

Riverside County CA Voting System Operations: Expensive, Insecure, Illegal, Unqualified and Unaudited

**Verification of Proper System Operation Impossible Due to County
Staff's Impeding of Official Citizen Observer Teams**

**Riverside County, California
June 6, 2006 Primary Election**

Report Date: July 11, 2006



Prepared by SAVE R VOTE*
a Project of Democracy For America- Temecula Valley (DFA-TV)

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*SAVE R VOTE is an acronym for
Safe And Secure Elections Require Voter Observation of Touchscreen Equipment

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WHO CONDUCTED THE STUDY/REVIEW?

Democracy for America – Temecula Valley (DFA-TV) is an inclusive multi-party group with a major focus on good government and fair, clean, auditable and transparent elections. Since 2004, DFA-TV has presented several recommendations regarding electronic voting systems to the Riverside County Board of Supervisors (BOS), and the Registrar of Voters (RoV).

Most recently, on February 7, 2006, DFA recommended against purchasing \$15 million in new uncertified voting system equipment to replace equipment that was capable of being retrofitted to meet the new printed record requirements.

A citizens' review was conducted of the voting system in Riverside County, CA for the period leading up to the June 6, 2006 primary election and the follow-up processes following the election. The period covered in this report is July 1, 2005 – June 30, 2006. Occasional historical references are made to DFA-TV recommendations prior to this period.

The citizens conducting the review/study represented a broad cross-section of members of every active political party in Riverside County and included those whose status is "Decline-To- State (DTS)". It also includes input from several Community Based Organizations (CBOs).

This report in no way reflects nor implies that any given political party or community based organization (CBO) has influenced or endorsed the report and its findings. The findings are completely independent of political party influence, biases and direction or position on any given subject matter.

WHAT WAS COVERED IN THE STUDY?

The review focused on three main categories deemed critical in ANY election process:

- Compliance with law, regulations and directives
- Performance of equipment and staff
- Transparency and auditability of the election process

In addition, a cursory review of costs associated with the current system (dating back to the year 2000) was conducted. The SAVE R VOTE project is continuing its review of the costs and benefits of the system, and will report findings later this summer.

WHAT DO THE EXPERT SAY?

"There is a substantial likelihood that the election procedures and countermeasures currently in place in the vast majority of states would not detect a cleverly designed Software Attack Program." – The Machinery of Democracy: Protecting Elections in an Electronic World – The Brennan Center Task Force on Voting System Security at NYU School of Law (www.brennancenter.org)

"The voter verified paper record, by itself, is of questionable security value. The paper record has significant value only if an automatic routine audit is performed (and well designed chain of custody and physical security procedures are followed). Of the 26 states that mandate voter verified paper records, only 12 require regular audits." Ibid – executive summary

NOTE: CNN's Lou Dobbs conducted an in-depth analysis of electronic voting and polled viewers asking if e-voting should be retired until proven secure... 98% responding said yes!

Executive Summary



WHAT WERE THE MOST SIGNIFICANT FINDINGS?

I. LEGAL AND REGULATORY COMPLIANCE:

- A. Potential disqualification of voting system due to B and C below.
- B. Refusal to post precinct results and purposeful disabling of voting machines from printing election day results at close of polls.
- C. Noncompliance with state election code laws and federal HAVA qualifications.

II. SECURITY AND EQUIPMENT:

- A. Failure to establish, maintain and log a chain of custody resulting in the temporary loss of 17 voting cartridges.
- B. Transmission of election data over county Intranet system is contrary to recommendations of numerous voting security sources.
- C. Loss of control/chain of custody of voting cartridges and printers at collection site
- D. Scanning equipment is over 20 years old and never qualified for Federal approval

III. AUDITABILITY AND TRANSPARENCY:

- A. No provision for outside, independent audit of election.
- B. The legally sanctioned Election Observer Panel was denied “meaningful access” as prescribed by law.

IV. FISCAL:

- A. Delays by the Registrar of Voters office compelled the county to spend \$13 million on new equipment while a retrofit of existing machines would have saved taxpayers at least half that amount.
- B. Purchase of uncertified equipment may have violated state law
- C. Averaging the past six years, Riverside County has spent \$5 million per year on a voting system purported to save taxpayers \$600,000 in annual ballot printing costs.

WHAT IS RECOMMENDED TO ENHANCE VOTER CONFIDENCE AND SYSTEM INTEGRITY?

1. **Independent outside process audits:**
 - a. Audit of **existing procedures** and compliance with appropriate laws and regulations and recommendations for changes needed for General Election in November 2006
 - b. Audit of the **November 2006 General Election** while in progress with recommendations for improvements

2. **Independent outside financial audit** by a qualified audit firm of costs of e-voting system from 2000 (inception) to June 30, 2006 with a comparison to cost (including cost per voter) of using paper ballots for that same period. Absentee ballot costs and trends should be reviewed separately.

3. **Establish a year-round Citizens Independent Voting Integrity Commission (CIVIC)** to provide direct and meaningful observation of all aspects of the election process and make recommendations to the Board of Supervisors. Such commission shall be comprised of one member appointed by the County Central Committee Chair of each political party and five members from the election integrity community.

4. **A public meeting by August 1, 2006** to include SAVE R VOTE, representatives of the Board of Supervisors, the Registrar of Voters and the Election Observer Panel (EOP) to address election integrity questions, recommendations and implementation of items 1-3 above.

5. **Continuation of the Election Observer Panel (EOP)** current membership through the end of 2006 to maintain continuity and momentum.

IN CONCLUSION:

"As I tell my citizens in Leon County (FL), 'Don't trust me, require that I verify to you that the results are accurate'. Demand accountability all across the political spectrum, because if you do not require accountability, you are only going to get an oligarchy or authoritarianism."

"Election officials suffer from one particularly acute disease. I would call it the arrogance of authority." – Ion Sancho, Elections Supervisor, Leon County, FL.

Republican Reps. Tom Cole (Okla.) and Thomas M. Davis III (Va.), chairman of the House Government Reform Committee, joined Rep. Rush D. Holt (D-N.J.) in calling for a law that would set strict requirements for electronic voting machines. Howard Schmidt, former chief of security at Microsoft and President Bush's former cybersecurity adviser, also endorsed the Brennan report.

"It's not a question of 'if,' it's a question of 'when,' " Davis said of an attempt to manipulate election results.

Detail of Findings

I. Legal and Regulatory Compliance

"We do encourage all elections officials to follow the law," – spokesperson for Secretary of State's office [[Precinct posting article](#)] "Secretary of State Bruce McPherson declared last fall that counties with touch-screen voting systems ---- including Riverside and 20 others ---- would have to count and post results at the precinct level.

It is important to note that the Registrar of Voters (RoV) has stated publicly that she made an administrative decision not to comply with state law [[6-5-06 letter - point #1](#)]. As such, the issue of non-compliance with at least one section of State Election Code is not in dispute.

However, there are a number of federal, state and certification requirements that the RoV has failed to comply with, any one of which could jeopardize federal qualification and state certification of the entire election system. Potentially this could invalidate the primary election or future elections, if the RoV continues to be out of compliance. Federal HAVA funding could also be jeopardized.

What requirements appear to have been violated?

A. **REFUSAL TO POST PRECINCT RESULTS REQUIRED BY STATE LAW.**

The Registrar of Voters (RoV) has **refused to post precinct results** at the precincts, as required by laws and regulations and manuals at the Federal, State and local levels. A request for waiver of that requirement was rejected by the Secretary of State's office, making it clear that the county was taking all the legal risk by refusing to comply. [CAL Election Code re Posting.doc](#) and [Denial by SoS of ROV posting waiver request](#) and [Printers will NOT print election results](#) and [Precinct Posting Requirements - EC 19370](#)

B. **VIOLATION OF TWO FEDERAL REQUIREMENTS RE SECURITY, CHAIN OF CUSTODY, AND PRINTING OF RESULTS**

Regulations issued by the federal designee of the Election Assistance Commission (EAC), known as NASED (National Association of State Election Directors) REQUIRED four specific actions [[NASED Doc](#)], two of which were not adhered to by the Riverside RoV. The two requirements are as follows:

- i. "...the election official shall maintain control of all memory cards and keep a perpetual chain of custody record of all memory cards...with logged accesses and transfers."
- ii. "In post election mode, print the results report prior to removing the memory card..."

"Failure to comply with this addendum negates the voting system's status as a NASED-qualified voting system."

When the EOP requested a copy of the log of accesses and transfers of memory cards, the Registrar responded that she was not clear on what was being requested [[Logging required?](#)].

C. **POTENTIAL VIOLATION OF HAVA LAW REGARDING COMPETITIVE BIDS.** Potential violation of competitive bidding requirements of HAVA, thus jeopardizing up to \$7.5 million in Federal HAVA funds the county claimed that may have to be returned (see HAVA audit of State of CA) [[No Bid - No Money](#)]

When the federal government audited the Secretary of State, they questioned (disallowed) \$1.4 million "...arising from ...contracts not meeting the state's competitive bidding requirements...and may not have obtained the best value for goods and services purchased with HAVA funds." The federal **auditors found** that the Secretary of State's "...**office ...bypassed requirements by inappropriately using** a DGS (Department of General Services) **exemption from competitive bidding [and] ...not obtaining the required number of comparison quotes...**"

An audit footnote indicated "**A cost is questioned if the cost (1) resulted from a violation or possible violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the use of federal funds; (2) at the time of the audit was not supported by adequate documentation; or (3) appeared unreasonable and did not reflect the actions a prudent person would take in similar circumstances.**"

DFA-TV advised the Board at the February 7, 2006 meeting that we believed it was violating competitive bid requirements by sole-sourcing the contract with Sequoia for \$15 million in new (and unnecessary) equipment. DFA-TV maintained that the Sequoia system was NOT the only system that would meet the needs of the voters in Riverside County and challenged the statement from the RoV that "...The AVC Edge II with VeriVote is the only touch screen voting unit certified with VVPAT for use in California [[Only unit certified](#)]. **DFA-TV showed the Board a copy of the Secretary of State Web site reflecting the fact that the Edge II had NOT been certified, contrary to the Registrar's statement.**

The Registrar knew, or should have known, that the Sequoia Edge II unit had NOT been certified and was requesting sole sourcing because she had not acted during the year 2005 to acquire the printers in a timely manner. In fact, she asked the state to withhold certification the VeriVote printers for use with existing Edge I machines in a January 2005 letter, "...while mindful of the impending January 2006 implementation date." [[Don't Certify Printers for Edge I](#)]

After doing nothing to acquire needed equipment throughout all of 2005, she rushed a request to the Board on January 10, 2006 to purchase \$15 million in new Edge II equipment, even though **Sequoia itself stated "...the VeriVote is compatible with Riverside's Edge I units..."** (page 4 of "Report on Options for VVPAT Compliance attached to January 10, 2006 Board Agenda Item 3.43 included in link above).

The Registrar’s Summary of Fiscal Analyses of Options on page 6 of the January 10, 2006 Board Agenda Item 3.43 misled the board. She erroneously reported that Option 2 (Paper ballots and one accessible voting unit per polling place) would cost \$6.9 million when in fact, the cost was only \$1.77 million. She built in an assumption that the county would have to buy 3,680 more VVPAT printers after June 6th at a cost of \$5.2 million, when in fact, a paper ballot system would NOT have required more than the 720 printers she reflected in her Option 2 pre- June 6th estimate.

The bottom line is that Option 2 with paper ballots would have cost taxpayers only \$1.77 million while Option 3, upgrading every voting machine in the county, cost taxpayers nearly \$15 million in total funds. We maintain this recommendation “...appeared unreasonable and did not reflect the actions a prudent person would take in similar circumstances.”

- D. **QUESTION OF LOSS OF FEDERAL QUALIFICATION AND STATE CERTIFICATION DUE TO ABOVE ACTS.** There is now a serious question of whether the voting system has lost its federal “qualification” and thus is not eligible for state “certification” due to violation of the two federal qualification requirements regarding control of memory cards and precinct posting requirements. [HAVA Addendum 3-22-06](#) and violation of competitive bid obligations.

If indeed it is found that these violations negate federal qualification status of the system, or violate HAVA funding requirements, then the system cannot qualify for State certification. The state certification requirements read, in part,

“103. Conditions for Approval and Certification

(a) For any voting machine, voting device, vote tabulating device, and any software used for each, including the programs and procedures for vote tabulating and testing, or any modification to any of the above, to be certified for use in California elections, the criteria by which the Secretary of State evaluates such machine, procedure, device, modification, or software shall include, but not be limited to, the following: (5) **The system shall comply with all appropriate federal and California laws and regulations** [[CA Certif.Rules](#)]

Further, the March 20, 2006 Certification of the Sequoia System states, “...voting systems shall also comply with all state and federal voting systems guidelines, standards, regulations and requirements that derive authority from or are promulgated pursuant to and in furtherance of California Elections Code and the Help America Vote Act of 2002 or other applicable state and federal law where appropriate.” [[Sequoia Cert](#)]

- E. **PRIVACY OF VOTE VIOLATIONS.** Violated the intent, if not the letter of the law which requires full privacy of all ballots, when the RoV required those voting on paper ballots to place identifying information on the outside of an envelope and place the ballot inside, without a privacy shield. Subsequently staff opened the envelopes, revealing voter identification and votes, and entered the votes into DREs, in direct violation of voter’s intent.

II. Security and Equipment

- A. **Chain of custody.** In any voting system, as in the law enforcement and legal system, the chain of custody of votes (or evidence) is paramount to maintaining the integrity of the votes. In the court system, if evidence is not accounted for at every step along the way, it is considered “contaminated” and not reliable as evidence against the defendant. Likewise, when chain of custody is violated in the voting system, the integrity of the system is no longer intact. As a result, the reliability of

the reported voting results is compromised. The public cannot rely on results reported when there is a break in the chain of custody.

The Registrar has admitted to losing control of 17 memory cartridges and has not maintained a “chain of custody” log accounting for the whereabouts of every memory card at all times, as required by the certification document and by federal standards. This loss of control is sufficient to put the election results in doubt.

- B. **Transmission of election data over Internet/Intranet (CORNET).** The county returned to a practice of transmitting vote data over the CORNET in apparent violation of state prohibition of this practice. The “need for speed” should never trump the need for security and accuracy. While the county maintains that the transmission is encrypted on a dedicated line that cannot be accessed from outside, computer experts will testify that NO transmission of data, encrypted or not, is secure from a dedicated and knowledgeable hacker. The reason such transmission is prohibited is because no transmission can be totally secure. The requirement to drive or fly the memory cards from the desert area may delay results by an hour or two, but it insures compliance with federal and state requirements.
- C. **Loss of Control of Printer Tapes and Memory Cards at collection site.** The SAVE R VOTE team volunteers witnessed a chaotic situation at the Sam’s Club site in Murrieta following the close of the polls. Some exhausted and frustrated poll workers/inspectors left their pouches with voting machine memory cartridges and printers with paper trails of voter selections on the pavement in the parking lot. There was insufficient RoV staff assigned to the pickup location to adequately and efficiently handle the workers from some 60+ voting locations who converged on the collection site within minutes of each other. The lines of poll workers waiting to turn in their voting cartridges, logs, and tapes were unacceptable causing some to “cut and run”. While only a few did this, it resulted in a broken chain of custody and exposed the votes to potential loss.
- D. **Scanning Equipment is NOT Federally Qualified.** The county spent another \$15 million on upgrading 6-year old DREs to newer voting equipment, but spent nothing on the 20+-year old DFM Scanners. These scanners are used to read the votes of absentee voters, who represent nearly 50% of the total votes cast. There was plenty of opportunity to replace these tired and slow scanners in the last 18 months, but no action was taken to do so. While the Secretary of State “grandfathered” these in to state certification, there is a question as to whether that office has the authority to certify ANY equipment that is not federally qualified. The Registrar has acknowledged that the scanning equipment is no longer manufactured and that repairs often require fabrication of parts or “cannibalizing” of other machines. SAVE R VOTE observed numerous instances when the scanners stopped working and had to be vacuumed and cajoled into reading the ballots. This type of negligence toward the system that reads half of all the votes in the county is unconscionable. [Non-Federally qualified DFM Scanners](#)

III. **Auditability and Transparency.**

- A. **No audits of election system since inception of electronic voting.** There has been absolutely no outside inspection by any independent auditing firm since the system

was implemented in 2000. While we are told that 37 successful elections have been held, there is no outside inspection to validate that claim. An unaudited system is a system ripe for problems and potential manipulation.

- B. **Meaningful Access denied to Election Observer Panel (EOP).** While the requirement for an EOP has been resident in state election code for many years, no EOP was ever appointed until SAVE R VOTE organized concerned political party central committee chairs and community based organizations (CBOs).

Once formed, the EOP was immediately denied “meaningful access” to observing processes such as absentee vote counting and the mandated 1% random manual audit (tally) of votes. The group was forced to remain so far away from those conducting the counts that they could neither see what was being audited nor hear the dialog among the county staff conducting the “self audit”. Objections to the unreasonable restriction were filed and photographs of the configuration of the community room with barriers preventing meaningful observation are enclosed [[Objections & Photos](#)]. . . [[Processes & Procedures\Shelley Memo of 2-5-04 re DREs & EOPs.doc](#)]

Observers were subjected to arbitrary and capricious rules regarding filming of the public events, sometimes being allowed to film and use tripods to ensure quality documentation, and sometimes being denied the use of a tripod. Reasons given ranged from “it makes staff uncomfortable” to “it’s a safety hazard”. The rules for observing changed every day, and sometimes several times within the day.

The observers were sometimes notified of upcoming events with adequate notice (typically two days) and sometimes had to call several times to find out an activity would begin mid-afternoon.

Critical observation of the counting at the central tabulator on election night was restricted to the point that no meaningful verification of the process could take place. The computer monitors that received the memory cards and processed them were turned in such a way that observers, kept 20 feet away, could not see any error messages nor hear any corrective action discussions that took place. The central tabulator monitor, that would provide valuable information about any problems and corrective actions was not visible to the EOP or other observers. It was however, somewhat visible from a viewing room reserved exclusively for the media. While there were only four media personnel present the entire evening, and none of them utilized video or still photography, the observers were prohibited from occupying the only location that gave a glimpse of the vote counting activity.

It is fair to say that the Registrar placed as many barriers as possible to prevent the EOP (required by law, and required to have “meaningful access” to the entire counting process) from being able to verify anything. This unwillingness to open up the process only led to questions of what was being hidden and why. The excuse that voter privacy would be compromised was fallacious, as nearly every process was absent ANY identifying information of the voter. In many cases, as many as a dozen observers spent the entire day observing absolutely nothing meaningful because of the undue restrictions placed upon them by the Registrar.

IV. Fiscal Considerations.

- A. **Costly delays.** As discussed above, the Registrar had all of the year 2005 to prepare for the June 2006 election. All requirements were known at the beginning of 2005, 18 months before the election. Unfortunately, once it got close to the beginning of 2006, the Registrar recommended the most costly option possible to the Board of Supervisors. Her statement that the existing Edge I DREs could not be retrofitted with the required printers in time for the election was patently false. Three counties with Edge I DREs, Shasta, Tehama and Napa all retrofitted their DREs with the new printers and ran elections with a minimum of problems. Her disguise and inflation of the cost of using a paper ballot system, at least for the 2006 elections, cost the taxpayers nearly \$15 million instead of the \$1.77 million that the paper ballot system would have cost.
- B. **Purchase of uncertified equipment may be very costly.** As discussed above, the equipment she recommended to the board, and represented as being certified, was in fact NOT certified. Granted, it was certified six weeks after the commitment to purchase was made, but it was sheer good fortune for the county that the certification occurred on March 20th, six weeks after she obtained Board approval for an “already certified system”. It should be noted that state regulations prohibit the purchase or commitment to purchase ANY system that is not certified at the time of commitment or purchase. Thus, yet another violation of law and regulations.

Section 19201 of the California Election Code specifies that no voting system may be used in a California election until the Secretary of State approves that system. Further, no jurisdiction may purchase a voting system that has not been approved by the Secretary of State.

http://www.ss.ca.gov/elections/elections_vs.htm

- C. **Over \$5 Million per year to save \$600,000.** This statement speaks for itself. In 1999, the Registrar of Voters recommended an electronic voting system that would “save the county \$600,000 per year in paper costs”. What the county got was an unproven, non-secure and easily manipulated system that continually eats away at taxpayer dollars in the name of progress and innovation.

And it is a system with secret (proprietary) software that even the Registrar is not allowed to see or control. It is controlled by a company owned by four Venezuelan nationals with ties to the leftist government of Hugo Chavez. (Reference four separate CNN Lou Dobbs reports in June 2006) Sequoia Systems captures the votes, counts the votes and reports the votes with no federal oversight. The system is “federally qualified” by the Independent Testing Authority (ITA), an organization of private companies chosen by the voting machine manufacturers, paid by the manufacturers to “test” their equipment, and that issues reports that cannot be viewed by the public or the Registrar.

6-12-06

Email to RoV Barbara Dunmore from Tom Courbat dated 6/12/06 at 10:07 a.m. (photos were not included in the original email)

Dear Ms. Dunmore,

As the key contact person for the Election Observer Panel (EOP), I must object in the strongest terms possible to your unreasonable restriction upon our members in their effort to “meaningfully observe” this recount process.

Specific objection is taken as follows:

1. Panel members are not being allowed to stand close enough to those conducting the count to view what they are counting and thus verify the accuracy of the process.
2. Those conducting the recount have their backs turned to the observers, further obstructing their view of the public recount.
3. You have decreed there shall be no use of tripods in the filming of the process, with the comment that it “makes those counting nervous”. *

If there is nothing to hide, why are you going to such extremes to prevent meaningful public observation of the counting process? The EOP members have always and are presently conducting themselves in a very professional and business-like manner. They are not intimidating nor confrontational nor are they in any way interfering with the efficiency of the process.

When some of us participated in the recount process in San Diego last year, we were allowed to stand directly behind the individuals conducting the recount and see and record the same information county staff were recording. What is so different about Riverside County that this degree of transparency is being denied?

Please reconsider your position in the interest of meaningful public accessibility and enhancement of voter confidence.

Tom Courbat
EOP Member/Key Contact

Democracy For America - Temecula Valley (DFA-TV)

An inclusive multi-party group focusing on good government and fair, clean, auditable and transparent elections.

Dangerous consequences will follow when politicians and rulers forget moral principles.
Whether we believe in God or karma, ethics is the foundation of every religion. - His Holiness the Dalai Lama

* Author's note: On a later occasion, we were told the tripods were a “safety hazard” as someone might come in and trip on the legs (apparently the staff being nervous was no longer a factor). Nowhere in the rules for observers was there ever mentioned a prohibition of use of standard tripods. And on the few occasions when the RoV did allow use of tripods, no safety issues ever arose concerning the use of this equipment.

Stopping Meaningful Observation dead in its tracks



↑
Tripod restriction stops any chance to film without some blur.
↘
Huddle with backs to EOP make it impossible to do any “meaningful observation”



Distance and table barriers make it impossible to see details or to hear any whispering of problems. Unlike the San Diego recount, **EOP had no ability to verify or challenge** any actions due to prohibition against direct observation.



↑
This photo was taken by leaning way over the edge of the table barrier. Even then, nothing could be verified, which is the purpose of the EOP.



↘
This is NOT direct or meaningful observation. Observers were relegated to area to the right of the table barriers and staff spoke in whispers and kept backs to observers, obstructing observers' views.

The counting room was easily large enough to spread the six counting tables out (instead they were within a couple feet of each other) so as to minimize the voices of one table drowning out the voices at another table. There was plenty of room for observers to stand directly behind those doing the counting and truly verify that what was being recorded was true and correct. The RoV prohibited such “meaningful observation” and thus made certain that the procedures could NOT be verified as reflecting the intent of the voter. This undue restriction is in direct conflict with state law.