

Suggested Amendments to Election Reform Proposals
HR811 (& in great part applies to S559, HR1381 & S804)
To Increase Support from Election Integrity Groups and Election Officials

REMOVE SEC. 327. EXCEPTION FOR ELECTIONS SUBJECT TO AUTOMATIC RECOUNT UNDER STATE LAW.

Section 327 permits states to avoid independent manual audits by conducting state “recounts”. Many State “recounts” involve no manual counts of voter-verified paper ballots, involve insufficient manual counts, or do not compare the manual counts with the electronic tallies on the election management system.

REMOVE SEC. 4. EXTENSION OF AUTHORIZATION OF ELECTION ASSISTANCE COMMISSION.

According to the nonpartisan US Government Accountability Office (GAO), the EAC has not accomplished its functions. The EAC is a threat to states’ rights and to US democracy. **Reallocate EAC functions**, as appropriate, to the General Services Administration (GSA), Federal Election Commission (FEC), US Government Accountability Office (GAO), National Institute of Standards and Technology (NIST), the Technical Guidelines Development Committeeⁱ (TGDC), and a 50-state representational Standards Board, rename it the National Election Standards Board, hire a new administrative staff, and add a 50-state citizens’ representational body to jointly assume most of the functions currently filled by the EAC.ⁱⁱ See these papers on the EAC:

http://electionarchive.net/docs_other/EAC-DoNotReauthorize.pdf
<http://www.votersunite.org/info/TestimonyTheisen03-13-07.pdf>

AMEND SEC. 321. ESTABLISHMENT OF ELECTION AUDIT BOARDS.

State Election Audit and Recount Committee (EARC) members should include appropriate stakeholder representation, including citizen oversight groups, representatives of all political parties, liaison state and local election officials, and persons with at least Masters degrees in mathematics, statistics, quality assurance, and computer science, for overseeing audits and recounts and for creating any state audit and recount procedures that may be different than an already federally approved audit or recount procedure. State Audit Plans should include approved procedures for when to expand manual audits in response to discrepancies and how to resolve discrepancies whenever discrepancies are discovered between manual and machine counts.

U.S. Election Audit and Recount Committee (US EARC): The Vote Count Audit and Recount Committee should be under The National Institute of Standards and Technology (NIST) or the U.S. GAO. Its members should have at least a Masters degree in fields like statistics, mathematics, computer science, computer based security plus members who are election integrity activists, gaming experts, and non-voting election officialsⁱⁱⁱ. This committee would ensure that state audit, recount, and other policies and procedures are adequate to ensure accurate election outcomes and avoid voter disenfranchisement.

Note: State Auditors would be appropriate election auditors only in some states. More flexibility and more expertise is needed, than HR811 currently requires.

AMEND SEC. 322. NUMBER OF BALLOTS COUNTED UNDER AUDIT.^{iv}

Remove existing Sec. 322 text and replace with:

(a) In General- Except as provided in subsection (b), the number of voter-verified paper ballots which will be subject to a hand count administered by the Election Audit Board of a State under this subtitle with respect to an election shall be determined as follows:

(1) at least 1% (one per centum) of each county's precinct or batch vote counts shall be hand counted; and

(2) a sufficient number of precinct or batch vote counts shall be manually counted to give at least a 99% probability for detecting at least one corrupt/miscounted precinct or batch vote count if the amount of corrupt vote counts were sufficient to alter the election outcome of any federal election contest, taking into account the margin between the candidates and the total number of precinct or batch vote counts in the Congressional district involved (in the case of an election for the House of Representatives) or the State (in the case of any other election for Federal office), and assuming that at most x% of any precinct or batch vote count is erroneously counted, where x is set by the US Election Audit and Recount Committee^v; and

(3) at least one vote count is audited in each election contest submitted to the voters within each county's jurisdiction; and

(4) in addition to randomly selected precincts in (1), (2), and (3) above, a small number of discretionary precinct vote counts selected by candidates, or alternatively, precinct vote counts which calculations show are "suspicious" should be manually audited.

(b) Use of Alternative Mechanism- Notwithstanding subsection (a), a State may adopt and apply an alternative mechanism to determine the number of voter-verified paper ballots which will be subject to the hand counts required under this subtitle with respect to an election, so long as the National Institute of Standards and Technology determines that the alternative mechanism will be at least as effective in ensuring the accuracy of the election results and as transparent as the procedure under subsection (a).

FUND REPLACEMENT OF INAUDITABLE VOTING SYSTEMS PRIOR TO THE 2008 ELECTION.

Estimating that there are approximately 67,000 polling places with paperless DRE systems, requiring at least one ballot marking device (BMD)^{vi} per polling place to provide accessible voting for voters with disabilities or alternative language requirements = 67,000 BMDs X \$5,000/machine = \$335 Million. Of the 67,000 precincts, approximately 44,000 do not currently use precinct based optical scanners (PCOS) and would need to purchase one PCOS per polling place = 44,000 precincts X \$5,000/machine = \$220 Million. This would make the total fiscal note approximately \$555 Million, a reasonable cost for implementing auditable voting systems that would improve the security and accuracy of elections.^{vii} Note that this amount does not include all costs for implementing this equipment such as software configuration or recurring costs.

ADD A “SUNSHINE” SECTION: CITIZEN ACCESS TO ELECTION RECORDS.^{viii}

Adequate records must be produced and retained, and records needed to canvass the election must be made available to the public before the election is certified. Information must not be removed from public oversight by placing it outside governmental custody or allowing proprietary rights to be ceded to private parties.

A printout of each voting machine’s vote totals must be posted immediately and made available to the public and to certified tabulation observers at the polling place at poll closing to be compared to centrally tabulated totals for the corresponding polling place to be displayed on the Internet. We need a federal statute requiring public access to election records that is similar either to the Freedom of Information Act, or to the National Voter Registration Act of 1993 (NVRA) **Sec. 1973gg-6 (i) “Public disclosure of voter registration activities”**. I.e. we need federal legislation that states something like the following:

“Each State shall maintain for at least 2 years and shall make available for public inspection and, where available in electronic format, provided on a public web site or by photocopying at a reasonable cost, all records concerning the implementation of *elections*. Beginning with 2008 federal elections, all electronic logs, data files and reports which can be produced in electronic form by election systems currently in use should be made available before election results are made official^{ix}, and the public should be allowed reasonable examination of relevant paper documents before the election is certified. Beginning with 2010 federal elections, scanned copies of relevant paper records should be made available at least one week before the time period to contest the election has expired, with originals available for authentication if requested;”

Funds for Scanners: Approximately \$3.3 Million to \$29.9 Million would be needed to supply approximately 3300 jurisdictions with special scanners, costing approximately \$1,000 to \$9,000 each, to make the job of scanning paper election records efficient.^x Allow ample time to sufficiently reduce or eliminate, where necessary, the particular constraints and parameters of current election administration systems.

Records which need to be created, retained, and made publicly available in addition to voter-authenticated ballots, include incident, troubleshooting, and problem logs from elections workers, vendors and help desks; ballot accounting and reconciliation forms; assignment logs for voting equipment (including peripherals) serial numbers and locations where equipment has been deployed throughout the election cycle; security area access logs, keycard logs, and videotapes; all computer and voting system audit logs, event logs, error logs, network event and status logs, and process reports, ballot definition files and databases; results tapes and reports including the interim tallies; voter registration lists, records of voters who requested, mailed, and returned mail-in or provisional ballots, voters who signed in at the polls on Election Day and during early voting; certification reports, contracts of sale for voting systems, technical support, maintenance, and repair logs, and all billings, invoices, adjustments and written communications with vendors, and electronic vote count data on central tabulation, voting system printouts, certification and testing reports. All records which are available in electronic format shall be made publicly available on the Internet.

AMEND SEC. 324. SELECTION OF PRECINCT OR BATCH VOTE COUNTS.

(c) Selection of Precinct or Batch Vote Counts Established Specifically For Non-Election-Day Ballots- If a State establishes separate precincts or batches for purposes of counting the early, provisional, absentee, mail-in, overseas, or military ballots cast in an election and treats all these ballots as having been cast in those precincts or batches, and if the state does not include these early, provisional absentee, mail-in, overseas, or military ballot counts in the same precincts used on Election Day, the State shall either:

- (1) include those precincts or batches among the precincts in the State in which the Election Audit Board shall administer the hand counts under this subtitle; or
- (2) count these early, provisional, absentee, mail-in, overseas, or military ballots in batches or precincts that are as close as possible in size to a median-sized Election Day precinct and include them in the number of precinct and batch vote counts to be randomly selected for auditing; or
- (3) exactly calculate the number of miscounted precinct or batch vote counts that could wrongly alter the election outcome by using the number of total ballots or votes cast in each precinct or batch vote count, the percentage of votes by the leading candidate in each precinct or batch vote count, and use this number to calculate the audit amount, or
- (4) use weighted random sampling of precinct or batch vote counts where larger precincts have greater probability of selection.

Note: This is necessary because the prior language contained a huge loophole in it that would allow audits to be gamed. This amendment gives flexibility to states in how to handle this issue because one-size-fits-all doesn't work well. All vote counts (precincts or batch or machine counts) should be roughly the same size in order for the audit to be effective. If the vote counts are not roughly of equal size, then the exact number of vote counts that could wrongly alter an election outcome may be exactly calculated using the number of ballots cast in each vote count, and used to exactly calculate the minimum audit sample size that would ensure that the election outcomes are correct; or the probability of random selection of precincts could be weighted by size as proposed in a recent paper by Ron Rivest.

FIX DEADLINES AND FUND LONG-TERM IMPROVEMENT OF VOTING SYSTEMS.^{xi}

Require Voting Technology with Disclosed Software, Security, Full Audit-ability, Privacy, and Independent Ballot Verification for Voters with Disabilities: Allow ample time for standards-setting including public input and prioritization of possibly conflicting requirements; development of enforcement, testing, and monitoring systems; and for development, purchase, and training cycles; and for development and adoption of State Implementation Plans. To improve existing voting systems, the entire sequential process of setting standards, product development and implementation could take at least five to ten years, and federal requirements should enable jurisdictions to budget for voting equipment life-spans of at least 10 to 20 years. Funding would not only be necessary for any required voting systems, but also for the infrastructure required for verifying publicly disclosed software. Consider drafting a separate bill for long-term improvement of voting systems legislation and putting together a team with diverse opinions and interests to hash out its details.

AMEND SECTION 2.(A)(2)(D) SPECIAL RULE FOR TREATMENT OF DISPUTES WHEN PAPER BALLOTS HAVE BEEN SHOWN TO BE COMPROMISED.

Remove:

In the event of any inconsistency between any electronic vote tallies and the vote tallies determined by counting by hand the individual permanent paper ballots produced pursuant to subparagraph (A), any person seeking to show that the electronic vote tally should be given preference in determining the official count for the election shall be required to demonstrate, by clear and convincing evidence, that the paper ballots have been compromised (by damage or mischief or otherwise) and that a sufficient number of the ballots have been so compromised that the result of the election would be changed. For purposes of the previous sentence, the paper ballots associated with each voting machine shall be considered on a voting-machine-by-voting-machine basis, and only the sets of paper ballots deemed compromised, if any, shall be considered in the calculation of whether or not the election would be changed due to the compromised paper ballots.'

Substitute:

“In the event of any inconsistencies or irregularities between any electronic records and the voter-verifiable paper records, the paper records shall be the true and correct record of the votes cast, except in the case where evidence exists that indicates that the paper record has been tampered with or damaged, in which case, if an outcome is in question, then a court will decide.”

AMEND SEC. 247. STUDY AND REPORT ON ACCESSIBLE BALLOT VERIFICATION MECHANISMS (11) PROHIBITING CONNECTION OF SYSTEM OR TRANSMISSION OF SYSTEM INFORMATION OVER THE INTERNET.

PROHIBIT INTERNET CONNECTIONS FOR CENTRAL ELECTION MANAGEMENT SYSTEMS AND BALLOT PROGRAMMING DEVICES. Internet connections are unnecessary since portable media can be used to transfer vote counts from the central tabulator or to the ballot programming devices.

Amend this section to say:

- No component of any voting device upon which votes are cast **or counted or on which ballots are programmed** shall be connected to the Internet at any time.

ADD A SECTION TO REQUIRE PAPER VOTER SIGN-IN SYSTEMS.

Having paper ballots for voters in case of power failure or electronic failure does no good if there are electronic poll books that prevent voters from signing in to vote. Voters have been disenfranchised in both MD and CO because of electronic poll books. At the very least require official paper registers and paper poll books to be available in case of electronic failure of electronic poll books and require electronic poll books to use open source software.

AMEND SEC. 2. PROMOTING ACCURACY, INTEGRITY, AND SECURITY. THROUGH VOTER-VERIFIED PERMANENT PAPER BALLOT.

Revise (b) Accessibility and Ballot Verification for Individuals With Disabilities-

(1) (B)(ii) (I) allows the voter to privately and independently verify the content of the permanent paper ballot through the conversion of the printed content into accessible media^{xii}, and

to say: (I) allows the voter to privately and independently verify the votes selected on the permanent paper ballot."

Note: If the argument is made that DREs with VVPATs cannot be prohibited because Congress wants to avoid technology-specific legislation, even despite the fact that DREs with VVPATs are not fully independently auditable and can be rigged in a way that even manual audits would not reveal; then by the same token, Congress should not make technology specific legislation for ballot verification methods for voters with disabilities or alternate language needs.

FUND MANUAL AUDITS OF FEDERAL ELECTIONS.

See "Federal Election Audit Costs" for a generous \$8 M estimate per election cycle to pay the costs to audit all federal races

<http://electionarchive.org/ucvAnalysis/US/paper-audits/FederalAuditCosts.pdf>

This document is available online: http://electionarchive.net/docs_other/dopp/AmendHR811.pdf

For further information, see "One-Page Concept Proposal for Election Reform Legislation"

<http://electionarchive.org/ucvInfo/US/EI-FedLegProposal-v2.pdf>

ⁱ The qualifications for TGDC members need to be increased to require a Masters degree in technical fields.

ⁱⁱ Nancy Tobi of Democracy for New Hampshire suggests that the EAC duties, as described on their website and listed below in lower case, could possibly be delegated as follows (with some additions by Kathy Dopp) Note: HAVA must be amended to require that members of the Technical Guidelines Development Committee (TGDC) shall have Masters or Ph.D. degrees in a technical field; or the TGDC dissolved:

- Technical guidance on the administration of federal elections. – NIST, TGDC, US EARC & STANDARDS BOARD
- Produce voluntary voting systems guidelines. – NIST, TGDC & STANDARDS BOARD
- Research and report on matters that affect the administration of federal elections. – STANDARDS BOARD, & NIST
- Otherwise provide information and guidance with respect to laws, procedures, and technologies affecting the administration of Federal elections. – STANDARDS BOARD, NIST & CITIZENS GROUP
- Administer payments to States to meet HAVA requirements. – GSA
- Provide grants for election technology development and testing. – NIST.
- Manage funds targeted to certain programs designed to encourage youth participation in elections. – FEC ... STANDARDS BOARD
- Develop a national program for the testing, certification, and decertification of voting systems. – NIST, TGDC, & STANDARDS BOARD
- Maintain the national mail voter registration form that was developed in accordance with the National Voter Registration Act of 1993 (NVRA), report to Congress every two years on the impact of the NVRA on the administration of federal elections, and provide information to States on their responsibilities under that law. – FEC ... STANDARDS BOARD
- Audit persons who received federal funds authorized by HAVA or this bill by Congress. – GAO
- Submit annual reports to Congress describing election activities for previous fiscal year. – APPROPRIATE ENTITIES

ⁱⁱⁱ Election officials must be non-voting members of any audit or recount committee because auditing in any fields is done independently of those who conduct the audited activities.

^{iv} See bibliography of Kathy Dopp's Election Audit Mathematics Work:

<http://electionarchive.org/ucvAnalysis/US/paper-audits/KathyDoppAuditMathBibliography.pdf>

^v The particular assumed maximum voteshift per vote count used to calculate audit sample sizes does not matter as long as, in addition to randomly selected precincts, suspicious precinct or batch vote counts as calculated using partisanship in voter history files, are also audited in addition to randomly selected ones, or alternatively candidates are permitted to select discretionary precinct or batch vote counts to audit in addition to randomly selected ones. The US Election Audit and Recount Committee, under NIST or the GAO, could be responsible for setting the assumed maximum voteshift per vote count for calculating election audit sample sizes. 0.20 is commonly used today by election audit mathematicians, but this number should be revised in response to future actual election audit discrepancy data.

^{vi} For accessibility, these jurisdictions could also possibly purchase a telephone voting system, ballot assist devices, ballot marking devices, or possibly add ballot printers to a DRE. According to Noel Runyan, electrical engineer and computer scientist who designs accessible voting systems, "The only voting systems that permit truly accessible verification of the paper ballot are ballot marking devices." It is possible to provide a single BMC to be used by any voter in the polling place "to give overvote warnings, so a precinct count optical scanner would not be necessary." See Runyan's testimony:

http://electionarchive.net/docs_other/HearingTestimony/NoelRunyanTestimonyHouseAdmin-March2007.doc

^{vii} Note that if all DRE voting systems with paper roll VVPATs were also replaced by precinct-based paper ballot optical scan systems, the total fiscal note would be approximately \$990 Million = 74,000 X \$10,000 + 50,000 X \$5,000. The number of precincts was taken from Warren Stewart's testimony on election reform before the House Admin Committee:

http://electionarchive.net/docs_other/HearingTestimony/StewartTestimony.doc

^{viii} This Sunshine Section was drafted primarily by Bev Harris and Jim March of Black Box Voting.

^{ix} Note: Because current computerized voting systems already produce audit logs, event logs, as described above, all that is required is to click the menu items to save a copy of each log and report to disk, a task that can be accomplished simply by following properly designed Users Guides for the equipment. This is not a time consuming task, nor does it require special expertise. The single most powerful and efficient improvement to public access can come simply from running copies of electronic reports and saving them to disk, or publishing them online.

^x The top of the line highest end high speed scanners that can network directly to the county system and convert documents -- including narrow documents like checks or poll tapes -- into digital images, runs for about \$9000. The lowest end model -- tradeoffs being speed and efficiency and networking ability -- is about \$300. To scan all the poll tapes in a LARGE jurisdiction might take staff time of 1-2 days. The other documents will be doable in an hour. The whole time equation could vary wildly depending on the scanner model and whether it will process poll tapes.

^{xi} The Holt, Nelson, Tubb-Jones, and Clinton bills could create a “HAVA-like” mess due to insufficient implementation timelines.

^{xii} According to Nancy Tobi of Democracy for New Hampshire: There are several problems with the conversion device proposed in Holt in addition to the roughly \$4BIL unfunded mandate it represents. Here are just a few off the top of my head:

- 1) It is mandated for 2008 and does not yet exist to our knowledge
- 2) If it exists it will not be tested or certified for 2008
- 3) It will not work with many ballot types, such as those in NH, which use a matrix design. Therefore, it would require states using matrix design ballot - used often in opscam systems, to redesign their ballots, create new election law to support the redesign, and purchase all new equipment. Heck, we might even have to completely redistrict the state to get rid of our multimember districts to support the technology requirements of Holt. The chaos broadens and the unfunded mandate gets more unfunded by the minute.
- 4) it increases the invisibility of the voting system and
- 5) it mandates expensive new high tech gadgetry for every polling jurisdiction in the nation, even Dixville Notch, NH with its 16 registered voters

According to Bev Harris of Black Box Voting: The text conversion technology:

- 1) If/when it does exist, it will force changes in the ballot design for hand count areas that have created outstanding, efficient, accurate, and rapidly counted ballot designs. Thus, you get the technology hijacking the hand counts because it can't read ballots that are designed optimally for hand counts.
- 2) As I understand it, to solve the hijacking of the hand count ballot designs would require redistricting.
- 3) Text conversion devices are an unfunded mandate.