Memo: New York’s Voting System Satisfies and Surpasses HAVA: The EAC’s Advisory of HAVA as it Pertains to New York’s Lever Voting System is Erroneous and Should be Revoked

From: Andrea T. Novick, Esq.
Dated: February 24, 2009

Notwithstanding the plain language of the Help America Vote Act (HAVA) which expressly states that lever machines can be legally used, the U.S. Election Assistance Commission (EAC) interprets HAVA to effectively exclude the lever machines as ever being acceptable. This interpretation contravenes the statutory language which explicitly refers to the lever system, along with the DRE and optical scan systems, as voting systems that may be used in federal elections as long as they comply with the five standards set forth in HAVA. The EAC’s anti-lever interpretation was the subject of a 2005 advisory issued within one week of the State of Pennsylvania’s requesting just such an interpretation. The Help America Vote Act (HAVA) 42 USC § 15481, § 301(a)(1)(A) states:

“Each voting system used in an election for Federal office shall meet the following requirements... the voting system (including any lever voting system, optical scanning voting system, or direct recording electronic system).” (emphasis supplied) http://www.eac.gov/election/docs/eac-20advisorylevermachines2005-005.pdf/attachment_download/file

In a letter (http://moritzlaw.osu.edu/electionlaw/litigation/documents/vansickleexhibitg.pdf) written by Pennsylvania’s Department of State, Pennsylvania’s counsel concluded that pursuant to HAVA § 301 (a) (2) lever machines were illegal. Pennsylvania’s interpretation was made in disregard of HAVA § 301 (a) (1) which expressly provides that lever voting machines can be legally used under HAVA. Although it is irrational to interpret one section of a statute as prohibiting levers under all circumstances, when another section of the statute explicitly includes them, Pennsylvania was intent on replacing its lever machines and needed federal support to do that because Pennsylvania’s laws permitted lever machines.

Indeed Pennsylvania pointed out in the letter that a primer on HAVA, published by the Department of Justice (DoJ), stated that lever machines are not prohibited by HAVA. Pennsylvania chose to reject the DoJ’s primer, dismissing it as the personal opinion of a DoJ attorney. However the plain language of HAVA makes it far more than a personal opinion: the statute does not prohibit levers any more than it prohibits the other two systems mentioned at HAVA § 301 (a) (1), which refers to: “The voting system (including any lever voting system, optical scanning voting system, or direct recording electronic system).”

It is clear from the Pennsylvania letter that the state wanted to go forward with its plan to purchase electronic voting machines (Pennsylvania had intended and in fact then purchased paperless DREs), but was meeting opposition from those advocating in favor of retaining levers with BMDs. In addition the letter refers to media reports presenting a different interpretation of HAVA: one which recognized that levers were not banned by HAVA, all of which was interfering with Pennsylvania’s plan to replace the levers. Pennsylvania needed for levers to be banned by HAVA. Pennsylvania turned to the EAC for help.

The subject EAC advisory adopted all of Pennsylvania’s arguments as its own, notwithstanding the DoJ primer to the contrary and more importantly, notwithstanding the explicit language of the statute which is inclusive of lever voting machines. In accommodating Pennsylvania, the contorted EAC analysis reveals the fallaciousness of its interpretation, further serving to discredit the EAC’s tarnished reputation.

This is the same EAC that was involved in the scandalous whitewashing of a voter fraud report, see EAC Altered Report On 'Voter Fraud’ – NYT; http://www.scoop.co.nz/stories/HL0704/S00206.htm. And as reported in the Washington Post: http://www.washingtonpost.com/wp-dyn/content/article/2007/08/29/AR2007082901928.html:

“This is not the way an institution created to promote democracy should function. ... It should not be in the business of suppressing information or ideas. .... this agency's structure and procedures need to be seriously reexamined in light of this episode.”

For more regarding the EAC’s credibility see, The EAC Need Not Continue Violating Federal Law 1
consequence of the EAC’s disingenuous construction is to render it impossible for a lever system to ever be HAVA-compliant. The interpretation is erroneous and in derogation of the statute’s express inclusion of lever voting systems. The advisory should be revoked.

Regarding the five standards which must be met by either the lever, DRE or optical scan voting systems, SBoE Commissioner and Co-Chair, Douglas A. Kellner, testified before the NYC Voter Assistance Commission in 2004 that New York’s lever voting system satisfied all but the accessibility requirement. In 2005 New York’s Legislature enacted the Election Reform and Modernization Act (ERMA) requiring the replacement of New York’s lever voting machines with software-based voting machines. However, in 2008 New York State installed ballot marking devices (BMDs) in every poll site, thus complying with the single HAVA requirement that the lever machines had been unable to fulfill. Having augmented our lever voting system with BMDs, New York’s electoral system is now HAVA-compliant.

No court has ever been asked to interpret the HAVA statute as it relates to New York’s lever voting system but the EAC’s advisory, which seeks to preclude the use of lever voting machines under any circumstances, has led to the wide-spread misunderstanding that HAVA banned lever machines. As set forth in this memo, the EAC’s rejection of lever voting system is specious. New York’s lever system not only satisfies, but surpasses the minimal requirements of HAVA and is, in fact, far more secure and reliable than the DRE and scanner systems also recognized by HAVA.


4 “The federal Help America Vote Act... sets minimum standards for voting machines. Our lever machines satisfy all but one of those standards, that there be at least one machine at each poll site that is ‘accessible for individuals with disabilities, including non-visual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters. Douglas A. Kellner, Testimony to the NYC Voter Assistance Commission, 12/7/2004, http://www.wheresthepaper.org/TESTIMONYOFDOUGLASAKELLNER.htm

5 The DoJ recognizes an existing voting system may be augmented with an accessible voting device, see footnote 7.

6 New York’s Election Law has been much more stringent and fraud-deterring than what is being called for by HAVA or the EAC. For 232 years New York’s Election Laws have insisted that if a voting machine is used to count votes, it must be transparent such that it can be observed and controlled by election officials overseen by observers, and the machine’s results must be certain and declared on election night. If paper ballots are used as the means to cast votes, that count must also be observable and the results, as with our lever system, must be ascertained on election night, including any recount if required. (EL 9-116). EL 9-100’s mandate - that the canvass “ascertain the total vote and they shall not adjourn until the canvass be fully completed” – includes any recount of paper ballots cast at the poll site.

To ascertain is to make certain, to verify or certify. To certify is to guarantee, witness or confirm. For all of New York’s history the constitutionally guaranteed right to vote has required the at-elections count to be knowable and witnessed, accurate and verified, and must be unalterable (unless outcome determinative error or fraud is shown) - both because the public has the right to have its elections conducted in the most secure way and the right to observe the uninterrupted performance of its election officials’ duties. For over two centuries New York’s Laws have mandated that election officials arrive at a reliable at-elections count and then promptly and simultaneously proclaim the results from every poll site, before the aggregate of votes from the other districts is known and a temptation to tampering that a knowledge of what is needed to alter the outcome might induce.

HAVA does not impose the myriad of observable and theft-deterring safeguards which New York has deemed necessary to protect New York’s constitutional right to vote and the constitutional right against disfranchisement. ERMA, in an effort to satisfy HAVA, has demeaned New York’s historical wisdom and ignored the constitutional safeguards which have been essential to the integrity of New York’s electoral system.

EL 9-100’s mandate that the count be certain and completed on election night is violated by ERMA. ERMA allows the at-elections count to be concealed, incomplete and unverified; attempting to ascertain whether there was any basis for the
HA V A provides that a state can be in compliance using a lever, DRE or scanner system, as well as a hand-count system which involves no machines. HAVA recognizes that a voting system embraces the total combination of equipment and practices, which necessarily involves election officials and others responsible for the overall electoral system. As explained below, the EAC’s advisory deliberately ignores unreliable software tally by hand counting post-election ballots. Further, ERMA disregards constitutional due process requirements: ministerial election officials can’t continue the counting after election night because they have no authority to determine the chain of custody of the ballots once the canvass is adjourned. The chain of custody is a factual determination and requires testimony of continuous possession by each individual having possession, together with testimony by each that the object remained in substantially the same condition during its presence in his possession “from the time it is obtained to the time it is presented in court” (Black’s Law Dictionary (8th ed. 1999)). Moreover, by preventing election officials from observing and concluding the count on election night, ERMA precludes constitutional officers from performing those duties which enable them to prevent fraud or error and to know with certainty that the count is accurate. Such essential duties, which have survived 232 years of experience, are integral to the office of those entrusted with conducting elections and cannot be infringed by the Legislature. The Legislature has exceeded its constitutional authority in this regard.

Consistent with the safeguards established under New York’s hand count system, New York’s lever system retains every protection - continuing to forbid post-election recounts of ballots cast at the election and continuing to require that the at-elections count must be reliable, accurate and complete, all demonstrated by a transparent system controlled by election officials and scrutinized by observers. The programming of every lever machine is examined by election officials and observers before each election (the programming of software is concealed from election officials and observers). Because New York’s current electoral system enables the potential for 100% knowledge of every aspect of the process, election officials and observers witness the machine’s being locked against alteration of the programming (not possible on software which by its nature is undetectably mutable); witness the locked condition of the machine when it arrives at the poll site (not possible with software where software manipulation knows no physical boundaries); and watch the machine during the election to ensure no physical tampering occurs (again not possible with software where physical access is not needed to undetectably alter the software programming).

The results as recorded by the immutable operation of the lever voting machine are transcribed onto paper records (the returns) on election night and the paper and mechanical records are then rechecked during the automatic recanvass of each lever machine, EL 9-208. In the event of an unexplained discrepancy between the paper record returns and the count as recorded by the machine, the lever machine can be examined in the presence of election officials and observers during the recanvass revealing any error or fraud – all of which is visible – thus confirming the accuracy of the at-elections count or revealing a problem (not possible with software-driven machines because not only are election officials and observers denied access to observe the machine’s programming and operation, but even with access they would not be able to ascertain how the machine counted during the election since software error or fraud is often too time consuming, difficult and expensive to detect, and because software can be programmed to erase all evidence of manipulation).

Having thus arrived at this highly safeguarded transparent at-elections tally, New York’s Laws ensure the count is protected from what is considered the heightened opportunities for unobserved post-election tampering. If a post-election recount of the ballots cast at the election is needed (as routinely required by ERMA) it is because the electoral process failed, in which case the Attorney General can commence a quo warranto proceeding challenging title to office. But then the post-election ballots can only be admitted into evidence to alter the at-elections count were a jury to first determine that the ballots have not been exposed to opportunities to tampering (a due process requirement omitted by ERMA). This is how New York’s Laws have protected the count from dilution from fraud or error for as long as we’ve been a state. New York’s Constitution requires no less. ERMA, hastened in with the enticement of HAVA funds and the false promise of a secure system, violates our constitutional protections, exposing our elections to undetectable and unpreventable error and fraud.

7 “Of course, HAVA does not require any state to utilize only a mechanical voting system, and the state would be free to utilize a perhaps less expensive paper ballot system, in conjunction with at least one accessible voting device in each polling place in the State, as long as the system otherwise met the requirements of Section 301 of HAVA, 42 U.S.C. 15481(c).” Quoting from the Department of Justice’s Memorandum of Law submitted in United States v New York State, et. al., Civil Action No. 06-CV-0263

8 HAVA at § 301(b)
the distinction between a voting *machine* and a voting *system* so as to disqualify the lever voting *system*. The EAC rejects the lever machines for failing to produce a piece of paper when New York’s lever voting *system*, in fact, includes the creation of a paper record (the returns created on election night are an integral aspect of New York’s voting system, see footnote 6).

Since the issuance of the 2005 EAC advisory, New York has complied with the accessibility requirement, leaving three HAVA standards in dispute according to the EAC’s interpretation. This memo addresses those three remaining federal requirements, demonstrating how the EAC’s advisory is unfounded.

1) Audit Capacity Requirement of HAVA

HAVA § 301 (a) (2) (A) provides that:

“The voting *system* shall produce a record with an audit capacity.” (emphasis supplied).

HAVA § 301 (a) (2) (B) (i) provides:

“The voting *system* shall produce a permanent paper record with a manual audit capacity for such system.” (emphasis supplied)

HAVA § 301 (a) (2) (B) (iii) provides:

“The paper record produced under subparagraph (A) shall be available as an official record for any recount conducted...”

New York’s lever voting system satisfies the Audit Capacity Requirement of HAVA in that it produces both a mechanical and a permanent paper record with an audit capacity. For over a century an indispensable aspect of New York’s lever voting *system* has been the creation of a manually prepared paper canvass sheet, produced by election inspectors at the close of the polls, EL 9-102. Both New York’s paper and mechanical records are used to confirm the accuracy of the election outcome, an additional security requirement not found in HAVA.9

In a thinly veiled attempt to prevent lever voting machines from ever complying with HAVA, notwithstanding their inclusion in the statute, the EAC rejects the paper record produced by New York’s lever voting system on the ground that it is produced by election inspectors functioning as part of the overall electoral *system* and not by the lever machine itself. This interpretation negates the statute’s clear language which provides: “The voting *system* [not a machine] shall produce a record with an audit capacity”10 and “The voting *system* shall produce a permanent paper record with a manual audit capacity for such system.”11

The EAC’s unfounded ‘machine-produced’ paper requirement would preclude not only those lever voting

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9 New York’s laws require that every lever machine be recanvassed using the paper and mechanical records to confirm the accuracy of the lever machine’s results, EL 9-208. There is no requirement in HAVA that the lever, DRE or scanner machines be audited to confirm the accuracy of the machine’s results. In fact, neither the DRE nor the scanner are capable of being audited since, as explained in this memo, malware and other forms of software manipulation will never be detected. *Ironically* the lever machine is the only machine that truly satisfies the requirement of auditability because it is the only machine in which how the machine functioned during the election remains visible and examinable, enabling auditability.

10 HAVA § 301 (a) (2) (A)

11 HAVA § 301 (a) (2) (B) (i)
machines that don’t produce a paper record,12 but would entirely exclude any manual paper ballot voting system: a system the Department of Justice has previously acknowledged would be HAVA-compliant.13 The record produced by a manual paper ballot voting system is not created by a machine but, like New York’s lever voting system, is created by human beings as part of an overall electoral system. Thus there is no legitimate basis and no language in the statute which would justify the EAC’s contrived voting ‘machine-produced’ requirement, as opposed to a voting ‘system-produced’ paper record.

The fallacy of the EAC’s fabricated requirement of a ‘machine-produced’ paper record is further revealed by its explanation for rejecting the 60% of New York’s lever machines that do in fact produce a paper record of the machine’s results. The EAC advisory recognizes that some lever machines produce a paper record, but argues that the lever-produced paper record is still inadequate in that it only shows a summary of the results, insisting that to comply with HAVA, the paper record must show a “chain of evidence connecting … summary results to original transactions.” However, neither DREs nor optical scanners can produce a “chain of evidence connecting … summary results to original transactions” and yet the EAC hasn’t rejected them as not being HAVA-compliant.

It is indisputable, within the scientific community, that the paper records produced by software-based voting machines are susceptible to the same undetectable manipulation that can corrupt their tallies.14 The ‘machine-produced’ paper record from a scanner or DRE can replicate the same erroneous or fraudulent evidence as the computer’s tally because it is not independent of the system. This is not a legal opinion, but represents the conclusion of dozens of computer scientist reports.15 As explained in one report, if the software is infected by a rogue code it can disguise its tracks and force the machine to mimic normal behavior:

“[A] compromised [software-based] machine [will] appear to work correctly when the system’s audit reports are evaluated.”16

12 Approximately 40% of New York’s lever machines don’t produce a paper record of the machine’s results, but all machines are canvassed at the poll site on election night and a paper record made of the votes, regardless of whether the lever machine produces its own paper record or not.

13 See footnote 7 and HAVA § 301(c) (2)

14 In fact the National Institute of Standards and Technology (NIST), the very experts who advise the Federal government, have found that no amount of certification testing will make a software voting system secure:

"[T]esting to high degrees of security and reliability is from a practical perspective not possible."


15 http://sites.google.com/site/remediaetc/home/documents/Scientific_Studies_7-20-08.pdf


“[E]ven if the memory card is sealed and pre-election testing is performed, one can carry out a devastating array of attacks against an election using only off-the-shelf equipment and without having ever to access the [memory] card physically or opening the AV-OS system box.” Such attacks “are cleverly designed to make a compromised machine appear to work correctly when the system’s audit reports are evaluated or when the machine is subject to pre-election testing.”
Accordingly, the EAC’s interpretation of HAVA as requiring a ‘machine-produced’ paper record in order to show original transactions is nonsensical since the ‘machine-produced’ paper record from a DRE or an optical scanner that has been compromised will only confirm the false tally; not show original transactions reflecting the votes as cast by the voter.\textsuperscript{17}

The EAC further discredits its analysis, in stretching to justify its basis for excluding the paper record generated as part of New York’s lever voting system (whether produced as part of the system or by the lever machine itself), claiming that the purpose of HAVA’s Audit Capacity Requirement is for use in “recount proceedings.”\textsuperscript{18} Not only is a recount proceeding not a requirement of HAVA, but as explained above, recounting the paper produced by the same DRE or optical scanner cannot confirm the accuracy of the computer’s tally because if the software had been manipulated in any of the infinite possible ways:

“\textbf{There would be no way to know that any of these attacks occurred; the canvass procedure would not detect any anomalies, and would just produce incorrect results.} The only way to detect and correct the problem would be by recount of the original paper ballots.”\textsuperscript{19}

The scientific acknowledgement that software-based voting machines cannot audit themselves and that therefore only the results can be verified, if at all, by a hand count of original voter-marked paper ballots, exposes the irrationality of the EAC’s rejection of the lever’s paper record for failing to show original transactions. DREs produce no original transactions. There are no original paper ballots to recount from a DRE: both the cast vote record stored in the computer’s memory with the so-called paperless DREs and the paper trails produced by those DREs which create a VVPAT, are the product of the same vulnerable software that created the electronic tally. There is no means of independent verification of a DRE’s results. And yet the EAC isn’t excluding DREs (as it is with levers) for their failure to produce original transactions. The voter doesn’t even have the opportunity to see the paper record produced by the paperless DRE: hardly an original transaction.

With regard to optical scanners, the original paper hand-marked ballots could independently verify the election results (assuming the ballots hadn’t been tampered with and assuming a sufficient number of ballots were counted), but pursuant to the EAC’s tortured analysis, those original transactions are unacceptable for the same reason the EAC rejects the lever voting system’s paper records: they are not ‘machine-produced’.

\textsuperscript{17} It should also be noted that the paper record produced by a optical scanners is a summary as well. The EAC advisory rejects the lever-produced paper record for only showing a summary.

\textsuperscript{18} The EAC advisory states: “This paper record must be available for use as an official record in recount proceedings... HAVA makes it clear that the reason it requires a paper record trail is to ensure all voting systems create a permanent, manually auditble record for use in a recount.” \textbf{Interestingly there is no requirement in HAVA that the machine-generated results ever be verified or recounted. HAVA only requires that paper records be available for any recount, HAVA \S 301 (a) (2) (B) (iii). Only New York’s Election Laws as they have existed for two centuries (but will be undermined by ERMA) require that the election night results of the lever count be certain, accurate and reliable; not relying on some post-election hand count to compensate for the inadequacy of the machine count.}

\textsuperscript{19} Report commissioned by California’s Secretary of State finding optical scanners can be attacked without detection; California Voting Systems Technology Assessment Advisory Board (VSTAAB), Security Analysis of the Diebold AccuB asic Interpreter, February 14, 2006, (emphasis supplied) \url{http://ss.ca.gov/elections/voting_systems/security_analysis_of_the_diebold_accubasic_interpreter.pdf}
Accordingly the EAC’s dismissal of New York’s lever voting system for failing to create a ‘machine-produced’ paper record that shows “the original actions that make up its whole” is invalid because there are no machines that satisfy such a standard. Neither the paper records produced by the DRE or the optical scanner show original transactions and therefore would have no value in a recount: the EAC’s alleged purpose for requiring these ‘machine-produced’ paper records.

Upon scrutiny the EAC’s analysis is revealed as spurious. Clearly HAVA requires some type of audit capacity, but the statute fails to explicate what is to be audited. If it is the machine itself that is to be audited, only the lever voting machine can satisfy auditability. If it is the election outcome as tabulated by the machines which is to be audited, the entire scientific community agrees that with software-based machines, such verification must be made from records independent of the software that generates the tally. That excludes all DREs and according to the EAC’s ‘machine-produced’ paper requirement, all optical scanners as well. Thus the EAC’s selective exclusion of levers is based on an interpretation of a standard that would exclude all voting machines.

In straining to reject lever voting machines, the EAC has inadvertently exposed the superiority of non-computerized lever technology, at least as applied to vote counting. Lever machines are the only machines mentioned at HAVA § 301(a)(1)(A) which are capable of being audited in order to verify the accuracy of their own ‘machine-produced’ tally! The transparency and immutable mechanical operation of the lever technology permits an audit to assess compliance: how the machine counted during the election (a post-election examination of the machine will reveal if the machine performed accurately or if some gears broke or were tampered with, all of which is visible on examination of the lever machine). Thus the entire functioning of the lever machine is knowable and hence auditable, whereas it is impossible to know how a software-based machine counted the ballots at the election.

Moreover, unlike software-based machines, which are so vulnerable to undetectable and systematic exploits that they require an independent hand count in an effort to verify the unknowable results, lever technology can not be systematically rigged and any tampering is visible and detectable and thus preventable. Software-based voting systems, on the other hand, are so deficient they must rely for their verification on independent hand counts. But when paper ballots are counted post-election, the risk of tampering to those ballots renders verification potentially impossible. Aware of the increased risk of post-election tampering to sealed ballot boxes, New York’s Election Law has prohibited this practice for the past 232 years as too dangerous a risk for our democracy!

New York’s lever voting system meets and exceeds the requirements of HAVA’s Audit Capacity Requirement and should not be rejected by the ill-conceived interpretation of the EAC advisory.

2) Error Rate Requirement of HAVA:

HAVA § 301 (5) provides:

“The error rate of the voting system in counting ballots... shall comply with the error rate standards established under section 3.2.1 of the voting systems standards issued by the Federal Election Commission.”

The aforesaid standards of the Federal Election Commission do not refer to lever voting machines,
arguably exempting them from this section. In any event, HAVA’s Error Rate Requirement is not being applied so as to disqualify the numerous software-based systems used across the nation which do not and cannot satisfy the Error Rate Requirement and therefore this standard cannot be discriminately applied only to lever voting machines.

While the actual error rate of software-driven voting systems is unknowable, because software is undetectably mutable and no independent assessment of the DREs’ or scanner systems’ error rate is ever made, relying on the records which these software systems have produced reveals that far too many DREs and optical scanners fail to comply with HAVA’s Error Rate Requirement. And yet, neither the EAC nor any other federal agency has taken any action to stop the use of these machines or require their compliance with this particular standard. Accordingly the EAC’s claim of non-compliance with the Error Rate Requirement of HAVA, asserted solely against the lever voting system, is not legitimate.

3) Alternative Language Accessibility Requirement of HAVA:

The EAC’s assertion that the lever voting system fails to satisfy the requirement that it accommodate the number of alternative languages required in a given jurisdiction is as fallacious as the other claims made in the subject advisory. New York City has already demonstrated that it can put all four required languages on the lever voting machines.

Conclusion

As stated in the subject EAC advisory, EAC’s administrative interpretations do not have the force of law. However given the deference accorded to the legitimate interpretations of an agency charged with the administration of a statute, and given the speciousness of the interpretation contained in the subject administrative interpretation - all of which have led to much confusion and disinformation - it is in the interests of the State of New York and the proper administration of law that this advisory be revoked.

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20 Neither the Federal Election Commission (2002), nor the Election Assistance Commission (2005) Error Rate standard refer to lever machines. These standards explicitly represent that because the levers are not presently being manufactured, none of these voluntary standards apply to them.

21 Federal Vote-Counting Accuracy Mandate Is Ignored: Violations abound, but no federal action is taken http://www.votersunite.org/info/AccuracyIgnored.asp