# SEQUOIA VOTING SYSTEMS, INC.

## WinEDS, version 3.1.012
## AVC Edge Model I, firmware version 5.0.24
## AVC Edge Model II, firmware version 5.0.24
## VeriVote Printer
## Optech 400-C/WinETP firmware version 1.12.4
## Optech Insight, APX K2.10, HPX K1.42
## Optech Insight Plus, APX K2.10, HPX K1.42
## Optech Eagle, APS 1.52, HPS 1.30
## Card Activator, version 5.0.21
## HAAT Model 50, version 1.0.69L
## Memory Pack Reader (MPR), firmware version 2.15

# Staff Review and Analysis

**Prepared by:**
**Secretary of State Office of**
**Voting Systems Technology Assessment**

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# I. SUMMARY OF THE APPLICATION

Procedures, hardware, firmware and software developed by Sequoia Voting Systems, Inc. for use with WinEDS election management software, version 3.1.012, AVC Edge DRE Models I and II, firmware version 5.0.24, with Audio Box Rev C & VeriVote Printer, Card Activator, version 5.0.21, HAAT (Hybrid Activator, Accumulator & Transmitter) Model 50 Card Activator, hardware/firmware version 1.0.69L, Optech 400-C/WinETP, firmware version 1.12.4, Optech Insight and Optech Insight Plus, APX K2.10, HPX K.1.42, Optech Eagle, APS 1.52, HPS 1.30, and Memory Pack Reader (MPR), firmware 2.15.

# II. SUMMARY OF THE SYSTEM

The system is comprised of the following eight components:

### 1. WinEDS election management software, v. 3.1.012

WinEDS is a fully-featured Windows-based software application for management of an election. It allows a jurisdiction to define and configure an election, including districts, precincts, contests, parties, and candidates. Once an election is configured, WinEDS can be used to define and format the ballot layouts, including rotation, for all ballot styles. Once the election and ballots are defined, WinEDS is used to program the memory cartridges for the Edge, 400-C, Insights and Eagle voting machines. On Election Day and throughout the canvass, WinEDS is used to consolidate the vote results from all equipment, and then to tabulate and report the vote results.

The WinEDS application was last certified in California as version 3.0.134 on January 21, 2005. This version was entirely rewritten to bring the application into compliance with the 2002 Voting System Standards. Because of this, the testing of this system was approached as an entirely new system.

### 2. AVC Edge Models I and II, firmware v. 5.0.24, with Audio Box Rev C & VeriVote Printer

The Sequoia AVC Edge is a touch-screen DRE device that allows voters to record their vote choices by touching their vote choice directly on the screen. To use the Edge, the voter receives a smart-card that has been provided by a poll worker and programmed with either the HAAT or the Card Activator. Upon inserting the smart-card into the Edge, the voting machine displays the appropriate ballot for the voter and, once selections are made, records the voter's vote choices. The Edge design prevents over-voting and provides warning for under-voted contests. The Edge now supports all required languages, including graphic character-based languages such as Chinese and Japanese.

The VeriVote printer is the Sequoia AVVPAT for the Edge DREs. The VeriVote is a reel-to reel device with a thermal printer that mounts onto the Edge voting booth. In accordance with California requirements, the VeriVote allows the voter to view and reject his or her ballot twice before automatically finalizing the ballot on the third try.

Should the VeriVote experience a paper jam or otherwise malfunction in a polling place on Election Day, the VeriVote is designed to be swapped out in its entirety, as a sealed unit, to preserve the record of the vote and the secrecy of the votes cast.

The Audio Box provides additional support for voters with disabilities when attached to the Edge. The device features four large keys of different colors and shapes for navigating the ballot and recording vote choices. It has a jack for headphones to provide audio instruction for visually impaired voters. Finally, the device features an interface for sip-puff devices for those with physical limitations.

The Edge is configured for an election using a special PCMCIA memory card that has been programmed by WinEDS. During the election, the memory cards capture the vote results from the Edge. At the conclusion of the election, this memory card is used to relay and upload vote results back into WinEDS for tabulation. The actual vote results are stored on the cartridge in a binary encrypted file.

The original model, Edge I, has been previously certified in California *without the VeriVote printer*. The Edge Model II with the VeriVote was certified for use in California on January 21, 2005, firmware version 4.3.320. This application brings both models into compliance with the requirement for an accessible, voter-verified paper audit trail, as well as the 2002 Voting System Standards.

### 3. Card Activator, version 5.0.21

The card activator is a portable device that is used in a polling place to program the voter Activation Cards (smart-cards) for the AVC Edge. It features a small LCD screen to display messages to the poll workers, as well as a touch keypad for operation of the device. The Card Activator is configured for an election using a special PCMCIA memory card that has been programmed by WinEDS.

The Card Activator was last certified for use in California on January 21, 2005, with firmware version 4.3.320. This version of the system brings the Card Activator fully into compliance with the 2002 Voting System Standards.

### 4. HAAT (Hybrid Activator, Accumulator & Transmitter) Model 50 Card Activator, hardware/firmware version 1.0.69L

Like the Card Activator, the HAAT activator is a portable device that is used in a polling place to program the voter Activation Cards (smart-cards) for the AVC Edge. It features a small LCD screen to display messages to the poll workers, as well as a touch keypad for operation of the device. The Card Activator is configured for an election using a special PCMCIA memory card that has been programmed by WinEDS.

The HAAT is a new device that has not previously been certified for use in California.

### 5. Optech 400-C/WinETP, firmware version 1.12.4

The 400-C is a high-speed, high-volume scanner typically used for tabulating absentee ballots. Up to 150 ballots can be stacked in the automatic feed hopper, and the 400-C reads ballots at the rate of about 400 ballots per minute. The 400-C is controlled by a PC computer running Windows. A diverter can be programmed to deflect certain ballots, such as ballots containing write-in votes.

The WinETP software/firmware that controls the 400-C interfaces with the WinEDS application and database. The system is designed to count ballots in one of two modes: Precinct Header Mode (on a precinct-by-precinct basis) or Mixed Mode (without presorting of the ballots).

The previous version of the Optech 400-C, version 1.10.5, was last certified on April 28, 2005. This version *was not certified for operation in conjunction with WinEDS.* The version of the 400-C proposed in this application is compatible with WinEDS and has been tested to the 2002 Voting System Standards.

### 6. Optech Insight and Optech Insight Plus, APX K2.10, HPX K.142

The Optech Insight and Insight Plus are optical-scan devices designed to read and tabulate ballots at the polling places. The Insight Plus is equipped with an LCD display to relay messages to the voter. To operate the Insight, the voter places a marked ballot into the device in any orientation. The Insight scans, checks and tabulates the ballot. If a ballot is over-voted, the Insight will reject the ballot with an error message to the voter, allowing the voter the opportunity to correct the ballot.

The Optech Insights are configured with a proprietary memory cartridge that has been programmed by WinEDS. During the election, vote results are saved to the memory cartridge as ballots are scanned. After the election, this memory cartridge is used to upload the vote results back to WinEDS for tabulation.

The previous version of the Optech Insight, APX 2.06 HPX 1.40, was last certified for use in California on April 28, 2005, for use with the EMS/AERO election management software. The Insight Plus is a new device that has not been previously certified for use in California.

### 7. Optech Eagle, APS 1.52, HPS 1.30

The Optech Eagle is an older optical-scan device that is also designed to read and tabulate ballots at the polling places. Like with the Insight, the voter places a marked ballot into the device in any orientation. The Eagle scans, checks and tabulates the ballot. If a ballot is over-voted, the Eagle will reject the ballot with an error message to the voter, allowing the voter the opportunity to correct the ballot. Unlike the Insight and the 400-C, the Eagle uses older technology read heads that are sensitive to

infrared light. This requires the use of special pens and inks to mark the ballot so that it can be properly read by the Eagle.

The Eagle is also configured with a proprietary memory cartridge that has been programmed by WinEDS. During the election, vote results are saved to the memory cartridge as ballots are scanned. After the election, this memory cartridge is used to upload the vote results back to WinEDS for tabulation.

This version of the Optech Eagle, APS 1.52 HPS 1.30, was last certified for use in California on April 28, 2005, for use with the EMS/AERO election management software. The Eagle has not been brought up to the 2002 Voting System Standards, nor was it tested by the federal Independent Testing Authorities (ITAs) for use in conjunction with this system. It will not be included as part of the federal qualification of this system.

### 8. Memory Pack Reader (MPR), firmware 2.15

The MPR is a desktop device that is used in conjunction with WinEDS for programming the Insight and Eagle Memory Packs. After an election, the MPR is used to read vote results back from the Memory Packs and upload those results into WinEDS.

This version of the Memory Pack Reader was last certified for use in California on April 28, 2005, for use with the EMS/AERO election management system. It has been federally tested to the 2002 Voting System Standards.

# III. TESTING INFORMATION AND RESULTS

### 1. Federal Testing

Wyle Laboratories has successfully completed federal qualification testing of the Edge Models I & II (firmware version 5.0.24) with the VeriVote printer and the Audio Box, as well as the Card Activator (firmware version 5.0.21) to the 2002 Federal Voting System Standards. We have received a copy of the draft report from that testing, dated February 8, 2006. A final report must be received from Wyle upon report acceptance from NASED and prior to State certification of this system.

Wyle Laboratories has successfully completed federal qualification testing of the Optech 400-C (firmware version 1.12.4) to the 2002 Federal Voting System Standards. We have received a copy of the draft report from that testing, dated January 13, 2006. A final report must be received from Wyle upon report acceptance from NASED and prior to State certification of this system.

Wyle Laboratories has successfully completed federal qualification testing of the Insight and the Insight Plus (version APX K2.10 HPX K1.42) to the 2002 Federal Voting System Standards. We have received a copy of the draft report from that testing, dated January

10, 2006. A final report must be received from Wyle upon report acceptance from NASED and prior to State certification of this system.

Wyle Laboratories has successfully completed federal qualification testing of the Memory Pack Reader (firmware version 2.15) to the 2002 Federal Voting System Standards. We have received a copy of the final report from that testing, dated May 10, 2006.

SysTest Labs has successfully completed federal qualification testing of the HATT Model 50 (firmware version 1.0.669L) to the 2002 Federal Voting System Standards. We have received a copy of the draft report from that testing, dated January 25, 2006. A final report must be received from SysTest upon report acceptance from NASED and prior to State certification of this system

Ciber, Inc. has successfully completed federal qualification examination and review of WinEDS (version 3.1.012), as well as end-to-end testing of the entire system, to the 2002 Federal Voting System Standards. We have received a copy of the draft report from that testing, dated February 15, 2006. A final report must be received from Ciber upon report acceptance from NASED and prior to State certification of this system.

Federal qualification of the system by NASED is still pending and must be issued prior to State certification of this system.

## 2. State Testing by the Secretary of State and Consultant

### Testing Overview

State examination and functional testing of this system was conducted by Secretary of State staff in conjunction with the State's technical consultants, Mr. Steve Freeman and Mr. Paul Craft, at the Sequoia corporate office in Oakland, California from February 6th through February 10th, 2006.

The test plan for that examination is included as an appendix to this document.

On February 14th and 15th, 2006, volume tests of both models of the Insight and both models of the AVC Edge were conducted by the State's technical consultants and Secretary of State staff at the Alameda County Fairgrounds in Pleasanton, California.

### General Testing Results

Testing of the Sequoia voting system was generally completed successfully. During that testing, installation of the trusted software build was verified. Sufficient ballots were processed for the standard state primary and general test elections to verify features of the system, as well as to test the system's capability to conduct elections in accordance with California law.

However, during testing the following issues were noted:

1. The Edge DREs were designed to support a dual printer mode, with both the VeriVote and a second Seiko printer to be used for printing the zero-tapes and vote results from the Edge. (In single printer mode, these tapes print to the VeriVote.) In testing, we were unable to get the Edge to work with the Seiko

printer. The vendor agreed to withdraw this feature from the application and to specify disabling the dual-printer mode in the Use Procedures for the system.

2. Upon initial testing of the system, one of the Edge Model I units was found to be out of calibration. The vendor agreed that Use Procedures for the system should require calibration at the opening of the polls.
3. It was discovered in testing that while voting a graphic language ballot in high-contrast mode, the contest headers disappeared completely from the screen display on the Edge. Because of this bug, the Use Procedures for the system must state that high-contrast mode cannot be used for graphic-based language ballots. Future versions of the system must correct this bug.
4. During testing, it was noted that if a voter mistakenly enters one of the certified candidates as a write-in vote, the WinEDS feature for resolving write-ins cannot resolve that write-in to the candidate. The system's Use Procedures should specify how to handle this. Future versions of the system should address this problem.
5. The audio ballot mode presumes the voter is blind and always blanks the Edge video display. This is the interface that is used for mobility-impaired voters using the sip-puff interface. This means that these voters, or sighted voters who prefer the audio ballot instructions for language support, must depend exclusively on audio cues and instructions to navigate and vote their ballot. Additionally, the VeriVote does not give these voters a chance to confirm or reject their ballot on the assumption that they are blind. Instead, it simply prints the ballot on the paper audit trail and finalizes the ballot, scrolling it out of view. This should be corrected in future versions of the system.
6. During testing, it was noted that many of the WinEDS screens featured a print button that did not work. It should be noted that the report printing function on the database appears to work correctly.
7. During the reconciliation of the test primary election, it was discovered that on the Eagle one ballot was incorrectly read in one contest. That same ballot had been correctly read on both Insights and the 400-C. Visual inspection of all ballots for that contest could not determine that any of the marks had been made incorrectly. The vendor suggested that this was probably due to an incorrect composition of the ink in the pen that had been used by the vendor to mark the test ballots. Because the Eagle uses a different, older read-head technology, it is subject to these types of errors. This error rate was one ballot in 439 (0.23% of the ballots), or one vote of 2,687 votes cast (0.0372%) in the test election on the Eagle.
8. The Sequoia WinEDS system currently certified for use in California has a condition on that certification that WinEDS couldn't be used in a California statewide primary election. This condition was put into place because it was discovered, during testing of that system, that WinEDS could not separately report the vote result for non-partisan voters who chose to vote in partisan contests, where allowed to do so by the party, without using a utility that had not

been federally tested and qualified as part of the system. During certification testing of this system, Sequoia demonstrated that they could track and accurately report this breakdown of vote results by defining these voters as separate political parties within the system. (e.g. Republican-Non Partisan, Democrat-Non Partisan and American Independent-Non Partisan) However, with this approach the system cannot automatically aggregate the vote results together with the partisan votes within the same contest. (e.g. Democrat and Democrat-Non-Partisan votes for President combined.) This must be derived manually or with some process external to the system. The vendor has reported that they are currently working on a modification to the system that will resolve this issue.

**Volume Testing Results**

The Secretary of State staff and technical consultant Paul Craft conducted the volume test of the Sequoia Edge DREs and the Insights on February 14th and 15th, 2006, at the Alameda County Fairgrounds. On Tuesday, February 14th, one hundred Edge I machines equipped with the VeriVote AVVPAT were tested together with fifty Insight scanners. On Wednesday, February 15th, one hundred Edge II machines equipped with the VeriVote and fifty Insight Plus scanners. These tests were conducted in adjoining exhibition halls on the Fairgrounds property.

The volume tests were conducted in accordance with the Secretary of State's standard protocol for volume testing. (This protocol may be obtained from the Secretary of State website at: http://www.ss.ca.gov/elections/elections_vs.htm) Approximately sixty temporary contract workers were hired by the Secretary of State to perform the testing. All testing was directly observed by Secretary of State staff. Finally, the overall testing environment was recorded continuously on videotape.

All errors were documented, whether they were attributed to the equipment or to human behavior. At the discretion of the test director, specific errors were documented with either photographs or videotape, or both. Generally, successive errors of the same type were not documented in such detail once their initial instances had been captured.

*Edge 1 Volume Test*

A total of seventy-eight errors were logged during the Edge I volume test. Only six of those errors were related to the actual performance of Edge I equipment.

In four instances, the Edge I was found to be out of calibration at the very start of the test on the first ballot voted. This was corrected by immediately recalibrating the Edge touch screen. Use procedures for this system should require recalibration of each Edge as part of opening the polls.

There were two instances where the Edge I failed during the attempt to cast the ballot. In the first case, the Edge successfully saved the ballot but failed on its subsequent attempt to update the voter activation card that the ballot had been written. In the second case, the Edge failed to save the ballot. In each instance, the failure was handled gracefully, with clear messages that indicated what had happened and the status of the ballot. In the second instance – where the system failed to save the ballot – the Edge was rebooted and

the voter was able to reinsert the voter activation card (VAC) and successfully vote his original ballot. It should be noted that should this second type of failure actually occur in a polling place on Election Day, the preferred recovery would be to take the machine out of service. Finally, at the conclusion of the test, the integrity of the paper audit trail for each of these machines was verified against the machine vote results.

Of the remaining seventy-two errors recorded, twenty were related to defective VACs. It should be noted that the vendor had prepared over 5,000 VACs for this test, most of which had been previously used in actual elections. In one instance, the Edge was initially unable to read the VAC, but read the same VAC successfully when it was immediately reinserted. One VAC was incorrectly printed and indicated the incorrect orientation for insertion. The card was read correctly once it was inserted correctly. Two VAC were successfully re-read once they had been "cleaned" by rubbing them against an article of clothing. The remaining sixteen VACs were simply replaced. In each instance, the Edge refused to initiate a voting session until a valid, readable VAC was inserted.

The remaining fifty-two recorded errors (66.67% of the recorded errors) were attributed to human errors as artifacts of the testing process itself. These errors included:

- voter confusion in following the test script;
- voter accidentally reinserted a voted VAC;
- the test script was missing a page;
- the vendor had prepared an incorrect number of VACs for the test deck;
- VACs were pre-programmed for the wrong precinct or party.

Most of these errors would not occur in a polling place on Election Day.

A summary of the errors noted during the volume test can be found in the appendix of this report.

*Edge II Volume Test*

A total of seventy-five errors were logged during the Edge II volume test. Only two of those errors were related to the actual performance of Edge II equipment.

In one incident, there was a jam of the audit trail of the VeriVote AVVPAT. In accordance with the Use Procedures for the system, the entire VeriVote unit was swapped out. The Edge II recovered gracefully by automatically voiding the first record of the vote and then reprinting it on the next VeriVote. At the conclusion of the test, the integrity of the audit trail was verified against the vote record in memory.

In a second incident, while casting the ballot, the Edge displayed the error message: *"Vote save failure. Failed at start of vote save section. Use the backup voting procedure."* VAC was returned by the Edge and its status verified as "not done". After the Edge was rebooted, the voter was able to reinsert the VAC and successfully cast his ballot. At the conclusion of the test, the vote record in memory and on the audit trail were compared to verify the vote had not been recorded. Although the Edge was rebooted in the test, the preferred procedure for handling this on Election Day would be to take the Edge out of service. Use Procedures for the system should explicitly explain the procedures for handling this type of error.

Twenty-six of the remaining errors were attributed to problems reading the VAC, similar to the VAC errors experienced in the Edge I volume test. In the majority of these cases (twenty-two instances), the cards were "cleaned" by rubbing them against clothing and then they were successfully read.

The final forty-seven errors were attributed to human behavior, of identical nature to the human errors experienced in the Edge I volume test.

A summary of the errors noted during the volume test can be found in the appendix of this report.

*Insight Volume Test*

A total of thirty-three errors were logged during the Insight volume test. Twenty-eight of those errors were related to the actual performance of Insight equipment.

Twenty-four of the errors were related to ballot jams in the Insight. In three instances, the ballot jammed on intake. In eighteen instances, the ballot jammed during an attempted reject of the ballot (typically for over-voting). In the final three instances, the ballot jammed at the outtake throat after successful scanning.

In each instance of the jam, the Insight printed a clear message explaining the error, how to correct it, and whether or not the ballot had been read. In all but one instance, the jam was cleared by either a) lifting the scanner cover and pulling out the jammed ballot, or b) lifting the front edge of the Insight from the ballot box and pulling the ballot loose from the outtake chute and dropping it into the ballot box or rescanning the ballot as appropriate.

In one instance of a ballot jam, the jam was caused because the previous ballot had not dropped all the way into the ballot box. This was verified by actually opening the ballot box. Should this event occur on Election Day, Use Procedures should explicitly state that the ballot box cannot be opened to clear a jam. If the jam cannot be cleared through the ballot box intake slot, the unit should instead be taken out of service and replaced.

On five occasions, the Edge rejected a ballot due to problems reading the timing marks (either the start bar or the orientation marks.) In each case, the ballot was successfully read when reinserted with a different orientation.

It should also be noted that the test ballots used for the test had all been scanned at least twice prior to the actual test in an attempt to verify the integrity of the test decks. Because a total of ten decks was used to test fifty machines, each deck had been read seven times by the end of the test. Because of this, ballot "fatigue" likely increased the rate of jams experienced in the test.

The remaining four errors noted were all related to human error as an artifact of the testing process. In one instance, the voter was issued the incorrect deck. In a second instance, a voter broke the diverter in the ballot box, causing a paper jam. In the third instance, the voter caused a jam by inserting a second ballot while the prior ballot was still being scanned. In the final instance, the voter incorrectly processed the same test deck twice.

At the conclusion of the test, the vote results were printed from each Insight tested and were verified against the expected results for the test deck used. All anomalies were reconciled to actual errors in the test deck.

A summary of the errors noted during this volume test can be found in the appendix of this report.

*Insight Plus Volume Test*

A total of thirty-two errors were logged during the Insight Plus volume test. Twenty-nine of those errors were related to the actual performance of Insight Plus equipment.

Twenty-eight of the errors were related to ballot jams in the Insight. In four instances, the ballot jammed on intake. In fifteen instances, the ballot jammed during an attempted reject of the ballot (typically for over-voting). In the final seven instances, the ballot jammed at the outtake throat after successful scanning.

As with the Insight, in each instance of a jam, the Insight Plus printed a clear message explaining the error, how to correct it, and whether or not the ballot had been read. In all instances, the jam was cleared by either a) lifting the scanner cover and pulling out the jammed ballot, or b) lifting the front edge of the Insight from the ballot box and pulling the ballot loose from the outtake chute and dropping it into the ballot box or rescanning the ballot as appropriate.

It should also be noted that the test ballots used for the test had all been used for the Insight volume test the prior day. This meant that each deck had been read at least seven times prior to the start of this test, and at least twelve times by the end of the test. Because of this, ballot "fatigue" again likely increased the rate of jams experienced in the test.

One error occurred at the conclusion of the test, while printing the results tape from one of the insights. In this incident, the results tape jammed between the printer outtake and the security cover over the printer. This was resolved by lifting the security cover and feeding the jammed tape through the paper slot in the security cover. Should this occur in a polling place on Election Day and damage the actual results tape, the tape could be easily reprinted.

The remaining four errors were not related to the Insight equipment. Instead, they were all errors in the count of ballots within test decks. These were caused by the voter not correctly clearing all the ballots from a ballot box after finishing a test deck. Any ballots that remained became part of the succeeding deck, causing the first deck to be short ballots and the second deck to be over. Because test deck parts were carefully logged and tracked, each such instance was able to be successfully traced and verified.

At the conclusion of the test, the vote results were printed from each Insight tested and were verified against the expected results for the test deck used. All anomalies but one were reconciled to actual errors in the test deck. In the final instance, it was discovered that some of the read heads in the Insight Plus had failed and incorrectly read a ballot. This further underscores the importance on running a calibration test on each Insight and Insight Plus immediately after an election. Procedures should require that in the event a

calibration error is discovered, all ballot processed through that scanner must be recounted.

A summary of the errors noted during this volume test can also be found in the appendix of this report.

# IV. COMPLIANCE WITH STATE AND FEDERAL LAWs AND REGULATIONs

The Secretary of State of California has developed and promulgated a procedure for approving, certifying, reviewing, modifying, and decertifying voting systems, vote tabulating systems, election observer panel plans, and auxiliary equipment, materials and procedures.

Four sections of this procedure, Sections 103, 104, 504, and 601, describe in detail the requirements any voting system must meet in order to be approved for use in California elections. These sections are described in detail and the system is analyzed for compliance in this Administrative Review and Analysis of the system.

1. **§103 (a) (1): The machine or device and its software shall be suitable for the purpose for which it is intended.**

   The system meets this requirement except as noted under Section III. As noted, these exceptions can and should be addressed in the system's Use Procedures and in future revisions to the system.

2. **§103 (a) (2): The system shall preserve the secrecy of the ballot.**

   The system meets this requirement..

3. **§103 (a) (3): The system shall be safe from fraud or manipulation.**

   The system meets this requirement.

4. **§103 (a) (4): The system shall be auditable for the purposes of an election recount or contest procedure.**

   The system meets this requirement.

5. **§103 (a) (5): The system shall comply with all appropriate federal and California laws and regulations.**

   The system meets this requirement.

6. **§103 (a) (6): The system shall have been certified, if applicable, by means of qualification testing by a Nationally Recognized Test Laboratory (NRTL) and shall meet or exceed the minimum requirements set forth in the Performance and Test Standards for Punch Card, Mark Sense, and Direct Recording**

**Electronic Voting Systems, or in any successor voluntary standard document, developed and promulgated by the Federal Election Commission.**

The system has successfully completed federal qualification testing to the 2002 Federal Voting System Standards.

7. **§103 (b): In addition to the requirements of subdivision (a) of this section, voting systems, procedures, and equipment approved and certified by the Secretary of State shall promote accessible voting opportunities for persons with physical disabilities.**

   Both the Edge Model I and II support high-contrast mode and audio voting mode for voters with visual disabilities. These machines also support a sip-puff interface for voters with physical mobility disabilities Finally, the Edge voting booth and display are designed to be repositioned for easier access for voters in a wheelchair.

8. **§104 (a): Certification consists of three separate levels of testing: qualification, certification and acceptance.**

   Federal qualification testing has been successfully completed on this system. A NASED qualification number is anticipated, but has not yet been issues. The system cannot be certified until that number is issued.

   Staff in conjunction with a technical consultant to the Secretary of State successfully performed state certification testing.

   The county elections official will conduct acceptance testing as each county takes receipt of the system. Procedures for that acceptance testing are specified in the official Use Procedures.

9. **§104 (b): Certification tests shall include functional tests and qualitative assessment to ensure that the system operates in a manner that is acceptable under federal and state law and regulations.**

   It is the opinion of the State's expert technical consultants that the scope of the certification test was adequate to make basic recommendations and observations about the logical accuracy, some user friendliness issues, and compliance with state law.

10. **§104 (c): Certification tests shall enhance public confidence by assuring that the system protects the secrecy of the ballot and the security of the voting process, and records and counts votes accurately.**

    In the tests performed, this system recorded and counted votes accurately, with the exception of the Eagle noted in Section III above. No issues with respect to secrecy of the ballot or security were noted with the system.

11. **§104 (d): Certification tests shall promote public confidence that the system is easy to use or 'voter friendly.'**

Certification testing of the system included evaluation of the user interfaces. With the exceptions noted above in Section III, the examiners found the system to be as easy to use as existing certified systems.

12. **§104 (e): Certification testing shall demonstrate that the system creates an audit trail showing both that the voter was able to vote for the candidate or for or against a measure of his or her choice and that the system correctly and consistently interpreted the voter's votes.**

With the exception noted for the Eagle in Section III above, the system meets this requirement.

13. **§504: The Evaluation shall include a review of California Elections Code sections, which address the application.**

A review of the appropriate Elections Code sections was conducted.

**§15360. During the official canvass of every election in which a voting system is used, the official conducting the election shall conduct a public manual tally of the ballots tabulated by those devices cast in 1 percent of the precincts chosen at random by the elections official. If 1 percent of the precincts should be less than one whole precinct, the tally shall be conducted in one precinct chosen at random by the elections official.**

**In addition to the 1 percent count, the elections official shall, for each race not included in the initial group of precincts, count one additional precinct. The manual tally shall apply only to the race not previously counted.**

The system meets this requirement.

**§19300 permit the voter to vote for all the candidates of one party or in part for the candidates of one party and in part for the candidates of one or more other parties.**

The system meets this requirement.

**§19301. A voting machine shall provide in the general election for grouping under the name of the office to be voted on, all the candidates for the office with the designation of the parties, if any, by which they were respectively nominated.**

**The designation may be by usual or reasonable abbreviation of party names.**

The system meets this requirement.

**§19302. The labels on voting machines and the way in which candidates' names are grouped shall conform as nearly as possible to the form of ballot provided for in elections where voting machines are not used.**

The system meets this requirement.

**§19303. If the voting machine is so constructed that a voter can cast a vote in part for presidential electors of one party and in part for those of one or more other parties or those not nominated by any party, it may also be provided with: (a) one device for each party for voting for all the presidential electors of that party by one operation, (b) a ballot label therefore containing only the words "presidential electors" preceded by the name of the party and followed by the names of its candidates for the offices of President and Vice President, and (c) a registering device therefore which shall register the vote cast for the electors when thus voted collectively.**

**If a voting machine is so constructed that a voter can cast a vote in part for delegates to a national party convention of one party and in part for those of one or more other parties or those not nominated by any party, it may be provided with one device for each party for voting by one operation for each group of candidates to national conventions that may be voted for as a group according to the law governing presidential primaries.**

**No straight party voting device shall be used except for delegates to a national convention or for presidential electors.**

The system complies with these requirements.

**§19304. A write-in ballot shall be cast in its appropriate place on the machine, or it shall be void and not counted.**

The system complies with these requirements.

**§19320. Before preparing a voting machine for any general election, the elections official shall mail written notice to the chairperson of the county central committee of at least two of the principal political parties, stating the time and place where machines will be prepared. At the specified time, one representative of each of the political parties shall be afforded an opportunity to see that the machines are in proper condition for use in the election.**

**The party representatives shall be sworn to perform faithfully their duties but shall not interfere with the officials or assume any of their duties. When a machine has been so examined by the representatives, it shall be sealed with a numbered metal seal. The representatives shall certify to the number of the machines, whether all of the counters are set at zero (000), and the number registered on the protective counter and on the seal.**

The system meets this requirement.

**§19321. The elections official shall affix ballot labels to the machines to correspond with the sample ballot for the election. He or she shall employ competent persons to assist him or her in affixing the labels and in putting the machines in order. Each machine shall be tested to ascertain whether it is operating properly.**

The system meets this requirement.

**§19322. When a voting machine has been properly prepared for an election, it shall be locked against voting and sealed. After that initial preparation, a member of the precinct board or some duly authorized person, other than the one preparing the machines, shall inspect each machine and submit a written report. The report shall note the following: (1) Whether all of the registering counters are set at zero (000), (2) whether the machine is arranged in all respects in good order for the election, (3) whether the machine is locked, (4) the number on the protective counter, (5) the number on the seal. The keys shall be delivered to the election board together with a copy of the written report, made on the proper blanks, stating that the machine is in every way properly prepared for the election.**

The system meets this requirement.

**§19340. Any member of a precinct board who has not previously attended a training class in the use of the voting machines and the duties of a board member shall be required to do so, unless appointed to fill an emergency vacancy.**

The system meets this requirement.

**§19341. The precinct board shall consist of one inspector and two judges who shall be appointed and compensated pursuant to the general election laws. One additional inspector or judge shall be appointed for each additional voting machine used in the polling place.**

The system meets this requirement.

**§19360. Before unsealing the envelope containing the keys and opening the doors concealing the counters the precinct board shall determine that the number on the seal on the machine and the number registered on the protective counter correspond to the numbers on the envelope.**

**Each member of the precinct board shall then carefully examine the counters to see that each registers zero (000). If the machine is provided with embossing, printing, or photography devices that record the readings of the counters the board shall, instead of opening the counter compartment, cause a "before election proof sheet" to be produced and determined by it that all counters register zero (000).**

**If any discrepancy is found in the numbers registered on the counters or the "before election proof sheet" the precinct board shall make, sign, and post a written statement attesting to this fact. In filling out the statement of return of votes cast, the precinct board shall subtract any number shown on the counter from the number shown on the counter at the close of the polls.**

The system meets this requirement.

**§19361. The keys to the voting machines shall be delivered to the precinct board no later than 12 hours before the opening of the polls. They shall be in an envelope upon which is written the designation and location of the election precinct, the number of the voting machine, the number on the seal, and the number registered on the protective counter. The precinct board member receiving the key shall sign a receipt.**

**The envelope shall not be opened until at least two members of the precinct board are present to determine that the envelope has not been opened.**

**At the close of the polls the keys shall be placed in the envelope supplied by the official and the number of the machine, the number written on the envelope.**

The system meets this requirement.

**§19362. The exterior of the voting machine and every part of the polling place shall be in plain view of the election precinct board and the poll watchers.**

**Each machine shall be at least four feet from the poll clerk's table.**

The system meets this requirement.

**§19363. Voters shall not remain in or occupy the booths or compartments longer than is necessary to mark their ballots, which shall not exceed five minutes. However, where no other voter would be inconvenienced, a longer period shall be allowed.**

The system meets this requirement.

**§19370. As soon as the polls are closed, the precinct board, in the presence of the watchers and all others lawfully present, shall immediately lock the voting machine against voting and open the counting compartments, giving full view of all counter numbers. A board member shall in the order of the offices as their titles are arranged on the machine, read and distinctly announce the name or designating number and letter on each counter for each candidate's name and the result as shown by the counter numbers. He or she shall also in the same manner announce the vote on each measure.**

**If the machine is provided with a recording device, in lieu of opening the counter compartment the precinct board shall proceed to operate the mechanism to produce the statement of return of votes cast record in a minimum of three copies, remove the irregular ballot, if any, record on the statement of return of votes cast record. The irregular ballot shall, be attached to the statement of result record of votes cast for the machine and become a part thereof. One copy of the statement of return of votes cast for each machine shall be posted upon the outside wall of the precinct for all to see. The statement of return of votes cast for each machine for the precinct shall constitute the precinct statement of result of votes cast.**

The system meets this requirement.

**§19371. Before adjourning, the precinct board shall seal the operating lever with the seal provided and lock the machine so that the voting and counting mechanism may not be operated.**

**It shall remain locked and sealed against operation until the time for filing a contest of election has expired, which shall not exceed a period of 30 days following the declaration of the result of the election by the body canvassing the returns.**

Does not apply.

**§19380. During the reading of the result of votes cast, any candidate or watcher who may desire to be present shall be admitted to the polling place. The proclamation of the result of the votes cast shall be distinctly announced by the precinct board who shall read the name of each candidate, or the designating number and letter of his or her counter, and the vote registered on the counter. The board shall also read the vote cast for and against each measure submitted. The board shall not count votes cast for write-in candidates, but shall have these counted by the elections official. During the proclamation, many opportunities shall be given to any person lawfully present to compare the result so announced with the counter dials of the machine, and any necessary corrections shall immediately be made by the precinct board, after which the doors of the voting machine shall be closed and locked.**

**If the machine is provided with a recording device, the alternate procedures in Section 19370 may be used.**

The system meets this requirement.

**§19381. In each election district where voting machines are used, statements of the results of the vote cast shall be printed to conform with the type of voting machine used.**

**The designating number and letter on the counter for each candidate shall be printed next to the candidate's name on the statements of result of the vote cast. Two such statements shall be used in each election district.**

The system meets this requirement.

**§19382. The statement of the result of votes cast, which shall be certified by the precinct board, shall contain:**

**(a) The total number of votes cast.**
**(b) The number of votes cast for each candidate and measure as shown on the counter.**
**(c) The number of votes for persons not nominated.**
**(d) Printed directions to the precinct board for their guidance before the polls are opened and when the polls are closed.**
**(e) A certificate, which shall be signed by the election officers before the polls are opened, showing:**
- **(1) The delivery of the keys in a sealed envelope.**
- **(2) The number on the seal.**
- **(3) The number registered on the protective counter.**
- **(4) Whether all of the counters are set at zero (000).**
- **(5) Whether the public counter is set at zero (000).**
- **(6) Whether the ballot labels are properly placed in the machine.**

**(f) A certificate that shall be filled out after the polls have been closed, showing:**
- **(1) That the machine has been locked against voting and sealed.**
- **(2) The number of voters as shown on the public counter.**
- **(3) The number on the seal.**
- **(4) The number registered on the protective counter.**
- **(5) That the voting machine is closed and locked.**

The system meets this requirement.

**§19383. A member of the precinct board shall enter the vote, as registered, on the statements of result of votes cast, in the same order on the space that has the same name or designating number and letter, after which another member shall verify the figures by calling them off in the same manner from the counters of the machine.**

**The counter compartment of the voting machine shall remain open until the official returns and all other reports have been fully completed and verified by the precinct board.**

**If the machine is provided with a recording device, the alternate procedures in Section 19370 may be used.**

The system meets this requirement.

**§19384. The precinct board shall, before it adjourns, post conspicuously on the outside of the polling place a copy of the result of the votes cast at the polling place. The copy of the result shall be signed by the members of the precinct board.**

**If the machine is provided with a recording device, the statement of result of vote's cast produced by operating its mechanism may be considered the "result of the votes cast" at the polling place.**

The system meets this requirement.

**§19385. The precinct board shall immediately transmit unsealed to the elections official a copy of the result of the votes cast at the polling place, the copy shall be signed by the members of the precinct board, and shall be open to public inspection.**

The system meets this requirement.

**§19386. Before proceeding to canvass the returns of an election at which voting machines have been used to register the votes cast, the board authorized to canvass returns shall open the counter compartment and compare the records of votes cast for the several candidates voted for and for and against the several measures voted upon shown on each machine with those recorded on the statement of results of votes cast prepared from that machine by the precinct board. Any errors found on the statement shall be corrected by crossing out the recorded incorrect number, and recording the correct number nearby.**

The system meets this requirement.

14. **§504 (b): A review of federal statutes or regulations, which address the application.**

**The Voting Rights Act of 1965, as amended (42 U.S.C. 1973), requires all elections in certain covered jurisdictions to provide registration and voting materials and oral assistance in the language of a qualified language minority group in addition to English. Currently in California, there are six VRA languages (Spanish, Chinese, Japanese, Vietnamese, Korean and Tagalog) as prescribed under the law.**

The system fully meets this requirement. WinEDS can support ballot layout in any of the required languages. Both models of the Edge and the VeriVote can display and print a ballot record in any of the required languages (with the exception noted in Section III above, that the Edge cannot display a character-based language in high-contrast mode.)

**The National Voter Registration Act of 1993 (42 U.S.C. 1973gg and 11 CFR 8) allows for the casting of provisional ballots through Fail-Safe Voting procedures.**

The system meets this requirement. In addition to the capability to handle paper-based provisional ballots in the standard manner, both the Edge I and Edge II support provisional ballots electronically. Further ,WinEDS provides the capability to resolve the ballots automatically during the official canvass.

**The Voting Accessibility for the Elderly and Handicapped Act of 1984 (42 U.S.C. 1973ee through 1973ee-6) requires each political subdivision conducting elections within each state to assure that all polling places for federal elections are accessible to elderly and handicapped voters, except in the case of an emergency as determined by the state's chief election officer or unless the state's chief election officer: (1) determines, by surveying all potential polling places, that no such place in the area is accessible or can be made temporarily accessible, and (2) assures that any handicapped voter assigned to an inaccessible polling place will, upon advance request under established state procedures, either be assigned to an accessible polling place or be provided an alternative means of casting a ballot on election day.**

As noted above, both versions of the Edge, when properly equipped, provide the following accessibility support for voters with disabilities:

- audio ballot instructions for blind voters
- high contrast display for voters with visual acuity problems
- sip-puff interface for voters with mobility issues
- the Edge voting booth and display can be reposition for voters confined to a wheelchair.

**The Retention of Voting Documentation (42 U.S.C. 1974 through 1974e) statute applies in all jurisdictions and to all elections in which a federal candidate is on a ballot. It requires elections officials to preserve for 22 months all records and papers which came into their possession relating to an application, registration, payment of a poll tax, or other act requisite to voting. Note: The US Department of Justice considers this law to cover all voter registration records, all poll lists and similar documents reflecting the identity of voters casting ballots at the polls, all applications for absentee ballots, all envelopes in which absentee ballots are returned for tabulation, all documents containing oaths of voters, all documents relating to challenges to voters or absentee ballots, all tally sheets and canvass reports, all records reflecting the appointment of persons entitled to act as poll officials or poll watchers, and all computer programs used to tabulate votes electronically. In addition, it is the Department of Justice's view that the phrase "other act requisite to voting" requires the retention of the ballots themselves, at least in those jurisdictions where a voter's electoral preference is manifested by marking a piece of paper or by punching holes in a computer card.**

The system meets this requirement.

15. **504 (c): A copy of the approved Qualification Test results released directly to the Secretary of State by a Nationally Recognized Test Laboratory (NRTL).**

    Draft copies of the ITA reports have been received. Final copies of those reports will be secured before the system is certified.

16. **§504 (d): A review, if applicable, of transcripts or other materials from prior meetings or hearings on the proposed system, procedure, or modification, either in whole or in part.**

    The relevant documentation has been reviewed.

17. **§504 (e): A review, if applicable, of any procedures manuals, guidelines or other materials adopted for use with the system addressed by the application.**

    The proposed procedures for use and other relevant materials for this system have been reviewed. The system use procedures will not be finalized until final State certification of the system to allow for incorporation of any conditions that are imposed on the system as part of the certification.

18. **§504 (f): A review of any effect the application will have on the security of the election system.**

    The application was reviewed for any potential effect on the security of the election system.

19. **§504 (g): A review of any effect the application will have on the accuracy of the election system.**

    The system was tested by federal and state testers and deemed to record votes accurately.

20. **§504 (h): A review of any effect the application will have on the ease and convenience with which voters use the system.**

    This system is no less voter-friendly than the existing Hart system. Further, this system adds the eScan to provide a voter warning of over-voted contest on the ballot. It also adds the VBO AVVPAT to the eSlate DRE to provide voters an opportunity to verify their vote was accurately recorded before casting their ballot.

21. **§504 (i): A review of any effect the application will have on the timeliness of vote reporting.**

    The proposed system will not delay the reporting of election results relative to the currently certified system.

22. **§504 (j): A review of any effect the application will have on the overall efficiency of the election system.**

The proposed system should have no effect on the overall efficiency of the election system.

23. **§504 (k): A Description of Deposit Materials showing that the Ballot Tally Software Source Code has been deposited in Escrow with an Escrow Company approved pursuant to Chapter 6, Division 7, Title 2 of the California Administrative Code, beginning with Section 20630.**

    The vendor must deposit the source code in compliance with this requirement before this system can be used.

24. **§601: The Secretary of State shall not approve a proposed item without a finding that the item conforms to all applicable laws, procedures and regulations, including the right to a secret ballot, does not compromise the accuracy, security or integrity of the election process, nor interferes with the voter's ease and convenience in voting.**

    As noted above, with procedures in place, the proposed system is at least as effective in maintaining the secrecy of the ballot, the accuracy, security and integrity of the elections process, and voter ease and convenience as the currently certified Hart system.

# V. PUBLIC COMMENT

On February 17, 2006, an "open house" style demonstration of this system was held at the Secretary of State headquarters for invited representatives of the accessibility community, as well as county elections officials and members of the VSTAAB to observe and review this system with Secretary of State and vendor staff. Participants included:

- twelve elections staff representing six counties,
- eleven representatives of the accessibility community,
- one representatives of the VSTAAB, and
- various members of the Secretary of State staff.

Several participants in this event were asked to submit written comments on the system. While none have yet been received, all such comment will be submitted to the Secretary of State for his review.

# VI. RECOMMENDATION

Staff does not recommend certification of the Optech Eagle with this system. The Eagle has not been brought up to the 2002 Voting System Standards. Its older technology read-heads make the system more vulnerable to misreading marks on the ballot should voters

use the wrong device to mark the ballot. Staff does not believe this device should continue to be used when better, more accurate technology is readily available.

Staff recommends the certification of the remainder of the proposed Sequoia voting system comprised of the following: WinEDS election management software, version 3.1.012; AVC Edge DRE Models I and II, firmware version 5.0.24, with Audio Box Rev C & VeriVote Printer; Card Activator, version 5.0.21; HAAT (Hybrid Activator, Accumulator & Transmitter) Model 50 Card Activator, hardware/firmware version 1.0.69L; Optech 400-C/WinETP, firmware version 1.12.4; Optech Insight and Optech Insight Plus, APX K2.10, HPX K.142; and Memory Pack Reader (MPR), firmware 2.15, with the following conditions:

1. A final version of the Use Procedures for the system is submitted to and approved by the Secretary of State. These Use Procedures must address all the issues raised in this report.
2. No additional software developed by the Vendor other than that specifically listed in this certification shall be installed on any computer running any component of this Sequoia voting system.
3. No substitution or modification of the voting systems shall be made with respect to any component of the voting systems, including the Procedures, until the Secretary of State has been notified in writing and has determined that the proposed change or modification does not impair the accuracy and efficiency of the voting systems sufficient to require a re-examination and approval.
4. The Secretary of State reserves the right, with reasonable notice to Vendor and to the counties using any of the voting systems, to modify the Procedures used with any of the voting systems and to impose additional requirements with respect to the use of any of the systems if the Secretary of State determines that such modifications or additions are necessary to enhance the accuracy, reliability or security of any of the voting systems. Such modifications or additions shall be deemed to be incorporated herein as if set forth in full.
5. Any county using any voting system shall, prior to such use, file with the California Secretary of State a copy of its Election Observer Panel plan.
6. Pursuant to this (application, agreement, contract, etc.) and by order of the Secretary of State, voting systems certified for use in California shall comply with all applicable state and federal statutes, regulations, rules and requirements, including, but not limited to, those voting system requirements set forth in the California Elections Code and the Help America Vote Act of 2002, and those requirements incorporated by reference in the Help America Vote Act of 2002, that are in effect as of the date of this (application, agreement, contract, etc). Further, voting systems shall also comply with all applicable state and federal voting system guidelines, standards, regulations and requirements that derive authority from or are promulgated pursuant to and in furtherance of the California Elections Code or the Help America Vote Act of 2002 or other applicable state or federal law when appropriate, that are in effect as of the date

of this (application, agreement, contract, etc), including but not limited to, the 2002 Voting System Standards/Guidelines, developed by the Federal Election Commission and adopted by the Election Assistance Commission (EAC) and EAC Advisory 2005-004, dated July 20, 2005. This does not include future final court interpretations of existing state or federal law not in effect as of the date of this (application, agreement, contract, etc.).

7. Voting system manufacturers and/or their agents shall assume full responsibility for any representation that a voting system complies with all applicable state and federal requirements as referenced above. In the event such representation is determined to be false or misleading, voting system manufacturers or their agents shall be responsible for the cost of any upgrade, retrofit or replacement, of any voting system or its component parts, found to be necessary for certification or to otherwise be in compliance.
8. Any voting system purchased with funds allocated by the Secretary of State's Office shall meet all applicable state and federal standards, regulations and requirements, including, but not limited to, those voting system requirements as set forth in the California Elections Code and the Help America Vote Act of 2002 and those requirements incorporated by reference in the Help America Vote Act of 2002 that are in effect as of the date of this (application, agreement, contract, etc), including but not limited to, the 2002 Voting System Standards/Guidelines, developed by the Federal Election Commission and adopted by the Election Assistance Commission (EAC) and EAC Advisory 2005-004, dated July 20, 2005.
9. The vendor must establish a California County User Group and hold at least one annual meeting where all California users and Secretary of State staff are invited to attend and review the system and ensure voter accessibility.
10. In addition to depositing the source code in an approved escrow facility, the vendor must deposit a copy of the system source code and binary executables with the Secretary of State. The Secretary of State reserves the right to perform a full independent review of the source code.
11. The vendor must provide printing specifications for paper ballots to the Secretary of State. The Secretary of State will certify printers to print ballots for this system based upon their demonstrated ability to do so. The vendor may not require exclusivity in ballot printing and must cooperate fully in certification testing of ballots produced by other ballot printers.

# Appendix A- Sequoia WinEDS/Edge/Insight Daily Testing Plan

## Monday (Feb 6) & Tuesday (Feb 7)

1. Kick-off Meeting
2. Document testing platform (all equipment used in testing)
3. Verified installation of software
    a. Verify virgin servers
    b. Installation of software from trusted builds to WinEDS server and 400C
    c. Verified hash on firmware for Insight & Insight Plus
    d. Installed trusted builds on Card Activators & HAAT
    e. Capture hash on Eagle.
    f. Installation of trusted build for Edge units delayed until Wed for receipt of upgraded trusted build from ITA
    g. Capture and document baseline
4. Verify test decks conform to State specifications
5. Review of system documentation (compare operating instructions and other documentation against actual system)
6. Team meeting with Sequoia staff to review standardized Use Procedure expectations
7. Prepare system for test primary election.

## Wednesday (Feb 8)

8. Conduct test primary election
    a. System configuration:

| *Unit* | *Card* | *Simulates* | *Mode* | *Pct Assignmt* | *Voting activity* |
|---|---|---|---|---|---|
| 400C | | Absentee | | All | Test Deck: All precincts |
| Edge #1 21769 (Mdl 1) | | Early Voting | Location | All | Pattern voting |
| Edge #2 39348 (Mdl 2) | | Early Voting | Location | All | Pattern voting |
| Edge #3 10183 (Mdl 1) | | Polling Place | Precinct | Precinct 1 | Pattern voting |
| Edge #4 39345 (Mdl 2) | | Polling Place | Precinct | Pcts 2-1, 2-2 | Pattern voting |
| O/S #1 (Insight) | #1 | Polling Place | Precinct | Precinct 1 | Test deck: Precinct 1 |
| | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |
| O/S #2 | #1 | Polling Place | Precinct | Precinct 1 | Test deck: Precinct 1 |

| | | | | | |
|---|---|---|---|---|---|
| (Insight+) | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |
| O/S #3 (Eagle) | #1 | Polling Place | Precinct | Precinct 1 | Test deck: Precinct 1 |
| | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |

b. Install firmware from trusted build to all Edge units
c. Open polls and voting
    i. 400C
        1. Initialize and print zero report
        2. Run entire test deck
    ii. Insight, Insight Plus & Eagle
        1. 1'st Card (Pct 1) – Open polls & print zero tape
        2. Close polls and print results tape according to procedures
        3. 2'nd Card (Pcts 2-1, 2-2) – Open polls & print zero tape
        4. Close polls and print results tape according to procedures
    iii. Edge #1 & #2
        1. Initialize & print zero tape
        2. Pattern voting: cast one manual ballot for each ballot style (party/precinct combination) on each unit
        3. Between precincts 2-2 & 3, shut down unit and restart to simulate carryover between days at early voting center
        4. Close polls and print results tape according to procedures
    iv. Edge #3 & #4
        1. Initialize & print zero tape
        2. Pattern voting: two manual ballots for each ballot style (party/precinct combination) programmed into each unit
        3. Close polls and print results tape according to procedures
d. Tabulation and reconciliation
    i. Upload and consolidate vote results into WinEDS
        1. Absentee results from 400C
        2. Early voting results from Edge #1 & 2
        3. Precinct voting results from Edge #3 & 4
        4. Precinct voting results from all O/S devices
    ii. Generate reports and capture election data
        1. SOV
        2. SSOV
        3. Audit logs
        4. Misc Reports
    iii. Proof all vote results for accuracy

1. Edge report tapes
2. O/S report tapes
3. WinEDS vote reports
    a. By separate device
    b. By mode (absentee, early voting & precinct)
    c. Aggregate SOV
    d. Check SSOV logic & spot check results

iv. Backup election data

9. Continued review of system documentation (from #6, above)
10. Configure system for test general election.

**Thursday (Jan 26)**

11. Conduct test general election
    a. System configuration:

| *Unit* | *Card* | *Simulates* | *Mode* | *Pct Assignmt* | *Voting activity* |
|---|---|---|---|---|---|
| 400C | | Absentee | | All | Test Deck: All precincts |
| Edge #1 21769 (Mdl 1) | | Early Voting | Location | All | Pattern voting |
| Edge #2 39348 (Mdl 2) | | Early Voting | Location | All | Pattern voting |
| Edge #3 10183 (Mdl 1) | | Polling Place | Precinct | Precinct 1 | Pattern voting |
| Edge #4 39345 (Mdl 2) | | Polling Place | Precinct | Pcts 2-1, 2-2 | Pattern voting |
| O/S #1 (Insight) | #1 | Polling Place | Precinct | Precinct 3 | Test deck: Precinct 3 |
| | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |
| O/S #2 (Insight+) | #1 | Polling Place | Precinct | Precinct 4 | Test deck: Precinct 4 |
| | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |
| O/S #3 (Eagle) | #1 | Polling Place | Precinct | Precinct 5 | Test deck: Precinct 5 |
| | #2 | Polling Place | Precinct | Pcts 2-1, 2-2 | Test deck: Precincts 2-1, 2-2 |

    b. Open polls and voting
        i. 400C
            1. Initialize and print zero report
            2. Run entire test deck
        ii. Insight, Insight Plus & Eagle
            1. 1'st Card– Open polls & print zero tape
            2. Close polls and print results tape according to procedures
            3. 2'nd Card (Pcts 2-1, 2-2) – Open polls & print zero tape

4. Close polls and print results tape according to procedures

iii. Edge #1 & #2
1. Initialize & print zero tape
2. Pattern voting: cast one manual ballot for each voting position on each ballot style (precinct) on each unit
3. Between precincts 2-2 & 3, shut down unit and restart to simulate carryover between days at early voting center
4. Cast provisional ballots, including write-ins
5. Close polls and print results tape according to procedures

iv. Edge #3 & #4
1. Initialize & print zero tape
2. Pattern voting: cast one manual ballot for each voting position on each ballot style (precinct) on each unit
3. Test alternative language support on Edge/Verivote (both Edge 1 & Edge 2) – languages & ballot logic
4. Demonstrate/test alternative accessibility modalities on Edge 1 & Edge 2
    a. High contrast, enlarged fonts
    b. Sip-puff
5. Cast provisional ballots, including write-ins.
6. Test touch screen behavior: calibration, sliding fingers, multiple contacts, etc.
7. Close polls and print results tape according to procedures

c. Tabulation and reconciliation
i. Upload and consolidate vote results into WinEDS
1. Absentee results from 400C
2. Early voting results from Edge #1 & 2
3. Precinct voting results from Edge #3 & 4
4. Precinct voting results from all O/S devices

ii. Resolve provisional ballots

iii. Resolve write-ins

iv. Generate reports and capture election data
1. SOV
2. SSOV
3. Audit logs
4. Misc Reports

v. Proof all vote results for accuracy
1. Edge report tapes
2. O/S report tapes
3. WinEDS vote reports
    a. By separate device

b. By mode (absentee, early voting & precinct)
c. Aggregate SOV
d. Check SSOV logic & spot check results

vi. Backup election data

12. Continued review of system documentation (from #6, above)

**Friday (Jan 26)**

13. Configure System for test special election
    a. Configure system
    b. Specially mark ballots (unusual marks, assorted pens)
14. Conduct special election
    a. Open polls (zero tapes)
    b. Cast ballots
        i. Run specially marked ballots
            1. 400-C
            2. Insight & Insight Plus
            3. Eagle
        ii. Verify correct operation of Edge I & II when contest scrolls over multiple columns and multiple pages.
    c. Verify results against report tapes from each device.
15. Final data capture – all test election data backed up on CD
16. Debrief with Vendor

# Appendix B- Incident Summary for Volume Test of Sequoia Insights and Edge DREs

EDGE I Volume Test

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | "Vote Save" error | Edge out of calibration | Edge failed on "cast ballot" | Problem reading VAC | Voter confused | Reinserted voted card | Script error | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9:37 | 8 | 0 | X | | X | Touch screen out of calibration | | 1 | | | | 1 | | | | | | | |
| 2 | 9:49 | 4 | 2 | X | | | Voter marked wrong page on script | | | 1 | | | | | | 1 | | | | |
| 3 | 9:47 | 2 | 1 | X | X | X | Touch screen out of calibration | | 1 | | | | 1 | | | | | | | |
| 4 | 9:56 | 27 | 2 | X | | X | Voter confused by script | | | 1 | | | | | | 1 | | | | |
| 5 | 9:58 | 25 | 0 | X | | X | Touch screen out of calibration | | 1 | | | | 1 | | | | | | | |
| 6 | 10:00 | 38 | 2 | X | | X | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 7 | 10:05 | 20 | 20 | X | X | X | After casting ballot: "Error writing to voter card" | | 1 | | | | | 1 | | | | | | |
| 8 | 10:00 | 38 | 2 | X | | X | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 9 | 10:15 | 46 | 14 | X | X | | Invalid VAC, already voted | | | 1 | | | | | | | 1 | | | |
| 10 | 10:33 | 26 | 39 | X | X | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 11 | 10:40 | 28 | 39 | X | | | Voter confused by script (doesn't show undervote contests0 | | | 1 | | | | | | 1 | | | | |
| 12 | 10:44 | 26 | 41 | X | | | Voter confused by script (doesn't show undervote contests0 | | | 1 | | | | | | 1 | | | | |
| 13 | 10:45 | 31 | 39 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 14 | 10:55 | 38 | 21 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 15 | 10:56 | 31 | 40 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | "Vote Save" error | Edge out of calibration | Edge failed on "cast ballot" | Problem reading VAC | Voter confused | Reinserted voted card | Script error | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 10:57 | 13 | 52 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 17 | 11:00 | 20 | 70 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 18 | 11:00 | 4 | 42 | X | | | Voter confused by script | | | 1 | | | | | | 1 | | | | |
| 19 | 11:05 | 31 | 45 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 20 | 11:10 | 45 | 76 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 21 | 11:15 | 31 | 45 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 22 | 11:14 | 20 | 85 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 23 | 11:20 | 16 | 110 | X | | | Voter lost track of script | | | 1 | | | | | | 1 | | | | |
| 24 | 11:21 | 48 | 74 | X | | | Script missing a page (replaced) | | | 1 | | | | | | | | 1 | | |
| 25 | 11:25 | 38 | 48 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 26 | 11:42 | 26 | 90 | X | | | Test deck had 2 extra cards | | | 1 | | | | | | | | | 1 | |
| 27 | 11:51 | 40 | 101 | X | | | VAC rejected - reinserted (ok) | | | | 1 | | | | 1 | | | | | |
| 28 | 11:57 | 21 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 29 | 11:57 | 23 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 30 | 11:57 | 5 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 31 | 11:55 | 28 | 107 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 32 | 12:00 | 26 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 33 | 12:04 | 26 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 34 | 11:59 | 17 | 109 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 35 | 1:05 | 49 | 55 | X | | | Voter confused over next card (already voted) | | | 1 | | | | | | | 1 | | | |
| 36 | 1:11 | 37 | 101 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 37 | various | various | various | X | | | 14 machines were short VACs in deck | | | 14 | | | | | | | | | 14 | |
| 38 | 1:31 | 68 | 3 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | "Vote Save" error | Edge out of calibration | Edge failed on "cast ballot" | Problem reading VAC | Voter confused | Reinserted voted card | Script error | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 | 1:35 | 95 | 1 | X | | | Touch screen out of calibration | | 1 | | | | 1 | | | | | | | |
| 40 | 1:42 | 70 | 15 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 41 | 1:46 | 51 | 15 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 42 | 1:40 | 62 | 19 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 43 | 1:52 | 90 | 21 | X | | | Voter confused, reinserted voted VAC | | | 1 | | | | | | | 1 | | | |
| 44 | 1:54 | 61 | 17 | X | | | Invalid VAC (not activated), replaced | | | | 1 | | | | 1 | | | | | |
| 45 | 1:56 | 93 | 24 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 46 | 1:58 | 82 | 30 | X | X | X | Ballot cast/save failed. Ballot cancelled. | | 1 | | | | | 1 | | | | | | |
| 47 | 2:00 | 67 | 19 | X | | | Voter confused, reinserted voted VAC | | | 1 | | | | | | | 1 | | | |
| 48 | 2:11 | 65 | 13 | X | | | Missing 3 VACs in deck | | | 1 | | | | | | | | | 1 | |
| 49 | 2:13 | 81 | 22 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 50 | 2:18 | 98 | 38 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 51 | 2:00 | 61 | 21 | X | | | Voter confused, reinserted voted VAC | | | 1 | | | | | | | 1 | | | |
| 52 | 2:26 | 90 | 37 | X | | | Voter confused, reinserted voted VAC | | | 1 | | | | | | | 1 | | | |
| 53 | 2:31 | 64 | 56 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 54 | 2:29 | 93 | 55 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 55 | 2:32 | 87 | 51 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 56 | 2:36 | 61 | 23 | X | | | VAC not activated | | | 1 | | | | | | | | | | 1 |
| 57 | 2:45 | 74 | 68 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 58 | 2:43 | 94 | 72 | X | | | VAC card was printed backwards. Accepted when resubmitted with correct orientation | | | | 1 | | | | 1 | | | | | |
| 59 | 2:56 | 85 | 94 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 60 | 2:39 | 66 | 83 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 61 | 2:49 | 80 | 85 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | "Vote Save" error | Edge out of calibration | Edge failed on "cast ballot" | Problem reading VAC | Voter confused | Reinserted voted card | Script error | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 62 | 2:59 | 95 | 69 | X | | | Dirty VAC. Cleaned and resubmitted successfully. | | | | 1 | | | | 1 | | | | | |
| 63 | 3:05 | 68 | 65 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 64 | 3:17 | 66 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 65 | 3:20 | 56 | 76 | X | | | Dirty VAC. Cleaned and resubmitted successfully. | | | | 1 | | | | 1 | | | | | |
| 66 | 3:30 | 62 | 70 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 67 | 3:29 | 78 | 98 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 68 | 3:34 | 67 | 94 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 69 | 3:37 | 51 | 87 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | | 1 |
| 70 | 3:40 | 54 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 71 | 3:43 | 67 | 100 | X | | | Voter confused | | | 1 | | | | | | 1 | | | | |
| 72 | 3:44 | 64 | 105 | X | | | Missing 5 VACs in deck | | | 1 | | | | | | | | | 1 | |
| 73 | 3:48 | 90 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 74 | 3:53 | 87 | 107 | X | | | Invalid VAC, replaced | | | | 1 | | | | 1 | | | | | |
| 75 | 4:10 | 62 | 99 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| 76 | 4:07 | 99 | 106 | X | | | Missing 4 VACs in deck | | | 1 | | | | | | | | | 1 | |
| 77 | 4:19 | 62 | 111 | X | | | Extra VAC in deck. | | | 1 | | | | | | | | | 1 | |
| 78 | 4:30 | 61 | 109 | X | | | Missing VAC in deck | | | 1 | | | | | | | | | 1 | |
| | | | | | | | **TOTALS** | **0** | **6** | **52** | **20** | **0** | **4** | **2** | **20** | **7** | **6** | **1** | **29** | **9** |

Machines with Errors: Count = 6 (2, 8, 20, 25, 82 & 95)

Edge touch screen out of calibration

- Four of the test Edge units (incidents #1, 3, 5 & 39) were out of calibration at the start of the test. In each case this was detected and corrected (by recalibration) within the first ballot.

Edge failed on "cast ballot"

- In one incident (incident #7), after saving the ballot, the Edge displayed the error message "Error writing to voter card. The Voter's ballot has been successfully recorded. The voter card status cannot be updated." Vendor was allowed to eject the voter activation card (VAC). At the conclusion of the test, the vote record in memory and on the verivote audit trail were compared to verify the vote had been recorded.
- In one incident (incident #46), while casting the ballot, the Edge displayed the error message: "Vote save failure. Failed at start of vote save section. Use the backup voting procedure." VAC was returned and it's status verified as "not done". The Edge was rebooted and normal testing resumed. At the conclusion of of the test, the vote record in memory and on the audit trail were compared to verify the vote had not been recorded.

Problem reading voter activation card (VAC)

- There were twenty incidents related to problems reading the VAC. In one instance (incident #27), the VAC card wasn't read the first time it was inserted, but was successfully read when re-inserted. In as second case (incident #58), the VAC was misprinted, in effect indicating the card should be inserted backwards. The card was successfully read when inserted with the correct orientation. Two VACs could not be read because they were dirty (incidents #62 & 65), but were successfully read after cleaning. In the remaining sixteen incidents the VAC was defective and had to be replaced. In each case voting did not initiate until a valid, readable card was inserted.

Human Errors

- There were a total of 52 errors recorded attributed to "human error." All were artifacts of the testing process itself and not a reflection on the system.
- Seven of these were related to confusion of the test voter in following the test script.
- In six instances, the voter accidently reinserted a VAC that had already been voted. In these instances the VAC was correctly rejected.
- In one instance, the script the voter was following was missing a page from the booklet.
- In twenty-nine instances the test deck of VACs was over or short the correct number of VACs.
- In nine instances, the VAC was found to be incorrectly programmed for the wrong ballot style or had not been activated at all.

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | VeriVote paper jam | "Vote Save" error | Problem reading VAC | Voter confused | Reinserted voted card | Voter voted extra ballot | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9:08 | 181 | 6 | X | | | Invalid VAC (not activated) | | | 1 | | | | | | | | | 1 |
| 2 | 9:18 | 181 | 15 | X | | | Invalid VAC (not activated) | | | 1 | | | | | | | | | 1 |
| 3 | 9:25 | 173 | 18 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 4 | 9:20 | 168 | 4 | X | | | Invalid VAC (not activated) | | | 1 | | | | | | | | | 1 |
| 5 | 9:18 | 171 | 15 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 6 | 9:25 | 173 | 20 | X | | | Invalid VAC (not activated) | | | 1 | | | | | | | | | 1 |
| 7 | 9:25 | 164 | 7 | X | | | VAC rejected, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 8 | 9:24 | 154 | 11 | X | | | Invalid VAC (not activated) | | | 1 | | | | | | | | | 1 |
| 9 | 9:30 | 163 | 24 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 10 | 9:33 | 181 | 35 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 11 | 9:36 | 169 | 39 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 12 | 9:45 | 158 | 19 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 13 | 9:51 | 177 | 15 | X | | | Reinserted voted card a 2nd time | | | 1 | | | | | | 1 | | | |
| 14 | 9:51 | 157 | 58 | X | | | Reinserted voted card a 2nd time | | | 1 | | | | | | 1 | | | |
| 15 | 9:55 | 163 | 46 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 16 | 9:57 | 199 | 47 | X | | | Voter confused, verified all was in order | | | 1 | | | | | 1 | | | | |
| 17 | 10:03 | 156 | 39 | X | | | Voter confused, verified all was in order | | | 1 | | | | | 1 | | | | |
| 18 | 10:05 | 152 | 39 | X | | | Voter confused, verified all was in order | | | 1 | | | | | 1 | | | | |
| 19 | 10:22 | 173 | 71 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 20 | 10:41 | 191 | 104 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 21 | 10:33 | 110 | 110 | X | | | VAC deck short one card (created new VAC) | | | 1 | | | | | | | | 1 | |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | VeriVote paper jam | "Vote Save" error | Problem reading VAC | Voter confused | Reinserted voted card | Voter voted extra ballot | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 10:43 | 183 | 84 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 23 | 10:42 | 185 | 76 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 24 | 10:40 | 160 | 79 | X | | | Reinserted voted card a 2nd time | | | 1 | | | | | | 1 | | | |
| 25 | 10:50 | 152 | 67 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 26 | 10:49 | 158 | 55 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 27 | 10:53 | 176 | 63 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 28 | 10:55 | 171 | 96 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 29 | 10:58 | 158 | 59 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 30 | 11:00 | 160 | 89 | X | | | VAC deck short one card (created new VAC) | | | 1 | | | | | | | | 1 | |
| 31 | 10:51 | 178 | 11 | X | | | Reinserted voted card a 2nd time | | | 1 | | | | | | 1 | | | |
| 32 | 10:57 | 184 | 18 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 33 | 11:02 | 176 | 71 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 34 | 11:08 | 176 | 74 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 35 | 11:20 | 176 | 85 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 36 | 11:21 | 158 | 85 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 37 | 11:23 | 152 | 102 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 38 | 11:28 | 180 | 94 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 39 | 11:30 | 135 | 12 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 40 | 11:34 | 103 | 10 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 41 | 11:35 | 101 | 10 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 42 | 11:43 | 117 | 23 | X | | | Voter confused, verified all was in order | | | 1 | | | | | 1 | | | | |
| 43 | 11:54 | 137 | 54 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 44 | 11:57 | 131 | 46 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 45 | 11:57 | 184 | 106 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | VeriVote paper jam | "Vote Save" error | Problem reading VAC | Voter confused | Reinserted voted card | Voter voted extra ballot | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46 | 11:54 | 127 | 42 | X | | | Paper jammed on VeriVote (replaced VV) | | 1 | | | 1 | | | | | | | |
| 47 | 12:51 | 113 | 67 | X | | | Defective VAC - replaced | | | | 1 | | | 1 | | | | | |
| 48 | 1:20 | 178 | 104 | X | | | Defective VAC - replaced | | | | 1 | | | 1 | | | | | |
| 49 | 1:18 | 113 | 83 | X | | | Extra VAC (voted) in deck | | | 1 | | | | | | | | 1 | |
| 50 | 1:20 | 138 | 28 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 51 | 1:28 | 116 | 0 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 52 | 11:29 | 116 | 1 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 53 | 1:34 | 131 | 74 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 54 | 1:35 | 135 | 72 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 55 | 1:38 | 116 | 3 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 56 | 1:44 | 123 | 99 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 57 | 1:40 | 137 | 111 | X | | | Voter vote extra ballot | | | 1 | | | | | | | 1 | | |
| 58 | 1:43 | 116 | 8 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 59 | 1:46 | 131 | 82 | X | | | Extra VAC in deck | | | 1 | | | | | | | | 1 | |
| 60 | 1:48 | 101 | 93 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 61 | 1:55 | 121 | 79 | X | | | Voter confused, verified all was in order | | | 1 | | | | | 1 | | | | |
| 62 | 1:56 | 116 | 19 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 63 | 1:57 | 114 | 32 | X | | | Defective VAC - replaced | | | | 1 | | | 1 | | | | | |
| 64 | 1:59 | 116 | 21 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 65 | 1:55 | 117 | 96 | X | | | VAC not activated | | | 1 | | | | | | | | | 1 |
| 66 | 1:55 | 115 | 49 | X | | | VAC not activated | | | 1 | | | | | | | | | 1 |
| 67 | 2:00 | 119 | 103 | X | | | Deck missing two VACs | | | 1 | | | | | | | | 1 | |
| 68 | 2:01 | 128 | 19 | X | | | VAC programmed for wrong ballot style | | | 1 | | | | | | | | | 1 |
| 69 | 2:11 | 115 | 58 | X | | | VAC not activated | | | 1 | | | | | | | | | 1 |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Invalid VAC | VeriVote paper jam | "Vote Save" error | Problem reading VAC | Voter confused | Reinserted voted card | Voter voted extra ballot | Test deck over/short VAC | VAC incorrectly programmed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70 | 2:13 | 130 | 73 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 71 | 2:30 | 110 | 94 | X | X | | "Vote Save Failure", reboot Edge, VAC not voted, recast ballot | | 1 | | | | 1 | | | | | | |
| 72 | 2:44 | 116 | 78 | X | | | VAC rejected, wiped card, reinserted -OK | | | | 1 | | | 1 | | | | | |
| 73 | 2:42 | 137 | 111 | X | | | Voter vote extra ballot | | | 1 | | | | | | | 1 | | |
| 74 | 3:08 | 124 | 113 | X | | | Voter vote extra ballot | | | 1 | | | | | | | 1 | | |
| 75 | Various | Various | Various | X | | | 5 machines off on vote count (voted some to reach 110 minim) | | | 5 | | | | | | | | 5 | |
| | | | | | | | **TOTALS** | **0** | **2** | **47** | **26** | **1** | **1** | **26** | **5** | **4** | **3** | **6** | **29** |

Machines with Errors: Count = 2 (110 & 127)

VeriVote AVVPAT paper jam

- In one instance (incident #46) there was a jam in the VeriVote of the paper audit trail. Per the procedures, the entire VeriVote unit was swapped out. The Edge II recovered gracefully by automatically voided the first printed audit trail and then reprinted correctly on the next VeriVote. At the conclusion of the test, the integrity of the audit trail was verified.

Edge failed on "cast ballot"

- In one incident (incident #71), while casting the ballot, the Edge displayed the error message: "Vote save failure. Failed at start of vote save section. Use the backup voting procedure." VAC was returned and it's status verified as "not done". After the Edge was rebooted, the voter was able to reinsert the VAC and successully cast his ballot. At the conclusion of of the test, the vote record in memory and on the audit trail were compared to verify the vote had not been recorded.

Problem reading voter activation card (VAC)

- There were twenty-six incidents related to problems reading the VAC. In one instance (incident #7), the VAC card wasn't read the first time it was inserted, but was successfully read when re-inserted. In three instances, the defective VACs were replaced. In the remaining twenty-two instances, the VACs were wiped and reinserted to be successfully read and voted. In each case voting did not initiate until a valid, readable card was inserted.

Human Errors

- There were a total of 47 errors recorded attributed to "human error." All were artifacts of the testing process itself and not a reflection on the system.
- Five of these were related to confusion of the test voter in following the test script.
- In four instances, the voter accidently reinserted a VAC that had already been voted. In these instances the VAC was correctly rejected.
- In three instances, the voter accidentally voted an extra ballot.
- In five instances the test deck of VACs was over or short the correct number of VACs.
- In twenty-nine instances, the VAC was found to be incorrectly programmed for the wrong ballot style or had not been activated at all.

INSIGHT Volume Test

| *Incident#* | *Time* | *Machine #* | *Ballot #* | *Incident Report* | *Photos* | *Video* | *Error* | *Critical (Vote Record Lost)* | *Machine Error* | *Human Error* | *Mis-marked Test Ballot* | *Ballot jammed on insert ("Pull" error)* | *Ballot jammed on reject ("Pull" error)* | *Ballot jammed at output throat* | *Initially reject of ballot. Resubmit OK.* | *Voter errors* | *Errors in handling test decks* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9:55 | 2 | 0 | X | X | X | Voter issued wrong ballots | | | 1 | | | | | | | 1 |
| 2 | 10:34 | 5 | 401 | X | X | X | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 3 | 10:41 | 7 | 0 | X | X | X | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 4 | 10:50 | 9 | 203 | X | X | X | Ballot jammed at output throat. (broken ballot box) | | | 1 | | | | | | 1 | |
| 5 | 11:04 | 11 | 226 | X | X | X | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 6 | 11:09 | 9 | 224 | X | | | Ballot jammed on insert. ("Pull") Removed & reinserted | | 1 | | | 1 | | | | | |
| 7 | 10:14 | 20 | 126 | X | X | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 8 | 11:42 | 16 | 319 | X | X | | Ballot jammed on reject while voter trying to insert another ballot. | | | 1 | | | | | | 1 | |
| 9 | 11:54 | 15 | 247 | X | X | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 10 | 11:44 | 11 | 350 | X | X | X | Ballot jammed on insert. ("Pull") Removed & reinserted | | 1 | | | 1 | | | | | |
| 11 | 12:09 | 30 | 52 | X | X | | Ballot initially rejected as defective. ("Start bar gap") Reinserted successfully | | 1 | | | | | | 1 | | |
| 12 | 12:53 | 26 | 57 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 13 | 12:56 | 38 | 0 | X | X | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 14 | 1:13 | 38 | 42 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 15 | 1:25 | 29 | 314 | X | | | Examination of results tape indicates voter had processed wrong decks | | | 1 | | | | | | | 1 |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Mis-marked Test Ballot | Ballot jammed on insert ("Pull" error) | Ballot jammed on reject ("Pull" error) | Ballot jammed at output throat | Initially reject of ballot. Resubmit OK. | Voter errors | Errors in handling test decks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 1:36 | 37 | 408 | X | X | X | Ballot jammed at output throat. Required opening ballot box to resolve. | | 1 | | | | | 1 | | | |
| 17 | 1:45 | 30 | 350 | X | X | | Ballot initially rejected as defective. ("Orientation marks") Reinserted successfully | | 1 | | | | | | 1 | | |
| 18 | 1:43 | 45 | 403 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 19 | 1:56 | 50 | 166 | X | X | | Ballot initially rejected as defective. ("Start bar gap") Reinserted successfully | | 1 | | | | | | 1 | | |
| 20 | 2:11 | 46 | 331 | X | | | Ballot initially rejected as defective. ("Start bar gap") Reinserted successfully | | 1 | | | | | | 1 | | |
| 21 | 2:12 | 43 | 320 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 22 | 2:20 | 28 | 74 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 23 | 2:25 | 31 | 161 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 24 | 2:27 | 50 | 338 | X | | | Ballot initially rejected as defective. ("Start bar defect") Reinserted successfully | | 1 | | | | | | 1 | | |
| 25 | 2:28 | 29 | ?? | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 26 | 2:27 | 32 | 397 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 27 | 2:32 | 33 | 303 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 28 | 2:37 | 31 | 281 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 29 | 3:18 | 36 | 68 | X | | | Ballot jammed on insert. ("Pull") Removed & reinserted | | 1 | | | 1 | | | | | |
| 30 | 3:10 | 35 | 129 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 31 | 3:14 | 31 | 326 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Mis-marked Test Ballot | Ballot jammed on insert ("Pull" error) | Ballot jammed on reject ("Pull" error) | Ballot jammed at output throat | Initially reject of ballot. Resubmit OK. | Voter errors | Errors in handling test decks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 3:20 | 35 | 156 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| 33 | 3:29 | 40 | 236 | X | | | Ballot jammed on reject. ("Pull") Cleared by lifting Insight | | 1 | | | | 1 | | | | |
| | | | | | | | **TOTALS** | **0** | **29** | **4** | **0** | **3** | **18** | **3** | **5** | **2** | **2** |

Machines with Errors: Count = 22 (2, 5, 7, 9, 11, 15, 20, 26, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 40, 43, 45, 46, 50)

<u>"Pull" Error: Ballot jammed on insert</u>

- On three occasions (incidents #6, 10 & 29), the ballot jammed on intake. In each case there was a clear message that the ballot had not been read. In each case the ballot was successfully read after it was pulled out and reinserted.

<u>"Pull" Error: Ballot jammed on reject</u>

- There were eighteen incidents where the ballot was jammed at the outtake throat on attempted reject. Typically, the ballot was being rejected for overvoting. In each case there was a clear message that the ballot needed to be reinserted and rescanned. The jam was cleared by lifting the front of the Insight away from the ballot box and pulling the ballot free. In each case, the ballot was then reinserted, successfully rejected and resubmitted with an override for the overvote.

<u>Ballot jammed at output throat</u>

- On two occasions (incidents #2 & 3), the ballot jammed at the outtake throat after it had been successfully scanned. Both times there was a clear message indicating the ballot had been successfully scanned. In each case the jam was resolved by lifting the front of the Insight away from the ballot box, tugging the ballot free and allowing it to drop in the ballot box.

- On a third occasion (incident #16), the ballot jammed at the outtake throat because the previous voted ballot had not fallen all the way into the ballot box. Although this was confirmed by opening the ballot box and releasing that previous ballot, use procedures should not allow the ballot box to be opened on election day. If a jam of this nature cannot be resolved without opening the ballot box, the machine should be taken out of service and replaced.

Initial reject of valid ballot (successfully resubmitted)

- There were five occasions where a ballot was initially rejected because of problems reading the ballot timing marks (start bar or orientation marks). In each case the ballot was successfully read and counted after reinserting the ballot with a different orientation.

Human errors

- On one occasion (incident #1), the voter was mistakenly issued the wrong test deck for the machine the voter was using. The ballots were correctly rejected because they were in the wrong precinct for that machine.
- On one occasion (incident #4), the ballot was jammed at the outtake throat. On opening and inspecting the ballot box, it was determine that a deflection panel had been broken by the voter when he/she had removed the ballots from the previous batch. The diverter had swiveled to obstruct the ballot chute.
- On one occasion (incident #8), the voter caused a ballot jam by trying to insert a new ballot while the previous ballot was being rejected. Although this required disassembly of the Insight to clear the jam, this situation is not likely to occur in a real election as voters do not feed ballots rapidly. Should such a jam occur, the Insight should be taken out of service.
- On one occasion (incident #15), it was determined that the voter had not processed the three precinct test decks correctly. Instead she had processed only one test deck twice. The machine was reset and testing of the machine was restarted.

INSIGHT PLUS Volume Test

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Mis-marked Test Ballot | Ballot jammed on insert ("Pull" error) | Ballot jammed on reject ("Pull" error) | Ballot jammed at output throat | Override initially refused. | Results tape jammed | Errors in handling test decks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9:11 | 56 | 26 | X | X | X | Ballot jammed on attempt to return. Opened unit to clear | | 1 | | | | 1 | | | | |
| 2 | 9:20 | 60 | 87 | X | | | Ballot jammed on attempt to return. Opened unit to clear | | 1 | | | | 1 | | | | |
| 3 | 9:25 | 59 | 163 | X | | | Ballot jammed on attempt to return. Opened unit to clear | | 1 | | | | 1 | | | | |
| 4 | 9:26 | 51 | 193 | X | | | Ballot jammed on attempt to return. Opened unit to clear | | 1 | | | | 1 | | | | |
| 5 | 9:25 | 68 | 209 | X | X | X | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 6 | 9:32 | 56 | 186 | X | | | Ballot jammed on attempt to return. Opened unit to clear | | 1 | | | | 1 | | | | |
| 7 | 9:49 | 59 | 440 | X | | | Voter discovered there was an extra ballot in the test deck. | | | 1 | | | | | | | 1 |
| 8 | 10:21 | 84 | 49 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 9 | 10:28 | 88 | 24 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 10 | 10:34 | 88 | 35 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 11 | 11:08 | 100 | 107 | X | | | Ballot jammed on intake. Opened Insight to clear | | 1 | | | 1 | | | | | |
| 12 | 11:14 | 54 | 83 | X | | | Ballot jammed on intake. Opened Insight to clear | | 1 | | | 1 | | | | | |
| 13 | 11:17 | 99 | 188 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 14 | 11:20 | 54 | 124 | X | | | Voter discovered the test deck was short one ballot | | | 1 | | | | | | | 1 |
| 15 | 11:33 | 99 | 281 | X | | | Voter discovered the test deck was short one ballot | | | 1 | | | | | | | 1 |
| 16 | 11:35 | 100 | 272 | X | | | Ballot jammed on intake. Opened Insight to clear | | 1 | | | 1 | | | | | |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Mis-marked Test Ballot | Ballot jammed on insert ("Pull" error) | Ballot jammed on reject ("Pull" error) | Ballot jammed at output throat | Override initially refused. | Results tape jammed | Errors in handling test decks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11:37 | 100 | 273 | X | | | Ballot jammed on intake. Opened Insight to clear | | 1 | | | 1 | | | | | |
| 18 | 11:41 | 61 | 171 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 19 | 11:42 | 75 | 387 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 20 | 11:52 | 54 | 377 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 21 | 1:03 | 61 | 397 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 22 | 1:06 | 65 | 88 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 23 | 1:07 | 65 | 100 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 24 | 1:19 | 86 | 75 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 25 | 1:22 | 86 | 82 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 26 | 1:24 | 85 | 157 | X | | | Voter discovered there was an extra ballot in the test deck. | | | 1 | | | | | | | 1 |
| 27 | 1:30 | 86 | 94 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 28 | 1:39 | 93 | 194 | X | | | Voter tried to override rejected ballot, but received "Request Ignored" message. Override accepted after 3rd attempt. | | 1 | | | | | | 1 | | |
| 29 | 1:38 | 98 | 147 | X | | | Ballot jammed on attempt to return. Cleared by lifting Insight. | | 1 | | | | 1 | | | | |
| 30 | 1:44 | 93 | 248 | X | | | Ballot jammed at output throat. Cleared by lifting Insight | | 1 | | | | | 1 | | | |
| 31 | 1:45 | 86 | 178 | X | | | Ballot jammed on attempt to return. Cleared by lifting | | 1 | | | | 1 | | | | |

| Incident# | Time | Machine # | Ballot # | Incident Report | Photos | Video | Error | Critical (Vote Record Lost) | Machine Error | Human Error | Mis-marked Test Ballot | Ballot jammed on insert ("Pull" error) | Ballot jammed on reject ("Pull" error) | Ballot jammed at output throat | Override initially refused. | Results tape jammed | Errors in handling test decks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Insight. | | | | | | | | | | |
| 32 | 2:14 | 77 | 180 | X | | | Results report tape jammed during printing | | 1 | | | | | | | 1 | |
| 33 | | | | | | | | | | | | | | | | | |
| | | | | | | | **TOTALS** | **0** | **28** | **4** | **0** | **4** | **15** | **7** | **1** | **1** | **4** |

Machines with Errors: Count = 17 (51, 54, 56, 59, 60, 61, 65, 68, 75, 77, 84, 86, 88, 93, 98, 99, 100)

"Pull" Error: Ballot jammed on insert

- On four occasions (incidents #11, 12, 16, 17), the ballot jammed on intake. In each case there was a clear message that the ballot had not been read. In each case the ballot was successfully cleared by lifting the lid over the scanner. The ballt was then successfully read after it was reinserted.

"Pull" Error: Ballot jammed on reject

- There were fifteen incidents where the ballot was jammed on attempted reject. Typically, the ballot was being rejected for overvoting. In each case there was a clear message that the ballot needed to be reinserted and rescanned. The jam was cleared either by lifting the Insight and pulling the ballot loose or by lifting the scanner cover.

Ballot jammed at output throat

- On seven occasions the ballot was jammed at the output throat of the Insight, after it had been scanned successfully. In each case there was a clear message that the ballot had been successfully read. The jams were cleared by lifting the front of the Insight and dropping the ballot into the ballot box.

Override initially refused.

- On one occasion (incident #28), the Insight refused to accept an "override" for an overvoted ballot. The override was accepted successfully on the third attempt.

Results tape jammed

- During the "close of the polls" the results tape jammed between the printer and the security door/cover of the Insight. This was resolved without loss of the vote record by lifting the security cover and feeding the jammed tape through the slot.

Human errors

- There were four errors attributed to voter mishandling of the test decks resulting in the decks being over or short ballots. These were caused by a voter not properly clearing the ballot box after completing a test deck. In these instances, a ballot would be left behind from one deck (causing it to be short) and get including with the next test deck (causing it to be one ballot over.)