

# Module 4



## Hard Core Evidence: Adopt Part of an Election Check Out the System Testing

This project requires someone who is comfortable with technical subject matter. You need not be a computer expert, but you should have an eye for detail.

Part of system testing is called "Logic and Accuracy" testing. Other testing involves setting up the system and testing the modems. The tests performed vary by jurisdiction.

Your elections office will test various components of its computerized voting system -- always before, occasionally during, and sometimes after the election. Each testing period is supposed to be publicly noticed. There is wide variation in how cooperative local officials are with public notices, how willing they are to answer questions, and how much you can see. Be prepared for anything.

**IMPORTANT:** Take a video camera to document the testing. Focus on how the testing is conducted; document any obstructive behavior blocking the you or other members of the public from viewing the testing; get a visual record of whether the machines are positioned so that the public can adequately view the testing, and document which components of the voting system were tested.

### Guide for Observation of System Testing

#### Goals for the observation:

The purpose of your observation will be to create a record of the testing process. During the process you will have the opportunity to observe equipment and ask questions (unless you are obstructed, in which case you should document that as well)

## **Before the Testing:**

- Obtain a list of each test that is done.
- Find out, when, when each testing session takes place.
- Ask about any requirements for attending.
- Your elections office should have written procedures for each type of testing. These are a public record. Request copies of each.
- Many elections officials will provide you with copies of the testing procedures if you e-mail them or call ahead and arrange a time to pick them up. They may charge a reasonable per-page copying fee. If you cannot obtain the procedures that way, do a public records request in writing, which puts your public officials under a legal duty to produce the documents. (See Module 11 for tips on how to do public records requests).
- If you are told written procedures do not exist, or that they are unavailable to the public, document the response by getting it in writing. To turn down a public records request, public officials are confined to specific rules, so find out what regulation they are citing that provides an exception to public records law.
- Find out what brand and model voting system your local jurisdiction uses. If you like, you can review user manuals and operating guides for those systems before attending the test. Many of these can be found in the Document Archives at Black Box Voting: Go to the Voting Machines section. Here is the direct link to that section:  
<http://www.bbvforums.org/forums/messages/2197/2994.html>

## **What to bring to the testing:**

- Bring the following items with you, if possible: A video camera, a small digital camera, a notebook and writing implement.
- If you are told you cannot video the procedures, ask why (keeping the camera running, if possible). In the following states you can secretly audio record; flip the lens cap on and keep rolling, or use a small pocket audio recorder:

Alabama • Alaska • Arizona • Arkansas • Colorado • District Of Columbia • Georgia • Hawaii • Idaho • Indiana • Iowa • Kansas • Kentucky • Louisiana • Maine • Michigan • Minnesota • Mississippi • Missouri • Minnesota • Nebraska • Nevada • New Jersey • New Mexico • New York • North Carolina • North Dakota • Oklahoma • Oregon • Ohio • Rhode Island • South Carolina • South Dakota • Tennessee • Texas • Utah • Vermont • Virginia • West Virginia • Wisconsin • Wyoming

- Other states require two-party consent to record, and it is up to you whether you want to fight for your rights to record under public meetings law. Generally, you need permission to record audio in the following states:

California • Connecticut • Delaware • Florida • Massachusetts • Maryland • Montana • New Hampshire • Pennsylvania • Washington

Why is it so important to record? Because telling a story is not hard evidence, and you're there to collect evidence. If you cannot record the testing on video, try to take photos with a digital camera.

- The other kind of recording you can do is on a notebook, with contemporaneous notes. To do this, consider yourself a "human audit log" and mark down the time, who was there, and any unusual events.

### **Here are some of the things to document during testing:**

- Find out whether voting machines are placed in a "test mode." Ask if the machines are ever tested while in election mode.
- Ask whether the testers will be using the voting machines in the same way that voters would be on Election Day? On election day, DRE machines (touch-screens and roll-a-wheel systems) are often networked together. Sometimes they are not networked, but daisy-chained together with a power cord. See if you can document differences between testing and election day.
- Will the testing include large numbers of votes? Document how many actual votes are tested on each machine. If an automated script is used, document that as well. (Obviously, testing with an automated script does not replicate casting real votes.)
- Is testing done on every candidate and ballot question choice, or just a few of them? For locations with multiple languages on the ballot, are the foreign language ballots tested as well?
- Will the Logic & Accuracy testing include vote tally checking? (On election day, votes from each machine are later fed into a central tabulator machine. Does the testing replicate this step or omit it?) If it omits testing the central tabulator, find out if/when they will test that system and see if you can observe that as well.
- Will the testing include the use of an independent log comparing the system count with those selections made by the voter? Are testers allowed to choose any votes themselves, or is all testing done with a pre-set selection of votes?
- Ask that the testers make themselves available for questioning prior to and after each testing session (remember to videotape their answers to your questions).

### **After the testing:**

- Consider writing up your observations.
- You may want to write to or meet with elections officials to discuss any problems.
- If your local elections officials are unresponsive, you may want to publish your findings on the Web or send them to local reporters. You can publish information at Black Box Voting in the Forums section, under your state or in the more general "Tech Central" area. You can also publish your findings on the One-on-One Consulting section and request individualized input about what to do next.

**Collaboration and appreciation:** Black Box Voting wishes to thank Riverside computer programmer **Jeremiah Akin** for guiding us through some of the issues with Logic & Accuracy testing. We also want to extend our appreciation to **VerifiedVoting.org** for providing ideas on test observation, and Wisconsin system testing expert **John Washburn** for providing additional input on testing issues.

# Your Own Additions to the System Testing Module

You can share your ideas by sending to [crew@blackboxvoting.org](mailto:crew@blackboxvoting.org)



What worked well?

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What new ideas did you come up with?

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Was there anything that didn't work very well?

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