## Written Comments

# Harvard "Larry " Lomax, Registrar, Clark County Nevada

Thank you for the opportunity to be here and participate in this discussion. I am Larry Lomax, the Registrar of Voters in Clark County, Nevada, probably better known as the home of Las Vegas, Nevada. We are one of the few counties in the country that has actually used the voter verifiable printer. We used the VVPAT developed by Sequoia Pacific on our touch screen machines for the 2004 primary and general elections and for the 2005 municipal primary and general elections. In those four elections, approximately one half million voters voted on machines with the printer attached, so we have some first hand experience both with how the printer performed and the voter's reactions to it.

I appreciate the challenge that faced the individuals who were tasked to create these standards. However, having had first hand experience with the printers, after reviewing this draft I have two initial observations: first, these standards need some tweaking to ensure they achieve the right balance between what theoretically may seem to be the ideal solution and the limitations practical constraints place on the user...those of us tasked to actually conduct the election; second, the Volume I overview states the Voting System Performance guidelines are supposed to "describe the requirements for electronic components of voting systems." It appears to me that the draft often drifts into areas other than "electronic components" and is not always as clear as it should be as to what the actual requirements are. In ten minutes, I cannot go into much detail, but let me provide some examples.

### 6.8.2.2 Font size

This is an issue of practicality. It is simply not realistic to require the printer to print in large font sizes. Larger font sizes use up more inches of paper for each ballot...thereby requiring larger printers and larger rolls of paper...thereby driving up costs and increasing the logistical challenges delivering, handling and retrieving the printers.

A minimum standard of 3 mm is reasonable. The printer we use prints in 10-point font, just under 3 mm. In our 2004 presidential election, a roll of paper nearly the length of a football field supported 146 voters' printouts (remember that half the paper on the roll is unusable because, with a spool-to-spool printer, the each voter's selections must scroll out of view before the next voter uses the printer). One hundred and forty six voters on a roll was sufficient to ensure we did not have to change paper during the day. Not having to change the paper roll was much more significant than it might seem, because it meant we did not have to train hundreds of poll workers on how to change the paper rolls and we did not have to deal with the issue of storing used paper rolls at a polling place on election day. At the end of the day, we simple had the poll workers bring in the printers, which remained sealed with the paper rolls inside, with their other election materials.

For voters who need a larger font size, the realistic solution is a magnification. We placed a magnifier at every machine that increased our 10-point font to approximately 20-point font. As I stated before, we have had about a half million voters vote using the VVPAT and font

size has not been an issue. Although some voters commented that the print was small, I have yet to receive a single complaint.

## 6.8.4 Approve or Spoil the Paper Record

This is another issue of practicality. This section refers to spoiled electronic ballots. In reality, there are no spoiled electronic ballots. The voter may reject the paper record, but the electronic ballot is not recorded until the voter accepts the paper record and casts the ballot (6.8.4.7 requires this). Thus, there is no way to reconcile the number of spoiled paper records with the number of spoiled electronic records, as the guidance requires, because there are no spoiled electronic records. A spoiled paper record must clearly indicate it was rejected (our system prints VOID) and the printer must not print a bar code. What we have to reconcile after the election are the accepted paper records with the electronic ballots.

One final observation in this area is that "spoiled" is a term generally associated with ballots and the paper record is not a ballot unless a state so determines. I believe it would be more appropriate in the guidelines document to use a term such as "reject" or "void" the paper record. The terminology itself I believe contributes to the confusion addressed above.

## 6.8.5 Preserve Voter Privacy and Anonymity

One of the problems with HAVA is that people are still trying to determine what the law requires. We don't want that to occur with this document. I had my staff review this draft guidance and based upon requirements such as "the electronic an paper records shall be created and stored in ways that preserve the privacy and anonymity of the voter," none of us are sure if it allows the use of a spool-to-spool printer or not.

From a user's standpoint, a spool-to-spool printer is the only realistic VVPAT solution. In a county our size, one election generates 7,500-8,000 tapes that must be catalogued and stored. Chopping them into half a million little slips of paper, each of which would have to be tracked, would create an administrative nightmare guaranteed to fail.

Assuming a spool-to-spool printer is authorized, other than keeping the printer sealed and not allowing the voter to take a copy of the printed record, maintaining the privacy and anonymity of the voter is primarily dependent upon the manner in which the user administers the election—much in the same manner every clerk in the country must use administrative procedures to protect the privacy of absentee voters, whose name is printed on the very envelope in which they mail their ballot.

To ensure the anonymity of the voter with the VVPAT, in Clark County we do not track the order in which people sign in and vote. We also have at least two voting machines in every polling place and we allow the voter to select the machine he/she wishes to use. Finally, there is no record of who voted on which machine.

There is additional requirement in this section protect the privacy of individuals who select alternative languages and the discussion suggests having at least five voters use the alternative language on each machine. We cannot do that because it would be inappropriate to ask voters in which language they planned to vote. The privacy of the voter's language selection is ensured because we have no way of knowing in which language a voter actually chose to vote.

Also, in the area of voter privacy, the guidelines state the paper record will indicate a provisional voter, but the guidelines do not make it clear if the paper record must or must not be linked to the voter. Although I can find no privacy and anonymity exceptions in the guidance for provisional records, states that use the paper record as the official ballot are going to need the ability to trace the paper record back to the voter because whether or not they count the provisional record (ballot in this case) is dependent upon whether or not subsequent research indicates the voter met some specific criteria. The voter's privacy can still be protected through administrative measures, but not electronically. Clarification is needed in this area.

Finally, from a practical perspective, does it still make sense to require the electronic ballots be stored in a randomized order when the printer is printing the ballots in the order the machine is used. The guidance requires a "unique identifier be attached to both the paper record and the electronic ballot so that they can be linked." But what is the purpose of randomizing the electronic ballots if we attach a unique identifier to them so that they can be "un-randomized?" For those of us that might have to do this, it appears we are adding some unnecessary steps to the process by scrambling the records and then requiring us to unscramble them.

### A few additional observations

In Section 2.2.7 Human Factors, there is a requirement 2.2.6 which says if a state requires the paper record to be the official ballot then a visually impaired voter must be able to review the paper record. Since this is one of the more significant standards required in this document, it should be iterated in Section 6.8 which is the section addressing the requirements for the VVPAT.

In Section 6.8.7, the requirement that the voting station be physically secure from intentional damage cannot be met by either the vendor or the election administrator. If someone wants to intentionally damage a voting machine, they are going to be able to do it. Moreover, this does not seem to belong in the VVPAT section.

In Section 6.8.7, the requirement to seal the connection between the printer and the voting system seems unnecessary. If the power connection is broken, the voting machine locks up. It not only would be very difficult to create a seal that would work in this area, it serves no purpose while adding additional expense and additional training requirements.

### Conclusion

In conclusion, I believe these standards represent a good start, but there are important practical issues which need to be considered and the appropriate adjustments made, there are areas which need to be clarified so that there is no confusion as to what is required and there are requirements in this document beyond the scope of electronic components which really don't belong here. Hopefully, I have provided a few examples to illustrate my concerns.