



# The Pileup

## Newsletter of the CDXA

### BPL Saga Rolls On

By John Scott, K8YC

I sent an email to many of you late Monday evening, May 3. That was the date that comments were due to the FCC on Docket 04-37 regarding Broadband over Power Line (BPL). I don't know about you, but I find this whole matter an exhausting one with which to deal.

I found myself lying awake early some mornings in recent weeks "composing" comments to the FCC. I kept putting it off because I didn't feel that I had composed the perfect letter. My mental composing was still far from perfect at noon on May 3, when I began preparing my comments. I knew that if I didn't get the task done, all my sleepless mornings would have been for naught. One advantage of procrastinating was that the NTIA report became available before I began my commentary. It took me fully five hours to comment on most of the issues I chose to address. Upon rereading my comments now that they are filed, I find rough spots that I would recast if given the opportunity, but I cannot change them now. Yet, I have made my thoughts on BPL known to the FCC. If there is one satisfying aspect of all this, it is what I

W4VHF	Ted Goldthorpe	President
N4HN	Tom Wright	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

found after I began reading the comments of others. I found many others commenting to the FCC shared my concerns and offered the same or similar remedies to mine. If you did not take the time to file a comment, I urge you to go to the Electronic Comment Filing System (ECFS) at [www.fcc.gov](http://www.fcc.gov). Once there, to keep things manageable, you might do a search on filings for docket 04-37 filed from North Carolina or South Carolina to see what your neighbors are saying.

In general, it takes a lot to get me stirred up enough to try to change "the government". I guess it goes back a long way to hearing the old adage, "You can't fight city hall." Yet, on Tuesday after filing my comments, I sat down and wrote an email to The Honorable President of the United States, George W. Bush. Here is the text of that letter.

"The Honorable President of the United States, George W. Bush

Dear President Bush:

I saw in a recent article in an Albuquerque, NM newspaper that you have as a goal the availability of broadband data services to all segments of our society. As a broadband user myself, the more people who can enjoy broadband ser-

*(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)
CDXA Repeater 147.18 MHz (+600 )	W4DXA, Near Fort Mill, SC	
World Wide Web Homepage	<a href="http://www.cdxa.org">www.cdxa.org</a>	
Wednesday Luncheon (11:30 AM)	Shoney's, 355 Woodlawn Road, Charlotte, NC (704-525-4395)	

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VICES, the better we are for it. The resources at one's fingertips from the Internet make this hexagenarian tingle compared to my high school days when trips to the library were the primary source for information retrieval.

As a person who worked in industry for almost 40 years, I have seen countless cases where executive edict gets misinterpreted by well-meaning lieutenants as a mandate to "make it happen" without regard to the ripples the edict creates. And, unfortunately, most organizational dynamics stifle anyone's desire to deliver the "bad news" back up the chain of command. I feel that this is exactly the case with the proposed deployment of Broadband over Power Line (BPL) now offered as a Notice of Public Rule Making, Docket 04-37 by our own FCC.

My concern with this technology was first brought to my attention by the national organization for amateur radio--The American Radio Relay League (ARRL). As you probably know, Amateur Radio Operators (hams) enjoy use of the radio spectrum under Part 97 of FCC rules. Hams are engaged in all walks of life, provide emergency communications in countless disaster scenarios, and in many cases are the very same people developing some of the greatest new "whiz-bang" technologies that we all enjoy. Hams, through the ARRL and via individual commentary, have expressed concern--based on their sound understanding of the physics of electromagnetic radiation--that BPL has an extremely high probability of providing harmful interference to licensed users of the radio spectrum in the HF and VHF portions of the spectrum. Field observations, when the ARRL has been able to find BPL test sites, have confirmed the prognosis.

Last week the NTIA produced an interim report confirming many of the fears expressed by hams and other licensed users of radio spectrum. I can only hope that the FCC heeds the report of this governmental agency in the interference specter posed by BPL.

The BPL "lobby" has made believers out of a number of the Commissioners, despite reasoned, rational, scientific proof that BPL poses a significant threat to the purity of the radio spectrum. Japan and Austria suspended trials of BPL-like technologies because of radio interference. My sense, and that of many of my amateur radio acquaintances, is that there is a headlong rush to deploy BPL despite "storm clouds on the horizon". Once deployed, there will either be a lot of hand-wringing when it must be shut down for interference reasons, or else hams, municipal, aircraft, military, and governmental radio users will be dealing with a whole new world of radio interference problems.

If your offices did make universal broadband a high priority, then now is the correct time to check on the progress of the effort. Some will doubtlessly tell you it is going well. This citizen will cast his vote that the effort is about to derail and the "contents" of the cars on the train will result in a massive environmental cleanup effort.

Sincerely, John A. Scott, K8YC"

I doubt if President Bush will personally read my letter. Hopefully one of his staff is a thoughtful administrator who will advise the President of the issues I raise. At least I'm sleeping better knowing that I exercised my voice as a citizen of the United States of America.

### Welcome, New Members

Our membership has grown by three since last month, and we continue to take on an "International Flavor" with at least one new member coming from the international community of amateur radio operators. Join me in welcoming the following new members to the Carolina DX Association:

N4KQ	Robert Cole	Charlotte, NC
W4LK	Lawrence Kirkland	Columbia, SC
ZS6WPX	Andre VanWyk	Johannesburg, South Africa

#### The Pileup

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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

### Bailey Nabs Numero Uno!

Many of us know Ron Bailey, AA4S, enjoys spending his summers coaching American Legion Baseball teams near his Cleveland County home. It doesn't take many conversations with Ron to see that the competitive fires still burn deeply as he instills the fundamentals of baseball to his charges.

Those same competitive fires also pour over into Ron's ham radio efforts. For the past few years, Ron has been entering the North Carolina QSO Party with the fervor to win it all. He carefully plans out his western Carolina driving route and even drives it beforehand as a dry run to ensure the timing is correct and that he can indeed transit all his planned counties during the contest period. The March, 2004 issue of the Pileup gives a hint of Ron's preparations.

The year 2004 resulted in a culmination of Ron's efforts when he took the #1 Position in the Mobile class. Ron amassed 150,168 points on his way to the top spot in 2004. He outscored his perennial nemesis of the past few years, NY4N, by almost 40,000 points! Congratulations, Ron on a job well done. As this year's Champion, I guess you'll need to plan one more year of competition to defend your title.

### Field Day Shaping Up

Field Day 2004 plans are moving right along. Study of statistics from previous years has shown that to be competitive as a 2E station, we must have about 2200 QSOs with at least one station dedicated to CW operation. (CW QSOs net two points versus one point for a phone QSO—so the phone QSO rate must double the CW rate to get the same scoring.) That results in an average rate of 46 QSOs/station/hour during the 24 hours of the contest.

The FD site will be at Ken Boyd's (K4DXA) home. Ken cannot provide sleeping accommodations or camping/picnic space, so those "staying over" will need find sleeping accommodations elsewhere. One operator will use Ken's current operating position and a second operating position will be situated in the connecting garage. The goal is to get rigs which allow 150 watts output (up to 150 watts is allowed for the low power class) to ensure we have the maximum allowable power for our class. One backup transceiver is needed to ensure operational continuity. A 6 meter rig will be at the ready in

the event the "magic band" opens up during Field Day. Emergency power will be provided by K4DXA with a backup unit provided by Dick Williams (W3OA). Tom Wright (N4HN) has agreed to use his electrical contracting skills to provide drop cords for powering the stations from the generators. Logging will be done using laptop computers networked together using NA software. Additional antennas are to be hung from trees on the property to supplement the present antenna farm.

Operating shifts are proposed to be three hours long for a two man shift. Those wishing to use a person to log for them may do so. The present goal is to ensure we have sufficient operators to cover the contest period. Intermodulation issues between transceivers have been discussed with N4ZC, and mitigating capabilities are under consideration. Those indicating they wish to be involved already are:

K4DXA	K4SI*	K4SQR
KS4S	KU4V	KZ2I*
K8YC	N4HN	N4PQX
N8WRL	W4GMY*	W4ILC
W4SI*	W4VHF	W4WNT
W3OA	WA4DOU*	

\* Emphasis on CW Operation. "A few good men" still needed.

Deli sandwiches, water, soft drinks, coffee, and Sunday morning donuts are to be provided by CDXA. This is the first renewal of FD activity by CDXA in a number of years. As you can see, we hope to mount a serious challenge, but realize that to do so requires lots of planning and coordination. Whether you wish to operate, provide good ideas, or serve as support during the actual FD period, you're welcome to participate. Contact any of your officers if you want to play a part.

### Coming Convention for VHFers

Sometime in 2005 the Southern VHF Society will be having their annual convention in Charlotte. Paul Ponak (AD4IE) tipped me off to this tidbit, but the URL for the SVHFS website was not included with his email. We've got time to find out more about it, but for those of you who enjoy operating VHF, you might like to make note of the event and begin some detective work. I suspect that Paul can direct you to the website for more details.

## LoTW Goes “Fully” Live

The day we’ve all been waiting for occurred on May 6, 2004. With the arrival of that date, the promise held out by Wayne Mills, N7NG, at the Charlotte Hamfest that the full capabilities of Logbook of the World (LoTW) would arrive “in weeks, not months” came to pass.

As of that date, your DXCC records at ARRL can now be linked to LoTW so that “needed” entities can be compared to confirmed QSOs on LoTW and then applied as DXCC credits. I give a lot of credit to Wayne Mills and John Bloom (the fellow doing all the programming) for their tenacity and industriousness in making LoTW a reality. The website implementing the LoTW capabilities is also a first class effort. We can all be proud of our national organization for their vision in making LoTW a reality.

A few things need to be done if you’ve not visited LoTW since the new awards features were turned up. If you’ve submitted logs from several stateside venues you may have had over the years or for each callsign you’ve had, each one will have its own log. This is probably particularly true of VHFers who may have separate logs for the various grid squares from which they’ve operated. If you’re like me, I had a previous callsign and two primary QTHs from which I’ve operated. Yet, for DXCC purposes if all were from within the limits of continental USA and your personal callsign, they can be combined as one account for DXCC HF purposes. The instructions for the awards program guides you through that process but encourages you to call the DXCC desk if you have questions. This is because the “merging” of accounts is a NON-REVERSIBLE process. Once the merge of logs is done, you can ask that your LoTW merged log be “linked” to your DXCC records. Thereafter, you can easily see just which QSL records on LoTW will add to your DXCC record count, and you can direct that they be applied online. Slick? You bet. In the case of my log, I found that LoTW records added 5 to my CW count, 5 to my 40m count and 17 to my “Challenge” count, amongst other increased counts.

Just think what it would be like if hams everywhere uploaded their logs to LoTW. No more stamps. No more IRCs. No more envelopes. No more waiting! If you’ve not entered your logs into LoTW as yet, what are you waiting for? The future is here now. Why not enjoy it?

## CDXA Competes in Six Meter Sprint

Starting at 7:00PM on Saturday, May 8, several CDXA members hit the airwaves to participate in the Six Meter Sprint.

Bill Fisher (W4GRW) worked from the contest QTH of AA4ZZ atop a mountain near Boone (EM96). Phil Martin (K4ATM) found a suitable roadside turnout, also near Boone (EM96), to do his contesting. Roger Swett (W4SWT) stayed closer to home (EM95) and made his voice heard. I was able to work them all from my QTH in Cornelius, although I did so to give them QSOs rather than as a serious contester. Earlier in the day while doing some antenna work atop the mountain with Bill, Paul Trotter and Scott Douglass, I heard our Vice President, Tom Wright (N4HN) exercising his radio on 6 meters. I didn’t hear Tom from the home QTH in the contest, however.

This paper will go to press before the results are known. Best of luck to all who participated in the Six Meter Sprint.

## Membership Takes on International Flavor

Last month we reported that Fabrizio Vendelli (IN3ZNR) and Mauro Tomazzoni (IN3QBR) had joined the ranks of CDXA members. This month, Andre VanWyk (ZS6WPX) joins us. You may recall Mauro visited us in February, 2001 to tell us of his DXpedition to Laos. (See the March, 2001 issue of the PILEUP available from the CDXA website.) This visit did not come “out of the blue”, since Roger Burt has known Fabrizio and Mauro for quite a while.

If my “history lessons” aren’t failing me, Joe Blackwell and Mauro were CW shiftmates on the DXpedition to Myanmar in 2002 (?). Joe tells me that Fabrizio was also along on that DXpedition. So, when Fabrizio was looking for another to join the team to Lesotho for the “Africa Double Jump” DXpedition, Joe was a candidate for the team for his well-known DXing capabilities. How does Andre come into the picture? Andre did some of the “on site” preparations for the Africa Double Jump team before their arrival. How intertwined our ham radio world does become.

Fabrizio sent me a few photos for the Pileup. The photo

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shown below shows Mauro and Fabrizio arriving in Vientiane, Laos.



**Mauro and Fabrizio arrive in Vientiane for their Laotian DXpedition**

Fabrizio also sent the picture below of Hiroo Yonezuka (XW0X) and Fabrizio (taken while Hiroo was in Italy). I assume that Hiroo was “man on the scene” in Laos for Mauro and Fabrizio on their Laotian DXpedition.



**Fabrizio (IN3ZNR) and Hiroo (XW0X) renew friendship during Hiroo’s visit to Italy.**

We’re pleased that Mauro, Fabrizio and Andre have chosen CDXA for an “American” connection. They’ll be receiving the Pileup via email. We hope to hear from them all from time to time. If you are an Echolink user, be sure to look for Mauro on Echolink. I’m sure he’d be happy to hear from you if he’s active when you check into Echolink. Just let him know you’re a CDXA member when you connect.

## Tippett’s Tips

*(Almost a year ago, “Uncle Henry” (N4UH) sent me a copy of a private communication he had with Bill Tippett, W4ZV. Henry had asked Bill why crystal filters are needed in ham receivers when all kinds of selectivity can be made by DSP IFs. Also, why were both needed and/or desirable. Bill’s answer follows. —The Editor)*

“ Henry, I could give you a number of complex references but can probably explain it better myself. In simple terms, the first IF filter of modern general coverage radios is usually at 45-70 MHz. This is to prevent images from sum and difference frequencies under 30 MHz. The main problem is that all such radios have very wide (12-15 kHz.) filters at the first IF because (a) they must accommodate modes like FM and (b) narrow crystal filters cannot be made at VHF frequencies (6 kHz is the narrowest I’ve heard of in the IC-7800) and DSP is totally impossible with current technology.

The result is that closely spaced (<12 kHz) interfering signals that fall within the first IF (also called the roofing filter), can create distortion products that are passed to later IF stages where DSP is practical (kHz range due to currently available ADC/DAC’s which are the input & output to the DSP itself).

Even if DSP’s have perfect 1:1 shape factors, they will still see the distortion products that fall within their pass-band. These typically show up as the phantom signals that sound like “bleeps and blurps” on a very crowded band.

Ten-Tec’s Orion follows older established designs like the Drake R-4C and Ten-Tec Omni VI that (a) make the receiver ham-band ONLY and NOT general coverage (then you don’t need to have the first IF at VHF and can take care of image problems by other band-limiting filtering, (b) use a down-converting IF scheme so that the first IF is at a more reasonable frequency (6-9 MHz) where narrow (250 Hz and up) crystal filters are relatively easy to manufacture—then you can have selectable filters at the first IF, still accommodating FM, but use narrower filters for SSB and CW which give much better IMD performance for closely spaced interfering signals. With this design you can still use DSP at following IFs, but now distortion products are removed at the first IF before reaching DSP stages. One of the best articles I’ve seen but it is fairly detailed is: <http://www.arrl.org/tis/info/pdf/020910qex036.pdf>. I hope this helps!

—73, Bill W4ZV

## The Back Page

The editor of the **Pileup** gets his semi-annual hiatus from his publishing duties in June and December each year. Therefore, do not look for an issue of the Pileup in June.

Plans are still moving forward for a Field Day effort in 2004. Details inside on Page 3.

The final step of making Logbook of the World (LoTW) all it was designed to be was taken during the week of May 3. Look for details inside on Page 4.

Upcoming **Contest** activity:

Dates	Contest	Comments
May 15-16	Baltic Contest	Sponsor: Lithuanian Radio Sports Fed. <a href="http://www.lrsf.lt/bcontest">www.lrsf.lt/bcontest</a>
May 15-16	His Majesty King of Spain Contest	May 2004 QST Page 99
May 29-301	Great Lakes QSO Party/SSB	May 2004 QST Page 99 <a href="http://www.stpaulisland.net/countycontest.html">www.stpaulisland.net/countycontest.html</a>
May 29-30	CQWW WPX - CW	See: <a href="http://www.cq-amateur-radio.com">www.cq-amateur-radio.com</a>
May 30-31	MI QRP Memorial Day QRP Sprint	January 2004 QST, Page 97 or <a href="http://www.qsl.net/miqrplclub">www.qsl.net/miqrplclub</a>
June 19-20	All Asian CW DX Contest	
June 26-27	ARRL Field Day	See Page 3, Inside

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**First Class Mail**

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