Commissioners
Langdon D. Neal, *Chairman*
Richard A. Cowen, *Secretary/Commissioner*
Marisel A. Hernandez, *Commissioner*

Lance Gough, *Executive Director*

Chicago
Board of Election Commissioners

Prepared remarks of Lance Gough, Executive Director, Chicago Election Board Election Assistance Commission – Minneapolis, Minnesota – April 16, 2008

Good morning everyone.

This marks my 20th year as executive director of the Chicago Election Board and more than three decades in the election business.

I mention that only because over these years, we've all seen a series of changes – from lever machines to punch cards to optical scan and touch screens. The difference now is the pace of change has accelerated: we barely get time to adapt to a system and we're being told to get ready for much more.

I fully understand the concerns of people who are championing the cause of an all-paper ballot system. Even so, in Chicago and jurisdictions across the country, the touchscreen has certain advantages:

- First, it's a proven system to empower voters with disabilities so that they may cast ballots independently.

- Secondly, at a time of increasing use of Early Voting – we just tripled the Chicago record on Super Tuesday – touchscreens have the horsepower we all need. Touchscreens give every voter, no matter where they live and no matter where they decide to vote, the ability to access the right ballot for their precinct. Plus, the touchscreen can deliver this ballot in English, Spanish or Chinese or in the audio version of these languages.

- Thirdly, touchscreens still make it impossible to overvote, and they make it easier for the voter to detect an undervote.

So leading up to an important series of elections, we must do everything possible to make sure these rounds of elections with touchscreens are effective. I'll get to some humorous and cautionary Chicago stories about the fat finger, the angry finger and the invisible ink … but right now, let's look at the basics for preparing your touchscreen ballots.

The keys to preparing the touchscreens basically involve keeping the design consistent with your paper ballots. Those keys are to:

1) Keep the design of the touchscreen or "DRE" ballot simple and clear.

2) Pre-test / Test / and then Re-Test

3) Plan ahead for the future

KEEPING THE DESIGN SIMPLE
First let's talk about keeping the designs simple and clear.

Let's start with instructions to voters: Keep instructions concise, simple and with clear language. On the touchscreens in Chicago, go simply with the word "Next" or "Back" with a graphic element of an arrow – instead of anything more complicated.
For the font: Go with the clearest fonts from the Helvetica family. Use upper case and lower case.

Don't try to be fancy. The more the ballot design jumps around between bold, italicized and underlined words, the more visual clutter you have. Then you also increase the possibility of an error or inconsistency between candidates and contests.

Any sort of bolding, shading or spacing must be consistent throughout the ballot. If you must use a narrower or smaller point size for one office or candidate with a long name, make sure that it's used consistently for ALL of the candidates running for that office, just as you would on the printed ballot.

Clearly delineate the different offices on the ballot and don't try to get too much on one screen. In Chicago, we use shading of the office title to clearly delineate the different areas of the ballot.

COLOR
I believe color should be used to highlight specific items. In our case, we use color toward the end of the voting process to highlight those offices where the voter made no choices. This is a great way to cue the voter – one last time – in case they overlooked an area of the ballot or one of the screens.

But just like fonts, you don't want to jump around with all sorts of colors. If you've ever seen an email or a web site with print styles in all sorts of colors, you know that you end up with clutter – and instead of drawing attention to something, you'll simply make the voter gloss over the entire screen.

PRE-TEST / TEST / RE-TEST
In Chicago, we develop our own database, and we created a series of internal controls to check our work. Still, you cannot have enough testing. Too many times, especially with a complicated mix of ballot styles, you can have a mistake in one language or one format that you don't have in the other languages or formats.

Test everything at least twice and document every step of your process.

Your staff may get frustrated, but the more checklists and tests you can complete – the better.

If you haven't already, start now by pulling in people who are not in the election business for their honest feedback. Senior centers and classrooms are both great places to see how effective your current balloting system is.

Then, keep checklists of every item you want to test for:
- Graphic design elements
- Consistency
- Spellings
- Comparing the audio ballots to the touchscreens to the paper ballots
- Comparing the audio to the touchscreen

Again, document every step of the process.

Then repeat the process and double-check everyone's work, ideally using different people than the ones who performed the original tests.

PLANNING AHEAD FOR THE FUTURE
No matter what your situation, time is always the biggest factor. For that reason, it is important that you seek legislative changes to loosen the timeframes on the electoral calendar.

No matter which jurisdiction you are in, I am willing to bet it takes you far more time and staff to prepare touchscreens and optical scan systems than it ever did for those of you who used to use a uniform punch card.

Secondly, we need to begin to focus with the blind community on developing universal standards for audio ballots. Right now, those standards can vary greatly – both in terms of the logic for manipulating the ballot and the sound quality.

Thirdly, it is important that the advocates for the paper-only system join together in finding a viable, tested and proven system for assuring voters with disabilities the opportunity to cast ballots independently and privately. Separate is not equal.

Finally, I want to offer a cautionary tale on the touchscreen: It's the story of the fat finger, the angry finger and the invisible ink.

We had a situation where a candidate said that we needed to recalibrate for voters with fat fingers. We asked the candidate if he knew of any voters who had encountered a problem with a fat finger touching two different candidates at once, and to my amazement, he volunteered, "Yes, my sister."

Anyway, we also had another candidate make an allegation about the screen flipping too soon if the voter kept their finger pressed down – kind of like if someone was using a touch-tone phone and was really pressing those buttons hard. We called that problem the "angry finger."

So how to address the fat finger and the angry finger? In Chicago, like many jurisdictions, we offered voters a stylus to make sure that if there were any concerns over voting on the touchscreen, they could use the stylus and work their way through the ballot with accuracy by using the stylus – and only the stylus – to touch the screen.

Then on Super Tuesday, with the world watching, something amazing happened. In the 42nd Precinct of the 49th Ward, a judge handed voters the plastic stylus, the pointer, AND a paper ballot. So the voters there were scratching away and then coming back and complaining that the pens didn't work.

Keep in mind, this story is in no way an indication of the performance of the entire system – which has served voters in Chicago extremely well. This was our fifth election with the optical scan and the touchscreens, and our overvotes and undervotes are much lower than they ever were in past years.

Also keep in mind, this is just one judge out of 14,000 – in one precinct out of 2,579. So we know this was not a common problem. But then the judge did something interesting. He said, "Oh, those are invisible ink pens. The scanner will read your marks – in the special invisible ink."

It didn't stop there. When these first dozen or so voters went to put their ballots into the scanner, the optical scan machine did its job and rejected the ballots – because nothing was marked. So what did the judge do? The judge hit the override button.

We heard about this early enough in the morning that we were able to isolate those first 20 voters in that precinct – and pull out their blank ballots. We did our best to contact them at home or leave a note, telling them to re-vote. The majority did.

Somebody asked us, "How do you know the judge wasn't trying to pull one over on the voters." The answer is simple: a wife of one of the judges was one of the victims.

The moral of the story is this: there are always unintended consequences, no matter how simple the technology – from the scanner to the stylus … and if and when you order your stylus, make sure it doesn't look ANYTHING like a pen.