



April 1994

Carolina DX Association

The Pileup

Newsletter of the CDXA

WD4R Joe Simpkins	President
AA4SC Rick Porter	Vice-President
W4UNP Bill Jennings	Secretary-Treasurer
WZ3Q Don Daso	Editor
AG4L Bruce Gragg	Net Manager

The President's Column

Welcome to our April issue. I hope you all are still scanning the bands regularly because there is still some good DX coming through--even though the numbers from WWV don't look promising. As I write this (one morning around 5:30 AM), 9MØA is coming through in the 75-meter DX window. So, it pays to roll out early and listen to the low bands.

Much work is going on with our PacketCluster system--as you'll discover in detail in N4ZC's column. I want to add my own praise and applause toward the efforts of KD4IL in founding our system. Bill has provided us with tremendous support over the years. Thanks!

Our net manager, Bruce, AG4L, is spearheading an effort to install a CD-ROM drive at the N4ZC node, to aid in Callbook information retrieval. Good work, Bruce!

AA4SC, Rick, is resigning his duties at Vice-President in order to concentrate on personal matters. We will elect a new V-P at our up-coming meeting in May. K2SD and KB2LH has agreed to run. Thanks are due to both Scott and Bill for offering their time and energy to the CDXA. This up-coming meeting should be a terrific event; please try to attend.

Again, the weekly Wednesday luncheons are a fun way to keep up-to-date on CDXA members and their activities, enjoy some spirited conversation, and commiserate over those declining DX spots. See you at Shoney's!

Hope to see you at the meeting.

73 de Joe WD4R

CDXA MEETING

Tuesday evening, May 3rd, 1994 at The Woodshed Restaurant
Mt. Holly, North Carolina
(details on The Back Page)

Special Guest--ON4UN

(John will autograph copies of his new ARRL publication on low band antennas)

WZ3Q News

As many of you know, I have recently gone North--to North Wilkesboro, NC--specifically, working in the Business Television department of Lowe's Companies, Inc. This is my first employee venture into the large ranks of corporate America. Scott, K2SD, has been especially helpful in giving me advice (gleaned from his many years of IBM service) and hints on what to do and not do as I begin finding my way around. It is interesting. (It's at least as interesting as the fact that, the older I get, the more interest I find myself having in business things, as opposed to the pure "art" things within film and television.)

Working in a building with 1200 other folks, attending lots of meetings (lots of them!), and working to strict corporate guidelines, is relatively new stuff to me. Working (and now living) in a small town is, well, as different as living in Charlotte is from living in Washington, DC. Now that we've found something somewhat permanent (I've been living in the Addison Motor Inn, courtesy of Lowe's), I hope to get back on the ham radio track. So far, I haven't seen or heard much in the way of activity--leastwise, the activity I have been used to here in Charlotte, which is again a departure from what I was used to in Washington. But, I'm sure we'll make the adjustment okay.

Lowe's has a program to help corporate executives relocate--they buy your home and help you find a suitable residence in the Wilkes area. I'm getting the royal treatment in this program (they're using us as the model for the corporate video I'll be making on this subject...talk about vested interests!). It remains to be seen whether the suitable residence I've described can be found. Mostly, it seems no one's ever asked about zoning limitations on towers and antennas or walked around with a compass while looking at any property before. As usual, I'm in the vanguard of change and raising a few eyebrows in this program, especially while talking about "height above average terrain" all the time.

Fortunately, the corporate folks have noticed an immediate improvement in their videos, and seem glad they hired me. The work is simple and direct, not very creative, but with tremendous potential for expansion. Those of you who talked with me about the company's stock growth were right; it's a dynamic, jumping place. More news later from corporate America....

TECHNICAL TIPS

We've probably all used twist-and-lock type electrical connectors, if not around the shack, in some home repair work. Buchanan Construction Products, Inc. (101 Bilby Road Hackettstown, NJ 07840) has recently come out with a new product which seems destined for ham applications, especially for antenna and rotator projects. It's called a "Twist and Seal" connector. Two sizes handle everything from two #18s to two #6s. They combine the design advantages of what we normally think of as "twist lock" connectors with one unique feature. These connectors contain a patented and permanent epoxy sealant. Twist the connector and you mix the sealant, which hardens and creates a fully encapsulated, vibration and corrosion proof connection. I can think of many times when I've tried to make waterproof connections around the tower and at the entrance to the shack. These connectors sound perfect. Look for them at your electrical supply store.

Here's an old idea from PVRC land, but which came up in conversation at the hamfest--regarding rotator cable. Ordinary "romex" cable (#14 or #12) will provide you with the necessary heavy cable for those long Telex rotator runs far cheaper than buying the "heavy duty" 8-conductor cable from wire suppliers. Two runs (properly labeled, of course) give you six heavy leads. And of course you know you can hang the AC MOTOR capacitor AT THE ROTATOR, right? A suitable replacement for the capacitor (which is now in the control box--as far from the motor as it can be) can be found at Grainger's. Mount it right at your Tail-Twister, use this romex cable idea, and you'll enjoy new energy and speed from your rotator. (The above-mentioned connectors will work great in this application.)

EDITORIAL

Recently, at one of our CDXA Wednesday luncheons, someone remarked that I would be missed, pending my upcoming move from the Charlotte area. Thanking the speaker, I was surprised to be told the most interesting aspect of *The Pileup* (at least to this reader) was the teaching part of it--he said he was going to miss learning things from me.

Having spent quite a bit of time in college classrooms (both in a degree-seeking capacity and later standing in front of those seeking said degrees), I was nevertheless surprised to hear this remark. I hadn't really thought about editing a newsletter in any "teaching sense." Hearing it expressed, though, made perfect sense. The loosest definition of most editorial scribes is, of course, one who writes or comments on current affairs or events. So...class...on to this month's lesson. (Actually, it's simply amazing how this stuff crops up--I'd already made notes for this column, and then this remark made it really appropriate.)

Once again, the topic is operating. Once again, we want to examine some of the facets of this often-overlooked aspect of our hobby. Specifically, we want to talk a bit about operating in various modes. At this luncheon, someone asked about cw traffic nets, so we'll consider code.

Like many hams of my contest/DX generation (the 40-year old crowd), I came up through the ranks of ARRL's National Traffic System. I got into this aspect of the hobby so I COULD operate in a specific contest--the quarterly "CD Parties," in which you had to have an ARRL appointment to participate. I received my first ORS (Official Relay Station) certificate in 1973. Naturally, you had to "earn" the appointment by participating in local, state, and regional traffic nets. I was doing that, with the express purpose of improving my cw skills. Actually, there was an element of fun from those contests, and also from occasionally calling some local citizens and reading them a message a friend or relative had sent from a public site or military base somewhere. (Both the Ohio State Fair and Great Lakes Naval Training Center generated an amazing amount of traffic.) After reading the message, you got to explain ham radio in 25 words or less. But even without those moments, I kept coming back to the training aspect of spending an intense 15 minutes each day on my code. It was a perfect situation. Buckeye Net (covering Ohio, naturally) met at 7:00 and 10:00, local time. The ops were generally pretty good; so was the cw. You had to actually copy the messages down--in order to either deliver or relay them. And you had to learn to copy in your head whatever the NCS said, because copying that on paper took too long. Like I say, a perfect situation. Summer was great, because you had to learn to copy through the heavy QRN. Becoming a Net Control station myself was great, because you had to learn how to juggle several things at once--in order to expedite the actual traffic flow. I read (and re-read) K2KIR's article "Control Towers, Contests, & Traffic Nets" until the November '63 issue of QST was dog-eared. (It was thrilling to end up operating on EAN with Bud; today, he's still an active DX contester.) The point is that this concentrated cw operating prepared me for many things. It taught me skills I maintain to this day.

I learned to copy high speed cw, finally mastering the practice of copying behind, refining the printing skills I developed in the 6th grade to copy code in the first place. (I still write this way today.) I learned how to judge certain intangible things, like who'll wait in a pile of 2-3 stations calling and who won't. I learned how to keep several important "events" clearly associated in my mind; in college, I found out T. S. Eliot considered this the mark of an educated mind. I learned how to get a signal out from some tiny lots, using basic equipment. (I was a college student, then a University staff member much of this time). I worked a lot of the top ops of this period in those CD Parties, before the ARRL discontinued them. These short, contest QSOs taught me a lot. In short, I learned an amazing amount of what I consider fundamental to my operating aesthetic today, all based around those few daily moments on a net.

So, if you want to improve your cw skills, try net operation. Full information on your local net can be found in the fine print of the "Section News" listings in QST.

--WZ3Q

CDXA PacketCluster News

We are working on several things which will make our Cluster faster and more reliable. The largest event centers around the KD4IL node. Bill's location has been plagued with noise problems, and he has been extremely busy at his new job, and he suggested we find a new location for this node. (By the time you read this, the node should be operational at WD4R's QTH.) Bill's node came on the air in 1988. Without KD4IL, I'm sure we would all be at some lower point on the DXCC ladder. The endless headaches during start-up and getting our backbone system running successfully to Atlanta required lots of time and expertise. Bill and others made many all-day trips to get our TOX link to Atlanta working, and then kept it running over the years when that was the only way to connect our node to the rest of the system. Three cheers for a job well done, Bill!

Many of KD4IL's local users have switched to my node in the past few months. The system is highly unbalanced by this. For instance, I've seen nights with 26 stations connected to my node, and only 7 connected to Bill. We need to balance these check-ins. The speed at which you receive DX spots, ANNOUNCE messages, or TALK messages is, of course, largely dependent upon how many stations are attempting to use your node at the same time. The more users on a node, and the more traffic on that node--the slower things will be for everyone. During periods of high traffic (such as during a DX contest, with spots running 3-4 a minute), the system can slow way down. This is why I turn off MAIL, TALK, ANNOUNCE, and HELP functions during the major contests--so the DX spots can get through as quickly as possible.

The high number of spots during contests means my node is sending out long strings of DX information, leaving little time to hear the acknowledgement for each spot from loud users, let alone the weaker users. It is very important that each Cluster user be able to hear every other user in order for the system to operate as it should. Your TNC will only send an acknowledgement for a spot when it hears no signal on the air. Your TNC will "roger" that spot when it hears an open space with no signal present. With users 30-40 miles SE of my node and users 30-40 miles NW of my node, collisions are bound to occur--simply because these stations cannot hear each other. When that happens, these signals collide here, and my node doesn't copy anything.

FCC rules and standard ham procedures say you should only use the minimum power needed to maintain communications. This may be fine on HF and elsewhere, but not for PacketCluster. Your low power and low antenna may connect you just fine to my node, but you may be creating problems for others who cannot hear your signal, and whose signals are colliding with yours. Packet requires a higher signal-to-noise ratio to guarantee good communications. This means you should use the highest power and the highest antenna you have to make sure every station using that node can hear your signal.

You should, if at all possible, connect to the node closest to your own QTH. This will, for the most part, help local users hear each other, and cut down on the number of collisions. Once we move the KD4IL node to the WD4R QTH, people in SC and stations on the south side of Charlotte should connect to that node. This will even up the connections on both of our nodes and make for more efficient communications for all concerned.

Another potential problem area is that five other nodes in NC all connect to our system through my node on our local user frequency. This means everything going to/from these other NC nodes must fight for time with my local users. We have been working for a number of months on a plan to move all of this backbone traffic off my local user frequency to the special 2400 baud backbone frequency. The problems continue to be at the Salisbury DXSAL digipeater. One problem after another on that front....

I have donated my Kenwood TR-7850 and 1270B TNC to a project KØSD is working on to put up a new digipeater on Young Mountain. If you are north and east of my QTH, check the 146.73 repeater for signal strength. That repeater is located on Young Mountain, and should give you an indication how this new digi might help you when Stephen gets it going.

CDXA is also planning to add a CD-ROM drive to the N4ZC node, allowing faster access to the SH/HAM Callbook files. Currently, N4ZC users access this info via W4DW in Raleigh; KD4IL users access this info via AC4TN in Greenville. If either link is down, you can't get the Callbook data. I am certain the link between WD4R and N4ZC will always be solid, allowing faster full time use of Callbook information once this CD-ROM is installed. We will also be adding the SH/GO QSL information about the same time, allowing faster and full time access to the W6GO list. Bruce, AG4L, is the sparkplug behind these two new additions to the CDXA PacketCluster.

--N4ZC

MEMBER PROFILE

Richard Genaille, W4UW


Dick will be 73 this June, and is one of the "far away" members of CDXA, living in Winston-Salem. Dick spent 37 and 1/2-years with Western Electric, dealing with military electronic and communications systems. (*I should probably ask Dick for some corporate work environment advice...*) Dick is one of those transplanted folks so common today here in the South. He began hamming as W2MRK in 1939 in New Jersey. Then he was W5RSN in Texas; then W6LZO in California; then back to W5RSN; then W3FEP in Maryland (just down the street from where I used to live, at Andrews AFB); then K4ZGM in Winston-Salem in 1958, acquiring W4UW in 1968.

Dick and his XYL enjoy traveling and meeting other hams. They spent their 30th wedding anniversary in the former Soviet Union in 1978. They've visited most of Europe and Scandinavia, along with parts of the Orient. Like N4UH, Dick has authored some interesting articles for the ham magazines, beginning with *Radio & TV News* back in 1958 and continuing up through *CQ*, *73*, and *Electronics World*.

As you'd expect, Dick is an Honor Roll DXer, with 336 mixed and phone. He's working on his cw total of 251. He also has DXCC on 160, as well as RTTY, along with 5BDXCC and 5BWAS. Dick's current station setup includes a Ten-Tec Paragon, SB-220, TH-6DXX at 60-ft on a flagpole/turnover mast, loaded as a folded unipole on 80 & 160, a Delta Loop, and the usual 2-M gear for Packet. He obviously likes to chase DX, contesting a bit on 40 SSB, too.

Dick did mention a pet peeve regarding QSLing. Namely, that they seem to be getting harder to get. Dick took issues with authors of QSL articles--claiming their volume probably doesn't match his. (*I apologize here in print, but maybe Dick didn't know I wrote one such article.*) He has had to become more selective in his choice of awards to pursue. His records must be pretty good; he included a QSL from N4UH in 1953, reprinted here.

Dick sent me a pile of information--his resume, which begins in 1934, copies of contest certificates, a list of his publications, some QSLs, in short, lots of stuff. He even included my DX Questionnaire--the one many of you have seen about WHY and HOW you define DX. Interestingly enough, he returned it blank....

This Station Operated for Worldwide Friendship			
To Radio	W5RSN	WAS	OPS RCC IRE
QSO of	Nov: 23, 1953	Input	100 W
1.4 Mc.	RST 57	Please QSL	Yes
W	2	J	K
			
	Henry G. Elwell, Jr.		H
	390 Hamilton Place		
	Hackensack, New Jersey		

© Fritz - Jolley, III

MEMBER PROFILE

Dan Morehouse AK1E (et al...)

Dan was originally licensed in New Hampshire in 1978 as WB1HFL. His xyl, Linda, was also licensed then as WB1HGQ.

Dan got his first exposure to radio while in high school, after enlisting in the Naval Reserve. He thought it might be fun to be a Radioman. But, after finding out you needed to master Morse, and trying that for a full half-hour, Dan opted to be a Hospital Corpsman instead. Mastering cigarettes and coffee drinking came more easily, he says.

After corpsman school at Great Lakes Naval Training Center and a short staff stay at Philadelphia Naval Hospital, Dan was stationed in Port Hueneme, CA. Shortly after that, he found himself landing in DaNang during a mortar attack on the airfield. Dan quickly realized a fella could get hurt, a modern up-date of the old "Catch-22" concept--you had to be crazy to want to vacation in South Vietnam....

After that, having two children, and settling down, life seemed pretty easy, including life on 11-meters. (*gasp...*) But a local class, a couple of months of code practice, and Dan made the jump to real radio hobbying. Linda was pleased, as well; she had been getting tired of listening to those practice sessions. Dan says mumbling something in reply about her not being able to pass the test was all it took--Linda passed the 5 wpm code exam six days later! A year later, and both of them up-graded to Extra class, with Linda being the first female Extra in the state of New Hampshire.

Dan's DX interest started with some informal net operations with African stations each afternoon. These round tables included skeds with DX stations talking with QSL managers, exchanging log information, and pretty soon, Dan was helping A22ME and his xyl, A22TE, get some of their own cards answered. Before long, Dan was managing their cards, as well as those of A22CA, A22DM, A22DX, A22AS and A22BB.

Early in the 1980s, TR8JLD developed a manager relationship with Dan. TR8JLD was a very active operator, with several callsigns in use, including TR1G, TR8WCY, 3C2A, 3CØC, T3ØJL, T31JL, T32JL, D68JL, and D6ØA. (*I'm still hoping Dan gets the logs someday so I can get my RTTY QSO confirmed....*)

Shortly before moving down to Shelby, NC, Dan ran into N4ZC on 20 and Roger introduced him to the CDXA. Naturally, the real thing (and the folks involved) exceeded Dan and Linda's expectations, and they've felt right at home ever since. Dan has 316, 313, and 248 in the mixed, phone and cw categories, respectively; Linda has just under 200 countries, with a lower level of interest in DXing. Both enjoy the CDXA for its social activities, PacketCluster, *The Pileup*, and other events. Dan didn't mention his station setup, but it obviously works well enough for AK1E to reach the magic 300 mark.

CHARLOTTE HAMFEST UPDATE

As many of you know, WA4UNZ (and others) are also active members of the Mecklenburg club. Ken sent me the following information:

6500 tickets were sold
78 dealers were in attendance
530 flea market spaces were sold
most major manufacturers were in attendance (only Ten -Tec was absent)

On the CDXA front, W4UNP informs me only eight renewals and two new members signed up at the hamfest--a significant reduction from previous years.

IRC Redemption

from a USPS memo dated 4 January 1993

Subject: *Redemption of foreign-issue International Reply Coupons*

February 17, 1985 to April 2, 1988	.37 each
April 3, 1988 to February 2, 1991	.40 each
February 3, 1991 to December 31, 1992	.50 each

IRCs issued before February 17, 1985 have no redemption value

--N4UH

CQ CQ CQ de K1DG...

One of CQ's newest publications is the *1994 Amateur Radio Almanac*, edited by Doug Grant, K1DG. I picked one up at Charlotte. K1AR was kind enough to allow me to reprint things with appropriate attribution, so...

"The Biggest Amateur Antenna Systems In The World" include AA6TT, WØUN, WØAIH, K5XI, N5AU, OH6RM, & TI4CF. The K5XI 20-M setup is 5/5/5/5 @ 35, 105, 175, & 255 ft. He also has 5/5/5/5 on 15 @ 70, 117, 164, & 205 ft. 10-M is 8-el @ 240 ft. Also has three more towers for 40, 10 & a smaller 20-15 stack. Yes, boys & girls, those heights require lighting! In case you ever wondered why TI4CF has the biggest signal out of Costa Rica on 75M, his 3-el @ 240 ft might explain it. He also has four 4-el quad loops with the tops @ 160 ft--aimed NE, NW, SE, SW.

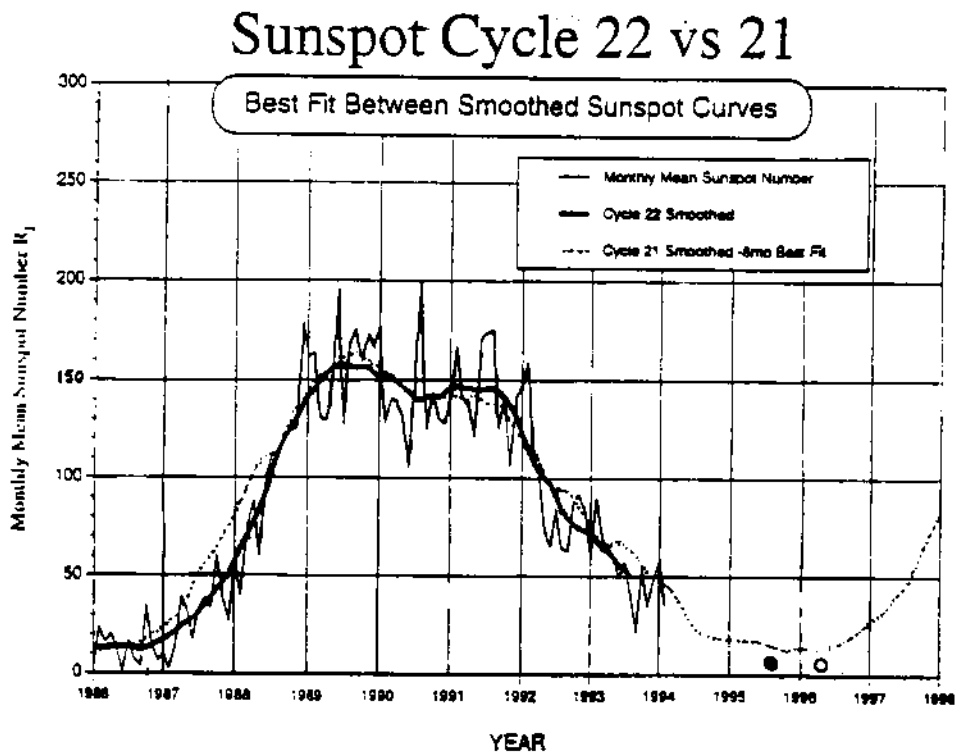
"Amateur Radio Census" lets you know where hams are in, say, North Carolina. In descending order: 196 of us are in the Raleigh area, 190 in the Cary area, 158 in Hendersonville, 146 in Shelby, 144 in Fort Bragg, 140 in Hickory, 135 just outside the Raleigh area, 127 in Greenville, 122 in Asheville, and 121 in Lexington. (All based on Zip Code information.)

This is a fascinating (and long overdue) publication. Just the thing for the bathroom, for that peripatetic person who likes to read before falling asleep, or for the ham who has everything. I read my copy every night while staying in the hotel in North Wilkesboro; it was more interesting than HBO's programming. I'm sure you'll enjoy reading our very own *Amateur Radio Almanac*.

N4UH continues to supply *The Pileup* with some interesting information on sunspots from NOAA. This graph of smoothed curves is certainly interesting; cycle 22 may bottom out in the middle of 1995.

Expected Minimum for Solar Cycle 22

Solar cycle in the modern record have not been 11 years in length. A group of shorter cycles have had a mean duration of 10.2 years, and a set of longer cycles have had a mean duration of 11.8 years. If cycle 22 is a short cycle, this would imply that minimum would occur late 1996; a longer cycle would end in the second half of 1999. Various rules or guidelines are used to predict the occurrence of the solar minimum for a solar cycle. One approach to foreseeing the next minimum would be to overlay the smoothed mean sunspot number for solar cycle 21 on the smoothed mean sunspot number for solar cycle 22. This estimate assumes that the present pattern of the solar activity levels will continue. Using this approach we can expect that the middle of 1995 will be the earliest time of solar minimum for cycle 22, which is represented by the black dot in the figure. The fit between the smoothed curves of these two cycles was obtained at the start of 1990, and subsequent data have not changed the phase relationship between these two curves. From another perspective, we see that solar minimum follows about 3-5 years after the first spotless day after the peak of the cycle. This rule would place the solar minimum for cycle 22 in late 1996, since the first spotless day was in fall 1993 (the 1996 solar minimum is represented by the open circle in the figure).



The original plot was created by Patrick McIntosh/NOAA



The Back Page

Meeting Notice

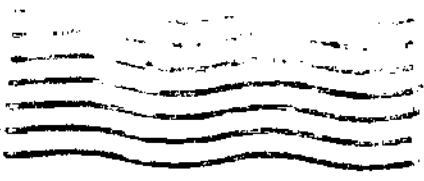
WHO? CDXA members
WHAT? MEETING
WHEN? May 3, 1994 6:30 PM social half-hour 7:00 PM dinner
WHERE? Woodshed Restaurant 210 South Main Street Stanley, NC
WHY? Special Guest ON4UN

COST? \$17.50 per person including tax/tip for a 10-oz rib eye dinner. Please bring correct change or check made out to Roger Burt. N4ZC will have paid the total bill and collect from each person attending. (Stanley is dry, but a brown bag is okay should you need it.)

John Devoldere is a world class DXer (342 on 80) and antenna expert, whose books on low-band antennas and DXing are well known. John will premiere his new book at Dayton, and will have copies of this book at our meeting. This is a chance to ask "the best of the best" questions about low band Dxing.

You must notify N4ZC if you plan to attend this event! The room seats only 56 people. If you don't get "on the list" you won't get in; it's just that simple. Notify Roger via PacketCluster, call on 147.18 or on the landline at 704-263-1133. We must notify the restaurant with our total attendance the morning of the 3rd, so please let Roger know your plans as soon as possible.

N4ZC will provide quick tours of the antenna farm at his QTH if you come a bit early; his QTH is 1.5 miles from the restaurant.



Don Daso WZ3Q
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FIRST CLASS MAIL

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