




# CONTRA COSTA COUNTY ELECTIONS DIVISION

[www.cocovote.us](http://www.cocovote.us)

 [ContraCostaElections](https://www.facebook.com/ContraCostaElections)

## FACT SHEET

### Topic: Voting Systems Testing & Duplication

#### Ballot Tabulation System

- The ImageCast Central scanner system uses high-speed digital scanners to tabulate all cast ballots in Contra Costa County. The scanner (HiPro or G1130) captures a full digital image of the paper ballot and the voter's marks. The images are stored and tabulated by the ImageCast Central software.
- Some ballots require adjudication before their results are tabulated and applied to the results. Ballots go to adjudication for a limited and predefined set of conditions; if the entire ballot card is blank, a contest on a ballot card is over voted (more votes than allowed in that contest), the voting target is not filled to a certain threshold, or if the write-in bubble is marked. Two adjudicators view the ballot and agree on how to resolve each issue that is flagged by the system.

#### Logic and Accuracy Testing

- Prior to each election every piece of voting equipment that will be used to count or mark ballots is put through a set of logic and accuracy tests to ensure that it is functioning properly and tabulating votes correctly.
- Each scanner is tested using a pre-marked set of ballot cards to verify that it is functioning mechanically (ballots are fed correctly through belts and rollers without jamming), logically (the unit recognizes the specific election's ballot), and that it is accurate (the voting

equipment reads and reports the correct number of votes expected).

- Ballots from all possible sources are tested during the Public Logic and Accuracy Test. Ballots that are printed by our printing vendor, ballots produced in house from our MBP Mobile Ballot Printing system, ballots from an ICX Ballot Marking Device, and ballots from the RAVBM Remote Accessible Vote by Mail system are all created and formed into different test decks.
- Each test deck serves to test different aspects of the system. The decks are comprised of votes that test that each candidate and write-in position is being read correctly, that each precinct and ballot style has been accounted for, and that all error conditions are being accounted for (blank ballot, over voted contest, indeterminate marks).

#### Ballot Duplication

- Any ballots that are damaged or unable to be read by the central count scanners must be duplicated onto a ballot that can be processed by the scanning system. Usually a ballot cannot be read if it is damaged (generally ripped or torn) or has coffee/food stains. Roughly two percent of all ballot cards returned cannot be read by our scanners.
- Complete ballots are duplicated by a team of two on an ICX Ballot Marking Device. Ballots that do not have all their corresponding cards are duplicated by a team of two onto ballots printed by our MBP Mobile Ballot Printing system. The

original ballot and the newly created duplicate are logged with a matching sequence number that ties them together for future reference.

### **One Percent Manual Tally**

- After each election a sample of the ballots cast are selected at random and counted by hand, by a team of two, to verify that the scanners correctly recorded votes throughout the course of the election. The manual hand count is compared to the count produced by the central count scanners to verify that votes were tabulated correctly. The process of retrieval, manual counting, and verification takes roughly one week and is completed at the end of the canvassing period.