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Attn: Political assignments

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## **AN END TO "FAITH-BASED" VOTING:**

### **Computer Security and Statistical Analysts Describe a Simple and Powerful Alternative**

#### **Summary**

Today the Election Defense Alliance released a report describing the practical implementation details of a simple, unimpeachable method for ensuring the accuracy of electronic voting systems by a public handcount of paper ballot records. This "Universal Precinct-Based Handcount Sample" (UPS) is a simple, feasible method of hand-counting a sample of paper ballot records in-precinct, on election night, by citizens themselves. It not only returns oversight of elections to the American people, where it rightfully belongs, the UPS is also far more accurate than alternative election audit proposals—where only a few percent of precincts are hand-counted, often in secret, and always after the fact. (Download the full report at [www.electiondefensealliance.org/UPS.pdf](http://www.electiondefensealliance.org/UPS.pdf))

The simple, practical UPS validation approach detects fraud or error from any source altering the electronic tally by as little as one percent (1%) with a *minimum* ninety-nine percent (99%) level of confidence.

In our current political climate, any challenge to a corrupt election must be timely and have very strong justification, or candidates risk being labeled "sore losers" and accompanying ridicule. The UPS validation, by virtue of being accurate to such a high degree of confidence, enables *any* candidate of *any* party to contest *any* outcome-altering problems with the electronic tally. And since the UPS hand count is done in-precinct on election night, its findings would be available on election night, enabling candidates in federal or statewide elections to challenge a corrupted tally *before the election's outcome becomes a foregone conclusion in the mind of the public, and before the results are officially certified.*

The report describes the specific means of effectively conducting a public hand count of 10% of the paper ballot records in 100% of the precincts in federal and statewide races. The UPS is to be conducted "in-precinct" on election night, by citizens representing all concerned political parties, and open to general public observation. Because it is conducted in-precinct, the UPS avoids the difficult task of protecting the chain of custody of paper ballot records in 180,000 U.S. precincts. In fact, all the alternative after-the-fact "spot-audit" schemes (such as HR 550, often referred to as the Holt bill) impose this monumental burden – since in all those protocols, all precincts must safeguard ballot records until just a few percent are "randomly chosen" some time after the election. Integrity of the chain of custody will be especially suspect, of course, in just those suspect elections which such audits are proposed to safeguard. Since a 10% hand-count sample would be drawn in 100% of precincts *on election night*, the UPS also eases the transition to decentralized, citizen-monitored hand-count verifications of elections, placing responsibility for the integrity of the vote count in the hands of the American people, where it rightfully belongs.

Most importantly, the UPS is inherently resistant to manipulation. The report describes how any attempt to systematically manipulate the UPS audit would be extraordinarily difficult to conduct and to conceal. Not only would it require a very large number of participants, any effort to skew the 10% paper hand count in

favor of a candidate would be very likely to increase the overall discrepancy, not decrease it. The UPS provides a simple, effective, and vastly more powerful alternative for election validation than does the proposed HR 550 audit, and all such “spot-audit” proposals. The UPS provides a decentralized hand count, reduces chain of custody concerns and provides citizens and candidates a clear and timely warning of fraud or error. Therefore Election Defense Alliance recommends UPS as an alternative to the HR 550 audit.

In order to restore and maintain citizen trust in the integrity of American democracy, it is critical that wherever electronic vote tallying is performed, paper ballot records must always be produced and must always be checked by the best possible “security mechanism” – *the American people, working together in public*.

## Background

Despite credible reports of widespread error-prone programming and severe, inherent security vulnerabilities,<sup>1</sup> millions of votes in America are now tallied by machines that lack any independent means of verifying that they tallied the vote accurately. Even where such means exist, they are most often not employed, or not employed properly.<sup>2</sup>

In response to this unacceptable risk, Rep. Rush Holt (D-NJ) recently re-introduced HR 550, “The Voter Confidence and Increased Accessibility Act of 2005”—a pending bill to require creation and auditing of a fraction of the paper record of all electronic votes cast in federal elections. According to Representative Holt, HR 550 has received “bipartisan endorsement from one-third of the members of the House of Representatives, and has been endorsed by good-government groups as the ‘gold standard’ in [election] verifiability legislation.”<sup>3</sup>

A study released August 16, 2006<sup>4</sup>, sponsored by the Election Defense Alliance, revealed that, despite its good intentions, the proposed election audit mechanism in HR 550 – far from protecting America’s elections – would in practice actually leave the US House of Representatives elections wide open to undetected programming error or deliberate fraud. The problems with HR 550 are so fundamental they cannot be remedied simply by auditing more precincts.

## About the authors

**Bruce O’Dell, Coordinator of Data Analysis, Election Defense Alliance.** O’Dell is an information technology consultant with 25 years experience who applies his expertise to analysis of the technical security and integrity of voting systems. His current consulting practice centers on e-Commerce security and the performance and design of very large-scale computer systems for Fortune 100 clients - recently as the chief technical architect in a company-wide security project at one of the top twenty public companies in America.  
([http://www.digitalagility.com/Odell\\_home\\_page.htm](http://www.digitalagility.com/Odell_home_page.htm)).

**Jonathan Simon, JD, co-founder of the Election Defense Alliance.** Simon is a graduate of Harvard College and New York University School of Law and is a member of the Bar of Massachusetts. He applies his prior experience as a political survey research analyst for Peter D. Hart Research Associates to studies of the accuracy of exit polls and

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<sup>1</sup> For example see <http://brennancenter.org/programs/downloads/SecurityFull7-3Reduced.pdf>

<sup>2</sup> A well-known but by no means isolated example is the Ohio 2004 “recount,” where precincts were cherry-picked rather than being chosen at random, as required by law, and where vendors introduced “cheat sheets” to avoid triggering full hand recounts, the result being that of Ohio’s 88 counties, only *one* proceeded to a full recount.

<sup>3</sup> June 12 press release at [http://holt.house.gov/list/press/nj12\\_holt/061206.html](http://holt.house.gov/list/press/nj12_holt/061206.html)

<sup>4</sup> See full report at [www.electiondefensealliance.org/HR550/hr550auditaccuracy.pdf](http://www.electiondefensealliance.org/HR550/hr550auditaccuracy.pdf)

other election integrity mechanisms. He has collaborated on several studies assessing the accuracy of the 2004 presidential exit polls. (<http://www.electiondefensealliance.org/jonathansimon>)

## **About Election Defense Alliance**

Election Defense Alliance (<http://www.electiondefensealliance.org>), founded July 4, 2006, is a coalition of election integrity activists working at the state and local levels across the nation to detect and counter covert, antidemocratic manipulation of voter registration databases and all electronic voting systems; to regain public control of the voting process in the United States; and to insure that the process is honest, transparent, secure, subject to unambiguous verification, and worthy of the public trust.

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