1 Michael Kielsky, SBN #021864 4802 E. Ray Rd., #23-255 Phoenix, AZ 85044 2 TEL (602) 903-5123 3 FAX (602) 532-7777 Attorney for Petitioner 4 5 IN THE SUPERIOR COURT OF ARIZONA 6 7 IN AND FOR THE COUNTY OF MARICOPA 8 MARICOPA COUNTY LIBERTARIAN 9 Case No. CV2008-002704 PARTY, assigned to Hon. Larry Grant 10 Petitioners, 11 AFFIDAVIT OF JAMES MARCH VS. 12 HELEN PURCELL, Maricopa County Recorder, and KAREN OSBORNE, Maricopa) 13 County Director of Elections: MARICOPA 14 COUNTY BOARD OF SUPERVISORS, a body politic; FRAN MCCARROLL, Clerk, 15 Maricopa County Board of Supervisors, FULTON BROCK, DON STAPLEY, ANDREW KUNASEK, MAX W. WILSON, 16 MARY ROSE WILCOX, Supervisors, 17 Maricopa County, 18 Respondents. 19 State of Arizona 20) ss. 21 County of Maricopa) 22 James March, being first duly sworn upon his oath, deposes and says: 23 1. I have personal knowledge of, or am otherwise competent to testify as to each and 24 every fact set forth in this Affidavit. 25 **BACKGROUND AND QUALIFICATIONS** 26 2. From 1984 through early 2001 I was employed almost continuously in the computer 27 and information technologies industries. I worked my way up from retail sales through 28 installation and technical support of Local Area Networks (LANs) by 1986, and held

- various full-time and contract positions in technical support, technical writing, system evaluation and testing, security analysis and system administration thereafter.
- 3. In 2003, I became interested in the Diebold voting system product line security, based on the research of Bev Harris of Washington State. From around Summer through Fall of 2003, I corresponded with Harris, reviewed various articles on the subject, and studied the Diebold voting system software ("GEMS), specifically versions 1.17.15, 1.17.23 and 1.18.17. I have studied these products in detail in the years since, along with the supporting hardware and software for same and the various other Diebold voting system products. I am now a member of the board of directors of Black Box Voting Inc, a 501c(3) non-profit civil rights organization founded by Ms. Harris, who remains Executive Director. For one year, from early 2005 through early 2006, I worked full-time at the BBV offices in Renton WA, during which time I was involved in numerous investigations and reports.
- 4. In the years since, I have continued my study of various voting systems, and performed election observation in multiple states and jurisdictions. I was the lead technical consultant in the recent litigation in which Pima County's Democratic Party chapter won access to the Pima County Election Department's Diebold central tabulator database. I did the initial program design for a software tool to enable the rapid study and analysis of the data by comparing how it changes over time. I have performed paid consulting for the Pima County Democratic Party, and election observation and oversight on a volunteer basis for the Pima County and Arizona Democratic parties and the Libertarian Party in both Maricopa and Pima counties.
- 5. In February, 2008, I was an elections observer in Maricopa County. The concluding report and findings which I co-authored were published and are available at:

http://www.bbvdocs.org/sequoia/Maricopa-County-Elections-Report.pdf

6. In the summer of 2008, I worked as an observer for the Green Party of Monterey, in Monterey County, California, studying the Sequoia voting systems in Monterey and Santa Cruz counties. My reports were published and are available at:

http://www.bbvdocs.org/CA/monterey/Monterey-public-report-with-PRAR.pdf http://www.bbvdocs.org/CA/SantaCruz/2008-Santa-Cruz-report.pdf

7. In my study of the Maricopa elections process in this election cycle, I looked beyond just the central tabulator operations and focused on an "end to end" study of ballot processing, including polling place procedures and security.

OBSERVATION OF THE 2008 GENERAL ELECTION

- 8. On or about October 27, 2008, I was appointed as an official elections observer for the Maricopa Libertarian Party.
- 9. On or about October 28, 2008, I attended the "Logic and Accuracy tests" (commonly known as an "L&A test") of the central count scanners used to process mail-in votes at the county's elections headquarters at the corner of 3rd Avenue and Grant in Phoenix. I was told by county elections officials and staffers (primarily Karen Osborne and John Stewart) that the purpose of this test was to establish whether or not the scanners could accurately count votes. Two sets of tests were performed, one under the administration of staff from the Secretary of State's office (led by Joe Kanefield) and another run by the county. One of the eight scanner stations failed the Secretary of State conducted tests and was de-commissioned for this election.
- 10. On or about October 29, 2008, the county began scanning ballots in pre-stacked "batches" of mail-in votes. I observed most of that day's worth of scanning pre-election. I believe that I watched the majority of the scanning in the days leading up to the election, and obtained a good understanding of how that process works.
- 11. I observed each batch processed in this manner. Most batches contained about 200 votes, with either 199 or 200 votes being the most common batch sizes when they came into the scanning room. Each batch arrived with a large pink "sticky note" on top showing the county's "batch ID number" (selected before the ballots arrived at the scanning room) and how many votes were present. As each batch was scanned, the operator would enter the batch ID number into the computer controlling that scanner, and then scan that batch. The scanner would then separate the ballots into three

piles based on mechanically routed output. Write-in ballots were the smallest stack, ranging from zero to about 12 ballots out of approximately 200, followed by those ballots which the equipment was unable to read (sent off to hand analysis/duplication elsewhere), running as high as 40 ballots, and the remainder (averaging about 173 ballots) into the completed stack.

- 12. I was told that the write-ins from this process were indeed scanned normally and their votes recorded, except for any write-in votes which would need manual tally in another room.
- 13. I observed that in most batches, the write-in votes were separated from their "batch mates".
- 14. Initially, the county's election staff (primarily John Stewart) told us that we would need to sequester 5,000 votes for use in hand auditing the mail-in votes. This meant creating 30 special "auditable ballot batches" in special sealed containers. These batches were picked by party observers, myself included, taking turns.
- 15. When we prepared an "audit batch", these different from any other boxed-up batches in three critical ways: they were specially boxed and sealed, the write-in votes were put in an envelope and put in the sealed box rather than be sent for immediate hand-count, and a sealed envelope containing the actual vote totals for each candidate/issue in that batch was created on a small laser printer and included in the overall sealed package. We were told that because the write-ins were present with the main stack of votes for that batch, the total could be hand-audited.
- 16. Each time one of these audit batches was created with my direct observation and involvement, election staffer John Stewart would print the results sheets (about 15 pages although I could not directly count) and put them into a manila envelope. The first two times, he examined the aggregate totals for the top-of-ticket races including the presidential race. After I objected to his viewing those totals, he stopped.
- 17. At each of those first two printings, Mr. Stewart made errors causing a re-print to be necessary. In one case he said that he had printed the total results for all votes

processed at that scanner station rather than a subset by batch number, evidencing that this was possible. The other error was that he had printed the wrong batch number and needed to print the right one. I found this profoundly disturbing for reasons I will describe further. Each of these extra printouts was shredded, monitored by party observers.

- 18. During the creation of these "audit batches" of mail-in votes in which I participated, county election staffer John Stewart made photocopies of each "pink sheet" for the auditable batches. These would contain the batch code for that scanned batch (typical examples of a county audit batch might be "17-38" or "20-133", both actual examples from my notes).
- 19. As a final step, each audit batch would receive a sequential number from 1 to 30 as a sticker on the outside of the box, and the box would be sealed with tags whose serial numbers the party observers would write down.
- 20. While boxing up the audit batches into "sealed" boxes, I noted that the boxes appeared to be made of somewhat flimsy material. I noted down the manufacturer (Acro-Mils Corporation), part number (66486) and description ("12 gallon") size. I was later able to observe my colleague, John Brakey, purchase this exact make and model of box at Fry's Electronics on Baseline Rd. in Tempe, Arizona for \$12.99. See attached picture ILLUSTRATION 1.
- 21. For demonstration purposes, using a center punch and a hammer, I was able to quickly remove a "hinge pins", one found on each side, and lift the cover from the side, gaining full access to the contents, in such a manner that it would not break any seals. As the "hinge pins" can be tapped back in place, and without breaking any seals, such circumvention would leave little or no trace of tampering. See attached pictures ILLUSTRATION 2 and 3.
- 22. It is my personal observation that this box is no real security for preventing surreptitious handling of any enclosed ballots. I have however noted and taken advantage of it's effectiveness as a laundry hamper.

- 23. On or about 9:00 am, November 5, 2008, I met with county elections officials in their office to participate in the hand-selection of precincts to be audited. Present to the best of my recollection were Deputy County Attorney Colleen Conner, County Recorder Helen Purcell, Elections Director Karen Osborne, elections staffer John Stewart, Maricopa County Democratic Party Chair Mark Manoil, Maricopa County Republican Party Chair Mr. Husband, John Brakey, Democratic Party election observer Fred Von Blume, and others.
- 24. I made an audio recording of that meeting.
- 25. At that meeting, Maricopa County Elections Director Karen Osborne declared that only the Democrat and Republican parties would be allowed to participate in the selection of precincts and races for the hand count.
- 26. At that meeting, I voiced my objections to the start of the selection of precincts and races for the hand count, as not all ballots had been counted and the unofficial results had not been made public, and that, by selecting the precincts then, this could provide a window of at least 24 hours in which the contents of the mail-in vote audit batches could be manipulated. We were told that the Republicans and Democrats would be picking precincts and races that morning, and that the ballots would be transported that day to a Maricopa County Sheriff's training facility for overnight secure storage under the care and control of Maricopa County Sheriff. Mr. Brakey also voiced similar objections we had read from the Secretary of State's manual ahead of time.
- 27. At that meeting, I requested that tamper-evident security tape be applied to all four corners of each mail-in audit batch, which could evidence tampering attempts and defeat the "remove the hinge" maneuver as described above. We were told that no such extra precaution would be applied.
- 28. Also at this meeting, elections staffer John Stewart presented copies of a hand-written sheet showing every mail-in audit box along with its sequential batch number and county batch number ID.

- 29. I was present as an unpaid observer for the Libertarian Party at the Maricopa County Sheriff facility on the morning of November 6th, 2008, as the hand count started.
- 30. At the hand count, not conducted at the central counting center, counting was split between three rooms: in one, the mail-in audit batches were counted, another room processed "duffel bags" containing the precinct votes, and in another room the paper tape cartridge from the Sequoia touch screen voting machines were counted.
- 31. Each batch within each of these groups bore a seal, briefly described as heavy-duty "zip ties" with an integrated serial number tag. The precinct ballot bags and touch screen paper trail seals were red, while the mail-in audit batch seals were green.
- 32. I checked several precinct serial numbers on the main ballot bags and compared those with the seals on the touch screen paper tape cartridges. The seals matched for each precinct, and were in sequence with the precinct number. Specifically, in precinct "Ironwood 400", I noted the serial number on both seals to be "0080400", and so on with other precincts. It became apparent to me that the poll workers who placed these seals had access to a set of seals for their precinct, all identical.
- 33. The main ballot bags (black "duffel bags" of cordura heavy nylon with hand-straps) contained the precinct's main votes, and the end-of-day results tapes from the optical scan precinct terminal that tabulated the majority of the county's votes. I noted that these results tapes showing the vote totals for each candidate and issue were NOT signed by poll workers. I have observed elections in five states and over 20 counties, and have never seen unsigned end-of-day tapes of this sort before. I have also seen the section of the AZ Secretary of State's manual requiring signatures on the tape.
- 34. Upon entering the Maricopa County Sheriff facility where the hand count audit was to take place, all counters and observers were required to put pens, paper, phones, metallic items, weapons, and the like, in small lockers, which Maricopa County Sheriff Deputies closed using seals identical to those described above and used for ballot security. These seals were red and bore the same "008" prefix as all seals I observed used on the mail-in audit boxes and all of the precinct seals I observed at

the hand count. Maricopa County Sheriff Deputies explained that they only use these seals for non-secure purposes. I observed that Maricopa County Sheriff Deputies were drawing these seals from plastic bags holding 20 seals a bag, in two strips of 10, all 20 bearing the identical serial number. I took a picture of one of these "20 pack" bags and have attached it as ILLUSTRATION 4.

CONCLUSIONS BASED ON EXPERIENCE AND OBSERVATION

- 35. I have observed and reported a series of security flaws. While it is possible that they may simply be due to ignorance of proper security, I'm deeply concerned that the security flaws appear to be "interlinked" in such fashion as to permit subversion of the electoral process without detection.
- 36. As one example, the 20-packs of seals point to significant security flaws. The pack I observed and photographed was the property of the Maricopa County Sheriff. I was told by election staffer John Stewart that precincts receive a small supply of either six or eight matching seals, and any exceptional use (replacing a broken seal) is supposed to be documented. But, election troubleshooter Randall Holmes told me that poll workers are provided one whole "strip" of 10 in every instance. It is likely that the Elections Department is buying seals from the same source as the Sheriff, and holding back a second strip of 10 seals bearing the same number. It is also possible that the seals are sourced by the Sheriff, providing one strip of 10 of each number to the Elections Department, and retaining the second set of 10. This, of course, is beyond the already serious security implications of having batches of serial numbered seals which are not unique.
- 37. Another example of a serious security flaw involves the county's printing subcontractor for ballots, Runbeck Election Services. They supply a "ballot on demand" system where the county's early voting locations can print ballots while a voter waits, rather than keep large stacks of each type of ballot around. The computer Runbeck supplied with each large laser printer is supposed to track how many ballots are actually printed. Yet, the ballots are generated as PDF files, under

the control of the Elections Department, and the same large Okidata 9600-series printer used by Runbeck in their "ballot on demand" system can be purchased from numerous retailers (about \$6,000). If someone were to gain access to the ballot PDF files, with the addition of said printer and an inexpensive laptop, that individual would have a complete ballot printing facility which would fit in a large closet.

- 38. Given these various security flaws, one can construct scenarios in which a limited group of people, with some key resources, and a limited amount of access, could manipulate the ballots and the vote count in one or many precincts.
- 39. Other scenarios exploiting some of these flaws, primarily knowledge of which precincts are to be audited, would permit the manipulation of the vote-by-mail results.
- 40. The numerous provisional ballots, without any significant audit trail as to the votes cast, provide yet another potential exploit.
- 41. Historically, vote fraud is not mere speculation in the United States, but documented reality. Some of these past instances parallel the events here in Maricopa in 2008, and are disturbing the tools for fraud are systematically present, the ballots are in the care and control of elected officials standing for election, and the hand count audit to detect tampering is undermined by flawed procedures which contravene law and regulation.

DATED this 10th day of November, 2008.

	BY:	JAMES MARCH	I, Affiant	
The foregoing instrument, consisting of pages of illustrations, was subscribed a				
2008, by			<u></u>	,

Signature of Notary Public





Also visible is a center punch set, a price tag just left of center on top, and a green zip tie placed as would one of Maricopa County's security seals.

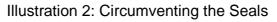




Illustration 3: Accessing Content Without Disturbing Seal

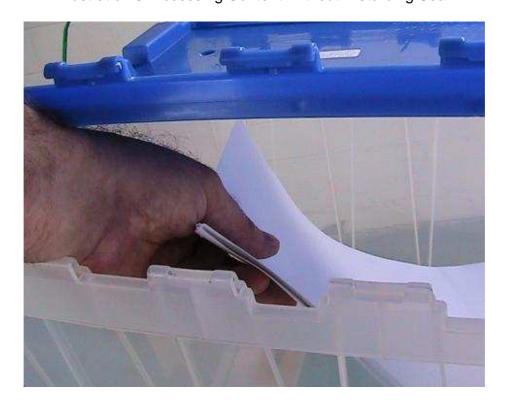


Illustration 4: 20-packs of Seals Bearing Identical Serial Numbers



