December 15, 2003

John Mott-Smith
Chief, Elections Division
Office of the Secretary of State
1500 11th Street, Elections
Sacramento CA 95814

Dear Mr. Mott-Smith:

R&G Associates LLC is pleased to present the attached Final Report of the Diebold Voting System Review in the Seventeen Counties that use Diebold Voting System components. The Final report contains the agreed upon clarifications to the draft report that was delivered on December 10, 2003. If you have any questions regarding the content of this Final Report please do not hesitate to contact Jocelyn Whitney or myself at your earliest convenience.

Once again, it has been a privilege to provide assistance to the Secretary of State in this important engagement.

Sincerely,

R&G Associates LLC
Ronald E. Reich
Partner

Cc: JW, File

SECRETARY OF STATE

Diebold Voting System Review
In Seventeen Counties

Prepared by:

R&G Associates, LLC

December 15, 2003

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INTRODUCTION

R&G Associates (R&G) was engaged to complete a review of Diebold Voting System Components in Seventeen Counties, including selected hardware, firmware, and/or software. The review was to be conducted between November 24, 2003 and December 5, 2003.

The review consisted of a visual inspection and documentation of a statistically valid sample of each of the components comprising the voting system in place at each of the counties on the date of the review. Voting system elements documented in each of the review counties included:

1. System name and version for the election management software in each county.

2. Hardware serial numbers and firmware versions for 100% of central count optical scan units in the counties using those units.

3. Hardware serial numbers and firmware versions for a statistically valid sample of precinct count optical scan units in the counties using those units.

4. Hardware serial numbers and firmware versions for a statistically valid sample of touch screen units in the counties using those units.

METHODOLOGY

In preparation for the review the R&G consultant team completed the following activities:

- Met with Secretary of State (SOS) management and staff regarding Diebold Voting Systems and the counties using the Diebold Systems. The consultant team also requested and received an in-depth briefing with Diebold staff to review the operation of voting system components in place in the counties. Diebold provided copies of their records that indicated the type and number of Diebold Voting System components in place in each of the 17 review counties (Attachment A)

- Requested, through SOS, that each county complete and provide a "Voting System Information" form providing specific component information. Eight of the 17 counties completed and returned the form to the SOS (Attachment B)

- Developed a "County On-site Review Questionnaire" to be used as a tool in the field to assure the reviews were consistent in and between each county. The questionnaire was designed to serve both as an interview guide and a format to document the information for the individual voting system components examined (Attachment C)

- Based on the information provided by Diebold and the counties, the team calculated a statistically valid sample for review of voting system components in each county that would provide a 95% confidence and reliability factor (Attachment D)

- Counties were grouped into the following three geographical regions (Attachment E):

  North: Humboldt, Lassen, Mendocino, Modoc, Siskiyou, and Trinity Counties.

  Central: Alameda, Marin, Placer, Plumas, and San Joaquin Counties.

  South: Fresno, Kern, Los Angeles, San Luis Obispo, Santa Barbara, and Tulare Counties.

The R&G team conducted its initial on-site county review with Alameda County on November 20, 2003. The team used this review to evaluate the team's on-site review procedures and questionnaire tool. Based on the experience at Alameda the questionnaire was modified for use in the remaining counties.

On-site appointments were made for each of the counties for the period November 24 2003 through December 5, 2003. In most cases, one day was allotted for the travel and review at each county. In two instances, two counties were completed within one day (San Joaquin/Placer Counties and Tulare/Fresno Counties).

The on-site county review consisted of the following:

- An interview with the County Registrar or the Registrar's designated representative regarding Diebold components used in the county:
  - ► Equipment and firmware version(s) currently in use
  - ► Software and firmware initial versions and upgrades
  - ► Locations of equipment
  - ► Type and number of units
  - ► First election used
  - ► Usage in October and November 2003 elections
  - ► Expected usage in March 2004 primary election

- A review of the Election Management Software
  - ► Location
  - ► View the installed version by booting up the system application

- A review of the central count optical scan units (when used by the county)
  - ► Location
  - ► Equipment name
  - ► Total number
  - ► Serial number and county inventory or other unique identifier, if available
  - ► Firmware version currently installed

- A review of the precinct count optical scan units (when used by the county)
  - ► Location
  - ► Equipment name
  - ► Total number
  - ► Serial number and county inventory or other unique identifier, if available
  - ► Firmware version currently installed

- A review of the touch screen units (when used by the county)
  - ► Location
  - ► Equipment name
  - ► Total number
  - ► Serial number and county inventory or other unique identifier, if available
  - ► Firmware version currently installed

The software and central count optical scan units (when used) were all reviewed for each county. The precinct count units were reviewed based on a statistically valid sample of the units. When the sample size is greater than 50% of the total number of units the standard convention is to review all units. With the exception of one county, one or more county personnel accompanied the consultant during the review.

Following the reviews, the team summarized and compiled the data for each county. The data was then compared with the Diebold records of components by county. The results of the review and sampling are summarized in this report.

OVERALL FINDINGS

Following are the findings that relate to all counties. We have provided a table summarizing the software and firmware versions currently installed in each of the counties (See Attachment F). In addition, we have provided a table summarizing the inconsistencies of the software and firmware versions currently installed and what Diebold indicated we would find at each of the counties (See Attachment G). Specific findings regarding each county can be found in Section III, County Summaries.

1. The Secretary of State staff has concluded that Diebold GEMS version 1.17.17 is certified. In addition, Diebold GEMS version 1.18.18 has received a conditional certification.

2. Diebold GEMS versions 1.17.20, 1.17.22, 1.17.23, 1.18.18 and 1.18.18.102 are installed and in use in one or more of the reviewed counties.

3. The Secretary of State staff indicates that documents supplied by Diebold show the following: 3 of the 5 versions of GEMS software currently installed in the counties are federally qualified (Versions 1.17.22, 1.17.23, 1.18.18); Version 1.17.20, installed in Lassen County and used in the October 2003 election and installed in Trinity County and used in the October and November 2003 elections, does not appear to be federally

qualified; and Version 1.18.18.102, installed in Los Angeles County and used in the October and November 2003 elections, does not appear to be federally qualified.

4. Thirteen of the counties indicated that their currently installed software version had been used for both the October 2003 and November 2003 elections. Mendocino County used the Votamatic system for the October 2003 election and San Luis Obispo County used an "all mail hand count" for the November 2003 election. Modoc and Lassen Counties did not have November 2003 elections.

5. Five of the counties reviewed were currently using Diebold GEMS software version 1.18.18 or a more recent version. Four of those counties used their current software version in both the October and November 2003 elections. Mendocino County used their current version only in the November 2003 election.

6. Three counties had a Diebold GEMS software version inconsistent with the version identified in a list provided by Diebold.

7. Two counties had touch screen firmware versions inconsistent with the version identified in a list provided by Diebold.

8. One county reported an optical scan central count firmware version inconsistent with the version identified in a list provided by Diebold. The reviewer was unable to verify the version as all four optical scan units were in McKinney, Texas for repair.

9. Six counties had a total of 16 components (five central count optical scan units and eleven precinct count optical scan units), which were included in our sample but were not available for review. Eight of the units were not operable and eight of the units were at the Diebold Texas plant for repairs according to County representatives.

10. In Los Angeles County, we found three different Diebold Firmware versions installed on the touch screen units. The consultant sampled 85 of the total 171 touch screen units and found that 55 units used version 4.3.17, 29 units used version 4.3.11, and one unit used version 4.3.8.

COUNTY SUMMARIES

Following is a summary of the review information collected for each of the counties reviewed. Included in each summary is the: (a) background that contains information on the individuals interviewed, office locations, Diebold components used by the county, locations of voting system components, review sample and results, and (b) findings specific to the county and conclusions reached based on the information provided.

Alameda County

Background

The consultants met with Mr. Bradley Clark, Registrar of Voters, and Ms. Elaine Ginnold, Deputy Registrar of Voters at the Courthouse, 1225 Fallon Street, Oakland, California on November 20, 2003.

The County representatives stated that the Diebold AccuVote 2000 Optical Scan unit is used for central counts only and the Diebold AccuVote Touch Screen is used for precinct counts. The County representative indicated it currently uses the Diebold GEMS Version 1.18.18 as its central software application. The County representative also indicated that the software, central count optical scan units, and all but 36 of the touch screen units were used in both the October 2003 and November 2003 elections. The 36 units not used were being repaired at the Diebold plant during those elections. The County intends to use all of the Diebold equipment, firmware, and software in the March 2004 primary election.

The central count optical scan units and 32 touch-screen units were housed in the courthouse. The County representative stated that 867 touch screen units were housed at their 50th Street warehouse and another 3,102 were housed at their 4th Street warehouse.

Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 1: Components Used and Reviewed in Alameda County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.18.18	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.0.10	8	8
Precinct Count: Optical Scan Unit	Not Used	0	0
Touch Screen	Diebold AccuVote Firmware Version 4.3.15	4,001	125

Findings and Conclusion(s)

During the review the consultant found the following:

- The software currently in use is Diebold GEMS Version 1.18.18

- All eight central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 2.0.10

- Diebold GEMS software was first installed in 1999. The original installed version is unknown. The County representative reported that the previous version was 1.18.14

- One of the touch screen units was using Firmware Version 4.3.11 instead of 4.3.15

- 36 of the touch screen units at the 50th Street warehouse were not used in the October and November 2003 elections because they were being repaired at the Diebold plant. They were still in the shipping boxes and stored separate from the other touch screen units. These units were included in the sample selected for examination

- This County did not respond to the SOS request for information prior to the On-site review

- The information received from Diebold related to this county was consistent with the review information

- Based on our review of the sample of 125 of the 4,001 precinct touch screen units, we are 95% confident that no more than 4.3% and no less than 0.2% of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 4.3.15

Fresno County

Background

The consultant met with Mr. Marc Gonzalez, Senior Systems & Procedures Analyst, and Ms. Betty Vaughan, Systems & Procedures Analyst, at the County Election Offices at 2221 Kern Street, Fresno, California on December 2, 2003.

The County representatives stated that the Diebold AccuVote 2000 Optical Scan unit is used for both central count and for precinct count. The County representative also indicated that the GEMS software, central count optical scan units and precinct count optical scan units were used in both the October 2003 and November 2003 elections. The current GEMS version of software is 1.17.23.0. The County intends to use all of the Diebold optical scan equipment, firmware, and software in the March 2004 primary election.

The GEMS software, the 5 central count optical scan units and 8 precinct count optical scan units were located in the election office. The remaining 407 precinct optical scan units were located in the County warehouse at 4525 E. Hamilton Avenue.

Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 2: Components Used and Reviewed in Fresno County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.23	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.0.10	5	5
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.96.4	415	81
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The central software currently in use is Diebold GEMS Version 1.17.23

- All five units of the central count optical scan equipment is Diebold AccuVote 2000 and four of the five units were using Diebold Firmware Version 2.0.10. and one unit was not reviewed because it failed to function

- One of the 81 precinct count optical scan units sampled failed to function

- This County did not respond to the SOS request for information prior to the on-site review

- The review produced data consistent with the information received from Diebold except that the total number of central count and precinct count optical scan units were off by one each

- Based on our review of the sample of 80 of the 415 precinct count optical scan units, we are 95% confident that no more than 3.40% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.96.4

Humboldt County

Background

The consultant met with Ms. Melody Sewell, Administrative Analyst at the County offices located at 3303 H Street, Eureka, California on December 2, 2003.

The County representatives stated the Diebold GEMS version 1.17.22 is installed as the County's voting system central software application and Diebold AccuVote 2000 Optical Scan units are used for precinct count and central count. The County representative does not use

touch screens. The County representative indicated that the software and the precinct optical scan units were used in the October and November 2003 elections and it is their intention to use them in the March 2004 primary election.

The software and optical scan units were housed in the County offices. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 3: Components Used and Reviewed in Humboldt County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.22	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.00g	3	3
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	82	82
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- Software currently in use is Diebold GEMS Version 1.17.22

- The GEMS was originally purchased by the County in 1995 and the software has been upgraded numerous times

- All central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 2.00g

- 81 of the reported 82 precinct count optical scan units are Diebold AccuVote 2000 using Diebold Firmware 1.94.w. One unit was unavailable to the reviewer as it had been sent to the Diebold plant in McKinney, Texas for repair

- This County did respond to the SOS request for information prior to the on-site review and the information was consistent with the information gathered the review

- The information received from Diebold related to this County was consistent with review information with the exception that Diebold indicated a GEMS version of 1.17.23

- Based on our review of 81of 82 precinct count optical scan units, we are 100% confident that no more than 1.3% and perhaps none of the units are not Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

Kern County

Background

The consultant met with Mr. Edward E. Johnston, Assistant Auditor-Controller, and Ms. Donna Gilzean, Elections Technician, at the County offices at 1115 Truxtun Avenue, Bakersfield, California on December 1, 2003.

The County representatives informed us that they currently use the Diebold GEM Version 1.18.18 software and Diebold AccuVote 2000 Central Count Optical Scan units. The precinct count optical-scan units and touch screen units used in the October and November 2003 elections had been borrowed from other counties. The County intends to use the GEMS software and the Diebold central count optical scan units in the March 2004 primary election. Precinct count optical scan units will be borrowed from other counties.

The County has purchased 1,350 Diebold touch screen units. The County representative states that the units are currently undergoing "testing and diagnostics" and they anticipate using the units in the March 2004 primary election.

The GEMS software and the 6 central count optical scan units were located in the election office. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 4: Components Used and Reviewed in Kern County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.18.18	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.0.11	6	6
Precinct Count: Optical Scan Unit	Loaned	0	0
Touch Screen	Loaned	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- Software currently in use is Diebold GEMS Version 1.18.18

- The precinct count optical scan units and touch screen units had been on loan from other counties, they were no longer on-site, and we were not able to verify the equipment or firmware versions used

- All six of the central count optical-scan units examined were found to be Diebold AccuVote 2000 using Diebold Firmware Version 2.0.11

- This County did not respond to the SOS request for information prior to the on-site review

- The information received from Diebold related to this County was consistent with review information

Lassen County

Background

The consultant met with Ms. Theresa Nagel, County Clerk-Recorder and Ms. Julie Bustamonte, Assistant County Clerk-Recorder at the County offices located at 220 South Lassen Street, Susanville, California on November 24, 2003.

The County representative stated the Diebold GEMS version 1.17.20 is installed as the County's voting system central software application and Diebold AccuVote 2000 Optical Scan units are used for precinct count. The County does not use touch screens. The County representative indicated that the software and the precinct optical scan units were used in the October 2003 elections and are anticipated to be used in the March 2004 primary election.

The software and optical scan units were housed in the County offices. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 5: Components Used and Reviewed in Lassen County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.20	1	1
Central Count: Optical Scan Unit	Not Used	0	0
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	15	15
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following;

- The County originally purchased the GEMS version 1.17.13 in July 2000. The software was upgraded to 1.17.20 in September 2000 prior to its initial use in the November 2000 election and is currently in use

- All 15 precinct count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 1.94.w

- This County did not respond to the SOS request for information prior to the on-site review

- The information received from Diebold related to this county was consistent with review information

Los Angeles County

Background

The consultant met with Mr. R. Vern Cowles, Manager Precinct & Systems Division, Mr. Brian Ikenaga, Systems & Procedures Analyst, and Mr. Steve Hodges, Diebold Contractor, at the County offices at 12400 Imperial Avenue, Norwalk, California on December 4, 2003.

The County representatives informed us that the GEMS software version 1.18.18.102, the Diebold AccuVote Touch Screen units, and the County "Ink-A-Vote" proprietary optical scan system were used for the October and November 2003 elections. The County intends to use the same equipment, firmware, and software in the March 2004 primary election.

The GEMS software and 28 of the touch screen units were located in the election office. Forty-three touch screen units were located in a warehouse at 1050 Maple Avenue, Montebello, California. The remaining 100 touch screen units were located in a warehouse at 555 East Ramirez Street, Los Angeles, California.

Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 6: Components Used and Reviewed in Los Angeles County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.18.18.102	1	1
Central Count: Optical Scan Unit	"Ink-A-Vote" Proprietary System	0	0
Precinct Count: Optical Scan Unit	"Ink-A-Vote" Proprietary System	0	0
Touch Screen	Diebold AccuVote Firmware Version 4.3.17	171	85

Findings and Conclusion (s)

During the review the consultant found the following:

- GEMS version 1.17.10 was originally purchased in year 2000, upgraded to version 1.18.16 in year 2002 and upgraded to version 1.18.18.102 in September 2003 and this is the version currently in use

- The touch screen units sampled had three different firmware versions installed. Fifty-five units had firmware version 4.3.17 installed. One unit had firmware version 4.3.8 installed and the County representative stated that this unit is used for demonstrations to the sightless. Twenty-nine of the units tested had firmware version 4.3.11 installed and the County representative stated that these units had not been used in the October or November 2003 elections or they would have been upgraded during the preparation process

- This County did not respond to the SOS request for information prior to the on-site review

- The information received from Diebold related to this County was consistent with review information with the exception that Diebold indicated a GEMS version of 1.18.18

- Based on our examination of the sample of 85 of the total 171 Diebold Touch Screen units, we are 95% confident that no more than 45.0% and no less than 26.0% of the units are other than Diebold AccuVote Touch Screen units using Diebold Firmware Version 4.3.17

Marin County

Background

The consultant met with Ms. Madelyn De Justo, Assistant County Clerk/Registrar, at 3501 Civic Center Drive, San Rafael, California on December 4, 2003.

The County representative reported that the Diebold AccuVote 2000 Optical Scan units are used for both central count and for precinct count. The County has six Diebold AccuVote Touch Screen units and does not currently use them in elections. The County representative stated it currently uses the Diebold GEMS Version 1.17.22 as its central software application and that earlier versions of the 1.17 software have been used since the November 1999 election. The County representative also indicated that the software, central count optical scan units, and all of the precinct optical scan units were used in both the October and November 2003 elections. The County intends to use all of the Diebold equipment, firmware, and software except the touch screen units in the March 2004 primary election.

The software, central count optical scan units, and the precinct optical scan units were all housed in the County offices. Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 7: Components Used and Reviewed in Marin County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.22	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.00g	4	4
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.96.4	147	80
Touch Screen	Diebold AccuVote Firmware Version 4.3.11	6	6

Findings and Conclusion(s)

During the review the consultant found the following:

- All four central count optical scan units were found to be Diebold AccuVote 2000 using Diebold Firmware Version 2.00g

- The six touch screen units were found to be Diebold AccuVote using Diebold Firmware Version 4.3.11

- Based on our review of the sample of 80 of the 147 precinct optical scan units, we are 95% confident that no more than 3.4% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.96.4

- The reviewer observed that one precinct optical scan unit appeared to be missing from the inventory. Although this unit was not included in the sample, the reviewer inquired as to its location and the County representative indicated the unit had been loaned to Diebold to be used for demonstrations

- This County did not respond to the SOS request for information prior to the on-site review

- The information received from Diebold related to this County was consistent with review information with the exception that Diebold indicated a GEMS version of 1.17.23 and the count on the central count optical scan units differed by one

Mendocino County

Background

The consultant met with Ms. Anne Holden, Assistant Registrar of Voters at the County offices located at 501 Low Gap Road, Ukiah California on December 5, 2003.

The County representative stated the Diebold GEMS version 1.18.18 is installed as the County's voting system central software application and Diebold AccuVote 2000 optical scan units are used for precinct count. The County does not use touch screen units. The County representative stated that the voting system software and the precinct count optical scan units were not used in the October 2003 elections. However, they were used in the November 2003 elections. The County indicated that the software and precinct count optical scan units will be used in the March 2004 primary election.

The software and optical scan units were housed in the County office complex. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 8: Components Used and Reviewed in Mendocino County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.18.18	1	1
Central Count: Optical Scan Unit	Not Used	0	0
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	73	73
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The GEMS version 1.18.18 was installed in July 2003 and was initially used for the November 2003 election and is currently in use. A Votomatic system was used for the October 2003 election

- The review inventoried 74, rather than 73, precinct count optical scan units. All 74 were Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- This County did not respond to the SOS request for information prior to the on-site review

- The review produced data consistent with Diebold information except that the count of optical scan units was off by one

Modoc County

Background

The consultant met with Ms. Maxine Madison, Registrar of Voters, at the County offices located at 204 N. Court Street, Alturas California, on November 26, 2003.

The County representative stated the Diebold GEMS version 1.17.22 is installed as the County's voting system central software application and Diebold AccuVote 2000 Optical Scan units are used for precinct count. The County does not use touch screen units. The County representative indicated that the software and the precinct optical scan units were used in the October 2003 election and will be used in the March 2004 primary election.

The software and precinct optical scan units were housed in the County offices. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all

voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 9: Components Used and Reviewed in Modoc County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.22	1	1
Central Count: Optical Scan Unit	Not Used	0	0
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	12	12
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The GEMS version 1.17.22 was purchased and initially used in November of 2002 and is currently in use

- All twelve precinct count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- This County did not respond to the SOS request for information prior to the on-site review

- The review produced data consistent with the Diebold information

Placer County

Background

The consultant met with Mr. Ryan Ronco, Assistant Registrar of Voters, and Mr. Gary Smith, Information Technology Technician, at the County offices, 2956 Richardson Drive, Auburn, California on November 26, 2003.

The County representatives reported that Diebold AccuVote 2000 Optical Scan units are used for both central count and for precinct count. The County does not use touch screen units. The County representative stated it currently uses the Diebold GEMS Version 1.17.23 as its central software application. The County representative also stated that the software, central count optical scan units, and all but 75 of the precinct count optical scan units were used in both the October and November 2003 elections. The County had received 75 additional optical scan units from Diebold subsequent to the 2003 elections. The County intends to use all of the Diebold equipment, firmware, and software in the March 2004 primary election.

The software, central count optical-scan units, and five of the precinct count optical scan units were housed in the County offices. The remaining precinct count optical scan units were housed in a warehouse close to the County offices.

Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 10: Components Used and Reviewed in Placer County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.23	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.00h	5	5
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	335	79
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The Diebold GEMS Version 1.17.20 was used in the March 2002 primary election. Diebold GEMS Version 1.17.23 is currently in use

- All five central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 2.00h

- Based on our review of the sample of 79 of the 335 precinct count optical scan units, we are 95% confident that no more than 3.4% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- Seventy-five of the precinct count optical scan units had been received at the County after the November 2003 election and were still in the shipping boxes. The new equipment was included in the sample

- This County did not respond to the SOS request for information prior to the on-site review

- Review produced data consistent with Diebold information

Plumas County

Background

The consultant met with Ms. Kathy Williams, Registrar of Voters at the courthouse, 520 Main Street, Quincy, California on November 28, 2003.

The County representative informed us that the Diebold AccuVote 2000 Optical Scan unit is used for central count only and the Diebold AccuVote Touch Screen is used for precinct count. The County representative stated it currently uses the Diebold GEMS Version 1.17.23 as its central software application. The County representative also stated that the software, central count optical scan units, and all but seven touch screen units were used in both the October and November 2003 elections. Seven touch screen units were acquired subsequent to the November 2003 election. The County intends to use all of the Diebold equipment, firmware, and software in the March 2004 primary election.

The software, central count optical scan units, and touch screen units were housed in the courthouse. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 11: Components Used and Reviewed in Plumas County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.23	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	4	4
Precinct Count: Optical Scan Unit	Not Used	0	0
Touch Screen	Diebold AccuVote Firmware Version 4.3.15	65	65

Findings and Conclusion(s)

During the review the consultant found the following:

- The County had previously used the Diebold GEMS software version 1.17.20 in the March 2002 primary election. The software currently in use is Diebold GEMS Version 1.17.23

- All four central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- All sixty-five precinct touch screen units are Diebold AccuVote using Diebold Firmware Version 4.3.15

- Seven of the touch screen units had been received at the County after the November 2003 election. The equipment carrying cases were not labeled by serial number (the County does not have its own inventory number) at the time of this review. However, the County labeled them as they performed their own inventory in conjunction with the consultant review. The new equipment was included in the review sample

- This County did respond to the SOS request for information prior to the on-site review

- Review produced data consistent with Diebold information with the exception that the count of the touch screen units differed by seven and the count of the optical scan units differed by two

San Joaquin County

Background

The consultant met with Mr. Austin Erdman, Assistant Registrar of Voters, at the County Registrar's Office, 212 North San Joaquin 2nd Floor, Stockton California, on November 27, 2003.

The County representative informed the consultant that they had recently purchased 1,624 Diebold AccuVote touch screen units and not all of the units had been delivered to the County as of the date of the review. The County representative indicated it currently uses the Diebold GEMS Version 1.18.18 as its central software application and that version was first used in the October 2003 recall election. The County representative stated that Diebold loaned the County AccuVote 2000 Optical Scan units for central count only and the Diebold AccuVote Touch Screen units for precinct counts for both the October and November 2003 elections. The County intends to use all of the recently purchased Diebold touch screen units, firmware, and software in the March 2004 primary election.

The software and touch screen units were housed in the Registrar's Office. Based on information provided by the County representative, we determined none of the touch screen units were used in any elections. However, the County representative had not yet returned one optical scan unit and one touch screen unit which had been loaned by Diebold and used in the October and November 2003 elections. The consultant examined each of those units and one of the recently purchased touch screen units. The following table identifies the information provided by the County representative and the required sample of the components.

Table 12: Components Used and Reviewed in San Joaquin County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.18.18	1	1
Central Count: Optical Scan Unit	Loaned Diebold AccuVote 2000 Firmware Version 2.0.11	1	1
Precinct Count: Optical Scan Unit	Not Used	0	0
Touch Screen	Loaned Diebold AccuVote Firmware Version 4.3.15	1	1
	Purchased Diebold AccuVote Firmware Version 4.4.4.1	1,624	1

Findings and Conclusion(s)

During the review the consultant found the following:

- Software currently in use is Diebold GEMS Version 1.18.18

- One loaned central count optical scan unit was found to be Diebold AccuVote 2000 using Diebold Firmware Version 2.0.11

- One loaned precinct touch screen unit was found to be Diebold AccuVote using Diebold Firmware Version 4.3.15

- One recently purchased touch screen unit was found to be Diebold AccuVote using Diebold Firmware Version 4.4.4.1

- This County did respond to the SOS request for information prior to the on-site review

- Review produced data consistent with Diebold information except that Diebold indicated the loan and use of precinct count optical scan units with firmware version 1.94w as a March 2003 installation date. The County representative stated that they did not use precinct count optical scan units

San Luis Obispo County

Background

The consultant met with Ms. Julie Rodewald, County Clerk, Recorder and Registrar of Voters, and Ms. Janet Haley, Assistant Registrar, at the County offices at 1144 Monterey Street, San Luis Obispo, California on November 25, 2003.

The County representatives informed us that the Diebold AccuVote 2000 Optical Scan unit is used for both central count and for precinct count and it currently uses the Diebold GEMS Version 1.17.23 as its central software application. The County representative stated that they had not used their ten Diebold touch screen units in the October or November 2003 elections. The County representative also stated that the GEMS software, central count optical scan units and precinct count optical scan units were used in the October 2003 election. However, the November, 2003 election was "mail-in hand count". The County intends to use all of the Diebold equipment, firmware, and software in the March 2004 primary election.

The GEMS software, the touch screen units, the central count optical scan units and 13 of the precinct count optical scan units were located in the election office. The remaining 83 precinct count optical scan units were housed in a warehouse located at 1075 Kansas Street.

Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 13: Components Used and Reviewed in San Luis Obispo County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.23	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.0.10	4	4
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	96	96
Touch Screen	Diebold AccuVote Firmware Version 4.3.10	10	10

Findings and Conclusion(s)

During the review the consultant found the following:

- The software currently in use is Diebold GEMS Version 1.17.23

- Based on our review of 92 out of 96 total AccuVote 2000 precinct count optical scan units, we are 100% confident that no more than 4.2% and perhaps none of the units are using other than Diebold Firmware Version 1.94w

- All four central count optical scan units were in McKinney TX, for repair and we were unable to examine them

- Four of the 96 precinct count optical scan units were non-operable

- One of the ten touch screen units had firmware version 4.2.3 installed, while the remaining nine units had version 4.3.10 installed

- This County did not respond to the SOS request for information prior to the on-site review

- Review produced data that was inconsistent with the information received from Diebold. Diebold information indicated that precinct count optical scan units would have firmware version 2.00g installed and touch screen units would have firmware version 4.3.11 installed. Diebold information had also indicated that there were three central count optical scan units and the County provided documentation that they had four units. However, at the time of the review, they were in McKinney, Texas for repair. Diebold's total count of precinct count optical scan units was 97 while we found only 96

Santa Barbara County

Background

The consultant met with Mr. Joseph E. Holland, County Clerk, Recorder and Registrar of Voters, and Mr. Jim McClure, Assistant Registrar, at the County offices at 105 East Anapamu Street, Santa Barbara, California and with Mr. Bob Smith, Elections Division Manager, and Ms. Billie Alvarez, Elections Supervisor, at the County election offices, 1101 Anacapa Street on November 24, 2003.

The County representatives informed us that the Diebold AccuVote 2000 Optical Scan unit is used for both central count and for precinct count. The County representative stated it is currently using Diebold GEMS Version 1.17.23 as its central software application. The County does not use touch screen units. The County representative also stated that the GEMS software, central count optical scan units and precinct count optical scan units were used in both the October and November 2003 elections. The County intends to use all of the Diebold equipment, firmware, and software in the March 2004 primary election.

The GEMS software was located on the election office computer at 1101 Anacapa Street and the central count optical scan units and the precinct count optical scan units were housed in the courthouse basement located at 1101 Santa Barbara Street.

Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 14: Components Used and Reviewed in Santa Barbara County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.23	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.0.10	6	6
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	216	70
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The original purchase of GEMS version 1.11.8.1 was made in December 1999. It was upgraded to version 1.14.2 in December 1999 and to version 1.14.4 in January 2000. The current GEMS version of 1.17.23.0 was first used in the November 2002 election

- All 6 central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 2.0.10

- Four precinct count optical scan units selected for sampling were not available for review; three were in McKinney, Texas for repairs and one unit failed to operate

- Based on our review of the sample of 66 of the 216 precinct optical scan units, we are 95% confident that no more than 3.9% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- This County did respond to the SOS request for information prior to the on-site review

- Review produced data consistent with Diebold information with the exception that the total number of central count optical scan units differed by two

Siskiyou County

Background

The consultant met with Ms. Laura Bynum, Assistant County Clerk, at the County offices located at 311 Fourth Street, Yreka, California on December 1, 2003.

The County representative stated the Diebold GEMS version 1.18.22 is installed as the County's voting system central software application and Diebold AccuVote 2000 Optical Scan units are used for precinct count. The County does not use touch screen units. The County representative indicated that the software and the precinct count optical scan units were used in the October and November 2003 elections and are anticipated to be used in the March 2004 primary election.

The software and optical scan units are housed in the County offices. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 15: Components Used and Reviewed in Siskiyou County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.22	1	1
Central Count: Optical Scan Unit	Not Used	0	0
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	46	46
Touch Screen	Not Used	0	0

Findings and Conclusion(s)

During the review the consultant found the following:

- The software currently in use is Diebold GEMS Version 1.17.22

- The County originally purchased the GEMS equipment and software in July 2000 and the software has been upgraded one or two times since then. The original version is unknown

- Forty-five of the forty-six precincts count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 1.94.w. One unit was unavailable for review as it had been sent to the Diebold plant in McKinney, Texas for repairs. These units were initially used for the November 2000 election

- Based on our review of 45 of the 46 precinct count optical scan units, we are 100% confident that no more than 2.2% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- This County did respond to the SOS request for information prior to the on-site review

- The review produced data consistent with the Diebold information

Trinity County

Background

The consultant met with Mr. Dero Forslund, Registrar of Voters at the County offices located at 101 Court Street, Weaverville, California on December 4, 2003.

The County representative stated the Diebold GEMS version 1.17.20 is installed as the County's voting system central software application and Diebold AccuVote 2000 Optical Scan units are used for precinct count. Additionally, the County has three Diebold AccuVote TS Touch Screen units. The County representative stated that the software and the precinct count optical scan units were used in the October and November 2003 election. The touch screen units were not used in the October election due to the complexities of the ballot for that election. The County representative stated that they are planning to upgrade to GEMS 1.18.18 for the March 2004 elections.

The software, precinct count optical scan units and touch screen units are housed in the County offices. Based on information provided by the County representative, we determined the number of components was too small to use a statistically valid sample size. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and the required sample of the components.

Table 16: Components Used and Reviewed in Trinity County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.20	1	1
Central Count: Optical Scan Unit	Not Used	0	0
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	16	16
Touch Screen	Diebold AccuVote Firmware Version 4.1.7	3	3

Findings and Conclusion(s)

During the review the consultant found the following;

- The GEMS version 1.17.20 is currently installed; however an upgrade to 1.18.18 was anticipated prior to the March 2004 primary election

- All precinct count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- All touch screen units are Diebold AccuVote TS Ballot Stations using Diebold Firmware Version 4.1.7

- This County responded to the SOS request for information prior to the on-site review. The information received from the County representative was consistent with the review findings

- Review produced data consistent with Diebold information except that Diebold indicated the GEMS version was 1.17.17 and the Touch Screen firmware version was 4.3.11

Tulare County

Background

The consultant met with Ms. Devonna Mallou, Election Clerk II, and Mr. Vern McDonald, Chief Internal Auditor, at the County offices at 2800 West Burrel Avenue, Visalia, California on December 2, 2003.

The County representatives informed us that the Diebold AccuVote 2000 Optical Scan units are used for both central count and for precinct count. The County representative stated that Diebold GEMS Version 1.17.22 is currently used as the County's central software application. The County used the GEMS software, central count optical scan units, and precinct count optical scan units in both the October and November 2003 elections. The County intends to use all of the Diebold optical scan equipment, firmware, and software in the March 2004 primary election. The County also has 4 Diebold touch screen units. These units had not been used in either the October or November 2003 elections and are not intended to be used in the March 2004 primary election.

The GEMS software, equipment, and firmware were located in the election office. Based on information provided by the County representative, we determined a statistically valid sample size for the components to be reviewed. The following table identifies the information provided by the County representative and the required sample of the components.

Table 17: Components Used and Reviewed in Tulare County

Component	Equipment and Version	Reported Count	Sample Size
Software	Diebold GEMS Version 1.17.22	1	1
Central Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 2.00h	3	3
Precinct Count: Optical Scan Unit	Diebold AccuVote 2000 Firmware Version 1.94w	110	56
Touch Screen	Diebold AccuVote Firmware Version 4.3.14	4	4

Findings and Conclusion(s)

During the review the consultant found the following:

- The software currently in use is Diebold GEMS Version 1.17.22

- All three of the central count optical scan units are Diebold AccuVote 2000 using Diebold Firmware Version 2.00h

- Two precinct count optical scan units were found to be not functioning

- Based on our review of the sample of 54 of the 110 precinct count optical scan units, we are 95% confident that no more than 5.9% and perhaps none of the units are other than Diebold AccuVote 2000 using Diebold Firmware Version 1.94w

- This County did respond to the SOS request for information prior to the on-site review

- Review produced data consistent with Diebold information

ATTACHMENT A

Diebold Documents

- **California Version and Quantity List**

- **California Installation Dates**

- **Information on Kern County & San Joaquin**

- **Cyber letters**

ATTACHMENT B

County Voting System Information

ATTACHMENT C

County
On-Site Review
Questionnaire

ATTACHMENT D

Statistically Valid Sampling for Optical Scan Units and Touch Screen Units

ATTACHMENT E

Map of California Counties Reviewed

ATTACHMENT F

Software and Firmware Versions Identified During Review

ATTACHMENT F

Software and Firmware Versions Identified During the Review

| County | GEMS Version | Optical Scan | | Touch Screen Version |
		Central Count Version	Precinct Count Version	
Alameda	1.18.18	2.0.10	None	4.3.15 (124) 4.3.11 (1)
Fresno	1.17.23	2.0.10	1.96.4	None
Humboldt	1.17.22	2.00g	1.94w	None
Kern	1.18.18	2.0.11	None	None
Lassen	1.17.20	None	1.94w	None
Los Angeles	1.18.18.102	None	None	4.3.17 (55) 4.3.11 (29) 4.3.8 (1)
Marin	1.17.22	2.00g	1.96.4	4.3.11
Mendocino	1.18.18	None	1.94w	None
Modoc	1.17.22	None	1.94w	None
Placer	1.17.23	2.00h	1.94w	None
Plumas	1.17.23	1.94w	None	4.3.15
San Joaquin	1.18.18	2.0.11 (loan)	None	4.3.15 (loan) 4.4.4.1
San Luis Obispo	1.17.23	2.0.10	1.94w	4.3.10
Santa Barbara	1.17.23	2.0.10	1.94w	None
Siskiyou	1.17.22	None	1.94w	None
Trinity	1.17.20	None	1.94w	4.1.7
Tulare	1.17.22	2.00h	1.94w	4.3.14

ATTACHMENT G

Review Results Compared to Diebold Information

Review Results Compared to Diebold Information

County	GEMS		Precinct Count Optical Scan Units		Precinct Count Touch Screen Units		Central Count Optical Scan Unit	
	Diebold Version	Review Version	Diebold Version	Review Version	Diebold Version	Review Version	Diebold Version	Review Version
Alameda	1.18.18	1.18.18	None	None	4.3.15	4.3.15[1] 4.3.11[1]	2.0.10	2.0.10
Fresno	1.17.23	1.17.23	1.96.4	1.96.4	None	None	2.0.10	2.0.10
Humboldt	1.17.23	1.17.22	1.94w	1.94w	None	None	2.00g	2.00g
Kern	1.18.18	1.18.18	1.94w	None	4.3.15	None	2.0.11	2.0.11
Lassen	1.17.20	1.17.20	1.94w	1.94w	None	None	None	None
Los Angeles	1.18.18	1.18.18.102	None	None	4.3.17	4.3.17[2] 4.3.11[2] 4.3.8[2]	None	None
Marin	1.17.23	1.17.22	1.96.4	1.96.4	4.3.11	4.3.11	2.00g	2.00g
Mendocino	1.18.18	1.18.18	1.94w	1.94w	None	None	None	None
Modoc	1.17.22	1.17.22	1.94w	1.94w	None	None	None	None
Placer	1.17.23	1.17.23	1.94w	1.94w	None	None	2.00h	2.00h
Plumas	1.17.23	1.17.23	1.94w	1.94w	4.3.15	4.3.15	None	None
San Joaquin	1.18.18	1.18.18	1.94w	None	4.3.15	4.4.4.1[3] 4.3.15[3]	2.0.11	2.0.11
San Luis Obispo	1.17.23	1.17.23	1.94w	1.94w	4.3.11	4.3.10	2.00g	2.0.10[4]
Santa Barbara	1.17.23	1.17.23	1.94w	1.94w	n/a	None	2.0.10	2.0.10
Siskiyou	1.17.22	1.17.22	1.94w	1.94w	n/a	None	None	None
Trinity	1.17.20	1.17.20	1.94w	1.94w	4.3.11	4.1.7	None	None
Tulare	1.17.22	1.17.22	1.94w	1.94w	4.3.14	4.3.14	2.00h	2.00h

[1] We sampled 125 of the touch screen units and found 124 with version 4.3.15 and one with version 4.3.11

[2] We sampled 85 of the touch screen units and found 55 with version 4.3.17, 29 with version 4.3.11, and one with version 4.3.8

[3] The County had borrowed from Diebold touch screen units with version 4.3.15 for October and November 2003 elections; The County has since purchased units with version 4.4.4.1

[4] The County representative stated the firmware was 2.0.10; however, all of the units were off-site for repair so we were unable to verify the firmware version