Maricopa County:
Forensic Election Audit
Introduction
Introduction – MC Forensic Audit

Overview

- 2.1M ballots processed by hand
- Over 1,500 people involved
- Over 100,000 hours of time contributed
Introduction - MC Forensic Audit
Security

- The perimeter was secured at the coliseum
- COVID checks & access validation
- Ballots & election equipment were secure in corrals
- 24/7 video surveillance & law enforcement guard
Tallying

- All counters were Maricopa residents who voted in the last election.
- Each person was run through a standard background check.
- All three counters counted “blind” without any talking.
- Roughly every ~50 ballots tallies were compared and needed to agree or be redone.
Introduction – MC Forensic Audit
Paper Examination (PE)

- High quality DLSR images captured of the front and back of all ballots
- Microscope images captured of key ballot locations
- Over 140TB of data storage for PE alone
Current Status

• Complete
  • Hand-counting of all federal races
  • Image and microscope capture of all ballots
  • Review & Comparison of Official Results
  • Analysis of the Voter Rolls

• Expected Soon
  • Review of Splunk Logs and Routers via Settlement Agreement terms.
  • Completion of Paper Analysis
Current Status

- No Longer In Scope
  - Canvasses to confirm voter rolls
    - Removed from scope of work.
  - Review of tabulator configuration to check internet configuration.
    - Hardware tokens never provided by the County.
  - Review of Voter Roll System
    - Systems accessing rolls never provided by the County.

- Review of ICX Devices
  - Systems never provided by the County.
  - Review of provisional ballots
    - Provisional Ballots Never Provided by County.
  - Review of undeliverable ballots
    - Undeliverable ballots never provided by county.
Ballots & Tallying - Background

- Ballots that are damaged or can’t be processed by a tabulator are duplicated.
- Damaged Sent to Duplicates (DSD) are the originals, DUPs the Duplicate.
- There should be one DSD per DUP.
- There should be a unique serial number to match up a DSD to its DUP.
- Duplicate ballots should be stored separately from original ballots.
Findings

- Duplicate ballots comingled with original ballots
- Duplicated ballots with incorrect & missing serial numbers
- Duplicates that reuse serial numbers
- More duplicates than original ballots

<table>
<thead>
<tr>
<th>BOX ID</th>
<th>Description</th>
<th>TYPE</th>
<th>SERIAL NO.</th>
<th>Ballots Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maricopa County Forensic Audit - Duplicates</td>
<td></td>
<td></td>
<td></td>
</tr>
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</tr>
<tr>
<td></td>
<td>Original Damaged Ballots SD &amp; Residential</td>
<td>99</td>
<td>Biden</td>
<td>27,869</td>
</tr>
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<tr>
<td></td>
<td>Board 1 Hand Dup 216</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Board 1 Hand Dup 217</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Board 1 Hand Dup 218</td>
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</tr>
</tbody>
</table>
## Findings

- Duplicate ballots comimling with original ballots
- Duplicated ballots with incorrect & missing serial numbers
- Duplicates that reuse serial numbers
- More duplicates than original ballots
  - Extra DUPS favor Trump & Jorgenson
  - Extra DUPS favor McSally

### Ballots & Tallying – MC Forensic Audit

<table>
<thead>
<tr>
<th>Description</th>
<th>Damaged Sent to Duplication (DSD)</th>
<th>Duplicate Ballots (DUP)</th>
<th>Expected % To Candidate</th>
<th>% Difference To Candidate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trump</td>
<td>995,404</td>
<td>996,896</td>
<td>48%</td>
<td>58%</td>
</tr>
<tr>
<td>Biden</td>
<td>1,040,873</td>
<td>1,041,733</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>Jorgenson</td>
<td>31,501</td>
<td>31,580</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>McSally</td>
<td>983,662</td>
<td>985,100</td>
<td>47%</td>
<td>55%</td>
</tr>
<tr>
<td>Kelly</td>
<td>1,064,336</td>
<td>1,065,266</td>
<td>51%</td>
<td>36%</td>
</tr>
</tbody>
</table>
# Tally Results – (Based on DSD)

<table>
<thead>
<tr>
<th></th>
<th>McSally</th>
<th>Kelly</th>
<th>Write In / Over / Under</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maricopa County</td>
<td>983,662</td>
<td>1,064,336</td>
<td>40,398</td>
<td>2,088,396*</td>
</tr>
<tr>
<td>Forensic Audit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Official Maricopa</td>
<td>984,203</td>
<td>1,064,396</td>
<td>40,964</td>
<td>2,089,563</td>
</tr>
<tr>
<td>County Canvass</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DELTA</td>
<td>(541)</td>
<td>(60)</td>
<td>(566)</td>
<td>(1,167)</td>
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</table>
## Tally Results – (Based on DSD)

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<td></td>
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<td>Official Maricopa</td>
<td>995,665</td>
<td>1,040,774</td>
<td>31,705</td>
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<td>County Canvass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DELTA</td>
<td>(261)</td>
<td>99</td>
<td>(204)</td>
<td>(628)</td>
<td>(994)</td>
</tr>
</tbody>
</table>

* Slight difference in Presidential & Senate ballot totals are due to small differences in hand counts across 2.1M ballots
Findings

• At least a batch of 50 ballots was run through the tabulators twice.
Findings

- Several UOCAVA ballots have been double-counted
Official Results
Official Results - Background

- Official Canvass – Tallies of the ballots cast
  - Per candidate, per precinct, provisional, etc.

- VM55 Final Voted File – A list of all the people who cast a ballot in the election
  - Indicates method of voting and other details

- VM34 Full Voter File – A list of all people eligible to vote
  - Released on a monthly basis
Definitions

- EV32 Early Voting Sents – A list of all the ballots mailed out
  - Includes the date mailed, the address mailed to, the ballot type, etc.

- EV33 Early Voting Returns – A list of all the ballots received for Early Voting
  - Includes the date returned and the method (Mail-in or in Person)
Election System Balance

If the following situation happened:
- 10 people mailed in a ballot
- 10 people voted early in person
- 10 people voted on election day in person

You would expect:
- The Official Canvas has a total of 30 votes across all the candidates / precincts etc.
- The VM55 should show a list of 30 people:
  - 10 people who voted via mail-in
  - 10 via Early Voting in Person
  - 10 via Election Day in person
- EV32 Sents would show 10 ballots mailed
- EV33 Returns would show 10 mail-in ballots received, and 10 mail-in ballots for EV In Person

None of these system balance.
Findings

- Official Canvass has 3,432 more ballots cast than the list of people who show as having cast a vote (VM55)
- 9,041 mail-in voters show returning more ballots (EV33) than they were sent (EV32).
- 277 Precincts show in the Official Canvass as having more ballots cast than people who showed up to vote (VM55) for a total of 1,551 excess votes.
- There are 2,472 ballots shown in EV33 that don’t have corresponding entries in the VM55, and only 2,042 ballots show as rejected in the Official Canvas for a discrepancy of 430.
- 397 mail-in ballots show as received (EV33) that never show as sent (EV32).
- 255,326 Early Votes show in the VM55 that do not have a corresponding EV33 entry.
Voters Who Moved
Moving - Background

- Individuals who voted were compared against a commercial database called Melissa to see who moved before the October 5\textsuperscript{th} cutoff.

Melissa Personator

- Checks addresses associated with a user
- Shows prior and current addresses
- Tracks moves and move dates
- Tracks date-of-birth and death dates
Moving – MC Forensic Audit

Findings

• 23,344 voters voted via mail-in ballot even though they show in Melissa as having moved, and no one with the same last name shows as living at the address.

• 2,382 voters voted in-person even though they show in Melissa as having moved out of Maricopa County.

• 2,081 voters moved out-of-state during the 29 days before the election and were given a full ballot instead of a presidential-only ballot.
Voter Rolls
Voter Rolls - Background

- Registration dates do not generally change unless to correct a mistake.

Thank you for your questions.

Are there any circumstances in which someone’s registration date can change?

Generally, a voter’s date of registration does not change outside of correcting a mistake. The date of registration is the date where the voter first registered to vote in in the county, while any updates to a voter’s registration is tracked separately.

The only time a voter may have two dates of registration is if their registration has previously been cancelled and the voter registers again. The original record could be cancelled for a variety of reasons, including death of the voter, voter request, or the voter has moved outside Maricopa County. Only the latest voter registration record is considered valid and a voter cannot use their cancelled record.
Voter Rolls - Background

- AFFSEQ is a unique number found in the voter roll system that is associated with a single transaction to a single user.
  - That change transaction has an image to go along with it to reference the document that authorized the change.
  - AFFSEQ’s should be unique and only happen once and definitely shouldn’t be shared by users.

- A.R.S. 16-152 requires that complete names be used.

On Aug 30, 2021, at 11:52 AM, voterinfo - RISCX <voterinfo@risc.maricopa.gov> wrote:

Good morning [REDACTED]. The AFFSEQs refers to Affidavit sequence. Each transaction by a voter will result in an affidavit. The affidavit could be a modification to your registration such as address change, party change or an updated signature as an example. An affidavit identifier is also applied to the affidavit envelope, or a provisional ballot used during an election. These identifiers are unique to each transition and never repeated.
Findings

- Potentially as many as 5,047 individuals who voted in more than one county for up to 5,295 votes.
- 393 voters with incomplete names voted in the election.
- 198 individuals registered after the October 15th cutoff and voted in the election.
- 2,861 voters have shared an AFFSEQ number with another voter at some point.
- 282 potentially deceased voters voted in the election.
- 186 people potentially have duplicate voter IDs that both voted.

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last name only</td>
<td>15</td>
</tr>
<tr>
<td>Last name is an initial only</td>
<td>9</td>
</tr>
<tr>
<td>No last name</td>
<td>45</td>
</tr>
<tr>
<td>First name is an initial only</td>
<td>324</td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
</tr>
</tbody>
</table>