Appendix 3: Information on electronic ballot marking devices

Ballot marking devices make optical scan ballots fully accessible to voters with disabilities. As such, they open up new possibilities for complying with the voting accessibility requirements established by HAVA. Examples include Avante's Accessible Optical Voting System and the Automark Voter Assist Terminal from Automark Technical Systems.

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Avante's Accessible Optical Voting System

http://www.aitechnology.com/votetrakker2/accessible_optical_voting.html

With Avante's "Optical Vote-Trakker", voters who would otherwise require assistance to complete an optical scan ballot instead make their selections on Avante's touch screen module or by using the attached audio-based interface provided for blind, visually-impaired, or language-impaired voters. Once the voter finishes making his or her selections, the system uses a commercial off-the-shelf (COTS) laser printer to print a standard optical scan ballot on which the voter's choices have been marked. The voter then examines the laser-printed optical scan ballot, and if it is correct, inserts that ballot into Avante's precinct-based optical scanner, just the same as a standard optical scan ballot. Once the ballots have been scanned, the scanner drops them into a secure ballot box.

The laser-printed optical scan ballots also have a barcode similar to that printed by the Avante's voter-verified paper audit trail printer that is used with its DRE voting systems (see description for Avante's DRE system described in Appendix 2). This barcode encodes a machine-readable, unique and randomly generated ballot identifier to authenticate each and every ballot. No duplicate ballots can ever be used or fed into the system. This unique feature eliminates both unintentional human errors and intentional tampering. The randomly generated unique ballot-identifier not only preserves voter privacy but also allows the ballots to be faxed in by overseas voters. The ballots can be authenticated without doubt.

Because it uses Avante's standard DRE system to provide the user interface, it provides all of the same accessibility features for voters with disabilities plus the same over- and under-vote protections as are described for that DRE system in Appendix 2. Those DRE systems were used for demonstrations conducted in four townships in Connecticut during the November 2003 elections.

The Avante Optical Vote-Trakker is federally certified and is one of the first voting systems to receive NASED certification based on the FEC 2002 standard. Additional information can be found on the Avante web site at the URL listed above.

Automark Technical Systems Voter Assist Terminal

http://www.AutomarkTS.com

The AutoMARK Voter Assist Terminal (VAT) is an optical scan ballot marker designed for use by people who are unable to personally mark an optical scan ballot due to physical impairments or language barriers. The purpose of the AutoMARK Voter Assist Terminal (VAT) is simple: mark an optical scan ballot for a voter who is unable to do it without assistance.

The AutoMARK VAT is capable of handling a wide variety of ballot sizes and types, but its primary function is to streamline the process for a voter who is unable to pick up a pen and fill in the ovals on their own.

The AutoMARK VAT **does not tally or store votes**; rather, it is a ballot-marking system designed to provide privacy and accessibility to voters who are blind, vision-impaired, or have a disability or condition that would make it difficult or impossible to mark a ballot in the usual way. Even a temporary condition, such as a broken arm, could make it difficult for a person to mark a ballot. In addition, the technology provides language assistance to voters who are more comfortable speaking a different language or who need help to better understand written instructions.

Key Features:

A sip/puff tube for voters who are not able to use the touch screen or touch pad.

An audio function allows voters with impaired vision to listen to choices.

Protects legacy systems by allowing jurisdictions to use existing optical scanner hardware/ software solutions.

A zoom feature that enables the voter to increase the font size of each race listed on the optical scan ballot.

Multiple-language capability helps ensure that all citizens in a diverse population can exercise their privilege to vote.

The ability to support write-in candidates.

The AutoMark will be deployed in Arizona on a trial basis, for use only by voters with disabilities, during the November 2, 2004 election. It has also been selected for use by Volusia County, Florida.

The AutoMark is currently undergoing ITA testing, and pending certification, is expected to be available in early 2005. Additional information is available on the AutoMark website at the URL listed above.