



The Pileup

Newsletter of the CDXA

A Serious Threat to Amateur Radio

By John Scott, K8YC

It is easy to become jaded by hype. I had read about Broadband over Power Lines (BPL) in various ARRL newsletters and in QST. I even set aside writing the FCC about this technology almost too long. When I finally did educate myself sufficiently to prepare a comment to the FCC, I was seriously concerned about the future of Amateur Radio if BPL comes to pass.

The electric utility industry wants to get on the Internet bandwagon. With all their electrical distribution facilities, it only made sense for them to seek a way to provide broadband data services to the home as an alternative to cable and telephone servicers. After all, every home at least has an electrical drop, while perhaps not a cable drop. They made their case to the commissioners of the FCC who have jumped on the bandwagon. After all, the commissioners view their job more and more as creating competition in the telecommunications space.

The technology involves multiplexing an information carrier on the electrical grid under the auspices of a Part 15 unlicensed device. Such capabilities are already in use by electrical utilities for low data rate telemetry needed to control

W4VHF	Ted Goldthorpe	President
N4PQX	Bob Burton	Vice-Pres.
K4SQR	Jim Miller	Sec.-Treas.
K4MD	Joe Simpkins	Cluster Mgr.
W3GQ	Paul Sturpe	Assoc. Cluster Mgr.
WB4BXW	Wayne Setzer	Webmaster
K8YC	John Scott	Editor

the electrical grid. In fact, the 136 kHz band which Amateurs wanted to have established recently was turned down by the FCC because there was concern by the electric utilities that our signals at 1 watt ERP would interfere with this unlicensed capability and disrupt electrical service. Yet, these same utilities have suggested that running high speed data at significantly higher frequencies on the electrical grid, creating a far more efficient and far more pervasive radiator, is somehow an acceptable technology, even though that technology will interfere with Amateur Radio and other licensed services.

The ARRL in its carefully researched response to the FCC points out that power lines at frequencies proposed for BPL will radiate so effectively that they will raise general background noise by 30db to 60db over Gaussian noise now experienced. Furthermore, a licensed Amateur running 1500 watts legal power into a beam near a power line may expose the line to 10,000 watts ERP! The ARRL rightly declares that under such a scenario, the licensed amateur will be considered to be the culprit despite being a licensed service. The ARRL also points out that Part 15 devices tradi-

(Continued on page 2)

CDXA PacketCluster & Other Communication Systems		
W4DXA (11 mi. NE of Mooresville)	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)	

tionally have been small and the ways to measure the interfering effects from such devices are quite logical. This is not the case of such a widely distributed source of RF energy.

Why did ARRL concern itself with measurement of Part 15 devices? Because the FCC can permit Part 15 devices at will, and the Notice of Inquiry sought comments primarily on the regulatory issues of permitting them.

Gents, BPL can come whether we want it or not and whether it is technologically feasible or not.

Last week the ARRL has released an MPEG video, downloadable from the ARRL web site, showing Ed Hare's (WIRFI) measurement experience in some of the BPL test areas. If you haven't downloaded this 24 megabyte clip, let me tell you what's on it. You'll see pictures of Ed tuning across many Amateur bands as well as other bands, 5MHz and 10MHz, and finding clicks and buzzes at S7 to S9 levels. The clicks are reminiscent of the "Russian Woodpecker" over-the-horizon radars of the late 1970s and early 1980s, except the clicks come in random groups like a Geiger counter.

Most disturbing to me in reading the original Notice of Inquiry (NOI) were the supportive comments on the technology provided by FCC commissioners. While speaking to the need for competition, it was obvious that the commissioners do not understand radio interference issues in sufficient depth to make a meaningful decision. I am most fearful they have had their heads turned by paid lobbyists and have already made up their minds.

The original "comment period" is now over, but an additional period for comments has been extended to August 20. **If your investment in Amateur Radio equip-**

ment is of any value to you, you MUST make your comments heard NOW. The original Notice of Inquiry and ARRL's response can be downloaded from the ARRL website at:

<http://www.arrl.org/tis/info/HTML/plc>.

Comments can be made at the FCC website by going to:

<http://www.fcc.gov/>

Once there, scroll down the left margin until you see the electronic comment filing system (ECFS) and click on that. You should see BPL (Docket 03-104) at the top of the list. After clicking on the BPL document, you can make your comments on-line. Capabilities are there for uploading more extensive comments, if you prefer to craft your comments via another means.

There are those in the Amateur community who think this whole issue is a ruse by ARRL to create a fund raiser. I can assure you that is not the case. If you've enjoyed your experiences in Amateur Radio, now is not the time to be complacent. Make your voice known.

Where have you gone?

You know where you are, and you know your email address. But, does CDXA know? Sometimes the only way we know if you've moved is if we send you email or snail-mail and it is returned. How about your call-sign? Has it changed? We ask that you give us a hand, and notify us if call-sign, email address, home address or phone number has changed.

Our Secretary-Treasurer, Jim Miller (K4SQR) is the official keeper of the roster, but you can notify any officer, and the information will get to Jim. Notifying an officer is easier than ever, clicking on their email address in the roster on the CDXA website will permit you to email them directly. Clicking on the Webmaster is easy, too since Wayne has links to the Webmaster sprinkled throughout our website.

Top of the DXCC Honor Roll

Congratulations to **Ron Bailey, AA4S**, and **Gary Dixon, K4MQG**. A recent walk through the ARRL's website disclosed a newly updated listing for the **TOP OF THE DXCC HONOR ROLL**.

Top of the Honor Roll status can only be reached by

(Continued on page 3)

The Pileup

Official Newsletter of the Carolina DX Association

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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

(Continued from page 2)

working and confirming all 335 of the currently active DXCC entities. For many in our numbers who have been chasing DX for years, you'll recognize attaining the "Top" is quite a quest. Political climate, propagation conditions, and just plain "being there" when the elusive needed DX is on the air are all part of the game. I'm sure the presence of Ed in P5 has made a lot of Amateur Radio Operators happy in 2003 by letting them edge closer to the "Top"!

Come Hear B'wana Joe

On Thursday evening, August 28th, Joe Blackwell, AA4NN, will address the CDXA on his recent "Africa Double Jump" DXpedition to Botswana and Lesotho. Joe's talk will follow dinner. The specifics are:

Time: Pre-party 6:30PM, Dinner promptly at 7:00PM

Location: John's Family Restaurant
2002 Westinghouse Boulevard
Charlotte, NC 28273
(704) 588-6613

Price: \$14.00 for Steak, Grilled Chicken, or Grilled Fish
Includes salad, two sides, and coffee/tea.

Cash Bar for beer and wine drinkers.

Please RSVP to Bob Burton so he can give a head-count to the folks at John's Restaurant to enable setup. Your meal selection can be made on the evening of the event. Bob's email address is:

bob.burton@mckesson.com

Kure Island to be Activated!

What a wonderful surprise when I picked up the August 6 issue of **QRZ DX** (2003-31) and found Kure Atoll is going to be activated by a big team of 12 to 15 DXers in the last half of October, 2003. Expectations are to have 4 to 6 radios in operation.

Kure ranks #12 worldwide in the last DX Magazine "Most Wanted" survey. It was ranked #2 by Europeans.

When I look over my DXCC needed list, I keep seeing inaccessible or protected entities—like Palmyra, Navassa, Desecheo, Bouvet, Lakshadweep, Scarborough Reef, Andaman & Nicobar Islands—and wonder if it is possible to make Honor Roll any more. Then along comes a DXpedition. Wonderful!! —*The Editor*

A Few Words on Weather-Proofing

By Don Daso, K4ZA

Recently, while taking down and dismantling some of the N4ZC tower/antenna stacks, I had the opportunity to examine some connectors I had installed over 10 years ago.

Those of you with excellent memories (or super filing systems) will recall that I reported on using Scotch 130 (Linerless Rubber Tape), as well as Teflon tape in these pages long ago—when I was editing *The Pileup*. Those of you interested in reliable, trouble-free antenna systems may have been wondering (oh these many years) if the claims I made then could possibly have been true. Well, after 10 years of use and exposure, I believe I can safely say my earlier claims were valid. These splices were in perfect condition.

The Scotch 130 worked wonderfully, and so did the Teflon tape wrap. Here are further details: If using the Linerless Rubber Tape, it's installed with the "sticky" side out, and you wrap going up, just like shingles on a roof. This tape is "self-amalgamating," which means it will conform to odd shapes & stick to itself—by simply pressing it around the connector with your fist. Then, protect it with a layer of Scotch 88, also wound correctly. If you wish, protect that top layer of tape by brushing on Scotch-Kote.

The Teflon worked well, also. I used the 2-inch wide roll (available from McMaster-Carr, as is the Scotch 130, if you can't find it at Home Depot) of 3-mil tape, again, protecting it with a layer of Scotch 88. One could use the much cheaper and more familiar Teflon plumber's pipe tape (usually available in 1/2-inch width, and much thinner), with extreme care. (It's much thinner and therefore harder to wind around connectors.)

In each case, the coax connectors inside these splices were bright, shiny, and new in appearance. The Linerless Rubber Tape had NOT hardened significantly, although it was not as pliable as it was when I installed it. A simple vertical slit (down the connector's body) allowed me to unwrap or unpeel the splice.

A few dollars and moments spent during installation CAN pay off. Having tried everything (that I know of) during my 40 years of putting up antennas, this remains the best method I know. Simply wrapping connectors with tape (I encounter this almost daily) will NOT work. Condensation alone will allow moisture inside the connector. I consider these products very cheap insurance. Condensation alone will allow moisture inside the connector. I consider these products very cheap insurance.

Wear the Colors of CDXA!

Been waiting for the chance to get your CDXA shirt with the logo embroidered on the chest? Well wait no more! Dick Williams, W3OA, has stepped up to the task of managing an order for you. Now you can see the logo as it appears on fabric as well as samples of the various shirts with a simple click on the CDXA website. Look for "SHIRTS" in the left margin selection bar. An order blank can be downloaded and printed from the same location. Prices, including sales tax, are shown on the website. For those who only receive the Pileup via US Mail, an order blank is included herein.

Please place your order by September 17, 2003 so Dick can get send in the order shortly thereafter. Questions may be directed to Dick by phone at (704) 658-0915 or via email at W3OA@adelphia.net.

Step up, we need YOU!

All organizations are fueled by the efforts and commitment of its members. If we all sit back and wait for "others" to make something happen, nothing happens. Did you enjoy the opportunity to buy a raffle ticket for the jeweled globe at the Charlotte Hamfest? Did you enjoy the Hamfest Dinner? Have you attended past CDXA Barbecues? Did you buy a CDXA namebadge or a CDXA embroidered shirt? Are you going to see Joe Blackwell talk of the "Africa Double Jump"? All these things happen because someone takes ownership and "runs with the ball". In this issue of the Pileup, you'll find Dick Williams handling the CDXA shirt order—because he wanted a shirt and agreed to make it happen.

There's an old adage that ". . . many hands make for light work." There is so much more that we might do as a club if everyone takes on a role. How about a field day effort in 2004? How about supporting a foreign ham? Do you have something in mind? Step up, we need YOU! Will you have to do it yourself? Not if you ask for help. Catch the excitement.

Down History's Road

By John Scott, K8YC

As I've made my meanderings around North Carolina and environs in the eight years I've lived here, I've often wondered about family names that seem to appear on road signs, cities and towns. Take, for example, Ten-

Tec's headquarter city of Sevierville, or Winston-Salem? And, as I drive down Beatties' Ford Road past Hambright Road to Charlotte, who are the Beatties and Hambrights? Then to the downtown Post Office on McDowell and Fifth. Who's McDowell? When I hear AA4S on the CDXA repeater from Shelby in Cleveland County, I wonder who's Shelby? Who's Cleveland?

All this came together recently on a recent Sunday afternoon when the XYL and I decided to visit King's Mountain National Military Park. Yep, that's the same park you drive by going over to the Shelby Hamfest from Charlotte. What's it all about? Well, have you ever heard of the Overmountain Victory National Historic Trail? Seems as if late in the American Revolutionary war, the British figured General Washington was so weakened by the horrible winter of 1779-80 at Morristown, NJ that they'd turn their attention to the South where Tory sympathy for the King would easily bring the South back into the fold and permit recruiting a Tory militia to assist the British army in the north. A big mistake was that a Scottish Officer named Patrick Ferguson threatened to march into the mountains and "lay waste the country with fire and sword" if the western settlers did not lay down their arms and pledge allegiance to the King.

So incensed were the "overmountain men" in North Carolina, Virginia, and Tennessee at the audacity of Ferguson that they decided to meet him head on as he protected the western flank of Cornwallis, then posted in Charlotte. Their strength in numbers increased as they moved from near Bristol, Tennessee toward Rutherfordton, NC. Ferguson retreated with the overmountain men close behind before taking a stand on King's Mountain. The ensuing battle, which pitted conventional British skirmish lines with muskets firing balled shot against Indian-style warfare and Pennsylvania long rifles, was a rout for the Patriots lasting only several hours. With his left flank unprotected, Cornwallis retreated, eventually moved eastward to Yorktown and surrendered—all in less than one year following Fergusons' defeat at King's Mountain.

So what's this to do with street names? Among the commanders leading the various units surrounding King's mountain were Sevier, Shelby, Cleveland, Winston, and McDowell. On a monument atop the moun-

(Continued on page 5)

(Continued from page 4)

tain, we find several of the Beattie family and a Ham-bright among those killed in the fight. Sevier went on to become a governor of Tennessee.

In dedicating King's Mountain in 1930, Herbert Hoover stated, *"This is a place of inspiring memories. Here less than a thousand men, inspired by the urge of freedom, defeated a superior force entrenched in this strategic position. This small band of patriots turned back a dangerous invasion well designed to separate and dismember the united colonies."*

"It was a little army and a little battle, but it was of mighty portent. History has done scant justice to its significance, which rightly should place it beside Lexington and Bunker Hill, Trenton, and Yorktown, as one of the crucial engagements in our long struggle for independence."

So, at least I no longer wonder about a handful of names found in and about Charlotte, NC. And, if you've not been to King's Mountain, pay it a visit, and be sure to view the film in the visitor's center.

Roving Reporter Meets Miller

The Roving Reporter did not have to go too far this month to get his interview. It was only a short trip to Jim Miller's (K4SQR) QTH to give you the opportunity to meet the CDXA Secretary-Treasurer.

Roving Reporter: Well, Jim, I always like to give our readers a little history about how our featured member got started in Amateur Radio, so let's start with that.

Jim Miller: Back in the late 1960's I learned about Amateur Radio when I was in the Panama Canal Zone. A few hams there encouraged me to become licensed. While the governing body of the Canal Zone could issue licenses, they could only do so as an adjunct to a valid FCC license. My Elmer gave me an old 78 RPM record (remember those old Bakelite discs?) with code practice tracks on it. I studied the code, and I studied from the Ameco license study guides of the day. When I was in Washington, DC for a visit home in 1971, I went to the Federal Building and took my test. Those who took the license exams in those days know that no indication of pass/fail was given by the examiners. One just took the test and went home to await the results. Of course, I

knew that I had passed the code test on the spot, since I was allowed to take the written exam. Several months later, an air mail letter from stateside from the address I used for my license application arrived. Inside the letter was the notification from the FCC that I had been assigned W3SOD (salty old dog) as a callsign. I then went to the Canal Zone administrator, and was issued my Canal Zone callsign of KZ5JM.

RR: Whoa! Let's back up a bit. Most of our interviews don't start with someone residing overseas. How did you get to the Canal Zone?

JM: I was in the United States Air Force in the 1960's. When my term of service was up, I thought I'd get a job with the Virginia State Police, because I had an interest in law enforcement. Yet, while still in the Air Force, Lear Siegler had been engaged at our base in Tennessee making modifications to some of our planes. When they found out I was mustering out, they asked if I'd like to go to the Canal Zone for 6 months to work on a project for them. Since I didn't have a firm commitment from the state police at that time, I agreed to the job. Little did I know at the time that I'd be in the Canal Zone for 18 years!

RR: Were you an employee of Lear Siegler all that time?

JM: No. The Lear Siegler job only lasted six months. Prior to its conclusion, I learned that the Canal Zone was looking for people for its police agency. That fit in nicely with my interest in law enforcement, so I took the job.

RR: From some of our chats at the weekly CDXA luncheons, I know you did some contesting while in the Canal Zone. How did that come about?

JM: My "elmers"—I had several of them—told me that DXing and contesting was "where it's at" in Amateur Radio. That colored my thinking of what I was to do with those wonderful capabilities to communicate over the airwaves. My first rig was a piece of Kenwood-Trio equipment, and this was before the Kenwood name was well known in the United States. I kept hearing good things about Drake equipment from my Elmers and others. One of the other guys was rotating home from the Canal Zone and he had a Drake C-line for sale so I bought it. We had a big contest station

(Continued on page 6)

(Continued from page 5)

there, and I “lived” contesting for a number of years. At one point I requested and received a contest callsign for the Canal Zone, KZ0DX. The FCC advised the administrator that he could not issue that call, but the administrator appealed the issue to the governor of the Zone, and the administrators of the Zone claimed they had sovereignty in the issuance of callsigns, so the designation held. However, we were only to use the callsign for contests. That was one of the few times I think the FCC met its match!! Within about six months of getting our unique contest callsign, the winding down of the Canal Zone treaties began to take place, and we had all of our callsigns changed to an HP1 prefix, so it was a non-issue after that.

RR: I recall you mentioning that you were doing some award hunting while in the Canal Zone. Tell us about that.

JM: Yes, I was working for 5BDXCC (#454) and 5BWAS (#800). The amazing thing was that Stateside hams all wanted a QSL card from the Canal Zone, but do you think I could get them to send me a QSL card for my needs? Heck no!

RR: And from that experience you learned....?

JM: I can only repeat the old adage, “The QSO is not over until the QSL is sent.”

RR: So, eighteen years go by, and you end up where?

JM: In 1992 my XYL and I moved back stateside to Charlotte, North Carolina. I was a private investigator for a while as an extension of my career in law enforcement, but I always had an interest in some sort of business related to ham radio. I found that Comtek Systems was for sale, so I bought it and have been running it since 1993, now in our 10th anniversary year.

RR: Tell us a little about Comtek Systems and its products.

JM: The roots of Comtek go back to a company called ColAtchCo, founded in 1980 by W1FC who designed the hybrid coupler, W1CF (SK), and K1PEK, who now owns Davis RF Co. They made hybrid couplers, and I had used their products in a 160 meter Four-Square array. ColAtchCo decided to shut down operations in 1989 and Comtek Systems was born to fill the void in the market for their products. The former owners of Comtek Systems decided to get out of the business, and I expressed interest in carrying on the name. The rest, as they say, is history. The mainstay product for a long time has been

equipment to build “Four-Square” arrays.

RR: So that’s where your callsign, K4SQR, comes from. An advertisement with each QSO, eh? For the uninitiated, Jim, what are the advantages of a four square array?

JM: In its purest form, a four square array is created by placing four ¼ wave vertical radiators in a square ¼ wavelength apart for the band on which they’ll be used. Four ¼ wave phasing lines and a hybrid coupler switching arrangement allows one to choose the elements and phases to excite the array and thereby steer the radiation pattern in any of four directions. The gain is about 5db over a traditional vertical and the array produces a front-to-back ratio of about 20db. Its earliest use was for 160m and 80m antennas where it is nearly impossible to elevate the antenna one half wavelength or higher in a horizontal plane to provide the needed directivity, but we’re now making four-square equipment for nearly all bands up to 6 meters.

RR: At last year’s Charlotte Hamfest, I saw you present a different approach to four-square design. What was that?

JM: If you have a single tower, you can affix four vertical dipoles pulled out from the tower—like inverted-V’s tipped on their side—fed with the same phasing equipment and get a good four-square system without having to put up four separate antennas. A few members of CDXA are using them with good success.

RR: You’ve expanded the product line at Comtek Systems too, haven’t you?

JM: Yes. We now have an 8 position antenna switch, surpassing the competitive offering by three switch positions. We have a stacking box for three-high monoband yagis. We also have a two-high stacking box for triband yagis and/or log periodic antennas that gives the ham an antenna stacking capability for multiband antennas. It uses broadband unun technology to do its magic. Also, as an adjunct to the four square line, we have a “one-stop shopping” capability now with our 60 terminal radial attachment plate and vertical feedpoint bracket. You can see all the products at www.comteksystems.com.

RR: One last question. Do you have any time left for contesting now that you’re a business owner, Jim?

JM: Not as much as I’d like! But I’m happy that I’m able to help hams solve their antenna needs. There has been a pronounced increase in international sales as folks overseas have learned of our products. I continue to be busy getting product out the door. Radio has been a great avocation and vocation for me.

Scenes from Field Day 2003

Field Day is always a great display of Amateur Radio emergency capabilities. Several members of CDXA were involved at both the Shelby Amateur Radio Club and the Mecklenburg Amateur Radio Society. Below is Claude Oakes musing over the next QSO at the Shelby County Fairgrounds.



Below, Ron Bailey (AA4S) hunkers down in one of the more comfortable outbuildings at the Shelby County Fairgrounds and does his magic with CW.



Operating conditions are not always quite as comfortable as that shown above when operating at field day. Many times the operating position is in a tent or under a dining fly. At least the "air conditioned" comfort being enjoyed by Josh and Bill Fisher as shown in the next column is worthy of a smile.



Hmmm, perhaps CDXA should field its own entry in Field Day 2004. Now there's an idea!!

Awards Rundown

All sorts of awards are available to the Amateur Radio Operator who likes "chasing wallpaper" (collecting operating awards). There are almost too many to mention. The following awards are identified in AC6V's website.

- WAN -- Worked All Neighbors
- WAS -- Worked All Streets (and you thought it was States!)
- RAGD -- Raised All Garage Doors
- WAOO -- Worked All Official Observers
- BERC -- Bought Expensive Radio Cheap
- QRP -- ESP QSO With A W6
- 5WAN -- Five Band Worked All Neighbors (easy one)
- TOR -- Timed Out Repeater
- TOP -- Timed Out Propagation
- BAL -- Bored All listeners
- TORA -- Timed Out Repeater Again
- WANA -- Worked All Neighbors Again
- WACO -- Worked All Club Officers
- WATL -- Worked All Touch Lamps
- WAL -- Worked all lists (poor mans DXCC)
- TACD -- Tested all Commercial Devices (Dirty Linear):
 Worked the Phone, TV, All Audio Devices, Door Bells, Burgler Alarms, Paper Shredder, Garage Doors, Cell Phones et al.
- TAC -- Terrorized All Critters (Same Dirty Linear)
 On Key up: Dogs Howl, Birds Go Goofy, Cat scurries under Couch, and all rodents leave the premises!!!!

The Back Page

Are you informed on the **Broadband over Power Line (BPL)** issue? Have you expressed your views to the Federal Communications Commission? August 20, 2003 is the extended deadline for comments on this most important issue which will seriously affect Amateur Radio if adopted. **Read the commentary starting on Page 1 of this issue and let your voice be heard.**

Come hear **Joe Blackwell** (now called B'wana Joe) tell us about his recent DXpedition to Botswana and Lesotho. Details are on Page 3 of this issue. Please let Bob Burton know if you are planning on attending so the restaurant can plan accordingly. All are welcome.

Have you been waiting for your chance to buy a **CDXA Shirt**? Wait no longer! Dick Williams is managing the current shirt order and has set up a nice webpage to assist you in product selection and ordering. See details inside on Page 4.

Upcoming **Contest** Activity:

Date	Activity	Comments
August 16-17	North American QSO Party, SSB	NCJ Contest - See Jan QST, P97
Sept. 6-7	All Asian DX Contest - SSB	
Sept. 7	North American Sprint	
Sept. 13-14	WAE DX Contest - SSB	
Sept. 13-15	ARRL September VHF QSO Party	August, 2003 QST, Page 103

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First Class Mail

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