The Pileup

Newsletter of the CDXA

Carolina DX Association

W4WNT	Bill Turner	President
W4JG	Jack Guion	Vice-Pres.
K4SQR	Jim Miller	Sec.-Treas.
K4MD	Joe Simpkins	Cluster Mgr.
-	Lloyd Burt	Webmaster
K8YC	John Scott	Editor

Presidential Ponderings

The contest season is upon us. Beginning the last weekend of October with the CQ World Wide Phone Contest and the last weekend of November with the CQ World Wide CW Contest, we'll have the opportunity to work as many DX stations as we can find. We'll also be staying up all night, getting more than our annual dose of caffeine, and having one of those really worn out Mondays after the contest!!

To make this more interesting, Ted Goldthorpe has developed a new award for the annual CDXA **Contest within a Contest**. After you've recovered from 48 hours of operating, printed your logs, and created the summary sheet, send the summary sheet to Ted. He will provide a certificate to all members with 500 or more contacts. This will be cumulative for either or both contests, so add up your Phone and CW contacts for the certificate. The intent here is to increase our score in the club competition and lift CDXA up a notch in the club listings. One catch—you must submit your scores to CQ as a member of CDXA. Details will be found on Page 3, inside.

Our Secretary/Treasurer, Ken Cannaday, has gotten involved in a political campaign as Treasurer for a candidate and has asked to be replaced. Ken has done a great job keeping our books straight, thanks to Ken for his efforts. At our last lunch meeting in September, Jim Miller, K4SQR, expressed an interest in the job and was unanimously elected our new Secretary/Treasurer. Many thanks to Jim for stepping in as replacement. So, when you are correcting addresses, please send your corrections to K4SQR.

Jack Guion, W4JG, John White, WB2NHQ, Dave Leonard, AE4AT, and I did some significant non-DX hamming the weekend of September 28-29. We participated as communications support for the Multiple Sclerosis MS-150 Breakaway to the Beach. Dave Leonard actually rode in the event, so he did more work than the rest of us. Over two thousand bicyclists rode 150 miles from locations in NC and SC to North Myrtle Beach on Saturday and Sunday. Great weather, only three serious biker injuries and a great time was had by all.

See you in the Contests.

73— Bill Turner, W4WNT

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)	

New Secretary-Treasurer, K4SQR

If you didn't notice on the masthead, back page, and the publication notice below, the CDXA has a new secretary-treasurer in the person of Jim Miller, K4SQR. Jim answered the call of Bill Turner and Bob Burton for a candidate, and was elected by acclamation at the luncheon meeting of September 25.

In order to make Jim's job as easy as possible, please start saving your spare change to pay for your annual dues which are due for payment in January. Of course, earlier payments are welcome. Dues structure is noted in the publication notice, below, in each issue of the Pileup. Also, remember that Jim serves as the focal point for all changes to member information such as call-sign, address, telephone, or email address changes. Jim's email address in given on the back page. Welcome, Jim, as one of our new leaders for 2003.

Gee, I didn't know that.....

After trying to work a few VK6's and VK8's for a Zone 29 contact on CW needed for WAZ-CW, imagine your editor's surprise when a QSL arrived from R1ANZ for an SSB QSO with the Russian Antarctica station proclaiming it to be in Zone 29. Could this be so? Checking the Radio Amateur's World Atlas published by the DARC disclosed not one but SEVEN zones are formed in Antarctica as the lines of longitude converge at the South Pole. Now the question is whether working the US South Pole station qualifies for working all seven zones??? And you thought WAS hunting from "four corners" in the Southwest US was convenient!!

The Pileup
Official Newsletter of the Carolina DX Association

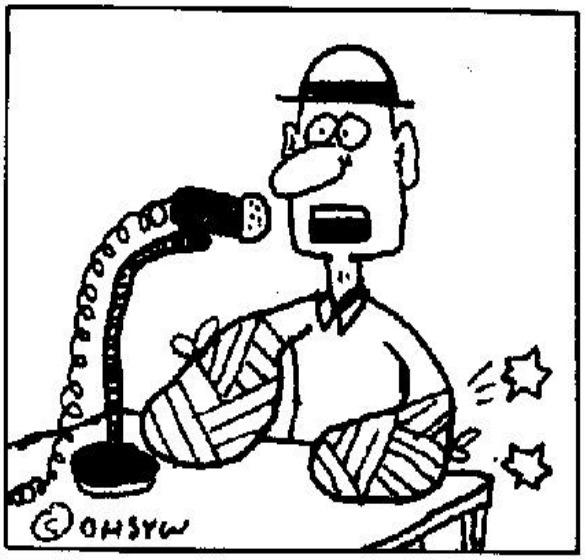
Published monthly 10 times per year, excluding the months of June and December.

The purpose of the association is to secure for the members the pleasures and benefits of the association of persons having a common interest in Amateur Radio.

Members of the CDXA shall adhere to "The Amateur's Code" as published from time to time in *The ARRL Handbook for Radio Amateurs*, and shall consist of those valid licensed amateur operators having an interest in promoting amateur radio. Long distance communications (DX) is of special interest to members of the association, but said interest is not a requirement of membership.

Dues are $30 per year for those using the PacketCluster maintained by the Association, $15 otherwise, payable each January. Dues are payable by check to the Secretary/ Treasurer:

Jim Miller, K4SQR
11600 Hilda Court
Charlotte, NC 28226



Sorry OM, but I can't go to CW at the moment . . .

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Thirty Meter DXCC Now Available

(This item was announced by the ARRL about the same time the last issue of The Pileup *was published. It is presented here so all will be aware of the new award opportunity. —The Editor)*

DXCC Announces 30-Meter Award (Sep 4, 2002) -- The ARRL DXCC Desk has announced the addition of a 30-meter (10-MHz) single-band DXCC award. Applications for this award will be accepted starting October 1. The 30-meter DXCC certificates will be dated but not numbered. Thirty-meter credits will count toward the DeSoto Cup competition and included in the DXCC Annual List totals for the period ending September 30, 2003. A 30-meter endorsement to 5-Band DXCC also will be available. The 30-meter band was added to the standard DXCC printout in January 2002. If you have received a copy of your record since then, you already have a copy of your 30-meter credits. If you don't have a record of your 30-meter credits, contact DXCC for a copy. These are also available as Adobe PDF documents from DXCC via an e-mail request. Hard copies are available from DXCC ($2 US and Canada; $4 elsewhere) by writing to DXCC Desk, ARRL, 225 Main St, Newington, CT 06111.

Carolina DX Association

The Pileup

Second Front Page

"Contest Within A Contest" Has New Format for 2002

CQWW-SSB	CQWW-CW
October 26-27, 2002	November 23-24, 2002

Purpose: Develop maximum participation from CDXA Members in both CQWW-SSB and CQWW-CW contests in the interest of fun and promoting CDXA Club score.

Method: Work a combined total of 500 QSOs in one or both of the CQWW contests and submit your logs/summary sheets to CQ Communications as a member affiliated with CDXA. Send only your score with score breakdown to the CDXA contest organizer.

Awards: Each person submitting entries to both CQ Communications and CDXA claiming 500 or more QSO's will receive a commemorative certificate suitable for framing from CDXA. Individuals claiming HIGHEST individual scores in EACH of the SSB and CW contest will receive an embroidered CDXA shirt of their choice.

Entry: Scores with scoring breakdown (total QSOs, total countries, total zones) similar to the Summary Sheet required for official contest entry must be submitted to W4VHF (tgoldthorpe@infoave.net) no later than December 5, 2002. All those qualifying for certificates, the highest SSB score and the highest CW score will be announced at the CDXA Christmas Party to be held on Thursday, December 12, 2002.

Strategy Tips: *(The following tips were prepared by Roger Burt and are printed in the full text version in the October 2000* **Pileup** *available for downloading on the CDXA website at: www.cdxa.org)*

Operating: A good contester really HATES stations that give only two letters of their call. Unless the DX station shows his inability by asking for last two letters, DON'T do it. Give the DX station the chance to copy your full call.

Don't spend too much time in any pileup....note the frequency and try again later. You'll find that stations that are very hard to work at the start of the contest are easy the next day after most of the big guns have them. By the end of the contest the big gun DX stations will have worked every indoor dipole guy in the world. Always try again later.

For packet users, NEVER take the call as listed on packet as the real callsign. Many do a very poor job of getting the correct callsign. Make sure you copy the correct call yourself.

You will find some DX stations operate for long periods of time without giving their callsign. If you work one of these guys, DON'T give him a report before you get him to give you his call. If you do, you'll be stuck there waiting for him to give his call. That could be 15 minutes in some cases. To make it easier to work these guys and in general to point your beam in the correct direction, I've made the chart below. (See original text for Chart—Ed.) It gives the center

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beam heading for each zone. This will allow you to peak your beam on his station with just the zone information he gives in each QSO. This can be a quick help in pointing your beam at any DX station, just by knowing his zone. Point your beam at each station and get in and out of the pileup as fast as possible.

Optimizing Scoring: The simple way to tell QSO points is USA counts 0 points, zones 1 through 8 count 2 points per QSO and zones 9 through 40 count 3 points per QSO . . . except OX which is a 2 pointer.

Your contest score is the total QSO points times the total Multipliers. You add up your total QSO points from every QSO on every band. Then you add up your total multiplier (zones plus countries) from every multiplier on every band. (Remember you count each zone the first time on each band, and only the first time and the country, the first time on each band, and only the first time on each band.) Total QSO points times total Multipliers is your score. A QSO total of 400 with points of 1000 with a total of 50 zones on all bands and 150 countries on all bands would be 1000 X 200 for a score of 200,000.

A W-land multiplier counts the same as a JT multiplier. Don't give away score by not working at least one U.S. station on each band. These count zero QSO points so there is no need to work more, but make sure you work one on each band. Another area where you don't want to give up multipliers is the U.S./Canadian zones. Zone 3 is west coast U.S/Canada, zone 4 is central, and zone 5 is east coast U.S./Canada. Better to work a Canadian on each band, in each zone since they also count as QSO points, but make sure you work at least one station in each zone on each band—be it W or VE. That can result in a total of 24 multipliers in your score just working those U.S./Canadian multipliers. Don't give away part of your score by missing them. Have a sheet of paper with 160 through 10 and the numbers 3, 4 and 5 and W in columns beside each band. Cross them off as you work them. Remember 24 times your QSO points can add a lot to your score. *(That's 6 band-countries x 3 zones + 6 band countries for US/Canada for the first time working the country on each band. —Editor)*

You count a zone or country the first time it is worked on any band as a multiplier. Double multipliers are always a bit more fun. For example, when you work an XE for the first time on a band it is a double multiplier. It is the first zone 6 and the first XE country for a double multiplier. Two for the price of one. Whatever you do, have fun! You can work DXCC in a weekend in the CQWW contest.

Logging help: There are some great contest logging programs available. If you've never used one, you can't imagine how much fun a contest can be with the assistance of a computer. Some of the things a contest logger will do for you are:

- Identify DUPES
- Maintain your running score
- Identify countries and whether "needed"
- Provide "partial checking" of calls
- Provide auto-keying of repetitive exchanges in CW contests

Check out the **free contest logger** available on the Internet at URL: http://pages.cthome.net/n1mm/

We hope to see you in the contest. Remember to submit your entry to CQ Communications so CDXA can improve our club score again in 2002! And don't forget to send your results to Ted Goldthorpe by December 5.

Douglas Sanders, K4QO, SK

It is with deep regret I report Douglas Sanders as a Silent Key. Joe Simpkins, K4MD, reported that Doug was considered the "guru of PacketCluster". When Joe first began his role of administering the CDXA PacketCluster network, it was Doug who knew all the ins and outs of how things worked.
"Doug was a real gentlemen, and will be missed," advised Joe when he reported Doug's passing.

Murphy Ratteree, W4WMQ, SK

It is with deep regret I report Murphy Ratteree became a Silent Key on September 9. Gary Dixon reported, "Murf was one of our long time CDXA Club Members and personal friend. Murf was an avid DXer and was also known world wide as the President of INDEXA."

Packets, Protocols, and What-nots

By John Scott, K8YC

(This is the fourth in a series of articles providing a background to the "mysticism" of internetworking.)

In the July, 2002 issue of The Pileup I discussed classes of IP address as identified by the "dotted decimal" format. You'll recall that addresses in the range 000.x.x.x to 127.x.x.x are considered Class A addresses, 128.x.x.x to 191.x.x.x are considered Class B addresses, and 192.x.x.x through 233.x.x.x are Class C addresses.

At the time of introducing these address classes, and the need for simplicity in preparing a series of articles, I am guilty of withholding some information in the interest of brevity. What I did not relate in the earlier article is that all addresses are composed of the "network portion" and the "host portion". In the case of Class A networks, the network portion consists of 8 of the 32 bits. For Class B networks, the network portion consists of 16 of the 32 bits, and for Class C addresses, the network portion consists of 24 of the 32 bits. With 24 bits available for addressing hosts in a Class A network, there are 16,777,216 ($=2^{24}$) available host addresses in each of the 128 Class A networks. For Class B network addresses, therefore, the 16 network bits define 16,384 networks (64 x 256, addresses 128.0.x.x to 191.255.x.x) each having the ability to address 65,536 ($=2^{16}$) host identifiers. In Class C networks there are 2,097,152 available network addresses (32 x 256 x 256, addresses 192.0.0.x to 223.255.255.x) each having the ability to address 256 hosts.

Obviously, larger enterprises wishing maximum flexibility in IP addressing would like a Class A IP address, but, alas, they were all subscribed to many years ago. Yet, registering for several Class B addresses gives almost as much flexibility, but there are not an infinite number of Class B addresses available, either!

All is not lost however. Given that 16 bits are available for use by the owner of the Class B address, some of those 16 bits can be used to define *subnetworks* each of which can have a defined number of host devices. In that instance the subnetwork portion of the address can be used to define a region of the network (generally a common geographical region such as a state, city, or campus) and the remaining address bits can be used to define the individual devices—such as servers, routers, or PCs—needing to be addressed.

How are these primary and subnetwork portions of the address used? If on the Internet, the primary address portion is used by Internet routers to locate the autonomous network to which to direct traffic. Once the packets are delivered to the appropriate primary (Class A, B, or C) addressee, the subnet address is used by the routers on the autonomous network to route the traffic to the correct portion of that network where the host address portion can be used to find the individual piece of equipment being addressed.

While this all sounds very complicated, that it is done by manipulating binary numbers under control of routing algorithms encased in silicon logic at very high speeds results in a very efficient, quick way to move packets around the world. That all these "rules" of protocol could have been developed by open standards committees is a real tribute to those who lent their minds to developing the Internet as we enjoy it today.

If you don't have enough address space with a Class B address, there is yet another capability provided by the framers of the Internet technology to provide relief. One Class A address was set aside for use in an "internal" addressing scheme by anyone. That address is IP Address number 10. Any entity may use Address 10 to get the full capability of addressing over 16 million devices, BUT these addresses must be kept off of the Internet. (In fact, Internet routers are programmed to not route an address of 10.x.x.x.) So, any traffic moving from an autonomous network number 10 to the Internet must move through a proxy server which makes a logical link between the internal address and a registered Internet address. This interface is an ideal location to form a firewall to insulate internal addresses from Internet addresses.

But what of those more familiar forms of address we see on business cards, corporate stationery, and the like. You know "addresses" like our own used by the CDXA—www.cdxa.org. These are a necessity for human "friendliness". When we provide this kind of address to the Internet, the "address" is sent to a Domain Name Server (DNS) to "translate" the human friendly form to the binary form used by the routers on the Internet. The DNS transparently returns the binary address to the device requesting the address translation, and

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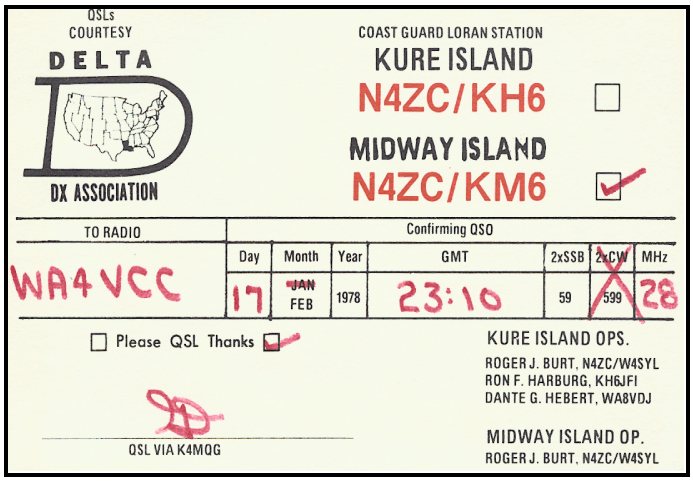
thereafter the data is moved by routers using the 32 bit binary addressing with which you are now familiar.

I have still not taken you all the way to the end of the communications path—that of the devices on a LAN or sitting behind a router connected to your cable modem. I'll try to cover that in an upcoming issue.

When Our Paths Cross Again...

Look carefully at the QSL card below. The time was 1978. The island was Midway. The operator was Roger Burt, N4ZC. The recipient of the QSL was our own Ted Goldthorpe operating under his earlier callsign. And, the QSL manager was Gary Dixon, K4MQG. Did these fellows know their paths would cross again? You'll have to ask them.


QSLs COURTESY DELTA DX ASSOCIATION

COAST GUARD LORAN STATION
KURE ISLAND
N4ZC/KH6 ☐

MIDWAY ISLAND
N4ZC/KM6 ☑

TO RADIO	Confirming QSO						
	Day	Month	Year	GMT	2xSSB	2xCW	MHz
WA4VCC	17	~~JAN~~ FEB	1978	23:10	59	599	28

☐ Please QSL Thanks ☑

KURE ISLAND OPS.
ROGER J. BURT, N4ZC/W4SYL
RON F. HARBURG, KH6JFI
DANTE G. HEBERT, WA8VDJ

MIDWAY ISLAND OP.
ROGER J. BURT, N4ZC/W4SYL

QSL VIA K4MQG

A Note from "Uncle Henry"

Hi John— I have been using the ARRL Outgoing QSL Service for many years, and recently was politely told I was not properly sorting the cards that I sent in. Perhaps I am the only one that does it incorrectly, but I thought I'd pass this along to you. I always put the foreign call sign at the upper right hand corner, on the reverse side of the card. If there is a QSL Manager for that call, I state, "Via XXXX" underneath the call and sort it with the country of the Manager. It was my belief that the ARRL sorter would use the back of the card. I found out that is a waste of my time--the ARRL sorters only look at the front of the card.

The proper way is to sort all cards by country using information for the intended recipient. If there is a QSL Manager for that call, write Via and the Manager's call on the back upper LEFT corner of your card. If the back of your card is not blank, write it on the front of your card near the contacted station's call, and if possible make it stand out in some way (highlight it, use different color pen, etc.)

When sorting all cards for submittal, use the manager's call for the sort. If the Manager's call is on the back of the card, reverse the card in the stack, with the Manager's call facing up—making this the "front" of the card for the Outgoing Bureau sorters.

Sorting QSL cards for the old USSR call signs is confusing as to which prefixes are for which country? Here is help on that.

Russia: (parent prefix - UA), RA -RZ, UA -UI, U1 - U4 & U6 -U0
Ukraine: (parent prefix - UR), UR -UZ, EM -EO & U5
Kazakhstan: (parent prefix - UN), UN - UQ
Uzbekistan: (parent prefix - UK), UJ - UM
Latvia: (parent prefix YL), YL only
Lithuania: (parent prefix LY), LY only
Belarus: (parent prefix - EU), EU - EW
Estonia: (parent prefix - ES), ES only
Kyrgyzstan: (parent prefix - EX only
Azerbaijan: (parent prefix - 4K), 4J - 4K
Georgia: (parent prefix - 4L), 4L only

Vy 73 Uncle Henry, N4UH

W4MW Wins 2002 Spring 6 Meter Sprint

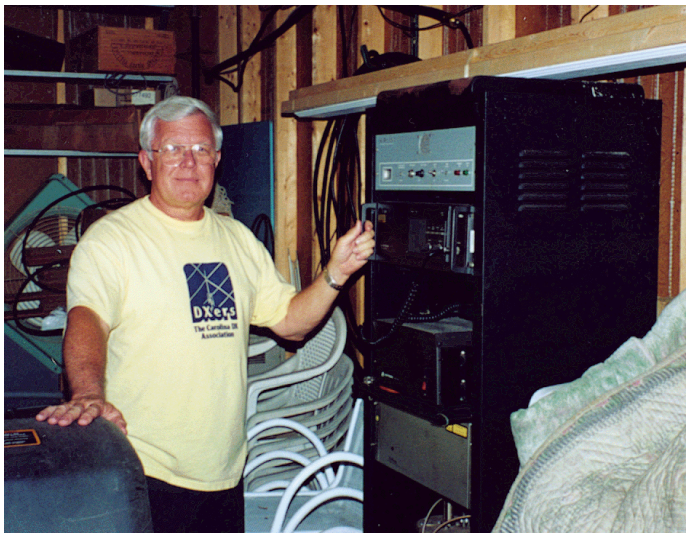
Roger Webb, W4MW, put a move on the competition in the Spring 2002 Six Meter Sprint. Roger topped all competitors with 2496 points. That score allowed Roger a 20% points cushion over his closest competitor.
And he did it running barefoot with only 100 watts when his linear amplifier developed relay problems in the early going. Unfortunately he missed a few auroral contacts which he could hear, but with limited power, could not complete.

Roger was operating from his fine mountaintop location up near Boone, NC. *(He's pictured at that location on Page 74 of the September, 2002 issue of QST.—The Editor)* He's now getting ready to defend his title in another sprint contest later this month. Congratulations on the fine performance, Roger!

A Visit to W4DXA/R

Roger Webb, W4MW, recently came down off his mountain long enough to visit Gary Dixon, K4MQG, at his QTH in Fort Mill, SC. During his visit, Roger took a few pictures of the supporting equipment for the CDXA repeater, W4DXA/R. He shared them with Gary who, in turn, shared them with the membership.

This unusual perspective of K4MQG's full-sized 75 meter beam at 125 feet topped by his 40 meter Yagi at 135 feet tells you what "big" is all about. The Phelps-Dodge J-pole repeater antenna is to the "right" of the tower, facing north, just below the work platform.



This is the equipment cabinet for the W4DXA/R repeater. It resides in an equipment house at the base of the tower. The repeater is an Icom driving a commercial amplifier. Gary provides for the "care and feeding" of the equipment. It operates on 147.18 MHz (+600 KHz).

Too far away from CDXA's Cluster?

Do you live too far away from CDXA's PacketCluster network to get DX spots? Not likely! Did you know that K4MD maintains a telnet link to our spotting network? Many CDXA members well within the VHF range of both K4MD and W4DXA Cluster nodes have turned to telnet access for its speed and reliability.

Access to the CDXA spotting network can be done by a telnet session over the Internet. One of the preferred software choices is DXTelnet, available over the Internet from its Italian author at http://www.qsl.net/wd4ngb/telnet.htm. A demo copy is available for download.

A barebones alternative that works on Windows 98 is to use the MS-DOS Window after connecting to the Internet. At the "C:\" prompt, type "telnet k4md.tzo.com" and enter your callsign when asked. While not certain, I believe this same telnet software client may be available in other Microsoft Windows versions. This "barebones" approach does not offer all the amenities available with DXTelnet, however.

Becoming a subscribed user to the CDXA PacketCluster provides you with the "talk" function to other members logged into the Cluster as well as meaningful local spots. The $15 per annum charge over and above the basic membership dues of $15 helps defray the expensed of running the PacketCluster. If you like what you see, contact K4MD and ask for a regular user ID.

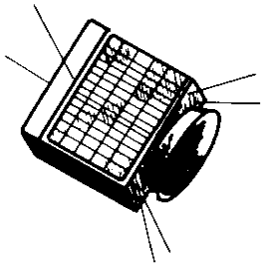
Welcome, new Members

The officers and membership welcome the following new members to our ranks:

Charles Gray, W4GMY of Greensboro, NC.

Barry Johnson, KT4GG of Kannapolis, NC

Dewitt Jones, W4BAA of Charlotte, NC



The Back Page

Don't forget the CDXA's **Contest within a Contest** running this month concurrently with CQWW-SSB on October 26-27. Help the CDXA improve its club score for the fourth straight year in a row, and earn a certificate in the process. Details will be found on the "Second Front Page" on Page 3. Also included in this issue are some contest strategy tips provided by Roger Burt, N4ZC. Also, please put the November 23-24 dates on your calendar now for the CQWW-CW contest, since the CDXA award is based on getting a combined total of 500 Q's in **one or both** CQWW contests.

Dues payments for 2003 can be made any time between now and January 2003. Please remit to our new Secretary-Treasurer Jim Miller, K4SQR, whose address is given below. Dues are $30 if a PacketCluster user, $15 otherwise.

Other noteworthy contests in October:

Date	Event	Comments
Oct 12-13	Oceania DX CW Contest	Page 89, October 2002 QST
Oct 19-20	RSGB 21/28 MHz - CW	Page 90, October 2002 QST
Oct 19	50 MHz Fall Sprint	Watch Roger, W4MW, do his thing!
Oct 26-27	**CQWW-SSB**	Enter CDXA's Contest within a Contest

Jim Miller, K4SQR
11600 Hilda Court
Charlotte, NC 28226

k4sqr@juno.com

First Class Mail

See something wrong with your address label? Notify K4SQR at once, please.