Draft Model Legislation for Verified Voting Bob Kibrick, Legislative Analyst, VerifiedVoting.org May 5, 2005

Model legislation for verified voting must provide language to address the following:

- 1. Defining relevant terms
- 2. Requiring that all voting systems provide an accessible, voter-verified paper record (VVPR)
- 3. Requiring mandatory manual audits of the VVPRs in randomly-selected precincts
- 4. Enabling/authorizing the use of voting technologies/systems that support these requirements

The specific legislative language that will be required will vary from state to state depending on the existing definitions and provisions in each state's current election code. For example, some states (e.g., California) already require mandatory manual audits, while others already require that all voting systems must use some type of paper ballot.

1. DEFINING RELEVANT TERMS

A clear definition of the relevant terms is essential to any model language:

Voter-Verified Paper Audit Trail (VVPAT): a permanent paper record of the voter's vote printed by a touch screen or other direct recording electronic (DRE) voting machine and verified by the voter (as correctly reflecting the voter's intent) before the voter's vote is cast; a VVPAT is printed by a voting machine set up for voting at the polling place or at an early voting location designated by elections officials. Once the voter's vote is cast, the VVPAT is securely stored by the voting system as an official record of the voter's vote and constitutes the official ballot of record in the case of any audit or recount. The VVPAT may be read and counted using an optical scanner, a bar code scanner, or by hand.

Voter-Verified Paper Ballot (VVPB): a permanent paper ballot prepared and verified by the voter (as correctly reflecting the voter's intent), either manually or with the assistance of a ballot marking device, before the voter's vote is cast; a VVPB may be completed in the polling place or mailed to an election official from a domestic or overseas location. Once the voter's vote is cast, the VVPB is securely stored by the voting system as the official record of the voter's vote and constitutes the official ballot of record in all cases, including all counts, audits, or recounts. The VVPB may be read and counted by an optical scanner or by hand.

Voter-Verified Paper Record (VVPR): a permanent paper record of the voter's vote that is verified by the voter (as correctly reflecting the voter's intent) before the voter's vote is cast, securely stored by the voting system as an official record of the voter's vote, and which constitutes the official ballot of record in the case of any audit or recount; both voter-verified paper audit trails (VVPATs) and voter-verified paper ballots (VVPBs) constitute instances of a voter-verified paper record (VVPR).

Ballot Marking Device: A voting device that enables voters with disabilities (including voters who are blind or visually-impaired) to mark and verify (as correctly reflecting the voter's intent) an optical scan paper ballot. Such devices may employ similar assistive interfaces (e.g., touch screens with adjustable font sizes, audio interfaces with support for multiple languages, sip-and-puff interfaces for voters who do not have use of their hands, keypads with tactilely-distinct buttons and markings in Braille, etc.) as are typically used by direct recording electronic (DRE) voting machines for providing voting access to voters with disabilities. A ballot marking device:

- 1) is used only to assist voters in marking and verifying a paper ballot,
- 2) will prevent a voter from overvoting,
- 3) will alert the voter if the voter has undervoted in any contest or question,
- 4) will permit the voter to correct any error before the paper ballot is marked, and
- 5) will enable the voter to verify that the marked paper ballot correctly reflects the voter's intent. A ballot marking device does not maintain an electronic record of the voter's vote nor does it count votes. An optical scan paper ballot marked using a ballot marking device is not considered cast until it is either deposited into a ballot box or accepted by a precinct-count optical scanner.

Precinct-count optical scanner: An optical ballot scanner that is located in the precinct and into which marked optical scan paper ballots (either marked by hand or marked via a ballot marking device) are inserted for validation and counting. Such devices will alert the voter if the voter's ballot is overvoted or undervoted, and in such cases give the voter the opportunity to retrieve the marked ballot from the scanner (before it is accepted for counting) in order to make corrections to the ballot. In the case of an overvoted paper ballot (which is treated as a spoiled ballot), the voter can exchange the spoiled paper ballot for a new unmarked paper ballot and start over. If the paper ballot is free of undervotes and overvotes, or if the voter indicates that the ballot should be accepted with undervotes, the scanner will accept and tabulate the ballot, then deposit it into a secure storage container for use in any subsequent audit or recount.

Ballot Checking Device: A device that is located in the precinct and used by the voter to check the voter's marked optical scan paper ballot for overvotes or undervotes before the voter casts the ballot. Such devices will alert the voter if the voter's ballot is overvoted or undervoted so that the voter can correct the ballot before it is cast. In the case of an overvoted paper ballot (which is treated as a spoiled ballot), the voter can exchange the spoiled paper ballot for a new unmarked paper ballot and start over. A ballot checking device does not maintain an electronic record of the voter's vote nor does it count votes.

Accessible voting system: A voting system is accessible if it enables all voters, including voters with disabilities, to complete all steps of the voting process in a manner that maintains the privacy of the voter's ballot, including:

- 1) marking the voter's selections on the ballot,
- 2) verifying that the voter-verified paper record (VVPR) of the voter's vote accurately reflects the voter's intent, and
- 3) casting the voter's marked ballot.

In addition, the voting system shall enable voters with disabilities to vote without assistance to the extent possible consistent with the voter's disability. For certain disabilities, a poll worker (or an assistant of the voter's choosing) must provide some type of assistance to the voter, even in the case of voting systems that are already deemed by both the disability community and elections officials to be accessible. For example, a voter who does not have use of his or her hands will require a poll worker's assistance (or the assistance of a person designated by that voter in accordance with state statutes) to insert a voter-access card into a DRE voting machine to initiate voting, and a quadriplegic voter who also requires use of an audio voting interface (due to a visual or reading impairment) will also require the assistance of a poll worker or designated assistant in order to place headphones on the voter's head. So long as well-defined procedures exist that enable the poll worker or designated assistant to provide to the disabled voter, without compromising the privacy of the voter's ballot, any such assistance as required by the voting system, that voting system is deemed to be accessible.

Ballot privacy container: An opaque cover, envelope, sleeve, or cartridge that is used in conjunction with a voter's marked paper ballot to maintain the privacy of such a ballot in between the time that it is marked and the time when it is cast or counted. During that interval, the privacy container will conceal the marked portion of the voter's ballot so that it is not visible.

2. REQUIRING ALL VOTING SYSTEMS TO PROVIDE AN ACCESSIBLE VVPR.

A fundamental requirement of any legislation pertaining to verified voting is that all voting systems must provide an accessible, voter-verified paper record so that all voters, including voters with disabilities, can verify that their votes have been accurately recorded and so that meaningful manual recounts and audits can be conducted.

A requirement for an accessible VVPR can be written in terms of the above defined terms. However, a VVPR can be implemented either via an optical scan voting system (which provides a VVPB) or a direct recording electronic (DRE) voting system with an attached printer (which provides at VVPAT), or a combination of both. Each state needs to decide whether it wants to specifically mandate a single voting system solution statewide, or whether to permit each county to choose between an optical scan/VVPB system or a DRE/VVPAT system. That decision might depend on whether or not any DRE voting systems have already been deployed in that state, and whether or not any such deployed DREs meet HAVA's accessibility standards (or whether any such systems have been decertified, such as the Unilect Patriot systems in Pennsylvania).

In the case of a state where no DRE systems are currently deployed, or in a state containing older-style DREs that fail to meet HAVA's accessibility requirements and which will need to be replaced, the most cost-effective and verifiable solution is to mandate optical scan/VVPB systems statewide. A number of states (e.g., Arizona, Oklahoma, Rhode Island, etc.) currently use precinct-based optical scan systems exclusively, and will likely use ballot marking devices

(such as the AutoMark system) to meet HAVA's disability access requirements, assuming such systems complete ITA testing and NASED/EAC certification within the next month or two. In states where a significant number of counties already employ accessible DREs, it may make more sense to enable each county to decide which type of voting system (optical scan/VVPB or DRE/VVPAT) to deploy in order to meet the accessible VVPR requirement.

Accordingly, the model language presented here (which is derived from Representative Rush Holt's H.R. 550 and Senator Ensign's S. 330, both of which VerifiedVoting.org worked on with the sponsors of those bills) establishes a generic requirement for a VVPR, and enables counties to meet that requirement using either of these two types of technology.

(A) VOTER-VERIFICATION AND AUDIT CAPACITY-

- (i) The voting system shall produce or require the use of an individual voter-verified paper record of the voter's vote that shall be made available for inspection and verification by the voter before the voter's vote is cast. For purposes of this clause, examples of such a record include a paper ballot prepared by the voter for the purpose of being read by an optical scanner, a paper ballot prepared by the voter to be mailed to an election official (whether from a domestic or overseas location), a paper ballot created through the use of a ballot marking device, or a paper print-out of the voter's vote produced by a touch screen or other electronic voting machine, so long as in each case the record permits the voter to verify the record in accordance with this paragraph (A).
- (ii) The voting system shall provide the voter with an opportunity to correct any error made by the system in the voter-verified paper record before the permanent voter-verified paper record is preserved in accordance with paragraph (B)(i).
- (iii) The voting system shall not preserve the voter-verifiable paper records in any manner that makes it possible to associate a voter with the record of the voter's vote.

(B) MANUAL AUDIT CAPACITY-

- (i) The permanent voter-verified paper record produced in accordance with paragraph (A) shall be preserved--
- (I) in the case of votes cast at the polling place on the date of the election, within the polling place in the manner or method in which all other paper ballots are preserved within such polling place;
- (II) in the case of votes cast at the polling place prior to the date of the election or cast by mail, in a manner which is consistent with the manner employed by the jurisdiction for preserving such ballots in general; or

- (III) in the absence of either such manner or method, in a manner which is consistent with the manner employed by the jurisdiction for preserving paper ballots in general.
- (ii) Each paper record produced pursuant to paragraph (A) shall be suitable for a manual audit equivalent to that of a paper ballot voting system.
- (iii) In the event of any inconsistencies or irregularities between any electronic records and the individual permanent paper records, the individual permanent paper records shall be the true and correct record of the votes cast.
- (iv) The individual permanent paper records produced pursuant to paragraph (A) shall be the true and correct record of the votes cast and shall be used as the official records for purposes of any recount or audit conducted with respect to any election in which the voting system is used.
- (C) ACCESSIBILITY AND VOTER VERIFICATION OF RESULTS FOR INDIVIDUALS WITH DISABILITIES. The voting system, including any procedures employed by poll workers to facilitate voting by voters with disabilities, shall:
- (i) satisfy the requirement of paragraph (A) through the use of at least one accessible voting system equipped for individuals with disabilities at each polling place;
- (ii) allow the voter the opportunity to complete any of the steps of the voting process in a manner that maintains the privacy of the voter's vote, including:
 - (a) marking the voter's selections on the ballot;
- (b)verifying that the voter-verified paper record of the voter's vote accurately reflects the voter's intent; and
 - (c) casting the voter's ballot;
- (iii) provide for the use of opaque covers, envelopes, sleeves, or containers as necessary to ensure that the privacy of the voter's vote is maintained during any transport of the voter-verified paper record between discrete elements of the voting system.

3. REQUIRING MANDATORY MANUAL AUDITS OF THE VVPRs

In order to detect and correct any systematic errors in the tallies produced by any automated vote counting system (regardless of whether that system employs DRE voting machines or optical scan ballots), it is essential that there be mandatory, manual audits (i.e., hand counts) of the voter-verified paper records for a statistically-significant fraction of the precincts in every election. The precincts selected for such audits need to be selected at random using a uniform distribution so that all precincts have an equal chance of being selected for such an audit.

However, in order to develop specific language for a particular state it is important to know the scope of the audit you seek to achieve:

- 1. should it be limited strictly to verifying (i.e., hand counting) the VVPATs printed by polling place DREs on election day from a set of randomly-selected precincts, or
- 2. should it also include VVPATs printed by DREs used in early voting locations which may support a very large number of precincts at a single location (if so, it depends on whether separate DREs are used to service early-voters from different precincts, or whether the DRE-generated VVPATs for a large number of precincts end up in the same ballot box at that early voting location, since if you select precincts at random for audit, you may have a mix of VVPATs in the same ballot box, some from precincts selected for audit and others from precincts that were not), or
- 3. should it also include VVPBs (e.g., optical scan ballots) that are cast in the polling place on election day (since in many states you have some counties using optical scan, some using DREs, and starting in 2006, you may have some counties which use a mix of both in each polling place), or
- 4. should it also include provisional ballots (if so, different procedures may apply depending on whether provisional ballots are cast using [optical scan] paper ballots which are then put in special envelopes and segregated from non-provisional ballots or whether they are cast electronically and electronically tagged as provisional, in which case how do the "provisional" VVPATs get handled), or
- 5. should it also include absentee ballots (if so, different procedures may apply depending on whether such ballots are counted in the context of the precinct in which the voter would normally vote or whether they are aggregated into special, absentee-ballot precincts)?

Obviously there are various permutations and combinations that are possible, and these will vary from county to county and state to state. Bottom line: the more inclusive you make the audit, the longer and more complex (and less general) the audit language becomes. But if you don't make the audit inclusive, then those with malicious intent will simply attack the system at its weakest (i.e., unaudited) point, which at some level defeats the purpose of the audit.

In a sense, it depends on what sorts of errors you are most concerned about catching with the audit. Innocent errors (as might occur from a careless programming error, a malfunctioning hardware component, or a procedural error by poll worker) are likely to occur anywhere in the system and there is no reason to expect that they will be any more or less likely to occur in a portion of the system that is not audited compared with one that is.

Also, in addition to determining the scope of the audit you seek, it is also important to determine the time scale on which you need the audit to be completed. If you want the audit to be able to detect (and hopefully correct) any tabulation errors before the results are certified, then one must not wait for final (certified) results to be published before initiating the audit.

In the DRAFT language that follows, it is assumed that what constitutes a "voter-verified paper record" has been defined as described earlier.

DRAFT Mandatory Random Manual Audit Provision -

- a) Mandatory Manual Audits in Randomly-Selected Precincts-
- (1) IN GENERAL- The counties shall conduct mandatory hand counts of the voter-verified paper records in at least $\mathbf{a}^* \mathbf{f} \mathbf{f}$ -of the precincts.

*Note: In California statute, it is 1%. In the Holt bill -HR550--it is 2%. In West Virginia's recently passed legislation, it is 5%. In pending Hawaii legislation, it is 10%. It seems preferable to select randomly for audit a percentage of precincts versus a percentage of machines, as that handles the more general case of either DREs or precinct-based optical scan (PBOS) given that many states and even counties have mixes systems. If you specify machines, then you have to define which machines, and you would get uneven sampling if different technologies are used in different precincts, since PBOS has only one machine per precinct, whereas DREs would have multiple machines per precinct. Further, most county election data gets posted by precinct, not machine.

The other way of expressing this is to require random-selection of whole precincts until the votes cast in those precincts crosses some threshold (e.g., 2% of the total votes cast in the election). This is more complex and creates a chicken-and-egg problem since you don't know in advance how many votes will be actually cast in each precinct. Thus, a fixed percentage of the precincts is more practical to implement.

(2) PROCESS FOR CONDUCTING AUDITS-

(A) Timing of the audits: as soon as practical following the closing of the polls [or within whatever time limit is already imposed by the state election code], the County Board of Elections shall:

- (i) complete the initial vote count for each and every precinct participating in the election in that County and publicly announce the results of each such initial vote count as soon as such results are available;
- (ii) publicly conduct a random drawing as specified in subsection (b) to determine which of such precincts in the County will be selected for the mandatory hand counts of the voter-verified paper records as specified in paragraph (1), provided such drawing shall not occur until such time as all such initial vote counts have been completed and the results publicly announced, but no later than 48 hours after that time;
- (iii) publicly announce the date, time, and location of such public random drawing at least 24 hours before such drawing is conducted;
- (iv) publicly announce the date, time, and location of such public mandatory hand counts at least 24 hours before such hand counts are initiated;
- (v) initiate such mandatory hand counts of the voter-verified paper records in the precincts selected as specified in clause (ii) no later than 48 hours after such selection of precincts is made; and
- (vi) complete such hand counts no later than 24 hours after such hand counts are initiated and publicly announce the results of each such mandatory recount as soon as such results are available.

This audit should occur as soon as possible after the polls have closed, but not until the initial tallies from each precinct have been publicly posted (as typically happens the day after the election). But it is strongly advised that the audit not be conducted until AFTER those initial tallies are publicly posted, else those with ill-intent can game the system by making sure that for any precinct that is chosen for audit, the initial tallies are "adjusted" to match the results of the audit.

The timing of when this audit occurs is critical. It's important to tailor the language of this section to use the relevant terminology found elsewhere in the state's election code. In particular, one must determine what deadlines the existing election code imposes on counties in terms of when (and in what format) they must publicly post and announce such initial tallies. If you wait to conduct the audit until a "final" vote count is released, that may occur well past the deadlines for filing contests, recounts, or challenges. Again, one needs to determine the relevant deadlines as specified in the given state's election code.

The other potential problem that needs to be addressed is what happens if you have one or more problem precincts whose initial vote counts are not ready for release when expected (e.g., you have a balky DRE and elections officials are having difficulty extracting the vote counts from that DRE's electronic memory card; the manufacturer's technicians have been summoned to try to resolve the problem, but they have to fly in their expert from Vancouver, etc.). As a result, the audit is at a standstill, because the public announcement of the results of the initial vote count in each precinct in the County is not yet completed, because no initial vote count is yet available from the problem precinct(s). Meanwhile, the clock keeps ticking on the various deadlines for filing requests for contests, recounts, challenges, etc., as well as for the meeting of the Electoral

College. Accordingly, someone who wants to delay the audit until it is too late to do any good need only find a way to forestall the initial vote count from a single precinct in that county.

NOTE: Several problems could be solved simply by setting a fixed deadline by which the initial (machine) vote counts for each precinct must be completed AND publicly announced. And if that deadline is not met for whatever reason (including a balky DRE whose memory card was proving difficult to read, or a county that has something it wants to hide with respect to the initial vote counts in certain precincts), then the voter-verified paper records from that precinct will be counted by hand and will be released as the vote count for that precinct. (This gives Counties a strong incentive not to dawdle and to complete and announce the results of all of their initial vote counts in a timely manner.) If such a precinct were also randomly selected by the public drawing, it would only be subject to one mandatory hand count.

With this in mind, an alternate formulation for subsection (a)(2)(A) reads as follows:

- (2) PROCESS FOR CONDUCTING AUDITS -
- (A) Timing of the audits: the County Board of Elections shall:
- (i) as soon as practical following the close of the polls, begin the initial vote count for each and every precinct participating in the election in that county;
- (ii) no later than 3 [business?] days following the close of the polls, complete each such initial vote count initiated in clause (i) and publicly announce:
 - (I) the results of each such initial vote count, and
 - (II) the date, time, and location of the public drawing described in clause (iii);
- (iii) on the fourth [business?] day following the close of the polls and at the time and location announced as specified in clause (ii)(II):
- (I) conduct in public view a random drawing as specified in subsection (b) to determine which of such precincts in the County will be selected for the mandatory hand counts of the voter-verified paper records as specified in paragraph (1), and
- (II) immediately following the random drawing conducted as specified in subclause (I), publicly announce the time, and location of the mandatory hand counts described in clause (iv);
- (iv) beginning on the fifth [business?] day following the close of the polls and at the time and location announced as specified in clause (iii)(II), initiate and conduct in public view such mandatory hand counts of the voter-verified paper records:
 - (I) from the precincts randomly selected as specified in clause (iii)(I), and
- (II) from any precinct for which the initial vote count was not completed and publicly announced as specified in clause (ii), in which case the results of the mandatory hand-counts of the voter-verified paper records from such precinct will be accepted and publicly announced as the initial count for that precinct,
- (III) such that multiple mandatory hand counts of the voter-verified paper records from a precinct will not be required in the case where a precinct meets the conditions of both subclauses (I) and (II) of this clause (iv); and
- (v) no later than 7 [business?] days following the close of the polls, complete in public view each such mandatory hand count initiated in clause (iv) and publicly announce the results of each such mandatory hand count as soon as such results are available.

This language ensures that the audit moves forward on a relatively fixed and predictable time scale regardless of any snags that develop with the initial (machine) vote counts. The counts of days (from the close of the polls) to the start and end of each of these various activities can be adjusted as needed to conform with existing previsions of a given state's election code. One also needs to decide whether or not such activities can occur on nonbusiness days.

The language proposed above used the phrase "publicly announce" regarding the disclosure of the results of the initial vote counts and of the mandatory hand counts. That should probably be strengthened to include both an immediate public announcement as well as a more accessible and widely distributed form of disclosure, including, but not necessarily limited to: publication in at least one newspaper of record, posting to the county registrar's, county clerk's or other relevant agency's website, posting at a public location (e.g., county clerk's office, public library, etc.).

These specific details should not be spelled out in this subsection (a)(2)(A) (because that subsection is devoted to the TIMING of the audits, and not the publication of the results). Rather, the publication details should be addressed in subsection (d) of this bill, since that subsection pertains to "publication". Thus, subsection (d) probably should be cross-referenced from the language of subsection (a)(2)(A) above. For example, most instances of "publicly announce" should probably be replaced by something like "publicly announce and publish as described in subsection (d)".

(B) With respect to votes cast at the precinct or equivalent location on or before the date of the election (other than provisional ballots), the County Board of Elections shall require to be counted by hand the voter-verified paper records and compare those records with the initial count of such votes as announced by the [precinct?].

This paragraph can refer to early voting, or to absentee ballots dropped off at a precinct location or office of the County Board of Elections, for example. The question mark by [precincts?] is there because some states lump absentee ballots together in one "absentee" precinct. Others may sort absentees based on the voters' assigned precinct according to their address, while processing signatures as ballots come in.

(C) With respect to votes cast other than at the precinct on the date of the election or votes cast by provisional ballot on the date of the election which are certified and counted by the County on or after the date of the election, including votes cast by absent uniformed services voters and overseas voters under the Uniformed and Overseas Citizens Absentee Voting Act, the County Board of Elections shall count by hand the applicable voter-verified paper records and compare its count with the machine tally of those votes.

This is appropriate for all types of votes, whether optical scan or DRE, because even opscan absentee ballots are initially counted by machine. However, how do you construct a sample of such ballots, since it may not be feasible to mandate that every such ballot be hand counted? Similar problem exists for votes cast during early voting.

Do these absentee ballots eventually get mapped back to a precinct of the voter who cast them (i.e., their address of their last known residence in the state?), or are all absentee ballots lumped into one giant super-precinct? If that super-precinct is one of the precincts chosen for manual audit, do you hand count every ballot cast in that super-precinct? The Secretary of State and the County Clerks may have difficulty lining up to embrace that provision. This is a very hard problem.

(b) Selection of Precincts- The selection of the precincts in a County in which the County Board of Elections shall conduct hand counts of the voter-verified paper records as specified in this section shall be made publicly by the County Board of Elections on an entirely random basis using a uniform distribution in which all precincts in a County have an equal chance of being selected. The timing of when such random selection is made is as specified in subsection (a)(2)(A).

You also need to determine how the concept of "precinct" applies to votes cast by absentee ballot; see note above.

(c) Additional Audits In case of discrepancy: If the County Board of Elections finds that any of the hand counts conducted under this section show a discrepancy between the hand count and the initial vote count in a jurisdiction within the County, the County Board of Elections shall conduct hand counts under this section at such additional precincts within the County as the Board considers appropriate to resolve any concerns and ensure the accuracy of the results.

(d) Publication-

(1) IN GENERAL- As soon as practicable after the completion of an audit conducted under this section, the County Board of Elections shall announce and publish the results of the audit, and shall include in the announcement a comparison of the results of the election in the precinct as determined by the County Board of Elections under the audit and the initial vote count in the precinct as announced by the County Board of Elections as specified in subsection (a)(2)(A)(i) [or (a)(2)(A)(ii)(I) in the alternate formulation], broken down by the categories of votes described in subparagraphs (B) and (C) of subsection (a)(2). Any discrepancies between the corresponding audit results and initial vote counts will be duly noted, along with a description of the actions taken by the County Board of Elections for resolution of such discrepancies.

You may need to add some language to (d) to make explicit that both the "results ... determined under the audit" and the "audit results" specifically include the results of the **mandatory hand counts** that are described in subsection (a). This subsection should also provide more details regarding the methods used to publish the results, similar to what was previously noted (e.g., publication in newspaper of record, website posting, printed posting at a public location, etc.), assuming that such provisions are not already part of the statutes.

2) DELAY IN CERTIFICATION OF RESULTS BY COUNTY - No County may certify the results of any election which is subject to an audit under this section prior to the completion of the audit and the announcement and publication of the results of the audit under paragraph (1).

You probably want to add some language here to cover the case where the initial (machine) vote count simply cannot be completed due to an irrevocable problem with the voting system (e.g., catastrophic failure to record electronic votes, as happened in Carteret County, North Carolina in Nov. 2004), in which case you stipulate that the voter-verified paper records for any such machine will be hand counted and treated as the vote of record for that machine, so that the audit for the precinct in which that defective machine is located can be declared complete so that in turn the results from the precinct can be certified.

ALTERNATE DRAFT AUDIT LANGUAGE

Note: the following example is much shorter than the more fully developed example above. It is based on West Virginia's recently-enacted legislation (H.B. 2950). It should be noted that West Virginia already uses optical scan, centrally counted. As noted above, keep in mind the level of complexity may depend on what you want to accomplish with the audits.

During the canvass and any requested recount, at least five percent of the precincts are to be chosen at random and the voter-verified paper ballots are to be counted manually. Whenever the vote total obtained from the manual count of the voter verified paper ballots for all votes cast in a randomly selected precinct:

- (1) Differs by more than one percent from the automated vote tabulation equipment; or
- (2) Results in a different prevailing candidate or outcome, either passage or defeat, of one or more ballot issues in such precincts for any contest or ballot issue;

then the discrepancies shall immediately be disclosed to the public and all of the voter-verified paper ballots shall be manually counted. In every case that there is a difference between the vote totals obtained from the automated vote tabulation equipment and the corresponding vote totals obtained from the manual count of the voter-verified paper ballots, the manual count of the voter-verified paper ballots shall be the vote of record.

It is important that any additional audits be triggered on the basis of clear criteria that can be objectively enforced, otherwise you will end up in court, and once you end up in court, opposing parties can stall, delay, and run down the clock on any recount deadlines or electoral-college deadlines.

AUDIT PROVISION EXAMPLES FROM OTHER STATES (statutes and pending bills):

California (Statute)

15627. If in the election which is to be recounted the votes were recorded by electronic or electromechanical vote tabulating devices, the voter who files the declaration requesting the recount may select whether the recount shall be conducted manually or by means of the voting system used originally, or both.

15629. The recount shall be conducted publicly.

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. Additional precincts for the manual tally may be selected at the discretion of the elections official.

Colorado (proposed legislation – we worked on this language but encountered tough resistance from the Secretary of State and County Clerks)

SB 79: Requires the secretary of state, immediately following a general election, to randomly and publicly select a specified number of precincts in the state.

Requires the secretary, in each of these precincts, to conduct a manual recount of the votes cast by the permanent paper records and to compare such votes with the vote tally recorded in that precinct by electronic voting or other vote counting machine used in the election.

West Virginia (HB 2950; legislation passed this session – signed into law on May 4, 2005)

If any candidate demands a recount of the votes cast at an election, the voter-verified paper ballot shall be used for requested recounts according to the same rules as are utilized in the original vote count pursuant to section twenty-seven of this article.

(d) During the canvass and any requested recount, *b*fb*g*f*f*f**g*i*f**f* are to be chosen at random and the voter-verified paper ballots are to be counted manually. Whenever the vote total obtained from the manual count of the voter verified paper ballots for all votes cast in a randomly selected precinct:

- (1) Differs by more than one percent from the automated vote tabulation equipment; or
- (2) Results in a different prevailing candidate or outcome, either passage or defeat, of one or more ballot issues in such precincts for any contest or ballot issue; then the discrepancies shall immediately be disclosed to the public and all of the voter-verified paper ballots shall be manually counted. In every case that there is a difference between the vote totals obtained from the automated vote tabulation equipment and the corresponding vote totals obtained from the manual count of the voter-verified paper ballots, the manual count of the voter-verified paper ballots shall be the vote of record.

Alaska (pending legislation re audit language - AK already has a VVPB law)

An amendment offered to a recent bill, which "requires the automatic hand count of **at least one precinct (containing 5%+ of voters) per House District**, for each Alaska election. This mandatory manual audit, with the precinct to be counted selected randomly after voting finishes on Election Day, is a critically important element of reliable elections," as we stated recently in a letter of testimony.

Illinois (Statute)

Sec. 24C-2.5. Official paper vote; random audit.

- (a) All voting systems submitted for approval under this Article must produce a voter verifiable paper ballot that is then counted by a machine not connected either physically or electronically to the machine that produces the paper ballot. The ballot as counted by this separate machine shall constitute the actual vote of the voter.
- (b) An election authority using a voting system subject to this Article must conduct a random audit of the system consisting of the recount of votes cast in 5% of the precincts using the system.

Connecticut (pending)

SB 55:

http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=55&which_year=2005&SUBMIT.x=12&SUBMIT.y=15

The relevant text of which reads as follows:

- 424 (4) Not later than five business days after each election in which a
- 425 direct recording electronic voting machine is used, the registrars of
- voters or their designees, representing at least two political parties,
- shall conduct a manual audit of the votes recorded on at least one
- 428 direct recording electronic voting machine used in each voting district.

429	Not later than five business days after a primary in which a direct
430	recording electronic voting machine is used, the registrar of voters of
431	the party holding the primary shall conduct such a manual audit by
432	designating two or more individuals, one of whom may be the
433	registrar, representing at least two candidates in the primary. The
434	machine or machines audited under this subdivision shall be selected
435	in a random drawing that is announced in advance to the public and is
436	open to the public. All direct recording electronic voting machines
437	used within a voting district shall have an equal chance of being
438	selected for the audit. The method of conducting the random drawing
439	may begin with a random number seed, use the last three digits of a
440	state lottery drawing determined in advance, use a random number
441	table recognized by statisticians as authoritative, or use any
442	combination of such methods or similar methods as may be
443	determined by the Secretary of the State in advance and publicly
444	announced. The manual audit shall consist of a manual tally of the
445	individual, permanent, voter-verified paper records produced by each

- or not to decertify the voting machine or machines and may order a
- 473 recanvass in accordance with the provisions of subdivision (3) of this
- 474 section.

4. ENABLING/AUTHORIZING USE OF THE RELEVANT VOTING TECHNOLOGIES

The definitions and legislative language proposed above assumes that the relevant voting technologies (e.g., optical scan voting systems, precinct-count optical scanners, direct recording electronic (DRE) voting machines, ballot marking devices, etc.) are authorized for use in the given state. Some of these devices (e.g., ballot marking devices) might not be currently authorized for use, in which case specific enabling legislation will be required before such devices can be used in that state.

For example, West Virginia has recently enacted legislation (H.B. 2950) which provides enabling legislation for ballot marking devices and for ballot checking devices (referred to as precinct ballot scanning devices):

49X; b3*X i b *g *b . b k* k* f *A **f f f 3

- (a) For purposes of this section, "ballot-marking accessible voting system" means a device which allows voters, including voters with disabilities, to mark an optical scanning or mark-sensing voting system ballot, privately and independently. The ballot-marking device is capable of marking voter selections on an optically readable or mark-sensing ballot which shall be subsequently read and tallied on state certified optically readable or mark-sensing ballot tabulating and reporting systems. Counties are hereby permitted to obtain and employ ballot-marking accessible voting systems that are approved by the State Election Commission.
- (b) The ballot-marking accessible voting device shall be a completely integrated ballot-marking device that is designed to allow voters to either view ballot choices through a high resolution visual display or listen to ballot choices with headphones and then enter ballot selections directly through specially designed, integrated accessibility keys.
- (c) Ballot-marking accessible voting systems may be used for the purpose of marking or scanning optically readable or mark-sensing ballots cast in all general, special and primary elections and shall meet the following specific requirements:
- (1) The ballot-marking accessible voting system, system firmware and programming software must be certified by an independent testing authority, according to current federal voting system standards and be approved by the State Elections Commission prior to entering into any contract.
- (2) The ballot-marking accessible voting system shall, additionally:
- (A) Alert the voter if the voter has made more ballot selections than the law allows for an individual office or ballot issue;
- (B) Alert the voter if the voter has made fewer ballot selections than the law allows for an individual office or ballot issue;
- (C) Allow the voter to independently review all ballot choices and make any corrections, before the ballot is marked;

- (D) Provide the voter with the opportunity to make a write-in ballot choice, where allowed by state law;
- (E) Allow voters with disabilities to mark their ballots, in complete independence, and in conformity with both federal and state law concerning mandatory accessibility for disabled persons;
- (F) Allow blind or visually impaired voters to vote in complete privacy;
- (G) Provide voters with an opportunity to change ballot selections, or correct errors, before the ballot is marked for voting, including the opportunity to correct the error through the issuance of a replacement ballot if the voter was otherwise unable to change the ballot or correct the error;
- (H) Provide voters with the ability to view all ballot selections through a high resolution visual display or to have all ballot selections read to the voter through headphones;
- (I) Ensure complete ballot privacy, while employing the ballot-marking audio system and

- (1) Alert the voter if the voter has made more ballot selections than the law allows for an individual office or ballot issue;
- (2) Alert the voter if the voter has made fewer ballot selections than the law allows for an individual office or ballot issue; and
- (3) Allow voters an opportunity to change ballot selections, or correct errors, including the opportunity to correct the error through the issuance of a replacement ballot if the voter was otherwise unable to change the ballot or correct the error.
- (e) The precinct ballot-scanning device shall not be used for tabulating election results.
- (f) The Secretary of State is hereby directed to propose rules and emergency rules for legislative approval in accordance with the provisions of article three, chapter twenty-nine-a of this code in accordance with the provisions of this section.