

Voting Equipment Testing

General Procedures

Optical Scan

- Machine should be tested in election mode. Lifetime and election counters should be recorded before and after test.
- Every ballot position must be tested
- Each machine must test all ballot styles to be voted on it on Election Day.
- Every ballot position should have a different expected total
- Blank votes must be tested
- Test scripts should be written before testing is performed. Scripts must be compared to final results. If script and final results do not match, test must be performed again or script must be reviewed
- Send results under election day conditions (modem or prom pack), and compare sent results to expected totals (test script).
- During testing, make sure voter-verifiable paper audit trail matches each vote cast
- Upon completion, make sure voter-verifiable paper audit trail matches electronic tallies.
- Tests must be conducted with the same kind of paper ballots that will be used on election day.
- Prepare a test deck of ballots with predetermined vote combinations, according to test script.
- Testing should include tests of accessible ballot-marking devices
- Test every tabulator assigned to a polling place during one-stop voting, Election Day and post-election processes.
- Test a sufficient number of backup tabulators so that they are ready to be deployed to a polling place in case of emergency. This testing should occur BEFORE Election Day or one-stop opens.
- Test overvoted ballots for expected tabulator performance (Is ballot returned to voter? Is ballot sorted in correct bin?)
- Test undervoted ballots for expected tabulator performance (Is ballot returned to voter? Is ballot sorted in correct bin?)
- Test ballots with write-in candidates for expected tabulator performance (Is ballot sorted in correct bin?).
- Test the maximum allowable write-ins for each contest.
- Test straight party voting and cross-over voting.
- Test ballots with stray marks or incorrect marking location. What are expected results?
- Test tabulator feed by attempting to feed multiple ballots at one time (should not fit)
- Retain all documents, ballots and materials used in testing process.

Voting Equipment Testing

General Procedures

DRE

- Machine should be tested by going through the entire election process and unloading the test results to the central tabulation system. Testing should use the same code that the election will use and replicate as much of the election scenario as possible.
 - If “test” mode allows this, then test in “test” mode.
 - If “test” mode does not allow this, then test in “election” mode.
 - If testing is done in “election” mode, lifetime and election counters should be recorded before and after test.
- Every ballot position must be tested
- Every ballot style must be tested
- Every ballot position should have a different expected total
- Blank votes must be tested
- Test scripts should be written before testing is performed. Scripts must be compared to final results. If script and final results do not match, test must be performed again.
- Send results under Election Day conditions (modem or prom pack), and compare sent results to expected totals (test script)
- During testing, make sure voter-verifiable paper audit trail matches each vote cast
- Upon completion, make sure voter-verifiable paper audit trail matches electronic tallies
- Fully test one machine per polling place and one-stop site, and do logic and accuracy testing on all other machines to confirm their readiness for Election Day
- Test should be manually performed to ensure that the user interface (touchscreen) is also checked
- Print tapes using the proper precinct’s printer
- Test a sufficient number of backup DREs so that they are ready to be deployed to a polling place in case of an emergency. This testing should occur BEFORE Election Day or one-stop opens.
- Test overvoted ballots for expected DRE performance (should prevent overvotes)
- Test undervoted ballots for expected DRE performance (should inform voter of undervoted contests)
- Test ballots with write-in candidates for expected DRE performance (write-in candidates’ names should be shown on review ballot, names should be printed on total tapes)
- Test the maximum allowable write-ins for each contest
- Test straight party voting and cross-over voting