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Office of the Inspector General Miami-Dade County

Memorandum

To:	Honorable	Alex	Penelas,	Mayor
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Honorable Chairperson, Barbara Carey-Shuler, Ed.D and Members, Board of County Commissioners

Received by Date

From: /

Christopher Mazzella Inspector General

Date:

August 25, 2004

Re:

FINAL REPORT OIG Review of the Upcoming August 31, 2004 Primary Election

Attached please find the Office of the Inspector General's (OIG) final report with our recommendations. Throughout this review, the OIG has been in constant contact with the County Manager's Office, and our findings and recommendations, as they have developed, have been thoroughly discussed with them. The County Manager's Office has been working closely with us in implementing our suggestions and recommendations.

On Monday, August 23, 2004, the OIG issued a draft version of this report to the County Manager. An expedited response was requested by the OIG in light of the pending Commission hearing on Election readiness to be held, tomorrow, August 26, 2004. The Manager's response is attached in full to this report.

CC: George M. Burgess, County Manager
Robert A. Ginsburg, County Attorney
Murray Greenberg, First Assistant County Attorney
Charles Anderson, Commission Auditor
Amy Gonzalez-Hernandez, Chief Legislative Analyst
Alina Hudak, Assistant County Manager
Constance Kaplan, Supervisor of Miami-Dade Elections Department
Cathy Jackson, Director, Audit and Management Services Department
Katherine Fernandez Rundle, State Attorney, Eleventh Judicial Circuit

Clerk of the Board (copy filed)

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Office of the Inspector General Miami-Dade County

Final Report

To: Honorable Alex Penelas, Mayor

Honorable Chairperson, Barbara Carey-Shuler, Ed.D and Members, Board of County Commissioners

From: Unristopher Mazzella Inspector General

Date: August 25, 2004

Re: OIG Review of the Upcoming August 31, 2004 Primary Election

This report was issued in draft form on August 23, 2004 to the County Manager for his response to our recommendations. The Manger's response is attached in full to this report. Responses specific to each recommendation have been inserted directly into this document.

By way of memorandum issued on August 2, 2004, the Honorable Chairperson of the Board of County Commissioners (BCC) requested the Office of the Inspector General (OIG) to conduct a "complete and independent assessment of our electoral process." This request was in addition to requests made to the Elections Department and the Audit and Management Services Department to produce reports on similar reviews.

OIG SCOPE AND OBJECTIVES

A few days earlier on July 30, 2004, following a BCC workshop on elections preparedness, the Chairperson listed several distinct issues that she wished the OIG to review. Our scope was further refined through subsequent discussions with the Chair's Office. As a result, this OIG review focused on several distinct areas, as listed below. In general, this review is prospective in scope with the main objective of evaluating preparedness and readiness for the upcoming August 31st primary. Other prospective measures reviewed were assessed with the underlying objective of assuring electoral integrity and supporting public confidence in the electoral process.

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OIG Review of the Electoral Process
August 25, 2004
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The OIG's assessment includes the review of voluminous written materials relating to Direct Recording Equipment (DRE) voting systems, parallel testing, and voting systems' audits. The OIG interviewed key personnel of the Elections Department in charge of the various functions/divisions discussed herein. We contacted public officials from other jurisdictions about their voting equipment and their having conducted and/or having made preparations to conduct parallel testing and post election audits. OIG personnel attended training classes and conducted site visits of randomly selected polling places. We toured the Elections Department facilities relative to the various functions performed. We attended the Logic and Accuracy test on Friday, August 13, and were present the following day to observe the collection of audit data. We also conducted limited examinations of iVotronic audit data. Lastly, we interviewed independent parties, namely representatives from the Miami-Dade Elections Reform Coalition and Dr. Douglas W. Jones, Assistant Professor of Computer Science, University of Iowa, and retained County consultant, to gain their perspectives on Miami-Dade's preparations and procedures. The OIG was assisted by the Commission Auditor in the review of certain aspects of this inquiry.

This report details the results of our review and accompanying recommendations.

SUMMARY AREAS OF REVIEW AND RECOMMENDATIONS

1. **Voting Equipment:** How does Miami-Dade County's voting equipment compare with the equipment used by similarly sized jurisdictions?

Miami-Dade County is the largest client user of the ES&S iVotronic. We are ES&S' only iVotronic client that has ballots in three languages. The remainder of ES&S clients utilizes a text-based ballot (as opposed to bitmap) and the bulk of its clients' population sizes are under 500,000 (based on 2000 census data).

Recommendation: None, an assessment only.

<u>CMO Response</u>: The Department is in agreement with the OIG's observations and conclusions.

2. Training: What training measures are being implemented and are they enough?

Overall, printed training materials, including "tip sheets," are very comprehensive. They are easy to read and understand. Training classes provided hands-on opportunities to practice on the laptop computers (voter registration verification) and with the actual voting equipment. However, the amount of material required to be learned is quite extensive and the training moves quickly. Information retention is also impacted by how long ago the trainee attended the class.

<u>Recommendation</u>: As it relates to Miami-Dade County employees who will serve in the Election Specialist (ES) capacity on August 31, 2004, County management is recommended to urge those employees to attend a refresher course next week. For those County employees who have not previously worked an election, the OIG recommends that attending a refresher course be mandatory.

<u>CMO Response</u>: Today you sent the following message, via electronic mail, to all Election Specialists in an effort to make additional training available:

From: County Manager (CMO)

Sent: Tuesday, August 24, 2004 9:29 AM

To: (Election Specialists)

Cc: (MetroNet) Department Directors; (CMO) Assistant County Managers; (CMO)

Assistants to the County Manager; Mazzella, Christopher (OIG)

Subject: Additional Elections Specialist Training

I would like to take this opportunity to thank all of you for your commitment and hard work to ensure a successful August 31st Election. At this time, the County's number one priority is to conduct a flawless Election. As an Elections Specialist, you play an integral role in the accomplishment of this goal. I have asked the Elections Supervisor to coordinate a training session for all Elections Specialist who would like a review of pre-Election night set-up or/and Elections Day procedures. The sessions will be offered at the Elections Building beginning August 23rd through August 27th from 8:30am to 4:30pm. Elections Specialists are welcomed to stop by at anytime to receive individual training during these sessions.

As an Elections Specialist you are expected to be fully knowledgeable on all procedures. If you feel that you need additional training, it is mandatory that you take advantage of this training. Please contact Natalie Sarmiento 305-499-8314 if you have additional questions.

Again, I want to thank all of you for your hard work and dedication to the Elections and Miami-Dade County.

For the November 2, 2004, election cycle, the Elections Department will fully implement the OIG's recommendation to mandate refresher training for *all* ESs who have not previously worked an election, rather than for only ESs in that category who feel that they need additional training. Additionally, I would emphasize that the precinct-level ESs are not the only County support provided to our pollworkers, but rather a first level of support. If an ES cannot fully resolve an issue, he or she calls one of our 110 Administrative Troubleshooters (ATS). These individuals, many of whom have provided election support for years, will address any unresolved issues and, in rare instances when they are unable to do so, they will elevate those issues to the highest levels of Election Department's administration for prompt resolution.

3. Absentee Ballots: What extra measures can the Department put into place in light of the removal of the witness signature requirement?

While cumbersome, the witness signature requirement served as a good fraud indicator and its absence now places even more emphasis on the signature verification process as the primary validation of absentee ballot (AB) authenticity.

Recommendations:

A. Seasonal employees assigned to the absentee ballot (AB) division could benefit from a written procedures manual that is current on the given election cycle, includes all the various functions within the AB division, and includes written guidelines, criteria, or even illustrative examples on the acceptance/rejection of AB signatures.

<u>CMO Response</u>: The Elections Department is currently reviewing and updating established AB procedures to conform to recent legislative changes. Incorporated therein are signature verification procedures that are being developed based on standard industry practices. We anticipate completion of these procedures in time to be utilized in conducting a structured training of AB seasonal staff prior to the November election. These procedures will pertain to *all* AB duties.

B. The Elections Department should consider obtaining expert assistance to help guide AB division staff in its verification of AB signatures.

CMO Response: The Elections Department has communicated with the Miami-Dade Police Department and, as a result, has contracted with a Forensic Document Examiner who specializes in handwriting analysis. Beginning Wednesday, August 25th, she will be on site and available to provide training to absentee ballot section employees. She will also be available to the Canvassing Board to resolve signature ventication issues.

C. The Elections Department should implement an inventory process that requires the logging out of blank absentee ballots prior to assembly for mailing. The Elections Department should also reconcile the number of ballots received, counted or rejected against the number of ballots mailed out, the remaining blank ballots, and the number of voters who voted at the polls but did not return their blank AB ballot. Any suspicious patterns should be further investigated to ensure the absence of AB fraud.

<u>CMO Response</u>: The Elections Department will be establishing the recommended inventory control procedures for the November election. Staff will be permanently assigned to the AB cage to manage distribution and accountability for Absentee Ballots. With respect to the reconciliation of ballots

received, counted or rejected against the number of ballots mailed out, the remaining blank ballots, and the number of voters who voted at the polls but did not return that blank AB ballot, the Department already tracks the number of ballots mailed, number of ballots returned and, within that number, the number counted or rejected. The Department does not currently account separately for absentee ballots cancelled where the Department regains custody of the ballot and ballots cancelled where the Department does not regain custody (i.e., when a voter has been issued an absentee ballot but votes at an Early Voting site or polling place after the Department verifies that the absentee ballot has not been returned and that ballot is cancelled.) We are aware of the issues surrounding absentee balloting and agree that the Department should do whatever is possible, within the latitude granted to us by Florida Statute, to ensure the integrity of this process. As such, we are studying the OIG's recommendations and will implement them to the extent possible for the November election cycle.

4. Delivery, Securing, and Pick-up of the Voting Equipment: What arrangements have been made and when will all the machines be back in the warehouse?

The voting equipment will be delivered and picked up by Miami-Dade Solid Waste Management employees using trucks rented by the Elections Department. Delivery will be accomplished using up to 30 trucks. The pick up schedule will deploy 66 trucks scheduled to begin on Wednesday September 1, 2004, 7:00 am and is scheduled to be completed within 12 hours. Tuesday night security arrangements include storing the equipment in a locked area, which is likely to be the same area where the machines were stored upon initial delivery. The compact flashcard will be removed and machines will be sealed with blue security seals.

Recommendation: The OIG is concerned over the securing of the voting machines, particularly after the polls close on Tuesday night through to the time they are picked-up beginning the following day. We recommend that the Elections Department reassess overnight security measures afforded to the various facilities. For instance, it may be necessary to buttress security at particular locations by posting security personnel. Each location should be assessed on its own merits, taking into consideration the public/private nature of the building, attendant personnel already on site (e.g., public employees, firefighters, school police, etc.) and the presence/utilization of operable alarm systems.

<u>CMO Response</u>: The Elections Department has recently re-surveyed all of our polling locations in order to update contact information and security levels. Based on that analysis, we are confident that we have provided an appropriate approach to securing our election equipment. All results are collected from iVotronic units on election night, and if necessary, results can be recollected from a unit before tabulation is complete. A process in place at collection centers identifies potential issues with data extracted from iVotronics *before* personnel at the polling locations leave those locations. An

Inspector and the Poll Deputy remain at the polling place until voting totals for the precinct are confirmed and those individuals are released. The Department maintains emergency contact numbers for all locations in case emergency access to the sites is needed.

As an additional measure, the Department has met with the Miami-Dade Police Department (MDPD), and they will provide security to polling locations by utilizing "directed patrols," or roving patrols. Officers will be assigned territories containing precincts that they will check several times during their shifts. MDPD will provide this service in both municipalities and unincorporated Miami-Dade County. Directed patrols will take place during two time periods: from August 30th at 6 p.m. (after units are opened and locked) until August 31st at 6:30 a.m. (when pollworkers have arrived), and from August 31st at poll closing through September 1st, when equipment is picked up.

5. Post-Election Auditing, Audit Data and Audit Analysis: What is there to examine, when can we look at it, and what does this all mean?

With respect to the iVotronic voting machines, what is referred to as the "paper audit trail" consists of the machine generated printed out event logs and ballot images. These two reports are extracted independently from each voting machine. However, they may not be used in the event of a recount. An audit of the election and/or of the voting system may include an examination of these reports as part of the audit's scope. A post-election audit could include a myriad of other examinations and it is important to determine, up front, what the audit result user's objectives are in order to formulate a plan that both adequately addresses these desires and is capable of achieving those results.

Recommendation: The OIG recommends that an Election Audit Committee be created, which would be responsible for overseeing the planning and implementation of these or other procedures, such as those listed above, and for reviewing post-parallel testing results. Similar to an audit committee of a governmental board or corporation's board of directors, the Election Audit Committee can be a sounding board to discuss audit objectives, approaches, time constraints, and scope. The Committee should form, or at least directly participate in the formation of, a workable audit plan and the Committee could be instrumental in garnering the public's confidence that Miami-Dade County is doing all that we can to ensure the integrity of the electoral process.

<u>CMO Response</u>: The County Manager has directed Cathy Jackson, Director of Audit Management Services (AMS), to conduct an analysis of post-election audit data for elections from 2002 and 2003 and all future elections. My staff will provide valuable input, support and cooperation for that important task. Following the August 31, 2004, election, the Department will study the feasibility of utilizing an even broader Election

Audit Committee, as recommended by the OIG. I am confident that AMS, under the direction of Ms. Jackson and with the support of the Elections Department, can provide the level of analysis that the OIG desires and Miami-Dade voters deserve.

6. Parallel Testing: What is it? How is it different from the Logic & Accuracy preelection tests? Why conduct it? How can it be done?

By its very nature, this testing must be conducted on Election Day using voting equipment readied and intended for use in the election. Its purpose is to test the accuracy of the machines and to detect corruption by any malicious code and machine malfunction. There is no "set approach" for parallel testing and, to our knowledge, only California has conducted parallel testing. Parallel testing can be solely accomplished using either trained personnel or by incorporating public participation.

<u>Recommendation</u>: All possibilities to conduct parallel testing should be explored. The County may want to consider a test plan comprising of both controlled testing (trained voters) and involving public participation for **November 2, 2004**. As a parallel testing plan involving "real" voters has not been done before, Miami-Dade County may want to implement this portion of the plan on a pilot test basis.

CMO Response: AMS is also working with my staff to develop plans for parallel testing for the November election. These plans will require approval from the Florida Department of State. In fact, we recently examined the feasibility of implementing parallel testing for even the August election. However, the State expressed concems regarding doing such testing on even a very limited scale based on the short timeframe and State legislation that requires election security procedures to be submitted to the State 45 days prior to Election Day. Given that requirement, our plans will be finalized by September 18, 2004.

1. VOTING EQUIPMENT

How does Miami-Dade County's voting equipment compare with the equipment used by similarly sized jurisdictions?

Of the top ten (10) largest counties based on 2000 census data, Miami-Dade County, ranked as number eight (8), is the only county using the ES&S iVotronic devices for Election Day voting. Moreover, within the top ten counties, only three counties (including Miami-Dade) use Direct Recording Electronic (DRE) Voting Systems for Election Day voting. The other two counties are Harris County, TX (No. 4) and Orange County, CA (No. 6), who both use

FINAL REPORT OIG Review of the Electoral Process August 25, 2004 Page 7 of 20 the Hart InterCivic eSlate wheel and button DRE system. Among the top 10 largest counties, three or more ballot languages are not uncommon. (OIG Table 1)

Looking at the 30 largest counties, the voting system breakdown is 13 for DRE (touch screen, wheel and button, and full-face electronic), eight (8) for optical scan, five (5) using lever systems, and three (3) still using punch cards. Oakland County, MI (No. 26) deploys four different systems on election day (lever, punch card, optical scan and paper—but it does not use a DRE system). (OIG Table 1) Among the top 30 counties, only thee (3) counties, Miami-Dade (No. 8), Broward, FL (No. 14) and Bexar County (San Antonio), TX (No. 21) use ES&S iVotronics. Of these three, only Miami-Dade has tri-lingual ballots, thus utilizing bitmap based graphics and requiring compact flashcards. Broward and Bexar counties run bilingual English/Spanish ballots, which are text-based. Broward uses compact flashcards on its audio devices and Bexar uses compact flashcards for its early voting machines. Neither Broward nor Bexar boot-up the machines the night before, as does Miami-Dade County. However, we found that two counties (Santa Clara, CA and Riverside, CA), both using the Sequoia AVC Edge touch screen voting system, boot up their DRE machines the day before the election, as does Miami-Dade County. (OIG Table 2)

The OIG's research revealed that the bulk of ES&S iVotronic customers were counties of considerably smaller size. Excluding Miami-Dade and Broward counties, the remainder of Florida's iVotronic users are counties with populations under 500,000. It would appear that Florida counties collectively represent ES&S' largest iVotronic client base. Recently, ES&S was awarded a contract with the State of South Carolina to provide iVotronics to fourteen (14) South Carolina counties to be used this fall. Each South Carolina county's population is under 500,000. The remainder of the Florida counties, two Texas counties, and Merced County, CA all employ text based ballots. The OIG was unable to confirm whether South Carolina uses text or bitmap, however, we learned that all South Carolina counties utilize ES&S firmware version 8.0.1.0.1 (OIG Table 3)

Not only is Miami-Dade County ES&S' largest iVotronic client, but we are also unique in that we seem to be the only client that employs ballots in three languages and which boots up its iVotronics the day before the election. This uniqueness sets Miami-Dade apart from ES&S' other clients as we have experienced planning and logistical difficulties not experienced by others. This translates into increased labor, monetary and other operational expenses beyond what may be normally incurred by other jurisdictions.

¹ Since Spring of 2003, Miami-Dade County officials had been anticipating that it too would be utilizing the 8.0 version of the iVotronic firmware. Based on written memoranda and as discussed at several meetings, it was anticipated that the 8.0 upgrade would have available for use by the March 2004 Presidential Preference Primary.

2. TRAINING

What training measures are being implemented and are they enough?

OIG representatives met with and interviewed the Miami-Dade County Deputy Supervisor of Elections who oversees the training of approximately 603 County personnel trained as Election Specialists (ES). The ES position is a combination of three positions (the triad) used in the past, which were the Verification Specialist, the Technical Support Specialist and the Quality Assurance person. The one ES position was implemented in 2003. This staffing format has been used in all municipal elections since 2003 and in the Presidential Preference Primary of March 2, 2004.

As it relates to the recruitment and training of ESs for the August 31st primary, OIG representatives were told that many of the County employees who have worked previous elections, showed a good working knowledge of the equipment, and handled the elections well were asked to come back. Additionally, upon request by the Elections Department, various County department heads provided a list of their employees to be assigned ES duties for the upcoming fall elections. These employees come from various levels of County employment. Finally, it was expressed that there was so much interest among County employees to become an ES that individual requests were being declined. An ES is paid \$123.00 per day for two days of work and receives 2 days of Administrative leave for their service.

There is one ES assigned to each polling place; in some cases, there may be more than one precinct per polling place. In these instances, the same ES will be responsible for multiple precincts. These combined precincts are generally smaller and the same elections board (Clerk, Assistant Clerk and Poll Workers) are used for both of the precincts.

ES training is comprised of a total of eight hour training divided into two sessions. The morning session consists of laptop training to enable the ES to determine voter eligibility. The afternoon session is dedicated to the handling of the iVotronics, which includes setting up the polls (booting-up the machines), implementing new security measures (seals) for Monday night, opening up the machines Election Day morning, collecting votes at the end of the day, delivering the votes to the Collection Center, etc. The training also covered many of the forms/affidavits that are required to be jointly filled out by the ES and Clerk.

Two OIG employees attended ES training on separate days. General feedback was that the printed materials, manuals, duty outlines and tip sheets were very well prepared and useful. OIG trainees found the instructors to be very knowledgeable regarding the subject matter presented. The training is presented clearly, but moves quickly with much material to be learned. A person taking the class for the first time may have some difficulty keeping up, as observed by the OIG of others taking the class. An exam was given after each session. If the trainee missed more than four questions, they would be required to take the class again and

FINAL REPORT OIG Review of the Electoral Process August 25, 2004 Page 9 of 20 retake the exam. At the beginning of each class (morning and afternoon sessions), trainees who had received the training and worked the polls in the past were given an opportunity to take the test and skip the training if they passed the test.²

Both OIG employees attended relatively small ES classes. Even then, they found that some trainees, especially those with no prior elections experience, appeared confused at times and seemed unsure of their actions. The Elections Department has been holding ES training since July 12, 2004 and regular ES training ends August 20, 2004. Refresher classes are available throughout next week (August 23 – 27). We feel that refresher courses should be mandatory for those who have not previously worked an election and/or for those who completed their training in July. All ESs, regardless of prior experience, should be encouraged by County management to attend a refresher course, which should include emphasis on the opening polls and closing polls procedures and check lists.

OIG staff also attended Clerk/Assistant Clerk training (4 hours) and poll worker training (3 hours). Clerk training is identical to poll worker training with minor variations relevant to specific tasks assigned to Clerks and Assistant Clerks. This training also moves relatively quickly, especially as it relates to the Clerk and the Assistant Clerk duties. The extra hour afforded to Clerks/Assistant Clerk training is not enough time to sufficiently cover the extra responsibilities and all the associated forms that must be properly filled out and attested to. On the other hand, according to the Elections Department statements, 92% of poll workers have worked in previous elections. The OIG believes that regardless of the poll worker return rate, training should be a continuous program with enough hands-on practice to ensure their confidence and comfort with the voting system and new electoral requirements.

3. ABSENTEE BALLOTS

What extra measures can the Department put into place in light of the removal of the witness signature requirement?

OIG Special Agents reviewed the absentee ballot (AB) process in detail. This includes how requests for an AB is made, how the department processes such requests and mails out an AB, the procedures in place upon receipt of an AB, the signature verification/rejection procedures, safeguards against double-voting (absentee and in-person voting), etc. As a result of the OIG's review, the following issues/concerns have been noted:

Most of the AB personnel verifying the signature on each AB appear to have minimal training, educational and work experience requirements. The majority of the department personnel in the AB section are "seasonal" employees – 17 of 19 employees are seasonal and two are full-time permanent employees (though one of these permanent positions is currently

² In one ES class attended by the OIG, for the morning session (laptop verification procedures) we noted that several attendees were second-timers, suggesting that they failed this portion the first time.

vacant). The job position requirements for the Elections Support Specialists (Seasonal), which is the position used to hire the AB seasonal employees, are: "High school diploma or GED. Two years clerical experience are required." These seasonal AB employees rotate between assembling the AB packages and putting them in envelopes, verifying AB request forms and absentee ballots against the appropriate data in the voter registration database, and updating that database.

A primary safeguard in the AB process is the verification of the AB requestor's signature and the verification of the AB voter's signature against the signature in the database. OIG Special Agents were unable to find any standardized written procedures given to each of these seasonal employees on how to verify such signatures, or on any of the other AB processes, such as assembling AB packages to mail out to requestors. When asked about such procedures, Elections personnel advised that these employees were given individual verbal instructions and some "hands-on" training. The OIG recommends that Elections provide each AB employee, whether seasonal and permanent, with standardized written procedures, that are routinely updated and specific training related to signature verification.

The Elections Department does not appear to uniformly provide its AB employees with current updated written procedures, or with written duties and responsibilities. The OIG met several of the seasonal employees assigned to various AB functions. We saw that several had copies of written materials/handouts/procedures etc., but that they were not the same. One person had a 24-page excerpt labeled "absentee ballots" which she got last year, and which she told OIG personnel was outdated; the second a collection of handouts and miscellaneous material that she assembled on her own and a 9-page binder that she obtained from a former employee. The OIG recommends that there is one uniform set of procedures for all AB duties, as seasonal employees assigned to work in this division often rotate and perform various AB related functions.

Another concern is the lack of inventory control for absentee ballots. Blank absentee ballots are locked in a fenced-in cage in the warehouse, but are then moved in small packages as needed up to a locked file room on the second floor of the main office. Blank ballots are then taken to whatever area is being used to assemble the AB packages to mail out to requestors. Even though ABs are sequentially numbered, there is no sign-out or sign-in requirement that logs who is taking the ballots, how many are being taken, and where they are going. In addition, the Department "logs" an AB as being sent out when a mailing label is printed from the database, not when the actual AB is mailed out. This may pose problems, depending on the length of time between the printing of a mailing label and the actual mailing of the ballot. The OIG recommends that inventory controls be implemented for every AB throughout the process.

This deficiency also raises an additional concern, in that there is no reconciliation at the end of a voting cycle to account for each AB. While the Elections Department seems to be able to provide information on how many ABs were requested and sent, and how many were

FINAL REPORT OIG Review of the Electoral Process August 25, 2004 Page 11 of 20 returned, they do not appear to keep track of how many ABs were invalidated due to various reasons such as signature problems, not registered, wrong address, etc. Nor do they perform follow-up on why ABs that were sent were not returned. This type of information could be used to improve elections processes and possibly determine if fraud or other problems occurred. The OIG recommends that some method of reconciliation be implemented for ABs, and that some sort of assessment be performed on the number of ABs requested that are not returned, or that have problems resulting in rejection, etc., to determine if corrective action is needed.

Lastly, with regard to ABs, the OIG, like others, are concerned by the removal of the witness signature requirement. The witness requirement was effective as a fraud detector because it alerted Elections officials if a single person was involved in handling a large number of ABs. Without the witness requirement, elections staff will have to be on alert or become aware of indicators that signal the presence of foul play. Currently, the primary safeguard for the validity of an AB is the verification of the requestor and voter's signature against the voter registration signature. First tier verifiers (seasonal employees) match the incoming signatures against the original voter registration signature on file. First tier verifiers may accept a signature as authentic without requiring further review; however, all rejections of the incoming signature as not matching do require a second level of review by an Elections Department supervisor. Additionally, all questioned signatures, where the first verifier has doubt, go to a second level of review. The second-level verifier provides an independent assessment of the signature and may override the decision below. However, even here if the incoming signature is concluded to be not authentic (not a match), it will still go the canvassing board for a final determination. While this three-tiered process works in favor of not summarily rejecting signatures, the OIG believes that more formalized training that includes written training materials, guidelines or criteria, be provided to the first tier verifier which provides a sound basis for determining a signature to be a match. The Elections Department should consider bringing in expert assistance in the area of signature verification to help guide the AB staff during the next week through to the election.

This recommendation would also stand to include retaining such expert assistance in the signature verification process for the November 2, 2004 General Election.

4. DELIVERING, SECURING, AND PICKING UP THE VOTING EQUIPMENT

What arrangements have been made and when will all the machines be back in the warehouse?

Countywide, there are 749 precincts. For the August 31st primary, voting will take place at 559 polling places. Some physical locations (facilities) house more than one polling place, (e.g., different rooms), therefore, resulting in 534 polling facilities. In other words, deliveries and pick-ups must be arranged for 534 locations.

FINAL REPORT OIG Review of the Electoral Process August 25, 2004 Page 12 of 20 Miami-Dade Solid Waste Management (SWM) employees have been recruited and assigned to delivery and pick-up duties. The Elections Department has rented the trucks that will be used for this effort. SWM will staff each truck with a driver and two helpers.

To deliver the machines to their assigned location, up to 30 trucks will be used. Deliveries will begin on Tuesday, August 24, and continue through Wednesday and Thursday. It should be noted that on Friday, August 27th no voting machine deliveries will be made, as Elections warehouse personnel will turn their attention to distributing precinct specific packs (Clerk's kit, PEBs, laptops etc.) to the distribution centers for pick up by the ESs. No deliveries are scheduled for Saturday and Sunday. The final deliveries are scheduled to be completed on Monday, August 30th.

There will be two delivery shifts each day. The first shift will begin by 5:30 am, where all drivers and handlers will meet at the SWM NW 58th Street facility. Any "no shows" by 5:30 am will be immediately replaced with SWM back-up personnel. From there, drivers will proceed to the Elections Department warehouse to pick up their shipments. Drivers will be given their delivery assignments, which include contact information and a more descriptive location of where the equipment should be delivered (e.g., school gymnasium, condominium clubhouse, etc.). The second shift begins either at 1:00 pm or 3:00 pm. The afternoon shift will help accommodate locations that do not open until later in the day.

SWM delivery personnel will wear special attire identifying them as County Elections personnel. Once the equipment is delivered, the SWM employee will ask the polling place contact person to sign the log sheet indicating that the equipment was delivered. It was explained to the OIG that not all recipients sign, and some just refuse to sign, especially if that individual present is <u>not</u> the listed contact person for the location.

On Monday, August 30, the ES, Clerk and Assistant Clerk will meet at their assigned polling place at 4:00pm. They will set up the voting equipment and prepare it for use the next morning. This includes physically setting up the machines and booting them up. Once all the machines are fully operational, the zero tape is printed. According to the instructional material, two zero tapes are printed prior to the iVotronic being locked down for the night. Blue security seals are placed on each of the machines and certain forms are required to be filled out and attested to by the ES and the Clerk.

On Election Day morning the blue security seals are broken, the terminals are unlocked, and each machine is examined to verify that the public vote count of each machine is zero, meaning that no votes have been cast on the device. This information is then transcribed onto one of the various required forms and attested to by the ES and the Clerk.

After close of the polls, votes are extracted out of each of the machines using one PEB. The results tape is printed and the compact flashcards are removed from the back of each

FINAL REPORT OIG Review of the Electoral Process August 25, 2004 Page 13 of 20 iVotronic, which also requires the breaking of a green seal. Several items are placed in the results bag, which is transported to the Collection Center by the ES. The Clerk, Assistant Clerk and remainder of the poll workers stay behind at the polling facility to finish closing duties. The Clerk then brings the Clerk's Kit and Activation case to the Collection Center. According to the procedures, the Poll Deputy is required to stay behind with the equipment, until receiving further word from Elections personnel.

To pick up the voting machines, 66 trucks will be used. The OIG has been advised that collection will begin Wednesday at 7:00 am, and should conclude by 7:00 pm the same day. The OIG inquired about the possibility of beginning the pickup immediately on Tuesday night and continuing through to its completion on Wednesday. The OIG was advised that the Elections Department initially inquired about picking up the equipment Tuesday night. However, SWM officials explained that there would be great difficulty in supplying the number of personnel needed for a Tuesday evening through Wednesday morning pick-up. Apparently, Tuesday is SWM's busiest workday and Wednesday is their day off, thereby making Tuesday evening retrieval extremely difficult.³

On a logistical note, the OIG was told by Elections tabulation staff that it was important for them to know the exact location of any given iVotronic on Tuesday evening in case the tabulation require that votes be re-collected from any given machine. If the iVotronics were packed up and loaded onto trucks Tuesday evening and should there be a need to re-collect votes from a particular machine, it would be more problematic than if the machines were still at the polling facility.

It is the OIG's assessment that while it is most important, above all, to accurately collect all the voting data from each machine initially during the poll closing procedures, we would hope that any need to re-collect votes would be recognized immediately upon turning in the PEB voting results at the Collection Center on Tuesday night. We also recognize the concern that the voting equipment should be returned safely to the warehouse as soon as possible, as each machine still contains a record of the votes and the audit data in its memory systems. And while that same information, votes and audit data, have been extracted out of each iVotronic through the PEB and compact flash card, respectively, the public's comfort level with the process may not be completely eased.

The OIG is aware of perceptional concerns over the securing of the voting machines on Tuesday night (after the polls close) through to the time they are picked up. We recommend that to help alleviate any negative perceptions and the potential for other irregularities that the

³ The OIG noticed this discrepancy in the training materials as the Poll Deputy was required to remain behind until relieved by Elections personnel to pick up the equipment. At that point in the evening, the ES, Clerk and Assistant Clerk have all turned in their materials to the Collection Center. In light of the new pick-up schedule, the poll deputy awaits a phone call from the Clerk in order to be dismissed for the evening.

Elections Department re-assess overnight security measures afforded to the various facilities. For instance, it may be necessary to buttress security at particular locations by posting security personnel. Each location should be assessed on its own merits by taking into consideration the public/private nature of the building, attendant personnel already on site (e.g., public employees, firefighters, school police, etc.), and the presence/utilization of operable alarm systems.

5. POST-ELECTION AUDITING, AUDIT DATA AND AUDIT ANALYSIS

What is there to examine, when can we look at it, and what does this all mean?

Auditing an election entails a review, analysis, and testing of the entire election process and system. An audit could include validating voter registration records, testing voting machines and devices for vote count accuracy and reporting reliability, verifying their physical safekeeping, checking the security of the ballot-handling process (or of the ballot recording devices), confirming that the "chain of custody" for the voting software and vote recording devices are unbroken, calculating election costs and other system unique expenditures, visiting polling locations to watch whether the process was "user friendly" for the voters, and that elections personnel, while performing their duties, did so in accordance with authorized guidelines.

What is referred to as the "Audit Trail" or "Audit Data" with respect to the iVotronic includes the recorded event logs and ballot images collected from each of the machines. These reports are uploaded from each of the machines through the compact flashcard, which is removed from each machine after the polls close and delivered to the Collection Center along with the vote results. It can also be manually uploaded through a serial port data transfer to a laptop running the Election Record Manager (ERM) software.

A review of this printed paper trail may not be done pursuant to a statutorily mandated manual recount. In an advisory opinion dated February 12, 2004, the Director of the State Division of Elections opined that "counties utilizing touchscreen voting systems are not required or authorized to print or review the electronic ballot images of undervotes occurring in a recounted race." In fact, under current Florida law, there can be no manual recount of a touchscreen voting machine. However, nothing precludes the electronic ballot images, a.k.a. the printed audit trail, from being printed and reviewed for post-election audit purposes and/or some form of statistical analysis. This type of examination, regardless of whether or not it is called "an audit," is not a recount of the ballots.

⁴See also, Advisory Opinion Letter DE04-02 Re: Manual Recount Requirements Relating to Touchscreen Voting Systems; 102.166, Florida Statutes (emphasis added).

⁵ Fla. Admin. Code Ann. R. 1S-2.031(7). Cf. Touchscreen Ballot Machine Recounts, Fla. Admin. Code Ann. R. 1S-2.031(5)(c)(2), requiring a verification between the printed vote totals for each precinct against the county totals from election night."

An audit of a limited scope, such as one that includes only a review of the recorded ballot images and manual compilation of the results reflected thereon compared to machine-generated results, would provide little assurance on the reliability of the election results. This is true because the ballot printout is not a direct voter created record, but rather it is a machine/device produced image. Thus, its reliability is subject to the possibilities of machine/device malfunction or the correctness of the computer program generating the image. Although this process may be labeled "limited scope," it is, nonetheless, a huge labor-intensive undertaking to obtain very little in the way of useful results.

This limitation does not discount the value of reviewing these machine generated audit reports for purposes other than vote tabulation, such as individual PEB usage, a review of cancelled ballots and the PEB device associated with each cancellation, and a review of undervotes by each individual race (e.g., the presidential race, a judgeship, referendum issue, etc.). This type of review is benefited by a non-aggregated presentation of the data, that is machine by machine, as opposed to the collective data from all machines being merged. And to the extent that an audit of the ballot images and event logs are performed on a precinct-level basis, it is recommended that the original data storage device (i.e., flashcard) be preserved and the data be presented in a non-aggregated format.

It is important to know what affirmations or assurances the users—the voters, the candidates, etc.—of the audit results are looking for and then design procedures that will meet the objectives. For example, two procedures that would provide some assurance on the reliability of the reported election results would be (1) the implementation of a parallel testing program and (2) the reconciliation of precinct voter sign-in logs with machine-reported ballot totals.⁶ These procedures, however, are not necessarily "audit" procedures but should be considered as reasonable "checks and balances" implemented by the user department to assure that its process functions as planned.

The OIG recommends that an Election Audit Committee be created, which would be responsible for overseeing the planning and implementation of these or other procedures, such as those listed above, and for reviewing post-parallel testing results. Similar to an audit committee of a governmental board or corporation's board of directors, the Election Audit Committee can be a sounding board to discuss audit objectives, approaches, time constraints, and scope. The Committee should form, or at least directly participate in the formation of, a workable audit plan and the Committee could be instrumental in garnering the public's confidence that Miami-Dade County is doing all that we can to ensure the integrity of the electoral process. As it pertains to the November 2, 2004 general election, to the extent possible, the audit plan should be finalized pre-election and should identify the necessary documents and data storage devices to perform the review.

⁶ See the next section relating to parallel testing.

We feel that with so much public attention focused on post-election audits and the printed paper audit trail, "the general public must understand what is going on, and exactly what will be ascertained by an audit. This includes an awareness of what will and will not be verified by the audit."

6. PARALLEL TESTING

What is it? How is it different from the Logic & Accuracy pre-election tests? Why conduct it? How can it be done?

Parallel testing, or parallel monitoring, refers to Election Day testing. By its very nature, it must be conducted on Election Day using the same equipment prepared and readied for use in the actual election. Parallel testing tests the accuracy of the machines to record, tabulate and report votes under actual voting conditions on Election Day. This type of testing involves randomly selecting machines on Election Day and "testing them as realistically as possible during the period that votes are being cast."

Parallel testing can generally be conducted under two different types of scenarios:

<u>Scenario 1.</u> Randomly selecting and segregating voting equipment for testing by "trained" personnel using test scripts and simulating actual voting conditions (e.g. training personnel to make voting mistakes requiring correction, voting using different languages, heavier voting during "peak" hours, etc.) The testing can take place near or adjacent to the tested polling site or it can be in a different location altogether. This is a much more controlled environment, where there is no interaction between live voters and testers.

<u>Scenario 2.</u> Asking "real" election-day voters to volunteer to help test the system by using pre-set test scripts or noting and testing against the choices they made. By employing real voters in the test, the testing necessarily takes place in public—a less controlled environment—where there is an absolute necessity that tabulation devices for the test machines (e.g. PEBs) are kept far removed from the tabulation devices used on the live voting machines.

Furthermore, we believe that under either scenario, videotaping of the actual voting is an absolute necessity in order to document discrepancies caused by human error.

⁷ Report of the Voting, Vote Capture & Vote Counting Symposium, *Electronic Best Practices*, A Kennedy School of Government, Harvard University, June 2204. www.ljean.com/files.ABPractices.pdf.

⁸ Douglas W. Jones, *Testing Voting Systems*, University of Iowa, Department of Computer Science, www.cs.uiowa.edu/-jones/voting/testing.shtml.

Through our research, we are only aware of one jurisdiction that has implemented parallel testing—California. The California Secretary of State, Division of Elections, along with independent consultants from the consulting firm of R&G Associates, LLC (R&G), developed a program of parallel testing that was implemented on March 2, 2004. All DRE voting equipment models used in California were tested. The test was comprised of eight (8) participating counties covering four models of DRE voting systems, one of which was ES&S' iVotronics from Merced County, California. California used scripted ballots with trained "voting" personnel. The machines were each tested 101 times (i.e., 101 votes cast). The testing took place in a controlled environment far removed from the actual polling place and all testing was videotaped. (See Scenario 1 above.)

According to California's Election Division Chief, Secretary of State's Office, he was also unaware of any other jurisdiction that has conducted parallel testing. However, we were advised that there is much interest in Nevada's elections this fall, as their DREs will dispense Voter Verified Paper Audit Trails (paper receipts). California is planning to conduct parallel testing, under a program similar to its March 2, 2004 testing, this September 7 for its Primary Election, and again on November 2 for the General Election. Additionally, we have discovered that Washington State will implement parallel testing in two counties for its primaries on September 14, 2004. Washington will plan its parallel testing similar to California's (Scenario 1: controlled environment, scripted ballots, "trained" voters). The OIG is unaware of any jurisdiction planning parallel testing which would incorporate "real" voters.

For it to be considered parallel, testing must take place on Election Day. Not only is the test's objective to test the accuracy of the machines, as the Logic & Accuracy test does, but it is premised on detecting malicious code that may affect the accurate tabulation of votes on Election Day. Parallel testing would also be engaged to detect machine malfunction under the pressures of Election Day. In order to mimic real voting, the test plan should not equally test all candidate positions, but instead should be developed to reflect the vote patterns of a given precinct. "Therefore, parallel testing is best done either by using a random distribution of test votes generated from polling data representative of the electorate..." The number of votes cast on the test machine would be much greater than the number of votes cast on a machine during the Logic & Accuracy test. In a nutshell, the machine must think that it is being used in a real election and not that it has been pulled aside for testing.

⁹ See OIG Table 3. Merced County ranks No. 249 Based on 2002 Census data. Merced has a bilingual English/Spanish ballot.

¹⁰ In light of its Voter Verified Paper Audit Trail (VVPAT) receipts, Nevada officials will conduct a post-election test comprising of reconciling VVPAT receipts with votes cast. This post-election test is basically a manual recount using the paper receipts.

Douglas W. Jones, *Testing Voting Systems*, University of Iowa, Department of Computer Science, www.cs.uiowa.edu/-jones/voting/testing.shtml.

Miami-Dade County should proactively implement measures to restore public confidence in the electoral process. As for the testing of the machines, the Elections Department went further than legally required to include a non-scripted portion of testing during the Friday, August 13, 2004 Logic & Accuracy testing. The public and media were informed of the testing and were welcomed to observe and even participate in the unscripted testing. This supplemental testing measure was a great addition, but it should not stop there. Above all else, parallel testing builds public confidence in the accurate tabulation of the voting machines.

The OIG recommends that the County conduct parallel testing during the November General Election. In order to plan the test, confirm all necessary resources and organize its logistics, we do not believe that it would be practicable to parallel test during the upcoming August 31, 2004 elections. As soon as possible, the County should begin making arrangements to plan the test, and it should consider contacting officials in California and Washington State for their advice.

As outlined above, parallel testing has many variations. If there is concern of contamination between the real votes and test votes, then the testing could be done in a controlled environment separated from the actual polling location. If there is concern that the public may be confused by the test voting taking place at the same live polling facility, then the testing can be conducted without public participation. The County may even want to consider testing three precincts, where two are tested in controlled environments and another precinct's parallel test is a pilot study employing "real" voters. We can tailor the test plan to be limited in scope and limit the number of machines tested. After testing, we will be able to harness all the original source data for analysis without any preclusion under state election law.

MISC. OBSERVATIONS AND OIG RECOMMENDATIONS:

• The OIG visited six randomly selected polling places and found that some information, such as contact information (names and phone number) was incorrect. In one instance, we found while a location was listed as having an alarm; it in fact did not. The OIG recommends that the Elections Department, to the extent possible in the next week, to update its logs; this could be based on information relayed back from SWM delivery personnel. Additionally, the ES and poll workers should be made to make note of this information and relay it back to Election personnel for future updating, especially as it pertains to the polling location used for the General Election this November.

¹² Relative to the size of the State of California, its parallel test was fairly limited, as it only included eight (8) counties statewide and only involved two DRE machines from each county (16 machines total).

• The OIG has been told that up to three ES&S representatives will be present in the tabulation room on Election night, albeit that they do not have swipe cards themselves to gain entry into the tabulation room. Additional ES&S personnel will be on-site at the Elections Department in the Call Center, or roving as field technicians, to handle equipment related questions, etc. It is recommended that all ES&S personnel wear special attire, such as ES&S company shirts, to distinguish themselves from County personnel.

There is no doubt that the most important priority facing Miami-Dade County today is to achieve successful elections in August and November. To this end, the Elections Department has taken Herculean efforts to overcome the debacle of the 2002 primary election. These efforts provide the OIG with added confidence that the elections will be successful. And, although this review suggests additional measures to bolster the public's confidence in the electoral process, it should not be viewed as critical of the County's efforts.

30	29	28	27		25	24	23		21	20 0	19	18	17	16		14	13	12 0	11 V	10	9 1	8 FI	7 0	6	5 AZ	4 Tx	3	2 NY	1 CA	Count State
MO St. Louis County	OH Franklin County	MN Hennepin County	FL Palm Beach County		CA Sacramento County	PA Allegheny County	NY Nassau County	NV Clark County	TX Bexar County	OH Cuyahoga County	NY Suffolk County	CA Alameda County	TX Tarrant County	PA Philadelphia County	CA Riverside County	FL Broward County	CA Santa Clara County	CA San Bernardino County	WA King County	MI Wayne County	TX Dallas County	L Miami-Dade County	CA San Diego County	CA Orange County	Z Maricopa County	X Harris County			A Los Angeles County	ite County
Claylon	Columbus	Minneapolis	West Palm Beach	Pontiac	Sacramento	Pittsburgh	Mineola	Las Vegas	San Antonio	Cleveland	East Hampton	Oakland	Fort Worth	Philadelphia	Palm Springs	Ft Lauderdale	San Jose	San Bernardino	Seattle	Detriot	Dallas	Miami	San Diego	Anaheim, Santa Ana	Phoenix, Tempe	Houston	Chicago	New York	Los Angeles	Large Cities within County
1.016,31	1,068,97	1,116,20	1,131,18	1,194,15	1,223,49	1,281,666 Lever	1,334,544	1,375,76	1,392,93	1,393,97	1,419,369	1,443,741	1,446,21	1,517,55	1,545,38	1,623,018	1,682,58	1,709,434	1,737,034	2,061,162 Lever	2,218,899	2,253,362	2,813,833	2,846,289	3,072,149	3,400,578	5,376,741	8,008,278	9,519,338	Population Size in 2000
1 016 315 Punch Card	1,068,978 DRE/Full-Face Electronic	1,116,200 Optical Scan	1,131,184 DRE/Touch Screen	4 systems used through out the County - Lever, Punch Card, Paper and Optical Scan (two 1,194,156) different vendors)	1,223,499 Optical Scan	6 Lever	Lever	DRE/Full-Face Electronic & 1,375,766 DRE/Touch Screen	DRE/Touch Screen	1,393,978 Punch Card	9 Lever	1 DRE/Touch Screen	1,446,219 Optical Scan	1,517,550 DRE/Full-Face Electronic	1,545,387 DRE/Touch Screen	1,623,018 DRE/Touch Screen	1,682,585 DRE/Touch Screen	1,709,434 DRE/Touch Screen	1,737,034 Optical Scan	Lever	2,218,899 Optical Scan	2,253,362 DRE/Touch Screen	2,813,833 Optical Scan	2,846,289 DRE/Wheel and Button	3,072,149 Optical Scan	3,400,578 DRE/Wheel and Button	5,376,741 Punch Card	Lever	9,519,338 Optical Scan	Voting Method
Not Applicable	Danaher	Model 100 MarkSense	Sequoia AVC Edge		Model 100 MarkSense	Not Applicable	Not Applicable	Sequoia AVC Edge	iVotronic	Not Applicable	Not Applicable	Diebold AccuVote-TS	Optech IIIPE	1242 ELECTronic	Sequoia AVC Edge	Notronic	Sequoia AVC Edge	Sequoia AVC Edge	Accu-Vote	Not Applicable	AIS 650	Notronic	Diebold AccuVote-TSx	eSlate	Optech Eagle	eSlate	Not Applicable	Not Applicable	InkaVote	Voting Equipment
Not Applicable	Danaher Controls	ES&S	Sequoia Voting Systems	Optical Scan - Optech IIIPE Optical Scan - ES&S and & Accul/ote Fider Doubleday	ES&S	Not Applicable	Not Applicable	Sequoia Voting Systems	ES&S	Not Applicable	Not Applicable	Diebold Election Systems	ES&S	Danaher Controls	Sequoia Voting Systems	ES&S	Sequoia Voting Systems	Sequoia Voting Systems	Diebold Election Systems	Not Applicable	ES&S	ES&S	Diebold Election Systems	Hart InterCivic	ES&S	Hart InterCivic	Not Applicable	Not Applicable	Election Data Corp	Vendor
Not Applicable	English	English	3 Languages - English, Spanish & Creole	English	2 Languages - English, Spanish	Not Applicable	Not Applicable	2 Languages - English, Spanish	2 Languages - English, Spanish	Not Applicable	Not Applicable	3 Languages - English, Spanish, Chinese	2 Languages - English, Spanish	2 Languages - English, Spanish	2 Languages - English, Spanish	2 Languages - English, Spanish	5 Languages - English, Spanish, Chinese, Vietnamese, Tagalog	2 Languages - English, Spanish	2 Languages - English, Chinese	Not Applicable	2 Languages - English, Spanish	3 Languages - English, Spanish, Creole	5 Languages - English, Spanish, Chinese, Vietnamese, Korean	5 Languages - English, Spanish, Chinese, Vietnamese, Korean	3 Languages - English, Spanish, Tohono o'dham	3 Languages - English, Spanish, Vietnamese	Not Applicable	Not Applicable	7 Languages - English, Chinese, Vietnamese, Korean, Spanish, Japanese, Tagalog	Languages
Not Applicable	Matthew Damschroder	David Maeda	Tony Enos	Ellen Davis Halsey	Diana Mojonier / Alice Jarboe	Not Applicable	Not Applicable	Donna Cardinelli	Jackie Callanen	Not Applicable	Not Applicable	Elaine Ginnoldi	Gayle Hamilton	Robert Lee	Bryan Foss	Ed Solomon	Elma Rosas	Scott Konopasec	Bill Huennekens	Not Applicable	Brylon Franklin	Constance Kaplan	Bob Penisi	Neal Kelley	Mitch Etter	John German	Not Applicable	Not Applicable	Cathy Tacawy	Contact Person
Not Applicable	612-348-5151	561-656-6200	248-858-0564	916-875-6464 / 916-875-6751	Not Applicable	Not Applicable	702-455-0136	210-335-0362	Not Applicable	Not Applicable	510-272-6934	817-884-1115	215-686-1505	951-486-7200	954-357-7061	408-282-3030	909-386-8383	206-296-1565	Not Applicable	214-819-6332	305-499-8500	858-694-3410	714-567-5139	602-506-1569	713-755-5792	Not Applicable	Not Applicable	562-462-2648	Telephone Number	
				No Tauch Screen system is used.				Touch Screen system has the Voter Verified Paper Audit Trail (VVPAT). Both Full-Face and Touch Screen systems are use for election day; for early voting Touch Screen only.					Touch Screen for early voting (eSlate)	The Full-Face system is similar to the mechanical lever system. Instead of levers, there are pushbuttons or micro switches. No paper ballots are used.							Touch Screen for early voting.								InkaVote is similar to punch card; however, an ink pen is used. Touch screen for early voting (Diebold system).	Other Information

Not Applicable = No further research was done on counties using the lever or punch card voting systems.

1 of 1

U.S. Counties using Direct Recording Electronic (DRE) Voting Systems (Counties selected based on population size)

Systems Crecie Danaher Controls English		I ony Enos Matthew Damschnoder
	Sequoia Voting	3 Languages - Sequoia Voting English, Spanish &
	Sequoia Voting 2 Lang Systems Englist	Sequoia Voting 2 Languages - Systems English, Spanish Donna Cardinelli
		ES&S English, Spanish Jackie Callanen
		3 Languages - English, Spanish, Chinese
	Danaher Controls English	2 Languages - 2 Languages - 2 Languages - Robert Lee
ge	Left a message Systems English	Voting 2 Languages - English, Spanish
	2 Lang ES&S English	ES&S English, Spanish Ed Solomon
Does not know	Sequoia Voting Systems	
	ia Voting ns	Voting 2 Languages - English, Spanish
	3 Lang English Creole	3 Languages - English, Spanish, Constance Kaplan
	5 Languish English Chines Hart InterCivic Vietnam	5 Languages - English, Spanish, Chinese, Hart InterCivic Vietnamese, Korean Neal Kelley
-	3 Langu English Hart InterCivic Vietnar	3 Languages - English, Spanish, Hart InterCivic Vietnamese John German
	Vendor La	Vendor Languages Contact Person

N/A = Firmware versions only obtained for ES&S iVotronic customers.

Source: County's Board of Elections websites, State of California, Florida, Missouri and Texas websites and contacting Board of Elections personnel

TABLE 2

Counties using ES&S IVotronic included in the top 30 sample based on population size

	2 Languages - English,	2 Languages - English, ES&S Spanish Jackie Callanen
1 - 3 mins ES&S Spanish	2 Languages - English, ES&S Spanish	ES&S
Depends on size of S Languages - ballot ES&S English, Spanish,	ES&S	ES&S
Machine Approximate Boot Vendor Languages Boot up Time per Machine	0 %	Vendor

Other Counties using ES&S IVotronic not included in the top 30 sample based on population size

2025	1476	1471	1360	853	851	706	704	463	406	399	364	359	307	305	249	245	214	208	164	157	141	124	Count
SC.	×	SC.	SC*	SC.	SC*	SC.	SC*	SC*	SC.	72	F	SC.	SC.	SC	Ş	SC*	FL	SC*	F	P	SÇ.	F	State
Calhoun County	Chambers County	Abbeville County	Union County	Kershaw County	Cherokee County	Oconee County	Greenwood County	Pickens County	Florence County	Martin County	Charlotte County	Aiken County	York County	Anderson County	Merced County	Lexington County	Collier County	Spartanburg County	Sarasota County	Pasco County	Greenville County	Lee County	County
Saint Matthews	Anahuac	Abbeville	Union	Camden	Gaffney	Walhalla	Greenwood	Pickens	Florence	Stuart	Punta Gorda, Port Charlotte	Aiken	York	Anderson	Merced	Lexington	Naples	Spartanburg	Sarasota	Dade City, New Port Richey	Greenville	Ft. Myers	Large Cities within County
15,185	26,031	26,167	29,881	52,537	52,647	86,215	66,271	110,757	125,761	126,731	141,627	142,552	164,614	165,740	210,554	216,014	251,357	253,791	325,957	344,765	379,616	440,888	Population Size in 2000
15,185 DRE/Touch Screen	26,031 DRE/Touch Screen	26,167 DRE/Touch Screen	29,881 DRE/Touch Screen	52,537 DRE/Touch Screen	52,647 DRE/Touch Screen	66,215 DRE/Touch Screen	66,271 DRE/Touch Screen	110,757 DRE/Touch Screen	125,761 DRE/Touch Screen	126,731 DRE/Touch Screen	141,627 DRE/Touch Screen	142,552 DRE/Touch Screen	164,614 DRE/Touch Screen	165,740 DRE/Touch Screen	210,554 DRE/Touch Screen	216,014 DRE/Touch Screen	251,357 DRE/Touch Screen	253,791 DRE/Touch Screen	325,957 DRE/Touch Screen	344,765 DRE/Touch Screen	379,616 DRE/Touch Screen	DRE/Touch Screen	Voting Method
iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	Notronic	iVotronic	iVotronic	Votronic	Natronic	iVotronic	iVotronic	iVotronic	iVotronic	iVotronic	Notronic	Voting Equipment
8.0.1.0	7.4.5.0	8.0.1.0	8.0.1.0	8.0.1.0	8.0.1.0	8.0.1.0	8.0.1.0	8.0.1.0	8.0.1.0	7.4.6.0	7.4.6.0	8.0.1.0	8.0.1.0	8.0.1.0	7.4.5.0	8.0.1.0	7.4.6.0	8.0.1.0	7.460	7.4.6.0	8.0.1.0	7.4.6.0	Firmware Version
Does not know	Does not know	Does not know	Does not know	Does not know	Does not know	Does not know	Does not know	Does not know	Does not know	Text	Text	Does not know	Does not know	Does not know	Text	Does not know	Text	Does not know	Text	Text	Does not know	Text	Bit Map / Text
	Yes (see other information)	Yes	Yes	Yes (see other information)	Yes (see other information)	Yes	Yes	Yes	Yes	Yes	Yes (see other information)	Yes	Yes	Yes (see other information)	Yes	No	Compact Flash						
Day of Election	Day of Election	Day of Election	Day of Election	Election	Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Day of Election	Election	Day of Election	Day of Election	Day of Election	Machine Boot up
1 - 5 mins	less than 1 minute	1 - 5 mins	1 - 5 mins	less than 1 minute	Approx. 1 minute	1 - 5 mins	1 - 5 mins	1 - 5 mins	1 - 2 mins	1 - 5 mins	Does not know	1 - 5 mins	less than 1 minute	40 seconds	1 - 5 mins	10 - 15 mins	Approximate Boot Time per Machine						
ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ESSS	ES&S	ES&S	ES&S	ES@S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	ES&S	t Vendor
English	2 Languages - English, Spanish	English	English	English	English	English	English	English	2 Languages - English, Spanish	English	2 Languages - English, Spanish	English	English	English	English	2 Languages - English, Spanish	Languages						
Mary Rickenbaker	Lou Ann Lamb	Brenda Anderson	Keith Vanderford	Thad Cobb	Suzanne Turner	Joy Brooks	Connie Moody	Marilyn Bowers	Russell Barrett	Amy Kirkland	Paul Hale	Stuart Bedenbaugh	Wanda Hemphill	Patsy Brown	Deanna Brown	Ann Long	Pete Van De Mark	Barbara Blanchard	Larry Rose	Jim Endress	Art Monsch	Sharon Herrington	Contact Person
803-874-2929	409-267-8309	864-459-5083	864-427-0102	803-424-4016	864-487-2563	864-638-4198	864-942-8521	864-898-5948	843-665-2351	772-288-5637	941-637-2232	803642-1528	803-684-1242	864-260-4149	209-385-7541	803-359-8361	239-774-8450	864-596-2549	941-861-8646	727-847-8162	864-467-7250	239-339-6300	Telephone #
	Compact flash for audio equipment only.									Compact flash for audit data.	Compact flash for audit data.				Participated in parallel monitoring in March 2004.		Compact flash for audio equipment only.			Compact flash for Americans with Disabilities Act (ADA) terminals only.			Other Information

SC First time in 2004. 15 counties in SC will be using ES&S in Nov 2004 per South Carolina State Election Commission Office 803-734-9146.

The counties are Abbeville, Aiken, Anderson, Calhoun, Cherokee, Florence, Greenwille, Greenwood, Kershaw, Lexington, Oconee, Pickens, Spartanburg, Union & York. Firmware, Bit Map, Compact Flash, machine boot up and boot up time is based on information received from the State Commission Office.

Source: Naco.org, essvote.com, State of California, State of Florida, State of North Carolina and State of South Carolina, South Carolina Association of Counties websites, and contacting County's Board of Election personnel

TABLE 3

Biscayne Building 19 West Flagler Street, Suite 220 Miami, FL 33130

Phone (305) 375-1946 Fax (305) 579-2656 www.miamidadeig.org

Office of the Inspector General **Miami-Dade County**

Mr. George Burgess

County Manger

0 8-23-04

Draft Report

To:

DRAFT ONLY

From: Christopher Mazzella

Inspector General

Date:

August 23, 2004

Re:

OIG Review of the Upcoming August 31, 2004 Primary Election

By way of memorandum issued on August 2, 2004, the Honorable Chairperson of the Board of County Commissioners (BCC) requested the Office of the Inspector General (OIG) to conduct a "complete and independent assessment of our electoral process." This request was in addition to requests made to the Elections Department and the Audit and Management Services Department to produce reports on similar reviews.

OIG SCOPE AND OBJECTIVES

A few days earlier on July 30, 2004, following a BCC workshop on elections preparedness, the Chairperson listed several distinct issues that she wished the OIG to review. Our scope was further refined through subsequent discussions with the Chair's Office. As a result, this OIG review focused on several distinct areas, as listed below. In general, this review is prospective in scope with the main objective of evaluating preparedness and readiness for the upcoming August 31st primary. Other prospective measures reviewed were assessed with the underlying objective of assuring electoral integrity and supporting public confidence in the electoral process.

The OIG's assessment includes the review of voluminous written materials relating to Direct Recording Equipment (DRE) voting systems, parallel testing, and voting systems' audits. The OIG interviewed key personnel of the Elections Department in charge of the various functions/divisions discussed herein. We contacted public officials from other jurisdictions about their voting equipment and their having conducted and/or having made preparations to conduct parallel testing and post election audits. OIG personnel attended training classes and

DRAFT REPORT

OIG Review of the Electoral Process August 23, 2004 Page 1 of 18

Memorandum

MIAMI-DADE COUNTY

Date:

August 24, 2004

To:

Christopher Mazzella

Inspector General

From:

George M. Burgese

County Manager

Notification of the first

Subject:

Preliminary Response to Draft Report - OIG Review of the

Upcoming August 31, 2004, Primary Election

Attached please find the Election Department's Response to the Draft OlG Review of the Upcoming August 31, 2004, Primary Election.

I have expressed to Supervisor of Elections Constance Kaplan, and she has assured me that she understands, the important role that the Office of the Inspector General has performed with respect to reforming and improving processes within the Elections Department, as well as throughout Miami-Dade County Government. As you know, we received your Draft Report yesterday, and you requested a response by today. This report represents our best effort possible to synthesize, analyze and address the many valuable recommendations contained within your Review, but it is by no means exhaustive. With the support of the Mayor, Chairperson and Board of County Commissioners, I look forward to working with your office as we continue to implement new procedures and refine existing ones.

Our Elections Department is better prepared to carry out its responsibilities because of many of your past observations and recommendations, and I am confident that, thanks to this new Review as well as other improvements already completed or currently underway, it will be even better prepared in the future.

Please contact me if you have any questions or require any additional information.

CC:

Honorable Mayor Alex Penelas
Honorable Chairperson Dr. Barbara Carey-Shuler, Ed.D, and Members,
Board of County Commissioners
Charles Anderson, Commission Auditor
Robert Ginsburg, County Attorney
Murray Greenberg, First Assistant County Attorney
Alina Hudak, Assistant County Manager
Cathy Jackson, Director, Audit and Management Services
Constance A. Kaplan, Supervisor of Elections

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1. (N. S. H. 19), (1. S.)



Date:

August 24, 2004

To:

George M. Burgess

County Manager

From:

Constance A. Kaplan

Supervisor of Elections

Subject:

Preliminary Response to Draft Report - OIG Review of the

Upcoming August 31, 2004, Primary Election

The Elections Department has reviewed and analyzed the Inspector General's Draft Review of the Upcoming August 31, 2004, Primary Election. In past elections, the Office of the Inspector General (OIG) has provided invaluable input and suggestions that have become integrated into our operations. Similarly, we look forward to continuing that relationship and, wherever feasible, implementing these recommendations as soon as possible.

Constance J. Laplan

The comprehensive Review provides a number of observations and recommendations, grouped into six principle categories: Training; Absentee Ballots; Delivery, Securing and Pick-up of the Voting Equipment; Post-Election Auditing, Audit Data and Audit Analysis; and Parallel Testing. In this Memorandum, we respond to these six categories of recommendations, along with many of the subcategories contained therein.

RESPONSES TO AREAS OF REVIEW AND RECOMMENDATIONS

1. Voting Equipment

Recommendation: None, an assessment only.

Response: The Department is in agreement with the OIG's observations and conclusions.

2. Training

Recommendation: As it relates to Miami-Dade County employees who will serve in the Election Specialist (ES) capacity on August 31, 2004, County management is recommended to urge those employees to attend a refresher course next week. For those County employees who have not previously worked an election, the OIG recommends that attending a refresher course be mandatory.

Response: Today you sent the following message, via electronic mail, to all Election Specialists in an effort to make additional training available:

From: County Manager (CMO)

ing Martin (A. Wie

Sent: Tuesday, August 24, 2004 9:29 AM

To: (Election Specialists)

Cc: (MetroNet) Department Directors; (CMO) Assistant County Managers; (CMO)

Assistants to the County Manager; Mazzella, Christopher (OIG)

Subject: Additional Elections Specialist Training

I would like to take this opportunity to thank all of you for your commitment and hard work to ensure a successful August 31st Election. At this time, the County's number one priority is to conduct a flawless Election. As an Elections Specialist, you play an Integral role in the accomplishment of this goal. I have asked the Elections Supervisor to coordinate a training session for all Elections Specialist who would like a review of pre-Election night set-up or/and Elections Day procedures. The sessions will be offered at the Elections Building beginning August 23rd through August 27th from 8:30am to 4:30pm. Elections Specialists are welcomed to stop by at anytime to receive Individual training during these sessions.

As an Elections Specialist you are expected to be fully knowledgeable on all procedures. If you feel that you need additional training, it is mandatory that you take advantage of this training. Please contact Natalie Sarmiento 305-499-8314 if you have additional questions.

Again, I want to thank all of you for your hard work and dedication to the Elections and Miami-Dade County.

For the November 2, 2004, election cycle, the Elections Department will fully implement the OIG's recommendation to mandate refresher training for all ESs who have not previously worked an election, rather than for only ESs in that category who feel that they need additional training. Additionally, I would emphasize that the precinct-level ESs are not the only County support provided to our pollworkers, but rather a first level of support. If an ES cannot fully resolve an Issue, he or she calls one of our 110 Administrative Troubleshooters (ATS). These individuals, many of whom have provided election support for years, will address any unresolved issues and, in rare instances when they are unable to do so, they will elevate those issues to the highest levels of Election Department's administration for prompt resolution.

3. Absentee Ballots

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Recommendations:

A. Seasonal employees assigned to the absentee ballot (AB) division could benefit from a written procedures manual that is current on the given election cycle, includes all the various functions within the AB division, and includes written guidelines, criteria or even illustrative examples on the acceptance/rejection of AB signatures.

Response: The Elections Department is currently reviewing and updating established AB procedures to conform to recent legislative changes. Incorporated therein are signature verification procedures that are being developed based on standard industry practices. We anticipate completion of these procedures in time to be utilized in conducting a structured training of AB seasonal staff prior to the November election. These procedures will pertain to all AB duties.

B. The Elections Department should consider obtaining expert assistance to help guide AB division staff in its verification of AB signatures.

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Response: The Elections Department has communicated with the Miami-Dade Police Department and, as a result, has contracted with a Forensic Document Examiner who specializes in handwriting analysis. Beginning Wednesday, August 25th, the examiner will be on

site and available to provide training to absentee ballot section employees. The examiner will also be available to the Canvassing Board to resolve signature verification issues.

C. The Elections Department should implement an inventory process that requires the logging out of blank absentee ballots prior to assembly for mailing. The Elections Department should also reconcile the number of ballots received, counted or rejected against the number of ballots mailed out, the remaining blank ballots, and the number of voters who voted at the polls but did not return that blank AB ballot. Any suspicious patterns should be further investigated to ensure the absence of AB fraud.

Response: The Elections Department will be establishing the recommended inventory control procedures for the November election. Staff will be permanently assigned to the AB cage to manage distribution and accountability for Absentee Ballots. With respect to the reconciliation of ballots received, counted or rejected against the number of ballots mailed out, the remaining blank ballots, and the number of voters who voted at the polls but did not return that blank AB ballot, the Department already tracks the number of ballots mailed, number of ballots returned and, within that number, the number counted or rejected. The Department does not currently account separately for absentee ballots cancelled where the Department regains custody of the ballot and ballots cancelled where the Department does not regain custody (i.e., when a voter has been issued an absentee ballot but votes at an Early Voting site or polling place after the Department verifies that the absentee ballot has not been returned and that ballot is cancelled.) We are aware of the issues surrounding absentee balloting and agree that the Department should do whatever is possible, within the latitude granted to us by Florida Statute, to ensure the integrity of this process. As such, we are studying the OlG's recommendations and will implement them to the extent possible for the November election cycle.

4. Delivery, Securing, and Pick-up of the Voting Equipment

Recommendation: The OIG is concerned over the securing of the voting machines, particularly after the polls close on Tuesday night through to the time that they are picked up beginning the following day. We recommend that the Elections Department reassess overnight security measures afforded to the various facilities. For instance, it may be necessary to buttress security at particular locations by posting security personnel. Each location should be assessed on its own merits, taking into consideration the public/private nature of the building, attendant personnel already on site (e.g., public employees, firefighters, school police, etc.) and the presence/utilization of operable alarm systems.

Response: The Elections Department has recently re-surveyed all of our polling locations in order to update contact information and security levels. Based on that analysis, we are confident that we have provided an appropriate approach to securing our election equipment. All results are collected from iVotronic units on election night, and if necessary, results can be recollected from a unit before tabulation is complete. A process in place at collection centers identifies potential issues with data extracted from iVotronics before personnel at the polling locations leave those locations. An inspector and the Poll Deputy remain at the polling place until voting totals for the precinct are confirmed and those individuals are released. The Department maintains emergency contact numbers for all locations in case emergency access to the sites is needed.

As an additional measure, the Department has met with the Miami-Dade Police Department (MDPD), and they will provide security to polling locations by utilizing "directed patrols," or roving patrols. Officers will be assigned territories containing precincts that they will check several times during their shifts. MDPD will provide this service in both municipalities and

unincorporated Miami-Dade County. Directed patrols will take place during two time periods: from August 30th at 6 p.m. (after units are opened and locked) until August 31st at 6:30 a.m. (when pollworkers have arrived), and from August 31st at poll closing through September 1st, when equipment is picked up.

5. Post-Election Auditing, Audit Data and Audit Analysis

Recommendation: the OIG recommends that an Election Audit Committee be created, which would be responsible for overseeing the planning and implementation of these or other procedures, such as those listed above, and for reviewing post-parallel testing results. Similar to an audit committee of a governmental board or corporation's board of directors, the Election Audit Committee can be a sounding board to discuss audit objectives, approaches, time constraints, and scope. The Committee should form, or at least directly participate in the formation of, a workable audit plan and the Committee could be instrumental in garnering the public's confidence that Miami-Dade County is doing all that we can to ensure the integrity of the electoral process.

Response: The County Manager has directed Cathy Jackson, Director of Audit Management Services (AMS), to conduct an analysis of post-election audit data for elections from 2002 and 2003 and all future elections. My staff will provide valuable input, support and cooperation for that Important task. Following the August 31, 2004, election, the Department will study the feasibility of utilizing an even broader Election Audit Committee, as recommended by the OIG. I am confident that AMS, under the direction of Ms. Jackson and with the support of the Elections Department, can provide the level of analysis that the OIG desires and Miami-Dade voters deserve.

6. Parallel Testing

Recommendation: All possibilities to conduct parallel testing should be explored. The County may want to consider a test plan comprising of both controlled testing (trained voters) and involving public participation for November 2, 2004. As a parallel testing plan involving "real" voters has not been done before, Miami-Dade County may want to implement this portion of the plan on a pilot test basis.

Response: AMS is also working with my staff to develop plans for parallel testing for the November election. These plans will require approval from the Florida Department of State. In fact, we recently examined the feasibility of implementing parallel testing for even the August election. However, the State expressed concerns regarding doing such testing on even a very limited scale based on the short timeframe and State legislation that requires election security procedures to be submitted to the State 45 days prior to Election Day. Given that requirement, our plans will be finalized by September 18, 2004.

I believe that these responses are comprehensive, they are by no means exhaustive. We are studying and attempting to implement many of the OIG's other recommendations contained within the broad categories addressed here. Among those recommendations is that employees of the County's vendor, Election Systems and Software (ES&S), wear shirts clearly identifying them as such. This is one of a number of recommendations that will be integrated into our operation going forward.

The Election Department continues to improve, because of the hard work the Department's own employees are performing, as well as important, objective, external analyses and input. Foremost among those independent voices has always been the OIG, and I know our Department – and, by

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extension, our County - will benefit from this latest Review and the steps we take to implement its recommendations.

Alina Tejeda Hudak, Assistant County Manager

cc:

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