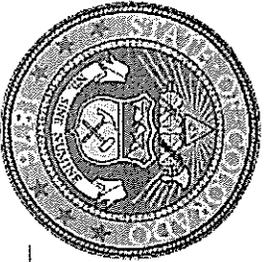


STATE OF COLORADO  
Department of State

1700 Broadway, Suite 270  
Denver, CO 80290



**RECEIVED**  
NOV 21 2008  
ELECTIONS  
SECRETARY OF STATE  
Mike Coffman  
Secretary of State  
J. Wayne Munster  
Acting Director,  
Elections

Attn: Teak Simonton  
County Clerk and Recorder

2008 Post Election Audit

COUNTY: *Eagle* EAGLE

Instructions:

Pursuant to Section 1-7-514 C.R.S. and Election Rule 11, the attached documents provide guidance to completing the post election audit. Additional help is available on our web site, or you can contact Stephanie Cegielski at (303) 894-2200 ext. 6327 for additional information. The following information is to be used to resolve "special case" issues that arise from the selection of machines and races by the Secretary of State's office:

If a device was "AVAILABLE FOR USE" but DID NOT HAVE VOTES CAST (i.e. accessible machines for mail ballot counties) on it for this election, please indicate on the form the status as "NO VOTES" in the field for "machine count" and "hand count." This still requires canvass board member signatures for verification.

If a device was "NOT USED" (i.e. backup equipment) but was selected for the audit, please contact the Secretary of State's Office for selection of an alternative device.

If any NON CENTRAL COUNT device (scanner or DRE) has votes on it, but the "RACES SELECTED" for audit do not appear on the device; For Mail Ballot counties, the canvass board may randomly select an alternative race to count. For Polling Place and Vote Center counties, you must contact the Secretary of State's Office for selection of alternative races.

If a CENTRAL COUNT device has votes on it, but the races selected for audit do not appear in the BALLOTS CHOSEN by the canvass board, the canvass board shall continue to randomly select ballots until all races appear and can be audited.

Please complete the highlighted fields in the attached table and fax, or e-mail the form back to the Secretary of State at: [voting.systems@sos.state.co.us](mailto:voting.systems@sos.state.co.us). This form must be returned no later than: 5:00pm November 21, 2008.

<i>For Internal Use Only</i>	
Demanded by (name): _____	Emailed by (name): _____
Emailed Date and Time: _____	Emailed Address: <a href="mailto:teak.simonton@eaglecounty.us">teak.simonton@eaglecounty.us</a>
<i>(Attach copy of E-mail)</i>	
Facsimiled by (name): _____	Facsimiled Date and Time: _____
Facsimiled Number: _____	Facsimiled Number: 970-328-8716
<i>(Attach copy of fax confirmation)</i>	
Phone Number: _____	Phone Number: 970-328-8728

STATE OF COLORADO  
Department of State

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Mike Coffman  
Secretary of State  
J. Wayne Munster  
Deputy Director, AV  
Elections

COUNTY: EAGLE

Attn: Teak Simonton  
County Clerk and Recorder

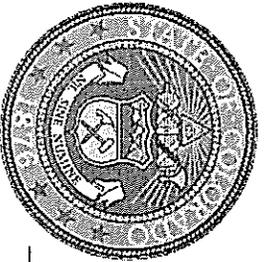
2008 Post Election Audit

The following table lists the EQUIPMENT that has been randomly selected for auditing:

Make/Model	Type	Use:	Serial #	Place Name to Audit:	Machine Count:	Manual/Hand Count:	Canvass Board Initials
eState	DRE	Election Day	A08545	Candidates for Town Council			
eScan	OS	Central Count	4326-6443	Regent of the University of Colorado - Congressional District 2	Ferraro 6	6	MS
eScan	OS	Central Count	4326-6443	State Senate - District 8	Reed 125	125	MS
eScan	OS	Central Count	4326-6443	State Senate - District 8	White <del>154</del>	151	MS
eScan	OS	Central Count	4326-6443	State Senate - District 8	Brenner 178	178	MS
eScan	OS	Central Count	4326-6443	State Representative - District 56	Scanlan 146	146	MS
eScan	OS	Central Count	4326-6443	State Representative - District 56	Hasan 127	127	MS
eScan	OS	Central Count	4326-6443	State Representative - District 61	Curry 57	57	MS
eState	DRE	Early Vote	A094E9	District Attorney - 5th Judicial District	Hanbert 989	989	MS
eState	DRE	Early Vote	A08056	Commissioner - District 1	Runyon 636	636	MS
eState	DRE	Early Vote	A08056	Commissioner - District 1	Gustafson 611	611	MS
eState	DRE	Election Day	A050F6	Commissioner - District 2	Stawney 66	66	MS
eScan	OS	Central Count	4326-6443	Presidential Electors	Keyes 0	0	MS
eState	DRE	Election Day	A08545	Candidates for Town Council	Phillips 7	7	MS
eScan	OS	Central Count	4326-6443	Representative to the 11th United States Congress - District 2	Starin 124	124	MS

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2008 Post Election Audit

COUNTY:

EAGLE

County Clerk and Recorder

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Make/Model	Type	Use:	Serial #	Race Name to Audit:	Machine Count:	Manual/Hand Count:	Canvass Board Initials
eState	DRE	Election Day	A08545	Candidates for Town Council	9	9	VB
eState	DRE	Election Day	A08545	Candidates for Town Council	8	8	VB
eState	DRE	Election Day	A08545	Candidates for Town Council	5	5	VB
eState	DRE	Early Vote	A094E9	Justice of the Colorado Supreme Court - Eid	173	173	VB
eState	DRE	Early Vote	A094E9	Justice of the Colorado Supreme Court - Eid	826	826	VB
eState	DRE	Early Vote	A08056	Justice of the Colorado Supreme Court - Hobbs Jr	809	809	VB
eState	DRE	Early Vote	A08056	Justice of the Colorado Supreme Court - Hobbs Jr	185	185	VB
eState	DRE	Election Day	A050F6	Court of the Appeals - Bernard	95	95	VB
eState	DRE	Election Day	A050F6	Court of the Appeals - Bernard	21	21	VB
eState	DRE	Election Day	A08545	Court of the Appeals - Furman	227	227	VB
eState	DRE	Election Day	A050F6	Commissioner - District 2	92	92	VB
eScan	OS	Central Count	4326-6443	Presidential Electors	227	227	VB
eScan	OS	Central Count	4326-6443	Presidential Electors	0	0	VB
eScan	OS	Central Count	4326-6443	Presidential Electors	0	0	VB

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Make/Model	Type	Use:	Serial #	Race Name to Audit:	Machine Count:	Manual/Hand Count:	Canvass Board Initials
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Regent of the University of Colorado - Congressional District 2	171	171	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Representative to the 11th United States Congress - District 2	204	204	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	0	0	TS
eScan OS	OS	Central Count	4326-6443	United States Senator	0	0	TS

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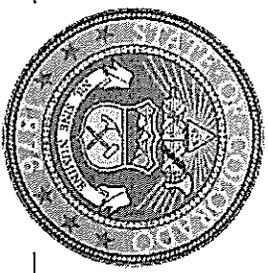
County Clerk and Recorder

The following table lists the EQUIPMENT that has been randomly selected for auditing:

Make/Model	Type	Use:	Serial #	Race/Name to Audit:	Machine Count:	Manual/Hand Count:	Coinvass Board Initials
eScan OS	OS	Central Count	4326-6443	United States Senator	Schaffer 118	118	RS
eScan OS	OS	Central Count	4326-6443	United States Senator	Udall 213	213	RS
eScan OS	OS	Central Count	4326-6443	United States Senator	Kinsey 8	8	RS
eScan OS	OS	Central Count	4326-6443	United States Senator	Cunnebell 8	8	RS
eScan OS	OS	Central Count	4326-6443	Representative to the 111th United States Congress - District 2	Write-in 0	0	RS
eScan OS	OS	Central Count	4326-6443	Representative to the 111th United States Congress - District 2	Hannons 3	3	RS
eScan OS	OS	Central Count	4326-6443	Representative to the 111th United States Congress - District 2	Calhoun 7	7	RS
eScan OS	OS	Central Count	4326-6443	Court of the Appeals - Hawthorne	No 50	56	RS
eScan OS	OS	Central Count	4326-6443	Presidential Electors	Bar 2	2	RS
eState DRE	DRE	Early Vote	A08056	Referendum N	No 287	287	RS
eState DRE	DRE	Election Day	A08545	Court of the Appeals - Furman	No 59	59	RS
eState DRE	DRE	Early Vote	A094E9	Amendment 54	Yes 680	686	RS
eState DRE	DRE	Early Vote	A094E9	Amendment 54	No 508	508	RS
eState DRE	DRE	Early Vote	A08056	Amendment 58	Yes 584	584	RS

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D: Acting Director, AY  
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2008 Post Election Audit

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The following table lists the EQUIPMENT that has been randomly selected for auditing:

Make/Model	Type	Use:	Serial #	Race Name (to Audit)	Machine Count:	Manual/Hand Count:	Canvass Board Initials	
e:State DRE	DRE	Early Vote	A08056	Amendment 58	No	6014	6014	VS
e:Scan OS	OS	Central Count	4326-6443	Amendment 59	Yes	1603	1604	VS
e:Scan OS	OS	Central Count	4326-6443	Amendment 59	No	1601	1602	VS
e:Scan OS	OS	Central Count	4326-6443	Referendum L	No	155	156	VS
e:Scan OS	OS	Central Count	4326-6443	Referendum L	Yes	165	166	VS
e:State DRE	DRE	Early Vote	A094E9	Referendum M	Yes	778	778	VS
e:State DRE	DRE	Early Vote	A08056	Referendum N	Yes	839	839	VS
e:State DRE	DRE	Election Day	A050F6	Amendment 51	No	183	183	VS
e:State DRE	DRE	Election Day	A050F6	Referendum O	Yes	76	76	VS
e:State DRE	DRE	Election Day	A08545	Referendum 2A	No	64	64	VS
e:State DRE	DRE	Election Day	A08545	Referendum 2A	Yes	0	0	VS
e:State DRE	DRE	Early Vote	A094E9	Referendum 2B	No	0	0	VS
e:State DRE	DRE	Early Vote	A094E9	Referendum 2B	Yes	0	0	VS

Page 2 of 8  
1 ballot  
not scanned

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The following table lists the EQUIPMENT that has been randomly selected for auditing:

Make/Model	Type	Use:	Serial #	Race Name to Audit:	Machine Count:	Manual/Hand Count:	Canvass Board Initials
eSlate	DRE	Early Vote	A094E9	Referendum 2B	0	0	TS
eSlate	DRE	Early Vote	A08056	Referendum 2C	0	0	TS
eSlate	DRE	Early Vote	A08056	Referendum 2C	0	0	TS
eSlate	DRE	Early Vote	A094E9	Referendum 2D	0	0	TS
eSlate	DRE	Early Vote	A094E9	Referendum 2D	0	0	TS
eSlate	DRE	Early Vote	A08056	Referendum 4A	0	0	TS
eSlate	DRE	Early Vote	A094E9	Referendum M	357	357	TS
eSlate	DRE	Early Vote	A094E9	County Judge, Eagle - Sullivan	156	156	TS
eSlate	DRE	Early Vote	A08056	Referendum 4A	0	0	TS
eScout	OS	Central Count	4326-6443	Court of the Appeals - Jones	167	167	TS
eScout	OS	Central Count	4326-6443	Court of the Appeals - Jones	35	35	TS
eScout	OS	Central Count	4326-6443	Court of the Appeals - Jones	35	35	TS
eSlate	DRE	Early Vote	A094E9	Court of the Appeals - Roman	748	748	TS
eSlate	DRE	Early Vote	A094E9	Court of the Appeals - Roman	198	198	TS
eSlate	DRE	Early Vote	A08056	Court of the Appeals - Terry	189	189	TS

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Make/Model	Type	Use:	Serial #	Race Name to Audit:	Machine Count:	Manual/Hand Count:	Canvass Board Initials	
eState	DRE	Early Vote	A08056	Court of the Appeals - Terry	Yes	766	766	VB
eState	DRE	Election Day	A05076	District Judge - 5th Judicial District - Granger	Yes	95	95	VB
eState	DRE	Election Day	A05076	District Judge - 5th Judicial District - Granger	No	18	18	VB
eState	DRE	Election Day	A08545	District Judge - 5th Judicial District - Gannett	Yes	225	225	VB
eState	DRE	Election Day	A08545	Amendment 52	No	192	192	VB
eState	DRE	Early Vote	A094E9	County Judge, Engle - Sullivan	Yes	875	875	VB
eScan	OS	Central Count	4326-6443	Court of the Appeals - Hawthorne	Yes	156	156	VB
eState	DRE	Early Vote	A08056	Amendment 46	Yes	647	647	VB
eState	DRE	Early Vote	A08056	Amendment 46	No	554	594	VB
eScan	OS	Central Count	4326-6443	Amendment 47	Yes	168	168	VB
eScan	OS	Central Count	4326-6443	Amendment 47	No	162	162	VB
eScan	OS	Central Count	4326-6443	Amendment 48	No	279	279	VB
eScan	OS	Central Count	4326-6443	Amendment 48	Yes	54	54	VB
eState	DRE	Early Vote	A094E9	Amendment 49	Yes	507	587	VB

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Make/Model	Type	Use:	Serial #	Place Name to Audit:	Machine Count:	Manual/Hard Count:	Canvass Board Initials
eState DRE	Early Vote	A094E9	Amendment 49	No	671	671	VB
eState DRE	Early Vote	A08056	Amendment 50	Yes	745	745	VB
eState DRE	Early Vote	A08056	Amendment 50	No	459	459	VB
eState DRE	Election Day	A050F6	Amendment 51	Yes	55	55	VB
eState DRE	Election Day	A08545	District Judge - 5th Judicial District - Gannett	No	58	58	VB

\*\* END OF AUDIT LIST \*\*

\*\* END OF AUDIT LIST \*\*

NOTE: In addition to completing the post-election audit report, pursuant to C.R.S. Section 1-7-514(1)(c), the canvass board shall also report a description of the audit process used, including any initial, interim and final results of the completed audit. Please use the attached page to complete this process.

Please complete the highlighted fields in the attached table and fax, or e-mail the form back to the Secretary of State to either (303) 869-4861, or voting.systems@sos.state.co.us. This form must be returned no later than: 5:00pm November 21, 2008.

By our signatures below, we indicate the completion of the Post Election Audit with notes as indicated on this form:

Designated Election Official:

Signature

Date

Canvass Board Members:

Signature

Date

Signature

Date

Provide additional pages and names as necessary.

Written Name

Written Name

**From:** Harvie Branscomb [hbranscomb@eagledems.org]  
**Sent:** Friday, November 21, 2008 1:30 PM  
**To:** Teak Simonton  
**Subject:** audit report  
AUDIT Report to satisfy CRS

#### PREPARING FOR AUDIT

The Secretary of State has provided a pdf version of the audit selections of individual DRE and central count devices to be audited but unfortunately this is chaotically sorted with contest choices mixed all around the report and very difficult to use. If the report is published in this form it will be a disservice to anyone who attempts to read the reports. I wonder if this annoying problem is a new side effect of the SCORE system?

The SOS chooses individual eSlate machines to audit, but these cannot be properly audited individually since individual DRE do not produce a subtally in the election results. The only tabulations available to be audited from these DRE are the results provided through the JBC for an entire string of eSlate devices. In the past we usually audited the entire string which contains one or more SOS selected devices, unless this becomes simply too time consuming. The hand count can then be compared to both the JBC election night result tape and (or in the case of early voting where there is no result tape) the subtally of the individual memory card associated the JBC which recorded the votes of the selected DRE. We could consider to audit a precinct specific outcome from a JBC if it turns out there are an excessive number of votes on a full string to audit. This case has now arisen for early voting for the first time, since we have as many as 1299 votes on a single string of DRE in early voting. We plan to audit eSlate by hand counting the VVPAT paper records and comparing to our unofficial subtabulation, provided on the JBC tape or on the cumulative results recorded before and after the upload of each MBB, including those for early voting.

As for the mail-in and precinct paper, we will have about 350 ballots to count, since individual MBB were purposefully batched with approximately this number of votes, specifically to aid in making a sensible and not excessively large audit unit. Once we have the before and after tabulations for each such MBB, we will randomly select which of 36 memory cards to audit. There are specific instructions for the audit provided with the machine and contest selections which are made at the SOS office. Unfortunately since this system does not know if the selected races were actually voted on the machines it assigns to them, it is necessary for Canvass Boards to be smart about asking for or in some cases just choosing other races or systems to audit. The instructions from SOS say for "mail ballot counties" you may randomly select an alternative race to count but for "polling place and vote center counties" you must ask the SOS for another race to count. I am not sure what this means, since all counties are using "mail ballot" as far as I am aware. Our selection calls for Presidential, Senate, Congress, State House and Senate, and CD Regent contests to be audited on central count as well as Amendment 47, 48, 59 and Referendum L and a Court of Appeals question. It's hard to figure out since the contests are spread out all over the form. For some reason, the "random" selection from the SOS has chosen all the top ticket races to be audited on central count, and almost all of the local races are to be audited on early voting.

#### CONDUCTING THE AUDIT

On day three of the canvass we performed most of the audit called for by the SOS. For election day auditing of DRE, we were asked to audit devices A08545, A050F6 which were located in Singletree and Eagle-Vail polling places. These devices were connected to chains that had in one case an MBB of 142 votes and in the other case an MBB of 442 votes. Also there was a device in Eagle Early voting which was in a chain corresponding to an MBB containing early votes totalling 1299.

Due to advanced planning before election day we had the ability to calculate the election day unofficial subtotals for all contests on these MBBs using the printed election cumulative tallies taken on election night.

For the 142 vote case, we hand counted the VVPAT tapes (4 of them) containing the 142 DRE votes for the Singletree polling place. We sequentially tallied the four tapes using the read and mark method, and also one of us tallied one tape using a method of Xerox copying the individual Cast Vote Records from the VVPAT roll onto individual sheets of paper. This copying process took about 10 minutes to accomplish. I (Harvie) then sorted and then counted the sheets one contest at a time. The total time taken for the two process required a bit more for the copying and sorting method, but only one person was doing the sorting and counting, whereas we had three people conducting the read and mark count. Both counts produced the same value. Because in our read and mark method we had two people marking, when they got out of synch we returned to recount the diverging contest to resolve the difference before moving forward. The vote totals for the 142 ballot direct hand count audit matched the expected subtotals.

For the 442 vote case, and the 1299 vote early voting case, we decided to take a different approach, as the hand counting of VVPAT was taking about 25 minutes for 129 ballots for 5 races but we had 17 races to count for Early vote. We could predict the time required, without time taken for reconciliation to be about 20 hours just for early voting.

Instead we pursued an approach with a two step process. First we obtained from Servo the cast vote record reports (Device Report) in Excel format from all DRE in the chain we needed to audit. We then created two extra columns per audited contest in each spread sheet which contained the contest title and the contest value only for the one audited contest in that specific column. At the end of each such column of values, we put Excel "countif" statements to count the number of instances of, for example "Yes", "No", and "No selection". This process produced for us a tally of the auditable contests on every vote recorded by the DRE for which the Excel report was made. We also used Excel to add the individual DRE tallies together to get the total for the JBC. These tallies we compared against the subtotals from election night calculated from the difference of the cumulative reports before and after the MBB had been loaded into Tally. After some machinations required to identify which line of the two lines containing for example "Supreme Court Justice" was the one we were auditing (this requires some smart Excel sheet programming but also directly effects the quality of hand counting VVPAT where also the distinction is not obvious), and after some making of corrections in the subtotal differences which were transcribed by hand, we were able to make all 17 contests balance on the Eagle Early voting device.

On the final day of our canvass we performed the second step of this audit which is to identify random cast vote records, locate the VVPAT for the same record and compare the two to insure that the VVPAT which may have been verified by the voter was in fact identical to the cast vote record which we independently tabulated. It was so in every case we checked. It seems to be virtually impossible to start with an electronic cast vote record and to locate the paper equivalent (this requires opening and scanning every roll from a given piece of equipment) but on the other hand it is easy to randomly select a record on paper and to find the electronic equivalent. This latter is what we did (although the method of obtaining the randomness does need some improvement).

We performed the 442 vote audit of Eagle-Vail polling place in the same manner using an independent count of the device cast vote records. We felt that there would be no point in hand counting these machine created cast vote records, and that a truly independent machine count would be more meaningful and less time consuming than further direct hand interpretation of VVPAT.

In the case of the Town of Avon race, the election day equipment chosen for this did not contain any votes on this race. Stephanie Ciegelski from the SOS office recommended that we find another piece of equipment already being audited to audit this race. For this reason we added the Town of Avon to the list of contests to be

audited on Eagle Early Voting equipment.

Note that in the future it would be possible to record early voting DRE records onto several MBBs to produce a smaller audit unit. Smaller audit units make auditing more efficient, although the method we used was also efficient for large audit units as it allowed us to use trusted equipment and software (Excel) to produce an independent result.

We did not locate any discrepancies in the DRE portion of our audit.

Our central count batch selection was done by stacking the individual cumulative reports associated with the upload of MBBs from the selected optical scanner (#1 of two total). The reports were shuffled and cut into two stacks by the attending canvass board. One stack was assigned heads and the other tails, and the coin was flipped. We then took the winning stack and cut it again into two stacks. The coin flip was repeated until there was only one report remaining. We turned over the report, identified the MBB ("known as Carla 3") and proceeded to audit by hand interpreting and tabulating for specific requested contests the stack of ballots which produced the results contained on this particular MBB (which itself consisted of several scanned batches). The ballots in this stack numbered 358. However not all ballots contained both front and back pages. In fact we found that we had 357 front pages and somewhat fewer back pages.

The front and back pages were then separated. We started to interpret and count the first contest, presidential elector, by sorting the front pages by elector choice, and undervote, and overvote. After the initial sort, a different person on the canvass board then counted the stacks and re-checked the sort by looking again at the voter marks. These ballots were counted into stacks of 25. After the stacks were counted and summed together to 357 successfully we proceeded to compare the vote counts to the differences of the cumulative tabulation from the Tally system from before and after the "Carla 3" MBB was uploaded. We had this data stored as a printed cumulative report from election night, as well as in the form of a precinct report in Excel format. The subtabulations for the Carla 3 MBB were created by hand transcribing the numbers from the cumulative election night printout into a spread sheet. The subtabulations were compared to the count of the hand sorted stacks of ballots. In the presidential race, our numbers and the election night numbers matched.

The second race to be audited was the Senatorial race. We found an inconsistency which required rechecking our sort to locate a stack of 24 instead of what should have been 25. We also rechecked the subtraction of election night tabulations. After this race balanced between hand count and calculated subtabulation from election night we then proceeded to sort and stack the second page to look at Amendment 59. After multiple checks and rechecks of both the ballots and the election night subtabulations we also scoured the paper ballots for evidence of any uncertainty in voter intent. There were no cases of uncertain voter intent. At this point we precinct tallied the Amendment 59 contest and also obtained a calculated precinct subtabulation from election night using the Excel precinct tallies which had been kept. By this process we were able to find the difference within the precinct 7 ballots of which there were 14 on paper. We then checked each of the Hart serial numbers of these 14 ballots to look at the digital images of the ballots in Ballot Now. As we did this we came to realize that one of the 14 had only a front page in Ballot Now, and no second page. We then checked the batch management sheet for that scanned batch and noticed that this particular page was shown as a failure to scan... apparently in this case the normal remedy had not been taken... which would have been to delete the ballot entirely and rescan it (both pages) in a following batch. Because in many scanned batches there were anomalies on particular ballot pages which led to this deletion and rescanning, it is possible that other pages in other batches are similarly not included.

Because the Hart system does not keep track of how many first page only ballots and second page only ballots, and how many two page ballots there are, it is not possible to balance the number of pages with the number of

voters over the entire election. Hart Ballot Now defines a voter as a single or pair of ballot pages in a particular scanner and in a particular batch. If the two ballot pages from one voter are in separate batches, they appear as a duplicate ballot of the same voter. If they appear on separate scanners, they appear as two voters when in fact there is only one. The audit happened to find a case where the second page for a voter was not counted. We were able to add the votes of the second page of this voter's ballot in as part of the manual edit of the tally on Nov 19.

The audit proceeded to sort and count for the 13 contests chosen for central count. On a number of occasions the provisional hand count failed to match the hand created subtallies. If the subtallies were created by machine for all MBBs and then totaled to match the overall election cumulative, the hand introduced errors of the subtallies could have been eliminated in advance. The errors in the sorts can be eliminated by further sorting without shuffling to improve the accuracy. It is not desirable to match the count of a single candidate with the expected total prior to completion of the count. It is also not desirable to adjust for known errors (such as the now known to be missing back page) when conducting and recording these counts. However the pressure to take these shortcuts is almost overpowering. In fact when we went to produce the record of the audit to send to the SOS with this report, the numbers were not always directly transcribed from reports made at the time, but rather figured out by reverse engineering knowing the errors which had already been found.

It would be better to have one team conduct hand counting completely independent of the cross checking of results, but in a small county this is almost impractical. The canvass board could provide the independent team, but usually the canvass board is deeply and directly involved following the instructions of the Clerk.

Besides the several inconsistencies which were eventually removed by resorting and recounting the ballots, no further error was found beyond the missing back page.

Note that it is important to understand that the audit is not just perfunctory and must lead to escalation when it finds a problem, and it is important to report how the audit is done and to report the mismatch of results when it happens so proper escalation can take place in all counties who share the contest. It is particularly important to record how the audit is done in a descriptive format such as this.

**From:** Harvie Branscomb [harvie@media.mit.edu]  
**Sent:** Sunday, November 09, 2008 9:41 PM  
**To:** ColoradoVoter@googlegroups.com  
**Cc:** 'Margit Johansson'; 'Deb Adams'; 'Geof Cahoon'; 'David Larson'; angielayton@juno.com; 'Ivan Meek'; 'joseph richy'; 'Mary Eberle'; 'Cliff West'; 'Tom Morris'; 'Dan Leftwich'; 'erika jensen'; 'Neal McBurnett'; Teak Simonton  
**Subject:** FW: report of Eagle County Canvass Board first meeting

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**From:** Harvie Branscomb [mailto:hbranscomb@eagledems.org]  
**Sent:** Sunday, November 09, 2008 9:25 PM  
**To:** 'hbranscomb@eagledems.org'  
**Subject:** report of Eagle County Canvass Board first meeting

Canvass Board members

Here is an example of a Canvass Board Report... I do hope to read something like this from many of you. The Colorado Legislature's Election Reform Commission meets on Wednesday in the Capitol and I really hope that it will be informed by all of us on the Canvass Boards as we learn about the inner workings of this election. Here is my attempt to record what I have seen and done. I hope you will take the time to do likewise, in the manner suitable to your available time and circumstances. Your comments and description of your own election could be invaluable to improving the laws and rules for everyone.

The Eagle County Canvass Board met on Friday Nov. 7 at 10AM at the Eagle County Building in Eagle CO in the basement. Present were Clerk Teak Simonton, Republican Canvass Board member Jo Brown, Democratic member Harvie Branscomb and also election staff Pat Madgizuk and also a clerk's office staff person who was temporarily assigned to elections named Carla.

The Board briefly discussed a few of the interesting anomalies of the election first and then proceeded to review the contents of the notebooks which had been returned from the polling places. We also reviewed the logs of incoming mail-in ballots and studied the mistake in feeding a batch of ballots to the scanner which was explained to us. We set a next date for Canvass of Thursday morning Nov. 13. The Clerk will do provisional ballot research on Monday, Tuesday is a holiday and Wednesday is the all day meeting of the Election Reform Committee meeting in Denver (200 miles away for me).

FYI Eagle County's current voting system: all Hart. Electronic early voting only on eSlate; Mail-in processed by central count Hart Ballot Now 6.2.1; Election day on choice of paper or eSlate, both offered equally to voters. 1-7 eSlates available per polling place depending on # of voters, all polling place paper ballots are deposited in ballot boxes and returned to central count. Paper pollbooks are in polling places in looseleaf notebooks. Paper ballots are manufactured by Hart. Ballot design done by the Clerk locally. We have two Kodak high speed scanners and two laptops running ballot Now which are not networked together. Ballots are 17" long, two column, 4 sides on two sheets.

#### ELECTION DAY/NIGHT PROCESS

First a quick description of our election day activities. As canvass board member and county co-chair I had assigned myself to pollwatch at a number of polling sites around our county (which requires driving well over 100 miles from end to end). The clerk had allowed me as Co-chair to sign one pollwatching form which she then signed and we could copy at will for my use at any polling place.

I was able to observe that in almost all of our polling places I visited, that lines were not significant and only occurred due to people waiting in line before polls opened. In one polling place which was split into two ranges of alphabet, the second half of the alphabet had significantly more voters than the first, which led to a line until the paper poll book was split up again so that the letter M was separated from N and higher. For some reason it was apparent that a large number of M people came to vote on election day!

In another polling place, Avon, a line lasted from 7AM until 11:30AM. Apparently in that polling place there were times when all DRE machines and all paper privacy shields were in use and no effort was made to increase the number of places to vote to reduce the line. I was glad to see that in most polling places this lesson has been learned, and lines were minimal to non-existent. We are close to have a no-line election day. I think this can be done anywhere paper ballots are served with paper pollbooks.

There was a large amount of trouble with registrations in particular polling places especially a new one which was affected by our brand new precinct 30. A large number of voters in Berry Creek were sent to the Clerk's Office and then returned to vote. In two places the Republican Party watchers raised contests over our Clerk's decision to use self affirmation in place of an otherwise required trip to the Clerk's office. These cases were ones where the mistake in registration had been made by the Clerk's office. Apparently SOS Mike Coffman was engaged to speak to the Republican lawyer (Texas area code) who was initiating these contests and they subsequently stopped.

In one of our precincts the seal was inadvertently left off of the ballot box until the box was opened to bring ballots back to the County Building for central count. This raised quite a number of questions but these were resolved when the election judges and attending election protection people carefully balanced the polling place to the number of ballots in the ballot box at the time.

Just before 7PM I returned to the office of the Clerk and attended the first uploading of memory cards from the Ballot Now systems into the Hart Tally system. This was even more problematic than usual in that the first three memory cards were reported to be "corrupted or rejected". At one point the application failed with the disconcerting message: "TFcore.exe has caused errors". Further the Clerk's ECM crypto key was refused several times. We rebooted the Tally system several times, and I suggested removing and replacing the PCMCIA card reader, which in fact seemed to solve the immediate problem (having lost perhaps 20 minutes in the interim). This embarrassing moment was caught on the County's own video camera for county cable television.

After the vote counting during the primary when some similar temporary errors were encountered, I then asked the Clerk check the application and system event logs on the Tally machine Windows Operating System and found that there had been a disk error reported to the system. The Clerk preferred not to investigate for this kind of event on election evening and I can understand why.

We uploaded 58 Hart memory cards starting with 3 early voting cards representing about 3800 votes followed later by 19 cards each representing the DRE systems at a polling place as these arrived from the field, and interspersed in between we uploaded 36 cards which each contained about 350 votes from our mail-in and precinct paper ballots as they arrived and were scanned. The final of these were uploaded at 5:30 in the morning, as many mail-in and all precinct ballots had been delivered during the day and as late as around 9PM and had to be processed for signature checking, opening and removing stubs and flattening, and scanning, resolving and uploading. After uploading each memory card we printed a cumulative report of all contests and saved an Excel sheet of the precinct level report of the tabulation. The reason to print and save these reports is to be able to reconstruct the portion of the published unofficial results which is associated with each memory card. Each memory card also has a direct relationship to a specific set of ballots which can be audited when chosen randomly. We will not have to recount any ballots to audit, having used this system to create audit units during the original count. This method is supported (if not required) by the conditions for recertification which

overlaid the original Secretary of State rules for auditing central count.

After all the electronic recorded votes and the memory cards which had been prepared before 7PM were uploaded the team of watchers and election officials mostly returned to the counting room to move forward as expeditiously as possible to count the remaining ballots which were still arriving from the polls. I found it necessary to review the memory cards which had been uploaded to determine if the votes from all of them had actually been tallied. I was able to get a report from both Ballot Now machines showing the number of votes expected on each memory card and I carefully reviewed the interim tabulations and found that in fact, although the system had presented several repeated error messages concerning three of the cards, each of these had in fact contributed the correct number of votes to the total.

As the evening dragged on we found the difficulties with scanning to be increasingly annoying. On one or more occasions it was found that memory cards had been closed without succeeding to upload votes onto them. Earlier in the week it was discovered again that the newer memory cards supplied by Hart are so unreliable that they cannot be used in elections, they simply refuse to function. These cards, FYI, are identified by the copper bands which appear on either side of the card on the narrow edge, about  $\frac{3}{4}$  inch long.

In 10 or 20% of the scanned batches (around 50 ballots each) there would be one or more sides of a ballot page refused. At first we deleted the entire batch and rescanned, but eventually found it necessary to identify the offending ballot pages, delete them manually from the scan result, usually duplicate the ballot using the duplication board, and add the newly copied previously offending ballot to the next batch for scanning. This caused some extra difficulty in batch size accounting, but not as much as the problem which arises when an envelope contains the two pages from two independent ballots (such as would occur if a couple traded second pages inadvertently and each returned the others' second page). This results in either the apparent arrival of two duplicate ballots (if by chance the same scanner is used to process the contents of both envelopes) or alternatively if a different scanner is used by chance, then the both the first and the second envelopes appear to contain two independent ballots for a total of four. This, as well as the deletion of ballots where two full ballots appear in one envelope, requires additional recordkeeping and adjusting of paper ballot totals... all adding excitement to the Canvass Board job later on. During the late night we noticed that some batches had been identified with the wrong election type (absentee instead of election day, etc.). We finally learned that it is possible to reset these flags on the batch management screen, but each batch must be edited separately and this requires sequentially scrolling to the same place in the dialog over and over again... another weak point for Hart to improve on.

After each tray of ballots coming from eligibility check were processed, the individual scanned batch totals were summed and adjusted and compared to the original count of the tray. For the final tray, this check was not done before departing for the night.

It later turned out that about 5AM when processing the final batches, one wrong set of ballots was handed to the scanner operator, which resulted in one batch being counted twice (once in each scanner), and one stack of ballots not counted at all. It is now the Canvass Board responsibility to verify that this condition is corrected, by a reliable and verifiable means. It will be necessary to know the subtabulation of both the stack of ballots counted twice as well as the stack which has not yet been counted. It may be necessary to actually tabulate the one already counted twice one more time in order to know its contents, in order that two extra instances of scanning can be corrected for by subtracting votes from the totals.

Fortunately, the batch recordkeeping is done in redundant form and this kind of mistake is easily found and can be corrected for.

CANVASS BOARD MEETING

The Clerk explained the mistake with the inadvertent swapping of the two similar stacks of ballots. This was caught by the conclusion of the normal election day processing of the ballot batch accounting. I suggested that the Canvass Board do a check of the totality of the ballots by polling place or by precinct to see if we would find the same error. This will be done separately, and requires knowing how many ballots were brought in from mail-in and polling places. These records are carefully kept.

We also must take the precinct specific results from the voting system and convert them to polling place results. I have done this using the final precinct specific Excel from the Hart system, although it is a laborious process to manipulate the form in which the data is provided. Hart does not combine precincts into polling places, nor does it do any tabulation of results by scanned batch (which if it did, would vastly simplify the preparation for the audit). The Hart created Excel files actually are very poorly formatted (fail to show which precinct, etc.)

The records coming from each polling place were already open (I signed the seal logs upon opening on election evening after identifying each of the seals with the number on the log sheet.) The paper printouts from the Hart JBC (judge booth controllers) were opened and the number of voters voting compared to the record from the polling place. Likewise the number of paper ballots picked up was compared to the record of the polling place judges. We found an error of one voter in the Early Voting logbook for El Jebel, which proved to be a miscount of the number of voters voting.

We found an error of one at the Gypsum polling places, where there were 162 voting on DRE but only 161 should have been doing so according to the pollbook. We recounted the pollbook and found the same result. We decided to leave further research to the election staff after canvass to make sure that every voter at the polls gets credit for voting (to avoid going inactive).

Likewise at the Edwards Elementary polling place we found errors in both paper and electronic accounting totaling three voters not showing in the pollbook. Again we have no recourse other than to attempt to match the poll sign in sheets with the pollbook name by name. This will be done later by election staff. At the Vail Donovan Pavilion polling place (split into two ranges of alphabet, with a full set of voting systems for each range) we found that if we combine the two methods of voting the pollbook would match the voting system record for number of voters. Apparently three voters had switched their method of voting without the necessary indications in the pollbook. So it appears that the error between pollbooks and tally at present is 4 voters (not counting the missing batch of ballots which affects about 100 voters total).

We noted that one mail-in voter had returned a ballot and received another one at the polls, signed into the pollbook and voted. I believe that this is permitted by rule, but in Eagle County, election judges were trained to disallow this. Since the returned ballot was returned with the polling place materials, it is clear that this voter voted only once.

It was found to be desirable to read all the notes in the polling place notebooks- this is where most of the indications of trouble are found. We fully recounted three polling place pollbooks but decided to trust the bipartisan election judge teams count in the other cases.

We also looked at one early voting location poll log (El Jebel) but have not yet seen the Avon or Eagle early voting logs. We also need to balance the actual results tapes from some polling places against the results in the Tally system to verify that this transfer was completed correctly.

I have converted the precinct level tabulation into a polling place combined tally as well and reformatted it in a form which is more useful.

Our unofficial results all show victory margins of around two percent or much more, which puts them out of recount range. With 260 provisionals and about 100 ballots to be adjusted it is still unlikely this would change.

#### PREPARING FOR AUDIT

The Secretary of State has provided a pdf version of the audit selections but unfortunately this is chaotically sorted and very difficult to use. The SOS chooses individual eSlate machines to audit, but these cannot be audited individually. The only tabulations available to be audited from these are the results provided by the JBC for an entire string of eSlate devices. We usually audit the entire string, unless it is too time consuming. We are considering to audit a precinct specific outcome from a JBC if it turns out there are an excessive number of votes on a full string to audit. We will audit eSlate by hand counting the VVPAT paper records and comparing to our unofficial subtabulation, provided on the JBC tape.

As for the mail-in and precinct paper, we have about 350 ballots to count, after we randomly select which of 36 memory cards to audit. There are specific instructions for the audit provided with the machine and contest selections which are made at the SOS office. Unfortunately since this system does not know if the selected races were actually voted on the machines it assigns to them, it is necessary for Canvass Boards to be smart about asking for or in some cases just choosing other races to audit. The instructions from SOS say for "mail ballot counties" you may randomly select an alternative race to count but for "polling place and vote center counties" you must ask the SOS for another race to count. I am not sure what this means, since all counties are using "mail ballot" as far as I am aware. Our selection calls for Presidential, Senate, Congress, State House and Senate, and CD Regent contests to be audited on central count as well as Amendment 47, 48, 59 and Referendum L and a Court of Appeals question. It's hard to figure out since the contests are spread out all over the form.

Note that it is important to understand that the audit is not just perfunctory and must lead to escalation when it finds a problem, and it is important to report how the audit is done and to report the mismatch of results when it happens so proper escalation can take place in all counties who share the contest. It is particularly important to record how the audit is done in a descriptive format such as this. I hope you will be sharing your account of the audit and other canvass board activities with me in the coming days.

#### CANVASS BOARD REPORT TO BE CONTINUED

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