



**PIMA COUNTY ELECTION INTEGRITY COMMISSION
MEETING MINUTES FOR APRIL 15, 2016**
<http://www.pima.gov/commission/ElectionIntegrity.shtml>

The Pima County Election Integrity Commission met in regular session on April 15, 2016 at 9:00 a.m. in the Herbert K. Abrams Building, 3rd Floor Conference Rooms 3108/3110 at 3950 S. Country Club Road, Tucson, Arizona.

ITEM 1. ROLL CALL

Present: Chris Cole, Karen Schutte, Brad Nelson, Beth Borozan, Bill Beard, Matt Smith, Barbara Tellman, Brian Bickel, Jeff Rogers and Tom Ryan. Arnie Urken arrived just after the Roll Call.

Also in Attendance: Ellen Wheeler, County Administrator's Office, and Christopher Roads, Chief Deputy and Registrar of Voters from the Recorder's office.

ITEM 2. PLEDGE OF ALLEGIANCE

The American flag was saluted with the Pledge of Allegiance.

ITEM 3. APPROVAL OF MINUTE SUMMARY – March 18, 2016

It was moved by Barbara Tellman, seconded by Bill Beard and carried unanimously to approve the Minutes of the March 18, 2016 meeting.

ITEM 4. CALL TO PUBLIC

Peter Davis was present to speak under Item 6. Item 6 will be moved until Chris Roads from the Recorder's office arrives.

ITEM 5. TRACKING NEW LEGISLATION – Bill Beard

Bill Beard referred to his handout on election related bills at the Legislature [a copy of this list is incorporated into these Minutes as Attachment 1]. Bill recently spoke with a couple of legislators, and the Governor has requested that any pending legislation changes wait until the budget is finalized, as that is the priority. The PPE funding bill is still stuck; it's not going anywhere; Brad has not heard anything either and is waiting to get paid. Bill understands there is a disagreement between the Senate and the House of several hundred million dollars.

ITEM 7. PPE POST-ELECTION REPORT

Brad gave out a summary of the Presidential Preference Election [a copy of this summary is incorporated into these minutes as Attachment 2]. This summary pertains to ballot counting, not necessarily to voter registration. The PPE had a 62% turnout; of that, 78% were early ballots cast versus the November bond election that had 82% early ballots. The figure for ballots cast at the polls includes the verified provisional ballots.

Around the University of Arizona campus, the polling places had voters showing up in droves from 4:00 and on. The polling place that was the busiest was Voting Area 85, a church at the corner of Speedway and Euclid, and Brad actually timed voters in line there. One of the things about polling places around the university campus was voters who are registered to vote in Arizona, but in other counties. The marshals at these polling places also, as lines began to form, asked voters in line if they were there to hand in an early ballot and were able to move them through quickly.

In terms of tabulation and equipment, things went much more smoothly this election than last. There were some minor adjustments to belts, but overall, all scanners remained operational throughout. Representatives from the vendor were present, and taught Elections personnel how to make those belt adjustments. Chris Cole asked how many ballots were processed hourly by each scanner; Karen Schutte responded that they processed about 10,000 per day which is much more than the last election. Brad noted that this ballot was also much smaller with fewer races on it than the ballot in November 2015. Brad also believes that the Recorder's office was training new personnel so the Elections Department was idle some of the time in ballot prep and tabulation.

The hand count audit of polling place ballots and early ballots matched the count exactly; all three parties' ballots were audited. Brad commended the Green Party for their participation during the hand count; there were more Green Party participants than ever before. Chris Cole asked how the 62% turnout for the PPE compares with past PPE's; Brad didn't know the numbers, but believes it is similar to the 2008 PPE which was the last time both major parties contributed.

Brad was prepared for, but did not see electioneering outside of the polling places. There may have been, but there were no trouble calls.

Brian asked Brad to verify that the law requires cutting polling places by half in a PPE. Brad responded that it depends on the size of the county; counties the size of Maricopa and Pima are required to cut by half. Brian then asked if this same rule applies to the special election in May; Brad responded that it does because the session law enabling that election said that the May 17th election shall be held in the same manner as the Presidential Preference Election. Therefore, we will be using half as many polling places, and they will be the same as for the PPE with perhaps 5 or 6 exceptions for installations that are not able to accommodate the May election. The Secretary of State is mailing out a publicity pamphlet that will show the voters' polling places, and that pamphlet is the only mailing that will be made by a government entity pertaining to this election. However, Brad cited the voting area which shows on the pamphlet as the Pascua Neighborhood Center; that location does not meet the ADA requirement because it has a dirt parking lot so the polling place will be changed to the Donna Liggins Neighborhood Center. Voters' households whose polling place will be different from that listed on the pamphlet will receive a card in the mail informing them of the change. In addition, large signs will be posted at the old polling place directing voters to the correct location. Brad has already alerted the Secretary of State of those changes.

Barbara asked Brad about the number of polling locations, and why Maricopa had so many fewer. Brad explained that in Pima County, voters needed to go to a specific polling location. Maricopa

County went to a vote center concept with electronic poll books that allow voters to go to any of the vote centers. Brad saw the math that was provided at the hearing before the House committee; basically, they took the number of registered voters, subtracted out the independents, subtracted out the voters getting an early ballot. They determined that if they had 60 vote centers, theoretically, each vote center would handle 1,500 people. Barbara asked if, since the law requires one-half of the polling places, the counties have discretion on going below that figure. Brad said there is a part of the Presidential Preference Election law that says the Secretary of State has the authority to release a county from the conditions; Brad's opinion is that going below the threshold wouldn't require the Secretary of State's authority.

Karen asked if the parties could receive those polling place changes in Pima County because voters do call.

Arnie asked that when the counties reduce polling places, do you as a matter of course try to make sure that no inadvertent bias occurs with respect to parties and minorities? Brad explained that, even though there is not the requirement to have the Feds pre-clear changes any more, Pima County considers it good policy to reach out to the Hispanic, Native American and disabled communities to request feedback on any precinct line or polling place proposed changes. Pima County will continue to do that as a matter of course whether required by the Feds or not. Arnie asked if Maricopa County didn't do that for the PPE; Brad had heard there is an allegation, but does not know anything more than that.

Tom Ryan asked about the one-half polling places—one-half relative to what? Brad explained that when the PPE statutes were first written in 1994 to be effective in 1996, the DNC did not allow any caucuses or primary elections to be held in advance of New Hampshire or Iowa, and so nothing was to happen for the Democratic Party until after March 1. The first Presidential Preference Elections were in February. Since that time, the DNC has changed their rules and is now allowing their party to participate. The one-half that worked for us when it was only one major political party no longer works as well. Brad believes that if the suggestion goes forward to make it an open primary for everyone to vote, Arizona will have to remove the provision for cutting the number of polling places. Tom brought up the fact that the number of precincts has decreased from over 400 to the high 200's due to the increase in early voting. If the trend continues, cutting polling places by half for another PPE could mean a really low number of polling locations.

Barbara raised the issue of the ballots being brought in from outlying precincts. The basic counting of polling place ballots was finished by 11:30, but then they sat there with nothing to do because the ballots had not come in from the reservation. Another hour later, they were told that the driver had just reached Sells. It was decided that those ballots would be counted the next morning since it wasn't a close election. There was discussion about alternatives such as modeming in the results from the reservation and other distant precincts, and then verifying them the next day. There was also discussion of a general policy of not counting those votes till the next day. Had they continued to wait for the 16 ballots from the reservation, they would have been waiting until about 2:00 a.m. or so. Barbara told Tom Quigley that these issues would be discussed at the next EIC meeting.

On the subject of modeming, Brad reached out to the vendor to see if they have equipment that can do that. Apparently the Election Assistance Commission (EAC) is not allowing any devices to be federally certified that have modeming capability. But one of the things they are considering is to ensure there is a chain of custody on all precincts in the far reaches of the county, the vehicle carrying materials has two people, and ballots are secured with numbered seals. Once they have called to notify the Elections Department that everything has been picked up and they are on their way in, they are proposing to shut down tabulation, have the van come inside the building when it

arrives, under camera, and lock the van up. The next morning, under political party observation, open the van, remove the numbered seals from the devices and check them against the chain of custody, and then count the ballots. No decisions have been made yet, but this is one of the things that is being considered. Brad also emphasized that this does not mean that the voters in the western regions of the county are unimportant; he is just looking for ways to best use his resources to get those ballots in and counted in a timely fashion. The question was asked about the Sheriff's department that picks up ballots from Ajo and what prevents them from picking up the ballots from the Nation; the response was that it is a sovereignty issue. Barbara suggested an intergovernmental agreement.

Beth Borozan asked Brad how many early ballots were dropped off at the polls on Election Day; Brad thought it was around 18,000, and the figure is included in the number of early ballots cast.

Karen brought up the issue of reporting election results to the Secretary of State's new web site. Apparently, the first report at 8:00 did post to the SOS website, but subsequent updates, which were being done about every hour were not being posted to the website. Further updated results after election night had to be e-mailed and then a phone call placed to the SOS. Brad added that the counts that Pima County was sending were correct, but the SOS wasn't able to update the website for whatever reason. When the SOS comes to do the L&A test next week, they will practice uploading results to their website. Brad said their reporting software did not work correctly, and his understanding from them is that the polling place look-up app on their website did not work either. Tom asked if other counties had the same problem but Brad was not sure even though attempts to find out were made.

Matt Smith asked if the 21.6% of polling place ballots cast was a constant across the county, or did it vary? Brad responded that historically, there are places that have a low turnout; for example, the O'odham Nation generally has a low turnout. But generally speaking, the urban areas stay fairly constant. Historically, there is a higher turnout in affluent areas through early ballots, and higher numbers of voters voting at the polls in comparatively lower economic and education status areas. Matt asked if he takes that into consideration when assigning polling places; Brad responded in the affirmative, and also that polling places in those areas are available on public transit routes.

Brian asked if Maricopa County will have the 60 vote centers for the May 17th election, as well. Brad had spoken informally with Karen Osborne, Maricopa County Elections Director, within the last couple of days. It is their intention to have about 110 to 115 vote centers for May 17th; that is subject to Board of Supervisors approval. There seems to be some concern among Board members that the proposed vote centers have not been vetted in the community enough. Bill Beard asked if this was the first time Maricopa County used vote centers; Brad understands they have been used in City of Tempe and City of Phoenix elections. Brad's observation is that when a jurisdiction goes to vote centers, they have all seemed to have a bumpy road the first time.

One of the things Brad mentioned that helps in Pima County is the Special Situation table; he gave credit to Pinal County for giving them the idea. If a voter comes in and there is an issue with their entry in the roster they go to that table. Brad's understanding is that in Maricopa County that didn't happen, and voters with an issue held up everyone else behind them.

ITEM 8. RISK LIMITING AUDIT PILOT STUDY – Tom Ryan

Tom Ryan referred to the letter that Brad sent to Eric Spencer [this letter is incorporated into these Minutes as Attachment 3] and Tom's "Procedure to Conduct a Risk-Limiting Ballot-Comparison

Audit" [this Procedure is incorporated into these Minutes as Attachment 4]. Tom expressed concern because the letter Brad sent to Eric Spencer is a bit ambiguous in whether we go forward or not. Since this is the last meeting before that election, some decisions need to be made. Tom's own recommendation is to go forward with the risk-limiting audit.

Brian asked if there is anything in statute that prohibits the risk-limiting audit (RLA) as long as we do what we are required by statute to do. Tom doesn't believe there is. He had written a draft letter to the County Attorney and suggested Brad sign on with Tom. Brad apparently spoke with Mr. Huckelberry and the letter never got sent; the County Attorney isn't going to chime in on this. Brad added that his understanding of the situation is that Tom spoke to Chair Bronson and then with Mr. Huckelberry about doing an RLA, and Mr. Huckelberry apparently gave Tom an affirmative. In Mr. Huckelberry's summary of the discussion with Tom, we need to make sure the Secretary of State is good with it. That is why Brad approached Eric Spencer with the information that he did. Brad has not heard back from Mr. Spencer with any specifics although Mr. Spencer did acknowledge receiving the letter and was interested in our timeline. To answer Brian's question on whether there is anything prohibiting us from doing this, Brad does not know that for a fact, as he is not an attorney.

In a phone conversation with Tom, Brad voiced his concern; we will still be required to do the ARS §16-602 hand count audit, with party observers making early ballot batches, and we will still make random audits of precinct ballots. Brad's concern that potentially, with some of the ballots that will need to be pulled doing it the way Dr. Stark recommends, we may have to violate some of those batches sequestered for hand count audit. Tom then suggested doing the RLA post-hand count audit, but Brad doesn't know if he has the time to do that, because he will need to canvass the election very quickly for the State to have Pima County's results. Brad does want to explore this; in his memo to Eric Spencer Brad suggested that they capture the images and then do the RLA without printing any ballots and viewing them strictly in the counting center on a monitor.

Also, former members of this Commission—certainly no present members of the Commission—have asserted that employees of the Elections Department have altered or substituted ballots. So, the less we get into ballots, the better.

Eric Spencer told Tom explicitly that he would have no objection to going beyond the audit prescribed in §16-602. Bill Beard agreed, but since the law is vague on the subject of ballot images, out of an abundance of caution it would be wise to seek input from the Secretary of State to do what Brad has proposed to do. Tom reminded them that if the audit is done the way Dr. Stark suggested, ballot images are not used. His argument is, if you want to do this right, you pull paper ballots from boxes. Bill remembers Dr. Stark's presentation and that he was very specific about not using images. Our situation is slightly different in that we are trying to figure out the process. A way around all of that is to use the images to at least determine if we are on the right track. Then we can seek formal authority from the Secretary of State's office for an election in the future. Tom said the counter argument to that is that future elections will be too large. He wants to get the most information he can from this election, including how long it actually takes to pull ballots from boxes, and determining logistics required to ensure those ballots get returned properly. Karen and Bill asked how to deal with public perception that ballots are being tampered with; that is also Brad's concern. Tom responded that ballots would only be handled by Elections Department employees.

Bill said that the concept makes sense to him, but the issue comes down to public perception. That is one of the major things this Commission is tasked with, ensuring the public perception that the integrity of elections is sound. Setting aside bad decisions or good decisions wrongly implemented in Maricopa County, the public perception is that we don't do elections right in the state of Arizona. Chris Cole added that the wounds from the PPE are too new; we could do everything right and full of

integrity and it will still be perceived that “there they are still doing it.” Barbara added that using the number of ballots as called for with the statistical method, which is much lower than current hand count audits, raises another real public perception issue, in addition to the fact that ballot handling would be done by Elections Department staff with only party observation. Currently, party members are the ones who actually participate in the audit.

Chris supports the idea of the RLA; but he said that the State of Arizona would need to do a massive education program so that voters know this is not another way to corrupt the election. Tom believes that there is actually a very small number of voters who even know that an audit is being done, and most don't know about §16-602. He thinks they would be very happy to know that elections are being audited, and the fact that you have to touch ballots is par for the course. Chris countered with the small number of activists that can use social media to blow everything out of proportion with libelous allegations that would be effective because so few people know about the hand count audit laws. Brian added that it doesn't matter what we do, that small group of people give the perception that we are tampering with elections. Maybe the logistics of the RLA should be better planned out.

Tom emphasized that we have the opportunity to have the expert on this to come visit us for this little election with two ballot issues. We can't find a better situation to have the expert come and help us learn how to do this. Brian responded that one of the propositions on this ballot is probably the most contentious we have had in a long time. Tom said that everything would be done after the count has been posted. Brian reiterated the timing issue that Brad raised earlier; if it is after the hand count, ballots cannot be touched. Until the Secretary of State's office gives a decision, we are hanging in limbo. Brian also supports the idea of the RLA; he just doesn't want to be the one confronted by allegations of rigged elections, especially with Prop 123.

Tom summarized the three positions he has heard during this discussion: 1.) His position which is to go ahead full blast; 2.) Go ahead but use ballot images; and 3.) Not do it because of paranoia.

Bill Beard wanted to clarify how Brad presented the issue to Eric Spencer; did he only ask about using ballot images, or did he ask for any clearance to break seals, etc., with the physical ballots themselves to do as Dr. Stark suggested a month ago? Brad said he offered his preferred scenario, but that Dr. Ryan and Dr. Stark prefer to do it with live ballots. Bill recapped that Brad did offer both options, and there is basically silence from the Secretary of State's office on both. Brad reiterated that Mr. Spencer acknowledged receipt of the memo and understands that Mr. Spencer has a plate full right now. Bill then asked when a definitive answer is necessary to plan accordingly. Tom said Dr. Stark is available to come on May 23rd and 24th, the Monday and Tuesday after the hand count audit.

Bill voiced the opinion that, without a decision from the Secretary of State, the Commission can't really move the ball forward; Chris Cole thought they would need to punt it to the Board of Supervisors to put some pressure on the Secretary of State. Brad added that is one reason why he has suggested capturing the images, and after the SOS has time to consider and perhaps the County Attorney, they can do the RLA as much as they want in June.

Chris summarized the situation: This Commission agrees that a risk-limiting audit, at least as a pilot project, is a good way to validate the integrity of the election. The issue is when to do it, whose approval do we need to have, and does the public need to be made aware that this is an audit, and it will not change the outcome of the election?

Matt Smith asked Tom what his objection is to using ballot images; Tom responded that the objection comes primarily from Philip Stark. If you use ballot images, you have to validate the images, and you would have to look at more ballots than you would for the RLA and then you are setting a precedent not in line with the RLA protocol.

Tom restated what the Presidential Commission on Election Administration says: There are two kinds of audits that should be done, an audit that validates the outcome, which is the RLA, and one that validates the accuracy of the machinery, which is what the performance audit that we are doing now does.

After some discussion about the validity of making a recommendation to the Board of Supervisors, Tom said that he had approached Sharon Bronson who said she didn't think this rises to the level of requiring approval by the Board. He suggested that those Commission members appointed by a Board member should discuss this with their Supervisor, using the "Procedure to Conduct a Risk-Limiting Ballot-Comparison Audit" that Tom has provided to get a sense of whether to go forward or not.

Brian suggested that somehow raising public awareness of the EIC as a quadra-partisan oversight commission that has received support from the Secretary of State might alleviate the public perception problem. Arnie suggested that conducting a mock election could be a way around the problem of public perception; Brad agreed that using test deck ballots would be plausible, since we would not be using actual ballots from an election.

After all the discussion, Tom said that a series of motions needs to be made.

MOTION 1:

Bill Beard moved that, pending a determination from the Secretary of State regarding use of either physical ballots or ballot images, this Commission postpone a pilot study until a date to be determined at some future election. Chris Cole seconded the motion.

DISCUSSION:

Tom asked what if a response from the Secretary of State occurred two days before the election. The Commission needs to be able to commit to Dr. Stark. Bill said he would accept a friendly amendment to include a date for a definitive answer.

Arnie suggested a mock election, which is second best but would get us started; Barbara asked him to clarify what he means by a mock election. Arnie and Karen suggested using test ballots. Barbara noted that the Logic and Accuracy test is, in effect, an RLA. To Bill's question of how many ballots would be needed for a mock election, Brad responded there are perhaps tens of thousands of test ballots used for a Primary Election. Brian Bickel asked how big the mock election needs to be. He suggested that a mock election using 5,000 test ballots would establish the legitimacy of an RLA in a low population county such as Greenlee County.

Tom is not enthusiastic about a mock election, and that more can be learned by a live election. Chris Cole called the question. Further discussion included the point that the general feeling on the Commission is that there needs to be a go-ahead from the Secretary of State's office and the County Attorney's office.

MOTION RESTATED:

Bill restated the motion after discussion on the date: He moved to postpone the pilot study on the RLA unless there is an affirmative decision from the Secretary of State's office by April 30th.

VOTE ON MOTION 1:

Tom called for the vote: Karen, Chris, Arnie, Barb and Bill voted in favor; Brian, Tom, Beth, Jeff and Matt opposed the motion. The vote was tied, so the motion failed.

MOTION 2:

The second motion is to conduct a mock election.

DISCUSSION:

Barbara asked for a definition of the mock election. Karen Schutte defined it as test ballots from the parties and the Secretary of State. Brad said that the official Logic and Accuracy test deck must be locked up. Test ballots can be ordered which are the same as any other ballot but says TEST in the header. These would either need to be filled out or there are some vendors who can provide ballots with ovals already filled out. Tom's objection to test ballots is that for an L&A, ballots are filled out in a way that tests all the spots roughly equally, so that there could actually be a tie; Barbara assured him that they are careful not to create a tie.

Brian recommended that they move to Item 6, since Chris Roads arrived. The discussion was suspended until after Chris Roads' presentation.

ITEM 6. REVIEW OF VOTER REGISTRATION INVOLUNTARY PARTY AFFILIATION CHANGES – Tom Ryan

Tom Ryan referred to Mr. Huckelberry's request to review voter registration issues, in particular, involuntary party affiliation changes that came during the PPE [a copy of this request is incorporated into these Minutes as Attachment 5]. Tom would like to get the perspective from Commission members on this issue, hear from Mr. Davis, and then discuss how to approach this review. Bill suggested letting Mr. Davis go first.

Pete Davis from Green Valley gave some background on his political involvement. He referred to the voters whose affidavits he presented to the Board of Supervisors. [A copy of the cover letter from Mr. Huckelberry and these affidavits are incorporated into these Minutes as Attachment 6. Sensitive voter information has been redacted.] There have been 21 complaints from voters coming into the Green Valley office. He then mentioned another voter whose affidavit he received later [a copy of this affidavit is incorporated into these Minutes as Attachment 7].

Chris Cole referred to the letters in the affidavit, where the voters said they had registered at the Republican Party headquarters in Green Valley, and then received something too close to the election to do anything. Chris asked Mr. Davis how often the headquarters in Green Valley sends voter registration forms to the Recorder's office; are they sent that day? Mr. Davis responded that someone was making a trip to the Secretary of State's office on February 17th; it's his understanding that they date stamp forms the same day and then send them on to the counties. Chris said there appears to be a delay in when the Recorder's office got the forms. Bill Beard asked for clarification on the 21 individuals Mr. Davis identified; did all of them fill out a voter registration form, or did

some of them go through MVD? Mr. Davis responded that most were MVD but some filled out forms at the headquarters.

Karen is anxious to hear what Chris Roads has to say so they can understand what happens when someone goes through a DMV office versus when forms are sent to the Secretary of State's office. Chris Roads received information on five voters. Chris explained their process; the date that a voter registration form is received by any recorder or by the Secretary of State is the receipt date. If a form is sent by mail, it is the date signed, unless they are working with a cut-off date in which case statute controls and the postmark date rules. If it comes in an envelope with other forms, they write the postmark date on every single form. In the case of the Hirz's [see Attachment 6], the forms were dated February 17th but they arrived in the Recorder's office March 2nd. The voter registration deadline for the PPE was February 22nd and the postmark date was February 29th which was a full week after the cutoff date; they did not come from the Secretary of State's office. By state law, he could not accept those forms. He does not know where the forms came from and they did not have a Secretary of State stamp on them. Chris gave the statute citation as ARS §16-134.C. [a copy of ARS §16-134 is incorporated into these Minutes as Attachment 8]. Mr. Simms [see Attachment 6] registered through an MVD office in May 2014, left the party blank and it was entered into the system by the clerk correctly; the next form was dated March 22, 2016 in which he did fill out the party as Republican. Susan Garioto's [see Attachment 6] registration was an error by an MVD clerk; she submitted her form at an MVD office in January 2016 in which she designated the party REP. The clerk, however, entered TRP, and Recorder's office staff should have gotten a copy of her form then. Had she gone to a polling place and voted a provisional ballot, they would have pulled up her MVD form and her ballot would have counted. The last one on the list was difficult to read, but investigating what he thought the name was, she filled out an MVD form in 2009 and left the party blank. Voter notification cards are mailed out every four years in the spring of a presidential election year, and the PND designation would have been on those.

Chris brought an example of a new MVD form issued by the Secretary of State and MVD the Monday after the PPE [a copy of the relevant page of that form is incorporated into these Minutes as Attachment 9]. The change to the form standardizes the "Party Preference" box in the voter registration section to the actual voter registration form, where they can check a box for their party preference. Previous MVD forms said only to specify party. The Secretary of State did not solicit input from any of the recorders before publishing this new form. The Pima County Recorder and Chris gave their input after the fact, and the SOS agreed to meet with all the recorders and submit a request to MVD to redesign the form. Chris would like to see three questions on the form: 1.) Do you wish to register to vote? 2.) Are you a United States citizen? 3.) Do you want to be on the Permanent Early Voting List? And that they be the last three questions on the form, so they stand out uniquely from all the other issues on the form. Eric Spencer was receptive to that, and will design the form and send it to all the recorders for input, then submit it to MVD. Tom Ryan suggested there be another check box that says, "I am already registered to vote and do not wish to change."

Chris explained how the MVD system worked: Up until 2011, when a voter did not fill in a party, the MVD clerk put in "BLANK"; when the Recorder's office got the form, if they were already registered under a party, they left the party as it was and if it was a new registration they were entered as PND. In 2011 the Arizona Legislature decided to change the voter registration form to include check boxes for Republican, Democrat or Other. If nothing was checked, the Recorder's office treated them like the MVD forms—no change to an existing record or PND for a new registration. If "Other" was checked with no party listed, they were entered as a PND. That worked until MVD, on their electronic version of the program programmed in those changes for the form received by the recorders. The decision was made by the computer programmers to check the "Other" box anytime

the clerk entered anything other than Republican or Democrat. That led to a portion of the problems encountered during the PPE. By January or February, Chris started alerting the other counties that there was a problem with the forms, and that the "Other" box is automatically checked. It shouldn't be checked unless the voter says so.

Matt Smith asked Chris how the provisional ballots cast and counted compare to the last two PPE's. Chris responded that in this election, everything tripled from prior elections. The biggest block of provisionals since the Permanent Early Voting List are from voters who received an early ballot and chose not to return it—almost 5,000 of the 8,000 provisional ballots. The remainder—the party group—was about 1,900 of voters listed in the voter file as Independent or PND. They either believed they were party members or believed they were entitled to vote because it was a primary. For every one who had registered through MVD, Recorder's staff pulled up the MVD records; of those they were able to correct 175 that were incorrectly entered in the MVD system. The rest were correctly entered into the MVD system and they were therefore not eligible to vote. Of the 80,000 forms Pima County received over the last year and of the ones they checked, the error rate is less than 10%, unless you happen to be the one whose record was entered incorrectly. The Recorder's office is setting up a meeting with all the Arizona recorders and officials of Motor Vehicle to discuss the issue; the Secretary of State has agreed to this.

In response to discussion about verification to online changes to voter registration, Chris noted that when changes are done online with MVD, a receipt is generated with a confirmation number and emailed to the voter.

Chris Cole asked who does the training for MVD employees to which Chris Roads responded as a State agency, it is the State that trains their employees. Mr. Roads added that they had offered to do the training a decade ago but the State decided to do the training after that. One of the things the Recorder's office had asked of MVD about six years ago was to stop having the MVD clerk do anything, to let the voter use the keyboard and submit the online voter registration. MVD said they would consider that, but when the recession hit they said they could not afford to put the necessary equipment in their offices. That is still one of the issues Eric Spencer will address with MVD, but whether or not they will spend the money is a different story. Chris pointed out that it doesn't appear that MVD has a unified training program across the state, and different counties receive different training. Bill Beard recalled that the Motor Voter Act has some requirements for making the system sound, which would apply to the training of MVD officials. He questioned whether MVD understands the ramifications of being out of compliance with the Motor Voter Act, and potential lawsuits. Chris noted the phone call he received from an MVD official in response to F. Ann Rodriguez's comments to a reporter; the MVD official told Chris they did not make any mistakes. This official had a report that shows they have sent 20,000 records in the last eight years with the word "None" in the party affiliation box; Chris asked how many of them since 2009, when MVD agreed that "None" would never appear again. Now that the counties know that there is a problem, they will be scrutinizing every form until they get their system corrected.

Bill Beard said that a lot of fingers are being pointed at the Secretary of State's office, the recorders and the elections departments, which are not the problem. The problem is another government agency that is not doing their job, and something needs to be said publicly. Brian Bickel clarified that had the voters voted a provisional ballot and the mistake was discovered to be that of MVD, the provisional ballot would have counted; Chris responded in the affirmative, and added that the voter record would also have been corrected. Mr. Davis stated emphatically that a certain voter asked for a provisional ballot and was absolutely denied a provisional ballot.

Tom Ryan asked Chris about the voter ID cards; he seems to recall getting one right about the time of the election. Wouldn't it be better to mail those out in advance of the election? Chris responded that the ID cards are not necessarily sent for the PPE. The law says that every voter's address must be tested every four years and it has to be done before May 1st. If changes were made to a voter's record after the cutoff for the PPE, the changes were held in suspense until after the election, at which time, they would get another card.

During further discussion of the MVD issue, Chris explained that after the MVD clerk enters the information into their system from the form completed by the voter, the voter reviews all information on the computer screen for accuracy except the voter registration information. The voter registration information has already been sent to generate a registration form that goes to the Secretary of State and then to the county. If there are errors that the voter catches in the name or address information on the screen, corrections are made on the system but a new voter registration form is not generated. Also, occasionally incorrect signatures are attached to the voter registration form if two clerks in two different MVD offices simultaneously save a record; the signatures are flipped because they are images that take longer to attach. None of the data is flipped, only the signature.

To finish off this discussion, Karen Schutte asked Chris Roads if there is anything that the Commission can do to assist with this situation, such as writing letters. Chris responded that the Board of Supervisors has tasked the Commission with investigating what is a State issue. The Secretary of State is reviewing it with the counties. As the Motor Vehicle upper echelon has been getting "hammered" by Pima County, they are beginning to see that the problem is bigger and they can no longer be in denial. There are now two layers of state government agreeing that there is a problem and it needs to be fixed. He does not really have any suggestions for the Commission for fixing a problem that the State is already working on.

Tom Ryan suggested holding Item 6 for further discussion, and in the meantime, everyone should pay attention to the various investigations taking place, and the lawsuits. At the next meeting the Commission should make a decision on how to proceed in a response to the Board of Supervisors. There seems to be two issues. One is the MVD which we know is a solvable problem. Then there are the allegations of changes to voter registration records that had nothing to do with Motor Vehicle.

ITEM 8. **RISK LIMITING AUDIT PILOT STUDY – Tom Ryan**
(Continued)

Tom returned to this Item to discuss the concept of mock election. He called for a motion.

MOTION 2:

Arnie made the motion to conduct a mock election to study the Risk-Limiting Audit; Chris Cole seconded the motion.

VOTE:

Tom called the vote: (Barbara and Jeff had left the meeting and did not vote; Bill Beard left the room temporarily and did not vote.) The motion was carried 5 to 2, with Karen, Matt, Brian, Arnie and Chris in favor; Tom and Beth opposing.

MOTION 3:

Tom made a motion to move ahead as originally planned, by bringing in Philip Stark to do the RLA for the May [17] election.

VOTE:

Arnie seconded, and the motion was carried 5 to 3, with Brian, Matt, Beth, Arnie and Tom in favor; Bill, Karen and Chris opposing. Barbara and Jeff did not vote, as they had left the meeting earlier.

After the vote, Tom said that we would go ahead as planned and bring in Philip Stark, unless something stops us. Chris Cole mentioned the Secretary of State.

Tom also suggested Brad make sure the Elections Department can produce the cast vote record in electronic format and that a protocol be in place for marking boxes, removing ballots from boxes and returning them quickly and efficiently. Brad also said they are planning on capturing ballot images.

ITEM 9. PLANS FOR 2016 ELECTIONS – Brad Nelson

Brad referred to the Elections Department Events Calendar for May [a copy of this calendar is incorporated into these Minutes as Attachment 10]. Brad doesn't really have anything else to report, as the significant dates are listed on the Calendar.

ITEM 10. ELECTION DATABASE STRUCTURE AND DISTRIBUTION – Tom Ryan

Tom asked Brad if any progress had been made on this as far as coming up with documents. Brad told Tom he can give him those day by day so that someone can forensically check to make sure the counts go up or stay static. Tom clarified that this is the SOVC, but not the cast vote record (CVR). Bill asked if that was a software programming issue; that is Brad's understanding. Tom said the problem is that to get the CVR, you would have to take the images off the scanners. If you want a day-by-day CVR, you would have to transmit the images from the scanners. Brad said that there has been discussion with the Accuracy Certification Board (Barbara and Karen) about sealing up the counting room each night and downloading images overnight, or to download at the very end.

Tom would like to have this Item stay on the Agenda for the next meeting.

ITEM 11. FUTURE AGENDA ITEMS

Risk-Limiting Audit Pilot Study – Mock Election
Election Database Structure and Distribution
Request by BOS to Review Voter Registration Involuntary Party Change

ITEM 12. NEXT MEETING DATES

June 10, 2016

ITEM 13. ADJOURNMENT

It was moved by Bill Beard and seconded by Beth Borozan and unanimously carried to adjourn the meeting. The meeting adjourned at 12:00 noon.

Election Related Bills at the Legislature

PCEIC - Beard

April 2016

Bill	Description	Sponsor	Status
HB 2010	Ballot Harvesting	Kern	2 nd Read
HB 2015	Publicity Pamphlets – Earlies Mailed AFTER Pamphlet	Stevens	Signed by Gov
HB 2016	Early Ballots – Mail 21 days instead of 27 days Changed to PEVL Cancelation	Stevens	Senate 2nd Read
HB 2017	Early Voting – Extend Time to Post Signs	Stevens	Senate Caucus
HB 2023	Ballot Harvesting	Ugenti-Rita	Signed by Gov
HB 2039	Election of Judges	Finchem	2 nd Read
HB 2053	Provisional Ballots – Allow Some Votes as Valid	Friese	2 nd Read
HB 2083	Exploratory Committee Remove	Stevens	Senate 2nd Read
HB 2084	Voter Registration Records – Death Records	Stevens	Signed by Gov
HB 2093	Campaign Finance Disclosures	Clark	2 nd Read
HB 2094	Notify Voter Ballot Defects	Clark	COW
HB 2095	Ind Expenditures – Corporations Disclosures	Clark	2 nd Read
HB 2096	Ind Expenditures – Corp/Union Audits	Clark	2 nd Read
HB 2097	Automatic Voter Registration	Clark	2 nd Read
HB 2098	Campaign Finance Recipients of Corp \$ - Register	Petersen	2 nd Read
HB 2121	Clean Elections – Voter education	Petersen	Senate 2nd Read
HB 2252	Lt Governor Duties	Mesnard	COW
HB 2283	Ranked Choice Voting	Mendez	2 nd Read
HB 2289	PC's – Write-Ins	Bowers	2 nd Read
HB 2296	Charitable Contributions to Campaigns Disclosure	Mesnard	Senate Caucus
HB 2297	Political Advertisers – Contributor Disclosures	Clark	Senate Caucus

ATTACHMENT 1

Bill	Description	Sponsor	Status
HB 2373	RTA Extension Election Extension Authorization	Shope	3rd Read
HB 2428	Publicity Pamphlets – Electronic Filing	Stevens	Senate Caucus
HB 2429	Electronic Filing – Local Officials file SOS	Stevens	Senate Caucus
HB 2440	Municipal District Improvements Elections	Petersen	Signed by Gov
HB 2456	National Popular Vote – Interstate Compact	Mesnard	Transmit to Senate
HB 2477	PC – Term of Office –Canvas Date	Ugenti-Rita	Senate 2nd Read
HB 2534	County Wide Vote By Mail	Shope	
HB 2557	Technical Corrections – Deceptive Mailings	Ugenti-Rita	
HB 2567	PPE Funding	Gowan	Transmit to Senate
HB 2570	Ballot Statement – Local Bonds	Allen	Senate Caucus
HB 2580	ON-Line Election Information	Friese	
HB 2583	Open Meetings – Video Record Open and Exec	Stevens	Failed on Floor
HB 2592	Non-Profits – Electronic Voting	Ackerley	Senate COW
HCR 2002	School Super – Gov Appointee	Friese	
HCR 2003	Mine Inspector – Gov Appointee	Friese	
HCR 2009	Ind Redistricting Com – Members Elected	Petersen	Senate 2nd Read
HCR 2013	Clean Elections Repeal	Ugenti-Ritaq	2 nd Read
HCR 2020	Lt Governor – Joint Ticket	Mesnard	Caucus
HCR 2028	Election of Judges – Terms	Finchem	COW
HCR 2035	Clean Elections Lobbying	Petersen	Senate 2nd Read
HCR 2043	Legislature Authority to Modify Initiative/Refer	Mesnard	Senate 2nd Read
HCR 2046	Voting Age 16	Mendez	
HCR 2047	Initiative/Referendum	Thorpe	2 nd Read
	Minimum Signatures Outside Pima/Maricopa		
SB 1007	Dr License – Automatic Voter Registration	Sherwood	2 nd Read
SB 1027	PPE Include Independent Voters	Quezada	2 nd Read
SB 1028	Extended Early Voting Hours	Quezada	2 nd Read

Bill	Description	Sponsor	Status
SB 1029	Voter Registration – SS #	Quezada	2 nd Read
SB 1030	PEVL Verification	Quezada	2 nd Read
SB 1031	Vote Centers on Campus	Quezada	2 nd Read
SB 1032	Election Procedures – Vote centers	Quezada	2 nd Read
SB 1033	Felon – Voting Rights Restoration	Quezada	2 nd Read
SB 1034	Voter ID – Repeal	Quezada	2 nd Read
SB 1035	Petitions – Notary Requirement Removed	Quezada	2 nd Read
SB 1069	Campaign Finance Disclosures	Quezada	2 nd Read
SB 1071	Ind Expenditures – Corporations Disclosures	Quezada	2 nd Read
SB 1072	Ind Expenditures – Corp/Union Audits	Quezada	2 nd Read
SB 1073	Same Day Voter Registration	Quezada	2 nd Read
SB 1074	Voter ID – VA, Student ID	Quezada	2 nd Read
SB 1075	Statewide Voter Registration – Portability	Quezada	2 nd Read
SB 1076	Provisional Ballots – Partial Tally	Quezada	2 nd Read
SB 1077	Provisional Ballot – Tally	Quezada	2 nd Read
SB 1078	Provisional Ballot Verification	Quezada	2 nd Read
SB 1079	Voter Registration Deadline – 14 Days	Quezada	2 nd Read
SB 1080	Early Ballot – Allow election Day Postmark	Quezada	2 nd Read
SB 1081	Early Ballot Verification – Cure	Quezada	2 nd Read
SB 1082	Election Date – Tech Corrections	Shooter	2 nd Read
SB 1165	National Popular Vote	McGuire	
SB 1174	Lobbying Public Officials – Disclosure	Farley	2 nd Read
SB 1175	Campaign Finance – Ind Expenditure Disclosure	Farley	2 nd Read
SB 1202	Same Day voter Registration	Sherwood	2 nd Read
SB 1203	Early Voting Locations – Hours of Operation	Sherwood	2 nd Read
SB 1218	National Popular Vote	Shooter	
SB 1260	Dr License – Automatic Voter Registration	McGuire	2 nd Read

Bill	Description	Sponsor	Status
SB 1341	Early Ballot Vote at Polls	Quezada	2 nd Read
SB 1342	Dr. License – Automatic Voter Registration	Sherwood	2 nd Read
SB 1351	School Bond Elections Exclusions	Lesko	House COW
SB 1360	Countywide – All Mail Voting	Worsley	2 nd Read
SB 1391	Election and Ethics Commission	Quezada	2 nd Read
SB 1392	Automatic Voter Registration – Dr License	Quezada	2 nd Read
SB 1429	Public Retirement Systems Special Election	Lesko	Signed by Gov
SB 1453	Judicial Elections	Shooter	2 nd Read
SB 1480	Clean Elections Violations	Sherwood	2 nd Read
SB 1486	PPE Funding	Biggs	COW
SB 1516	Campaign Finance Amendments	Driggs	Signed by Gov
SB 1519	Early Ballot Collection Receipt	Dial	House Caucus
SCR 1015	Clean Elections – Judges	Dial	2 nd Read
SCR 1017	Redistricting Commission – Membership	Dial	House 2nd Read
SCR 1020	Judicial Elections – Term of Office	Shooter	2 nd Read

For more information on specific legislation - <http://www.azleg.gov/Bills.asp>

March 22 Presidential Preference Election Summary

Overall turnout

Number of registered voters	327, 143 (Reps, Dems and Greens)
Ballots cast	202,934
Turnout percentage	62%

How voters cast their ballot

Number of early ballots cast	159,143	78.4%
Number of ballots cast at the polls	43,791	21.6%

Provisional ballots

Number of Provisional ballots cast	8376	
Number of Provisional ballots counted	5652	67%

Summary –

Polls - Turnout was steady at the polls throughout the day. Around the U of A campus there was an afternoon rush that lead to some voters waiting in line for approximately 10-15 minutes. But the "rush" subsided fairly quickly.

Tabulation – This election (compared to our initial use of the tabulation system in November 2015) went much smoother. The hardware (scanners) needed some minor adjustments to the belts, but all scanners remained operational throughout the election. Personnel from the vendor were onsite to assist if needed. But, no emergencies occurred that required their expertise.

Hand Count Audit – The hand count audit of early ballots and ballots cast at the polls matched the machine count exactly. Details regarding the hand count are posted on the AZ Secretary of State web page.



MEMORANDUM

ELECTIONS DEPARTMENT

TO: Eric Spencer
Arizona State Election Director

FROM: Brad R. Nelson
Election Director 

DATE: April 7, 2016

RE: Proposed pilot audit of May 2016 election – request for input

Since the 1990's Pima County has been a leader in the field of Election Administration in the development and execution of election audits, transparency and integrity. Pima was the first county in the State of Arizona to provide the political parties with the opportunity to mark their own test ballots and to have those ballots tabulated in a separate logic and accuracy test. Pima County was also the first county that allowed for a hand count audit of randomly selected precincts and contests as chosen by the political parties. Pima County was also the first Arizona County to stream, on the internet, the functions within the counting center during an election.

Given our past history, it should come as no surprise that Pima County has continued to explore new ways of improving Election Administration. Our explorations have lead us to believe that an audit, known as a risk limiting audit (RLA), may be beneficial in ensuring that an election result is accurate. The subject of an RLA audit was first broached to Pima County by Tom Ryan, Chair of the Pima County Election Integrity Commission. Chair Ryan has researched the matter and spoken with the inventor of the audit, Philip Stark (UC Berkley). Stark attended (electronically) the March meeting of the Election Integrity Commission and spoke of the recent success the RLA had in numerous counties in various states. Notably among the examples that Stark spoke of was a RLA that was performed recently in Jefferson County, Colorado. The significance of Jefferson County is that it uses the same hardware and software for tabulation that is currently used in Pima County. I am including an article pertaining to the use of RLA's in recent Colorado elections for your review and possible comment.

Eric, to cut to the chase, I am proposing that Pima County conduct a pilot RLA for the May 2016 election. The details still need to be worked out. But, at this point in time, I am suggesting that our tabulation system make an image of each tabulated ballot, that each ballot have a document number assigned and printed on the margin of the ballot. Then after that election is officially canvassed, the ballots have been secured in the Treasurer's custody and the time to contest the election has expired, a RLA would be conducted using the ballot images. In this scenario no images would ever be released, printed, or otherwise made available outside of Pima County's central counting facility. I imagine that the RLA would be conducted in early June.

Stark and Ryan would prefer that the RLA be conducted prior to the county canvass during the same timeframe as the conduct of the ARS16-602 hand count audit. This scenario would also include the necessity of printing a document number on each ballot. But, instead of looking at a specific ballot image, one would have to find the specific ballots (perhaps 100 ballots or more) within the approximately 175,000 ballots cast. Stark is available to observe the RLA from May 20-23. I have serious reservations about this scenario. But in fairness, I thought it best to include the scenario for your review.

So, what are your thoughts regarding our proposal? Thanks for your time and consideration. Please contact me with any questions or comments. I am at your service.

VOTING SYSTEMS TEAM REPORT TO THE PILOT ELECTION REVIEW COMMITTEE
 MOCK RISK-LIMITING AUDITS IN SELECT UVS PILOT COUNTIES
 DECEMBER 17, 2015

A. INTRODUCTION

Colorado law requires county election officials to implement risk-limiting audits (RLAs) in 2017.¹ As a result, this committee's recommendation and Secretary Williams' selection of Colorado's next-generation voting system(s) should depend in part on the ability of the temporarily approved voting systems to support efficient RLAs. Although all pilot counties were required to conduct the statutory post-election audit currently mandated by Colorado law,² the Global Conditions of Temporary Use applicable to all four of the competing voting systems required one pilot county for each piloted system to collaborate with representatives of the Elections Division of the Colorado Secretary of State's office to conduct mock RLAs following the 2015 Coordinated Election.³

Philip B. Stark of the Statistics Department of the University of California at Berkeley is a nationally recognized advocate of and expert in conducting risk-limiting audits in elections. The Secretary of State's office has consulted with Dr. Stark for several years to conduct RLA pilots, and he made a presentation to the Pilot Election Review Committee regarding the topic at its meeting on October 9, 2015. The Secretary of State's office hopes to continue its collaboration with Dr. Stark in the next two years, when we expect to adopt specific rules concerning risk-limiting audits.⁴ We thank Dr. Stark for his assistance and guidance as we continue on the path towards statewide implementation of RLAs in 2017.⁵

¹ Section 1-7-515(2)(a), C.R.S.

² Section 1-7-514, C.R.S.; Colorado Election Rule 11.3.3 (8 CCR 1505-1).

³ Global Conditions of Temporary Use dated October 28, 2015, at ¶ 9 (Retrieved December 15, 2015, and available at <http://www.sos.state.co.us/pubs/elections/VotingSystems/files/2015/20151028GlobalConditionsTempUse.pdf>). We refer to these audits as "mock RLAs" because we focused solely on the piloted voting systems' capacity to facilitate efficient risk-limiting audits. More particularly, our principal concern here was to assess the ability of system users to export ballot-level cast vote records in a non-proprietary, tabular format that is useful, complete, and permits the independent summation or tabulation of all ballots and votes cast in an election. Due to time limitations, we purposely did not concentrate on other highly recommended and important aspects of risk-limiting audits concerning compliance with legal requirements and business processes that are extraneous to the voting systems themselves. Such important but extraneous features include steps to independently verify compliance with pre-election testing and security protocols applicable to voting system components, chain-of-custody and reconciliation requirements for unused ballot inventories and voted ballots, etc.

⁴ Section 1-7-515(4), C.R.S., requires the Secretary of State to consult with "recognized statistical experts, equipment vendors, and county clerk and recorders," in connection with the promulgation of rules to implement and administer the statutory mandate for RLAs beginning in 2017.

⁵ Due to prior commitments, Dr. Stark was not able to personally participate in or observe the mock risk-limiting audits in the UVS pilot counties. This report should be regarded as the work product of the Voting Systems team of the Colorado Secretary of State's office, and should not be attributed to Dr. Stark in any way.

B. OVERVIEW OF RISK-LIMITING AUDITS

A risk-limiting audit is a method to ensure that, before official results are certified, the hardware, software, and procedures used to tabulate ballots in an election yielded the correct outcome.⁶ The simplest way to conduct a risk-limiting audit is to hand count every ballot cast in the election, and verify that the manual tabulation conforms to the tally generated by the voting system. Although simple in concept, full hand counts of all ballots cast in even relatively small elections are inefficient, because they require a large amount of time and numerous individuals to complete. In addition, any Colorado election official who has observed election judges manually tally their 25 test ballots during logic and accuracy testing knows that hand counts are also frequently inaccurate. These anecdotal experiences are substantiated by a study funded by the National Science Foundation, which showed that the error rate for hand counting is between 1-2%.⁷ In general terms, that error rate is roughly 100 – 400% higher than the threshold for an automatic recount under Colorado law.⁸

A risk-limiting audit is more efficient than a full manual recount because it *incrementally* examines and verifies a voting system's interpretation and tabulation of voters' markings on paper ballots until the audit yields sufficient evidence that a full and accurate hand count would confirm the original outcome. If the audit yields the sufficient amount of evidence, the audit ends. On the other hand, the audit continues and more ballots are examined for so long as the audit does not produce sufficiently strong evidence of a correct outcome, potentially resulting in a full hand count of all ballots cast in the election.

In RLA parlance, the audit provides sufficient evidence of a correct outcome when the *risk limit* is satisfied or met. The risk limit is the largest chance that the audit will stop short of a full hand tally when the original outcome is wrong. An RLA with a smaller risk limit results in stronger evidence that the original outcome is correct, but also requires the examination of comparatively more ballots than an RLA with higher risk limit. Thus, an RLA with a 1% risk limit will produce stronger evidence of a correct outcome than an RLA with a 10% risk limit, but will require election officials to examine comparatively more ballots, all else being equal.

Unlike most of Colorado's legacy voting systems, the voting systems piloted during the UVS initiative all capture and generate in some format cast vote records (CVRs) for each ballot tabulated, or "ballot-level CVRs." A ballot-level CVR shows the manner in which the voting system interpreted and tabulated the voter's marks on the corresponding paper ballot. Ballot-level CVRs enable auditors to conduct the most efficient type of RLA, called a *comparison audit*.⁹ In a comparison RLA, the election auditors randomly select a paper ballot and then, once the paper ballot artifact is located and retrieved from its secure

⁶ M. Lindeman and P.B. Stark, *A Gentle Introduction to Risk-limiting Audits*, IEEE Security and Privacy, Special Issue on e-Voting Security (Vol. 10, No. 5, September/October 2012), at 42. Retrieved December 15, 2015 from <file:///H:/RLAs/Gentle%20Introduction%20to%20RLAs.htm> [Subsequently cited as "Lindeman & Stark, *A Gentle Introduction*"]

⁷ Rice University. (2012, February 2). Hand counts of votes may cause errors. Science Daily. Retrieved December 15, 2015 from www.sciencedaily.com/releases/2012/02/120202151713.htm

⁸ Section 1-10.5-101(1)(b), C.R.S., requires a recount if "the difference between the highest number of votes cast in [an] election contest and the next highest number of votes cast in that election contest is less than or equal to one-half of one percent of the highest vote cast in that election contest."

⁹ Lindeman & Stark, *A Gentle Introduction*, at 43.

storage location, compare the voter's markings on the ballot to the manner in which the voting system interpreted and tabulated those markings, as reflected in the corresponding CVR. If the CVR data exactly matches the voter's markings on the paper ballot, the auditors move on to retrieve and review other randomly selected paper ballots for similar verification, until the risk limit is met. Once the risk limit is met, the audit is concluded successfully.

The number of ballots that must be examined in any RLA principally depends on two factors: The risk limit of the RLA, and the smallest margin of the contests being audited. Smaller risk limits and closer margins result in a larger number of ballots being audited; higher risk limits and wider margins result in fewer ballots being examined. Dr. Stark has published an online tool that calculates the number of ballots to be audited and randomly selects the individual ballots to be examined and compared to their corresponding CVRs. The online tool is available at

<http://www.stat.berkeley.edu/~stark/Vote/auditTools.htm#>

The mock RLAs were conducted along the following lines:

- The pilot county exported one or more files containing the single-ballot CVRs, in the format supported by the voting system in question.
- We examined the CVR exports from the pilot counties in their native formats, and developed macros to extract and compile the single-ballot CVRs into a single spreadsheet that could be tabulated or summed independently.
- While onsite at the participating pilot counties, we used Dr. Stark's online tools to both calculate the number of ballots to be audited, and to randomly select the ballots to be audited.
 - For purposes of this exercise, we decided to use a risk limit of 10%, and selected Proposition BB (the only statewide contest that appeared on all ballots of the pilot counties) as the contest to audit. We entered the risk limit of 10% and the total votes for and against Proposition BB in each pilot county in the appropriate fields of Dr. Stark's online tool, and the tool calculated the number of individual ballots to examine in order to satisfy the 10% risk limit
 - Dr. Stark's recommended RLA methodology uses an elaborate process for ensuring that the individual ballots to be examined are truly selected randomly. In brief, the auditors randomly select a 20-digit seed number that is then input into a random number generator. The random number generator then specifies, by batch and location within the batch, the individual ballots to be examined during the audit.
- Once the ballots to be examined are randomly selected, election staff of the pilot county retrieved the sealed post-tabulation storage containers with the specified ballot batches.
- County election staff or election judges then counted down through the batch of ballots, to retrieve the randomly selected ballot by its location within the batch. Jefferson County used the imprinting function of the ES&S DS850 scanner to estimate the ballot position in the batch and quickly locate the ballot with the imprinted number.
- Note: We notified the pilot counties in advance that, for purposes of the mock RLAs only, they could use the ballots chosen for the statutory post-election audit, since ordinarily that "universe" of ballots is limited to 500. We provided this guidance because it reduced the number of ballot containers that would need to be unsealed, opened, and resealed during the course of the mock

RLA, but did not impair our ability to evaluate the suitability of the voting systems' CVRs for RLA purposes. Adams and Jefferson Counties chose to use the cast vote records from the complete election to more closely demonstrate how a real risk-limiting audit would be run. The City and County of Denver opted to limit the audit to three actual ballot batches, consisting of a total 634 ballots.

C. MOCK RLAs OF THE PILOTED VOTING SYSTEMS

We observed the following mock risk-limiting audits of the 2015 Coordinated Election:

Pilot Jurisdiction	Voting System Provider	Piloted Voting System	RLA Date
City & County of Denver	Dominion Voting Systems	Democracy Suite 4.19	19 Nov 2015
Jefferson County	Election Systems & Software	EVS 5.2.0.3	20 Nov 2015
Garfield County	Hart InterCivic	Verity Voting 1.0 w/ Data 1.3.3	23 Nov 2015
Adams County	Clear Ballot Group	ClearVote 1.0	24 Nov 2015

Our observations of the separate mock RLAs are set forth on the following pages.

1. City and County of Denver – Dominion Voting Systems Democracy Suite 4.19

The cast vote records from Dominion are in the form of text files:

Name	Date modified	Type	Size
1_1_1_1_RAW.ADJ.DVD.txt	11/10/2015 9:56 AM	Text Document	179 KB
1_1_1_2_RAW.ADJ.DVD.txt	11/10/2015 9:57 AM	Text Document	182 KB
1_1_1_3_RAW.ADJ.DVD.txt	11/10/2015 9:56 AM	Text Document	178 KB
1_1_1_4_RAW.ADJ.DVD.txt	11/10/2015 9:56 AM	Text Document	174 KB

Each text file contains a number of cast vote records. Each cast vote record lists the ballot image file name of the ballot, the contests, and the choices for each contest. The ballot image file name contains the scanner ID, the batch ID, and the position of the ballot within the batch:

```

1_1_1_1_RAW.ADJ.DVD.txt - Notepad
File Edit Format View Help
File contains 211 cast ballots

There were 0 audio sessions, of which 0 were provisional (Initial=0, Published=0, Rejected=0).
Cast ballot: 00014_00001_000121.tif (scanned ballot)
Results are Published.
Ballot manifestation: 491

Contest: Director At-Large
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-Robert Speth

Contest: Proposition BB (STATUTORY)
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-YES/FOR

Contest: Referred Question 1A
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-NO/AGAINST

Contest: Referred Question 2A
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-NO/AGAINST

Contest: Referred Question 2B
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-YES/FOR

Contest: Referred Question 2C
Vote for = 1, valid votes = 1, Undervotes = 0, Overvotes = 0
-NO/AGAINST

Cast ballot: 00014_00001_000118.tif (scanned ballot)
Results are Published
    
```

The format of these files does not support an independent summation of the cast vote records. Voting Systems Specialist Danny Casias wrote an Excel macro to open each text file, extract the ballot image file name of the ballot, the contests, and the choices for each contest, and to present the data in a tabular format with the vote totals displayed. Applying the macro to Dominion’s text files yielded the following spreadsheet:

	A	B	C	D	K	L
1	http://www.stat.berkeley.edu/~stark/Java/Html/ballotPollTools.htm			Totals:	30,775	91,209
2				Contests:	Proposition BB (STATUTORY)	Proposition BB (STATUTORY)
3	# of CVRs: 124,119	Sorted CVR List	Batch ID	Position	NO/AGAINST	YES/FOR
4	1	00014_00001_000001	00014_00001	1		1
5	2	00014_00001_000002	00014_00001	2		1
6	3	00014_00001_000003	00014_00001	3		1
7	4	00014_00001_000004	00014_00001	4		1
8	5	00014_00001_000005	00014_00001	5	1	
9	6	00014_00001_000006	00014_00001	6		

Due to the large number of rows required to store each cast vote record in Excel and limitations on the total number of rows available in Excel, the conversion of the text files had to be performed in many small batches. Denver had 124,119 cast vote records so it took over 6 hours to convert all of the files and combine the results into a single file.

With the scanner ID and batch number available, Denver was able to locate the paper ballots randomly selected for audit by Dr. Stark’s online tool. The paper ballots were then compared to the cast vote records. We did not observe any anomalies or discrepancies when comparing the CVRs to the paper ballots.

Dominion indicated that imprinting a number on each ballot is possible but that the imprinted number may not be captured in the cast vote record.

Conclusions: Dominion’s system captures the ballot-level cast vote records needed to conduct a risk-limiting audit. In its current configuration, however, Democracy Suite 4.19 does not provide an easy way to export the data in a usable format. Ideally, Dominion will agree to further develop the system so that all single-ballot CVRs in the election can be exported quickly and easily into a single file in tabular format that is capable of independent summation. In addition, Dominion should include the ballot style of the ballot in each CVR. Finally, development of a method to imprint the ballot image file name onto the ballot while it is being scanned, and to capture the imprinted number in the CVR export, will also expedite the location of the paper ballot within each batch.

2. Jefferson County – Election Systems & Software’s EVS 5.2.0.3

The ES&S cast vote record export is comprised of 2 separate files – the cast vote record file and the cast vote record table.

The cast vote record file lists the cast vote record number, the ballot style, the contest titles in the header, and the choices in the column for that contest, including undervotes and overvotes:

	A	B	AI	AJ	AK	AL
1	Cast Vote Record	Style	DIRECTOR DISTRICT 3 SCHOOL BOARD	DIRECTOR DISTRICT 4 SCHOOL BOARD	STATE OF COLORADO BB	BALLOT ISSUE 1A
101059	183834	1	All Lasell	Tori Merritts	YES/FOR	YES
101060	183835	1	undervote	Amanda Stevens	undervote	YES
101061	183836	1	Kim Johnson	Amanda Stevens	undervote	YES
101062	183837	1	Kim Johnson	Amanda Stevens	NO/AGAINST	NO
101063	183838	1	overvote	overvote	overvote	overvote
101064	183839	1	All Lasell	Amanda Stevens	NO/AGAINST	YES

The cast vote record table file lists the cast vote record number, the ballot style, the serial number, and the machine type and serial number. For ballots scanned on the DS850 central count scanner, the serial number is the number that is imprinted on the ballot after the ballot has been scanned – the number is not shown on the ballot image. For a DS200 scanner, the serial number is a random number:

	A	B	C	D	E	F	G	H	I	J
1	Type	Poll Place	Poll Place ID	Style	Style ID	Ballot Style	Disposition	Cast Vote Record	Serial Number	Machine
2	Paper	VOTER SERVICE AND POLLING CENTER	VSPC	1	1	PRODUCTION 001	Valid	150088	186002750	DS850 - 8515040166
3	Paper	VOTER SERVICE AND POLLING CENTER	VSPC	1	1	PRODUCTION 001	Valid	150089	186002751	DS850 - 8515040166
4	Paper	VOTER SERVICE AND POLLING CENTER	VSPC	1	1	PRODUCTION 001	Valid	150090	186002752	DS850 - 8515040166
5	Paper	VOTER SERVICE AND POLLING CENTER	VSPC	1	1	PRODUCTION 001	Valid	150091	186002753	DS850 - 8515040166

Gary VandeStouwe, Technical Director for the Jefferson County Clerk and Recorder’s office, prepared a third file that identified the ballot storage location and position of each ballot by the imprinted serial number:

1	Serial Number	BoxNum	BoxPosition
2069	ee3ce58591d09968	DS200-821	0
2070	f2bf7e2288f3461a	DS200-821	0
2071	f55c196f59372c7c	DS200-821	0
2072	167001416	G1	1
2073	167001417	G1	2
2074	167001418	G1	3
2075	167001419	G1	4
2076	167001420	G1	5
2077	167001421	G1	6

Mr. VandeStouwe then integrated the information from the three files into a single file and supplied it to the Secretary of State's office. Voting Systems Specialist Danny Casias further modified the file, to sequentially number the cast vote records from 1 to 186,136, and to include the choice names and the totals of the votes received:

	A	B	C	D	E	F	AO	AP
21							NO/AGAINST: 57,780	NO: 84,333
22							YES/FOR: 122,683	YES: 95,394
23							overvote: 138	overvote: 61
24							undervote: 5,133	undervote: 5,946
25	# of CVRs: 186,136	Cast Vote Record	Style	Serial Number	BoxNum	BoxPosition	STATE OF COLORADO BB	BALLOT ISSUE 1A
26	1	82777	6	166008946	P5	1	NO/AGAINST	NO
27	2	82778	6	166008947	P5	2	NO/AGAINST	NO
28	3	82779	20	166008948	P5	3	NO/AGAINST	NO
29	4	82780	6	166008949	P5	4	NO/AGAINST	NO
30	5	82781	6	166008950	P5	5	YES/FOR	NO
31	6	82782	4	166008951	P5	6	YES/FOR	YES

As previously noted, Jefferson County chose to audit the full election. The randomly selected ballots were compared to the corresponding cast vote records. We did not observe any discrepancies between the markings on the paper ballots and the manner in which the voting system tabulated the ballots, as reflected by the CVRs.

The Jefferson County mock RLA demonstrated the value of imprinting the ballots with a unique number, and capturing that number in the CVR. Auditors located the imprinted ballots easily and quickly by finding the expected position of the ballot within the batch, and then confirming the exact ballot by looking for the imprinted number in close proximity. Imprinting also helped when the ballots were stored out of order. For example, the 500 ballots used in the statutory post-election audit had been pulled from other boxes and then stored in a new box after the audit in a random manner. A ballot from this box was randomly selected to be audited and the auditors were able to locate the ballot by looking for the imprinted number. This took substantially longer than the other ballot searches, but without the imprinted number it would have been impossible to locate the ballot.

The Jefferson County audit also demonstrated the value of including the ballot style in the cast vote record. A ballot scanned on a DS200 scanner was randomly selected. The ballot could be located within a box but the random serial number assigned to the ballot prevented the ballot position from being known. With the ballot style information, Jefferson County staff was able to determine that there was only one ballot of that style in the batch, so the ballot could be located. Jefferson County chose not to retrieve or further examine the ballot, out of an excess of caution to preserve voter anonymity. If there were enough ballots of that ballot style in the batch, then a comparison of those ballots with the ballot images would have been made to determine the correct ballot.

Conclusions: ES&S' EVS 5.2.0.3 also captures the ballot-level CVRs necessary to perform a comparison RLA. Like the other systems, though, a user currently cannot quickly and easily export all CVRs in a single file in tabular format. The DS850 (ES&S' central count scanner) demonstrated the value of imprinting a

unique sequential number on the each ballot during the scanning process. In its current state, however, the DS200 scanner does not support an efficient comparative RLAs, because CVRs from ballots scanned on the DS200 are randomized and exported in an order that bears no relationship to the order in which they were actually scanned. This makes associating a particular CVR with a particular paper ballot extremely difficult if not impossible. In preliminary discussions with the Secretary of State's office, ES&S indicated its willingness to further develop the DS200 so that a county user could disable this CVR randomization feature. Finally, we have several concerns about authorizing counties to purchase the DS200 scanners for use as polling location or central count tabulators. We detail those concerns in part D of this report.

3. Garfield County - Hart InterCivic's Verity Voting 1.0 with Verity Data 1.3.3

The cast vote records from Hart are in the form of xml files:

Name	Date modified	Type	Size
1_0e09cbcd-5fbf-4cd2-9206-6cf20a718313.xml	9/15/2015 11:10 AM	XML File	4 KB
1_0f2e02be-86a2-4303-b368-4fd6dd304a30.xml	9/15/2015 11:10 AM	XML File	2 KB
1_1b322948-68ed-4540-926a-a8a7bbb3b079.xml	9/15/2015 11:10 AM	XML File	2 KB
1_3a035c4d-d244-4ffe-837e-d8685b947cb5.xml	9/15/2015 11:10 AM	XML File	4 KB
1_4d60e4d7-7802-4177-700E-095e54b70047.xml	9/15/2015 11:10 AM	XML File	2 KB

Each xml file contains a single cast vote record. Each cast vote record lists the contests, and the choices for each contest, including undervotes. However, overvoted contests are not flagged as overvoted and the vote totals are not set to 0, meaning that the votes will be included in an independent tabulation of the results if they are not manually found and changed:



```
<?xml version="1.0" encoding="UTF-8"?>
<Cvr xmlns="http://tempuri.org/CVRDesign.xsd" xmlns:sd="http://www.w3.org/2001/XMLSchema" xmlns:xi="http://www.w3.org/2001/XMLSchema-instance">
  <Contests>
    <Contests>
      <Name>COLORADO MOUNTAIN JUNIOR COLLEGE DISTRICT FOR BOARD OF TRUSTEES DIRECTOR DISTRICT NO. 6</Name>
      <Id>9479b0d8-95c7-4e1a-85b1-59fcc4bb461</Id>
      <Options>
        <Options>
          <Name>Patricia M. Chlouber</Name>
          <Id>d614f40-faf4-4b80-8f99-b5fbac454314</Id>
          <Value>1</Value>
        </Options>
      </Options>
    </Contests>
    <Contests>
      <Name>EAGLE COUNTY SCHOOL DISTRICT RES03 FOR SCHOOL BOARD DIRECTORS DISTRICT A</Name>
      <Id>269a7c60-d99b-4a25-975e-6a92c57a201e</Id>
      <Options>
        <Options>
          <Name>Tessa Kirchner</Name>
          <Id>c615d0de-164f-425f-9374-b19a28c2af43</Id>
          <Value>1</Value>
        </Options>
        <Options>
          <Name>Ryan C. Geller</Name>
          <Id>c27db45c-62cc-4028-a3a3-ed03e78be5e8</Id>
          <Value>1</Value>
        </Options>
      </Options>
    </Contests>
    <Overvoted/>
  </Contests>
  <Contests>
    <Name>COLORADO MOUNTAIN JUNIOR COLLEGE DISTRICT FOR BOARD OF TRUSTEES DIRECTOR DISTRICT NO. 2</Name>
```

The format of these files does not support an independent summation of the cast vote records. Voting Systems Specialist Danny Casias created an Excel macro to open each xml file, extract the contests, and the choices for each contest, detect when a contest is overvoted and change the votes from "1" to "Overvote", and to present the data in a tabular format with the vote totals displayed. Note that batch ID and ballot position information is not included in the xml file or file name, and that Hart purposely randomizes the file name to prevent the cast vote record from being traceable to the paper ballot:

	A	B	C	D	AM	AN
1				Totals:	7	8
2				Contests:	STATE OF COLORADO PROPOSITION BB (STATUTORY)	STATE OF COLORADO PROPOSITION BB (STATUTORY)
3	# of CVRs: 36	Sorted File List	Batch ID	Position	NO / AGAINST	YES / FOR
4	1	1_02252a40-bde9-4bbd-be3f-2d59897e7b88.xml				1
5	2	1_07ce66a9-aa76-41e8-b6ce-f96170d5319f.xml				1
6	3	1_08c59cb1-ee67-438a-aebf-47e054906862.xml				1
7	4	1_0e09cbcd-5fbf-4cd2-9208-6cf20a718313.xml			Overvote	Overvote
8	5	1_0f2e02ba-86a2-4303-b368-4fd6dd304a30.xml			Overvote	Overvote
9	6	1_12719242-e703-4a59-9c99-5c8ec658b520.xml				
10	7	1_1b322948-68ed-4540-926a-e8a7b6b3b079.xml			1	

The xml files are exported from the voting system in a zipped file. Garfield County had 11,204 ballots cast in the election and it took about 30 minutes to unzip the files.

The Excel macro was applied to the batch of 11,204 xml files, but after running for 2 hours only about 50% of the xml files had been opened and extracted into Excel. The macro was aborted at that point. At this juncture, we have not been able to extract and aggregate Verity Voting’s CVRs into a single file that can be used to tabulate all votes in the election independent of the voting system itself.

Hart representatives proposed and demonstrated alternative method for conducting a risk-limiting audit in Garfield County. In order to independently tabulate the cast vote records, Hart recommended printing out and manually tabulating the individual, single-ballot cast vote records, and comparing the resulting manual tally to the summary results report generated from Verity. Hart showed Garfield County election staff how to print each of the individual CVRs corresponding to the 500 ballots examined during the statutory post-election audit. We decided against asking the assembled election judges to manually tabulate the individual CVRs. That exercise would have required a substantial amount of time, and the paper ballots themselves already had been hand counted during the statutory post-election audit.

Hart then demonstrated how to use Dr. Stark’s on-line tool to determine the number of ballots to audit, and the location of those ballots in the applicable ballot batches. Two election judges located the randomly selected paper ballots and compared them to the corresponding ballot images displayed in Verity Central. We did not observe any discrepancies between the manner in which Verity Count tabulated the voters’ markings as reflected in the ballot images, and the voters’ markings on the paper ballots themselves.

Although comparing a paper ballot to the corresponding ballot image is fairly straightforward in Verity Voting, as far as we can determine auditors cannot directly compare a paper ballot to its corresponding CVR, because Verity Voting randomizes all individual CVRs. Hart asserts randomization is necessary to preserve voter anonymity. We believe randomization precludes an efficient comparison RLA based on

CVRs rather than ballot images, and is only one of many ways for a county to ensure that audited ballots cannot be traced to the voters who cast them.

Conclusions: Verity Voting 1.0 captures ballot-level CVRs necessary for RLAs, but currently the CVR data is difficult to extract in a format that supports an efficient RLA. Ideally, Hart will further develop Verity Voting to enable a user to export all cast vote records in a single file in tabular format. This would obviate the need and time required to unzip and convert the records. In addition, Hart should include batch ID and ballot position information in the CVR export itself, rather than requiring auditors to compare a paper ballot to the corresponding ballot image, and then trace the ballot image to the CVR. We also recommend that Hart include the ballot style of each ballot in the CVR export, to assist in identifying the randomly selected ballot if the original order of the scanned ballots is not maintained. Further, a method of imprinting the ballot image file name onto the ballot while it is being scanned would help in locating the ballots faster and with more confidence. Finally, we have several concerns about authorizing counties to purchase the Verity Scan device for use as a polling location tabulator and a central count solution. Those concerns are set forth in more detail in part D of this report.

4. Adams County – Clear Ballot Group’s ClearVote 1.0

The Clear Ballot cast vote records are comprised of 5 separate files – the choices file, the contests file, the cvr file, the parties file, and the precincts file. For the UVS pilot only the choices, contests, and cvr files were used:

Name	Date modified	Type	Size
Coordinated_Election_2015.choices.csv	11/23/2015 9:07 AM	Microsoft Excel Com...	4 KB
Coordinated_Election_2015.contests.csv	11/23/2015 9:07 AM	Microsoft Excel Com...	3 KB
Coordinated_Election_2015.cvr.csv	11/23/2015 9:07 AM	Microsoft Excel Com...	17,075 KB
Coordinated_Election_2015.parties.csv	11/23/2015 9:07 AM	Microsoft Excel Com...	1 KB
Coordinated_Election_2015.precincts.csv	11/23/2015 9:07 AM	Microsoft Excel Com...	7 KB

The choices file lists the ChoiceID, the ContestID, and the ChoiceName:

	A	B	C
1	ChoiceID	ContestID	ChoiceName
2	1	2	Yes/For
3	2	2	No/Against
4	3	14	Yes
5	4	14	No
6	5	12	Yes
7	6	12	No

The contests file lists the ContestID, and the ContestName:

	A	B
1	ContestID	ContestName
2	2	Proposition BB (STATUTORY)-STATE OF COLORADO
3	4	1A-ADAMS COUNTY
4	6	2H-BENNETT
5	8	2J-AURORA
6	10	2K-BRIGHTON
7	12	2L-BRIGHTON

The cvr file lists the BallotID, BallotStyleID, and the choices in numerical order. The BallotID includes the batch ID (i.e., "AB-001") and the scan number of the first page of each ballot. A header card is run for each batch so the first page of the first ballot is "10003":

	A	B	C	D	E	F	G	H	I	J	K
1	BallotID	PrecinctID	BallotStyleID	Status	Remade	Choice_1_1	Choice_2_1	Choice_3_1	Choice_4_1	Choice_5_1	Choice_6_1
2	AB-001+10003	780	21	0	0	1	0				
3	AB-001+10005	782	21	0	0	0	1				
4	AB-001+10007	875	32	0	0	1	0				
5	AB-001+10009	927	48	0	0	0	1				
6	AB-001+10011	927	48	0	0	1	0				
7	AB-001+10013	937	50	0	0	1	0				
8	AB-001+10015	993	47	0	0	1	0	0	1		

The information contained in the cvr file does not support an easy identification of the contests and voting choices by name without referencing information contained in the choices and contests file. Voting Systems Specialist Danny Casias created an Excel macro to consolidate the information in the three files into a single file. Columns are added to number the cast vote records and to show the batch ID and position within the batch. Rows are added to show the choice names, the contest ID, and the contest names:

	A	B	C	D	F	I	J	K	L	M	N
1				Contest:		Proposition BB (STATUTORY)-	Proposition BB (STATUTORY)-	2N-	2N-	2L-	2L-
2				Contest ID:		STATE OF COLORADO	STATE OF COLORADO	THORNTON	THORNTON	BRIGHTON	BRIGHTON
3				Choice:		2	2	14	14	12	12
4				Total Votes:		Yes/For	No/Against	Yes	No	Yes	No
5				BallotID		48,201	28,719	11,903	5,495	5,211	2,018
6	CVR #	Batch	Position	BallotID	BallotStyleID	Choice_1_1	Choice_2_1	Choice_3_1	Choice_4_1	Choice_5_1	Choice_6_1
7	1	AB-001	1	AB-001+10003	21	1	0				
8	2	AB-001	2	AB-001+10005	21	0	1				
9	3	AB-001	3	AB-001+10007	32	1	0				
10	4	AB-001	4	AB-001+10009	48	0	1				
11	5	AB-001	5	AB-001+10011	48	1	0				
12	6	AB-001	6	AB-001+10013	50	1	0				
13	7	AB-001	7	AB-001+10015	47	1	0	0	1		

Note that because the cvr file is sorted by ChoiceID, the order of the contests does not necessarily follow the order of the contests on the ballots unless the election is programmed that way. This makes it difficult to verify the cast vote record when the results are read from the ballot because an auditor must scroll horizontally to locate the contest being read. Alternately, it is easier to read the results off of the cvr and search for the contest on the ballot.

The paper ballots were compared to the cast vote records without any discrepancies. To assist in locating a ballot in a batch, Clear Ballot supplies a utility that allows the scanner to count to a number and then stop. This method was used to locate many ballots in batches of up to 300 ballots.

The value of including the ballot style with the cast vote record was also proven in the audit. On several occasions, the ballot identified solely by its position within the batch did not correspond to the cast vote record. By comparing the ballot style of the retrieved ballot to the sequence of ballot styles around the chosen cast vote record, it was possible to determine that the count was probably off by one, and that the search should be redone.

Clear Ballot indicated that imprinting a number on the ballot is possible with the two of the high-end Fujitsu scanners, but is not supported on the lower-priced scanners. Whether the voting system can capture an imprinted number in the CVR is an open question.

Conclusions: Clear Ballot captures the ballot-level CVR data needed to conduct a comparison RLA. Like the other systems, Clear Ballot needs to provide an easier method to export all ballot-level cast vote records in a single file in tabular format that includes the choices and contest names. The export should list contests in the order in which they appear on the ballots.

D. RECOMMENDATIONS

All of the piloted systems capture the ballot-level cast vote records needed to conduct comparative risk-limiting audits. As currently configured, however, none of the voting systems provide county election officials with an easy way of exporting all ballot-level CVRs in a single file in tabular format that can be independently summed outside of the voting system. Since Colorado is the only state in the country to mandate statewide implementation of risk-limiting audits, it is not surprising that the piloted voting systems do not provide all of the CVR data in exactly the format we desire and believe is necessary. But for county election staff to successfully implement comparison risk-limiting audits on a statewide basis in 2017, Colorado's next generation voting system(s) should enable election officials to export all ballot-level CVRs for any given election in a tabular format and a single file. Requiring county election staff to run macros against multiple files to extract the data and compile a single spreadsheet is far from ideal and exposes the entire audit to human error. We therefore recommend that Secretary Williams condition his selection of one or more voting systems on written commitments by the selected provider(s) to develop, without additional expense to the acquiring counties, non-randomized CVR exports with specified contents in specified formats, by a date certain, to enable the counties that acquire the new system(s) to efficiently conduct comparative risk-limiting audits by the 2017 Coordinated Election.

We further recommend that the Secretary carefully consider whether ES&S' and Hart's polling location scanners – the DS200 and Verity Scan, respectively – are suitable for use in Colorado after 2016 as central count scanners. ES&S has recommended the DS200 as the central count solution in Tier 2 and 3 counties (i.e., the 49 counties with fewer than 25,000 active electors), and Hart recommends Verity Scan as the central count solution for Tier 3 counties (i.e., the 35 counties with fewer than 10,000 active voters). Both systems currently randomize the CVRs, and both are designed to operate on top of closed ballot boxes, into which ballots are automatically deposited immediately after being scanned. This makes it difficult or impossible for election judges to ensure the ballots are stacked within the ballot box in the same order as they are tabulated. If selected, these providers should be required to demonstrate that table top deployment of these scanners in central count locations is an effective workaround to maintaining the

scanning order of the ballots. In addition, the Secretary should prohibit the use of DS200s and Verity Scans *as polling location tabulators*. In the polling location context, the devices *should* operate on top of their proprietary ballot boxes, which means there will be no way for election judges to preserve the scanning order of the ballots for purposes of the RLA. In practical terms, this prohibition will require ES&S and Hart counties to instruct in-person voters to deposit their voted ballots in sealed, non-proprietary ballot boxes, which must then be delivered by teams of election judges to the central count location, where counting judges can ensure that the ballot scanning order is preserved.

Respectfully submitted,

Voting Systems Team
Elections Division
Colorado Secretary of State

ATTACHMENT 4

Procedure to Conduct a Risk-Limiting Ballot-Comparison Audit

For the May 17 election in Arizona, there will be two statewide propositions on the ballot. The proposed risk-limiting audit (RLA) pilot study will audit both contests simultaneously, but only in Pima County. The audit will take place a few days after the election.

During the counting of ballots, the DS850 scanners spray a sequential serial number in the margin of each ballot. Pima County has four scanners and each produces a unique sequence of numbers. Since the ballots being counted are anonymous, there is no possibility of tracing the ballot serial numbers to specific voters.

When scanned ballots are placed in boxes, the boxes are clearly marked with the range of serial numbers for the ballots contained therein, and the boxes are placed in temporary storage in a manner that makes it easy to retrieve any ballot given a selected serial number. A ballot manifest can simplify this process.

When counting is completed the election software produces a Cast Vote Record (CVR), a spreadsheet that shows each serial number along with the scanner's interpretation of that ballot (i.e., YES or NO for each proposition). The CVR data is checked to be sure that it contains an accurate representation of the election outcomes as reported.

After election outcomes are obtained, the vote tallies for and against each proposition are plugged into RLA formulas to determine an initial ballot audit sample size. The sample size depends on the percent margins between the YES and NO tallies.

Given the sample size, ballots are selected randomly by serial number, using a random number generator with a randomly selected "seed." The randomly selected serial numbers are used to retrieve the associated ballots from the temporary storage boxes. Ballots will be retrieved and replaced by election division staff.

For each randomly selected ballot, the voter's marks on the ballot are compared with the associated entry in the CVR. Auditors will keep track of any errors observed.

The data gleaned from the random sample and its comparison with the CVR is accumulated and plugged into RLA formulas that determine if the reported winning positions are correct up to a pre-specified risk level. If the risk level is not satisfied, then additional random ballots are selected and compared to the CVR. When reported outcomes are statistically validated, the audit stops and all ballots are returned to their boxes.

In the very unlikely event that the reported election outcome is incorrect, the RLA will observe multiple errors in the CVR and the audit continues to draw additional ballots for inspection. In this case, the audit will most likely count all ballots by hand, thereby correcting the faulty election outcome.

For the proposed pilot study, the RLA will be completed, but there is currently no provision in state law that would allow the RLA audit results to be formally accepted, even if it finds an error in the outcome. Pima County will also conduct the hand count specified in A.R.S. §16-602.



MEMORANDUM

Date: March 31, 2016

To: Chairman and Members
Election Integrity Commission

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to read "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Referral of Inquiry from the Board of Supervisors Regarding Election Matters and Involuntary Change of Party Affiliation**

The Board of Supervisors, in canvassing the March 22, 2016 Presidential Preference Election, requested the Election Integrity Commission review the issue of voters believing they had a specific party affiliation and hence, eligibility to cast a ballot for the Presidential Preference Election but were denied a regular ballot. They then were required to vote a provisional ballot due to their party affiliation being involuntary changed by a State agency and/or program.

We understand there has been communication between the Arizona Department of Transportation's Motor Vehicle Division and the Secretary of State regarding this matter. We also understand the Recorder's Association of Arizona has also been requesting information regarding the processing of certain Motor Vehicle Division documents that may have resulted in this problem.

The Board of Supervisors has requested your review of this issue. Please provide a report of your findings to the Board of Supervisors at your earliest convenience.

CHH/anc

c: The Honorable Chair and Members, Pima County Board of Supervisors
The Honorable F. Ann Rodriguez, Pima County Recorder
Craig Sullivan, Executive Director, County Supervisors Association of Arizona
Matthew Chase, Executive Director, National Association of Counties
Brad Nelson, Director, Elections Department



MEMORANDUM

Date: April 5, 2016

To: Ellen Wheeler
Assistant County Administrator

From: C.H. Huckelberry
County Administrator 

Re: **Call to the Public – Voter Registration Issue**

Mr. Peter Davis Jr. appeared at Call to the Public today and provided the attached documentation. The information includes Green Valley voters who had their party registration changed. The change may have occurred during another process that may be related to vehicle registration.

Please refer these matters to the Election Integrity Commission (EIC) Chair. Also, please direct staff to contact Mr. Davis to invite him to attend the next scheduled EIC meeting if he desires, along with the other individuals in Green Valley, to provide testimony to the EIC.

CHH/anc

Attachment

c: The Honorable F. Ann Rodriguez, Pima County Recorder
Brad Nelson, Director, Elections Department

SPEAKER CARD

Speakers may address the Board at Call to the Public on any topic. It is at the discretion of the Chair to call upon speakers on items that are not designated as a hearing on the agenda.

I do wish to speak
 I do not wish to speak but submit the written comments below.

(Circle One) Opposed/Support/Undecided

Please print the information requested and place the speaker card in one of the baskets located on the date.

CALL TO THE PUBLIC

AGENDA ITEM NO. _____ ADDENDUM ITEM NO. _____

AGENDA/ADDENDUM ITEM DESCRIPTION:

NAME Peter S. Davis, Jr
ADDRESS [REDACTED]
CITY Gov. 1 STATE Ariz ZIP 85614
TELEPHONE NUMBER 520- [REDACTED]

COMMENTS Vote Receipt

Please use backside for additional comments. Thank you.

ANN M. HIRZ
 MICHAEL J. HIRZ

GREEN VALLEY, ARIZONA 85622

MICHAEL J. HIRZ and ANN M. HIRZ both registered to vote in ARIZONA (change from Wisconsin) on February 17, 2011 at the Green Valley / Sahuarita Republican headquarters. On March 21, 2011 the day before voting the presidential preference we had not received voter registration cards at our polling location. We went back to the Republican headquarters and tried the Pima County website from their computer. The Pima Co. site did not recognize our address. We then phoned the recorder's office where, I was told that my registration could be seen and was received by Pima Co. on March 2. I questioned that due to registering on Feb 17th. I was told that since Pima Co. did not receive our paperwork until March 2 we could not vote. The Pima Co recorder blamed it on the Republican headquarters = late mail. I was also told that we had no party affiliations, when ^{both} our registrations is clearly marked Republican. We both feel that something is incorrect here. We feel that our voter rights have been violated.

ANN M. HIRZ

Ann M. Hirz

Green Valley, AZ

MICHAEL J. HIRZ

Michael J. Hirz

USE ESTA SECCIÓN COMO EJEMPLO, LLENE LA CARÁTULA DEL FORMULARIO - Linea para el director

(1) Lista de Votación Temprana Permanente - Boleta Electoral Temprana (vea las instrucciones arriba) <input type="checkbox"/> SI, Yo quiero recibir automáticamente una boleta electoral temprana para cada elección a la cual sea elegible. <input checked="" type="checkbox"/> NO, NO DESEO recibir automáticamente una boleta electoral temprana. Yo entiendo que al MARCAR ESTA CASILLA, removeré mi nombre de la lista si éste estaba incluido previamente.		CASILLA SOLO PARA EL USO DE LA OFICINA 07	
(2) Apellido: <u>HIRZ</u> Nombre de Pila: <u>ANN</u> Segundo Nombre: <u>M</u> Jr./Sr./ll:			
(3) Si donde usted vive no tiene domicilio, describa la ubicación de la residencia usando millaje, cruces de calles, y de parcelas, nombre de la subdivisión y lote, o detalles específicos de referencia. No use un apartado postal ni dirección de negocio. Dibuja un mapa abajo si está ubicado en una zona rural.			(4) Dept./Unidad/espacio
(5) Ciudad: <u>GREEN VALLEY</u>	(6) Código Postal: <u>85622</u>	(7) Dirección en la cual usted recibe su correspondencia, si no se entrega la correspondencia a su casa.	
(8) Las últimas cuatro cifras de su Número de Seguro Social: <u>██████</u>	(9) Número de su licencia de manejar de AZ o número de su licencia de identificación no de manejar de AZ: <u>██████</u>	(10) Número Opcional de Identificación Tribal: <u>██████</u>	(11) Número de Registro de Extranjero: <u>██████</u>
(12) Fecha de Nacimiento (MM/DD/AAAA): <u>██████</u>	(13) Estado o País de Nacimiento: <u>MISSOURI</u>	(14) ¿Es usted? <input type="checkbox"/> Republicano <input checked="" type="checkbox"/> Demócrata <input type="checkbox"/> Otro	(15) Teléfono de Teléfono: <u>██████</u>
(16) Fecha de Nacimiento (MM/DD/AAAA)		(17) Si usted se registró para votar en otro domicilio, liste el domicilio previo incluyendo el condado y el estado: <u>██████</u>	(18) Ocupación: <u>██████</u>
(19) Si usted se registró para votar en otro domicilio, liste el domicilio previo incluyendo el condado y el estado		(20) Liste cualquier nombre previo (incluya apellido)	(21) Nombre de su padre o nombre de soltera de su madre: <u>██████</u>
(22) ¿Está usted dispuesto a trabajar en un lugar de votación el día de la elección? <input type="checkbox"/> SI <input checked="" type="checkbox"/> NO		(23) El no hay una dirección de calle, dibuje un mapa aquí	
(24) ¿Es usted ciudadano de los Estados Unidos de América? <input type="checkbox"/> SI <input checked="" type="checkbox"/> NO			
(25) ¿Cumplirá usted 18 años de edad en o antes del día de la elección? <input type="checkbox"/> SI <input checked="" type="checkbox"/> NO			
DECLARACIÓN DE VOTANTE - Al firmar abajo, Juro o afirmo que la información más arriba es verdad, que soy RESIDENTE de Arizona, que NO soy un CRIMINAL convicto, o mis derechos civiles han sido restituidos y no se me ha juzgado INCOMPETENTE.			
FIRME AQUÍ		FECHA	
FIRMA DE LA PERSONA QUE LE AYUDÓ		FECHA	

DESPEGUE LA CINTA ADHESIVA Y DOBLE PARA ENVIAR POR CORREO - DESPEGUE LA CINTA ADHESIVA Y DOBLE PARA ENVIAR POR CORREO - USE BLACK PEN - COMPLETELY FILL OUT FORM - USE BÚLVA DE TINTA NEGRA - LLENE EL FORMULARIO COMPLETAMENTE

(1) Permanent Early Voting List - Early Ballot (see instructions above) <input type="checkbox"/> YES, I want to automatically receive an early ballot for each election for which I am eligible. <input checked="" type="checkbox"/> NO, I DO NOT want to automatically receive an early ballot. I understand CHECKING THIS BOX will remove my name from this list if it was previously included.		FOX FOR OFFICE USE ONLY 07	
(2) Last Name: <u>HIRZ</u> First Name: <u>ANN</u> Middle Name: <u>M</u> Jr./Sr./ll:			
(3) Address where you live - If no street address, describe residence location using mileage, cross streets, parcel #, subdivision name and lot, or landmarks. Do not use post office box or business address. Draw a map below if located in rural area.			(4) Apt./Unit/Space
(5) City: <u>GREEN VALLEY</u>	(6) Zip: <u>85622</u>	(7) Address where mail, notices, etc. may be delivered to your home	
(8) Last four digits of Social Security Number: <u>██████</u>	(9) AZ Driver License Number or AZ Nonoperating License Number: <u>██████</u>	(10) Optional Tribal Identification Number: <u>██████</u>	(11) Alien Registration Number: <u>██████</u>
(12) Birth Date (MM/DD/YYYY): <u>██████</u>	(13) State or Country of Birth: <u>MISSOURI</u>	(14) Party Preference: <input type="checkbox"/> Republican <input checked="" type="checkbox"/> Democrat <input type="checkbox"/> Other	(15) Telephone Number: <u>██████</u>
(16) Occupation: <u>██████</u>		(17) List former name (if applicable): <u>██████</u>	(18) Father's name or mother's maiden name: <u>██████</u>
(19) If you were registered to vote in another state, list former address including county and state: <u>██████</u>		(20) Are you willing to work at a polling place on election day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
(21) E-mail address: <u>██████</u>		(22) If no street address draw a map here:	
(23) Are you a citizen of the United States of America? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
(24) Will you be 18 years of age on or before election day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
VOTER DECLARATION - By signing below, I swear or affirm that the above information is true, that I am a RESIDENT of Arizona, I am NOT a convicted FELON or my civil rights are restored, and, I have NOT been adjudicated INCOMPETENT.			
SIGN HERE: <u>X Ann M. Hirz</u>		DATE: <u>2/17/2016</u>	
(25) If you are unable to sign the form, the form can be completed at your direction. The person who assisted you must sign here.			
SIGNATURE OF PERSON ASSISTING		DATE	

Remove tape and fold to mail

FORMULARIO DE INSCRIPCIÓN DE VOTANTE EN ARIZONA

LAS INSTRUCCIONES EN ESPAÑOL SE ENCUENTRAN AL REVERSO

Questions? For questions regarding voter registration, call your County Recorder listed on the back of the form

You Can Use This Form To:

- Register to vote in the state of Arizona
- Let us know that your name, address or party affiliation has changed

To Register To Vote in Arizona You Must (Qualifications):

- Be a United States citizen (see citizenship requirements on back)
- Be a resident of Arizona and the county listed on your registration
- Be 18 years of age or more on or before the day of the next regular General Election

WARNING: Executing a false registration is a class 6 felony

You Cannot Register To Vote in Arizona If:

- You have been convicted of a felony and have not yet had your civil rights restored
- You have been adjudicated incompetent

How To Register To Vote:

- To be eligible for an election, you must register to vote at least 29 days before the election
- You can mail or hand deliver your completed form to your County Recorder's office
- If by mail, the form must be received by the County Recorder no later than 5 days after the last day to register to vote in that election or be postmarked 29 days or more before an election and received by the County Recorder by 7 p.m. on election day
- Your County Recorder's office will mail you a proof of registration within 4 - 6 weeks
- You can register online at www.azsos.gov

Citizens With Disabilities May:

- Contact the County Recorder/Elections Department for information about early voting, accessible voting, or other accommodations.

PROOF OF CITIZENSHIP REQUIREMENT

A complete voter registration form must contain proof of citizenship or the form will be rejected. If you have an Arizona driver license or nonoperating identification license issued after October 1, 1996, this will serve as proof of citizenship. If not, you must enclose proof of citizenship with the form. Please refer to the back of the form for a list of acceptable documents to establish your citizenship.

**PERMANENT EARLY VOTING LIST
EARLY BALLOT - VOTE BY MAIL**

Any voter may request to be included on the "Permanent Early Voting List" (PEVL) in order to automatically receive an early ballot for all elections he or she is eligible to participate. To be on the list, the address where you receive mail must be in Arizona. Military and overseas voters are also eligible to be on the PEVL using their overseas mailing address. To automatically receive an early ballot, mark "Yes" in box 1.

If "Yes" is marked in box 1, you will be added to the PEVL. If "no" is marked in box 1, your name will not be added to the PEVL and will be removed from PEVL if it was previously included on the list. If neither "Yes" or "No" are marked in box 1, your record will remain unchanged as it relates to being on the PEVL.

USE BLACK PEN - COMPLETELY FILL OUT FORM *USE PLUMA DE TINTA NEGRA - LLENE EL FORMULARIO COMPLETAMENTE

<input checked="" type="checkbox"/> Permanent Early Voting List - Early Ballot (see instructions above) <input checked="" type="checkbox"/> YES, I want to automatically receive an early ballot for each election for which I am eligible. <input type="checkbox"/> NO, I DO NOT want to automatically receive an early ballot. I understand CHECKING THIS BOX will remove my name from the list if it was previously included.								
[2] Last Name <i>Garcia</i>		First Name <i>Suanna</i>		Middle Name <i>Brown</i>		Jr./Sr./III		
[3] Address where you live - If no street address, describe residence location using mileage, cross streets, parcel #, subdivision name and lot, or landmarks. Do not use post office box or business address. Draw a map below if located in rural area.							[4] Apt./Unit/Space	
[5] City <i>Green Valley</i>		[6] Zip <i>85614</i>	[7] Address where you get your mail, if mail is not delivered to your home					
[8] Last four digits of Social Security Number [REDACTED]	[9] AZ Driver License Number or AZ Nonoperating License Number [REDACTED]	[10] Optional Tribal Identification Number		[11] Alien Registration Number				
[12] Birth Date (MMDDYYYY) [REDACTED]	[13] State or Country of Birth <i>COLORADO</i>		[14] Party Preference <input checked="" type="checkbox"/> Republican <input type="checkbox"/> Democratic <input type="checkbox"/> Other	[15] Telephone Number [REDACTED]	[16] Occupation [REDACTED]			
[17] If you were registered to vote in another state, list former address including county and state [REDACTED]			[18] List former name (if applicable)		[19] Father's name or mother's maiden name [REDACTED]			
[20] Are you willing to work at a polling place on election day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		[21] E-mail address [REDACTED]			[23] If no street address draw a map here: 			
[22] • Are you a citizen of the United States of America? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If you checked "No" to either one of these questions, do not submit this form.</i> • Will you be 18 years of age on or before election day? <input type="checkbox"/> Yes <input type="checkbox"/> No								
VOTER DECLARATION - By signing below, I swear or affirm that the above information is true, that I am a RESIDENT of Arizona, I am NOT a convicted FELON or my civil rights are restored, and I have NOT been adjudicated INCOMPETENT. <i>Suanna Brown Garcia</i> <i>04/21/2016</i> SIGN HERE DATE								
[24] If you are unable to sign the form, the form can be completed at your direction. The person who assisted you must sign here.				SIGNATURE OF PERSON ASSISTING				DATE

Remove tape and fold to mail

Remove tape and fold to mail

BARCODES AND TRACKING INFORMATION

11/10/16 - 11/10/16

To whom it may concern,

I first registered to vote in Arizona on or about 2005 as a republican. I have never changed parties.

This year - 2016 - I went to vote and was informed I was PND.

This needs to be corrected as somehow people are being taken off the republican status.

Terrell F. 5/6/16

Suzanne Brown Garioto

Green Valley, AZ. 85614

I waited till 3-21-16 to get
my mail in ballot. It still
has not come to my house
Stopped in @ Republican Headquarters
today to ask why. They had me
call Pima Co Recording. That lady
told me I was undeclared! I am
mad about this and I marked
Republican! The lady @ DMV
marked me wrong. Also I came
to the Republican Hqts. to make
sure I'd get my mail in ballot.
The man who works here looked

up my name and said "yep"
were registered and you should
get your ballot in about 2 weeks."
I still do not have it. I am
now sitting @ R. Hots and will
re-register. But now I am
left out of voting for tomorrow!
MAD! Suzanne Hancock
P.S. They violated my voting
rights! L.L.

To whom it may concern,

My husband and I registered to vote at the DMV when we moved to Green Valley. We both are Republicans. When it was time for the 2016 Primary, we had not received our mail in vote packet and it was getting close to the election so we came to the Republican (G.V.) Headquarters to check. They gave us a number to call. The lady there said we weren't registered for any party so we weren't allowed to vote and it was too late. We also didn't know what PND meant. We blame the DMV for the mismanagement of our information.

Lynda & Phil / Ronald & Patricia



Fifty-second Legislature - Second Regular Session

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Senate	House	Legislative Council	JLBC	More Agencies	Bills	Committees	Calendars/News
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[16-134. Return of registrations made outside office of county recorder; incomplete or illegible forms](#)

A. A county recorder shall authorize persons to accept registration forms, shall designate places for receipt of registration forms and shall designate additional locations for distribution of voter registration forms. Public assistance agencies and disabilities agencies as defined in section 16-140 shall return or mail completed voter registrations to the county recorder of the county in which the applicant resides within five days after receipt of those registrations.

B. If the information on the registration form is incomplete or illegible and the county recorder is not able to process the registration form, the county recorder shall notify the applicant within ten business days of receipt of the registration form, shall specify the missing or illegible information and, if the missing or illegible information includes any of the information prescribed by section 16-121.01, subsection A, shall state that the registration cannot be completed until the information is supplied. If the missing or illegible information is supplied before 7:00 p.m. on election day, that person is deemed to have been registered on the date the registration was first received.

C. In the case of registration by mail, a voter registration is valid for an election if it complies with either of the following:

1. The form is postmarked twenty-nine days or more before an election and is received by the county recorder by 7:00 p.m. on the day of that election.
2. The registration is dated twenty-nine days or more before an election and is received by the county recorder by first class mail within five days after the last day to register to vote in that election.

D. The date of registration entered for registration forms that are received by the county recorder from persons, groups or agencies that are not authorized to accept registrations pursuant to subsection A of this section and that do not bear a legible postmark date or an otherwise reliable date shall be the date that those forms are received by the county recorder.

**May 17, 2016
Special Election
Events Calendar**

Event	Date	Time	Location	Explanation
County Inhouse Touchscreen and Central Count Logic and Accuracy Test Begins	Begins 4/13	8:00 AM	6550 S. Country Club Road	Pima County Elections tests the Central Count and Touchscreens.
Secretary of State Logic and Accuracy Test	4/19	8:20 AM	6550 S. Country Club Road	Prior to the start of early voting, a Logic and Accuracy Test must be done on the Touchscreens that will be used during early voting and at the Polls. Early voting begins on April 20.
Political Party Logic and Accuracy Test Ballot Marking Begins	5/2 - 5/6	8:30 AM - 4:00 PM	6550 S. Country Club Road	An appointed member of each Political Party has an opportunity to mark a test deck of ballots to further ensure the accuracy of the Election Equipment and Program.
Early Ballots Received from the Recorder's Office	5/2	8:00 AM	6550 S. Country Club Road	
Early Ballot Processing begins	5/2	8:00 AM	6550 S. Country Club Road	The Early Ballots are processed, taken out of the envelopes, flattened and sent to the Elections Tech Center for counting. This process will continue every day until the last Early Ballot has been sent to the Elections Tech Center for counting.
Political Party Logic and Accuracy Test	5/9	10:00 AM	6550 S. Country Club Road	Appointed members of each Political Party test the Central Count and Touchscreens.
Poll Worker Class Schedule	Online	Online	6550 S. Country Club Road	Prior to each election, all poll workers must attend a training class.
Counting of Early Ballots begins	Beginning 5/12	8:00 AM	6550 S. Country Club Road	The Early Ballots are sent through the central count system, but no results are released until election night after 8:00 PM.
Counting of Early Ballots continued	5/13	8:00 AM	6550 S. Country Club Road	The Early Ballots will be counted each day as quantities warrant it.
Counting of Early Ballots continued	5/17	1:00 PM	6550 S. Country Club Road	The Early Ballots will be counted each day as quantities warrant it.
Count Polling Place Ballots	5/17	Beginning at approx 7:30 PM	6550 S. Country Club Road	The polling place ballots will be counted as they come in from Receiving Stations.
Hand Count Audit Meeting	5/18	9:15 AM	6550 S. Country Club Road	State Law requires the hand count audit process begin 24 hours after the election. At this time, we will discuss when and where the Voting Areas will be chosen to be hand count audited.
Begin processing Provisional Ballots	5/19	AM	6550 S. Country Club Road	Provisional Ballots are ballots marked by voters who must be verified by the Recorder's Office for a variety of reasons. Provisional Ballots will be processed as quantities warrant it.
Counting of Early Ballots continued	5/19	1:00 PM	6550 S. Country Club Road	The Early Ballots will be counted each day as quantities warrant it.
Last day a voter who used a Conditional Envelope can show ID	5/20	5:00 PM		
Hand Count Audit Offices and Races chosen	5/21	7:30 AM	6550 S. Country Club Road	
Hand Count Audit Party Members arrive	5/21	8:30 AM - 9:00 AM	Hilton Garden Inn at 6575 S Country Club Road	Party Members arrive to sign in and prepare for instruction.

**May 17, 2016
Special Election
Events Calendar**

Event	Date	Time	Location	Explanation
Hand Count Audit	5/21	9:00 AM	Hilton Garden Inn at 6575 S Country Club Road	A Hand Count of previously and randomly picked offices and precincts is conducted by members of the political parties.
Counting of Early Ballots continued	5/21	2:00 PM	6550 S. Country Club Road	The Early Ballots will be counted each day as quantities warrant it.
Counting of the Provisional and Conditional Ballots	5/21	2:00PM	6550 S. Country Club Road	The Provisional Ballots verified by the Recorder's Office are counted.
Post Logic and Accuracy Test	5/21	Immediately following the final ballot count	6550 S. Country Club Road	After each election a post Logic and Accuracy Test is required to ensure the programming system has not been altered and is still reading the ballots correctly. The post Logic and Accuracy Test will be performed after the hand count audit is complete.
Canvass of Election	5/24	AM	130 W. Congress St.	The Board of Supervisors must canvass the election.

The only dates on this events calendar that are a certainty are the Logic and Accuracy Test dates. All others are subject to change.