THE AUTOMATED ELECTION SYSTEM COMPLIANCE ISSUE: Field Tests and Mock Elections

*Using Comelec's stringent pass-fail measurement when it weeded out all other vendors who offered the Comelec with their respective solutions, the field tests and mock elections are a failure. The high ballot rejection rate and the intermittent delays in transmission are indicative of the failure of the exercises. The exercises demonstrated that the AES was **not** operating properly.*

Republic Act 9369[1] which amended Republic Act 8436 which authorized the Comelec to use an automated election system (AES) provides a minimum set of indicators to determine that the "AES x x x is operating properly, securely, and accurately" as well as the deadline for the certification of readiness. Among the matters for certification is "1. The successful conduct of a field testing process followed by a mock election event in one or more cities/municipalities; x x x"[2]

Facts

The Commission on Elections (Comelec), to comply with the provisions of the law, conducted field tests on January 25 and 27, 2010, a mock election event on February 6, 2010, and transmission test on April 25, 2010.

The January 25, 2010 field test coincided with the Joint Congressional Oversight Committee (JCOC) Hearing. The JCOC exercises an oversight function on the Automated Elections System (AES) Project. In that hearing, the JCOC strongly suggested that Comelec invite the media, political parties, and interested groups to witness the field test. In response, Comelec Chairman Jose Melo reported the success of the field test from some sites and that a second field test will be conducted on January 27, 2010 which the media, political parties, and interested groups may observe.

Later in the day, news footages showed Comelec Director James Jimenez announcing that the field tests conducted that day were generally successful except in the case of Lake Sebu where transmission of results failed even with the use of BGAN satellite terminals. Dir. Jimenez attributed the transmission failure to the terrain in the surrounding areas of Lake Sebu, likening it to a basin unlike in plain areas where, he said, a BGAN terminal could easily detect satellite signals. He also mentioned that there were delays in transmission in some areas (1) in Benguet due to mis-coordination between teams on the time of transmission, (2) SIM card changes on the wireless modem, and (3) weak wireless signal. The wireless modem apparently uses the mobile phone network and Comelec claims having experienced weak mobile phone network signals in the Pateros area.

On January 27, 2010, while the second field test was being conducted, the following reports were received via SMS:

> 11:30am 1/29/10 At Agujo elem schol in Pateros. At pcos testing ths am, d pcos pcos only read 40% of balots. It tuk an hour 2 sim card changes, 3 restarts bfor the pcos was able to transmit. And wen it did, it cud only conect to d municipal cnvas and cud not conect to the central server and d kbp server.
>
> 11:36 1/29/10 3 mins ago - After 3 sim cards, 2 modems and countless faild atempts, use of the BGAN satelite nom authorizd whch is now set up on chair outside poling center.

Yet, the Comelec came out again on the news announcing the success of the 2nd field test.

A photo of a Smartmatic-TIM technician showing him trying to detect a satellite signal outside a classroom in a school in Pateros was circulated by email.

The AES mock elections were conducted on February 25, 2010. Reports from media and other sources trickled in starting midday:

> At Barangay Maharlika in Taguig, all voters in the barangay were invited by Barangay Chairman to the mock elections. There was confusion among those who wanted to participate in the mock election activity since only fifty (50) participants could be accommodated. The Barangay Chairman had informed the Comelec had admitted inviting all voters in the barangay but said there was lack of information from the Comelec regarding the limited number of invited participants. Paper jam problem was encountered and was attributed to dust that might have made its way into the ballot entry slot. A bond paper was paper inserted and the PCOS was made to work. A flying voter reportedly was able to vote twice.
>
> At New Era in Quezon City, some invitees failed to participate thus teachers in the school were the ones who participated in the AES mock election event. It was reported that five (5) out of fifty (50) ballots were rejected. In one case, the rejection was attributed to folds on the ballot caused by pressure applied on the ballot between the arm of the participant and the edges of the small writing surface. Other reasons given were crumpled ballot or a ballot with fold marks, "ambiguous" marks, uneven shade. Transmission of results was reported to be successful. Some reported that the font size used for the names was too small, especially for senior citizens.
>
> In Cebu City, transmission was disrupted for unreported reasons and it took 24 minutes to complete the transmission. Ballot rejection was attributed to the accidental marking of the barcode and shading in the oval was not dark enough.
>
> In Danao, there were reports of shading beyond the outlines of the oval beside the name of selected candidates or the use of check marks. Paper jam was reportedly experienced.
>
> There were mixed reactions about the exercise. While some appreciated the ease of voting and successful transmission, some observed the lack of preparation of the teachers who acted as members of the Board of Election Inspectors. There were nine (9) sites with fifty (50) participants each, or four hundred fifty (450) participants in all. One observer remarked that 450 participants to the mock elections did not comprise a representative sample of the voting population. It was also observed that there was lack of knowledge among the participants on how to properly shade the ovals or fill the ballot.

Yet, again, Comelec declared that the AES mock election exercise a success. News footages on TV showed Comelec Chairman Melo declaring it a success.

Comelec's Measure of Success

Dir. Jimenez has been quick to justify Comelec's declaration that the field tests and mock elections a success by saying that it had demonstrated the technology to work. The PCOS has been able to accept ballots, do the count, and transmit the results. The CCS has been able to receive the election return, consolidate the vote counts and transmit the results to the next level of consolidation and to the Comelec servers.

The ballot rejection and the transmission problems show that the process is not flawless. Dir. Jimenez is quick to point out that these problems present opportunities to make adjustments in the system. Indeed, the flaws and problems encountered were opportunities to make adjustments to the system. Yet the AES was never demonstrated to work better after such adjustments were made, if any were indeed made.

Standards of Measure

But how should success of the field tests and the mock election be assessed despite the problems encountered? On what basis is the assessment made? What standards were used to measure the success of the exercises?

To address the ballot rejection, the best standard would have been the specifications defined in the "REQUEST FOR PROPOSAL for Solutions, Terms & Conditions for the Automation of the May 10, 2010 Synchronized National and Local Elections" issued by the Comelec. The proposed PCOS was evaluated on the basis of capabilities listed in "Component 1-B Precinct-Count Optical Scan (PCOS)". Significant to this assessment are the following PCOS capabilities:

"6. The system shall scan in grayscale.

"20. The system shall be able to recognize the following marks on the appropriate space on the ballot opposite the name of the candidate to be voted for:

20.1 Full shade
20.2 Partial Shade
20.3 Check marks
20.4 X marks

"21. The system shall be able to recognize both pencil and ink marks"

Scanning in grayscale has to be explained a bit. It refers to the ability of the OMR, the technology behind the PCOS, to recognize varying intensities of light, from black to white. An OMR scanning a colored image in grayscale first translates the colors into varying shades of gray depending on the intensity of the colors present. Thus, by specifying that the PCOS should have the capability to scan in grayscale, colored pens, markers, or pencils may be used to mark the ballot.

Comelec training and education materials instruct voters to fully shade the ovals across the names of their chosen candidates. Voters were discouraged/dissuaded from using X and check marks or to partially shade the ovals.

Comelec and Smartmatic-TIM have been informing the public that black markers will be supplied on election day at their assigned precincts and that any other kind of marker, pen, or pencil should not be used.

In a discussion with Mr. Cesar Flores and Rep. Etta Rosales following the suspension of the hearing being conducted by the House of Representatives Committee on Suffrage and Electoral Reforms, Mr. Flores explained that decision to use only black markers and not to allow other marks other than full shade was made by the Comelec in order to avoid or limit the occurrence of erroneous or ambiguous marks. Mr. Flores further explained the threshold marks: a shade that covers more than 50% of any oval shall be recognized as a valid mark, a shade that covers 20% to 50% of the oval shall be considered an ambiguous mark, and a shade that covers less than 20% of the oval shall be ignored by the PCOS machine. The explanation of Mr. Flores considered, it appears that any figure used to mark or shade any oval will be recognized by the PCOS machine for as long as the mark covers more than 50% of the oval and for as long as the mark does not extend to any other oval.

Based on the foregoing, the above-quoted specifications have been changed or modified by Smartmatic-TIM with the approval of Comelec:

Specifications defined in RFP	Modified Specifications
6. The system shall scan in grayscale.	It will recognize only a shade of black. Shades of gray are classified as ambiguous and therefore the PCOS will not recognize it.
20. The system shall be able to recognize the following marks on the appropriate space on the ballot opposite the name of the candidate to be voted for: 20.1 Full shade 20.2 Partial shade 20.3 Check marks 20.4 X marks	PCOS will recognize only full shade and partial shade of at least 50%.
21. The system shall be able to recognize both pencil and ink marks	The PCOS shall recognize only ink marks with the use of markers to be supplied for the purpose.

Ballot Rejection:

In at least one instance, in a participating precinct in Cebu City, a ballot was rejected for having undershaded (lack of black intensity) marks. Thus, if based on the new set of specifications, the marks made on the ballot will truly be rejected.

In one other instance, in New Era, a ballot was rejected for having fold marks. The fold marks resulted from pressure being applied on the ballot as part of the ballot laid on the edge of the writing surface with the arm of the (participating) voter over that area of the ballot. Why would the PCOS reject the ballot? A ballot with fold marks to be rejected? Have the fold marks somehow affected the shades in the ovals to make it ambiguous? Did the Comelec and Smartmatic-TIM study the ballot in question? Nothing has been disclosed regarding this issue.

Smartmatic-TIM is quick to attribute ballot rejection to the way (participating) voters are marking their ballots. This raises questions on the quality of information provided the voting population, how the information is delivered, and how far the information has reached. Even in Metro Manila, where the voting population presumably is better informed, voters who participated in the mock elections made mistakes.

Smartmatic-TIM was also quick to attribute ballot rejection to ambiguous marks. What these ambiguous marks are have not been clearly explained to the public. The 10% ballot rejection rate observed in New Era during the mock elections is high. The 40% ballot rejection rate observed in Pateros during the 2nd field test is way too high.

Transmission:

Pronouncements have been made by Comelec Representatives that the reports will be electronically transmitted in under two (2) minutes.

In the ANC program on the day of the mock elections, this time measure was raised. Dir. Jimenez said that they never claimed that electronic transmission shall be done in under two (2) minutes. What has been said by Comelec, according to Dir. Jimenez, is that the fastest transmission time is two (2) minutes.

Dir. Jimenez misses the point. Regardless of whether the Comelec set transmission time standard to less than two (2) minutes or that the fastest transmission time is two (2) minutes, two (2) minutes become the public focus, thus, the standard.

In Pateros, for example, the delay in the transmission of results was attributed to weak signal. Weak signal in Metro Manila? Cellular or mobile antennas are all over the landscape and yet Comelec claims that the signal in Pateros, which is in Metro Manila, is weak. Did they even bother to check with the phone companies?

In Lake Sebu, Dir. Jimenez likens the terrain to a basin, thus the difficulty in finding satellite signals. Yet, rebel groups in Mindanao reportedly use satellite phones and conveniently use those phones at will. No satellite signal? Perhaps the difficulty is in the lack of tools. As illustrated in the photo of a Smartmatic-TIM technician raising both his hands to the sky and propped on his hands is a BGAN terminal. Without any other tool, he was looking for a satellite signal. He did eventually, but he did exclaim to his colleagues that he could not hold the BGAN terminal for long. When this was raised during the ANC program, both Dir. Jimenez and Mr. Cesar Flores of Smartmatic-TIM exclaimed, "But that's how the BGAN terminal works!" Or perhaps, there is lack of tools, preparation, and training of technicians on how to set up the BGAN terminals.

Continuity Plan Test/Drill Exercise

The mock elections would have provided the perfect opportunities to conduct drill exercises. Yet no such event happened.

Conclusion

The AES may have been demonstrated to work. But to what degree? Certainly not at 100%. Too many refinements and adjustments needed to be done to the AES. That's what the problems encountered in the field tests and mock election indicated. The time and motion study done by the Center for People's Empowerment in Governance clearly showed that an 11-hour period for voting was not enough. The same study showed that long queues will develop. This warning was ignored by the Comelec. Late on election day, extended the voting period by one hour.

Using Comelec's stringent pass-fail measurement when it weeded out all other vendors who offered the Comelec with their respective solutions, the field tests and mock elections are a failure. The high ballot rejection rate and the intermittent delays in transmission are indicative of the failure of the exercises. The exercises demonstrated that the AES was **not** operating properly.

The Technical Evaluation Committee should not have certified that the AES is operating properly. ***EU-CenPEG Project 3030***

End Notes

1 Republic Act No. 9369, "AN ACT AUTHORIZING THE COMMISSION ON ELECTIONS TO USE AN AUTOMATED ELECTION SYSTEM IN THE MAY 11, 1998 NATIONAL OR LOCAL ELECTIONS AND IN SUBSEQUENT NATIONAL AND LOCAL ELECTORAL EXERCISES, TO ENCOURAGE TRANSPARENCY, CREDIBILITY, FAIRNESS AND ACCURACY OF ELECTIONS, AMENDING FOR THE PURPOSE BATAS PAMPANSA BLG. 881, AS AMENDED, REPUBLIC ACT NO. 7166 AND OTHER RELATED ELECTIONS LAWS, PROVIDING FUNDS THEREFOR AND FOR OTHER PURPOSES"

2 See Section 9 of RA9369 which amended RA8436 by creating a new Section 11 Functions of the Technical Evaluation Committee