



**The Carolina DX Association**

# The Pileup

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JANUARY-FEBRUARY, 1991

BILL TAYLOR - KD4IL - EDITOR

## DXNet Info from W4UH

The CDXA DX Net meets at 8:30 pm local time every Wednesday on 147.36. During the period 10 OCT. - 19 DEC., there was an average attendance of 13.6 checkins for a total of 150. There were 38 different stations calling in with N4ZC at every secession and K4CEB missing only one. Information transmitted is obtained front the current QRZDX Long Island DX bulletins.

**Join us each Wednesday**



*Happy New Year From CDXA*

### The Carolina DX Association

President: Ken Boyd	WA4UNZ
Vice Pres: Robert Starling	N4GVF
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## From The Editor's Desk

Just when you thought it was safe to go to your mailbox again, here comes the Pileup! This is going to be a big year.

**First, lets all hope that the Crisis in the Middle East is somehow resolved without too much fighting.**

1990 was not a bad year. CDXA grew over 25% and the TOX digi was not struck by lightning. The packetCluster system grew to having an average of 15 nodes and over 200 users on a good night. This did put a strain on the system and that is covered elsewhere in this newsletter. The local node grew to a maximum of 37 users at a time and plans are underway as I write this to put the STN node on 144.93. That should be in effect by the time you read this.

Don't forget 1991 dues and also don't forget the Charlotte hamfest this year at the Charlotte Merchandise Mart on March 10 and 11.

I have some interesting articles in this newsletter. Be sure to read the report on the New DXbase release. It looks good!

*Bill Taylor KD4IL Editor*

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**PACKET by Rich, K2RW**

Reprinted from the NJDXA Newsletter 12/1/90

Last month we began examining the Stuff that solid packet connections are made of and dwelled a bit on the importance Or properly setting your receive and transmit levels. Now that you have had a whole month to adjust a couple Or pots, lets move on to the subject of timing. Unless you have been living in a vacuum, you must have heard of the old adage "time is everything". The fellow who first uttered those words must have been thinking of packet.

In the context of packet, timing parameters are among the most important. Some of the timing parameters are rather easy to comprehend, while others are a bit more elusive. Taken in combination with one another, and adding the dimensions of channel occupancy (traffic) and reliability, you will begin to understand why there may be no simple answers to the questions posed in the previous article. The timing parameters of the TNC are controllable by you, the end user, and channel-related problems may cause you to modify your timing parameters. As with the transceiver parameters, lets begin with some simple concepts and work our way into more detail. Bear in mind that the timing parameters we are about to discuss may be named differently by the manufacturer of your TNC, however, an equivalent function will exist.

Among the easiest to understand is the transmit delay, or TXD parameter. This parameter will ensure that the TNC allows ample time for the transmitter to be keyed up before it attempts to send a packet. If your rig has mechanical relays, you will probably want to allow for at least 300 milliseconds (ms) and perhaps as much as 500 ms for the transmitter to stabilize in the transmit mode. Some TNC manufacturers use default settings as low as 150 ms, much too fast for older rigs and even some modern ones as well. The TXD parameter is specified in tens of milliseconds. Therefore, a TXD setting of 50 translates to 50

times 10, or 500 ms. Set this one too low and your TNC will be sending it's data before the rig is ready to transmit, thus chopping off the front end of your packet. Since the TNC on the other end requires the entire packet to properly do its decoding, it will disregard this transmission. On the other hand, setting TXD too high will not bother you significantly, but if everybody did it, all of the extra on the air "dead time" would slow down the network. In most cases, a TXD setting of 30 to 50 will do fine but a setting closer to 50 is suggested if you have an older rig.

And then there are the exceptions; we always have to have exceptions. Handy talkies (HTs) are notoriously slow in switching from receive to transmit. One of the first questions to ask when someone says they are having trouble either connecting or staying connected to a packetcluster node is "What type of rig are you using?" Some HTs may not even begin to operate satisfactorily unless the TXD on the associated TNC is set to 70 or even 100 (a full second!). And it gets worse!! HTs are even slower in going back to receive from the transmit mode causing them to miss the start of the packet transmission from the node. Due to a number of other variables, the node may not transmit back immediately giving the user the feeling that all is okay when in fact this scenario is causing the node to make a number of re-transmissions in order to get a single packet thru to the user. Bottom line is to stay away from HTs for packet if you can possibly avoid them.

Lets digress for a while and consider the full consequences of this situation. We have on the one hand, a user that is having some difficulty which, in turn, is causing the node to make numerous wasted transmissions. At the same time we have perhaps 20 or 30 other users connected the node, some of which are marginal (not necessarily due to signal). Then  
(continued on next page)

PACKET continued

the next thing you know is that another fellow with a shaky connection is seeing more retries (both ways) which in turn starts to impact on the next guy etc. Then somebody spots a ZA on 160 meters followed immediately by a frequency correction while 5 other fellows find it irresistible to send a commentary to the originator (but hold it, not as TALK messages, but as ANNOUNCEMENTS) while at the same time somebody did a DIR for the first time in a week and another guy is downloading a 5000-byte ARLD file. You get the picture. Can this happen? Certainly! Does it happen? Absolutely! Each and every day. This starts the "domino effect" and a number of users find themselves disconnected. (most of them have HTs)

Suddenly it dawns on this fellow that an HT connected to a quarter wave antenna sitting on a cookie sheet inside the house isn't going to make it. What he needs is POWER. Enter the amplifier with it's agonizingly slow kerchunky relays. Now, even the poor fellow who was able to stay connected for hours at a time is getting dumped. Perhaps we've digressed a bit from the purely technical phase of the topic but we all must realize why it is so important to maintain a properly "tuned" packet station. Next time we will continue to look at some of the other timing parameters. Happy Holidays to all and 73 until next month.

de Rich, K2RW

**\*\* CDXA NAME TAGS \*\***

**Available from:**

**Doug and Nadine Barnes**

**THE SIGN MAN III**

**1146 Cross Creek Dr.**

**Franklin, TN 37064**

**615 790-6458**

## KD4IL Discusses Packet Changes

As we move into the new year, it has become obvious that CDXA along with the users are going to have to make a change in the backbone circuits. The first change as previously announced, is that users will be restricted from using 145.75 about April 1. This will eliminate the problems we have now at TOX and CAT Digi. In investigating the problems on the backbone, it was quickly apparent that most of the problems are caused by users will less than "FULL SCALE" reading on the Digi having lots of retries. The second biggest problem was TOX hearing users who were trying to access CAE or CAT directly with lots of retries. A long term solution and one that we are investigating is a 440 link from CAT to TOX to ATL. We have been informed that the Greenville Radio Club is planning to put a DIGI up to connect to Asheville and then back to a node either at Greenville or WB4IUX. Either or both of these nodes will then connect to KD4IL or what ever is best at the time. This will allow all local users in the western SC area a local Node to connect with and therefore have access to the system without using the 145.75 backbone link. We will keep all posted as these plans progress.

We will also be splitting the local link on 145.09 and adding a second frequency of 144.93 over to the Digi at N4ZC. This will reduce congestion on the 09 frequency and also allow us to have 25 more total users connected to the KD4IL Packetcluster. This change will take place as soon as possible and may be in place before you read this.

You have by now noticed K4QO packetcluster in eastern South Carolina. Doug and crew continue to "fine tune" the path to CAT and its looking good.

I would recommend that the Columbia users look at there digi and consider going to "the Net" software in a TNC2 to allow more connections there also. While CAT's connection to CAE (Columbia) is very good, we notice a lot of Retries from the Columbia users.--MORE NEXT TIME  
KD4IL Packetcluster SYSOP

## NEW RELEASE OF DXbase

The much talked about new release of DXbase is now a reality. And, what a release it is! Over sixty brand new features and yet it still only requires about 350K of memory. We've expanded the manual too, with over 175 pages of detailed information for those who really want to know what makes DXbase "tick". But for those who don't, you'll be glad to know that version 1.5 is just as easy to use as our original version. You'll be well pleased to know that version 1.5 endured the same extensive testing that has enabled us to deliver software that works reliably, bug free. Here is just a sample of some of the new goodies!

1. You can now add QSL Manager and address information directly from the QSO Logging Screen.
2. DXbase now supports RTTY in all its glory, including DXCC/WAZ/OBLAST tracking in both the statistics module and the Logging screen stats.
3. You can now indicate whether or not the QSO is via satellite, with a "YL" operator, the date a QSL was sent, and whether or not the QSO was submitted for credit with DXCC and/or WAZ awards programs.
4. DXbase now fully supports the two and six meter bands.
5. DXbase contains a new reports module which allows nearly twenty different report titles which can be sorted by callsign, date, or country prefix. Most reports can also be filtered by mode and by band.
6. Reports, Logs, QSL Labels, and Need Lists can now be printed to your printer directly from within DXbase using the standard DOS print spooler. You can also view any of these files including the DXbase readme file and any ascii file of your choice directly from within dxbase using a new file viewer module. Of course, all of these are still maintained in a disk file too.
7. A new oblast statistics window has been added to the QSO Logging screen which shows your current stats just like the DXCC and Zone windows appear.
8. A new Oblast and separate WAZ Statistics module has been added which displays your statistics in exactly the same manner as the DXCC statistics. Now you can see all your numerical results and retrieved lists for these too.
9. New sophisticated algorithms have been added which automatically figure out stateside callsigns and zones with the need for alias prefix mapping.
10. The Alias prefix database has been greatly expanded and in testing it was able to automatically determine 99.9 percent of all Packet DX alerts.
11. The full screen packet window has been modified and enhanced to give you much faster performance.
12. The RSTS and RSTR fields have been reversed in the QSO Logging Screen.
13. A new file utility module has been added which allows for easier handling of potential new countries that don't materialize and also better handling of deleted countries.
14. **The previous method of copy protection has been eliminated and each copy of DXbase will now be uniquely coded with the users callsign which is personalized on each screen.**
15. You can now back up your database from within DXbase using your own archive programs such as PKZIP and PKARC.
16. DXbase will now directly import databases from EasyDX, DXlog 1.5, N6RJ Second Op version 2 and 3, Standard Data Format ASCII, K1EA, and delimited ascii.

This is just a sample. But as you can see, DXbase 1.5 is loaded with lots of new features. We have no doubt that the demand for DXbase which has been growing rapidly will soon be skyrocketing. If you have never used DXbase, you owe it to yourself to take a look. It's an exceptional program. For those who have version 1.0, you will be able to obtain the complete upgrade and new 180 page manual by simply sending ten bucks to help defray a portion of the printing and shipping costs. A very informative DXbase demo screen show is available on CompuServe and many Atlanta BBS systems free of charge, or you can obtain a demo directly from Scientific Solutions for five bucks. Current Price of program is \$89.95 + \$3.00 for shipping. Remember \$5.00 of this comes back to CDXA. Scientific Solutions - 763 Cedar Creek Way Woodstock, GA 30188

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 \*\*\*\* CDXA MEMBERS TOUGH COMPETITION \*\*  
 IN  
 \*\*\*\* ARRL 10 METER CONTEST \*\*\*\*

	<u>CATEGORY</u>	<u>QSO's</u>	<u>MULTS</u>	<u>ESTIMATED SCORE</u>
N4ZC	MULTI OP	2557	276	1,837,056
AA4S	MULTI OP	1940	245	1,415,610
N4ROL	MULTI OP	371	129	105,522
KF4HK	SNGL OP	700	134	187,600

How did you spend the weekend of December 8th and 9th? Several CDXA members spent their weekend at the helms of their trusty rigs thrashing, bashing, making contacts and having a ball in the 1990 ARRL 10 Meter Contest. Ten was THE place to be.

When 2359z rolled around on Friday night, my palms were sweating and my heart was racing. My hands hovered nervously above the keyboard of my PC waiting for the contest to begin. Roger paced the floor behind me counting the seconds until the 1990 ARRL 10 Meter Contest started. We were JACKED UP and ready to crank out the Q's. All afternoon and starting a week before, Roger would begin singing a line a la Frank Sinatra....."Start spreading the news". We were definitely going to spread some news calling "CQ contest NORWAY FOUR ZULU CHARLIE contest". At 0000z the fun began. My first QSO was NL7VJ....Alaska in the bag. From that point on it was business all the way. Roger handled CW while I took phone. Each of us looking for multipliers while the other had the run. The run station pausing only long enough to let the other work a new multiplier. Timing was everything. Our original contest goal was 2200 Q's. Saturday night we hit the sack with 1646 contacts in the log. Sunday brought a new day with renewed commitment. We upped our goal to 2500. Could we do it? You bet we could. 0000z Sunday night found us smiling ear to ear with 2557 hard earned QSO's and 276 multipliers. Our thanks to everyone who gave us contacts and Murphy for staying away. Ron, AA4S and his mighty team of warriors waged a fearsome battle. Don, WQ4V and David, KN4HW helped Ron amass a big 1.4 meg+ score from Shelby. Seems like David converted Ron over to computer logging in the process...way to go David! Jim Miller, KF4HK "played around a little in the contest". Sure Jim, 700 Q's is a little more than playing around! Jim is another computer convert in our midst. Unfortunately a small bug in the software forced him to revert to the written method. Nice score Jim! Mark, N4ROL had some family participation for the contest at his house. Hams seem to multiply like rabbits over there. Good job Mark!

Remember folks, I am interested in your scores, breakdowns and comments from contests; any mode, any band. Drop it in the mail, call or put it on packet.  
 73! Robert, N4GVF

## \*\*\*\* CDXA MEMBERS RACK UP 3.84 MILLION POINTS \*\*\*\*

## \*\*\*\* CQWW CW CONTEST II \*\*\*\*

	<u>CATEGORY</u>	<u>BAND</u>	<u>QSO's</u>	<u>ZONES</u>	<u>CTY</u>	<u>ESTIMATED SCORE</u>
AA4S	SNGL OP	ALL	1515	137	360	2,186,000
N4ZC	SNGL OP	ALL	830	135	376	1,214,136
N4GVF	SNGL UNL	ALL	365	102	251	351,588
K4QO	SNGL OP	ALL	189	63	102	85,225

A personal best for Ron, AA4S netted him a gigantic score of 2.18 million+ points. A score of this magnitude speaks for itself not to mention Ron's exceptional operating skills. To make sense of the pileups and pull out those weak ones, Ron "crawls up inside his receiver" requiring complete . quite and total concentration. Whatever it is, it works.....to the tune of 2.18 million+ points. Congratulations Ron! Not too far behind, Roger, N4ZC was pounding the keys and trying out K1EA for a 1.214 meg score. Computer and software bugs kept his head spinning at first but he kept on keeping on with 830 Q's. Doug Sanders, K4QO sent his FB score in from Bennettsville, South Carolina. Nice to know the CDXA members in that area are reading the mail!

Keep those contest scores and breakdowns coming! 73! Robert, N4GVF

**DUES NOTICE**

MEMBERSHIP DUES FOR CDXA RUN WITH THE CALENDAR YEAR, THEREFORE ALL MEMBERS SHOULD SEND THEIR DUES PAYMENT DURING JANUARY 1991. YOUR NEWSLETTER MAILING LABEL INDICATES YOUR DUES STATUS WITH "90" OR "91" IN THE UPPER RIGHT HAND CORNER. THE CURRENT CDXA DUES ARE \$30 FOR PACKETCLUSTER USING MEMBERS AND \$15 OTHERWISE. DUES PAYMENTS OR QUESTIONS ABOUT DUES STATUS SHOULD BE SENT TO:

**BILL JENNINGS, W4UNP**  
**630 WHITEPINE DRIVE**  
**CATAWBA, SC 29704**

**CDXA CHRISTMAS PARTY**

THE ANNUAL CDXA CHRISTMAS PARTY WAS AT THE BRANDING IRON RESTAURANT IN ROCK HILL. RICK, AA4SC AND HIS STAFF DID A FINE JOB OF PROVIDING A GOOD MEAL AND A RELAXING EVENING FOR US. THE EMPHASIS OF THIS MEETING WAS TO ENJOY A TIME TO VISIT WITH ALL THE MEMBERS AND TO ENTERTAIN THEIR SPOUSES.

THE ELECTION OF OFFICERS FOR 1991 WAS HELD, FOLLOWING WERE ELECTED:

PRESIDENT- KEN BOYD, WA4UNZ  
 V-PRESIDENT- ROBERT STARLING, N4GVF  
 SEC-TREASURER- BILL JENNINGS, W4UNP  
 NET MANAGER- HENRY ELWELL, N4UH  
 BULLETIN EDITOR- BILL TAYLOR, KD4IL