REPORT OF THE SECRETARY OF STATE ON THE EXAMINATION AND EVALUATION OF AN OPTICAL SCAN ELECTRONIC VOTE TALLYING SYSTEM

In November 2001 Sequoia Pacific Voting Equipment of Jamestown, New York requested the review and examination of a direct recording electronic system under RCW 29.33.041 and 29.33.300. The hardware and software for this system is marketed under the name Sequoia Pacific AVC Edge DRE. In addition to the AVC Edge DRE Voting Machine Hardware, Level 3.00, Firmware Release 3.10, the Hardware component includes the Card Activator, Hardware Level 2.00, Firmware Release 2.80. The Software that administrates the election definition and election results components of the system is called WinEDS Version 2.6 Build 212 Election Data System.

The AVC Edge is a poll-site based, direct recording electronic (DRE) voting device with a touch screen interface which interprets touch in specified locations to interact with the voter. An optional click button interface allows independent voting for those with sight limitations when used in conjunction with audio playback and headphones. Sequoia Pacific also demonstrated an optional stand for the AVC Edge that allows wheel chair access to the device.

At a poll site a Card Activator device is used by the poll workers to program a smart card with the precinct code for each voter. The smart card will activate the correct ballot type for the voter when inserted into an AVC Edge device. As part of the vote processing and ballot saving the flash card is deactivated when the voter casts his or her ballot. The card is then returned to the poll worker for the next voter.

The Results Cartridge, a Flash ROM memory cartridge based upon the PCMCIA interface, is used to store the polling-place specific election definition, ballot types and the primary copy of the election results for that device. In addition to the removable Results Cartridge, the AVC stores all vote data and audit log data redundantly to an internal Audit Trail device, also based upon Flash ROM technology.

The WinEDS software is menu driven and allows the user to describe all aspects of an election. In preparation for ballot counting, the user enters office descriptions, positions, precinct combinations, ballot types, and any statistical information such as registered voter totals. The WinEDS software is used to produce and download the precinct specific programming onto the AVC Edge Results Cartridge. A personal computer running the WinEDS Election System serves as the central accumulator for countywide results. WinEDS can accumulate results via reading the AVC Edge Results Cartridge. There is no telephonic communication feature at this time.

FINDINGS OF THE SECRETARY OF STATE

Upon review of the staff evaluation of the Sequoia Pacific's WinEDS Election System using the AVC Edge 2000 DRE Voting Machine, the presentation by the vendor, the evaluation of the system conducted by WYLE and METAMOR laboratories in 2001 and the results of the tests performed on this system, and the filed test, the Secretary of State finds that the system satisfies the requirements of RCW 29.33.300 when used in the manner described below.

At this time the system's provisional voting features are not certified for use in Washington state and counties using this system will continue to provide a paper ballot to voters in situations that call for a special ballot. Special ballots are part of a 'fail-safe' process that allows an individual to cast a ballot in situations where poll-workers are unable to determine the individual's eligibility. The ballot is only counted after election staff is able to determine that the individual is in fact eligible to vote on the ballot contests. At the time of certification the provisional balloting process was not able to function in a manner consistent with Washington State law and elections practice.

SPECIAL EARLY VOTING PROCEDURE:

The design of the AVC Edge, and the requirements of Washington State law, necessitate the use of the following procedures on the part of the user county to use the AVC Edge as an 'early voting' system. 'Early voting' refers to voters who cast a ballot on the AVC Edge prior to the election date. Conceptually this is the same as a voter picking up and casting an absentee paper ballot at the county elections office prior to an election.

An electronic vote tallying system must meet the following requirements (as set forth in RCW 29.34.090) in order to be approved for use in Washington State:

1. It must correctly count votes marked on the ballot for any office or ballot proposition;

2. It must recognize and not count overvoted ballots;

3. It must accumulate a count of a specific number of ballots tallied for a precinct;

4. It must accommodate the rotation of candidates' names;

5. It must automatically produce precinct totals in either printed, marked, or punched forms; and

6. It must add precinct totals and produce a cumulative total.

On January 28, 2002 a preliminary public hearing was held to demonstrate the Sequoia Pacific's WinEDS Election System with the AVC Edge 2000. Representing the Office of the Secretary of State was Paul Miller, Registration and Systems Manager. The meeting was also attended by staff members of the Snohomish county auditor office, and representatives from Sequoia Pacific. The vendor made a presentation of the WinEDS Election system and a test election was conducted using a group of defined votes prepared at the direction of the Office of the Secretary of State and other ballots prepared by the observers. The vendor answered questions from the Secretary of State staff and the public.

Following the public hearing a filed test election was held in Snohomish County. This election was conducted under a preliminary certification issued by the office of the Secretary of State on January 29, 2002. The equipment was used in the election period for the February 5th Special Election and featured early voting at the Snohomish County Courthouse and at several polling places in the County.

Following the field test a second public hearing was held on May 29, 2002 to again demonstrate the Sequoia Pacific's WinEDS Election System with the AVC Edge 2000. Representing the Office of the Secretary of State was Paul Miller, Initiatives Manager. The meeting was also attended by staff members of the Snohomish county auditor office, and representatives from Sequoia Pacific and other Washington State election officials. The vendor made a presentation of the WinEDS Election system and a test election was conducted using a group of defined votes prepared at the direction of the Office of the Secretary of State and other ballots prepared by the observers. The vendor answered questions from the Snohomish county staff, Secretary of State staff, and the public.

The procedures are:

The system may be used as an 'early voting' system if the security safeguards applied to the AVC Edge are consistent with those used to protect returned absentee ballots. Access to the AVC Edge must be controlled. The device must remain in plain view of the office at all times during working hours and under lock and seal after business hours. The AVC Edge voter must sign the same oath an absentee voter does and the user county must maintain a log of all 'early' voters with the voters' signatures. The poll books must be marked with an indicator that warns the poll worker not to issue a ballot to a voter who has voted early. It is also recommended that the user county keep a record of the number of votes cast each evening when they close the AVC Edge and confirm the number of votes on the device when opening the device the next morning. It is further recommended that the Card Activator be kept separate from the AVC Edge after hours.

Under the provisions of RCW 29.33.041, the WinEDS Version 2.6 Build 212 Election Data System (NASED N03070026212) Software in conjunction with the AVC Edge DRE Voting Machine, Level 3.0 and Card Activator, Level 2.0 (NASED 010203) along with its associated firmware, are approved for use in Washington State, as a direct recording electronic vote tabulation system, when used in compliance with the procedures contained in this certification and Washington State law.

It is recommended that the canvassing board of any county using this system adopt written procedures governing these processes. This equipment should be used with a device or devices capable of suppressing current surges, voltage fluctuations, and any other line disturbances.

Certified on this June 1, 2002

SAM REED
Secretary of State