

## CONCLUSIONS AND NEXT STEPS

The Task Force spent many hours exploring these issues and seeking to arrive at recommendations that were both responsible and feasible. Everything in this report is designed to increase the security of voting systems as well as to increase the confidence of the voters.

While there was not agreement on every issue the Task Force examined, we urge the Secretary, the members of the Voting Systems and Procedures Panel and others interested in the design, use, and security of voting systems to consider our recommendations, as all of them are the consensus of a committee that was incredibly diverse in our experience with voting systems, and our perspective on these issues.

We urge the Secretary to carefully review this report and to strongly urge the federal testing and standards authorities to consider our recommendations to improve the federal testing and qualification standards.

The Task Force also encourages the vendor community to review their security procedures – not only within the systems they are producing, but also the vendors' internal production and development security protocols, to make sure these are as strong as necessary given the importance that accurate election results are to our democracy.

Finally, we are quite cognizant that many of these recommendations will take substantial time and money to implement. We urge the federal and state governments to consider the considerable value that our society places on fair and accurate

elections, and to make an equivalent financial commitment over the necessary time period.

## **APPENDIX: Glossary of Terms**

Acceptance Testing – the examination of voting systems and their components by the purchasing election authority in a simulated use environment to validate performance.

Accessibility – The ability of the voting system to be independently utilized by individuals with disabilities including those who are blind or visually disabled, without compromising the voter’s privacy or secrecy of his or her ballot. The ability of the voting system to be independently utilized by individuals with alternative language needs pursuant to section 203 of the Voting Rights Act of 1965.

Accuracy – precision in recording, calculations and outputs.

Alternative Voter Verification – voter verification of a ballot cast using non-paper media (e.g. electronic voter verification).

Ballot Image – the detailed record of the selections made by a particular voter.

Certification Testing - the examination and testing of a voting system to determine its compliance with state laws and requirements for voting systems.

Commercial Off-The-Shelf (COTS) – software products as elements of larger systems that are readily available for sale by the public.

Data Security – the various methods and procedures, such as the use of passwords and encryption, implemented to prevent unauthorized use, destruction, or disclosure of data, whether accidental or deliberate.

Direct Recording Electronic (DRE) Equipment – an electronic voting device that captures votes/ballots at the point at which they are cast by the voter. This category includes all touch screen devices.

Early Voting – a form of absentee voting in which any voter may vote at the office of the elections official or at a satellite location as determined by the local elections official.

Election Assistance Commission (EAC) – established, as a result of the Help America Vote Act of 2002, to serve as a national clearinghouse and resource for the compilation of information and review of procedures with respect to the administration of federal elections.

Electronic Voter Verification – non-paper voter verification of a ballot cast, which utilizes trustworthy hardware (and possibly software) independent from the main vote capture program in order to provide independent confirmation of a voters' selections.

Escrow – the process by which a third party, having no direct or indirect financial interest with a vendor, holds the voting system software source code, including all changes or modifications and new or amended versions, for safekeeping and possible verification.

Federal Election Commission (FEC) – the body formerly responsible for producing the Federal Voting Systems Standards (FVSS). Its duties are now being separated and most of its voting functions will be assumed by the new Elections Assistance Commission (EAC).

Federal Voting Systems Standards (FVSS) – contains all the requirements for independent testing of voting systems.

HAVA – see Help America Vote Act of 2002.

Hardware – the mechanical, electrical and electronic assemblies, including materials and supplies, which are a part of the voting system. Hardware includes the voting device on which individual voters cast their ballot, as well as the actual equipment used to program ballot software or central vote tabulation software.

Help American Vote Act of 2002 (HAVA) – the federal election modernization law enacted in October 2002 which attempts to set national standards for elections and provides funding for the replacement of punch card and lever voting systems.

Independent Testing Authority (ITA) – testing laboratories, which can perform testing related to voting systems to meet the FVSS.

Logic and Accuracy (L&A) – the tests conducted to ascertain that the system will count properly the votes cast for all contests.

National Association of State Election Directors (NASED) – selects and approves testing laboratories which can perform testing related to voting systems to meet the FVSS.

National Institute of Standards and Technology (NIST) – the body, as directed under HAVA, that will conduct an evaluation of independent, non-federal laboratories to conduct testing, certification, de-certification, and re-certification of voting systems.

Object Code – the version of a computer program in the machine language of the computer on which it is to be used.

Operation Manual – a manual of all procedures used to prepare, operate and maintain the voting equipment, including the unpacking and storage procedures to be used by local elections officials.

Parallel Monitoring (also known as ‘random on-site sampling’ or ‘Election Day

sampling') – a testing procedure in which voting machines are randomly taken out of service on Election Day and are voted on by State testers in order to simulate a true election and determine if the votes cast are correctly recorded. The testers would vote according to a prepared script in order to detect if the software is recording votes correctly.

Qualification Testing - testing at the national level by an ITA against the FEC's Federal Voting System Standards. Successful completion will place a vendor's product on a list of "Qualified" voting systems, meaning that they have been tested and found to meet or exceed the standards specified in the FVSS. Vote tabulation software, including source code, and election management software will be examined by a NASED approved ITA. The software ITA will handle any software that tabulates or reports votes and vote totals and which is not in a permanent machine resident status (on a ROM). This includes software that is resident on a computer hard drive or any software that is external to the voting system.

Software – the application and operating system programs associated with a computer or voting device, as opposed to hardware that refers to the physical components of a computer system. The term "software" includes any and all codes for operation of the vote counting system including ballot tabulation system bootstrap, monitor and device controllers, operating system, ballot layout, system audit, and report generation.

Source Code – the specific language a programmer uses to program the electronic equipment or vote tabulating system.

Test Deck – a pre-audited group of ballots voted with a pre-determined number of votes.

Vendor – any manufacturer, company, or individual who seeks to sell, or sells, a voting system or a vote tabulating system for use in California elections.

Voter Verified Paper Audit Trail (VVPAT) – a paper representation of a voter’s choices that is verified by the voter at the time he or she casts his or her ballot.

Technical Oversight Committee – a committee proposed by the Ad Hoc Touch Screen Task Force that should be comprised of technical experts who can improve current testing standards, provide expert guidance throughout the certification process, and serve as a panel to review software and hardware issues that might arise.

Vote Tabulating Device – any piece of equipment, other than a voting machine, that compiles a total of votes cast by means of ballot card sorting, ballot card reading or scanning, paper ballot scanning, electronic data processing, or a combination of such equipment.

Vote Tabulating Program – the computer programs used for counting of votes cast on Ballots. It includes any and all vendor software, and the coding programs specific to each election.

Voting System – any mechanical, electro-mechanical, or electronic system and its software, or any combination of such, used to cast or to tabulate votes, or both.

Voting System Procedures – detailed procedures for operating a voting system adopted by the Voting Systems and Procedures Panel when a system is certified and available to the public.





