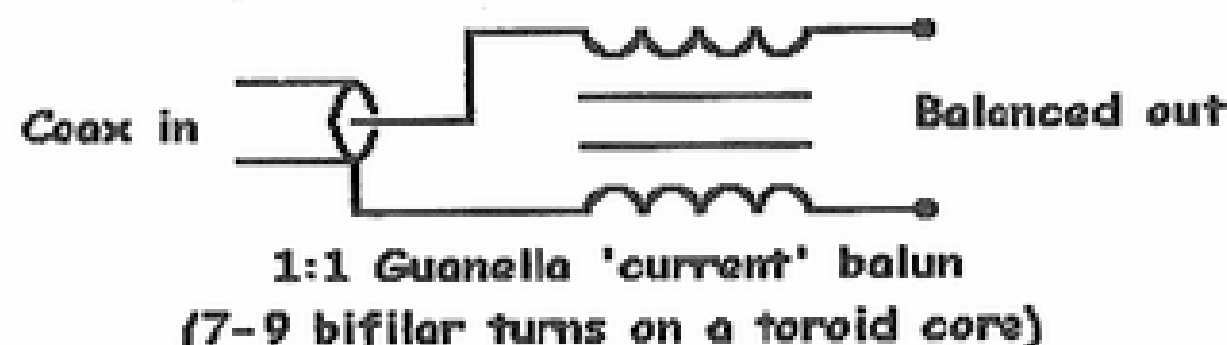


Figure 1

Figure 1 also shows a Guanella 4:1 'Current Balun' using two toroid cores to match a balanced 200  $\Omega$  load to a 50  $\Omega$  unbalanced coax feed line. Pay close attention to the polarity and phase of the windings (it can get confusing) and use an insulated wire like 14 gauge solid THNN 'house wire' instead of 12ga enameled wire. Why? The parallel windings are like transmission lines with their impedance determined by the spacing and diameter of the wire. A pair of snug 12ga enameled wires can go as low as 25  $\Omega$  and it's easier to make a clean impedance transition if the lines are near 100  $\Omega$ . In the case of the 1:1 Balun, the lower impedance typical of parallel enameled wires is preferred. A T-240 core wound with 12 or 14ga wire is hefty enough to handle the legal limit, but the smaller cores tend to be more efficient and can easily handle a 100W transceiver.

A proper Balun will decouple the feed line from the antenna, balance the current flow at the feed point, and reduce the chance of

RF in the shack or TVI/RFI complaints. An abused Balun, such as one dealing with the highly reactive load of a 20 Meter antenna 'forced' on to 17 Meters through an antenna tuner, can suffer from core saturation which encourages TVI/RFI and may damage the Ferrite. Also, the 4:1 Balun described above can easily match 200  $\Omega$  to 50  $\Omega$  or vice-versa, but the wire

spacing would be too wide for matching 12.5  $\Omega$  to 50  $\Omega$  on a quarter wave vertical. Use enameled wire for lower impedances. And, yes, you can use this same Balun as an UnUn with a jumper between points A and B. Dr. Jerry 'W2FMI' Sevick's "Building and Using Baluns and UnUns" can be found at many Ham outlets and is an excellent reference for using Baluns.

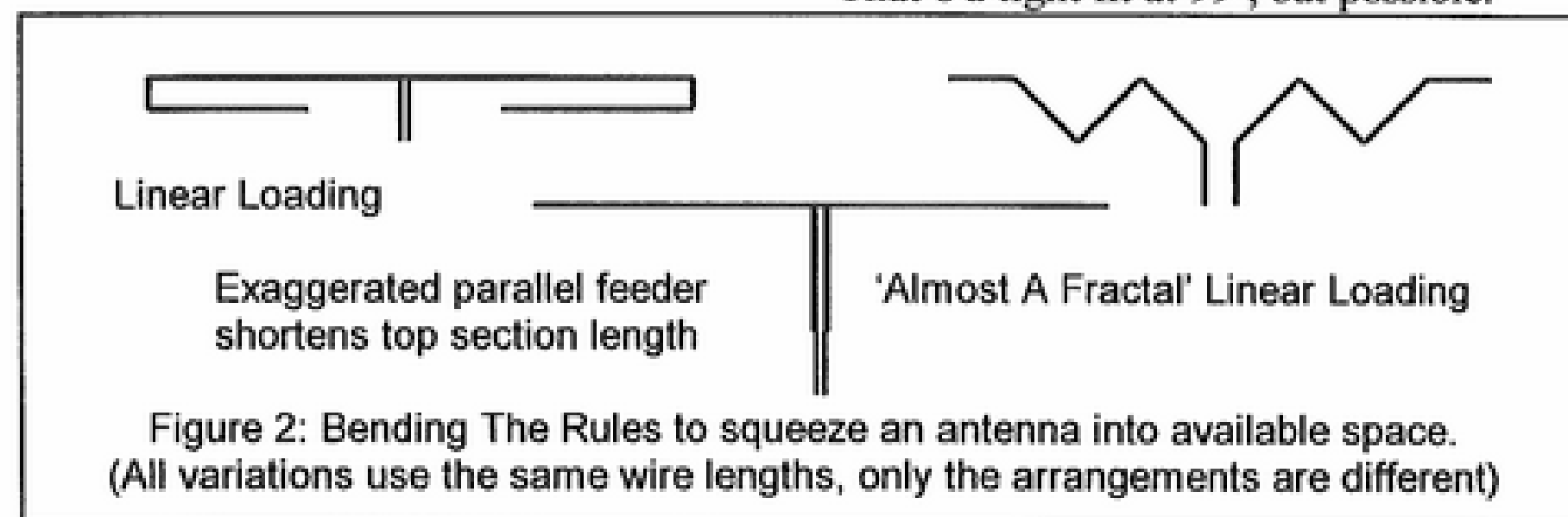
Now that we know how easy it is to build a decent Balun, let's take a look at two of my favorite antennas... The Double and Extended Double Zepp. Broadband and efficient, they are remarkably tolerant of a less-than-perfect installation and can deliver DX despite our limitations. I know of one Ham who recently worked T24DX in Tuvalu (IOTA OC-015, South Pacific) through a pileup on 20 Meters with 100 watts SSB into an Extended Double Zepp at 25 feet. Not bad for ten dollars worth of wire with a bit of luck on a Saturday morning... Plenty of VK's and ZL's too, but Tuvalu just sounds more DX'ish...

The Double Zepp is two half-waves fed in phase and presents a very high impedance at the feed point which can be tamed by adding a third half-wave of wire formed into a quarter wave matching section. To calculate a Double Zepp, divide 1440 by the frequency in MHz. This gives the total wire length in feet for the entire antenna. Cut this wire in half, and then divide 940 by the same frequency in MHz. This is the tip-to-tip length of the flat-top radiating section. Arrange the balance of the wire (assuming 12ga solid THNN 'house wire') into something resembling a ladder line using 1.5" spacers every 8 to 10 inches and attach a 1:1 Balun at the end of the tuned feeder. Haul the antenna up to a comfortable working height and prune the tuned feeder in small steps until you reach best SWR across the band. This is the no-tune single band version with a Figure-8 pattern broadside to the wire and about 2dB worth of gain relative to a Dipole. The 'Classic Double Zepp' uses two 132' lengths of wire arranged into a 132' flat-

top radiating section. Arrange the balance of the wire (assuming 12ga solid THNN 'house wire') into something resembling a ladder line using 1.5" spacers every 8 to 10 inches, then attach a 1:1 Balun and coax to the end of the tuned feeder. Raise the antenna to a comfortable working height and watch the SWR at the bottom of the band as you prune the tuned feeder... As soon as you see any hint of SWR at the bottom end, stop and check the rest of the band.

Astute readers will notice the progression from a simple Dipole through the Double and Extended Double Zepps offers three sizes of antennas with increased gain as they become larger. This is useful when choosing an antenna to fit your available space. In the case of 20 Meters, the steps are 33', 66' and 85' tip-to-tip. If you have 100' between your supports, the 20 Meter EDZ at 85' is a comfortable fit. But, you could also squeeze a pair of Double Zepps strung end-to-end in the same space, say 66' for 20 Meters and 33' for 10 Meters. That's a tight fit at 99', but possible.

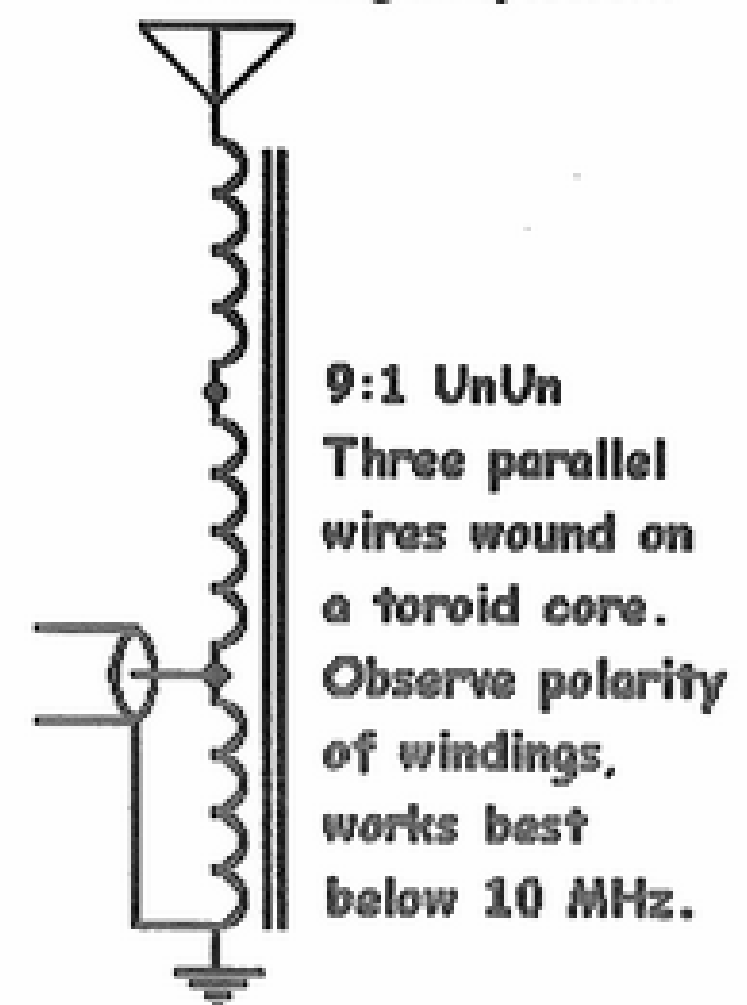
As mentioned earlier, end-fed wires need a good solid ground system to 'work against'. In balanced antennas like Loops and Dipoles, both halves of the antenna serve as a counterpoise for the opposite half on alternating cycles. End-fed wires tend to be disappointing performers since most of us don't have the room or ambition to install a truly effective ground system. However, if you're into low-band or AM broadcast listening, one of the best quick & dirty antennas I've ever used is 100' or better of 10 or 12 gauge stranded THNN stretched out or curved around and through the landscape. Use an 8' ground rod at the feed point and match it through a 9:1 UnUn. 50Ω or 75Ω coax will work; it's not critical. The 9:1 UnUn is a 1" toroid core of 850μ or better Ferrite wound with three lengths of 24 gauge insulated wire taken from a scrap of Category 1 to 5 Ethernet cable, Plenum if possible. Received signals are stronger if the wire is supported at 8' to 10' on PVC pipes (like a Beverage; try it with and without terminating the far end) but I've had remarkably good luck by scalping the lawn and laying the wire directly on the ground with no termination. This is one way of getting some use out of your front lawn without building an eyesore...



top radiating section with a 66' tuned feed connected through an antenna tuner for all-band HF coverage. A very popular and effective antenna for decades, but there is the inconvenience of the antenna tuner and ladder line into the shack.

A further refinement of the Double Zepp is the Extended Double Zepp. Essentially the same antenna, but with an extra 1/4 wave of wire in the radiating section (which shortens the tuned feeder) and a tighter Figure-8 pattern with a bit more gain. One quirk of this antenna is that it uses slightly more wire than the Double Zepp and the construction details reflect this. Divide 1500 by the lowest frequency in MHz of the band of interest (not the preferred band segment!). Measure a wire to this length, then cut it in half. Divide 1200 by the preferred band segment frequency in MHz; this is the tip-to-tip length of the top radiating section.

As a general rule, I like to see at least 10' of rope on each end of an antenna. But we know it doesn't work that way in the real world, so let's spend a moment on ways to squeeze an antenna into what we have available. Any deviation from a straight-line design can reduce the performance of an antenna, but often it's so slight you'll need test gear to prove it. The 15 Meter Extended Double Zepp is useful on 40 Meters where it's essentially a badly contorted Dipole that works remarkably well despite itself. Let's say you need to scrunch an 80 Meter Dipole (folded or standard) into the same 100' of space mentioned earlier. Normally you'd drop the ends vertically, but metal supports can create RF coupling to de-tune the antenna with a noticeable loss of performance. A better choice is to adjust the top section length to fit, then use 'linear loading' or a ladder line feeder to provide the needed length. See Figure 2 for more ideas.



For those of you wondering if there's any way to get multi-band performance out of a simple wire antenna, two of the best choices are the Classic Double Zepp described earlier and the Windom. Both need 140' or better between the supports, but they do work well. The Windom is usually built with 45' of wire on one side of the feed point and 90' on the other for a total length of 135 feet. Use the dual core

4:1 Balun described earlier and RG-8X from the feed point to the ground. RG-8 gets heavy at the feed point and will cause the wire to sag. There are many variations on the Windom and it's an antenna worth investigating if you have the room. The basic Windom described above works well on all bands (except 15M) but may need a little help from an antenna tuner on some.

Another variation includes non-resonant terminated wires often called 'Traveling Wave' or 'Terminated Long Wires'. They are built by supporting a wire as long and as high as your real estate permits, then bring both ends down to the ground at 45

degrees or so (avoid steep vertical angles). Terminate both ends with a 9:1 UnUn as shown on the previous page and install a 50Ω non-inductive resistor with a power rating of at least half that of your transceiver at the far end. A good, solid ground is very important, so be prepared to spend some time with a shovel. The advantage is incredibly broad bandwidth across several bands as it's non-resonant and somewhat frequency independent, but the disadvantages are the amount of work that goes into the ground system and the declining performance on the high bands. Maximum radiation will be toward the resistor end.

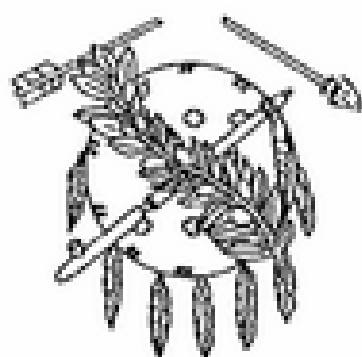
This is one of the best seasons for antenna work and with improving solar conditions a few hours spent stretching wire now will reward you with many enjoyable QSO hours this winter. You may be surprised at how much fun a simple antenna on a new band can be...

## The QSO is out there.

Contents Copyright 1998-1999  
by Nelson Derks – KC5QVV  
“ Illegitimus Non Carborundum  
Ipso Facto “

Approximate Antenna Dimensions For Amateur HF Bands (In Feet)					Folded Dipole		
Double Zepp	Freq	Total Wire	Top Section	Tuned Feeder	Total Wire	Top Section	Spacing
75 Meters (CW)	3.60	404.167	263.889	70.139	397.778	129.167	4.271
80 Meters (SSB)	3.80	382.895	250.000	66.447	388.421	122.368	4.046
40 Meters (CW)	7.05	206.383	134.752	35.816	209.362	65.957	2.181
40 Meters (SSB)	7.20	202.083	131.944	35.069	205.000	64.583	2.135
30 Meters (All)	10.12	143.775	93.874	24.951	145.850	45.949	1.519
20 Meters (All)	14.15	102.827	67.138	17.845	104.311	32.862	1.087
17 Meters (All)	18.12	80.298	52.428	13.935	81.457	25.662	0.849
15 Meters (All)	21.20	68.632	44.811	11.910	69.623	21.934	0.725
12 Meters (All)	24.94	58.340	38.091	10.124	59.182	18.645	0.616
10 Meters (Tech+)	28.40	51.232	33.451	8.891	51.972	16.373	0.541
10 Meters (High)	29.40	49.490	32.313	8.588	50.204	15.816	0.523
6 Meters (SSB)	50.15	29.013	18.943	5.035	29.432	9.272	0.307
6 Meters (FM)	53.00	27.453	17.925	4.764	27.849	8.774	0.290
					Delta Loop		
Ext Double Zepp	Freq	Total Wire	Top Section	Tuned Feeder	Total Wire	Side Length	Tuned Feeder
75 Meters (CW)	3.60	431.034	333.333	48.851	415.833	69.792	68.333
80 Meters (SSB)	3.80	400.000	315.789	42.105	393.947	66.118	64.737
40 Meters (CW)	7.05	217.391	170.213	23.589	212.340	35.638	34.894
40 Meters (SSB)	7.20	211.268	166.667	22.300	207.917	34.896	34.167
30 Meters (All)	10.12	150.000	118.577	15.711	147.925	24.827	24.308
20 Meters (All)	14.15	107.914	84.806	11.554	105.795	17.756	17.385
17 Meters (All)	18.12	83.333	66.225	8.554	82.616	13.866	13.576
15 Meters (All)	21.20	71.429	56.604	7.412	70.613	11.851	11.604
12 Meters (All)	24.94	60.289	48.115	6.087	60.024	10.074	9.864
10 Meters (Tech+)	28.40	53.571	42.254	5.659	52.711	8.847	8.662
10 Meters (High)	29.40	51.724	40.816	5.454	50.918	8.546	8.367
6 Meters (SSB)	50.15	30.000	23.928	3.036	29.850	5.010	4.905
6 Meters (FM)	53.00	28.846	22.642	3.102	28.245	4.741	4.642

FOLDED DIPOLE: Some of the data is assumed due to space limitations. The total wire length is the radiating section plus a quarter wave tuned feeder. The 'Top Section' dimension is the tip-to-tip length for the flat top and also true of a Standard Dipole. 'Spacing' is the separation between the top & bottom wire at 1/64th of a wavelength. Example: A Folded Dipole for 75 Meter CW: Cut 398' of wire. Find the center and measure half of the Top Section length from each side of center (less half the spacer length) then attach a 4' spacer at this point and fold the balance of the wire back toward the center. A quarter wave tuned feeder is the same for both the Folded Dipole and Delta Loop; you'll see the tuned feeder listed at 68' in the Delta Loop column. The remainder of the wire should form a 68' feeder. Use 1.5" spacers to arrange this wire into something resembling ladder line and prune as needed for best SWR.



## Broken Arrow Amateur Radio Club

### September Meeting Minutes

Minutes of the ninth Meeting of the Broken Arrow Amateur Radio Club for 1999. The meeting is called to order by President Wayne Hartsfield (KK5AT) at 6:35 PM. Introductions are done of all persons present.

#### OFFICERS REPORTS:

**Secretary:** The minutes for the August meeting are read by the Secretary Gerry Paschal, KC5JKU. A motion is made that the minutes be approved as read. The motion passes unanimously.

**Treasurer:** The Treasurer's report is read by Harlan Kinney K9GDK. Wayne reviews income and expenditures for the month including CORA and GTE payments. The balance was reported. A motion to approve the Treasurer's report without amendment is and seconded. The motion passes unanimously.

#### COMMITTEE REPORTS:

**Engineering:** - Jeff Scoville, KC5RTH reports that the .47 malfunctioning has been traced to the transmitter and the transmitter has been changed out.

**VE Report** - Nick Marsala, AB5M reports that two persons tested and passed including Dawn Lubben.. Wayne reminds the meeting group that volunteers are always needed at VE testing.

**Packet Report** - Jeff Scoville, KC5RTH reports that the link to OKC is still down due to outage of the Sapulpa node due to fire. Jeff describes how the State-wide digipeater system functions and notes that a report on function of the APRS system will be provided during the October meeting of the BAARC.

**ARES:** No Report

**Nets:** Wayne reports that nets are going OK but that we only have three net operators available on 2 meters and two operators available on 10 meters. Guy Shipley, WB5MXO asks that the newsletter be amended to include data on the nets such as time, date, frequency, etc...

**PRESIDENTS COMMENTS:** Wayne reviews the various certificates that the BAARC issues as well as reviewing the QSL cards for the Rooster Days special event station. Jeff Scoville, KC5RTH is presented with an award certificate for helping to make the Rooster Days event function. Chuck Myers, KK5IC is given a special award certificate for assisting with club activities over the last 5 years. Wayne reminds the members present that the SET and the Jamobree of the air are both coming up in October and BAARC members need to consider if they wish to participate. Wayne notes that a club brochure is being put together by Joe Horn and will be available at each meeting.

#### OLD BUSINESS

Wayne reports on the request from the August meeting to investigate whether the club meeting could be moved to the third Monday in the month. It turns out that the meeting room at the BA Activity Center is available on that day. Chuck Myers, KK5IC moves "That the regular meeting of the BAARC be moved to the Monday of each month starting with October, 1999." Guy Richie seconds the motion. There is no discussion. The motion carries 23 to 1.

A motion is made by Kelly Blackmon, KD5ALU "That the regular meeting of the BAARC be Brought to Order at 7:00 P.M. starting with the October, 1999 meeting. Herb Maresh, W5YLH seconds. There is some discussion. The motion passes 15 to 1.

#### NEW BUSINESS:

Wayne reports that there is a list being generated of BAARC members that wish to participate for Y2K coverage at local hospitals, etc...Jack Egbert, N5E00 reports that St. Francis Hospital Broken Arrow (Cindy Weatherspoon, local contact) is one of a number of Tulsa Area hospitals

that wish to provide 2 meter transceivers for amateur volunteers to operate during communication problems. Wayne asks that interested members contact him so that he may present a number of members from BAARC as a proper response to the hospitals request for volunteers.

#### Member's Comments:

Guy Richie asks that a handout with member special features be made available at the table at each meeting. This will detail information such as speed dial numbers and how they are handled, etc...

7:32 End of Business Session and Break

7:40 Program

The program deals with homebrew activities. Three projects are reviewed. The first one is the repair of a damaged 2 meter mobile transceiver. The second is the construction of a 9 VDC power supply from components. The third is the assembly of a GPS reporting system for use in the APRS program.

8:16 Program Completed. Wayne reviews current BAARC activities for newcomers.

8:22 Meeting Adjourned.

There were a total of 27 persons present for the meeting. Submitted by Gerry Paschal, KC5JKU, Secretary BAARC

### President's Report

By Wayne Hartsfield KK5AT

From the Prez

#### Greetings and Salutations

A few words of encouragement may follow, or may not.

We are coming up on the end of another year before long, even more important an end to a millennium. Personally I am looking forward to the year 2000 and hopefully a few beyond. All of the gloom and doom I sometimes hear, make me somewhat nauseated. It is above anything else, a new beginning. Our hobby should be no different. The talk of Amateur Radio going away or not having a purpose because of whatever reason should be ignored by all. Ours is a special purpose. Think about it and there is no way it will fade away to oblivion. There may well be

some changes ahead, undoubtedly there will. Our role may change. We will still be there setting up temporary stations in times of disaster and devastation. We could play an even larger role in voluntary communications should our community of operators get focused and motivated. Code or no-code, internet or internat. Give it some thought and see where you and your community could benefit. Enough philosophy already.

### What's going on in the club?

Well, at the next meeting I will be appointing someone to head up a nominating committee because nominations are due in November with elections the following month. I hope all of you will be considering who your new officers will be for the new year. I haven't accomplished as much as I had hoped to, although maybe I have laid the ground work for what lies ahead. That makes December a busy time. We also have our Annual Meeting/Christmas Banquet in December so there is a significant amount to do. Where would you like to have the banquet? Let me or one of the other officers know.

Our meeting dates have been changed in hopes of getting you, our members, out to the meeting. We will now meet on the **THIRD MONDAY OF THE MONTH AT 7:00 P.M.** at the Community Center at 1500 South Main Street. This will also allow you to receive the newsletter in advance of the meeting. Therefore things of interest or importance will not be in post script. Thanks to recommendations brought by club members I am encouraged by these changes.

For our October Meeting, Jeff is putting together some folks to do live demonstrations of APRS activity in the area. That is Automatic Packet Reporting Systems. Hope you can come down and see how it works, some of the advantages to its use, and how you can use it as well.

My compliments to Jeff and Russell on getting the Retransmission feature installed on the EMWIN transmitter. I don't know if anything would have been achieved this year had it not been for Jeff getting it done. He has been a tireless worker on behalf of the club,

and I know he could use some help. I would like to encourage you all, the next time you sit at your computer to write up an article relating to the club, or amateur radio. You may surprise yourself. Even the new guys, could pull out a book or magazine article on something you're curious about and write up a descriptive article which would probably interest all the other new operators and the older ones too. Give it a try. Until then, See you at the meeting.

### BAARC EMWIN Continues to "Push the Envelope"

Russell Self's tireless work over the past three months has paid off handsomely for the club.

We now have the capability to inject local content into the 9600 bps EMWIN transmitter in Broken Arrow. Our transmitter was the first site on the area to run at the higher 9600 bps rate almost two years ago. We are now one of the few sites that have true computer-controlled retransmission capabilities.

What does this mean for the average ham? Well, you will soon be seeing local radar, civil-emergency management, and other items of local interest on your Weathermode receiver. We are currently testing a system in which the positions of local weather spotters using APRS will be shown on a local radar map. EOCs in the area will instantly know exactly where their APRS-carrying spotters are. For that matter, they will know where ALL of the spotters in Northeast Oklahoma are! This will help take some of the guesswork out of storm spotter reports.

All in all, our EMWIN system continues to set the standard for other EMWIN sites all over the US.

### Club Meeting Time Changes! 3rd Monday of the Month at 7 PM!

By a majority vote of the club, the BAARC Meeting has been changed to the **THIRD Monday** of each month. This is to allow the information published in our section of the CORA newsletter to come out before the next club meeting (eliminating the month lag in some news items). To give everyone a little more time to get ready for the meeting, the meeting time has been moved to 7 PM.

Next club meeting with is October 18th at 7 PM. Hope to see you there!

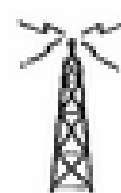
### Club Nets

Mon at 8 PM: 146.91/444.000 Mhz  
Info & Swap Net  
Wed at 9 PM: 50.59 Mhz 6 meter  
simplex net  
Thurs at 9 PM: 28.305 Mhz 10 meter  
Sidebanders Net

Code practice is held each Thursday evening from 8-9 PM on 28.305 Mhz simulcast on the 145.47 Mhz repeater.

## Clear Signal Products, Inc.

Featuring WIREMAN™ quality Ham Radio products  
See the Wireman for all your HF-VHF-UHF applications  
Coax • Rotor Cable • Antenna & Magnet Wire • Flexweave



**Mike LaPuzza – KM5QX**  
(405) 745-3394 or 745-1019  
e-mail: km5qx@juno.com





## Enid Amateur Radio Club

**Minutes of the September 1999 Enid Amateur Radio Club Meeting 23 September 1999 Red Cross Headquarters Enid, Oklahoma**

The meeting was called to order by John, KA7GLA at 7:00 p.m.

Members and guests in attendance were: President John, KA7GLA; Dave, KC5GUD; Fred, N5QJX; Dwayne, KC5QVS; Sam, KD5EUS; Al, KD5BA; Clint, KB5OEQ; Mike, N5WUH; Phil, KC5DCT and Dale, WD5GUG.

The treasurer was absent pursuing another big financial deal, and passed his report on to John. It was approved as read. There was no correspondence.

**Old Business:** A big thanks was passed on to all by Al, KD5BA for a superb job at the recent Cherokee Strip Parade. The only logistical snafu reported was with the "Big Blue" Enid High band, but all went very well (with the exception of Clint's malfunctioning microphone). Thanks to the following: Al KD5BA, John KA7GLA, Fred N5QJX, Tom N5LWT (race only), Jimmy W5JEP (race only), Bill KC5OKG, Curtis KD5GQU, Clint KB5OEQ, Phil KC5DCT, Dwayne KC5QVS, and Sam KD5EUS.

**New Business:** Y2K: John is looking into a need to have 6-8 amateurs on hand for emergency communications at Enid hospitals on New Year's Eve evening, in the event we are needed when Y2K rears it's ugly head. Three or so are needed at each hospital - one each in the Emergency Room, at the Command and Control Center, and one to function as a general "runner". We'll stage-up at the EOC in City Hall, time to be announced. We'll be on-hand "until we see what's happening to provide communications in the event of a large-scale emergency."

**Audit Committee:** The following were appointed to the Audit Committee Dick NJ5S, Sam KD5EUS, and Mike N5WUH.

The report is due BEFORE the next meeting. Thanks to all!

An Election Committee was also appointed to "twist arms" for next year's officers. Dale WD5GUG and Al KD5BA have the nod to find the most highly qualified individuals to take our club into the next millennium (well, it *sounds* important anyway).

**Hardline:** The club has an opportunity to purchase approximately 500' of good-quality used 7/8" hardline to replace the damaged line (from a stray bullet) going up to the repeater. At approximately 50 cents per foot, it appears to be a good investment. With a limited treasury balance, Al made a motion to offer a lower price for the lot, and the motion was seconded by Sam. We'll get a report next month. Who's going to climb the tower?

Enid Hamfest coming up! (Editor's note: this will be your last notification prior to the Enid Hamfest). November 6, 1999, Garfield County Fairgrounds in the Hoover Building. Hours: 8:00 a.m. until 5:00 p.m. Plenty of free parking, free coffee and donuts, free lunch at noon. Admission: still a bargain at only \$2.00, and tables only \$1.00. For more info, contact Fred (580) 242-3551, Tom (580) 233-8473, Dick (580) 233-9869, or e-mail: n5lwt@hotmail.com. Talk-in frequency on 147.15+ and 444.4+. Don't miss it!

**Christmas party:** The club voted to hold a Christmas social function this year - this is the annual event at which next year's officers will be installed. The location will be Western Sizzlin (if a room is available) in Enid on Thursday, December 2, 1999, 6:30 p.m. We had a great turnout last year, and this year's event should be a lot of fun as well!

**The next meeting will be held on Thursday, October 28, 1999, 7:00 p.m. at the Red Cross headquarters, Enid. See you there!**

73's  
Dave

### ENID HAMFEST 1999

In association with the Enid Amateur Radio Club

**Saturday, November 6, 1999  
8:00 a.m. until 5:00 p.m.**

Hoover Building  
Garfield County Fairgrounds  
Enid, Oklahoma

Admission: \$2.00  
Tables: \$1.00

Free coffee and Donuts in the morning  
Free lunch at noon  
Free parking

Dealers present

Talk-in frequency: 147.15+ and 444.40+

For more information contact:  
Fred (580) 242-3551  
Tom (580) 233-8473  
Dick (580) 233-9869  
e-mail: n5lwt@hotmail.com

### Motorola DTV chip

The Wall Street Journal says that Motorola Corporation is expected to unveil technology that will reduce the effects of multipath reflections that are plaguing the transmission of digital television signals.

Dubbed MCT 2000, the technology will reduce the reflections that occur when a structure interferes with a digital signal. This same technology holds the promise of also improving other RF based communications systems and some day might even be applied in Amateur Radio. (Wall Street Journal, Motorola)

### Senior Radio

The Times of London reports that Angel Community Radio on the Isle of Wight only plays music that was recorded before 1959. The Times also says that the station is on the air 24 hours a day but only employs senior citizens on its staff. (Q-News)





## Edmond Amateur Radio Society

### Birthdays:

The following EARS club members have October birthdays:

10-02 Patricia Kuper	KC7YBP
10-03 John Schuncke	KE6FCQ
10-06 Dirk Wilhite	KC5SFE
10-16 Jana Thomason	N5KMJ
10-18 James Dawson	WA5PHJ
10-20 Kyle Granger	KB5KIU
10-20 Dan Osborne	K5ISN
10-21 Kathleen Stearns	KB5KIJ
10-25 Dee Mize	WD5FHR
10-28 Ken Stepp	N5DBM
10-31 Steven Cornman	KB5CDF

### New Members:

We welcome the following members to the club:

Terry A. Davis KD5HXZ  
 Dan Davis KB5HTX  
 William Garthoeffner, Jr. W5QMP  
 Also, a new call - Daniel Simpson (formerly KD5GDE) now AC5TE

### Member Information:

To notify the Club of a change in your Call, Address, Phone number or E-mail address, please contact Sharon by E-mail at Sharon\_Thompson@capitalland.com. Thank you.

de Sharon Thompson, KM5GV

### SUMMARY OF CLUB ACTIVITIES:

The repeater controller is back to normal after the lightening surge that came in through the phone lines. The club is purchasing some extra equipment to try to prevent this from happening in the future.

Club station KC5ORP recently received QSLs from the last of the 50 states it needed for Worked All States. The award

will be presented when the information is processed.

EARS gained three new members recently, and the board next month will consider whether to authorize Sharon, KM5GV to send a club mailing reminding members to renew membership dues and to plan for the upcoming Christmas party.

Clara, KG5UG reported that we got a total of 70 inquiries about the licensing classes, and that enrollment has hovered around 30 each week.

John, WB5SYT will chair the nominating committee for next year's club offices. He will be looking for committee members.

The club is looking for convenient times to open the club station for members to use. If you have suggestions, see Jim, N5OHL or Dave, K0TYC.

de David Hartman, KC5UNO

### FUTURE ACTIVITIES:

The following will look familiar from last month. Cooler weather is here. These activities will be a good opportunity to get outside.

The October EARS Emergency Net will convene at 11:00 AM Saturday the 2nd of October. The November EARS Emergency Net will be at 11:00 AM Saturday the 6th of November. Be sure to check in and verify your radio operation at the following event:

Storm season isn't entirely over yet, so the October Siren Test will be Saturday the 2nd of October at high noon. The November Siren Test will be Saturday the 6th of November at high noon. Have you done your monthly public service yet? Edith, KA5YPX needs to hear from you if you can spend some time helping out. Give Edith a call at 348-2961 to get a spot to listen from.

Breakfast still happens each Saturday at 2nd and Coltrane in Edmond at the Country Kitchen some time around 8:30 to 9:00. Come see whether KA5WIS will show up on two or four wheels.

Don't forget about the Monday Night Information Net! Tune up on 147.135 mc.

at 8:00 PM. Get the latest information on amateur radio around Edmond and the Oklahoma City area. Want to know when's the next VE testing session? Want to know when the next hamfest will happen? And....new control operators are always needed. Bob Coxsey is the net manager. Give him a ring and he'll get you on the list.

No word yet on the UCO homecoming parade, but we assume it will happen. Stand by for information on the Monday Night Information Net.

The HF committee has arranged for our Oklahoma Statehood Day Special Event Station to be set up in the rotunda of the state capital on November 13<sup>th</sup>. Be sure and get this on your calendar. Members and non-members are all welcome at this event. This will be a wonderful opportunity to showcase amateur radio for the public to appreciate.

### FUTURE EVENTS:

Board Meeting - 7:00 PM Tuesday, October 12<sup>th</sup> at Brick's. Come on by and see how the club operates. Make your voice heard.

Thursday nights at the club station. Around 7:00PM. Come try a different mode of operation. Operate the new rig. Learn how to tune a tube-type transmitter.

October Club Meeting - 6:00PM Saturday, October 16<sup>th</sup> - Homestyle Buffet 3900 NW 63<sup>rd</sup>, Oklahoma City. All you Oklahoma City resident members be sure to drop by, eat, and visit.

de Curtis Foote KC5GEP

### NOVICE/TECH CLASSES

The fall Novice/Technician classes are going well. 30 students are getting code and technical instruction every week. The last class will be a VE testing session at the club station, so if you've been using the excuse that it's too far to drive to a VE test, here's your opportunity to do it in Edmond.

### EOC:

The latest on the EOC: The exterior ramp is still not completed. All interior walls are complete. We have been moved again - into a new room - immediately east of

the last room we were supposed to be in. Everything is expected to be completed by the end of October.

de Ken Stepp N5DBM

#### REPEATER:

Thanks to Ken Snyder, N5TWC and Lee Vaughn, KA5WIS for getting the machine back up and going so quickly. Every IC on the board was replaced! I've always heard that they don't work when you let the smoke out, and it seems to be true.

#### FINAL THOUGHTS:

We had a good club meeting at St. John the Baptist church last Sunday. Coy Day, N5OK was the program. I want to thank him for coming up and visiting. He even took the time to speak to our Novice/Technician license class. I wish I'd had a tape recorder to transcribe what he said, but I'll summarize some of the talk as I interpret it.

He gave a very positive talk on the future of amateur and the planning being done by the ARRL. He didn't know (along with the ARRL and FCC) today very much about the final form of the new license requirements. He explained the structure of the ARRL and how things happen. And then he brought up our image and how we talk about each other. It was a nice visit with discussion from several club members. Again, thanks Coy for your visit.

This now becomes my editorial: Coy got me to thinking. I'll needle some segments of the hobby in this column occasionally. I try to be fair and positive in this venue. But how often do we categorize others in the hobby detrimentally? What about those no-code technicians? Or those dogged testers? Or those silly DX'ers? Or those old die-hard CW operators? Or those band-hogging AM operators or slow-scan operators? The repeater-resident FM'ers? The QCWA old-timers? Boring traffic handlers? HF net operators? 10 meter operators? Emergency operators? I've heard each of these parts of the hobby bad-mouthed at some time or another. Can any one of these (or other) groups interrupt my hamming? Yes. Are any of them less important parts of the hobby as a result? No. Just because someone else may not share the same

interests I have in the hobby, doesn't mean they aren't important to the health of amateur radio today and tomorrow. Each and every ham is important in their own right. From the newest to the oldest.

We are a public hobby in that anyone with a radio can listen in on us at any time. People DO listen. How do we talk about each other on the air? What impression do we give the public that gives us our radio spectrum? I for one am going to try to be more positive in the future in talking (and writing) about all facets of our great hobby. How about ya'll?

That's it for this month. Please send information for next month's C&E to Curtis Foote at [cfoote@theshop.net](mailto:cfoote@theshop.net) or [curtis.foote@nextel.com](mailto:curtis.foote@nextel.com) so I won't have to take up so much space.

#### Kennard backs low power radio

A proposal to create thousands of new low-power FM radio stations nationwide that supposedly would give a voice to greater diversity of views need not compromise the quality of existing stations. So says the chairman of the Federal Communication Commission. The FCC's William Kennard is defending the idea of allowing low-power, low-cost radio stations before one of its most vocal opponents -- the National Association of Broadcasters -- at the group's meeting in Orlando, Florida. He says that the FCC plan is meant to help churches, schools, city governments and community groups. This, by licensing them to operate radio stations with low power levels from 1 watt to 1,000 watts. But commercial broadcasters continue to argue that adding new low-power stations would cause significant interference with existing stations and degrade service to listeners.

The FCC stopped licensing low-powered FM radio stations around 1979 but the proposal offered earlier this year has sparked interest among hundreds of individuals and grass-roots groups interested in setting up community

radio stations. And now Chairman Kennard says that research by FCC engineers using a wide variety of inexpensive radios holds the promise that current interference standards can be used to develop an engineering solution for low-power radio.

But the NAB isn't ready to buy what Kennard is trying to sell. They have commissioned studies that support their assertion that massive interference will occur if low power FM stations come on the air.

*(Published news reports)*

#### eHAM.NET is here

They call it eham.net and it could be the beginning of a new way for hams to interact with one another and the world around them. eham.net made its debut in cyberspace on September 2nd. Its creator, Bill Fisher, W4AN, says that the site can best be described as a community of hams from around the world interacting as a community.

Fisher says that eham.net aimed at giving hams a place to share ideas. This is accomplished on many levels ranging from simple sales adds to propagation and DX information to a chat area where anything can be discussed.

But that's not all. eham.net includes news items from Newsline and other sources, a callsign server, free ads to swap on-line with listings automatically exported and reposted to the rec.radio.swap newsgroup and much, much more.

Access to eham.net is free. To take a look go to:

[www.eham.net](http://www.eham.net)

*(W4AN)*

### Amateur Accessories

"Our Name Says It All!"

**STEVE ZAHOS KR4S**

• Hamfests

• Mail Order

MFJ, Heil, MAHA, Diamond, Books, Kits, Etc.

P.O. Box 29201  
Kansas City, MO 64152

(816) 891-6790  
(816) 891-0036 Fax  
E-Mail: [szahos@tfs.net](mailto:szahos@tfs.net)

## Reach for Space

The Perryton High School "Reach For Space" weather balloon project started in the winter of 1992 when science teacher Bobette Doerrie, N5IS, received a second place award for innovative teaching ideas from the American Association of Physics Teachers. The Top of Panhandle Amateur Radio Club, an ARRL Special Service Club, adopted the project. Several students have become licensed. The Tri-State Amateur Radio Group has joined in on the fun.

### Flight #15

By Jerome Doerrie, K5IS

"The alien has landed!" came over the two meter 82 repeater.

"What time is it?" I asked those riding in the Suburban with me.

"3:10," replied Zane.

For four hours and 33 minutes members of the Tri-State Amateur Radio Group, the Better Oklahoma Radio Group, Top of Panhandle Amateur Radio Club and others in the tri-state area had been tracking "The Alien" as it flew across Ochiltree County. There were 9 mobile teams and six base stations involved with the chase.

Flight #15 of the Perryton High School "Reach For Space Project" carried 439.25 MHz television, a 200 milliwatt 144.290 MHz beacon, and a 1 watt 28.332 MHz beacon. Scott, N5NYS, dubbed the television package "The Alien". The one eyed creature had a distinctly "out of this world" appearance. Carmen released the balloon package at 10:47 am Saturday, August 28th, from the launch site 4 miles northwest of Booker, Texas. The Alien's course produced a ground track that went south, and then back north, southwest, northwest, south then finished by going northwest. It traveled over 75 miles and reached an altitude of 76,000 to 80,000 feet before landing 13 miles north of Spearman, Texas (some 35 miles southwest of the launch site).

With a telescope at the tracking station on the launch site, Jim W5GAF and Charlie KC5NBH were able to see the balloon at 2:15. At 2:30, just north of Waka, the student group of Amy, Zane, Billy, Carmen and K5IS had a visual sighting as the balloon passed overhead. The balloon

burst at 2:37.

N5WO and N5NYS were near the landing area, with N5NYS getting there first.

It was an enjoyable way to spend a Saturday. K5IS says "thank you" to all who assisted with the flight including NW5OK, KC5NID, KA5QGV, K5GUD, N5FB, KY5C, KC5WBK, WC5Z and Travis, KC5AQW, KC5UNW. W5JLB and Alma, N5WO and Darla, KK5XS, N5NYS, K0UO, KB0HH, KC5UGX, W5EEF, KB5ZSB, W5GAF, KC5NBH, KA5EWA, Amy, Zane, Billy, and Carmen.

### AMSAT-NA to meet in San Diego

The 17th annual Space Symposium and AMSAT North America annual meeting will take place between October 8 and October 10 in San Diego, California. Included in this year's events will be a field trip to Qualcomm and SpaceDev, Inc. Both of these companies which deal with satellite communication and spacecraft.

Also, the International Amateur Radio Union Satellite meeting has been moved to Friday evening October 8th. This, to allow those who attend the opportunity to take part in the field trip. Further information may be obtained on the web at: [www.amsat.org](http://www.amsat.org) (AMSAT-NA)

### World Amateur Radio Day

World Amateur Radio Day will be with us soon. Jeremy Boot, G4NJH, reports on this upcoming event from Nottingham in the UK: The International Amateur Radio Unions World Amateur Radio Day takes place on the 18th of September. This years event celebrates Amateur Digital Communication. Commemorative Events being planned by IARU Member Societies all around the world. And there should be many Special Event Stations to contact on that day. Among activities in the UK, Bill Felton, G3XZF is going to run a World Amateur Radio Day Station from Isle College in West Beach. He intends to invite several of the local schools to call in and see Amateur Radio in action.

Again, the date for World Amateur Radio Day is September 18th.

(RSGB)

### Japan bans cell phone jammers

Turning to the technology corner. You may remember our story a few months ago concerning a device introduced in Japan that was designed to disconnect intrusive cellular telephone users. You know, the ones who take calls anywhere they wish -- even if it is to your detriment?

The Japanese government has now banned these units. While it says it is sympathetic with its citizenry, Japans telecommunications regulators say that the devices create a major public safety problem when people forget to turn them off. As a result the wideband noise generators jam public service frequencies in a one block area wherever the owner of the unit happens to be. It's reported that one such device took out the dispatch center in the community of Kobe. This happened because someone left one turned on in their coat pocket and hung it up on the third floor of an apartment across the street from the center. Japans telecommunications regulators say that this menace to public safety simply cannot be tolerated.

(VHF Reflector)

### Cal Poly leds

Two Cal Poly professors are working to improve the look and performance of electronic devices such as computer monitors that use LEDs. Backed by a \$120,000 National Science Foundation grant, David Braun of the electrical engineering department and Kevin Kingsbury of the chemistry department are working to improve the technology of low-voltage, flexible LEDs. These are the key components in computer screens, digital watches, and other devices.

According to a Cal Poly press release, the two researchers aim to advance LED displays that conduct electricity through organic polymers, plastics, rather than through inorganic materials. The polymers will permit designs that are as flexible as plastic wrap. The polymer-based LEDs would be smaller, lighter and more energy-efficient. The Cal Poly project is one of several around the world seeking to make LEDs more mechanically flexible.

(ARRL)

## Ada Amateur Radio Club

Howdy! From the Ada Amateur Radio Club. The September meeting was held at the Salvation Army Headquarters on Oak Street Ada, OK. The meeting was called to order at 9:10am by Scott, KD5AJL club president. 17 members were in attendance and 1 visitor, Chris who is taking his test after the meeting. We are glad to be holding all of these test sessions for new comers and those who are upgrading we wish them all well and good luck! We are glad to see the visitors attend the meetings.

The treasure report was passed around to the members with motion made no objections and seconded.

Saturday, September 4th several members gathered at the repeater site at the water tower to hang the new cable on the repeater. Chris, KC5RPR; John, KC5EJC; Steve, KD5DKZ; Robert, KC5SIS; Scott, KD5AJL; George, KB5UAF; Danny, KM5LB; Darla, KC5RGU; Sam, N5IY; Charles, KC5TGA; Mason, WT5X; Dwight, N0RW; Chris (No Call). Then on Saturday, Sept. 18 several members met back at the repeater site to finish hooking up the cable. Special thanks go to Darrel, KC5DDS and Wendell, KC5UFO, who climbed to the top and hooked up the cable in the damp and wet weather. I hope I haven't left anyone out, everyone was appreciated for all of there help.

October is upon us and time for our yearly club picnic is at hand. It will be held Saturday, October 2 at 12pm at Wintersmith Park and will combine our October meeting with the picnic. Everyone is invited to attend who has an interest in seeing what amateur radio is all about. We will have some radios set up to demonstrate how it all works. We will all be glad to see anyone come by see how exciting and educational it all is. We will also be glad to answer any questions, if you know anyone that you think might have an interest in the radios have them drop by we will be glad to have them.

For our upcoming meeting, start thinking about election of the year 2000 club officers. Also time to be thinking about

the year 2000 club membership dues will soon be due.

Meeting adj. At 9:50am and test session held afterwards. Also want to say congratulations to our last test session attendee who now has her amateur call Jane, KD5??? That is John's, KC5EJC wife our EOC coordinator, we are glad to have them both in our club, and glad to have John on the job looking out for us in this area we really appreciate all the sleepless nights that he is on duty

Down in basement in city hall, several of us got to go down and see the radar pictures of the tornadoes of May 3, 1999 on his radar screen it was amazing seeing all of the data on those storms. We all appreciate you John, KC5EJC. I know we may not say it enough, thanks from all of us.

We hope to see everyone at the picnic also texhoma ham fest is in October, Friday and Saturday the 29th and 30th.

Darla Coffey

### Rich Moseson, W2VU named new Editor of CQ Magazine

CQ Communications, Inc. President Dick Ross, K2MGA, has announced that Richard Moseson, W2VU has been named the new editor of CQ Magazine, effective September 1, 1999. The appointment comes six weeks after the death of long-time CQ Editor Alan M. Dorhoffer, K2EEK, who held the position for 23 years.

Since joining CQ Communications, Inc. seven and one half years ago, Moseson has been involved in numerous innovative projects, including the creation of CQ's award winning series of Amateur Radio video tapes, the management of CQ's highly acclaimed 50th Anniversary issue, the development of CQ's various web sites, and most recently the launch of CQ

VHF Magazine in 1996. He is the founding and current Editor of CQ VHF, and will continue in that role in addition to his new duties as Editor of CQ. We asked Rich to tell us where he expects about plans for the future of both magazines:

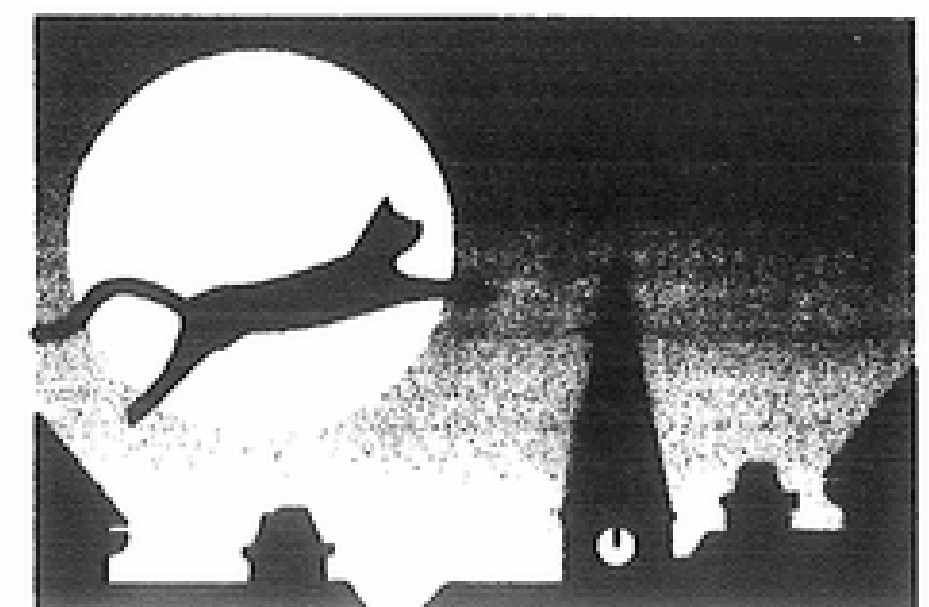
"A year from now, I would like CQ to still be the magazine that it is, with a broader appeal to all ham radio. And I would like to start building up the additional material in there. And I think CQ VHF, I love it, to continue doing what it is doing." Rich Moseson, W2VU.

Those who know Rich know him to be an avid Amateur Radio operator and a highly-skilled editor dedicated to delivering the best possible product to his readers. Rich has a very strong commitment to making CQ even better than it has been in the past, and comes well equipped to fulfill that commitment.

Rich holds an Extra Class Amateur Radio license, and has been licensed since 1970. He is active on a variety of modes and bands on HF, VHF, and UHF.

CQ has also announced that Gail Schieber, KC2DHC, CQ's long-time Managing Editor, will continue in the position she has held for 20 years.

(CQ Communications)



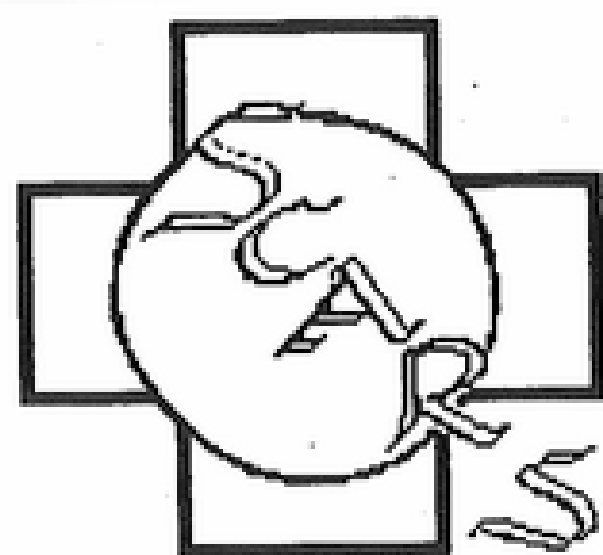
405-737-3781

www.bookrack.com

### THE BOOK RACK Books & Comics

1717 S. Air Depot  
Midwest City, Okla. 73110

Terry L. Smith  
Owner



## South Canadian Amateur Radio Society

Regular Meeting - September 11, 1999

The September meeting of the South Canadian Amateur Radio Society was held on Saturday, September 11, at the Red Cross Building in Norman. The meeting was called to order at 9:35 by Club Vice President Tom, KD5ENL.

After the customary introductions of all present, Jeff, KE5EB, gave the Treasurer's report. Once again, no one wanted to spend any money this month, so we moved on to Ken, N5BEW, for the repeater report.

Ken told us about some changes which had been made to the antennas. It seems as though Southwestern Bell Telephone needed some of the space we were occupying, so our antenna was moved. Ken was still unclear about the details, but the system seems to be working just fine. They may have even installed new feedline! More about this at the next meeting.

Tom, KD5ENL, gave us a C.O.R.A. report. Tom informed us that Ham Holiday attendance was down slightly - approximately 950 people attended the event this year. There is some ongoing discussion about trying to cut the overall cost of Ham Holiday by possibly changing the location, etc. Tom will keep us informed on any changes which are made.

Mike, N5SOF, was on a well deserved vacation, so SCARS apparel orders were delayed until the next meeting. I have been in contact with Mike since then, and he will check with another company in reference to the cost of getting a multicolored logo instead of just one color. He will forward that information to us at the next meeting.

Gayland, KC5MMU asked for more volunteers to assist in cleaning out the club radio room at the Red Cross. Contact Gayland if you can be of assistance. He also still needs more volunteers for communications assistance for Red Cross emergency operations.

On a final note, Tom, KD5ENL is finishing up the "New Ham Kit" he has been working on. He asked some of us to review the cover sheet recently, so I'm sure he will have something to show us at the next meeting.

Thanks to all for attending, and we look forward to seeing you again at the next meeting! Bring a friend!

The meeting adjourned at 10:05

Jeff Wyke, KE5EB (Soon to be WY5KE)  
Secretary/Treasurer

### Small hamfests are the most popular

If you are planning on putting on a hamfest or convention, think small. At least if you live anywhere in the south-eastern United States where smaller seems to equate with better. The realization that small hamfests dedicated primarily to flea marketing and ham radio testing are the most popular comes as a result of a survey conducted by the South Eastern Repeater Association. The results which are available in the fall issue of its Repeater Journal shows that 60% of those surveyed are more likely to attend a one day hamfest than any other kind of show. 60% also said that all one-day shows should be held only on Saturday with 72% saying that the starting time should be an early 8 AM local time. Least popular are full fledged conventions with manufacturers representatives and mega displays. Only 39% said that they cared for these types of shows. Also, an overwhelming 64% said that no matter what kind of show it is, they usually head home between 1 and 2 PM in the afternoon.

In the area of forums, radio

clinics and other such activities, 54% of those responding said that they are not important to them. Only 33% attend these activities on a regular basis with another 36% dropping by once in a while. On the other hand, 79% say that having ham radio examinations available at a hamfest or convention is one of the most important services that a show can render. 62% say that exams should be held in the morning. The SERA survey covers just about every aspect of hamfest activity and contains many revelations that even industry leaders were probably unaware of. It's reasonable to assume that the ham radio manufacturers and publishers will be taking a very close look at the facts that the SERA survey delivers as they begin planning their attendance at shows for the year 2000 and beyond.

*(Adapted from Repeater Journal)*

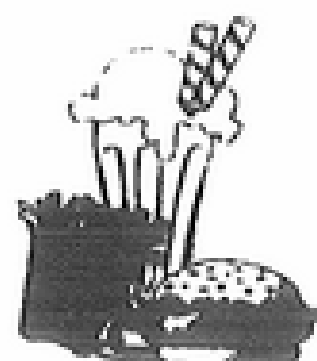
### Self imposed exile

After more than a decade of nets, bulletins and even a call-in like radio talk show, International Amateur Radio Network founder Glenn Baxter, K1MAN, has put himself into what amounts to self imposed exile. Baxter's last transmissions on 3.975 and 14.275 MHz took place on August 31st. A communique from Baxter says that he is busy with his litigation against the FCC but that he plans to return to the air next year.

As previously reported, FCC legal advisor Riley Hollingsworth has written Baxter twice to demand a detailed explanation of the alleged automated operation of K1MAN's station. Baxter had until September 4th to respond. Hollingsworth says that the information is needed in order to determine what action, if any, will be taken by the regulatory agency.

*(Newsline)*

N5WNL  
GLYNN MASSEY



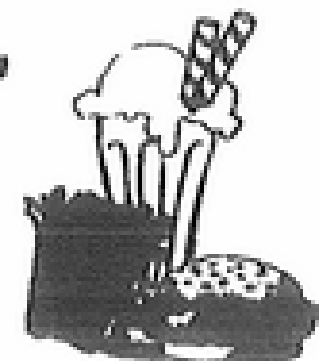
*Daisy Karl Deloe Inn*

(405) 634-7760

Hours: Mon-Fri: 8-4  
Closed Sat & Sun

*Gently Owned & Operated for 26 Years  
1701 S. Central, Oklahoma City, Oklahoma 73109*

KCSVZ  
JAN MASSEY



## Paging & APRS: Two Ways to Get Out The Word About Severe Weather

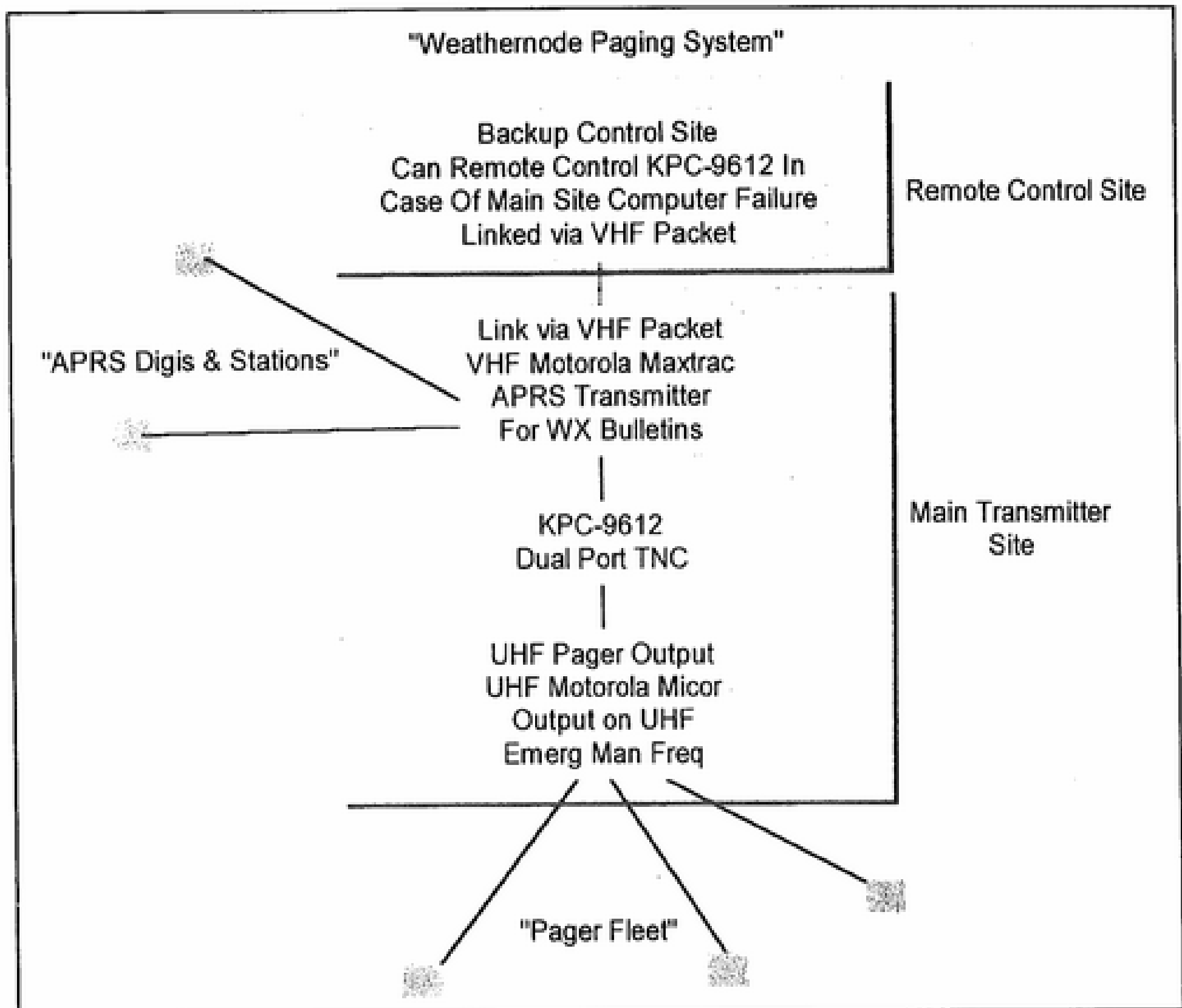
By: Jeff Scoville KC5RTH

With the introduction of the Kantronics KPC-9612 terminal node controller (TNC) several years ago, the world of amateur radio operators was exposed to a whole new mode of communicating severe weather conditions: Amateur Paging. Software designers cleverly included programming in the TNC to support full-blown commercial paging (POCSAG) encoding and decoding. Plug your 9612 into a "data ready" receiver and you can decode all the bleeps and bloops broadcast by your local paging company. Plug it into a data ready transmitter, order a few alphanumeric pagers and become your own "paging company". Sounds like we could all cancel our commercial pager contracts and just "home brew" up our own systems, right? Well, not quite. Keep in mind that the amateur service rules specifically prohibit communications in which you derive commercial benefit—no "the contract is ready to be signed" messages. Most of us have grown accustomed to using our pagers all the time for commercial stuff, so what's left to do?

### Glad You Asked!

The Broken Arrow Amateur Radio Club (BAARC) developed a very unique "Weathernode Pager" system in 1997 utilizing the KPC-9612. The 9600 bps port of the 9612 was connected to a modified Motorola Mitrek for use on the city's emergency management frequency. The decision to this frequency was based upon availability of equipment and cooperation of emergency management not on any FCC rules. The BAARC could have just as easily used any amateur frequency in the 2m or 70cm bands.

Individuals purchase re-crystalled alphanumeric pagers that are tuned to the "Weathernode Pager" frequency and proper CAPCODE (an identifier that allows pagers on a common frequency to be individually set off). The cost of the pager to the individual is approximately \$50. There are no monthly fees, etc. as the service is completely non-commercial.



### Not Just Any Transmitter!

You must be careful what transmitter you use for the paging capabilities of the 9612. POCSAG requires a great deal of low frequency content in the signal. Most standard voice radios simply distort and filter out too much of the frequency range. Unlike 1200 baud packet, you can't just plug it into your favorite 2m rig and be off and going.

Several ham radio manufacturers sell 9600 bps capable (also called "data ready") radios. While most 9600 bps capable radios will work well for paging, 9600 bps capability is not a 100% guarantee. When in doubt, test the radio first with the 9612 to make sure it's going to work.

Another route is to modify an existing radio. There are many modifications listed on the Internet for different types of radios. The BAARC successfully modified and tested a Motorola Mitrek for our local system.

Now that we've briefly discussed transmission of warnings, the next question is where do we get the warnings from? Or, more appropriately, how do we get the warnings to go out automatically so that someone doesn't have to sit behind the computer keyboard 24 hours a day waiting for something to happen?

### EMWIN

The National Weather Service has developed a system called the Emergency Managers' Weather Information Network (EMWIN). It's also called the "Weathernode" for delivering weather information.

All types of weather information is broadcast 24 hours a day to two GOES satellites in geosynchronous orbits above the earth. The information includes up-to-the-minute severe weather warnings for the entire US. All you need is a satellite dish, EMWIN receiver/demodulator, and computer.

To keep the ownership cost reasonable for most individuals, several groups have set up local retransmission sites on VHF and UHF. You only need a VHF or UHF receiver, demodulator, and computer. The cost (assuming you already have the computer) is around \$100-200 depending on whether you want 1200 bps or the faster 9600 bps. Both systems carry exactly the same warnings, but the 9600 bps system has more hi-resolution graphics, such as satellite pictures.

EMWIN is great when you're at home or at the office and have a computer nearby. But, you'll normally miss out on weather warnings if you're driving or talking a walk, unless you bring a laptop along. I don't know about you, but my wife rolls her eyes when I try to bring just my mini-HT along. I'm sure she wouldn't be enthusiastic about me bringing my whole laptop, mini-HT, batteries, and EMWIN decoder. I'm not sure I'd want to try to lug all that with me for some of our walks.

So, does that mean we have to all become couch potatoes to keep up with the weather? No, we just need to get the information to people on a more portable system. That's where the pagers come in handy.

## EMWIN & PAGING

In the final configuration, we have married the technology of EMWIN with paging. The BAARC "Weathernode Pager" System takes the live warnings from EMWIN, and sends out a shortened version to the pagers. This is accomplished with a 486DX-66 computer running "Weathernode Pager" written by the author of this article.

Users of the system gain the flexibility to go anywhere in the Broken Arrow/Tulsa Oklahoma area by replacing that heavy laptop with a small pager. Early warnings sent to amateur pagers results in a higher and quicker turn out of weather spotters. This is a big boost for local emergency management. This allows for faster decisions dealing with pending severe weather conditions.

## WHAT ABOUT COMMERCIAL WEATHER PAGING?

We are aware of roughly half a dozen commercial paging companies that provide a similar weather bulletin service to their users. So if cost was not an issue, why didn't we just contract with an existing paging company?

Commercial systems are extremely reliable during normal everyday use. However, when do most systems go down? In times of natural disasters. Peak paging traffic often occurs during and after severe weather events ("are you ok?"). Power surges and outages may be common. The phone system may be down-- most systems won't let you send a page unless you can telephone them.

I am not trying to infer that the commercial paging providers are unreliable. To the contrary, most are extremely reliable, considering the technical situations they face everyday. And I very strongly encourage the efforts they have taken to add weather bulletins to their services. The more information we can get out to the public, the better.

What I am trying to illustrate is amateur radio has consistently come forward when disasters do occur, whether it be through local VHF/UHF emergency voice comms, digital packet, or HF.

Weather paging gives us yet another way to demonstrate our disaster preparedness. Not only can we give advance warning to the system users during the storm, but also direct them to emergency shelters, etc., after it's over-- when other conventional communication systems may be barely functioning.

The BAARC "Weathernode Pager" System is on a UPS with a backup gas-powered generator in the event of an extended power outage.

## THEN THERE'S APRS

The KPC-9612 is a dual-port TNC. We've already discussed the paging capabilities on the 9600 bps port.

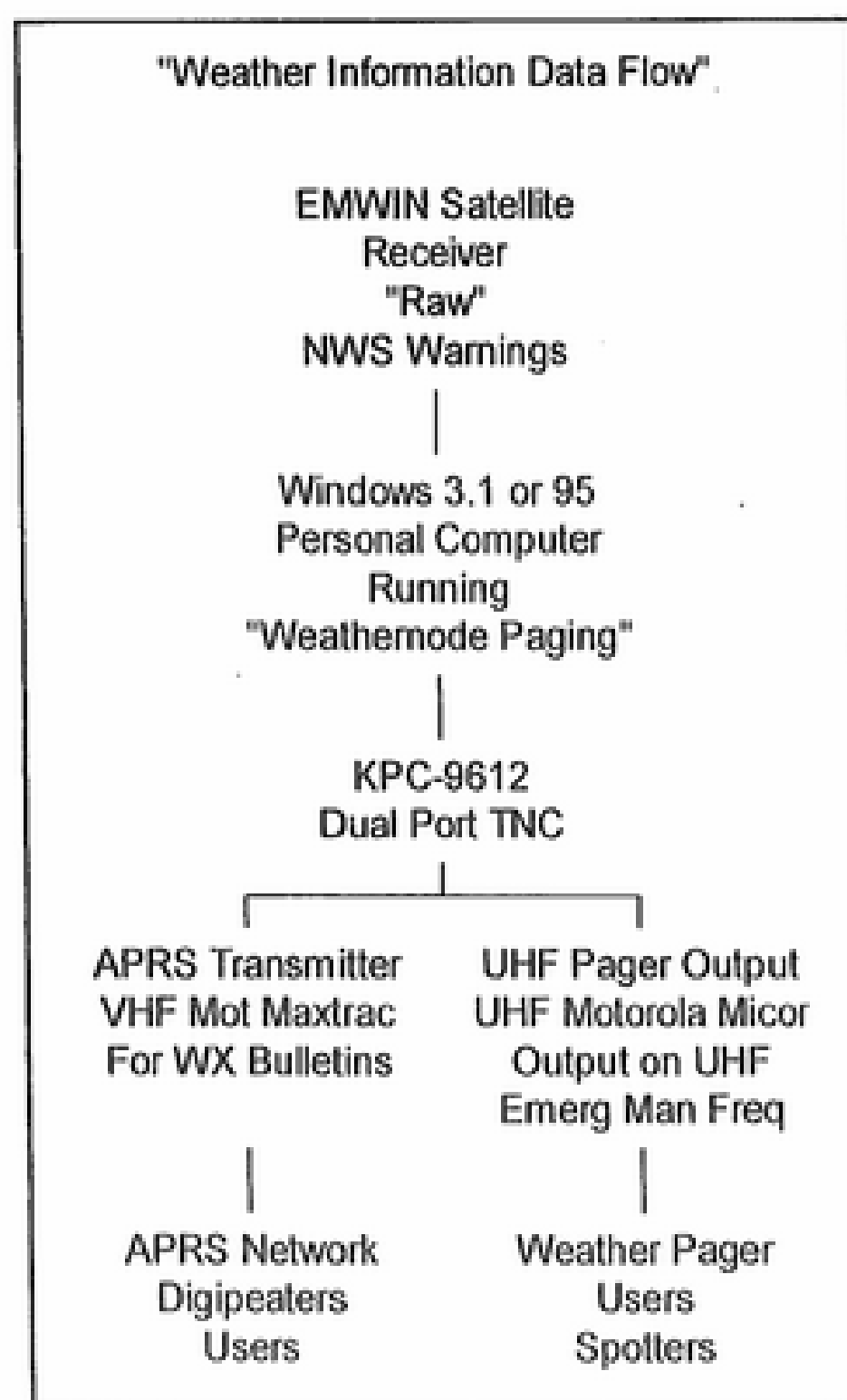
It also has a 1200 bps port for conventional packet use. Early on, we used this port for remote control of the TNC. The firmware allows a remote packet user to log in and send out pages. So, even if Win '98 does a number on your EMWIN computer, you can still send out pages manually. All you need is another remote computer, radio, and TNC.

The author of this article got bit by the APRS (Advanced Packet Reporting System) bug in early 1999. You've probably seen APRS at the local hamfests-- it's the system that shows the neat maps with everyone's callsign and location on it. Mobile stations carrying GPS can show their paths.

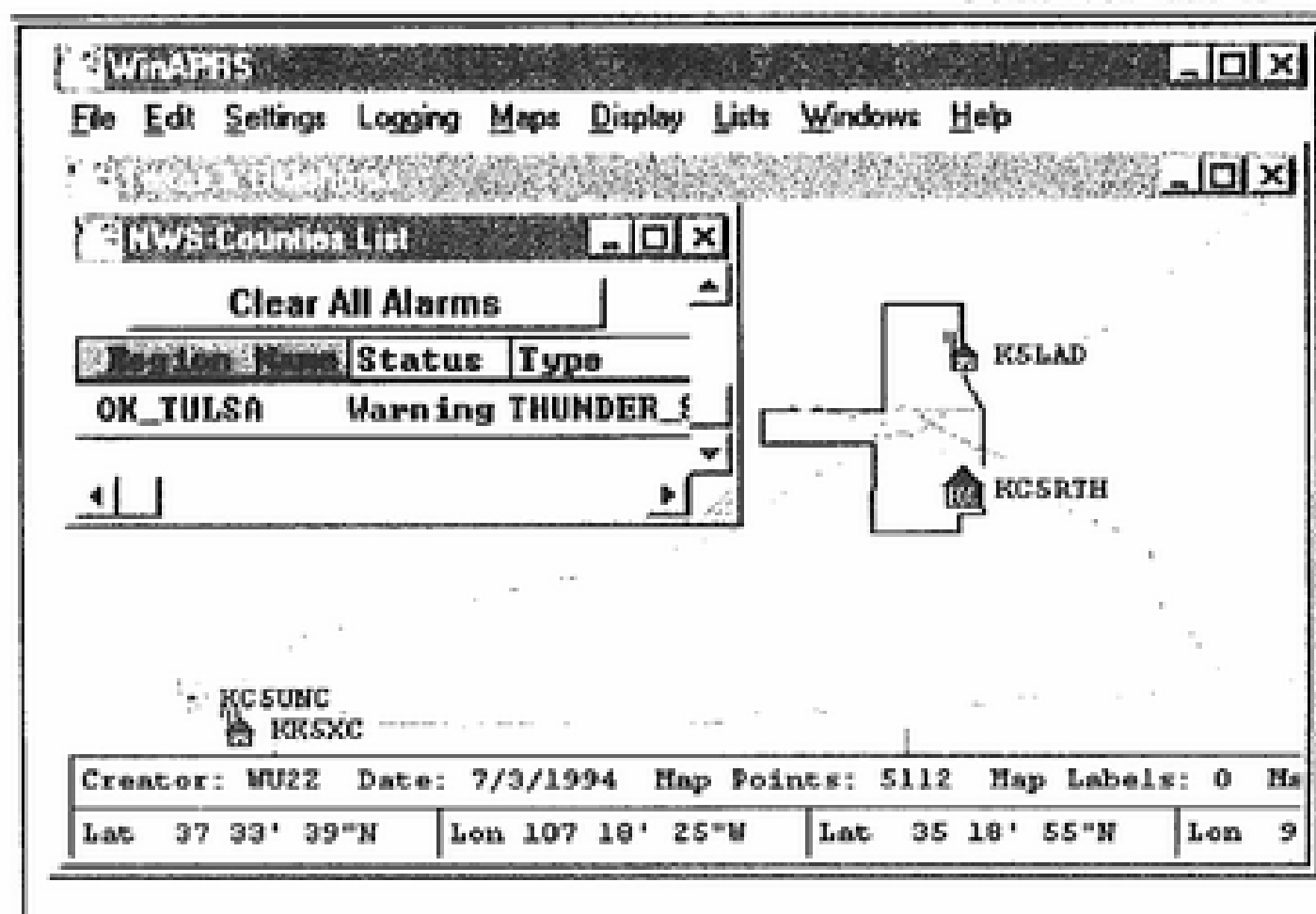
In early 1999, the National Weather Service in Tulsa became interested in using APRS as a tool for tracking storm spotters and to help improve the reliability of spotter reports. Since then, several digipeaters have been installed in Oklahoma to improve coverage across the state.

While the APRS digis were growing by leaps and bounds, the author began checking into a neat little feature in Mark and Keith Sproul's WINAPRS program that lights up counties on their program upon receipt of NWS weather warnings. There is even an audible alarm that goes off to catch your attention.

In July of 1999, the BAARC "Weathernode Pager" Program was modified to send out APRS weather







bulletins on the 1200 bps port while simultaneously sending weather pages out on the 9600 bps port of the KPC-9612. Digipeaters across Eastern Oklahoma pass on the APRS traffic so that all mobile and base spotters are aware of the NWS warnings.

## I'D LIKE TO DO IT!

Hopefully the schematics shown throughout this article give a good overview of how to build the hardware part of the system.

The real "brains" of the system is the "Weathernode Pager" software that converts the information from EMWIN format for download to pagers and to APRS. At this time, the software has been customized for use at the BAARC site. However, if there is enough interest, the program may be modified for general use at any site.

If you have any questions about how to set up a system, I can be reached via email at [scoville@sprynet.com](mailto:scoville@sprynet.com).

## ACKNOWLEDGEMENTS

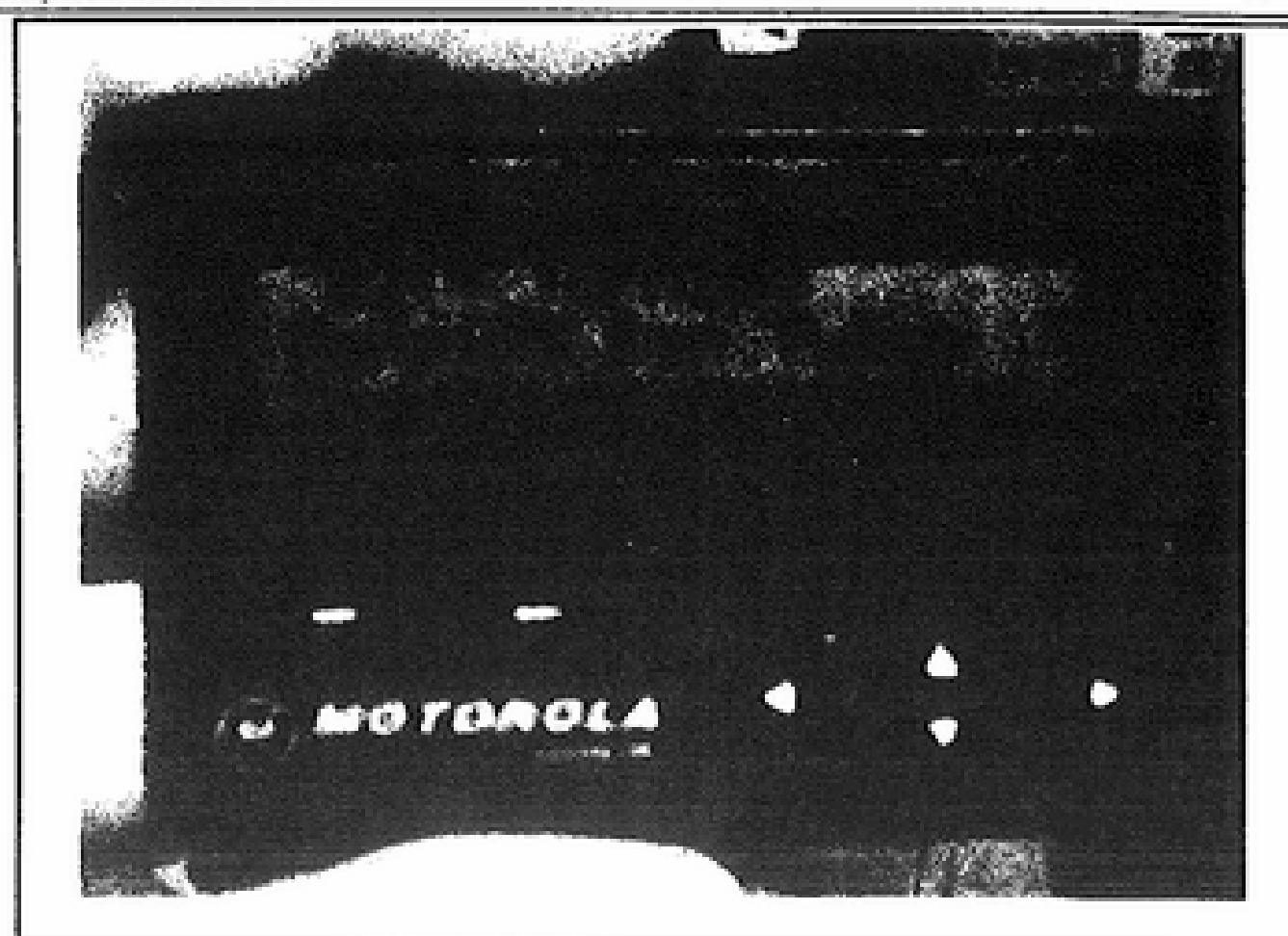
I would like to thank the Broken Arrow Amateur Radio Club for its financial support of the "Weathernode Pager" project. Thanks to Steve Bradley KB5ZSD and the City of Broken Arrow for use of their tower site for the equipment. Thanks also go to the emergency management personell involved in testing the system. Kudos to Bob Buford W5RAB for modifying our Motorola Mitrek for paging use. Special thanks also go to Russell Self, KC5FCA,

Ed Covington, and Zephyrus Electronics for the EMWIN receiver system that was donated for this project.

## Plumas County firefighter saved by ham radio

Ham radio may be responsible for saving the life of a firefighter involved in Plumas County fires. Everett Gracey, WA6CBA in Reno reports that on Saturday, September 4th, firefighter James Monty, was with another firefighter who was suffered multiple bee stings. The bee venom put the unidentified firefighter into anaphylactic shock. Monty administered drugs to stabilize the other firefighter and then tried to radio for help using normal fire command radio channels. Owing to the terrain and their isolated location, he was unsuccessful.

But Monty had thought to program one of the ham radio emergency frequencies into his firefighting support radio. He called there and was answered by a ham who passed the information to a R.A.C.E.S. operator in the fire communications center. A rescue helicopter was immediately dispatched and transported the victim to the hospital. Gracey says that it is quite possible that the radio operators helped save this firefighter's life. WA6CBA notes that it is ham radio operators who have volunteered many hours to help fill the holes in the areas fire



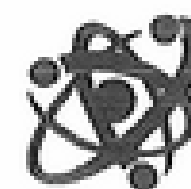
fighting communications network. (Information via e-mail from WA6CBA)

## No retest - No license

The FCC has informed a San Antonio, Texas resident who did not show up for a retest that he is no longer a ham. Back on May 20th, Roger G. Morgan, KB5URM, was told that he must retake his Technician and Technician Plus Amateur Radio examinations under the supervision of the FCC Office in Dallas. Morgan was given until June 30th to complete the retesting process but failed to appear. Now, in an August 30th letter, the FCC's Riley Hollingsworth informs Morgan that his Amateur station and operators licenses for KB5URM have been canceled. Hollingsworth has also warned Morgan that further operation of any Amateur Radio transmitting equipment would subject Morgan to criminal and civil penalties. (FCC)

**50 Watt UHF Transmitter w/ 4CX250B Tube**  
**Rack mount, complete with power supply**  
**Surplus FAA Model FA - 8712 Made by**  
**Collins**

(405) 524-3770  
 PCS 410-4005



**BLACK'S RADIO COMPANY**  
 RENTAL HANDIE-TALKIES - FREQUENCY MEASUREMENTS  
 RADIO TOWERS - AMATEUR RADIO W5JCB

ELMO BLACK

413 N.E. 38TH TERRACE  
 OKLAHOMA CITY, OK 73105

## Chasing the Slammer

By Jerome Doerrie, K5IS

Woodward, Oklahoma  
Saturday, September 18, 1999

There he transmits again: "Listen up you members of the Tri-State Amateur Radio Group. You can't catch me! The Sooner Slammer sees all, and knows all. Ha! Ha! Ha!"

I am told that for the last hour the Sooner Slammer has been poking fun at us hams.

Unfortunately, we—Bobette N5IS, Brian KC5TPU, and Jerome K5IS—were delayed in getting off to attend the Tri-State Amateur Radio Group "foxhunt" and picnic in Woodward. The frequencies were changed from what was published in the *C & E*, so we had to come to the park to find someone to tell us what was happening. Jim Hand NW5OK, was playing the role of the fox, alias the "Sooner Slammer".

He transmits again, "You poor Tri-State Hams with your broomstick yagi antennas had better spend some money and buy a real antenna. You can't catch me, I'm the Sooner Slammer. Ha! Ha! Ha!"

The foxhunt will soon be over, but we are here and we want to join in on the fun. I open the back of the van and get out a 3-element quad. The yagi antenna detunes when it's too close to the ground or other metal objects. The quad antenna is much more forgiving in these conditions. When Brian assembled the unit, we had not marked either the front or the rear. Looking at it, I could not readily tell which was which. No problem, I will take a reading and the stronger signal will be the front. I quickly connect a chunk of coax to a handheld and to the quad, and raise the quad up in the air. Luckily, the Slammer starts transmitting. I am getting a full-scale signal, so that must be the front of the quad. Turn the antenna to check for a weaker signal to indicate the back side. Oops, it too is full-scale. So is straight up and straight down! Listening, I hear the Slammer say, "Raise your quad higher. Ha! Ha! Ha! My signal is too strong for you to track. You can't catch the Sooner Slammer!"

The challenge had been made! Now I had to pin the tail on the donkey, er, fox.

Since the quad would be too cumbersome to use while in motion, I put it away and huddle with N5IS, KC5TPU, and Mary KC5UNW. Let's go surprise the Sooner Slammer by circling around to the west and slip up on his back. We are going to have to use our wits, since we will only have vertical antennas and rubber duckies. As we take the back way out of the park, I have Brian put the attenuator in line with the biggest whip antenna. Mary is to tune her handi 10 KHz off the frequency of the Slammer so that it will take a strong, close signal to open the squelch. Bobette is to put her handi on the hunter communications channel. Brian is to put the fourth handi on the Slammer frequency. As we circle around through town, we meet the team of Jimmy W5JLB, his wife Alma, Rob W5ROB and his son traveling north while we are going south. Rob has his hand out of the passenger window holding on to a 3-element yagi. Slammer transmits again. The signal is getting stronger as we head south. We come to a dead end. Which way? Slammer is now silent. Something was said about trees, so we go right to check out the cemetery.

Unbeknown to us hams, the City of Woodward had picked this Saturday evening to have a Jim Hand look-a-like contest. One of the hunters saw him in a blue car. Another saw him in a red car. We just knew we had found him at the cemetery in a gold colored car. After all, one bald head does resemble another. Amazing how many of the lookalikes were driving around town!



We get squared away and on the next transmission we are headed toward stronger signals. Slammer says, "The fox has been shot. The fox has been shot. This will be my last transmission as the Sooner Slammer...."

Jim keep talking, we are closing in. Just keep talking, don't go silent now!

Twenty dB attenuation in line, and the signal is getting stronger. Brian's handi now has the signal. Forty dB attenuation and the signal is increasing. We are closing in. The squelch opens on Mary's off-frequency handi. We are close!

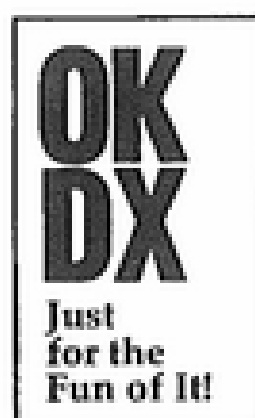
"... It is time to call all units in and gather in the park for supper. I have had fun being the Sooner Slammer. This completes the fox hunt for the Tri-State Amateur Radio Group. NW5OK out."

We know that we are close, but how near to the Slammer? There are a couple of cars ahead of us at a stoplight. With all of us looking all around trying to see the Slammer, I say, "Boys and girls, in the first car ahead of us at the light is Jimmy and crew, and between us in the purple car is the object of our chase, the Slammer. Who is the lady with him?" I wanted to jump out and put some black tape on his bumper for the fox's tail, but the light changed, and he saw us in his rearview mirror as he pulled into the intersection. We almost pinned the tail on the fox!

As we caravaned toward the park, I thought about a Handi-Finder that was in the May 1993 issue of *QST*. I am now more motivated to build one! Signals from two dipoles are fed into an IC. When one antenna is closer than the other to the signal source, a tone is heard in the handi. When the antennas are equally distant, then there is no tone. This device would have really simplified our tracking of the Sooner Slammer. David Robbins, K1TTT has adapted the circuit to use a LM555, seven resistors, two diodes, and five capacitors. His information is found on the web at <http://www.berkshire.net/~robbins/technote/doppler.html>. This would make a interesting club project for us!

Bill, N5WO, and Darla Wyatt furnished a big pan of ribs for the pot luck picnic. It is hard to talk with a mouth full of food. Being resourceful hams, we found a way to recap the case of the Sooner Slammer and eat at the same time. Would someone bring me a translator, I don't understand "mumble" language!

I would like to thank all who participated in the hunt and picnic. The fun, food, and fellowship made a great experience!



## OKlahoma DX Association

*Editor's Note: This issue of the OKDXA Newsletter is dedicated to Groucho Marx. I don't know why a duck, it just is...*

### *From Da' Prez...*

By LARRY SHIMA, WØPAN

A little about the new prez. I was first licensed in 1953 as WNØPAN and have been continuously licensed since then and currently hold an Advanced class license. After growing up in Mason City, Iowa I graduated from Iowa State University with a degree in Business Administration. As a Navy Supply Officer, I served on Active Duty for 7 years. My duty stations included Supply Officer on a Destroyer, Navy Auditor, and Budget Officer for the Pacific Fleet at Pearl Harbor. Received WAZ 2XSSB, and my first DXCC as WØPAN/KH6. I retired from the Navy (Active Duty and Reserve Duty) in 1980. After Active duty with the Navy, we moved to Bloomington, Minnesota and my Amateur Radio interests shifted to ARRL administrative activities as the Section Manager (SCM) for Minnesota, Dakota Division Vice Director, and Dakota Division Director from 1970 - 1975 and a Founding Director of The ARRL Foundation. The DX'ing and contesting continued in my spare time. I was the ARRL Board liaison to the Contest Advisory Committee when we created the 10 Meter contest. Moved to Enid in the late 1970's. In the mid 80's my wife and I temporarily moved to the East Coast. After a tour of duty at ARRL Headquarters as Controller for the League, we returned to Oklahoma and have been "semi-active" in chasing DX and Contesting since then.

DX'ing and Contesting have been my prime interests in Ham Radio and I'm currently at the 200+ level with DXCC and hope to put a station on the air in 2000 that will enable me to hit the 300+ level. I've always operated in the 100-200 watt range with the expectation that I can sneak in and get the good ones before the pile-ups get too thick.

### WHAT'S THE PLAN FOR THE OKDXA?



*...and speaking of a night at the OKDXA Banquet... "I know, I know, you're a woman who's been getting nothing but dirty breaks. Well, we can clean and tighten your brakes, but you'll have to stay in the garage all night." From *Monkey Business**

The whole future of Amateur Radio is slightly foggy at the present time due to the impact of E-Mail, the Internet and FCC restructuring prospects. Fortunately for Amateur Radio, the ARRL is addressing that future with long overdue Strategic Planning. We are very fortunate to have Coy, N5OK close at hand looking out for our long range interests on the ARRL Board. At the center of this planning should be one of the primary goals of Amateur Radio - **A HOBBY THAT IS FUN!**

Public service, doing good deeds, etc. are very important aspects of our hobby; but in the final analysis, Amateur Radio must be fun or people will not be attracted to the hobby and definitely lose interest quickly. The OKDXA is in the same category. It must be a "fun" organization to join and stay with as a member. At last count, 33 members will attend our annual Banquet on September 25th. With our membership located in all parts of the state it is hard to pick a location convenient for all 93 of our members to attend meetings of any kind. As we look forward to 2000, the officers and directors will be looking at ways to increase member interest in the OKDXA.

Jim, N5OHL has suggested acquiring and circulating video tapes of some of the major DXpeditions so that all of the members might get a chance to get together locally and view them with other clubs in their area. We might even turn such get-togethers into OKDXA membership recruiting campaigns. Again,

the idea is to let others see some of the FUN we DX'ers have chasing the rare ones.

If we all look back at our early days in Amateur Radio it was the enthusiastic attitude of the old timers that sparked our interest. One of my absolute favorites was operating Field Day as a teen-ager and staying up all night working DX on 20 Meters. I didn't get many points, but it sure was fun grabbing one of those ZL's or VK's at 3 o'clock in the morning with a piece of wire strung between two trees! The wonder of those early encounters carried over throughout my years in Amateur Radio. It is still fun to chase DX even if it is a G or ZL. All members of the OKDXA can serve as spark plugs in getting new amateurs interested in a very FUN aspect of our hobby. We need those new amateurs to keep the hobby refreshed as the years pass by.

In future issues of the C & E we will be discussing the new DXCC for 2000+, intra-club special year 2000 contest, membership recruiting, and membership interest improvement. Let us know what you would like the club to get involved in and just maybe we will have a real fun 2000; sorta like our hobby should be!

73, Larry Shima, WØPAN  
w0pan@arrl.net

*"I don't have a photograph, but you can have my footprints. They're upstairs in my socks."*

**Outgoing President's Report...**

By BRUCE BURNETTE, K5PX

Well this is it!!! The "Big One", the "Final Hurrah". The last words of wisdom (?) you will ever read from me as your OKDXA President. By the time this Newsletter is in your hands the "Gavel will be passed, the guard will be changed, etc." to the most capable hands of Larry, WØPAN, Our new OKDXA President for 1999-2000.

The last two years have gone by very quickly. It seems like only yesterday that Jim, K5TT, convinced me to run for this position. Do I have any regrets? Sure I do. It seems like you never get all the things done that you wanted to, but have we accomplished anything? I feel like we have. Our membership is at a record high, we have a strong treasury, and we helped sponsor some truly great DXpeditions. We have had several of our members operate from the "other end of the pile up". Vince, K5VT has carried our name to some very exotic places, Frank AHØW, has operated from some very interesting places, Jim, K5TT and Dave, N5AO operated from V26 and Alan, N5PA just returned from a trip to 7Q land. We even have one of our "founding members" as an ARRL Vice Director, Coy, N5OK. Not too bad for a rag tag bunch of guys from Oklahoma. Probably the thing that I am most excited about is our new "Awards" program. I know I told everyone that this would be the issue to present the program, but I feel that December would be the better time so we can all get started on January 1, 2000 (looks funny in print doesn't it) to accumulate points and / or countries. By waiting a few months the program can follow the calendar year.

OK, enough nostalgia; now on to better stuff. I enjoyed seeing everyone at the Banquet. Those of you that missed it, we wish you had been there. I think everyone had an enjoyable evening. Special Thanks to Jim, K5TT for all his hard work! And speaking of hard work! We all owe Mark, N5OG a very special note of gratitude. He has spent way too many hours and put in a lot of hard work for the OKDXA over the past several years. He has been the one who did all the work and really made this association a success. The other officers were almost bystanders by comparison, since Mark was the glue that kept everything together. We will miss you Mark! **THANK YOU**, from the bottom of my heart. We had a special Plaque of

Appreciation made for Mark. He was unable to attend the banquet, but I will get it to him on my next trip to Ponca City.

I also would like to recognize Nelson, AKA 'Doctor DX' and KC5QVV, as the "OKDXA HAM OF THE YEAR" for 1999. Larry, WØPAN chose well. As most of you know, Nelson is the editor of our newsletter (a thankless task) and he does a great job. Congratulations, Nelson!

*(No Problem; I'm glad to work with a club of this quality.... In fact, I ordered a set of ARRL study guides yesterday and plan to get a license next year !!! - KC5QVV)*

Well that's it! I want to thank everyone for their support, especially the Directors, you guys made my job a lot easier. I would also like to thank the membership. You people elected me for 2 terms, and that's pretty amazing! Thanks for the memories. And now, I think I hear the "Fat Lady Singing"

'73' everyone, and remember to  
"Just work um" Bruce, K5PX

*"Go, and never darken my towels again!"*

**Secretary / Treasurer Report...**

By ALAN CLARK, N5PA

Dear Fellow DX'ers:

Due to a rapid series of events within a three week period, by the time you read this I will have moved back to Mississippi! Our parents are getting on in years and their health is starting to deteriorate. We felt that we needed to be closer to them and I have taken a job with Sanderson Farms in Laurel, Mississippi as head of their Information Systems Department. We are looking at houses with acreage and no antenna restrictions since I'm eager to begin DX'ing and Contesting again. I will let you know the new address and other information when it's available.

It saddens me to be leaving the OKDXA, especially after such a short time as your Secretary / Treasurer elect. The OKDXA is a great organization and I have really enjoyed meeting you since we moved here over three years ago. I will be less than 2 hours away from the DX Convention in New Orleans and I hope to see some of you there next year. I will be traveling back and forth for a while and will make sure we stay in touch.

73's Alan Clark N5PA / 7Q7PA

**DX BEYOND THE MORTAL COIL***(from E-Mail via Mark Byard, N5OG)*

OKDXA member Paul Harrop, W5DX called in early September to advise he has arranged in his Personal Will for his W5DX call sign to pass to the OKDXA. Under the current vanity program rules call signs may be quickly reassigned to Amateur Radio organizations with the permission of the holder's next-of-kin. In this case, the executor of Paul's Will is his daughter and she has agreed to follow through with his wishes in this matter.

Paul recently had several small tumors removed from his throat. One was benign and another identified as "pre-cancerous". There is no immediate threat to his life and his oncologist feels that all looks good at this time. This has, however, caused Paul to update his Will and was the impetus for the call sign decision.

Paul wanted to make sure the OKDXA did not feel that he was pushing the call sign on the Association; it is only offered. I assured Paul that when the time came -- hopefully far into the future -- I was sure the OKDXA would gladly accept his bequest. It would be an honor to keep this fine call in the OKDXA family!

My best wishes to Paul for his continued good health and thanks for thinking of the Association. This memo has been printed and placed in the OKDXA Secretary / Treasurer files to insure future officers will be aware of his bequest.

73 to all, Mark

*"We took some photographs of the native girls, but they weren't developed. We're going back next year."*

**OPDX Bulletin - Internet Edition**

The Ohio / Penn DX PacketCluster

Editor Tedd Mirgliotta, KB8NW

Provided by BARF-80 BBS Cleveland, OH

**1999 "HILLVIEW GARDENS"****BORNEO DXPEDITION**

Bob, N2OO/9M6OO announces a 3 week DXpedition partially sponsored by the Hillview Gardens Resort is planned for November, 1999. Operation will be from three different DXCC entities and/or countries as follows:

November 7-11th - 9M6AAC Hillview Gardens, Sabah, East Malaysia

November 12-18th - 9M6OO Layang-Layang Island, Spratly Islands

**November 18-21st** - The team will be attending the SEANET Convention, Brunei  
**November 21-25th** - V8(???) Brunei (TBA)  
**November 25-29th** - 9M6AAC Hillview Gardens, Sabah, East Malaysia.

They expect to be active in the CQWW CW Contest (N2OO and N4PN operating) with three or four stations planned for the 9M6OO operation. QSL 9M6AAC and 9M6OO via N2OO, Bob Schenck, PO Box 345, Tuckerton, NJ 08087-0345, USA. V85 callsign TBA. A web site is available at <http://www.qsl.net/n2oo> but during the 9M6OO "Spratly" activity there will be no internet access or updates. Contributions will be most appreciated, contact Bob Schenck, N2OO, via the address above or at: [n2oo@arrl.net](mailto:n2oo@arrl.net).

### 3B8, MAURITIUS

The French DX Bulletin "LNDX" reports that ON4LAC will be active using SSB on 20, 17, 15, 12 and 10 Meters from October 1-28th. Listen for the call 3B8/ON4LAC.

*"Remember, men, we're fighting for this woman's honor; which is probably more than she ever did."*

### 5W, WESTERN SAMOA

Gerard, PA3AXU will be active as 5WØGD between September 28th and October 14th. (SSB, CW, RTTY and possibly PSK31) QSL via home call (G.A.M.C. Dijkers, Dokter P.A. Cornethof 3, 6669AZ Dodewaard, The Netherlands).

### 7Q7, MALAWI

Edwin, ZS5BBO plans to operate a station from the shores of Lake Malawi December 19-26th. Edwin doesn't have a callsign yet, but has been told it could be 7Q7BB or 7Q7BO. This will be an SSB operation on 10, 15 and 20 Meters using his IC-706MK2 and possibly the antenna that is already up at the hotel where he is staying.

### 9M6, EAST MALAYSIA

"The 59(9) DXReport" reports that Phil, G3SWH plans to be active as 9M6PWT from Sabah November 3-12th. QSL via homecall.

### 9X, RWANDA

The Russian Amateur Radio Emergency Service (RARES) special field club station in Rwanda will be active for the next several months as 9X/RE3A. This station was active in 1997-1998 as 9XØA. Listen for Vladimir, RE3A calling as 9X/RE3A. He is in the village of Nyanza to establish a school for training local search & rescue teams. The equipment includes a TH3mk4

Yagi, FT-900 and a Henry Radio amp that only works on 14-21-28 MHz. "Please do NOT call Vladimir during his operation on the daily RARES Net." Visit their page: [http://www.qsl.net/rw3ah/eng/e\\_re3a.htm](http://www.qsl.net/rw3ah/eng/e_re3a.htm) for more information.

*"Last night I shot an elephant in my Pajamas and how he got in my Pajamas I'll never know."*

### A3, TONGA

The "DX News Letter" reports Klaus, DJ4SO and Manfred, DJ7RJ will be active from Fafa Island (OC-049) as A35SO and A35ZL between September 27th and October 27th. They intend to operate CW, SSB, RTTY (also PSK31) on all HF bands plus 50 MHz. QSL via home calls (direct or via bureau).

### C6, BAHAMAS

Listen for Gary, KI6T; Glenn, WR6O and Salvatore, KA6WHA to be active as homecall/C6A between October 26th and November 1st. They will call as C6AGS in the CQWW SSB Contest as a Multi/Single entry. QSL C6AGS via KI6T.

### C6A, BAHAMAS

Listen for Ed, WA3WSJ to be active as WA3WSJ/C6A from Abaco Island (NA-080), November 23-30th. His activity will be QRP on all bands CW/SSB. Also, listen for him in the CQWW CW Contest. QSL via home call.

### CN, MOROCCO

Members of the Bavarian Contest Club (BCC) are forming a Multi/Multi team for the CQWW DX Contests. The contest call will be CN8WW using separate stations for CW/SSB on all six bands during the 48 hours of each contest. Suggested freq's for the CQWW SSB Contest (October 30-31st) +/- QRM are: 1855, 3755, 7055, 14255, 21355 and 28355 kHz. Suggested freq's for the CQWW CW Contest (November 27-28th) +/- QRM are: 1833, 3533, 7033, 14033, 21033 and 28033 kHz. QSL CN8WW to DL6FBL via the bureau or direct to: Bernd Och, Chr.-Wirth-Str. 18, D-36043 Fulda, Germany. Visit the web site: <http://www.dl6fbl.de/cn8ww/> or e-mail to [cn8ww@boc.de](mailto:cn8ww@boc.de) for more info.

*"The Alps are a simple folk, living on a diet of old shoes. And the Lord Alps those who Alp themselves."*

### E4, PALESTINE

Ayar, OZ6ACD will be active as E44/OZ6ACD from Hebron. The length of

his stay is unknown and no QSNs have been reported as of late September, but his activity was scheduled to begin around September 17th. QSL via OZ1ACB.

### FK, NEW CALEDONIA

Dany, F5CW (ex-FT5ZB and J28EI) is active as FK/F5CW and waiting for an FK8V(??) call. He will be there for the next 2 years with activity heard on 17 Meters recently. QSL via F5PED.

### FO, FRENCH POLYNESIA

The "DX News Letter" reports Patrick, FO5QS (ex FO8DT, FR7CE, F6ESW) is now living on Huahine Island (OC-067) for the next several months and on the air between 14120 and 14150 kHz almost daily from 0500-0800z. His new QSL address is: Patrick Freys, Box 643, F-98731 Fare, Huahine, French Polynesia.

*"Look, if you don't like my parties, you can leave in a huff. If that's too soon, leave in a minute and a huff. If you won't do that, you can leave in a Taxi."*

### FOØ, AUSTRALS & FR. POLYNESIA

Marcel, ON4QM is on his way to Tahiti where he will take a boat to Raivavae (IOTA OC-114) in the Australs group. He expects to be active as FOØDEH with 100 Watts (SSB only) around September 17th for at least two weeks and possibly 2 months. He may also travel to OC-131 and/or OC-051 depending on the available transportation. IOTA OC-051 is Rapa Island and belongs to the Australs group for DXCC credit. He will use an Icom IC-706 and Cushcraft R-6000 vertical and may take an 80 Meter dipole as well. QSL via the bureau or direct to: Marcel Dehonin, Eversestraat 130, B-1932 Saint-Stevens-Woluwe, Belgium.

### FP, ST. PIERRE AND MIQUELON

Henry, KE1AC and Tony, LA9VDA will be active as FP/LA9VDA from October 20th to November 2nd. Activity will be on 160-6 Meters - CW, SSB, RTTY and SSTV. They will try to get a FP5 callsign for the CQWW SSB Contest. QSL via LA9VDA with SASE to: Trond Johannessen, Helgedalen 13, N-1528 Moss, Norway.

### FR5/G, GLORIOSO ISLANDS

"Les Nouvelles DX" reports Gil, F5NOD; Eric, F5PXT; Larry, F5PYI and Erwann, F6JJX will be active here in August of 2000. It's a long wait, but many will be happy to hear the announcement, as this

entity is ranked 9th on the "Most Wanted DXCC List". The group may also visit some different FH islands.

### HI, DOMINICAN REPUBLIC

"The 59(9) DXReport" claims Julio, AD4Z will be active between November 26th and December 3rd as HI3JH. Also, look for him as HI3K in the CQWW CW Contest. QSL via AD4Z.

### HP, PANAMA

Ernesto, HP1EFR and Mari, HP1EGV (XYL) have started using PSK31. No QSNs have been reported but keep listening. QSL via CBA/QRZ or Bureau.

*"If you were a man, you'd go into business for yourself. I know a fellow who started out last year with just a canoe. Now he's got more women than you can shake a stick at, if that's your idea of a good time."*

### HSØ, THAILAND

Don, G3VFU (ex-A92BE and A45XU) has been here since May (his length of stay is unknown) and has been active as HSØ/G3VFU from a friend's station (TS-950s and a TL-922 linear). He is currently trying to get his own station approved by the authorities. Meanwhile, Don will try to be active once a week from his friend's QTH. Check 14200 kHz between 1330 and 1500z. QSL via W3HNK.

### KH2, GUAM

John, K4ANA is active as KH2/K4ANA on 20/30/40 Meters CW between 1030 and 1230z and will be here for the next three years. The DXNL says Gus, KH2/K4SXT is listening for Europe, Africa and the Middle East on 1824 kHz daily from 1950-2010z. There are reports he has been active between 1030-1130z.

### SW2, GREECE

Savas, SV2AEL will use the special call SW2A during the WAE SSB and CQWW SSB Contests. QSL via P.O. Box 22013, Thessaloniki - 55310 - Greece. Also, the logs for SW2A (WPX SSB), SV2AEL/SV8 (IOTA EU-052), J48ISL (IOTA EU-49) and SX2T-SX2THE (1997) are available at: <http://www.qsl.net/sv2ael/>

*"I was married by a judge.  
I should have asked for a jury."*

### V2, ANTIGUA AND BARBUDA

Listen for John, K3TEJ/V26KW and Bud, AA3B/V26K to be active November 23-30th from Antigua. They will participate in the CQWW CW Contest using the

callsign V26K. QSL V26K to AA3B and V26KW to K3TEJ.

### V3, BELIZE

Several members of the Delta DX Association will activate Ambergris Caye (NA-073) on October 7-12th. Plans are to operate 80-10 Meters (and possibly 6) on CW, SSB and RTTY. They will attempt to activate one of the Turneffe Islands (NA-123) if transportation can be arranged. QSL via home calls.

### VK8, CROKER AND MELVILLE ISLANDS

(Update on Rare IOTA DXpedition)

Stuart, VK8NSB reports Peter, ZL1HN will be joining the DXpedition to IOTA's OC-173 and OC-229. They will be on all bands (80-10 Meters) and plan to have four HF stations active with two stations running a 24 hour schedule. Modes will be SSB / CW / RTTY / SSTV and possibly others. QSL via VK9NS and visit the web site at: <http://www.rustman.com/IOTA>.

*"Say! You haven't stopped talking since we got here! You must have been vaccinated with a phonograph needle!"*

### VP2, MONTSERRAT DX-PEDITION

A press release by Josep, EA3BT reports operation will take place October 22-30th. Josep, EA3BT and Nuria, EA3WL (YL) will call as VP2MBT and VP2MGL on 80 / 40 / 30 / 20 / 17 / 15 / 12 / 10 Meters SSB, RTTY and some CW. Josep states, "Because of the last eruption of the Soufrieres volcano on Montserrat in 1997, radio amateur activity has been very poor. This is the reason why we are organizing a DXpedition to cover the demand for this DXCC country. Our aim is to be active on the maximum number of bands and modes, attending the requests that can be done by us." QSL via EA3BT. A log search will be at: <http://www.qsl.net/ea3bt>

### XE, MEXICO

Bela, N8SHZ will be active until mid-December as XE1/N8SHZ. Activity will be on most bands with an FT-100, DX70T and various antennas. QSL via home call.

### ZK2, NIUE

Following his A35ZL operation from Tonga, Manfred, DJ7RJ will make a short trip to Niue, October 7-14th. QSL via bureau or direct to DJ7RJ.

### ZP, PARAGUAY

A multi-national team will activate ZP as a

Multi/Multi entry in the 1999 CQWW CW contest. Dale, N3BNA(V26A); Darrell, AB2E(V26E); Jorge, CX6VM(CX5X) and Juan, ZP5MAL will use Juan's contest call ZP6T from his farm near Asuncion during the contest. The plans call for ops to be in ZP from November 20th until December 6th. Also, listen for ZP6/N3BNA in the ARRL 160M Contest. An inverted L on 160 with beverages will be added to the world-class antenna farm as well as a new 40 Meter Yagi. Because ZP is rare on CW, attention will be given before and after the contest on the highest open WARC band. 160 and 80 Meter CW calls will be made after the CQWW Contest. QSL ZP6/AB2E via AB2E; ZP6/N3BNA via WB3DNA; and ZP6/CX6VM via W3HNK. Do NOT QSL ZP6T via W3HNK.

*"I've been around so long, I knew Doris Day before she was a virgin."*

### IOTA NEWS

**AS-067** Takeshi, JI3DST is planning a trip to Uji Archipelago in October with JA4PXE AND JF6WTY.

**AS-100** Jan, 4X1VF reports he will lead a group of Hams operating from Akhziv Island October 23rd as 4ZØA. They will have 3 stations active between 0530-1400z on 10, 15 and 20 Meters CW/SSB and are required to leave the island before dark. QSL via 4Z5DW, Leon Cherbakov, P.O.BOX 489, Hadera 38104, Israel

**NA-148** Tony, WF1N and Lou, W1DIG had to cancel their operation scheduled for Sept. 17-20th due to Hurricane Floyd. Storm surges would have made landing difficult even after "Floyd" had passed and they cannot reschedule until next year.

**NA-201:** Oscar, HK6DOS reports the Key Breton Island DXpedition was postponed until the week of December 1-6th, 1999 due to hurricanes.

*"Why don't you go home to your wife? Better yet, I'll go home to your wife, and outside of the improvement, she won't notice any difference."*

### POSSIBLE NEW IOTAS:

Pat, F6BLQ/9Q (ex-TU5DX, 5N0T) Dem. Republic of Congo's ARAC Committee Advisor reports Roger Balister, G3KMA (RSGB IOTA Manager) indicates these 9Q islands may be potential IOTA targets:

Monpanga Isl	06.01S 12.35E
Ilot des Pecheurs	06.01S 12.25E
Rosa Isl	06.00S 12.27E



Zungu Kia Kambula Isl 06.01S 12.35E  
Pat in Kinshasa states any operator willing to put these "first ever new ones" on the air is already granted a one week free B+B at his house when stopping by Kinshasa on their way in. Caution: He recommends you have a secure 9Q license before paying your airfare!

*"I've known and respected your husband for many years, and what's good enough for him is good enough for me."*

#### IOTA 2000

The RSGB IOTA Committee, CDXC (Chiltern DX Club) and The UK DX Foundation announce the establishment of the IOTA Millennium Programme - IOTA 2000. The objective is to contact as many different IOTA island groups as possible within the Millennium year (1 January 2000 to 31 December 2000) on the HF bands. There are two types of contacts - premium contacts and normal contacts. Premium contacts are made during particular months and score extra points. A series of attractive certificates - the gold, silver and bronze certificates - will be available as will participation certificates. Nevada Communications of the UK has agreed to sponsor the IOTA 2000 Programme and will cover the costs of administration and certificate design. ([www.nevada.co.uk](http://www.nevada.co.uk)) Details of IOTA 2000 can be found at [www.cdxc.org.uk](http://www.cdxc.org.uk) including the rules, a list of island groups, including the months when premium scores are made and can be downloaded. This programme should be great fun - no QSL cards are required! Please contact [iota.hq@rsgb.org.uk](mailto:iota.hq@rsgb.org.uk) with any queries.

*(And feel free to advise the RSGB the next Millennium doesn't begin until January 1, 2001... Betcha' that was a hot discussion at one of their meetings! - KC5QVV)*

#### MISCELLANEOUS NEWS

##### NEW NRAU CHAIRMAN

OKDXA Member Frank Smith, AH0W / OH2LVG reports Jari Jussila, OH2BU was elected for a three year term as Chairman of the Nordic Radio Amateur Union (NRAU), which represents Scandinavian amateurs (OH, SM, LA, OZ, TF and OY). Jari operated in the 3B9R DXpedition and was leader of the record breaking 4J1FS DXpedition. He is a member of the Board of Directors of the Finnish Amateur Radio League and served two full terms as

Chairman. He has also served in a number of leadership capacities in the IARU.

##### NEW VK POSTAGE RATES

Mike, VK6HD reports airmail to the USA, now \$1.05, will increase to \$1.50 on October 4th. The new rates for Asia and the Pacific are \$1.00 and the rest of the world is \$1.50. On the plus side, postcards can be sent worldwide for \$1.00 per card. The new \$1.50 rate allows an increased weight up to 50 grams. One IRC will still buy one unit of airmail postage - \$1.50.

##### SPECIAL EVENTS

Listen for K3T celebrating "Wellsboro Rail Days" October 9-17th on all bands, 160-10 Meters both CW and Phone, from Wellsboro, PA (Tioga Co.) and will be active during the PA QSO Party. QSL w/SASE to: Steven Kerns, K3T, PO Box 344, Douglassville, PA 19518.

Listen for UEØJX from September 1st through November 30th commemorating the 120th anniversary of Zeya city. QSL direct to RAØJX: Vladimir I. Babynin, P.O.BOX 1, ZEYA-3, AMURSKAYA OBL.676200, RUSSIA.

*"Well I thought my razor was dull until I heard his speech, and that reminds me of a story that's so dirty I'm ashamed to think of it myself."*

Listen for the special event station IRØMFP (Millennium For Peace) on the air from September 23-24th (last 100 days to 2000). QSL via IKØAZG.

Listen for EO55JM to be active October 25-27th in celebration of 55 years since the liberation of the Ukraine. The activity will be a major operation by the Crimea Contest Club. Please QSL via KG6AR, Chris Williams, 1117 S. Del Mar Ave. San Gabriel, CA. 91776-3034

##### ATTENTION POLICE AWARD

##### HUNTERS (THIS IS A CODE BLUE!)

Ben, OZ5AAH (ex- OY5IPA, OX3IPA, TF/OZ5IPA, LA/OZ5IPA, HSØ/OZ5IPA and E44/OZ5IPA) is on the move again. From 1100z November 5th until 1100z November 8th (including the IPARC Contest November 6th 0600-1000z and 1400-1800z [CW] plus November 7th 0600-1000 and 1400-1800z [SSB]) he will be active as SM/OZ5IPA. Please give priority during the contest hours to other police radio amateurs and contesters; the contest is open to all hams. QSL OZ5AAH

Ben, 9 Knoldager, 2670 Greve, Denmark direct only. More contest information is at: <http://www.iparc.com> Outside the contest, listen for Ben on the WARC & low bands.

##### ZD8V QRT

Paul, ZD8V/KF4OOX reports he is now QRT from Ascension Island and returning to his home in Sharon, Pa. Paul states. "I will not be back... After 15 years of work down here I've had enough of it and need to leave and get a life back in the states."

*"I could dance with you till the cows come home. On second thought, I'll dance with the cows till you come home."*

##### GEARED UP FOR CQWW DX

Jim Neiger, N6TJ reports, "Once again, 'NEIGER'S TIGERS' is forming multiple Teams for the upcoming CQWW DX Contest, both SSB and CW, just when you thought it was safe to return to the jungle". In last year's CQ WW SSB contest, Jim's tigers put 3 teams in the Top Ten plus a new all time SSB Team Record. Jim states that he will return to Ascension Island as ZD8Z for the SSB contest, 10 Meters only, and then to Brazil for the CW contest, also 10 Meters only from the ZX5J QTH.

##### HUNTING LIONS ON THE AIR CONTEST - JANUARY 2000

The 29th annual Hunting Lions on the Air contest will take place on the weekend of January 15-16th, 2000. The contest fosters understanding and cooperation among radio amateurs and Lions worldwide and commemorates the birthday of Lions founder Melvin Jones, born at Ft. Thomas, Arizona on January 13, 1879. Please visit: <http://www.sarl.org.za/contests/lionita.htm> for details. Edwin, ZS5BBO is the Vice President of the Durban South Lions Club will be signing as ZS5T during the contest and operating on behalf of his Lions Club.

*"I wish you'd keep my hands to yourself."*

##### DX MAGAZINE ON-LINE SURVEY

The 1999 DX Magazine Most Wanted Survey form is now on my web site. You can log on at: <http://www.dxpub.com> and go directly to the survey from the home page. Simply answer the questions and mark the ones you need on the list by mode. Click on the "submit" block at the bottom of the form and your answers will be included in the survey totals.

Should you need something that is not on the list, please send me a separate e-mail



so I can include those in the final tallies. I am very pleased to be able to offer this service for the first time. Any comments on this method of taking the survey, pro or con, would be greatly appreciated.

Please tell your friends about the survey and encourage them to submit their own "needs" - especially those of you outside the USA. The results of the survey will be published in the January/February 2000 issue of The DX Magazine and posted on the web site around February 1st.

Very 73, Carl, N4AA

*"Well, art is art, isn't it? Still, on the other hand, water is water! And east is east and west is west and if you take cranberries and stew them like applesauce they taste much more like prunes than rhubarb does. Now, uh, now you tell me what you know."*

#### W5 DX BASH

This event will be held on October 8-9th at Lake Buchanan in Texas. Bryan, W5KFT reports there will be lots of good programs, including remote operation of a station using the new Kachina computer radio, new Alpha products demo by John, W0UN, and a demo set up for actual operation of the new Ten-Tec Pegasus computer radio. Registration information is on the "W5 DX BASH" Web page at: <http://www.dxer.org/w5bash>

#### HAPPY NEW YEAR 2000 CONTEST

The Budapest branch of the Hungarian Radio Amateur Society and the Puskas Tivadar Radio Amateur Club, HA5KHC invite radio amateurs and SWL's to take part in their Happy New Year 2000 contest in the first 2000 minutes of the year 2000. For more information visit the Web site: <http://www.puskas.hu/ha5hny> or e-mail to: [hg2000@puskas.hu](mailto:hg2000@puskas.hu)

#### MARTTI IS BACK HOME

Martti, OH2BH has returned home to his native Finland after almost 6 years in Asia and several new DXCC countries but will not stay long; just long enough to pack up for another outing in the Aland Islands, launching a new callsign **OH0B**. The site has been re-built with directional antennas on all bands. QSL via OH2BH CBA address: Martti J. Laine, Nuottaniementie 3D20, 02230 Espoo, FINLAND

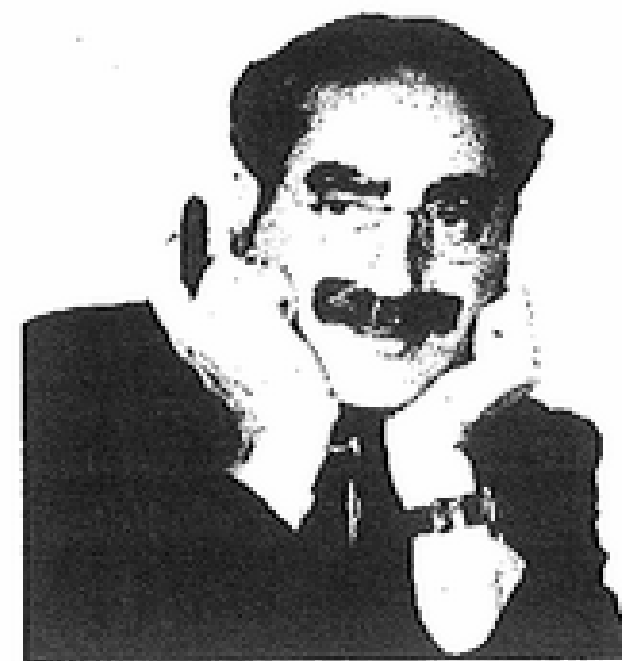
Excerpts and distribution of The OPDX Bulletin are granted as long as KB8NW / OPDX / BARF80 receive credit.

*"Room service? Send up a larger room."*

*"Outside of a dog, books are a man's best friend. Inside of a dog, it's too dark to read."*

*"Will you marry me? Do you have any money? Answer the second question first."*

#### Doctor DX



"Gentlemen of the jury, Doctor DX here may talk like an idiot, and look like an idiot, but don't let that fool you... He really is an idiot... I implore you, send him to the penitentiary where his father and brothers await him with open arms. I suggest we give him 12 years in Leavenworth, or 11 years in Twelveworth. I tell you what, I'll take 5 and 10 in Woolworth."

*From the TV Show "You Bet Your Life"*

Groucho: So, Mrs. Smith, do you have any children?

Mrs. Smith: Yes, thirteen.

Groucho: Thirteen! Good Lord, isn't that a burden?

Mrs. Smith: Well, I love my husband.

Groucho: Lady, I love my cigar but I take it out of my mouth once in a while!

\* Our monthly C&E Special from your friends at FUBAR ShaZamaHamaTronics of Broken Arrow \*

## IT'S THE SALE YOU'VE BEEN WAITING FOR !!! THE ShaZamaHamaTronics 10% OFF FALL CLEARANCE SALE !!!

Why wait any longer to buy the ShaZamaHamaTronics merchandise you've been drooling on all year?

ALMOST EVERYTHING IN THE STORE IS 10% OFF DURING THIS SALE !!!

Just look at these bargains: Genuine BELDEN 8214 coax 'Handy Hanks'... WAS SOLD IN 100' LENGTHS, NOW 90 FEET !!!  
ARRL 20 WPM Code Practice Tapes... NOW 18 WPM !!! One pound rolls of KESTER '44' solder... NOW 14.4 OUNCES !!!

As Cletus B. Liddley, A5LID of Bokchito, Oklahoma says: "I bought a 100 watt HF transceiver for only 90 watts !!!"

## CALL 1-900-I-AM-A-LID TO ORDER YOURS TODAY !

Be Sure to mention you saw it in the Collector & Emitter - Visit us on the Web at <http://www.theonion.com>

Want to become a member of the OKDXA? Contact Mark Byard, N5OG, 504 Foster Ave. Ponca City, OK 74601-2519

Have some DX News? Contact Nelson Derks, KC5QVV, 13410 South 128<sup>th</sup> East Ave. Broken Arrow, OK 74011

E-Mail to: [n5og@poncacity.net](mailto:n5og@poncacity.net) or [kc5qvv@gte.net](mailto:kc5qvv@gte.net) - Visit the OKDXA Web Page <http://www.poncacity.net/n5og/okdxa>

OKDXA NET ⇒ EVERY MONDAY EVENING AT 6:30PM ⇐ 3860 kHz +QRM



## A. R. R. L. Bulletins

**From:** ARRL Headquarters  
Newington, CT  
**To:** All radio amateurs

**ARRL Bulletin 79**  
September 24, 1999

### *League Opposes LA County Experimental Video Proposal*

The ARRL has asked the FCC to deny an experimental license application by Los Angeles County, California, to develop a public safety video system on the 2.4 GHz band. The LA County proposal, filed August 9, seeks FCC authorization to develop an experimental system using four 10-MHz channels to transmit video images from helicopter-borne cameras to five remote receiving sites with active racking antennas. The signals then would be retransmitted via terrestrial links to the public safety agencies involved.

In its objection, filed September 23 with the FCC, the League called the LA County proposal a "foot in the door" toward gaining a permanent berth in the 2.4 GHz band. "It is obvious from the experimental proposal that the County wishes to construct the entire system and then simply stay there," the League said. The ARRL said the FCC should authorize nothing more than a single 10-MHz video channel for a single transmitter aboard a single helicopter, to allow interference studies to be conducted.

LA County already is licensed for video operations on a single 2.4 GHz channel but says it encounters operational conflicts with broadcasters. The proposal targets the 2402-2448 MHz band, characterizing it as "underutilized" and asserting that current occupants—including Amateur Radio and industrial, scientific and medical instrumentation—would not suffer harmful interference. Amateurs have a primary domestic allocation at 2402-2417 MHz.

The League's objection said LA County's 2.4 GHz monitoring study was "significantly flawed" and "woefully

insufficient," and that LA County would be unable to avoid causing "constant, harmful interference" to incumbent users. Citing ATV repeaters and video links as well as proposed amateur satellite operation, the League said, the 2.4 GHz band enjoys significant use by the LA area Amateur Radio community. The League said these systems, and those of other amateur users, would be "seriously degraded or displaced" by deployment of the proposed experimental system.

The decision to grant the proposed experimental license is up to the FCC Office of Engineering and Technology's Experimental Licensing Division. In making its decision, however, the OET is expected to consult with the Wireless Telecommunications Bureau, which oversees Amateur Radio and the other affected services on 2.4 GHz.

In a separate, but related, filing on September 1, Los Angeles County and the cities of Los Angeles, Long Beach and Burbank requested a declaratory ruling from the FCC to "clarify its rules to facilitate public safety operations on the 2450-2483 MHz band" and to explore other spectrum allocations "to accommodate the growing demand for public safety airborne operation."

**ARRL Bulletin 78**  
September 23, 1999

### *ULS vanity processing inches forward*

The FCC's new Universal Licensing System has moved a bit closer to resuming full-scale amateur vanity call sign processing.

Several lucky applicants who had submitted call sign requests in the pre-ULS era benefited in recent days from some "live" testing of the ULS vanity processing system. A few not-so-lucky applicants soon will learn, however, that the FCC had to rescind some of those vanity grants it cranked out--and should not have--during those "test runs."

Until last week, no vanity call signs had been granted since August 4. The ULS has been accepting vanity applications since it inaugurated the ULS for the Amateur Service August 16, however.

Some 30 vanity call sign applications dating from July were processed

September 16. The FCC ran a batch of another 50 or so vanity applications September 21. "We're taking it slow," a ULS spokesperson said.

But while reviewing the vanity applications processed, FCC personnel found some that should not have been granted in the first place, because the applicants made various fatal errors in the application process. The FCC says those call signs will be cancelled and the applications dismissed.

"And there will be plenty more, I'm sure," the spokesperson said, anticipating additional dismissals down the road. The FCC has the option of rescinding any grant within 30 days.

Barring any unforeseen major problems, the FCC anticipates additional "live test" runs before resuming full-scale vanity processing, possibly by month's end. Once that happens, vanity call sign processing will occur every day for eligible applications based on date of receipt. Gone under ULS are weekly processing runs and the dreaded work-in-process--or WIPs--stack of applications that were kicked out of the former automated system and designated for manual processing. Under the ULS, applications that would have gotten an additional manual review in the past now will be automatically dismissed and returned to the applicant for correction and refiling.

Vanity applications not accompanied by payments within the 10-day deadline will be dismissed automatically. The ULS now permits applicants to make credit card payments on-line. The fee for a vanity call sign application increased to \$14 on September 14.

In the wake of comments and criticisms about the difficulty of having to configure a dial-up connection with a particular browser (Netscape version 4.5 or higher and version 4.61 preferred) to file an application, the ULS Task Force says it's planning to convert to electronic filing via the Internet. But a spokesperson says that is not likely to happen for another six to nine months. In the meantime, some have opted to file a paper Form 605 instead.

**ARRL Bulletin 77**  
September 21, 1999

### *North Carolina and Virginia ARES/RACES continue flood response*

Amateur Radio Emergency Service and Radio Amateur Civil Emergency Service groups in North Carolina and Virginia continue efforts to respond to flooding resulting from Hurricane Floyd.

"As far as I can tell, we're still on the uphill slope," said North Carolina Section Manager Reed Whitten, AB4W. "There's no reason to believe things will get better soon." Whitten estimated that upwards of 300 amateurs statewide are actively involved in the Hurricane Floyd response.

"Amateur Radio operators are providing communication for the State EOC in Raleigh and in Pitt, Edgecombe, Craven, Hertford and other counties," Whitten said. Amateurs from North and South Carolina have traveled to the affected area to assist. Additional relief operators are on standby and are being scheduled by North Carolina ARES/RACES.

Whitten said hams also are staffing shelters, handling traffic, and acting as net control stations, as well as supporting outside relief efforts by the Red Cross, the Salvation Army, and others.

Most of the problems result from flooding of the Tar, Neuse, Chowan and Croatan rivers in eastern North Carolina. Whitten says the city of Greenville has lost its water supply. A ham station has been set up at the Pitt Memorial Hospital.

More relief operators were scheduled to travel to the hard-hit community of Tarboro this morning. Tarboro was completely cut off by the flooding of the Tar River, and relief workers have had to be transported in and out via helicopter. Additional volunteers were standing by to fill requests from other counties today. While most amateur traffic is being handled on VHF and UHF, the statewide Tar Heel Emergency Net on HF is operating continuously to support county operations. An FCC-declared voluntary communications emergency continues in effect for 3923 and 7232 kHz in North Carolina.

The American Red Cross currently is housing more than 6400 people in 65 shelters in North Carolina, and hams also are providing communication for

evacuees. The Salvation Army is operating mobile feeding units and one shelter.

To the north, Virginia Section Manager Lynn Gahagan, AF4CD, says flooding along the Nottaway and Blackwater rivers has caused extensive flooding in the City of Franklin as well as in the towns of Courtland and Sedley and in Southampton and Isle of Wight counties. The City of Franklin--near the North Carolina border--has experienced its worst flooding ever with the downtown area and businesses under more than 12 feet of water. Nearly all traffic going in and out of Franklin--including police and fire communication--is being handled by ham radio.

He said hams were using VHF and repeaters for the most part, and he predicted telephone service could be out for another couple of weeks or more.

ARES/RACES officials in North Carolina and Virginia have requested that amateurs wishing to volunteer first sign up with ARES officials. Whitten says prospective flood zone volunteers from other part of the state should first contact him via e-mail at [ab4w@arrl.org](mailto:ab4w@arrl.org). Whitten said volunteers should have at least a Technician license and a 2-meter mobile radio with portable power. Volunteers should be prepared to stay for at least two days. Gahagan says Virginia volunteers should contact him (at 757-545-1290) or the Virginia Department of Emergency Services ([vaeoc@w4za.ampr.org](mailto:vaeoc@w4za.ampr.org)). He said hams volunteering should have dualband (2 meter/70 cm) capability, preferably with 50 W.

In no case should volunteers in either state attempt to travel to stricken areas without being specifically requested to do so.

Gahagan has requested that all health-and-welfare traffic entering and leaving Virginia be handled as packet as much as possible. He said traffic should be routed to [KR4MA@KR4MA#tide.va.usa.noam](mailto:KR4MA@KR4MA#tide.va.usa.noam).

Hurricane Watch Net NCS Mike Pilgrim, K5MP, says the net has received its final update from VP9HK at the conclusion of the Emergency Management meeting in Bermuda and no more assistance is required.

"It is also evident that Tropical Storm Harvey has ceased to be a threat, so we are now declaring the Hurricane Watch Net secured," he announced Tuesday afternoon.

### **ARRL Bulletin 69** September 15, 1999

#### *Ham Radio Supporting Storm Response*

Response to the threat posed by Hurricane Floyd has galvanized hams throughout the southeastern US. While the Hurricane Watch Net continues to assist weather forecasters in tracking the progress of the huge and dangerous storm, members of the Amateur Radio Emergency Service and the Radio Amateur Civil Emergency Service are assisting governmental agencies and relief organizations such as the Red Cross.

Hams in the Bahamas continued to feed damage reports to the Hurricane Watch Net on 14.325 MHz. In addition to weather observations, several Bahamian stations passed along damage reports. No health and welfare traffic is being handled, however. Amateur reports from the Bahamas indicate no deaths or serious injuries so far in the Bahamas, but there has been extensive property damage. The Bahamas suffered significant tree damage in many areas, as well as roofs blown off, boat docks severely damaged, boats aground, power and telephone lines down, and roads washed away.

Hurricane Watch Net participants and controllers have been hampered by less than ideal propagation.

Northern Florida SEC Nils Millergren, WA4NDA, reports hams were helping to provide communication at shelters in more inland counties, where thousands of coastal residents and visitors have taken refuge, as well as assisting in communication for hospitals and ambulance services. Millergren reports that Volusia County alone has 21 shelters open housing some 3000 evacuees. He says 10 shelters are open in Seminole County, one filled to capacity, housing more than 900 evacuees, while hams are helping to staff shelters in Columbia and Alachua counties sheltering more than 3200 evacuees and more than three dozen ARES members on duty at those sites. Shelters also are open in Flagler, Lake,

and Orange counties, providing refuge for another 1800 or so evacuees.

The FCC has asked hams not involved in the storm emergency to avoid designated frequencies on HF and VHF that are being used for emergency traffic. The voluntary communications emergency now includes 3993.5 and 3915 kHz in South Carolina, 3923, 3926 and 7232 kHz in North Carolina, 7275 kHz and 3975 kHz in Georgia, and 3620, 3910, 3947, 7260, and 7105 kHz in Virginia. In addition, the FCC requested that hams relinquish 145.17, 145.43, 145.73, 146.76, 147.3 and 147.36 for emergency traffic in Virginia. The FCC has canceled the voluntary communications emergency declared yesterday for 3950 and 7242 kHz for emergency traffic in Florida.

Some health and welfare traffic was being passed on 14.262 MHz, but the US does not have a third-party traffic agreement in place with the Bahamas.

Hams in Georgia also are staffing Red Cross shelters and emergency nets. North Carolina Section Manager Reed Whitten, AB4W, was seeking additional operators from other parts of the state to back up local operators in the Wilmington and Lumberton areas. Radio operators have been stationed at the state Emergency Operations Center and were preparing to activate at county EOCs.

As of the morning of September 15, Hurricane Floyd was about 190 miles east-southeast of Jacksonville, Florida, some 350 miles south of Wilmington, North Carolina, and moving north-northwest at nearly 14 MPH. Maximum sustained winds are 125 MPH.

#### **ARRL Bulletin 62** September 9, 1999

##### *FCC relaxes rules for spread spectrum*

The FCC has relaxed rules governing the use of spread spectrum techniques by radio amateurs and opened the door to the possibility of international spread spectrum communication. The Report and Order in WT Docket 97-12 adopted August 31 concludes a proceeding that originated with an ARRL petition in December 1995 and has been pending since 1997.

The FCC adopted rules that will allow Amateur Radio stations to transmit additional spread spectrum emission types. Once the new rules become effective November 1, hams will be able to use techniques other than frequency hopping and direct sequence spreading. In addition, the new FCC rules will permit US hams to use spread spectrum techniques to communicate with amateurs in other countries that permit SS. Spread spectrum communication has been limited to stations within FCC jurisdiction.

The new rules require that spread spectrum stations running more than 1 W incorporate automatic transmitter power control. Amateur stations using SS are restricted to a maximum power of 100 W.

The Commission also amended the rules to eliminate what it called "now-unnecessary record keeping and station identification requirements" that apply only to stations using spread spectrum. The FCC agreed to let SS stations identify themselves using conventions developed by the Amateur Radio community.

Roanoke Division Vice Director Dennis Bodson, W4PWF, who has followed the League's Spread Spectrum initiative through from start to finish was pleased with the outcome of the proceeding. "I'm very happy," he said. "The League got everything it wanted and more--all of which, I believe, will help to promote this mode on the amateur bands."

Stations employing spread spectrum techniques will remain secondary to--and must accept all interference from--stations employing other authorized modes. The FCC declined to authorize the use of spread spectrum techniques on additional bands or frequencies.

A copy of the FCC's complete Report and Order is available at <http://www.arrl.org/announce/regulatory/w197-12>.

#### **ARRL Bulletin 61** September 9, 1999

##### *ARRL task force seeks future technology proposals*

The ARRL Technology Task Force wants to hear from hams with ideas and proposals for new technology to carry Amateur Radio into the next century. The

ARRL Board of Directors created the Task Force and the companion Technology Working Group last January, and ARRL President Rod Stafford, W6ROD, has appointed a number of leading amateurs to serve on both panels. The Task Force and the Working Group will work hand-in-hand to identify, evaluate, and promote the most promising 21st Century technologies for Amateur Radio.

The Task Force consists of members of the ARRL Board family and the Headquarters staff. Chairing the Task Force is ARRL First Vice President Steve Mendelsohn, W2ML. Other TTF members are Roanoke Vice Director Dennis Bodson, W4PWF; Hudson Director Frank Fallon, N2FF; New England Director Tom Frenaye, K1KI; Southwestern Vice Director Art Goddard, W6XD; Pacific Director-elect (and current Vice Director) Jim Maxwell, W6CF; International Affairs Vice President Larry Price, W4RA; and Rocky Mountain Director Walt Stinson, W0CP.

The Technology Working Group will evaluate technical proposals and make recommendations to the Technology Task Force, which, in turn, will make specific policy proposals to the ARRL Board of Directors.

The Working group is an expert panel selected from among League members representing a broad spectrum of Amateur Radio interests and activities. Chairing the Working Group is CQ Editor Rich Moseson, W2VU. Other members are AMSAT-NA President Keith Baker, KB1SF; Peter Coffee, AC6EN; Mike Cook, AF9Y; Gene McGahey, NR0NR; ARRL Technical Relations Manager Paul Rinaldo, W4RI; Dennis Silage, K3DS, and QEX Editor Doug Smith, KF6DX.

ARRL Laboratory Supervisor Ed Hare, W1RFI, will serve as ARRL HQ staff liaison to both committees.

The Task Force invites information and concepts on a wide range of technologies with the potential to improve Amateur Radio and to promote what the FCC calls "continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art." The Task Force invites the submission of ideas and proposals from all parts of the amateur community, and will use the input to help

formulate League policy recommendations on a wide range of technical issues.

Amateurs are invite to complete the form on ARRLWeb at <http://www.arrl.org/news/ttf/>, send e-mail to the Task Force at [ttfinput@arrl.org](mailto:ttfinput@arrl.org), or offer your ideas by mail to the ARRL Technology Task Force, c/o Ed Hare, W1RFI, 225 Main St, Newington, CT 06111. Suggestions are requested by November 30, 1999.

#### **ARRL Bulletin 60** September 2, 1999

#### *Balloting scheduled in four ARRL divisions*

Members in seven ARRL divisions have nominated candidates for the positions of ARRL Director and Vice Director for terms beginning at noon January 1, 2000. The ARRL Election Committee has reviewed the nominations and has declared all of the candidates to be eligible. Where there is a single candidate for an office, the candidate has been declared elected.

Balloting for Director will occur in the Great Lakes and Midwest Divisions. Balloting for Vice Director will occur in the Atlantic, Great Lakes, and Pacific Divisions.

The nominees are:

Atlantic Division (3 year term)  
Director: Kay Craigie, WT3P (unopposed)  
Vice Director: John Buchanan, KW3X, and Bernard E. Fuller, N3EFN

Dakota Division (3 year term)  
Director: Jay Bellows, K0QB (unopposed)  
Vice Director: Twila Greenheck, N0JPH (unopposed)

Delta Division (3 year term)  
Director: Rick Roderick, K5UR (unopposed)  
Vice Director: no nomination received

Great Lakes Division (3 year term)  
Director: David Coons, WT8W, George Race, WB8BGY, and Murray Scott, KE8UM  
Vice Director: Gary Johnston, KI4LA, and Lawrence Solak, WD8MPV

Midwest Division (3 year term)  
Director: John Seals, WR0R, and Robert W. Walstrom, W0EJ

Vice Director: Bruce Frahm, K0BJ (unopposed)

Pacific Division (2 year term)  
Director: James A. Maxwell, W6CF (unopposed)  
Vice Director: Jettie Hill, W6RFF, John Ronan, III, K3ZJJ, and Robert Vallio, W6RGG

Southeastern Division (2 year term)  
Director: Frank M. Butler, W4RH (unopposed)  
Vice Director: Evelyn Gauzens, W4WYR (unopposed)

Incumbent Directors Craigie (Atlantic), Roderick (Delta), and Butler (Southeastern) were unopposed for re-election, as were Vice Directors Frahm (Midwest) and Gauzens (Southeastern). Incumbent Directors Tod Olson, K0TO (Dakota), Lew Gordon, K4VX (Midwest), and Brad Wyatt, K6WR (Pacific), decided not to seek re-election. Incumbent Vice Directors Bellows (Dakota), and Maxwell (Pacific), will move up to Director.

Full members of record in the Atlantic, Great Lakes, Midwest, and Pacific divisions as of September 10, 1999, will be sent ballots in late September. The deadline for receipt of completed ballots is noon Friday, November 19, 1999. Any member who is entitled to a ballot and who does not receive one by November 1 is invited to request a duplicate ballot from the Secretary, ARRL.

With regard to the Delta Division Vice Director position, the ARRL Articles of Association provide that "Should the office of Vice Director be vacant, the vacancy shall be filled by appointment by the President."

#### **ARRL Bulletin 59** August 31, 1999

#### *No word yet on restructuring*

An FCC staff member says the Commission staff is "diligently working" towards getting a Report and Order on Amateur Radio license restructuring out the door. But beyond that, the FCC staffer—who did not want to be identified by name—said it was impossible to predict when that would happen. He said FCC rules prevent him from revealing any information about "internal thinking or scheduling" regarding the proceeding,

known formally as the 1998 Biennial Regulatory Review of Part 97 (WT Docket 98-143).

The FCC's move last spring into consolidated offices at The Portals also disrupted routine work flow.

A year ago, the FCC proposed phasing out the Novice and Technician Plus licenses, leaving Technician, General, Advanced, and Extra in place. The FCC also asked the amateur community to express its opinions on Morse code requirements for licensing and testing, but offered no recommendations.

The previous month, the ARRL Board of Directors issued its own plan to restyle Amateur Radio. Among other details, the ARRL plan also called for four license classes and for "refarming" Novice/Tech Plus subbands to provide additional phone spectrum for higher-class operators. Under the League plan, the Technician license would remain unchanged, and the General would become the entry-level ticket for those interested in HF operation. The ARRL proposed Morse code requirements of 5 WPM for General and 12 WPM for Advanced and Extra class.

"We are simply in that period of time when no information is available," the FCC staff member said. "This is a normal part of the Commission's quasi-judicial decision-making process and a necessary part of being objective and fair to all."

Before the long-awaited Report and Order sees the light of day, the Wireless Telecommunications Bureau staff first must digest the 2200 comments, filed mostly by individuals. Then, the staff will circulate its recommendation to the Commissioners. Commissioners and their staff will mull the WTB input and arrive at a plan.

The ultimate FCC decision will come either at the Commission's monthly meeting or it will be handled "on circulation"—outside of an actual meeting. A Public Notice will be issued, and the actual Report and Order will follow.

The bottom line is that Amateur Radio operators will have to wait a few weeks or a few months longer before the restructuring issue is resolved.

## Up Coming Events

October 29-30 Texoma Hamarama, Kingston, OK Herb Sleeper, WB5PHM 8144 Carriage Ln., Wichita Falls, TX 76306 940-855-5820

E-mail: retmarine@cst.net

Web-site

<http://www.qsl.net/kc5sig/hamarama>  
OKLAHOMA

November 6 1999 Enid Ok. Hoover Building, Garfield County Fairgrounds Enid Hamfest 1999 8 A. M. 'Till 5 P. M. Free Doughnuts & Coffee In The Morning, Free Lunch At Noon Admission \$2.00 Tables \$1.00 Each For More Information Contact Fred (580)-242-3551 Tom (580)-233-8473 Dick (580)-233-9869 E-Mail N5lwt@Hotmail.Com

### ANNOUNCEMENTS

VE exams on 3rd Monday of each month sponsored by C.O.R.A. @ Salvation Army HQ at NW 50th and N. Penn, Oklahoma City at 6 PM local time. Doors will be locked at 6:30.

VE exams on 3rd Saturday of each month are held at 9:00 a.m. at Southern Temple Baptist Church, 1821 S High, OKC. Talk in on 146.76 MHz. For more information you can contact Audie, AA5GB @ 799-9916.

VE exams held by appointment only, on 4th Tuesday of each month at 6:00 p.m. in the Shawnee Public Library, 101 N. Philadelphia. Call J. W. Drummond at 275-3935 for more information.

VE Exams are held on the first Saturday of each month, at the Church of Christ, 811 N. 4th St., Broken Arrow. Starts at 9:30 AM and lasts until everyone is

finished. New hams and upgrades are welcome.

VE exams on 2nd Saturday of each month are held at 10:00 A.M. after the SCARS meeting at the American Red Cross in on Westheimer Airport in Norman. Contact Jim Copeland, NW0K at 329-1681 or e-mail jimhelps@juno.com for more information.

VE exams on 4th Tuesday of even months are held at 6:30 p.m. at the Altus Vo-Tech in Altus, OK. Contact George Mateyo, N1GM for details.

VE exams on the 2<sup>nd</sup> Sunday of odd numbered months sponsored by the Stillwater ARC at 3:00 P.M. in the OSU Engineering North Building, Room 316. Contact Ken, K5KC (405) 377-7586 for details.

VE exams in Enid are done on odd months starting with the month of January. On the 2nd Saturday at 10:00 AM at the Oklahoma Natural Gas Co located at the corner of HY412 & Garland Rd., across east from Atwoods store. The testing is PREREGISTER ONLY. Contact Dick NJ5S 580- 233-9869

VE exams on the 1<sup>st</sup> Saturday of each month at 2:30 P.M. in the Vinita City Hall sponsored by Northeast Oklahoma Radio Assn.

VE exams on the 1<sup>st</sup> Sunday of each month at the American Red Cross 6<sup>th</sup> and Lincoln for more information.

### 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.

6 meter check in 52.525 Mhz simplex

Packet check-in on 145.07

**SW Oklahoma - Thursday @ 7:00 p.m.** on 146.31/91.

**North Central Oklahoma** meets on the first and third Monday of the month at 7:30pm on the 147.150 rep

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

**HF 3941kHz - AMTOR @ 8:30 a.m.** 14.064mHz

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

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

**Edmond Info - Monday @ 8:00 p.m.** on 147.135/735.

**Enid Amateur Radio Club Monday Night Net Monday @ 8:00pm** on 147.150MHZ.

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

**QCWA Chp 63 HF - Sunday @ 8:00** on 3855.0kHz USB.

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

**Purcell - Monday @ 8:00** on 145.19 minus input.

**Cimmaron - Tuesday @ 9:00 p.m.** on 145.45 minus input.

**YL Net - Tuesday @ 8:00 p.m.** on 147.09 plus

**Oklahoma Training Net - Daily @ 0000Z** on 3692.5 kHz (CW Net)

**Oklahoma Section Net - Daily @ 0030Z** on 3692.5 kHz

## Nolen's Accounting & Tax Service, Inc.

*"Professional Service With A Personal Touch"*

James H. Nolen, EA, ATA, ATP

DEL CITY  
4700 E. Reno  
Del City, OK 73117  
(405) 677-8028  
FAX (405) 677-7023

SOUTHWEST  
2717 SW 44th  
Okla. City, OK 73119  
(405) 682-0461  
Fax (405) 682-0461

MUSTANG  
400 W. Highway 152  
Mustang, OK 73084  
(405) 376-2846  
Fax (405) 376-2846

1631 SE 15th

677-9001



October 03 - November 13, 1999  
*CORA Events*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>October 3</i> 2:00 PM Red Cross Ve Exams	<i>October 4</i>	<i>October 5</i> 7:00 PM LFSARC	<i>October 6</i>	<i>October 7</i> 7:00 PM Aeronautical Center ARC 7:30 PM Cinnaron ARA	<i>October 8</i>	<i>October 9</i> 9:30 AM S. Canadian ARS 10:00 AM EARC Ve Exams 10:00 AM SCARS VE Exams 3:00 PM Stillwater VE Exams
<i>October 10</i> 2:30 PM Wheatstraw ARC	<i>October 11</i> 7:00 PM LFSARC VE Exams	<i>October 12</i>	<i>October 13</i> 11:00 AM OK VHF ARC	<i>October 14</i> 7:00 PM Alhus Area ARA 7:00 PM Tri-State ARG	<i>October 15</i>	<i>October 16</i> 9:00 AM SBC VE Exams
<i>October 17</i>	<i>October 18</i> 6:00 PM CORA VE Exams 7:00 PM Broken Arrow ARC 7:00 PM Choctaw ARC	<i>October 19</i> 7:30 PM Oklahoma City APA	<i>October 20</i>	<i>October 21</i>	<i>October 22</i>	<i>October 23</i>
<i>October 24</i>	<i>October 25</i> 6:00 PM Shawnee VE Exams	<i>October 26</i> 7:30 PM CORA Meeting	<i>October 27</i>	<i>October 28</i> 7:00 PM Enid ARC	<i>October 29</i> 5:00 PM Collector and Emitter Deadline	<i>October 30</i>
<i>October 31</i>	<i>November 1</i>	<i>November 2</i> 7:00 PM LFSARC	<i>November 3</i>	<i>November 4</i> 7:00 PM Aeronautical Center ARC 7:30 PM Cinnaron ARA	<i>November 5</i>	<i>November 6</i> 9:30 AM BAARC Ve Exams 10:00 AM Ada ARC 2:30 PM Vinita VE Exams
<i>November 7</i> 2:00 PM Red Cross Ve Exams	<i>November 8</i> 7:00 PM LFSARC VE Exams	<i>November 9</i>	<i>November 10</i> 11:00 AM OK VHF ARC	<i>November 11</i> 7:00 PM Alhus Area ARA 7:00 PM Tri-State ARG	<i>November 12</i>	<i>November 13</i> 9:30 AM S. Canadian ARS 10:00 AM EARC Ve Exams 10:00 AM SCARS VE Exams 3:00 PM Stillwater VE Exams

September						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

October						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December						
S	M	T	W	T	F	S
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	