The Pileup

Newsletter of the CDXA

Carolina DX Association

Presidential Ponderings

It's getting to be the time of the year for DXpeditions. The 7P8AA DXpedition wasn't over long before FR/F6KDF/T began. Good luck to all in the pileups. Contests are starting to ramp up with NA QSO Party CW and ARRL UHF contest beginning shortly after I write this month's piece. The NA QSO Party SSB will be on Aug. 19th-20th. Good luck to all those who participate. It's also nearly Shelby Hamfest time. I hope everyone is getting their "wish" list together.

The packet cluster has seen a lot of change this past month. The K4MD node suffered a hard disk crash a few weeks ago. The good news was that Joe was already working on a new node computer setup, which is running Windows 2000 Professional and the AR windows based packet cluster software. Instead of spending a lot of time rebuilding the old DOS K4MD node, Joe took on the task of getting the new node computer and new software on the air. He's put in many hours of hard work that we all appreciate. Thank you, Joe, for your tireless effort in keeping our cluster going. Those of you who connect to the K4MD node have seen the change and even those of you on W4DXA should have also seen some changes. The new AR software allows for a direct link to the Internet cluster system. I'm sure you've noticed the increase in spots. You'll also notice that instead of connectivity to 4-6 nodes and 20-45 users, you'll now see 40-60 nodes and hundreds of users. Remember even though you see these stations spotting DX or leaving messages, if they are not in our local area, you can't use the 'Talk' feature or reply to their mail messages. This is similar to the situation when we use to link between Raleigh and Virginia up to the Northeast.

Another feature of the new AR software is that you can now access the K4MD node via the Internet using Telnet. Simply Telnet into the address K4MD.tzo.com and you'll get the prompt for entering your call sign. If, like myself, you also have the traditional RF connection to the cluster while at work, use 'W4/callsign' as your callsign for accessing the node from the Internet. This will also help Joe while administering the node to know you are connected via the Internet. We'll have more info on the new software and features next month.

For those of you on W4DXA, we do have plans for more upgrades there as well. A Pentium class PC will replace the aging 486 PC on the mountain. W4DXA will remain a DOS node using Pavilion software. Since W4DXA is located at a commercial tower location, there are no phone lines or Internet connections readily available for us to use, so investing in a setup similar to the K4MD node is not warranted. Also W4DXA is an unmanned site so it is kept as

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CDXA PacketCluster & Other Communication Systems		
W4DXA Young Mountain	144.93 MHz (1200 bits/second)	441.00 MHz (9600 bits/second)
K4MD Charlotte, NC	144.91 MHz (1200 bits/second)	441.075 MHz (9600 bits/second)
Digipeater near Wingate, NC	144.91 MHz (DXWIN)	
CDXA Repeater 147.18 MHz (+600)	W4DXA, Near Fort Mill, SC	
World Wide Web Homepage	www.cdxa.org	
Wednesday Luncheon (11:30 AM)	Shoney's, 355 Woodlawn Road, Charlotte, NC (704-525-4395)	

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simple as possible to maximize uptime. The new computer should help with responsiveness of the node. Once Joe has time to recover from the all-nighters getting the K4MD node tweaked, he'll begin working on the new W4DXA node computer setup.

For those of you with email and Internet access, please let us know if you can take the *Pileup* electronically. When the new version of the *Pileup* is available, we will notify you via email that it may be downloaded, and that will usually happen before the physical mailing. It is your choice on how to receive the newsletter, but taking it electronically will save the CDXA on copying, labeling, and mailing costs and leave us money to do other things. The *Pileup* is stored on our website in Adobe Acrobat 4.0 so it will appear and print out at home just like the version you receive in the mail if you have an Acrobat Reader. If you don't have the Adobe Acrobat 4.0 Reader, there is a link on the CDXA web site for a free download. Please contact Gary, K4MQG, if you are willing to take the *Pileup* electronically.

We are still looking for a new CDXA Secretary/Treasurer for 2001. Gary is "retiring" from the position and it's time for someone to step up. We want to have an early election for this position for 2001 so Gary can make a smooth transition of the books to the new Secretary/Treasurer before the membership dues start coming in at the end of the year. If you are interested in this position contact any of the CDXA officers.

Until next month, good luck in the contests and pileups…73's Bob – N4PQX

Summers in Michigan
By Bill Parris, AA4R

The temp has managed to get to 77 here at Crystal Lake so far this summer ... so we have yet to break into a sweat.

The BARF group (Benzie Area Radio Friends!) had a good field day....using my call was a trip. None of them had ever signed a "4" in their call so it took a few hours to get everything straight. All weekend long various ops would come by to see me and say "Someone told me to tell you hello", then follow that up with "Why do so many people recognize your call?" We ran 2 stations plus a novice station....had 21 different operators, so there was lots of participation, but they were more into "operating" and "socializing" than running up a score. We did manage to work W4BFB and W4UFO plus a lot of others around NC & SC.

I operated "Rover" in the ARRL VHF contest Jun 10-11. I went to 4 grids and made 207 contacts, 116 on 50 mHz, 63 on 144 mHz and 28 on 432 mHz. I took 7 hours off during the middle of the contest on Sunday to go to a "social" event, so I missed a good period of the contest. Total score was 24,910 points. That was better than the last two years, but if I had not taken the time off, I believe it would have been substantially higher. I did manage to work the West Coast on 6 meters.....of course, the W6's were really after me until they found out I was in Michigan and not the SE. Again this year, as the last tow, openings to NC and SC were zip. I worked a lot of stations in VA, FLA and GA, but no one near Charlotte. I used the Icom 706 with amps for 144 and 432. Antennas were a halo on 6 and a Cushcraft "Big Wheel" on 144 and 432. All equipment worked good for a change ..... I did have everything checked out well in advance however.

I have reworked most of my antennas here at the fixed

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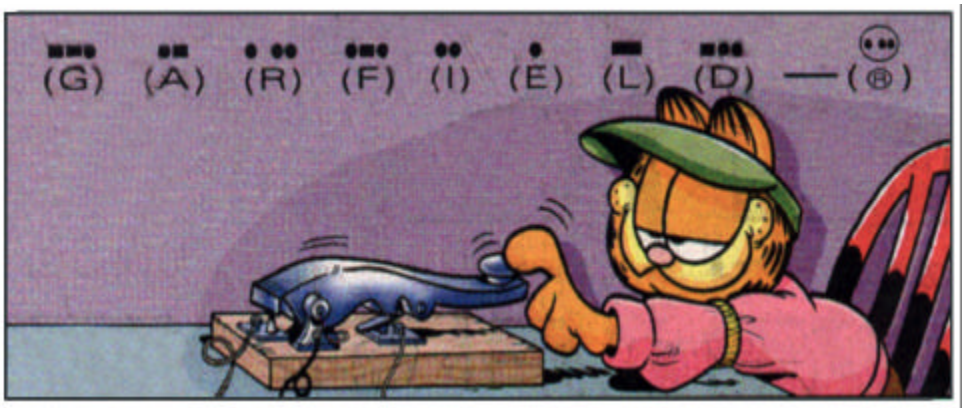
Cats communicate with their own codes, not all of which are understood by us humans.



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station.... bought all new coax from the Wireman to replace the "used" coax I brought up here. I now have quad loops up for 20 and 15 meters, plus I purchased a W9INN antenna for the WARC bands. Still have the W9INN dipole for 80 and 40, plus the 3 element 6 meter beam. I did manage to get the 6 meter beam on 20 ft of Rohn 25G, so it looks a little better. I have a Cushcraft 4 element 10 m beam but the gamma match is damaged and it has been a real chore to get the correct parts from Cushcraft. I calculated that my antennas are over 90 feet above the house, so I have good shots to the North, East and West, but I still have 250 ft of hill between me and the south. It's amazing how well I work the SE US however.

Tell the gang at Shoney's hello...and I will be looking for all on the bands.

Roving Reporter finds Rover

The Roving Reporter went on the road again during the month of July. This time he roamed into Charlotte for a visit with one of the consummate "rovers" of the VHF world, Ted Goldthorpe, W4VHF.

RR: *When were you first licensed as an amateur radio operator?*

TG: I was licensed in 1957 in Charleson, West Virginia as KN8EYS. Those were the days when you were given an "N" as the second letter of your callsign to signify your novice status. You had a year to upgrade to a non-novice class. I became K8EYS as a Technician Class licensee before the end of that year.

RR: *What was your first rig?*

TG: I built my first rig from scratch from components. My receiver was a Hallicrafters S-38. Everything was Amplitude Modulation or CW in those days. Double and Single Sideband rigs were just starting to appear.

RR: Did you have an Elmer?

TG: Actually I did. He was Al Hicks, W8AH in Charleston. Al has worked 'em all and is indeed, one of the more renowned DXers on this planet.

RR: *So with an Elmer who is a HF master operator, how did you get into VHF in such a big way?*

TG: Basically, I was a "mountaintopper". Have you ever been to Charleston? The town is built along a river valley with mountains on either side of the river. My house was above everything in town. We looked down into town. When you have such good line of sight conditions, one naturally gravitates toward VHF. I got interested in 6 meter work (and above) since we were at the peak of a sunspot cycle and things were hopping on 6 meters.

RR: *What was one of your most outstanding experiences in your years of "hamming"?*

TG: In 1979, as the 'ring leader' of a contest group within the Mecklenburg Amateur Radio Society we decided to compete at the highest level (literally) possible in a VHF contest. In those days--as it is now--VHF activity in the Northeast far surpasses that in the Southeast. Yet our gang of operators went up to the top of Roan Mountain, Tennessee and won the National Championship (ARRL September VHF QSO Party). There were some startled competitors when the results were announced, and that was half of the fun! We had over 1000 contacts on 2 Meters alone.

RR: *Now you are noted for being a master at "roving" in the VHF contests. How did you get started doing that?*

TG: I still like mountain-topping in the big contests. That's still where the action is, but roving offers another dimension to contesting. I guess roving in VHF is not unlike going on a DXpedition in the HF world. Everybody seeks you out as one who can provide additional multipliers. It's fun being on the receiving end of those pileups.

RR: *Since this reporter has been a member of the CDXA, it seems like you keep coming up with innovative ideas for making the hobby more fun. In particular, getting the WY2OOO callsign for Y2K was a wonderful idea. Do these ideas come in a spurt of inspiration or do you lay awake at night?*

TG: I'm just an 'off the wall' kind of guy...spent 25 years in the field of marketing/advertising...so thoughts and ideas just happen. Add in our hobby (which I love today as much as I did when I got my ticket 43 ago) and there's no telling what'll come up next. HI.

RR: *Thanks, Ted. Keep those ideas coming!*

Adventures of Millie and Mike

"Have you ever heard of a guy named Norton?", asked Mike as soon as Millie slammed the car door behind her. They were on their way towards another ARRL Field Day. Mike Farad and Millie Henry had become friends since passing their General Class Amateur Radio license exams together several years earlier. They enjoyed challenging each other with things they'd learned about radio and electronics technology and theory.

"Wasn't he the guy who was Ralph Cranston's sewer-cleaning buddy in the old 'Honeymooner's' series? You know, on the Jackie Gleason show?" Millie was stretching now wondering where Mike was going with his question.

"Yeah, that guy was named Norton, but I am asking about THE Norton.", pressed Mike.

"OK, Mike, you've been reading again. So who's THE Norton?" said Millie, rising to the bait.

"Remember the discussion we had several months back when we talked about Thevenin's equivalent circuits? Well, I've been doing some reading and found there was a Bell Laboratories engineer named Norton who developed a dual of that theorem."

"A duel?" questioned Millie.

Mike chuckled, "No, not a fight, but an analogous circuit where voltage sources are replaced with current sources, a dual circuit. You'll recall Thevenin stated from the perspective of the outputs of a black box network that it could be replaced by a single voltage source in series with a resistor and the response of the network would be the same. To make that transformation, one needs merely to find the open circuit voltage of the network, E_{oc}, and the internal resistance of the network looking back into the network from the output terminal pair, R_{INT}, and put E_{oc} in series with R_{INT}."

"You'll also recall, Mike, that it was *I* that told you about Thevenin.", reminded Millie.

"I do recall.", said Mike. "Well, this guy Norton stated his dual of that circuit by stating one only needs to find the short circuit current, I_{SC}, of the 'black box' circuit and the same internal resistance, $R_{INT,}$ looking back into the circuit. Then place a current generator generating current I_{SC} in parallel with R_{INT} to have a circuit equivalent to the original or the Thevenin's equivalent circuit!" Mike pulled a scrap of paper from his pocket.

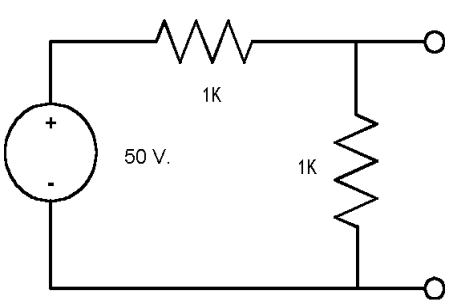

Figure 1

"Figure 1 is the original circuit from our discussion a few month's back. Figure 2 has the Thevenin's equivalent circuit.

Figure 3 has the Norton's equivalent circuit. All three will perform the same from the viewpoint of the terminal ends."

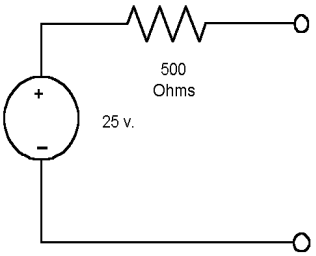

Figure 2

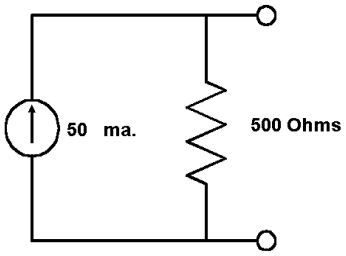

Figure 3

"So what's a current generator?", asked Millie.

"From all I can read, it is a somewhat theoretical device which has infinite internal resistance and develops the rated current regardless of the load into which it is working."

"So, an open circuit would result in an infinite voltage being developed by the current generator? Or at least enough voltage to break down the air to permit the current to flow.", observed Millie.

"Theoretically, yes." , responded Mike. "In some additional reading, I did find that the equivalent of a current generator was built to power the repeaters in the early undersea communication cables. The repeaters were designed to produce their operating voltages by constant current provided by the end points. To sustain the current in the middle Atlantic to drive the repeaters, the voltages at the endpoints rose and fell as needed to ensure the current was within specs. So there have been some real-life implementations of current generators. Since some of the first undersea cables were laid by 'Ma Bell', I suspect that's why Norton developed his theorem."

More on Beacons

Dave Ellis, WA8WV, writes, "I read the recent article sent in by Ron Bailey on the 12meter and 17 meter beacons. This beacon system is sponsored by the Northern California DX Foundation. Details are available at http://www.ncdxf.org/beacon.htm. Please share this with Ron Bailey, since I could not find his e-mail address."

Your editor checked out Dave's reference, and found the NCDXF operates a worldwide series of beacons in cooperation with the IARU on 14.100, 18.110, 21.150, 24.930, and 28.200 MHz. These beacons are designed to help both amateur and commercial high-frequency radio users assess the current condition of the ionosphere. The entire system is designed, built, and operated by volunteers as no cost except for the actual price of hardware components, shipping costs, and so on.

The beacons transmit at 22 wpm using 100 watts into a vertical antenna. If you'd like to read more, visit the website. Thanks, Dave, for sharing this information.

You hear the funniest things.....

Here's your editor listening around the bands on July 15 when he hears the call NU5DE. That's an unusual prefix, and what a pileup this Texas station has going. Hams from all over the U.S. calling. My careful reading of the DX operating manual tells me to listen before calling. I wait. I listen.

Yep, it's the Naturist Amateur Radio Club running a special event station to promote North American Nude Awareness Celebration near Austin Texas. Operator assures the callers that HE'S properly dressed. "Are QSLs available?", asks one caller. Hmmmmm.....

Don't believe me? Check out Page 91 of the July, 2000 issue of QST. And, no, I did not send my QSL—but did exchange the numbers!!

.....in the radio shack!

Young Mountain Revisited

Ever wonder what a 600+ foot tower looks like from the climber's perspective. Here's Lamar Davenport at about the 75 foot level on his way to about 210 feet during our recent work at Young Mountain. Our antenna is just below the platform at the third set of guys on the right side (North side) of the tower. And you thought your 100 foot tower was tall!

CDXA Paraphernalia

For those twelve souls who sent their order for CDXA shirts to John, K8YC, you'll be interested that the order was mailed to Land's End on Friday, August 4. I'd guess you'll be seeing the shirts the week of August 21.

Did you get your CDXA badge from "The Signman of Baton Rouge" yet? With a new callsign, your editor is remaking his identity. The badge is very nice.

The Back Page

The "Grandaddy of them All", the 44th annual Shelby Hamfest, will be held at the Cleveland County Fairgrounds in Shelby, NC on September 2 & 3, 2000. Talk-in frequency will be 146.28/88 Mhz. Gates will open at 6:00 AM on Saturday and Sunday. Tickets are $5.00 by preregistration and $6.00 at the gate. For general hamfest information contact either John Ledford, W4JL (n4goq@shelby.net, (704) 482-4507) or Geraldine Lovelace, N4CJM (WD4NHM@shelby.net, (704) 434-2140). The Shelby Amateur Radio Club website is at www.shelby.net/n4fan.

For Sale

Cushcraft 230WB - consists of 2 - 215WB 15 element 2 meter beams and stacking kit. Can be mounted for vertical or horizontal polarization. $175
Hustler G7-144 2 meter base station antenna (N connector). $75
Mosely Pro-57B - 24 foot boom, 7 elements 5 bands. $375
All items complete, on the ground and all documentation is available. Can deliver to Shelby Hamfest. Contact Bob Burton, N4PQX.

Did you know?

Pssssst. This newsletter can be downloaded from the CDXA website, www.CDXA.org, *before* you get it in the mail. If there are color photos in the edition, you can see them and print them in living color!!! —The Editor

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First Class Mail

See something wrong with your address label? Notify K4MQG at once, please.