Logic and Accuracy Testing Protocols

The Elections Group

What is Logic and Accuracy Testing?
Logic and Accuracy (L&A) Testing is a set of procedures performed to ensure there are no errors on ballots or ballot displays and that voting machines are properly programmed. These tests occur prior to every election.

How Does Testing Work?
Each type of device is tested with different protocols and for specific purposes. For each piece of equipment, the steps listed below will be completed to ensure the voting system operates as expected. Certain tasks such as candidate name proofing have already been completed.

Testing Processes

Ballot Marking Devices

1. Ballot styles are loaded on the ballot marking device.
2. Verify the collection of contests and candidates are correct.
3. Make pre-determined selections on the ballot marking device then complete the ballot.
4. Review the printed ballot card to ensure it matches the on screen selections.
5. Compare results from the printed ballot card to the expected results to verify accuracy.
6. Repeat the process for each ballot marking device being used.

Insert Picture(s) of your Equipment

Precinct and Central Count Scanners

1. Insert pre-determined test ballots into the scanner to ensure that:
   a. There are no paper size or stock issues
   b. All ballot styles (collections of contests and candidates) can be counted by the scanner
   c. Error conditions, such as smudged ballots, ballots with marginal marks, ballots with over-voted contests, tears, etc., are outstacked or otherwise recorded for future review, and adjudication or replication by staff.
2. Tabulate the results from test ballots cast on the scanner and compare them to the expected results to verify accuracy.

Insert Picture(s) of your Equipment

Note: This is why the test ballots are marked with a predefined set of choices.

The Tabulation System is tested by aggregating results from each scanner into the system. Each scanner has a removable media that loads the results into the central tabulation system to be aggregated with the other scanners. These results are combined with the results from the central county scanners, to ensure all results are added up and reported correctly.

Insert Picture(s) of your Equipment

The Election Night Reporting System is not part of the voting system but is what displays the results to the public on the internet. It is tested by transferring results data from the tabulation system on a secure memory device and loading it into a separate computer to ensure the public display of results reflect what is in the Tabulation System.

Insert Picture(s) of your Equipment