

The Red, Blue & Green



Do You Need A Cure For ADCS?

With apologies to Professor Harold Hill and everyone associated with *The Music Man*. . . Well, we got trouble my friend, right here in Broadband City. . . I say trouble with a capital "T" and that rhymes with "D" and that stands for digital broadcast signals.

That's right. Digital broadcast is trouble. It might not be as bad as the game of pool was in River City, but it certainly gets us some calls and occasional criticism from our customers. These calls are because of



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the sound are not in synch, or the picture just goes away and is replaced by a blue screen with the words "no signal", you suffer from a malady much worse than Restless Leg Syndrome. You are experiencing analog-to-digital-conversion-syndrome (ADCS). However, neither Merck nor Pfizer has a pill, of any color, which will cure ADCS. It is one of the great failures of the American pharmaceutical industry.

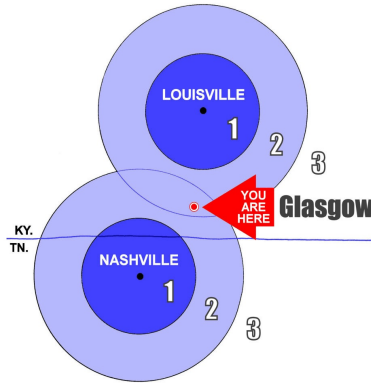
signal interruptions on cable channels carrying broadcast stations in Louisville and Nashville. We did not cause these problems and solutions are particularly vexing and expensive. While we think we have explained this matter *ad nauseum* in the past, we keep getting questions about it so we are going to try once again. Here goes.

If you have been watching a program which originates at a broadcast station in Louisville or Nashville, and the picture freezes, pixilates (falls apart into something resembling puzzle pieces), has interruptions to the sound, has episodes where people's lips and

To better understand this disease, we must first make sure everyone understands just what "analog" and "digital" mean. Up until about three years ago all transmission of television signals from stations that broadcast to people with an antennae, as well as to cable operators with a very big antenna, was done via analog transmission. Analog simply means real, measurable, or continuously variable. Hmmm, that might not be clear enough. How about this? If you still have a watch that has a bunch of little springs and cogs and gears in it that rotate and whir about resulting in a big hand and a little hand telling you what time it is, you have an analog watch. It gives you the time by knowing how far to move those hands in a minute. Similarly, analog broadcast signals carried moving pictures by constantly modulating certain frequencies that were sent out over the airwaves to be picked up by an antenna and tuned by a television set. Okay? Analog was a great way to send out television signals. While never perfect, analog signals carried for a long way and that helped places like Glasgow to get news and programming from far away places like Nashville and Louisville. As weather or other interference occurred in the analog world, the signal would degrade some, our customers might have seen a bit more noise in the picture, but it would still be watchable. As you can see in the graphic, Glasgow was never in the "good" range of analog transmission from those cities, but we made it work pretty well because analog signals are very resilient and tunable over a wide range of power levels.

But, as technology and greed marched along together over the last several years, other companies like cell phone providers and other wireless systems began to lobby Congress and the FCC to force the broadcasters to use new digital broadcast technology. In theory this new technology is far superior and uses a lot less of the broadcast spectrum (that means a lot of the old analog frequencies would be available for more cell phones and other things with buttons, screens and irritating noises that keep you from being able to enjoy any peace and quiet anywhere). Therefore, as is often the case, while you were not watching Congress and the FCC agreed with the lobbyists and decided that all television broadcasters should abandon the old analog technology and replace it with new-fangled digital transmission technology. I think they all got new cell phones too.

Earlier we described analog as being measurable or real, but digital is quite different. Let's go back to the watches. If your watch is not analog it is digital. With a digital watch there are no moving parts - no wheels, springs, or gears. A digital watch just has a little processor in it running a program. The program counts little electronic pulses and converts that calculation into lighting up some little diodes to display something like "1:27". Digital television transmission is like that as well. It has no "moving parts". Instead, it sends you a staggering flow of 0's and 1's that our receiver here interprets, and performs calculations on. Instead of telling a bunch of LED's to display "1:27", it converts the calculations into near perfect pictures and colors that appear on your television set and allow you to see that those *Desperate Housewives* have quite the colorful life. Now you know all there is to know about analog and digital transmission. Don't you feel technical now?



Now let's look again to the graphic because there is one more thing to know. Digital signals do not carry as far as analog signals. In addition, digital signal does not slowly deteriorate and remain watchable as the signal gets weaker. Since the digital signal is not "real" but only a long series of binary numbers that need to be computed by our receiver, when some of those numbers come up missing because of weak signal, the picture does not compute so it just falls apart and stops. Depending on your television, this results in a frozen picture, a puzzle mess, or a blue screen. The power levels and the frequencies allotted for digital transmission have one clear result; they were never intended to carry more than about 50 miles! As you can see on the graphic, we are outside of the intended range of digital transmission from both Louisville and Nashville. This is not our fault because we did not pick where Glasgow is located. Further, we did not pick the digital transmission standards. Very "smart" people in Washington D.C. did that.

Okay, now you know about analog and digital and you have a map to show that we are in the digital hinterlands. You also know that none of this is our fault. All that is left for us to discuss is the fact that you expect us to fix it anyway, right? Well we have been working on that.

Like everything else, this matter comes down to money. There are ways to improve upon this situation. We can install an antenna closer to the broadcast stations and bring the signal to Glasgow via fiber. We can also purchase the signals from certain satellite vendors for delivery to our receiving dish. Both of these solutions are very

In the Analog World:
1 - Area of Good Analog Signal
2 - Area of Fairly Good Analog Signal
3 - Area of Sporadic Analog Signal

In the Digital World:
1 - Area of Perfect Digital Signal
2 - Area of Sporadic Digital Signal
3 - Area 51 🛸

expensive and they will impact our rates a bit, but we feel that you deserve our best effort at saving you from ADCS. So, we are taking steps to affect these improvements. First we are going to work on a better way to get signals from Louisville. A Nashville signal solution will come later.

Of course, that is also going to cause some rate increases and those will become effective July 1, 2006. Basic cable will go from \$8.95 to \$10.25 per month for everyone. Glasgow Classic (expanded basic) will go from \$12.00 to \$12.70 per month in the city limits. We hope these improvements will cure everyone's case of ADCS.

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Feel free to use any of these means to contact me with any questions or comments!

CHECK OUT OUR WEBSITE AT WWW.GLASGOW-KY.COM TO SEE HOW OUR RATES COMPARE TO OTHERS IN OUR AREA