

MEMORANDUM

To: John Arntz, Director, Dept. of Elections
Michael Mendelson, President, Elections Commission
Julie Moll, Deputy City Attorney
From: Caleb Kleppner, Center for Voting and Democracy, 824-2735
Re: ES&S Proposal for Proposition A/Instant Runoff Voting Implementation
Date: Revised January 29, 2003

Thank you for the opportunity to review the proposal from ES&S for implementation of IRV for the November 2003 election.

In general, the proposal appears to me to be quite strong and comprehensive, and I think it's a very good step toward a successful election using the current voting equipment, Optech Eagles and the Optech IV-C. The approach of adding a PCM card to the Eagles to capture ballot images strikes me as a technically viable and logistically workable approach.

My areas of concern in descending order of importance are:

1. **Timeline:** the proposal leaves little room for delay and may not be realistically achievable.
2. **Results reporting and IRV tabulation:** it is critical to release data sets containing ballot images between Election Night and the eventual IRV tabulation.
3. **Ballot cleaning and interpretation:** the proposal makes some recommendations that conflict with the charter amendment and exclude votes that should be counted.
4. **Logistics:** the proposal is contradictory about the collection of the PCM cards with ballot images (pink bubble bag with the Memory Pack and precinct totals vs. DOE collection depot)

I discuss each of the areas below.

1. Timeline

First, the date for accepting and approving the terms is tomorrow, January 17, one week after delivery of the proposal. It is probably not realistic for DOE to sign off on the proposal on January 17.

We should confirm that the Department is comfortable with the current ballot presentation: 3 columns, one for each choice, tri-lingual, with the basic form of the sample IRV ballots prepared some time ago.

Note that if more than 17 candidates file for mayor, it may be necessary to use a ballot longer than 18 inches, which I believe would preclude the use of the IV-C, or to create different ballots for each language. **The plan for handling this unfortunate contingency needs to be laid out.**

Second, the entire timeline leaves little room for the inevitable delays that accompany a technical project such as this one.

The principle method for dealing with this time pressure is to a) push up various deadlines and b) require ASAP delivery of a prototype Eagle that can capture ballot images and store them in the PCM card.

A working Eagle is the key link in this chain. The aggregation software and procedures can be delivered later, but if the Eagles can't store rankings and can't deal with the various ballot errors and messages that we require, the project grinds to a halt.

Essentially every time ES&S claims to have made progress on the Eagle, they should deliver a model for the Dept., the Commission, and, where appropriate, the public to fill out ballots, feed them into the Eagle, and examine the output file from the PCM card.

Third, it's essential to plan at least one, and preferable, two "dress rehearsals" of an election, from filling out ballots, to feeding them into an Eagle, to extracting ballot images, and then running the IRV tabulation (even if the final step needs to be done on a spreadsheet or by hand).

I think the Dept. should aim to conduct an election with 50 or 100 students in a high school this May, before the end of the school year, and then conduct a mock election for mayor, with actual candidates and real ballot papers, in as many high schools as practical next fall, in September or early October.

Again, the key is the feeding of ballots into the Eagle and being able to extract ballot images from PCM cards. It is not necessary to test the results aggregation system and software at this stage, because once we have ballot images downloaded from the PCM cards, the vote aggregation and tabulation can be done manually (and quite rapidly).

2. Results reporting and IRV tabulation

ES&S proposes releasing first choice vote totals in IRV races in the same manner that results are currently reported (e.g., report #1 soon after polls close, and then reports throughout election night, followed by one report per day in subsequent days until all absentees and provisionals are counted). This is a good first step.

Then ES&S proposes waiting "until the Official Statement of Vote (Canvass) has been certified to the Secretary of State" to perform the IRV tabulation and announce the winner.

This would create an unacceptable delay between the reporting of 1st choice totals on Election Night and the subsequent few days, and the eventual release of the IRV result, which might not occur for 10 days or more.

It does not make sense for the Department to perform an IRV tabulation until all ballots are scanned and aggregated. However, publicly releasing (anonymous) data sets consisting of all ballots scanned to date will tell the public exactly where the ballot counting is, how the votes are

shaping up, who would win if the remaining ballots are like the already-counted ones, and that the process is accurate, fair and transparent.

In other words, it will create confidence in the Department, the election system and the results, and it will head off the predictable complaints about manipulation of ballots behind the scenes.

I think it should be the policy of the Department to make the entire process as transparent as possible, so that anyone can look in at any stage of the process, and see that ballots are being counted accurately.

To this end, I think it is important to add some very specific reporting requirements to ES&S's reasonable first step, which is simply reporting first choice totals just like any other election according to current practices.

These steps include:

1. Publicly releasing, including via the Internet, data files consisting of all ballots scanned to date on the following schedule:
 - a. Early absentee ballots as soon as possible after polls close;
 - b. Election Day polling place results as soon as all or nearly all precincts report on Election Night; and
 - c. One file at the end of each subsequent day after the election consisting of all absentee and provisional ballots counted that day.
2. Then, when all ballots have been scanned, you perform the IRV tabulation and certify results consisting of:
 - a. First choice totals for each candidate; and
 - b. Vote totals for each candidate by round of counting, as candidates are eliminated, including the number of exhausted ballots in each round

3. Ballot cleaning and interpretation

The proposal contains several suggestions that either conflict with the charter or unnecessarily exclude ballots that could be counted as the voter intends.

This has implications for the warning messages that voters receive when they insert an improperly filled out ballot.

The charter states, "If a voter casts a ranked-choice ballot but skips a rank, the voter's vote shall be transferred to that voter's next ranked choice." (Section 13.102(a))

This clearly requires that a ballot listing 1st and 3rd choices but skipping a 2nd choice shall count for the 3rd choice after the 1st choice is eliminated. ES&S proposes exhausting that ballot after the 1st choice is eliminated. This would conflict with the plain language of the charter amendment.

If a voter lists a 2nd choice, but no 1st choice, ES&S proposes excluding the vote. Having assisted with the drafting of the original charter amendment in 1999 and in 2001, I can assure you that the intent of the charter amendment was to count as many votes as possible, so this type of vote should be counted as a 1st choice.

To me, Sec 13.102(a) clearly implies that a ballot listing only a 2nd choice candidate should be treated as a 1st choice for the candidate indicated. This would allow such a ballot to be counted as a 1st choice in 13.102(c). Certainly such a ballot meets the definition of a “continuing ballot,” and all continuing ballots are counted as one vote in each stage of the tabulation.

I will now lay the places on pages 2, 4 and 5 that should be modified to reflect the actual language of the charter as well as the counting of as many votes as possible, according to the intent of the voter, under state and federal law.

Page 2, 3rd paragraph: As described above, ballots skipping a 1st choice but listing a valid 2nd or 3rd vote should be treated as valid 1st choice votes.

Page 4, number 3: The message should be “skipped ranking” rather than “no first choice selection” and it should include all of the following scenarios:

- i. 2nd choice only
- ii. 3rd choice only
- iii. 1st and 3rd only
- iv. 2nd and 3rd only

Page 5, number 3: This recommendation clearly violates the charter. If a voter lists a 1st and a 3rd, the vote transfers to the voter’s 3rd choice after the 1st choice is eliminated.

Page 5, table: The 4th row and the final 3 rows of the table are unnecessarily restrictive. Here is how they should be interpreted:

1 st	2 nd	3 rd		Error Condition
Ann	Ann	Don	2	Ann, Don (proposed to be Ann, then exhausted)
None	Don	Cat	3	Don, Cat, then exhausted
Cat	None	Bob	3	Cat, Bob, then exhausted
None	None	Cat	3	Cat, then exhausted

The description of the ballots that would be accepted (1st choice; 1st and 2nd; 1st, 2nd and 3rd) is correct.

With the exception of using the wrong message (no first choice instead of skipped ranking) and misinterpreting skipped rankings, I believe the acceptance and rejection of ballots, the notification messages and the interpretation of ballots is otherwise correct.

4. Logistics

On Page 1 of “Recommended Approach,” ES&S states, “At close of polls, the PCM Cards will be removed by the Poll Workers and delivered to a DOE supplies collection depot Election Night.”

On Page 4, it reads, “The PCM Card should be returned in the pink bubble bag that contains the Memory Pack and a copy of the precinct’s total results in the same manner in which these items are now returned to Supply Depots.”

The “Memory Pack pick up” is quite different from the “Supplies drop-off.”

The proposal should be corrected to clarify that the PCM cards are placed in the pink bubble bag and delivered with the Memory Pack to the uplink sites for transmission of data via modem to DOE.