TESTING THE BALLOT TABULATING SYSTEM
FOR LOGIC AND ACCURACY

The Office of the Secretary of State (OSOS) is required by law to provide for the conduct of tests of the programming of all electronic vote tabulating systems for every primary and general election (RCW 29A.12.130). The test must take place by the Friday prior to Election Day. The test is intended to exercise all aspects of the tabulation programming. It will test all positions, offices, and measures including undervote and overvote capabilities. It will also check the reporting functions of the system. If any errors are found with the system or the system programming during the test, they must be corrected and the test performed again. Once the system has satisfactorily counted the test deck, the programming will be certified for ballot counting. If the programming is not certified, it cannot be used to count ballots for the election.

What is a Logic and Accuracy Test?

The official Logic and Accuracy (L&A) Test is conducted by county election personnel and observed and certified by OSOS. The L&A Test is a test intended to verify that the ballot counting system to be used at either a primary or general election will correctly count the votes cast for all candidates and all measures appearing on the ballot.

How is the test performed?

Testing is accomplished by processing a prepared group of test ballots marked with a known number of votes for each candidate and for and against each measure. The test ballots should also include a blank ballot and ballots marked with votes for more than one candidate (overvotes). The test deck is designed to test every office and voting position and to see that the accumulating function is operating correctly.

Is this the only test of the system?

Counties are required to thoroughly test their own tabulation system prior to the official L&A Test (WAC 434-335-360). They will make sure that all ballot marking codes are correct, that only the correct issues and candidates appear on each type of ballot and that the counting system is reading correctly and statistical counters are accurate.

What should a test deck look like?

The test deck, comprised of pre-marked ballots, should test all offices and reporting functions of the system. The test deck will be marked with a simple pattern that will be easy to identify in the results. For example, one vote for the first candidate, two for the second, three for the third, with an additional vote for the first candidate in every precinct that race appears in. There will also be a blank ballot and ballots with more than one mark in a race (overvoted ballots.) The results report should show the pattern that was in the test deck. If the reported results do not match expected results, discrepancies are investigated and resolved before the test is deemed successful.

How is the test scheduled?

OSOS contacts the County Auditor or their election staff to schedule an L&A Test. The test must be performed no later than the Friday prior to Election Day.

<u>What notices must be provided?</u>

RCW 29A.12.130 states that the L&A Test shall be open to the public, candidates, and the press. The test should also be observed by representatives of the political parties, chosen by the county chairs of the party central committees. The county should establish a procedure for notifying the parties, the press, the candidates, and the public. The notice should also include the time and date of the test.

<u>What to expect of the county:</u>

Before the L&A Test, the county should verify that the system is programmed correctly by testing and proofreading everything. The system should be running and ready to count ballots at the time of the test. The county should provide adequate staff to operate the ballot tabulating system. The test should be conducted in an area that provides adequate space for observers and to properly conduct the test.

<u>What the county expects of the OSOS test representative:</u>

First, this is not an adversarial situation. We are there to help the county ensure that their equipment is tabulating properly. This is not a "gotcha" situation or an audit, rather it is an opportunity to double check the county's work and possibly to help make it better. We are on the same team, doing whatever we can to help.

The county runs the proceedings. The Secretary of State's representative may explain the process of the L&A to the observers if asked.

<u>How is the test conducted?</u>

Prior to the test, the county will create the test deck according to the pattern laid out in WAC 434-335-445. The county will also provide the OSOS with information on the candidates and ballot styles, from which the OSOS staff member will determine the expected results. A zero report will be run to show that there are no results in the system at the beginning of the test. The actual test deck ballots will then be run, and the results will be compared to the expected results. They should be exactly the same; any discrepancies are immediately investigated. An official certificate will be provided by the OSOS to certify that the L&A Test of the system was completed. This certificate is designed to record the names of the persons conducting the test and those observing. It will be completed and signed at the end of the test.

Copies of the certificate will be made and given to the OSOS staff member and any official observers. The original certificate, the test decks, and the report results from the test deck will be securely stored with numbered seals and logs by county elections personnel. If for some reason a county <u>must</u> break the seal and alter any programming, the procedures for conducting an emergency L&A Test must be followed and the results faxed to the OSOS if their representative is unable to attend the emergency test.

<u>What about poll site ballot counters?</u>

If a county uses poll site ballot counting devices, they are tested by the county prior to the official L&A Test. This is done in accordance with WAC 434-335-490 & 500 and the log of this test is presented at the official L&A Test.

What about Accessible Voting Units?

Accessible Voting Units (AVU) must be fully tested by the county before they are put into use according to WAC 434-335-520. A log of the testing is presented to the OSOS personnel at the L&A test.

What if the ballot counter is not working or the results are incorrect?

If there is a discrepancy between the test results and the expected results, the OSOS staff person will first check to make sure that no mistake has been made in the preparation of the test deck. If the problem is with the county system, then a check of the ballot counting program should be conducted and the error identified and corrected. The test deck should be tabulated again and the results compared again. This process should continue until the system is tabulating correctly. If the L&A Test cannot be completed correctly while the OSOS staff person is present, the county should conduct an emergency L&A Test after the programming is corrected and tabulating accurately.

What is the role of the observer?

Political party observers are very important to the L&A Test process. They provide a truly independent perspective and observe that the programming has been done correctly and the machine is operating correctly. They also help build public confidence in the accuracy and integrity of the election process. Observers should allow adequate time to observe the entire test. They should plan to be at the site of the test a few minutes before the test and expect to be made a part of the process.

Before the day of the test, observers may ask the county for any training they offer on understanding the county's voting system. During the test the observers should be allowed to ask all the questions they need to understand the test, but they should not be allowed to obstruct the proceedings. If the observer is obstructing the proceedings, it is up to the county staff to remove the person from the proceedings.

As an observer, what am I going to sign?

At the conclusion of a successful L&A test, county officials, the OSOS representative, and the observers will be asked to sign a certificate of the witnesses of the voting system L&A test. Occasionally, observers do not want to sign the certificate because they do not feel they are qualified to judge computer equipment or complicated election programming. The certificate does not mean that you take responsibility for ballot counting or that you warrant or certify that the system is perfect. The certificate is an acknowledgment that you have observed the completion of the L&A test.

The ballot counter malfunctioned on election night but it passed the L&A test. What happened?

The L&A Test indicates that the programming was correct and the ballot counter was working at the time of the test. It does not prevent problems from occurring with the machinery or its operation on election night. This is why a careful audit of election results is performed by the county during the week after the election before the results are finally certified.