Republic of the Philippines
**HOUSE OF REPRESENTATIVES**
Quezon City

14<sup>th</sup> Congress

3<sup>rd</sup> Regular Session

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**CHAIRMAN'S REPORT**


**Re**      **:**      The Committee on Suffrage and Electoral Reforms Hearings on the Alleged Fraud and Precinct Count Optical Scan (PCOS) Machine Manipulation in the May 10, 2010 Automated Elections

**Sponsor**      **:**      Rep. Teodoro L. Locsin, Jr.

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Mr. Speaker:

The Committee on Suffrage and Electoral Reforms, to which was referred complaints on

**"THE ALLEGED FRAUD AND PRECINCT COUNT OPTICAL SCAN (PCOS) MACHINE MANIPULATION IN THE MAY 10, 2010 AUTOMATED ELECTIONS,"**


has considered the same and has the honor to submit to the House of Representatives the attached report:

**A REPORT ON THE ACTION TAKEN AND RECOMMENDATIONS OF THE
COMMITTEE ON SUFFRAGE AND ELECTORAL REFORMS
RE:**

**"THE ALLEGED FRAUD AND PRECINCT COUNT OPTICAL SCAN
(PCOS) MACHINE MANIPULATION IN THE MAY 10, 2010
AUTOMATED ELECTIONS,"**

## INTRODUCTION / BACKGROUND

In both the 13th and 14th Congresses, Chairman Teodoro L. Locsin, Jr. actively led the House Panel in the Joint Congressional Oversight Committee on the Automated Election System (JCOC-AES), a legislative proposal initiated by his predecessor Rep. Jesli Lapus and passed unanimously by the House but for the single dissenting vote of Rep. Edno Joson.  The Senate Panel was chaired by Senator Richard J. Gordon and subsequently, by Senator Francis Escudero.  It was in the 13th Congress that Republic Act No. 8436, deemed as a virtual purchase order for a particular election machine, was amended to provide for a technology neutral and generic version that would favor no bidder.  On January 23, 2007, President Gloria Macapagal-Arroyo signed into law RA No. 9369, which substantially amended RA 8436.  The same was implemented nationwide only in the May 10, 2010 presidential elections and not on the May 14, 2007 midterm elections, four months after the law was enacted, for lack of time according to the Commission on Elections.

The JCOC-AES met almost on a monthly basis beginning the 3rd Regular Session of the 14th Congress.  It became a forum, with the active participation of the winning bidder, Smartmatic–TIM and the Commission on Elections headed by Chairman Jose R. Melo, to reassure the public not only of the viability of automated polls but also of its ability to radically reduce if not totally eliminate cheating in manual elections, such as ballot stuffing, vote padding and shaving, not to mention an alleged protracted vote count that facilitated fraud. The idea was to hasten the election process to enhance the accuracy of the results. It was never to push for speed for the sake of speed but speed only for the sake of accuracy since, in past manual elections, on the local level, and in the highest rankings of the senatorial fights, the results were known by early morning of the day following the election. A feat, by the way, which the last automated elections did not always achieve.

There were continuing, repetitive and increasingly bitter debates on the integrity of the adopted AES, including a Supreme Court challenge that delayed the necessarily long preparations for the first AES but which the Comelec surmounted. Fast forward to the testing and the sealing of the machines on May 6, 2010, four days before the Elections: the Commission on Elections and Smartmatic announced that they would recall, reconfigure and redeploy all 76,000 plus compact flash cards nationwide because of a defective configuration that allowed only the front page (containing the national

positions) of the ballot to be recognized by a PCOS and which misread the double-spaced back page of the same ballot. The defective configuration was wholly unauthorized. Smartmatic-Tim immediately owned up to the mistake and made the appropriate corrections at its own expense. Rep. Matias V. Defensor expressed doubt that such corrections could have been done, if they were done at all, within the short time frame available between the crisis of configuration and Election Day. Smartmatic offered to demonstrate the speed of configuration at its Cabuyao plant.

Come Election Day, there were news reports of malfunctioning PCOS machines in different parts of the country. Many voters were likewise disenfranchised due to the very long queues brought about by the clustering of precincts. Polls were supposed to open at 7 am and close at 6 pm. But due to the delays, the COMELEC allowed a one hour extension until 7 pm.

Most fears were allayed when results from most precincts were quickly transmitted and received by the COMELEC Central Server, **much faster than past media quick counts in manual elections.** Barely two days after the elections, winning candidates for national posts were known. This was unprecedented especially in the lower rankings. The local candidates were known within the early hours of the following day which on the average was 24 hours faster than in previous manual elections. But, contrary to what the public was led to believe, the role of poll watchers became more critical than ever. And they had to be on continuous duty for the succeeding 24 to 48 hours longer, as the case of Rep. Glenn A. Chong showed. Results for president and vice-president were also immediately transmitted but not revealed to the public out of deference to Congress convening as a National Board of Canvassers. Critics of automation were converted overnight, especially those whose candidates won.

The International Election Observation Mission, in a preliminary statement dated May 13, 2010 entitled, "Progress on the Long Road to International Standards" lauded the automated elections for enhancing public faith in the democratic process but noted "incidences of violence and electoral fraud particularly in the ARMM and other parts of the country." Incidents included what the Chair predicted when the AES was enacted: **massive vote buying in lieu of paying off municipal canvassers to alter results, terrorism with voters of known political sympathy yanked out of queues and roughed up, flying voters, and other violations of the Omnibus Election Code. The report emphasized on discrepancies in voter registration and the total lack of ballot secrecy.**

Days after May 10, 2010, reports on irregularities attending the first nationwide implementation of Republic Act No. 9369 as experienced by past and present members of the House of Representatives prompted the Speaker of the House to call on the Committee on Suffrage and Electoral Reforms to give a venue where allegations, grievances and general observations on the conduct of the said electoral exercise could be aired without prejudice to formal election protests in the appropriate forum. The Committee, with the invaluable participation as presiding officers of Reps. Matias V. Defensor, Pedro P. Romualdo and Rufus B. Rodriguez, conducted ten days of public hearings and a day of ocular inspection at Smartmatic-Tim's Cabuyao Plant.

**COMMITTEE HEARINGS**

**DAY 1: May 19, 2010**

The Committee was shown a 30-minute video of an alleged insider speaking about massive vote fraud involving the manipulation of the AES technology and process. Because of his disguise, Chairman Teodoro L. Locsin, Jr. dubbed him "a koala bear" and declared that the video would be totally excluded from any consideration by the Committee, nothing that the masked person spoke in unhelpful generalities.

Chair Locsin started hearing the complainants. **First complainant Rep. Jonathan de la Cruz** alleged that, in two precincts of district 2 in Manila, voting occurred on April 28 though counting was done on May 10. In response, Mr. Eduardo Correia of Smartmatic **explained that some 80,000 PCOS machines were deployed from the Cabuyao plant after their time was manually set, individual machine by individual machine** because they are meant to be stand alone and impervious to manipulation from outside. An observation was made, **Then why are the variances not wildly random but seem to hover around certain dates?** The Chair observed that the time in the audit log spewed by the machine is definitive of the time of the transactions involving the machine recorded in that log and that no other evidence is admissible. He said it is a variant of the principle of which a radio broadcaster reminded him: *res ipsa loquitur*—the thing speaks for itself—and a variant of the parol evidence rule. The only admissible evidence is the written or printed record. Without this feature, of which he, as the leading champion of automation had boasted and with which he had silenced its critics in the House, the machine was vulnerable to manipulation without leaving any trace of it. The public assurance he had made was that the PCOS was susceptible to manipulation but, upon Smartmatic's representation, the manipulated machine would generate a printed record of the manipulation.

**Mr. Heider Garcia** of Smartmatic then said, but with variations, that setting the date and time were function of the Board of Election Inspectors or BEIs and not of Smartmatic-Tim's technicians in the Cabuyao plant prior to deploying. **Earlier he said above that the time was set by Smartmatic technicians prior some of the PCOS's deployment from the Cabuyao plant**. Smartmatic, however, **added that date and time setting may have been done in China where the machines were made prior to shipment, though the Chair noted that the plant in China is in the same time zone as the Philippines.** Mr. Garcia concluded that anyway the maladjustment of the date and time is within the percentage of error expected in the deployment of 76,000 machines. Earlier, the figure was 80,000.

**Commissioner Gregorio V. Larrazabal** noted that, because of the eleven-hour voting period, the time variances could have been corrected in the audit log when the machines were initialized at the start of the voting day when people started feeding ballots into them. Some of the audit logs and election returns or ERs showed ballots fed into the machines at the curiously consistent rate of one every 15 seconds, indicating a

4

single feeder, starting late in the evening after the close of the polls and the end of voting hours.

**Rep. de la Cruz** asked for the inventory of all PCOS and Compact Flash Cards, the list of commissioners in charge of specific regions, including the deployment of the regional directors of the Comelec at the time of the elections.

**Rep. Rufus B. Rodriguez**, referring to the 60 PCOS found in Antipolo, asked for comment on allegations that "player" PCOS were used which were pre-programmed to transmit and cut off the real PCOS transmitting from the precincts. Smartmatic said this could not happen because every PCOS was under the joint control of the Comelec, the DOST and Smartmatic, and that the Consolidation and Canvassing System (CCS) possesses an independent layer of security **which only accepts legitimate transmissions coming from the legitimate PCOS.**

**Comm. Larrazabal** said that there was nothing anomalous with 60 machines being found in the Antipolo house of a Smartmatic technician. As a matter of protocol, the Smartmatic technician on Election Day has the legal custody of the machines and can call the support center and tell them to have them picked up. On the contrary, Smartmatic said that on Election Day, legal custody of the PCOS devolved on the Comelec though the legal obligation to retrieve and return them to the Cabuyao plant belonged to Smartmatic. Smartmatic qualified, however, that it had no authority to examine the PCOS retrieved without Comelec authorization. **Even as Smartmatic talked, tens of thousands of PCOS, along with ballot boxes, remained in the custody of local governments, which refused to yield them despite Comelec's feeble entreaties.**

The legal validity of the digital signature of the PCOS was raised by **Rep. Rodriguez**. He claimed that ERs lacked the required digital signature of the BEI. That was the law. Only a Comelec Resolution did away with the requirement of the digital signature of the BEI Chairman or the members.

**Executive Director Jose Tolentino, Jr.** of Comelec replied that automation law did not actually say that the BEIs should have their own digital signatures to digitally sign the ERs. It was enough if the PCOS yielded its own digital signature, which served as the digital signature of the BEI assigned to that particular PCOS. According to him, this was done to avoid the coercion of BEIs or if they lost their digital keys. In either event, the PCOS could not be closed and would be able to continuing generating ERs while not being able to transmit them. He further said that as long as the CCS can identify and validate that the returns come from a valid source, the CCS will accept the transmission. He further said that if the ERs do not bear its appropriate PCOS digital signature, the CCS would not accept the ERs because it will think that it does not come from a valid source. He did not comment on the observation that the PCOS digital signature is in an iButton which could be given by the BEI to others to keep the PCOS open after voting hours and close it when they had done their business.

**DAY 2: May 20, 2010**

The Committee continued discussion on the digital signature with **Mr. Lito Averia** of Automated Elections System (AES) Watch as resource person. He read RA 9369, of which no one had a copy the day before, and it clearly referred to the E-Commerce Law, which, in turn, defines "digital signature" or "electronic signature" as a mark that is adopted by a person and not a machine.

On Comelec and Smartmatic's explanation of the iButton's function to initialize the PCOS, which the BEI chair used in lieu of her own digital signature, **Rep. Pedro Romualdo** said that all ERs electronically transmitted were then suspect because there was no assurance that the printed ER reflected the real vote count.

In view of the above, **Comelec Chairman Jose R. Melo** intervened through his IT Consultant, **Professor Renato B. Garcia**, by explaining further the concept of the iButton. The iButton, according to him, is nothing but a memory chip which has a password or a PIN same as with a regular ATM. He said that each chip is unique for each and every BEI chair and machine. Therefore, the iButton now becomes a personal digital signature of both the BEI and the machine, and it will not work in any other machine and with any other BEI chair—**unless, the Chair notes, it is turned over to someone else.**

**Rep. Bernardo Pinol** alleged a failure to use or even deploy UV lamps, failure to require the voter's signature in the Voters Registration Record (VRR) after voting, questionable time stamps, and that a huge number of pre-shaded ballots were distributed to bribed BEIs and in MILF-controlled areas. The Chair remarked that his opponent had an even fiercer reputation as an MILF opponent. Pinol noted that the use of unauthorized white thermal papers with MasterCard Citibank and Paylite Visa markings was also observed. The jamming by an electronic device in his bailiwick which caused the delay in transmitting results for two days after elections was included as part of his complaints.

At this juncture, **Dir. Tolentino** commented that most of Pinol's complaints referred to fraud in the conduct of the elections and not the use of the automated election system. He made the usual promise to test any CF card Pinol chose for testing. As to the use of ordinary rolls of thermal paper, some marked MasterCard, Citibank and Paylite Visa or just plain blank, was due to the resourcefulness of school teachers who brought them along or bought them from a store in case the securitized rolls ran out. **To which former congressman Ace Barbers acidly remarked, "Bought them? At midnight?"**

The Chair lauded the initiative of the school teachers in carrying along extra rolls of thermal paper "just in case" but wondered if SM sales girls had the same foresight. Dir. Tolentino said it did not matter if the thermal rolls were not securitized so long as the teachers signed and thumbed them. Smartmatic said in the sealing and testing, the school teachers could have used up all the thermal rolls.

**Former DENR Secretary and Manila mayoral candidate Lito Atienza's chief complaint** centered on different time stamps. He presented his witness, Ms Ronilda

Reluya, a computer operator at the Electronic Data Processing Office of the Mayor in Manila City Hall, who said she witnessed the encoding of election results for Manila as early as April 26, 2010 and that transmissions began early morning of April 28, 2010. He said that, contrary to the law, the Random Manual Audit was conducted in his area only two days after the Election.

In response, **Ambassador Henrietta de Villa**, Chairperson of the Parish Pastoral Council for Responsible for Voting (PPCRV), reported to the body the partial results of the RMA. She said that out of the 1,145 randomly selected precincts, 845 precincts have already submitted reports, 15 precincts' results were in transit leaving 285 precincts with no results yet.

As to the different time stamps, Smartmatic reiterated its explanation during the first day of the hearings, but with this difference:  Smartmatic changed its line from saying the date can sometimes be wrong but not the time, to saying the time can also be wrong. The Chair observed that, in that case, Smartmatic's AES offered no security whatsoever against voting before or after voting hours or Election Day.

**Rep. Angelito Gatlabayan's testimony** included the 60 PCOS and two units of BGAN found in Antipolo, which are presently in the Senate. He manifested that some of the PCOS machines were transmitting even during May 12 at 8:45am contrary to the Comelec's minutes of canvassing which says that transmission closed at 4am on May 11. He also submitted eleven questions for Smartmatic.

Smartmatic's answers to the eleven questions were contained in documentation in the hands of the Comelec. The operating system of the PCOS machines is uCLinux which is a free, open source distribution of software which is in the source code. The main function of the Broadband Global Area Network (BGAN) was to transmit results from the PCOS to the three servers  ---- the Municipal Board of Canvassers (MBOC), the central server of the Comelec and the Kapisanan ng mga Brodkaster ng Pilipinas (KBP). **Gatlabayan wondered why BGANs were used in Antipolo which has vigorous cell sites and is not a remote locality. The Chair said that, too, was his impression from the Joint Committee hearings held in the Senate.**

No bluetooth was used anywhere in the platform. On the software used, many programs were used which were certified by **Systest labs,** which, **Prof. Roberto Verzola** from the University of the Philippines, noted**, had itself lost its accreditation in the United States for collusion with sellers.** The PCOS used its own firmware to count the canvassing stations. It has Visual Basic Shape or C Shell programs in different programming languages. As to the vulnerabilities of the machines to cheating, Smartmatic repeated unhelpfully that uCLinux is an open source software that can be widely consulted with the documentation on the Net. Namfrel head Joey Cuisia had precisely asked for a layman's explanation, which did not mean it would be any less precise and informative, rather than technical neologisms.

**Rep. Roilo S. Golez** stressed that Smartmatic should have ensured that date and time were synchronized, dismissing the argument that PCOS is a standalone machine. That was effective admission that the time stamps added no security feature ensuring the

accuracy of the results. Rep. Golez questioned whether "time" served any purpose as far as the PCOS sender is concerned.

**Rep. Glenn A. Chong's complaint** was the most comprehensive in terms of evidence and the clearest and coherent. Chong stated that various irregularities in the conduct of AES mainly on the procedure and use of the electronic component of the system, differing date/time stamps, voting extended unreasonably to May 11, 2010, unofficial ER thermal paper—those VisaMastercard receipts again—used for local positions. He also observed that audit logs show 1107 more log entries than is necessary to record only 370 valid ballots. In his second addendum, he alleged that a particular CP and CFC showed that the ER was dated January 3, 2010. He asked why if a reconfiguration by the DOST in accordance with a request for assistance was made for CP 7808009, then how come the date was not reconfigured properly to show the actual date rather than January 3, 2010 as reflected in the ER.

**Rep. Monico O. Puentevella** noted single-digit variances of RMA results vis-à-vis electronic results in Bacolod. **Commissioner Tagle said that the difference was caused by counting over-votes. In a manual count, an over-vote is counted while it is rejected in the machine count.**

**DAY 3: May 21, 2010**

Day 3 had Reps. Gonzalez, Joson, Dumpit, dela Cruz, Susano, Mitra, Chong, Biazon and Former Rep. Lopez as complainants. The presiding officer allowed all complainants to talk first before answers were requested from the resource persons.

**Rep. Raul Gonzalez, Jr.** asked for a certification from Comelec-Iloilo on the number of CF cards that were successfully transmitted electronically. He **alleged that only 20 percent or less of the CF cards were transmitted electronically** and that all the rest were transmitted manually. According to him, the manual delivery to the City Board of Canvassers (CBOC) was discordant with the security protocol required by law. He also cited the long lines which turned away voters.

**Rep. Thomas Dumpit, Jr.** spoke of irregularities in La Union: switching of memory cards, inability of PCOS to transmit, **"technicians" intervening under the guise of troubleshooting,** memory cards brought to the MBOC for counting and consolidation, and **PCOS transmission results indicating that they were still transmitting at the precinct level while at the municipal level the indication was of completed transmissions.** He alleged vote padding of one to two hundred votes for his opponent while 5,000 stray ballots favorable to him were lost.

He addressed three questions to the panel of IT experts, to wit: 1. Is it possible that compact flash cards or memory cards [COULD] be pre-programmed and switched by technicians during counting? 2. Can PCOS machines be manipulated to transmit pre-programmed results? And 3. Can election results be manipulated once the PCOS machines go online or when the modem is connected to the PCOS?

He also found the RMA irregular and contrary to the general instruction which should have been done right after the voting is closed at the precinct level and in public view or in the presence of the different parties or their representatives.

**Former Rep. Ruy Elias Lopez** complained that **after the final testing and sealing, watchers were not allowed to perform their duties to safeguard the PCOS from tampering as the access to the machines was prohibited. The use of priority numbers was used as a preferential treatment for the supporters of his political opponents. Other observations were the following: instances of pre-shaded ballots,** absence of UV lamps, **non-release of ERs in more than two hundred clustered precincts, non-release of SOVs by the CBOC.**

He said that the minimum capability requirements under section 7 of RA 9369 were not met such as the very basic voter verification feature of the machine.

**Rep. Mary Anne Susano** decried the lack of ERs in her district in Quezon City. She asked how secure the CF cards were during the elections. To make her point, she presented a CF card and stated that she has more of the CF cards to emphasize her dissatisfaction with Smartmatic's Cesar Flores' answer that the CF cards were one hundred percent safe and that everything is encrypted using 128 bytes of encryption, which is the security that the banks use to scramble data.

**Mr. Flores** explained the chain of custody of the electoral materials. **According to him, at the close of voting hours the main memory card is supposed to be taken by the BEI to the MBOC.** The back up card should be left inside the PCOS, for which there is a seal. PCOS and backup card are returned to Cabuyao. A procedure is still being worked out with Comelec as to what will be done with the back up cards. Flores said that after closing but before transmission, the back up cards store all the data. If the card is not inside those machines, Mr. Flores said that it cannot store the data, **and Smartmatic has no control because that is the role of the BEIs. He stressed that Smart technicians do not touch the PCOS. It is the Comelec's BEIs who operate it.**

**Rep. Romualdo** disputed this, saying that in his district, **Smartmatic technicians were the ones handling the PCOS.**

**Rep. Abraham Kahlil Mitra's** main issue was his disqualification case for governorship in Palawan due to lack of residence requirement by law. He questioned the timing of issuances of Comelec decisions as regards his considering that there were several disqualification cases filed before the Comelec. He mentioned the statement of Chair Melo in one of the JCOC on Automation meetings in the Senate where he said that Comelec will lean well over backwards in disqualification cases unless it's a nationality issue. The Comelec en banc decision regarding Rep Mitra's disqualification came out on May 4, 2010. On May 7, 2010, three days before Election Day, the Supreme Court issued a TRO hence he was proclaimed governor of Palawan by a landslide.

**Commissioner Gregorio Larrazabal** answered Rep. Mitra. He cited the similar case of *Abello v. Comelec* where the gubernatorial candidate was allegedly a registered voter of an independent city that was not allowed to vote for provincial offices and the SC ruled that if you are a registered voter of a city that is not qualified to vote for provincial

positions, you are not qualified to be a candidate of the provincial office. That candidate happened to be Larrazabal's own mother so he spoke from direct experience. As to timing, he said that speed in deciding cases depends on the *ponente.*

**DAY 4: May 24, 2010**

The list of questions posed by the complainants on Day 3 was directed to officials of the COMELEC and Smartmatic.  Information Technology experts were on hand for their reactions.

**Rep. Matias V. Defensor** asked  Smartmatic about the total number of CF cards in its possession for the 2010 elections and the short period of time for reconfiguring either retrieved erratic CF cards or configuring fresh ones. He likewise asked for confirmation as regards dates and total numbers of importation of new CF cards on May 5-8, 2010.

Smartmatic, according to **Mr. Cesar Flores**, started reconfiguration with 18,000 cards, which were already in their warehouse. As the other cards were being retrieved, they also placed a purchase order of 63,000 more cards in Taiwan and Hongkong as a contingency in case retrieval took long. For cards that were not retrieved, the procedure was for BEIs to surrender the wrongly configured card to Comelec EO for return to Cabuyao. Reconfiguration of CF cards, took place between May 4 and 7, 2010. Redeployment of the same started May 8, 2010.  With respect to actual numbers of CF cards and dates of importations of new cards, he promised the body to submit an inventory of the same. A promise he fulfilled.

**Rep. Pedro Romualdo** raised the possibility of intentionally configuring the CF cards wrongly in order to create a crisis. Indeed, said Chair Locsin, it could have been malicious but he noted that the wrong configuration was discovered by Smartmatic and announced by Comelec and him, the Chair, that there was a mistake.  And that it had to be corrected in three days or they were mobilizing for manual elections in case they could not do it. In the event, But the reconfiguration of all the cards took all of just three days. **Smartmatic admitted that the error was inexcusable because the same thing had happened in automated elections in California conducted by another company but that case had completely slipped their mind. A similar error happened in Sulu during the first ARMM elections; it also had to do with the ballots themselves, the Chair notes.**

**Atty. Al Vitangcol,** a Certified Hacking Forensic Investigator from AVALaw Office, confirmed that the process of reconfiguration could be done in an instant.

Meanwhile, **Dir. Jose Tolentino** informed the body that no manual counting was conducted. Hence, the instructions were for the BEIs to wait for a reconfigured card. **In the meantime, ballots were fed one by one, not personally by the voters, but by the candidates and the watchers. Tolentino admitted that BEIs could feed the unused ballots if watchers were not present** until the unused ballots were torn in half at the end of the voting day. **In line with its policy to investigate early proclamations, he said that Comelec has been gathering data from their BOCs from the provincial down to the municipal to find out what were actually**

**transmitted, the precinct results, and what were physically brought to the canvassing centers.**

**Governor Robert Ace Barbers** found it unbelievable that he lost along with his vice-governor, two congressmen and twenty-one mayors in Surigao. He claimed that a man approached him offering his services to rig the machines so all of them will win. Otherwise, the same offer would be made to his opponents. He also said that Citibank thermal papers were used in the middle of the night when the BEIs ran out of paper. Considering that billions of pesos were allotted for the elections, Barbers was surprised that there was no sufficient supply of authorized thermal papers. He noted that, curiously, unauthorized thermal papers were used only for local positions whereas national positions used securitized official Comelec thermal paper. **He showed a video of a BEI snipping a ballot to make it fit in the machine since it had apparently grown in size in the night. Comelec said it had also happened in Hong Kong though no one had snipped the ballot. They had waited for the damp ballot to dry and shrink back to the right size. It happened because the precincts were airconditioned overnight and when the plastic sealed ballots were opened the damp rushed in and was sucked up by the ballots which then expanded.**

**Rep. Ruffy Biazon's** queries were the following: 1. Did Smartmatic actually do an audit of all PCOS with wrong dates in order to say that it is within that allowable margin or error? 2. Is this policy within Comelec and Smartmatic that there is an allowable margin of error in the programming dates? And 3. If a policy is in place, how does it reconcile with the provision of the law, which states that ERs should contain the date of the election to be valid as ERs?

Mr. Flores said that the main CF cards are in possession of Comelec at the MBOCs; retrieval of back up cards from the PCOS is ongoing; only 15,000 PCOS are in Cabuyao as of that day; that Smartmatic cannot touch the PCOS to examine them without authorization from Comelec; and if some cards were stolen, Smartmatic can only do an audit of the ones that were received in Cabuyao. **He stressed *pace* his colleague Heider Garcia that there is no policy as to allowable margin of error** but the policy of replacement of erroneous or broken machines within the acceptable margin is true.

Rep. Biazon terminated his observations by saying that the question really is: can we accept PCOS generating ERs with the wrong dates and times when the law requires ERs to bear the correct date of the elections which is May 10, 2010 and not, as in some ERs, April 25, 2010?


**DAY 5: May 25, 2010**

**Atty. Homobono Adaza**, a former assemblyman, threatened to file charges against the Comelec and co-conspirators. He said that all the proclamations made of winning candidates in all positions nationwide must be declared null and void because proclamation must be based on official documents. Electronically transmitted election returns must bear not only the digital signature generated from the PCOS machines but the digital impression of the chairman and the members of the Board of Election

Inspectors. He further alleged that there was cheating in the last elections. The meeting went into executive session so he could speak without inhibition.

Upon resumption of the public hearing, **Misters Taruc and Tan** of Tagaytay City alleged: (1) That **three PCOS machines were taken out by the back entrance of the city hall, loaded into the Mayor's closed van Ford 150; (**2) The schedule **of testing and sealing of machines was suddenly moved to another date;** (3) CF cards were delivered to the precincts not by Comelec but the City Administrator and the Executive Assistant to the City Mayor in complete violation of Comelec's own resolutions and laws; and (4) **Poll watchers for Nacionalista Party were not allowed inside the precincts.**

**Rep. Arrel Olano** questioned the conduct of RMA in Tagum City due to the difference between the actual number of voters against the total number of votes. He was suspicious of the high percentage of actual voters considering the non-stop rains on May 10 in said city.

**Ms. Grace Rinosa Plazo**, Kapatiran senatorial candidate alleged that her votes were electronically shaved to favor other candidates. She presented copies of the COCs to support her allegations.

**Ms. Patricia Gutierrez,** mayoral candidate of Tiwi-tiwi, Albay, said that she filed a protest because the ballots favorable to her were mostly rejected due to wrong instructions from the BEI. **According to her, the BEI Chair asked the voters to put their thumb marks first before actual voting which caused the rejection of the same by the machine. More votes were counted than there were voters.** Many were disenfranchised due to selective voting.


**DAY 6: May 26, 2010**

**Mr. Cesar Flores** asserted that it is not possible for a pre-programmed compact flash card to pad or shave votes. He explained the time stamp issue as a consequence of the stand alone nature of the PCOS which are not supposed to communicate with each other or accept data from outside. That is why date and time could not be electronically synchronized correctly to avoid the perception that someone can feed data from outside into the PCOS. **Because they are stand alone, there is no way for them to "talk," for instance, with the phone company, or with the server, so they can be told what time it is. [But compare with Heider Garcia's testimony earlier, Chair's note.]**

**Rep. Biazon**, however, reiterated his concern with the timestamps which put in question how reliable is the work of Smartmatic citing three instances: the server in the National Board of Canvassers, the server in the House, and the date stamps on the PCOS machines. He wanted to hear from Comelec its position on ERs with wrong dates.

**Mr. James Jimenez,** spokesperson of Comelec, confirmed Rep. Biazon's contention on the requirement of the correct date in the ERs under the law. According to him, the time stamp issue is a different story where the ER bears the correct May 10 date of the election.

**Ms. Bettina Quimson,** Director of Philippine Software Industry Association, commented that the database, which is an engine in itself, is even more important than the actual program. **She said that one can play around with the data within the database structure without actually touching the code of the main program.**

**Former MTRCB Chair Manoling Morato** testified under oath that he was approached by six (6) men allegedly from the Commission on Elections claiming to have the ability to alter election results in favor of any presidential candidate for 1 billion pesos. The **Chair told him to try to ID the men in the Comelec's** *plantilla.* **James Jimenez offered to make the** *plantilla* **available to him.**

There was a motion duly approved to test the compact flash cards in the possession of Rep. Susano to check what it contains but there was no laptop with a CF card reader in the venue.  It was likewise agreed that Smartmatic set up a "mini Cabuyao Plant" at the Andaya Hall such that the IT experts will be able to test the system that Smartmatic used to automate the recently-concluded national elections. The Chair raised the option of going to the Cabuyao Plant instead.


**DAY 7: May 28, 2010**

The Chair was quoted as saying in his opening remarks that, "Finally, if some losers are whiners, some winners are cheaters."  He likewise announced that the visit to Cabuyao Plant would be on May 31, 2010, Monday at 9:00 AM.

**Rep. Munir Arbison** said that no voting by registered voters occurred in some municipalities in Sulu because **armed men fired upon them on election day and yet, to his surprise, almost 50 percent of the clustered precincts registered 100 percent turn-out.** He added that**, as shown in the audit log, one voting center continued voting beyond 7:00 o'clock and it lasted until 10:30 in the evening of May 11, 2010.** In some precincts, multi-sheets detected indicate that there was no actual voting by registered voters because official ballots were fed by one person.

As a follow up, Rep Joson reiterated his request for transmission data—how many PCOS performed, what percent complied with the transmission and how many broke down. Mr. Flores answered by saying that information on transmission is in the municipal servers, and that retrieval of the laptops is necessary in order to have a complete map and analysis of  transmissions.

The **lawyers of Rep. Rolando Uy** brought with them a video showing what appeared to be ballots and compact flash cards in a dumpsite in Cagayan de Oro. Under the custody of PPCRV, these CF cards were later tested in Cabuyao on May 31, 2010 with some congressmen, PPCRV, IT experts and media.

Rep. Annie Susano and a technician from the COMELEC Quezon City showed to the body the contents of the CF card in the former's possession.  The authenticity of the CF card had yet to be verified. Its contents were later verified on the last day of hearings as genuine and definitely Smartmatic's.

**Chairperson Jose Cuisia** put forth the observations of the National Movement for Free Elections (NAMFREL) on the recently concluded elections. Among other observations

mostly similar to those of the complainants, NAMFREL stressed the need for accessibility as regards complete documentation on the contract between Comelec and Smartmatic-TIM in order to assess the contractual obligations between them. He also agreed that there should be a full accounting of all the CF Cards and PCOS machines.

Relative to the statement of Mr. Cuisia that a PCOS in the wrong hands may be used for cheating, Mr. Flores said that nothing much can be done if there is already a transmission in the server and there is already a result and thirty copies of the ERs were already produced even if someone got hold of a PCOS machine. **But, Mr. Flores stressed, previous to transmission, one can do whatever he wants with the PCOS if he has both the ballots and the machine.**


## DAY 8: May 31, 2010 Trip to Cabuyao Plant

The members of the committee with IT experts and the media went to the Cabuyao Plant to witness demonstrations by Smartmatic in response to a number of concerns raised in the hearings. The results of which were communicated in a report requested by the Chair from Mr. Cesar Flores. The report addressed concerns on multiple transmission, pre-programmed compact flash cards and the authenticity of the CF cards found in a Cagayan de Oro dumpsite, among others. The report is as follows:

> In order to satisfy concerns regarding the feasibility **of reprogramming 76.347 CF Cards in 4 days:**
> - Demonstration of how CF Cards are programmed and the methodology used to reprogram 76.347 CF Cards in 4 days.
> - The 50+ thousand unused cards imported by Smartmatic-TIM were shown to the public.
> - The approximate 60,000 PCOS machines already retrieved from the field were shown to the public.
> - The actual stripping of the machines and the inventory of backup cards will start tomorrow with the presence of the political parties. There is no confirmation of this took place as announced by Smartmatic.
> - **The TEC attested that the 3 PCOS machines prepared for the demonstration are using the same application that is kept in the Bangko Sentral ng Pilipinas, to wit, the so-called Source Code. –This was done through Hash File verification in the presence of the IT experts.**
>
> In response to the concern regarding the alleged omission of the PCOS to record the number of rejected ballots:
> - The following was be fed into the first of the PCOS machines to generate rejections:
> - Blank sheet of paper.
> - Ballot from an incorrect precinct.
> - Previously scanned ballot.
> - **At the end of the demonstration the statistical report of the PCOS were reviewed to verify that rejections are indeed recorded.**
>
> In response to the concern regarding the alleged double canvassing of an ER if the PCOS transmits more than one time:
> - PCOS #1 was closed and its ERs printed.
> - The transmission was executed and the time recorded.
> - The received ER was visualized in the CCS System to prove correct reception.
> - The PCOS was instructed to transmit 2 more times.
> - **The ER was again visualized in the CCS System and it showed no additional votes were added. Additionally the logs of the CCS were**

**reviewed to show how the repeated transmission was identified upon reception.**

In response to the concern regarding the alleged undetected transmission of spurious results from "PCOS of another brand and another color":
- An additional PCOS with the same configuration as the first was prepared and a different amount of ballots were fed to generate ERs with a different result.
- The PCOS transmitted to the CCS.
- The CCS tagged the transmission "under observation" and results were not canvassed for that precinct.
- **Logs of the CCS were printed to show how the conflicting results are detected by the CCS and therefore spurious results cannot be added to the Canvassing system.**

In response to the claim that Audit Logs can be tampered with:
- The CF Card from PCOS #1 was taken out and the log was edited.
- The CF card was inserted in the PCOS and the PCOS restarted.
- The PCOS failed to start up because of a failure to validate the digital signature of the Log File.
- This test proves that the results and all the data in the CF cards are digitally signed according to RA 9369

In response to the claim that protected backup cards can be tampered with:
- The Protected Backup CF Card from PCOS #1 was analysed.
- An attempt to delete a file failed.
- **An attempt to write a file on it failed.**

In response to the concern regarding the alleged possibility of loading results multiple times from a CF Card to distort the results in the Municipal COC:
- The CF Card from PCOS #2 was taken to the MBOC Laptop.
- The Results contained in the CF Card were loaded into the CCS.
- The Loaded ERs were verified in screen.
- The results in the CF Card were loaded again.
- **The ERs were verified on screen as showing they were not altered or added twice.**

To address the concern of the NBOC of Congress regarding the existence or not of digital signatures that authenticate the source of an electronic COC:
- The Backup CD of the MBCO was created.
- The COCs stored in the CD was loaded in the PBOC laptop.
- The COC imported was visualized on the PBOC screen to verify its accuracy.
- The file containing the COCs generated by the MBOC was copied on to a device that is not read-only.
- The electronic COC was tampered with.
- The tampered COC was attempted to be loaded in the PBOC laptop.
- **The PBOC laptop rejected the inauthentic COC.**

In lieu of responding the question whether or not the CF Cards found in Cagayan de Oro are authentic:
- A Hash file of the contents of the CF Card in question was made to guarantee there is no edition of the contents of such card during the analysis.
- Smartmatic and COMELEC decrypted the cards and stored the unencrypted files in a separate storage device.
- The success of the decryption shows the content of the cards was legitimate and generated by the AES.
- **Opening of the logs and results, the conclusion is that the cards come from 4 precincts that successfully transmitted results to the AES and no tampering was done. All 4 CF cards are genuine.**

While analyzing the CF cards of Cagayan de Oro, the digital image of the scanned ballots in those precincts was shown. This is critical to prove:
- **All main CF cards save an image of every ballot scanned, together with**

**the interpretation of the ballot by the PCOS machine. This is a crucial tool for any type of audit or recount.**

- **The fact that the firmware generates a single JPEG file with the scanned Ballot Picture and the Interpretation of the ballot debunks the theory of the possibility of tampering with the system of coordinates of the configuration file to alter results without leaving a trail.**

## DAY 9: June 2, 2010

The committee distributed to the members the Smartmatic report on the Cabuyao plant visit and demonstration held on May 31, 2010. The said report was previously distributed to the IT resource persons present.

**The Chair** reported to the committee members that the site visit and demonstration was, in his opinion, a success and SMARTMATIC was able to answer concerns raised in the previous hearings regarding the points contained in Smartmatic's summary of what transpired at the Cabuyao plant visit but not as to other issues, such as the time and date stamp issue.

**The Chair** also reported/commented that: (1) the CF Cards found in the Cagayan de Oro dumpsite were authentic and the files inside the same as the results of four precincts that successfully transmitted results of the APS and no tampering was done; (2) All main CF cards save an image of every ballot scanned, together with the interpretation of the ballot by the PCOS machine. This is a crucial tool of any type of audit or recount; **(3) if the PCOS turns out to be susceptible to malfunction or manipulation, they invariably leave an incontrovertible trace and indisputable record of the events;** and **(4) SMARTMATIC had, as provided for in its contract, turned over to COMELEC all the technology know-how, encryption codes, and procedures of the AES.**

**Ms. Bettina Quimson** who was among the IT experts present in the demonstration confirmed that, **in general, she was satisfied with the demonstration with the qualification that the same was done in a controlled environment.**

**Mr. Lito Averia**, who was also present in Cabuyao, **also said he was satisfied** although he raised concerns as to the configuration of the CF Cards deployed in the field and the central server.

In response to the concern of Mr. Averia that some technicians may have re-configured the CF Cards with a malicious program, **Mr. Flores said the Cabuyao plant was under surveillance 24/7 for six months.**

**Rep. Roilo Golez** pointed out that a substantial amount of money, resource, and manpower was needed to **conduct a nationwide fraud to favor any one national candidate. He elaborated on this a great length, stressing the scale of endeavor to replicate Smartmatic's automation project from scratch.**

**Rep. Rufus Rodriguez** reported that Comelec/Smartmatic sent, prior to the elections, 20 CF Cards and 2 burners to the Cagayan de Oro DOST office.

**Mr. Dennis Villorente** (Representative, Department of Science and Technology) confirmed that the Cagayan de Oro DOST had in its possession the 20 CF Cards and 2

burners. **Mr. Villorente testified that a Memorandum issued by Director Jose Tolentino, Jr. authorized the distribution of 20 blank CF Cards and 2 burners to all provincial election supervisors and that DOST to take part in the re-configuration of the CF Cards during the elections.** The protocol was also part of a contingency plan in the event there were defective CF Cards needed to be replaced during elections.

**Rep. Rodriguez** expressed his **grave concern that Director Tolentino had issued an order for the distribution of 20 CF Cards and 2 burners to each province**. Rep. Rodriguez counted 1,600 blank CF Cards for all the 80 provinces. He also pointed out that **this order was kept from the PPCRV and the public.**

Returning to the issue of the Cabuyao plant visit and demonstration, **Mr. Villorente** confirmed that, based on tests the DOST conducted in preparation for the elections, the PCOS Machine had a 100% accuracy reading result.

**Mr. Roberto Verzola**, a University of the Philippines mathematician, stated that he could not make any conclusions regarding the integrity of the AES because the process was difficult to fully understand given the limitations. More access to the full documentation of the system was necessary. Mr. Verzola further stated that it is highly improbable for an outside hacker to hack the AES. **Only an insider who had access to the system, encryption codes, and protocols could hack the system.**

**Rep. Yevgeny Vicente B. Emano** placed on record that his father won the elections in Cagayan de Oro and expressed sadness about the impression there was cheating in the said province.

**Mr. Rene Diaz** testified that in his province, **38% of the precincts experienced transmission failure and canvassing took six days,** which squarely placed in issue the integrity of the elections.

Upon inquiry by several committee members, **Mr. Flores** admitted that the **CF Cards can allow reinsertion and acceptance of already scanned ballots. He likewise confirmed that Smartmatic had given full knowledge to the Comelec how to operate the AES.**


**DAY 10: June 3, 2010**

**The Chair's** opening remarks included the following observations: (1) Among the results of that visit, by the way, for those who are protesting their elections, is the declaration that audit logs are unalterable, indubitable and faithful records of everything that transpires with regard to the PCOS machines and should be taken at face value, so with ERs; (2) The CF cards can allow the reinsertion and acceptance of already scanned ballots. [Later, both Ms. Quimson and Mr. Cesar Flores said that scanned ballots can be re-fed into the computers even without a change of CF card.]; and (3) All the know-how, technology, paraphernalia, et cetera, and what have you, of the automated election system was turned over to COMELEC as it was developed so that months before May 10 COMELEC knew as much as Smartmatic how to use the system that, after all, COMELEC had paid Smartmatic for.

The National Printing Office (NPO) represented by **Ms. Grace Enriquez**, was summoned to enlighten the body on the issue of the use of NPO's own security markings and additional use of UV lamps. Ms. Enriquez testified that the NPO did not overprint ballots nor did it favor any supplier. **She further testified that it was SMARTMATIC who provided for all the paper, UV ink, and several printing machines for the use of NPO.** Mr. Flores confirmed this. Ms. Enriquez explained that the reason for the inability of the PCOS machines to read the UV ink printed ballots was because of the lessened density of the UV ink due to the heightened speed of the printing to meet the deadline. Mr. Flores confirmed this. Ms. Enriquez testified that the NPO placed its own security mark in the ballot.

**Mr. Ray Anthony Roxas-Chua III** (Chairman, Commission on Information and Communication Technology) lamented the treatment the Advisory Council was getting from the Comelec and cited as an instance the failure of the Comelec to seek the advise of the Advisory Council regarding the NPO security mark which could have compromised the system.

**Mr. Martin Ilagan** (Vice Mayor, San Pablo City, Laguna) testified that certain persons claiming to be brokers of SMARTMATIC and Comelec approached him to rig the elections by re-configuring the CF Cards. Mr. Heider Garcia of SMARTMATIC responded that the CF Cards are unhackable and the central server is protected by firewalls Ms. Quisum said that firewalls made it futile to examine Smartmatic's impenetrable AES at its Cabuyao plant.

**Rep. Golez**, **Rep. Rodriguez,** and **Commissioner Larrazabal** discussed the legal effects of the failure of the Canvassing and Consolidation System (CCS) to print the Statement of Votes.

**Rep. Celcilia Seares-Luna**, thru Atty. Fe Citon, testified that elections in Abra were marred by violence and intimidation. She said several PCOS had to transmit because of the mountainous terrain of the region.

**Rep. Rodante Marcoleta** shared his experience during the elections where the transmission dates were in January 17, 2010. **Director Tolentino responded by saying this is impossible because the AES was not yet set up for receiving transmissions at that time.**

**Rep. Glenn A. Chong** presented his case before the committee by submitting documentary evidence of conflicting PCOS and CCS audit logs relating to the same precinct as well as affidavits executed by his watchers.

**Rep. Rodriguez** placed on the table for discussion the highly irregular action of Director Tolentino in issuing without the authority of the Commission a Memorandum dated May 9, 2010 to distribute 1,600 blank CF Cards throughout the DOST Provincial Offices without any authorization by the Commission. Rep. Rodriguez questioned the propriety of this order and called it highly irregular, to wit:

> REP. RODRIGUEZ. No, Mr. Chairman. That's not the only issue. There are three issues. First, authority, who authorized Smartmatic to send these blank cards?
> Number two, transparency. Why were the PPCRV not informed? Why were the political parties not informed? These are blank cards, although…they would come from

Cabuyao, [still what] if it is transmitted by unscrupulous persons from Cabuyao to these areas in the provinces? These are the issues that we would like to be answered.

The issue of authority, the issue of transparency, and then the next issue is custody and what really happened to these cards. We are still waiting…[for] the number of blank cards that were reconfigured and which provinces [were involved] and which were not reconfigured. Where are they now, these blank [cards]? Because they might have been brought somewhere else.

First, authority. Mr. Smartmatic, who authorized you to send 1,600 [blank CF cards and two burners}?

MR. FLORES. COMELEC.

REP. RODRIGUEZ. Mr. Chairman, that would be irregular. This kind of approval. … We were in Cabuyao, nothing was revealed about 1,600 blank cards roaming around. What was only stated is that 76,000 were reconfigured and the 50,000 unused were there. [The] point is that there should be an authority. We cannot from [the] say-so [of] Commissioner [Larazabal say] that [it was ratified to] allow it. **What are the documents to show that [Tolentino's actions] were really authorized?** Because it would show that there are just people who decided to just release [the decision to send out 20 blank CF cards and two burners per province. Since there is no memorandum or resolution from the COMELEC En Banc, that is entirely the question now. Nobody knew about it until Cagayan de Oro came out…There are no documents to show that this plan was authorized either before May 9 or even after...even up to now. The next point, Commissioner. This is something that the public should know. The PPCRV being the citizen's arm to make sure transparency exists in the election, were they informed and the political parties of this plan?

**Rep. Rodriguez** pointed out that Director Tolentino failed to produce or mention any Memorandum or Resolution by the Commission authorizing him to issue this Order dated 9 May 2010. Commissioner Larrazabal said though that the Comelec En Banc had subsequently ratified the Order.

## DAY 11: June 8, 2010

**Rep. Ma. Amelita Villarosa** (Deputy Speaker) shared her experience in Occidental Mindoro where some PCOS Machines initially failed to read any votes during the testing but were eventually fixed when the CF Cards were replaced.

**Rep. Glenn A. Chong** continued presenting additional evidence in support of his allegation of electoral fraud in his district.

**Rep. Matias V. Defensor** initially questioned Mr. Cesar Flores on the Filipino partners of Smartmatic and whether the iButton key of a PCOS Machine can be used for other PCOS Machines. Mr. Flores responded by saying that he has no reason to distrust his Filipino partners and that each iButton relates to a particular PCOS Machine. **Rep. Defensor then asked if the technicians can manipulate the PCOS Machine, in particular the time log. Mr. Flores said that the only way that this can be done is thru the use of a diagnostic configuration card which is a universal card that can be used for all of the PCOS machines.** Upon further inquiry by Rep. Defensor, Mr. Flores said that **these cards are kept only in the Cabuyao plant and are not issued to the field technicians.**

**Mr. Nicanor Perlas** (Presidential Candidate) observed that he saw a diagnostic configuration card being used in the Senate when the PCOS Machines were being presented to the Senators. Mr. Flores said they were ordered by the COMELEC to bring the said diagnostic tool.

**Mr. Al S. Vitangol III** (Certified Hacking Forensic Investigator, AVA Law Office) answered the question of Rep. Rozzano Rufino B. Biazon regarding the closing of the PCOS Machine during election day. Mr. Vitangol explained that once the results command of transmission is activated in the PCOS Machine, the results of the counting are automatically saved in a write-protected file in the CF Card and theoretically can no longer be tampered with.

**Rep. Thomas L. Dumpit, Jr.** presented to the committee **Mr. Jonathan Malalang**, the former operations director of LRA Pacific Management Consulting Incorporated) who testified on his "strange" experiences as the operations director of the National Support Center (NSC) for the SMARTMATIC field technicians during the elections. He narrated how he thought SMARTMATIC undermined his job and the operations of the NSC. He likewise expressed surprise that during the elections, the TV results were faster than the results of the NSC. Mr. Flores explained that the KBP had their own server as mandated by law which is why the results were publicly known ahead of LRA. The curious machine in the LRA was not a "super computer" but just a stack of hard machines.

**Rep. Nur G. Jaafar**, although a winner in the elections, questioned Mr. Flores on the functionality of the PCOS Machine. Mr. Flores admitted that the ballot count in the CF Cards can be re-zeroed if re-initialized and a count redone. This however will be reflected in the audit logs. Mr. Flores also admitted that if a candidate has total control of the precincts, of the BEIs and the watchers, the machine can be totally manipulated and there is nothing that can be done to prevent such a fraud.

**Rep. Mary Anne L. Susano** informed the committee that the CF Card she had was tested in Cabuyao and it was found to be authentic.

**The Chairman** reiterated to Director Tolentino the request by the committee for an inventory report of the CF Cards and PCOS Machines of certain areas. Comelec had not acted upon most of the requests for documents requested during the hearings. The Chairman placed this on record so the next Congress can be apprised on the level of participation of Comelec in these hearings.


On June 8, Chair Locsin formally closed the proceedings that began on May 19, 2010.

**OBSERVATIONS, CONCLUSIONS AND RECOMMENDATIONS**

1. LEST IT BE OVERLOOKED, there was no failure of elections, contrary to the hysterical warnings of pundits and politicians. The closest the country came to failure of elections was the thoroughly inexcusable wrongly configured CF card crisis days before May 10—a case none of the doomsayers anticipated. In that respect, congratulations are due the Comelec, the PPCRV, and the other advocates of automated elections. Elections proceeded exactly as manual elections in the past had done. After the initial elation, automated elections generated in the public the same guarded but universal acceptance of national results. To be sure, in the cases investigated by the House Committee on Suffrage, there were, as compared to manual elections, longer and more puzzling delays and curious behavior by election officials conducting the polls on the ground (BEIs), before, during or after official voting hours, before, on and after Election Day, and in the counting, transmission and canvassing of the votes. Indeed, the most lavish praise for the automated election comes now from those who were intransigently opposed to it, e.g., the Liberal Party, whose sweeping attacks defied rationally concrete response. Ironically, the main lawyer of the winning Liberal Party presidential bet would say upon the proclamation of his client that, without automation, his client would have lost. That is exactly what the Chair of the House Suffrage Committee assured kin of presidential bet Noynoy Aquino when they expressed apprehension over automation early in the campaign. Automation was their last best hope of an honest count and canvass of Aquino's votes in light of his declining popularity, was the Chair's assurance. In the event, Aquino recovered in the surveys and swept the elections for president. The winning vice presidential bet was only occasionally vocal in his apprehension of automation. The Chair had extended the same assurance to the winning VP bet, who has since generously acknowledged that automated elections gave him the confidence to focus his attention electoral exertions singularly on winning more votes rather than dividing and scattering them to protect his votes as well.

2. One can only speculate if what we are hearing today is a late conversion to automation as such or a belated recognition of the "advantages" of automation.

3. The Chair thinks the praise is welcome but undeserved in the case of the winning presidential bet. Mr. Aquino's lead was so wide as to defy defeat in any kind of election: manual, manual with cheating on the usual 1 million vote scale (there was never such a thing as an attempt to cheat on the scale of 3 to 5 million votes), or automated with or without the glitches and the electronic mis- and malfeasances revealed during the hearings of the House Committee on Suffrage. In light of this extraordinary result, the jury is still out on the advantage of automated over manual elections.

4. Automation's advantage clearly figured in the tighter VP race. It is indicative of the conduct of automated polls on the national level that none of the losing national candidates filed a protest.

5. A tight presidential race, however, where the difference was in the tens or even hundreds of thousands, say, in conjunction with the anomalies uncovered in our hearings, would have thrown the country into turmoil. So, on the national level,

our assessment is of a mixed success. Automation showed no substantial advantage. On the local level, our assessment is profound unease.

6. The anomaly that stood out in the House investigation is the time and date stamp issues which had audit logs showing voting outside voting hours, none during voting hours, elections held before or after May 10, as well as transmissions at improbably late hours or even days after, where the count underwent sudden and radical reverses, whether the transmissions were electronically done or physical delivered. The goal of automation was never twofold: speed and accuracy. It was always singular: accuracy. Heightened speed was just a means to enhance accuracy because it left less time to manipulate the canvass manually. But what if the cheating was electronic? Then speed merely made cheating too fast to see, pre-shaded ballots impossible to distinguish from legitimately shaded ballots, and the rest of the electoral process was concealed by technology from the public eye. The original complaint of opponents of automation in the early stages of its legislative introduction, which does not make it invalid. Quite the contrary. The objection of lack of transparency was outvoted but not answered.

7. Smartmatic's explanations of the time and date stamp variances achieved only fitful credibility. The explanations shifted from cavalier dismissals of the variances as trivial, to suddenly grave acknowledgment of their seriousness, marked in between by what Smartmatic tried to pass off as educated guesswork as to what might have gone wrong. Until all the PCOS are retrieved, stripped down, and eviscerated mechanically and the programs analyzed, we will never know why elections took place on the wrong days and at the wrong times according to documentation generated by the PCOS themselves.

8. Smartmatic ended its presentation with the generous but impracticable suggestion of a full-blown, monumental post mortem of the kind that no sensible election system should require for the validation of its results. An automated election system that requires for its validation an effort that would be equal to or greater than that required for the conduct of an actual national election should not be adopted.

9. Equally generous was Smartmatic's offer to rectify at its own expense the wrongly configured CF card crisis. It deflected the unanswerable criticism that this was the closest to, and most real threat of a failure of elections. The oversight was entirely predictable. It had happened before in another jurisdiction overseas. Smartmatic admitted it had inexcusably forgotten to prepare for avoiding a similar problem here. The curious distribution of blank extra CF cards with two burners per province is, however, another matter. It raises the question why the unlikely contingency of yet another wrong configuration was provided for, especially on so small a scale as to require a mere 20 blank CF cards and two burners per province. Too few to make a difference in a crisis of the national magnitude of the wrongly configured CF cards but enough to make a difference in the outcome of local elections at the hands of unscrupulous election officials on the ground. Rep. Rufus Rodriguez could not stress enough the illegality of a contingency measure that was ordered before it was authorized by the Comelec en banc. The head of the Advisory Council had been alarmed by it.

10. Several defeated candidates testified that persons identifying themselves as brokers of Smartmatic and Comelec approached them months before the elections with offers to manipulate the automation process in their favor. The alleged brokers promised, for a fee, a victory in the elections by using

customized CF Cards. Unfortunately, we have only their bald allegations to support their accusation. The best evidence to support this theory would be a discrepancy between the results of a manual count and the results as printed in the election returns. The discrepancy should consistently be in favor (or against) a candidate. If this is the finding in the election protest cases currently filed, then the manner of manipulation must be fully uncovered and the appropriate corrective measures taken to prevent its recurrence—or automation must all together be scrapped.

11. The time and date stamp issues are too serious in all its aspects for us to be convinced by explanations that sound like works in progress. An election return that is dated other than the official day of elections must be taken at face value and is legally invalid. Voting logged as taking place hours after the close of voting hours, with ballots logged as having been fed to the voting machine at a fast and unvarying rate consistent only with one person doing it, are not just suspicious but invalid as well. It is no argument to say that when the time is wrong, the time is still right just because it is consistently wrong. Smartmatic tried to argue: 12 hours of voting is still 12 hours of voting whenever and whatever the time logged or, for that matter, the date of the ER.

12. It is conceded that the PCOS can be reset to 0—by means that vary from changing CF cards to no need to change them after all. Scanned ballots can be re-fed to the machines and the count started all over again. Smartmatic fitfully gave equivocal assurance that the audit logs would register this illegal activity anyway. In this case, opening ballot boxes will reveal nothing more than that they were stuffed indiscriminately and indistinguishably with pre-shaded ballots, along with legitimately shaded ballots, as well as unused ballots illegitimately shaded before or after election hours, or before or after May 10.

13. For that reason, we oppose the use of the same kind of ballots—with ovals for shading in lieu of handwritten ballots—in the forthcoming barangay elections which Comelec says will be manual. Using such ballots in a manual election is an invitation to fraud as incumbent mayors attempt to consolidate their grip on their barangays. There would be no way to tell genuine from fake ballots. If elections are to be manual, they should be manual throughout, especially the use of handwritten ballots. And if automated, we might suggest a hybrid ballot where the voter casts his vote by shading ovals but with a part of the ballot where the voter could handwrite a word or phrase other than her name. Handwriting analysis has been an exact forensic discipline since the 19th century.

14. The digital signature—only of a particular PCOS—and not of the BEI person herself was conceded as being, for practical but not legal purposes, sufficient compliance with the intent of the E-Commerce and Automated Election laws. The Chair argued that a PCOS digital signature serves equally as the digital signature of the BEI who has custody of the machine because it is possible to link one to the other. The BEI cannot escape responsibility because the PCOS assigned to her will follow her always. This claim, to which the Chair gave credence, served in his view the purpose of the strict letter of the law, which is to hold BEIs accountable. This explanation was accepted as a practical one by the national canvass whose sole functionality in an automated election where there is no handwriting to consider is the equivalent of a noisy rubber stamp, where approval is automatic but rife with rhetoric. But the Chair's justification, adopted by the national canvass, seems in retrospect over hasty. It is possible to trace and link a

particular BEI to a particular PCOS machine but some of those machines in some of the contested local elections have vanished, some for days, weeks and possibly for good. The problem is not finding the BEI of a particular PCOS but the PCOS itself. On top of which, the iButton that inserts the digital signature can be handed over to another person because it is not implanted surgically in the particular BEI to which it is assigned. Smartmatic admits that the CF cards found in a Cagayan de Oro dumpsite are genuine. So are the contents of the CF card proffered by Rep. Mary Anne Susano after much hemming and hawing. Rep. Roilo Golez could not emphasize enough that we had here a serious breach of security in the custody of key election materials whose scale we have yet to measure.

15. The Cabuyao plant visit showed that the automated election system worked in the conditions of the Cabuyao plant. We dismissed the objections of critical IT experts as to the location of the demonstrations. We argued that it would work out the same way if the demonstration were held in Congress, as in fact it was during the national canvass, again using Smartmatic machines and technicians. Using other machines and technicians would have served no purpose except to show the success or failure of a system that was not the one adopted.

16. The critics were asking for something impossible to replicate: a demonstration of the automated election system in the actual conditions of contested elections, with money flowing, threats freely bandied, and consequently BEIs behaving curiously in virtual isolation and impunity. BEIs ignored poll watchers or drove them away, and even ignored the Comelec's warning not to proclaim candidates before the canvassing was 100 percent complete as required by law. They kept the public in the dark, such as resorting to special voting rooms supposedly for the elderly and infirm but actually for stout and hardy but selected voters, as Rep. Raul Gonzalez, Jr. of Iloilo reported, leaving voters of uncertain political sympathies waiting in the long queues until some went home in exasperation.

17. A biometric system together with the PCOS would have dispelled much of the uncertainty that has wrapped itself around the automated election but an attempt to enforce it strictly by Comelec Chair Jose Melo was met with threats to sue him again. Chairman Melo had boldly declared at a JCOC meeting that he would deny the vote to qualified voters who refuse or fail to register biometrically. More litigation would have further delayed preparations for the automated elections. Two million voters—a figure snatched out of the air by Chairman Melo's critics—would be disenfranchised. Biometrics, though congressionally approved and fully funded, was consequently scrapped. Ironically, in the end, more voters, some 3 million—were disenfranchised, not least because they were kept away from the polls by the long lines of what complainants' allege were prepaid voters who turned up early in order to be slow to vote.

18. Cheating on the local level is strongly suspected but appears to have been sporadic. The method most likely adopted—involving time and date stamps, resetting the machine, re-feeding already scanned or unused ballots, taking complete control of precincts—shows it to have been laborious, fraught with risk of discovery, and time-consuming. However, the risk of discovery was mitigated by the certain knowledge that the media would dismiss the cheated candidate as a sore loser, forgetting the principle that while some losers cry cheated, some winners really cheated. The cheating appears therefore to have been confined to local contests. While it is true that unused ballots are supposed to be torn in half,

with the left side put in one envelope and the right in another, these folders are lost and not even most of the PCOS machines have been retrieved, let alone their CF cards, secrecy folders, pens, not to mention the huge ballot boxes themselves which remain in the custody of incumbent winners who are awaiting the rainy season to wash away the evidence. Smartmatic says it has the responsibility to retrieve the machines but hasn't the authority to return them to its plant for diagnostic testing. That needs Comelec en banc authorization, which might come when all interest in the matter has evaporated.

19. The same cannot be said of the automated elections with regard to national positions because the hearings confined themselves to complaints from local candidates. Yet it cannot be emphasized too strongly that a city, province or district deprived by a misused, which is to say a fraudulently conducted automated election, suffers the same political and social damage to the public interest in legitimate governance as an entire nation would endure from fraudulently elected national officials. The further danger is that these admittedly sporadic automated or automation-related anomalies could be perpetrated and institutionalized nationwide by the unwise appointment of, say, an automated election cheat to government departments with nationwide reach involved in elections, such as DILG, DECS, and DND, not to mention appointments to impending vacancies in the Commission on Elections and in the Advisory Council of the Automated Election Law.

20. It was perceptively pointed out by Rep. Roilo Golez that automated cheating on the scale—but only on the scale—to affect national offices like that for president and vice-president and involving, according to him, 5,000,000 padded votes, would require technological breakthroughs matching those in the manufacture of Smartmatic's PCOS. It would also require talent, manpower and organization similar to Smartmatic's operations. To be sure, we have no information as to the scale of Smartmatic's operations, or how many people Smartmatic employs, for it seems to outsource its manufacturing. We don't know what are the qualifications for its personnel, as many or few as they may be. We do not know if their technology is uniquely created and patented. It would indeed demand vast sums of money to fund a replication of Smartmatic's automation project from scratch. Prof. Roberto Verzola agreed that it couldn't be done without those requirements being fulfilled. Our comment is that 5,000,000 or even 2,000,000 votes are too much. President Gloria Macapagal Arroyo was beleaguered for six years on an allegation involving a little over a million votes and an improper phone conversation. The fact is the technology, know-how, skill, manpower, organizational and financial requirements already exist in the Commission on Elections, a constitutional body, to which Smartmatic had turned over everything it knew about how to conduct the automated election system it had leased to Comelec. Smartmatic turned it all over from Day One and Comelec had all the time since the bid was awarded to Smartmatic to master the technology, not least to be able to intelligently assess its true capabilities.

21. The PCOS might be described as a sophisticated bean counter that will recognize only one variety of the legume but a bean counter it is. It will even count as beans legumes of variable size, depending on the weather. Like the ballots that Ace Barber's video showed a BEI snipping with scissors to fit the PCOS, beans too expand in water. Smartmatic's explanation that ballots expand because of humidity was unsupported by data on the qualities of the paper used and its speed of expansion given a particular level of humidity. There is no

comparison between the fogginess of Nikon camera lenses caused by a sudden change of temperature and the expansion of damp ballots. Smartmatic's assurance that humidity expands the ballot evenly all throughout its surface and therefore spreads the coordinates printed on them evenly, does not explain how the PCOS will be able to recognize coordinates evenly spreading—way out of the machine's range of reading. The coordinates would be uniformly out of the PCOS' "view." Another piece of guesswork that impressed no one. The PCOS does not require rocket science. The PCOS technology and the programs used need not be reinvented. We were not shown which parts of it were patented. It appears to be a modified laptop computer, as amenable to manipulation as any other but for the presence of certain security features that, it turns out, could be turned on or off, as desired by Comelec.

22. The PCOS machine, along with its design, manual of use, programs and applications, can be purchased or, as in this case, leased. It was leased by an organization bigger than most giant corporations in the country, and armed with more authority to act and money to spend than any business enterprise which is independently audited and accountable to its shareholders, not to mention supervening regulatory authorities, such as the SEC, the Anti-money Laundering Council, the Finance Department, the Department of Justice or the Office of the Ombudsman.

23. The Comelec is accountable to no one and frequently doesn't bother to answer anyone who is not asking them the question on national TV and radio. The various resolutions of the finely constituted Advisory Council, led by the forthright and uncompromising Chair of the Commission on Information and Communication Technology (CICT) Ray Anthony Roxas-Chua III, urging caution with regard to disabling certain security features, were sadly ignored by Comelec. He was furious with Comelec.

24. In the course of the closing debates on automation, Rep. Pablo Garcia insisted on the adoption of certain manual features alongside the conduct of automated elections, not least because the Automation Law mandated it. There was an inconclusive debate on whether or not the law so required those features. The Chair urges Rep. Garcia to revisit the issue for he may well have been right all along. Automated elections, as we said earlier, is the least transparent kind of elections because digital events occur on the scale of electrons and perforce occur in "black boxes," so to speak. We say, that since the automated elections are over, there is no legal basis for denying the fullest disclosure of any and all technology, know-how or intellectual property of whatever kind, when it refers to the conduct of democratic elections. Indeed, confidentiality agreements are improper, as Sen. Nene Pimentel noted. Nothing should be withheld from the public view, from any examination and testing even at the risk of having the technology stolen, assuming it to have even been patented. The proper recourse is a patent infringement suit if the patented technology is appropriated and used for commercial purposes. It is never the proper recourse to withhold information from anyone of the public in a matter of such national import as the conduct of an automated election. It may be argued that showing all may open the AES to hacking in future elections. The answer to that argument is, Who should we trust? The Comelec and Smartmatic or the public? Besides, we received repeated assurances from Smartmatic that even if the system is hacked, it will receive only one legitimate transmission from the field.

25. Before the next automated election, all the loopholes in the PCOS and the automated election process should be firmly plugged by either the current provider or by another more assiduous supplier. If not, a reversion to manual elections with heightened vigilance by organizations like the PPCRV and NAMFREL would probably yield more credible and accurate results. Comelec Director Jose Tolentino is right. The problem is not automation but the people running the automation, which is to say, the same people whose perennial and persistent misconduct of manual elections prompted the conversion to automation in the first place. Guns really don't shoot people, people shoot people. Machines don't cheat, people do. Unfortunately, the same people are still running Comelec despite periodic changes of Commissioners over the years and the leadership of well-meaning chairmen such as the incumbent.

Finally, the committee urges the immediate adoption of this report and the provision of copies thereof to the appropriate agencies and entities so that immediate action may be taken on the recommendations.


Respectfully submitted:


**TEODORO L. LOCSIN, JR.**
Committee Chairman
Suffrage and Electoral Reforms

**ATTACHMENTS**


A.     **LEGISLATIVE HISTORY OF AUTOMATION**

On June 7, 1995, Congress passed Republic Act 8046 authorizing Comelec to conduct a nationwide demonstration of a computerized election system and allowing the poll body to pilot-test the system in the March 1996 elections in the Autonomous Region in Muslim Mindanao (ARMM). Republic Act 8176 was subsequently enacted postponing the March 1996 ARMM Elections to September 1996. Thus, on September 9, 1996 the first automated elections were held in the Philippines.

On December 22, 1997, Congress enacted Republic Act 8436 authorizing Comelec to use an automated election system (AES) for the process of voting, counting votes and canvassing/consolidating the results of the May 11, 1998 national and local elections, and onwards. Due to the lack of time to prepare for a nationwide automated election, the Comelec limited automation to the ARMM. However, due to the alleged failure of the machines to read correctly, Atty. Jose M. Tolentino, Jr., then the head of the Comelec Task Force with oversight over ARMM (but now the Executive Director of the Comelec), unilaterally cancelled the automated elections in the Province of Sulu and ordered the manual count of the votes.

In the 2001 national and local elections, Comelec failed to implement any AES supposedly due to lack of congressional appropriations and time constraints.

In the 2004 national and local elections, the AES still was not implemented because the Supreme Court cancelled the contract between Comelec and Mega Pacific where the latter was to supply the machines for the 2004 automated elections. The machines supplied by Mega Pacific did not conform to the minimum system capabilities as set forth in RA 8436 and the bidding for the supply contract was highly irregular.

On January 23, 2007, Republic Act 9369 was passed amending substantial portions of RA 8436. RA 9369 authorized anew the Comelec to use an AES for the ensuing elections, which included automation of the 2008 ARMM elections. On the August 11, 2008, ARMM Elections, Comelec utilized Direct Recording Electronic Technology for the Province of Maguindanao and Optical Mark Readers for the rest of the Autonomous Region.

On March 23, 2009, Congress enacted Republic Act 9525 appropriating P11,301,790,000 for the May 10, 2010 elections. Automated elections were implemented during the May 10, 2010 national and local elections using Precinct Count Optical Scan (PCOS) machines.

**B. RELEVANT SUPREME COURT DECISIONS ON AUTOMATION**

**Tupay Loong v. Comelec,** *G.R. No. 133676, April 14, 1999*

The first case on automated election that confronted the Supreme Court involved Tupay Loong, a gubernatorial candidate for the Province of Sulu, who questioned the issuance by the Comelec of Minute Resolution 98-1796 which ordered the reversion to manual counting of the votes cast in the regular election in the Autonomous Region of Muslim Mindanao despite Automated Counting Machines (ACM) being in place throughout the Autonomous Region.

Congress had earlier enacted Republic Act 8436 which authorized Comelec to use an Automated Election System for the process of voting, counting votes and canvassing/ consolidating the results of the May 11, 1998 national and local elections, and onwards. Due to the lack of time to prepare for a nationwide automated election, the Comelec limited automation to the ARMM, and only for the counting of ballots.

On Election Day, some election inspectors and watchers informed Atty. Tolentino, Jr., head of the Task Force charged with oversight over the ARMM Elections, of discrepancies between the election returns and the votes cast for the mayoralty candidates in the Municipality of Pata. Some ballots picked at random by Atty. Tolentino, Jr. confirmed that votes in favor of a mayoralty candidate were not reflected in the printed election returns. He suspended the automated counting of ballots in Pata and immediately communicated the problem to the technical experts of COMELEC and the suppliers of the automated machine. After the consultations, the experts told him that the problem was caused by misalignment of the ovals opposite the names of candidates in the local ballots. [The same problem that Smartmatic and Comelec would discover at the very last minute with the wrongly configured CF cards that would not read double spaced ballot faces.] They found nothing wrong with the automated machines. The error was in the printing of the local ballots, as a consequence of which, the automated machines failed to read them correctly. Further, ballots from five (5) municipalities from the Province of Sulu were rejected by the automated machines because they had the wrong sequence code.

As a result of the findings and recommendations of Atty. Tolentino, Comelec issued, among others, Minute Resolution 98-1796 which, in essence, ordered: (1) Manual counting of the local ballots of the automated election system in Pata, Sulu; (2) Automated counting of the national ballots considering that there are no questions raised on the National Elective Officials as pre-printed in the mark-sensed ballots; and (3) Conduct a parallel manual counting on all 18 municipalities of Sulu as a final guidance of the reliability of the counting machine which will serve as basis for the proclamation of the winning candidates and for future reference on the use of the automated counting machine.

Tupay Loong questioned before the Supreme Court propriety and legality of the Comelec Minute Resolution on the ground that, among others, the order to conduct manual counting violated R.A. No. 8436 and manual counting gave the opportunity for candidates to cheat.

The Supreme Court affirmed the legality of Minute Resolution 98-1796 on the following grounds:

1. Continuing the automated count would result in a grossly erroneous count;
2. Any failure in the automated counting would create post election tension in Sulu, a province with a history of violent elections;
3. The integrity of the local ballots was safeguarded when they were transferred from Sulu to Manila and when they were manually counted (which was based on the report of Atty. Tolentino);
4. The evidence revealed that the result of the manual count was reliable;
5. The ballots were uncomplicated. They had fairly large ovals opposite the names of candidates. A voter needed only to check the oval opposite the name of his candidate. Therefore, it was easy to read and capable of manual counting; and
6. In enacting R.A. No. 8436, Congress obviously failed to provide a remedy where the error in counting is not machine-related for human foresight is not all-seeing. However, that the vacuum in the law cannot prevent the COMELEC from **levitating** above the problem. Section 2(1) of Article IX(C) of the Constitution gives the COMELEC the broad power "to enforce and administer all laws and regulations relative to the conduct of an election, plebiscite, initiative, referendum and recall."
7. COMELEC has to make snap judgments to meet unforeseen circumstances that threaten to subvert the will of our voters. In the process, the actions of COMELEC may not be impeccable, indeed, may even be debatable. We cannot, however, engage in a swivel [sic] *[correct expression is "armchair," Chair's Note]* chair criticism of these actions often taken under very difficult circumstances.

Based on the said grounds, the Supreme Court denied the petition of Tupay Loong.

Noteworthy is the dissent of Justice Artemio Panganiban (who later became the Chief Justice and a staunch advocate for fraud-free elections) which gives a different perspective as to the issues concerning automation and the role Comelec officials should play, which we quote in part:

*"About 6:00 a.m. on May 12, 1998, the day after the election, while the automated counting of the ballots was being conducted at the Sulu State College, some election inspectors as well as watchers called the attention of the Comelec Task Force head in Sulu, Atty. Jose Tolentino Jr., to allegedly patent discrepancies between the printed election returns and the actual votes cast for the mayoralty candidates in the Municipality of Pata. On the spot, Atty. Tolentino picked out three local ballots that had already been counted. He noticed that while they contained votes for a certain mayoralty candidate, such votes were not credited in the latter's favor in the precinct election return, which showed zero (0) vote for that candidate (Mr. Anton Burahan). **Atty. Tolentino** then took it upon himself to immediately order the suspension of the automated counting of the ballots from Pata. Tracing the error to misprinted ballots, **he forthwith ordered a province-wide suspension of the automated count,** on the suspicion that the printing defect was prevalent province-wide. **At that point, about 65**

*percent of the ballots cast in Sulu were already machine-counted.* Intervenor Jikiri alleged he was at the time leading the count.

"I believe that Atty. Tolentino acted with grave abuse of discretion. First, he had no legal authority to order even a temporary stoppage of the counting. During the Oral Argument on September 15, 1998, he candidly admitted that he had no statutory or even regulatory basis for his action. Second, the verbal manifestation of a BEI member or a watcher that a vote for a certain candidate was not reflected in the election return conferred no legal authority upon the election official to examine the ballots personally. Third, granting that Atty. Tolentino had such authority, the factual basis of his exercise of discretion was sorely insufficient. He saw only three (3) ballots out of about 200 from a single precinct in Pata, which had 27 precincts; noted that the votes for a certain mayoralty candidate, which were indicated in the three ballots, were not reflected on the election return, which instead printed zero vote for such candidate; when without much ado, ordered the stoppage of the counting of the rest of the ballots from Pata. At the time, only 13 ballot boxes had been, and 14 more remained to be, counted. Under RA 8436, it would have taken only one (1) minute for the counting machine to process 100 to 150 ballots. [4] Thus, it would not have taken very long to finish the count for the entire municipality.

"Atty., Tolentino did not even try to get the aggregate votes cast in the municipality for each mayoral candidate, in order to see if three or even 200 votes would spell a material difference in the result. **Even under the manual election system, election cases are heard on the assumption that the protested ballots or returns would, if validated, change the election results. By analogy, the same logic should apply to automated elections. But Atty. Tolentino immediately assumed that the three ballots would be determinative of the election results in the municipality, where about 5,400 votes had been cast. Not even the manual election system allows a suspension of the entire counting process on the mere allegation that a few ballots or votes for one candidate in one precinct are questionable.**

"Doctrinally, it would be imprudent, even dangerous, to discard the automated system cavalierly and thereafter resort to manual count on the flimsy basis that a few ballots were allegedly miscounted. Such holding would give losing parties and candidates a convenient device to scuttle the automated system by the simple expedient of alleging that a few ballots were improperly counted by the machine. It would give them a convenient excuse to revive and use an antiquated and fraud-ridden electoral method and thus lead to a prolonged counting and canvassing, the very evil sought to be remedied by RA 8436."

**Information Technology Foundation, Inc. v. Comelec,**
**G.R. 159139 January 13, 2004**

This landmark case penned by Justice Artemio Panganiban resulted in the declaration by the Supreme Court as null and void the award by Comelec to Mega Pacific Consortium, as the winning bidder, the implementation of "Phase II of the Modernization Project on Comelec: Automated Counting and Canvassing System."

In no uncertain terms, the Supreme Court stated that in awarding the Phase II Modernization Project to Mega Pacific Consortium, Comelec committed an act contrary to law and acted in a whimsical, capricious, and malicious manner not fitting of a supposedly independent Constitutional body, when it ruled:

> "*In the present case, the Commission on Elections approved the assailed Resolution and awarded the subject Contract not only in clear violation of law and jurisprudence, but also in reckless disregard of its own bidding rules and procedure. For the automation of the counting and canvassing of the ballots in the 2004 elections, Comelec awarded the Contract to "Mega Pacific Consortium" an entity that had not participated in the bidding. Despite this grant, the poll body signed the actual automation Contract with "Mega Pacific eSolutions, Inc.," a company that joined the bidding but had not met the eligibility requirements.*
>
> "*Comelec awarded this billion-peso undertaking with inexplicable haste, without adequately checking and observing mandatory financial, technical and legal requirements. It also accepted the proferred computer hardware and software even if, at the time of the award, they had undeniably failed to pass eight critical requirements designed to safeguard the integrity of elections, especially the following three items:*
> · *They failed to achieve the accuracy rating criteria of 99.9995 percent set-up by the Comelec itself*
> · *They were not able to detect previously downloaded results at various canvassing or consolidation levels and to prevent these from being inputted again*
> · *They were unable to print the statutorily required audit trails of the count/canvass at different levels without any loss of data*
> "*Because of the foregoing violations of law and the glaring grave abuse of discretion committed by Comelec, the Court has no choice but to exercise its solemn "constitutional duty" to void the assailed Resolution and the subject Contract. The illegal, imprudent and hasty actions of the Commission have not only desecrated legal and jurisprudential norms, but have also cast serious doubts upon the poll body's ability and capacity to conduct automated elections. Truly, the pith and soul of democracy -- credible, orderly, and peaceful elections -- has been put in jeopardy by the illegal and gravely abusive acts of Comelec.*"

The above case led to the cancellation of the contract between Comelec and Mega Pacific Consortium-Mega Pacific eSolutions, Inc. and the subsequent warehousing of the Automated Counting Machines (ACM) brought in for the 2004 elections. Thus, manual elections were conducted for the 2004 national and local elections.

**Information Technology Foundation, Inc. v. Comelec**
**G.R. 159139, June 15, 2005**

In this case, the Supreme Court denied the request by Comelec to use the Mega Pacific Consortium Automated Counting Machines (ACMs) in Comelec's custody, for the 2005 ARMM Elections. The Supreme Court had earlier declared with finality in the case entitled "Information Technology Foundation, Inc. v. Comelec", G.R. No. 159139 dated January 13, 2004 (the "Decision") that the contract between Comelec and Mega Pacific Consortium-Mega Pacific eSolutions, Inc. (MPC-MPEI) was null and void.

Comelec filed with the Supreme Court a "Most Respectful Motion for Leave to Use the Automated Counting Machines in [the] Custody of the Commission on

Elections for use (sic) in the August 8, 2005 Elections in the Autonomous Region for Muslim Mindanao (ARMM)," dated December 9, 2004.

In support of its Motion, the Comelec contended that:

1. The ARMM elections are slated to be held on August 8, 2005, and are mandated by RA 9333 to be automated;
2. The government has no available funds to finance the automation of those elections; that considering its present fiscal difficulties, obtaining a special appropriation for the purpose is unlikely;
3. There are in Comelec's custody at present 1,991 ACMs, which were previously delivered by Mega Pacific Consortium that these machines would deteriorate and become obsolete if they remain idle and unused;
4. The machines are now being stored in the Comelec Maxilite Warehouse along UN Avenue, at "storage expenses of ₱329,355.26 a month, or ₱3,979,460.24 annually."

In denying the Motion of Comelec, the Supreme Court ruled:

1. Its Decision of January 13, 2004 was final and bars the grant of the Motion. Granting it would have the effect of illegally reversing and subverting a final Decision;
2. The grant of the Motion will bar or jeopardize the recovery of government funds improvidently paid to MPS-MPEI which is estimated to be over one billion pesos;
3. The use of the unreliable ACMs and the nonexistent software that is supposed to run them will expose the ARMM elections to the same electoral ills pointed out in the final and executory Decision; and
4. There is no basis for the claim that unless the subject ACMs are used, the ARMM elections would not be held.

As a parting shot to the Comelec regarding the issue, the Supreme Court gave Comelec the following advice:

*"Comelec must follow and not skirt our Decision. Neither may it short-circuit our laws and jurisprudence. It should return the ACMs to MPC-MPEI and recover the improvidently disbursed funds. Instead of blaming this Court for its illegal actions and grave abuse of discretion, the Commission should, for a change, devise a legally and technically sound plan to computerize our elections and show our people that it is capable of managing the transition from an archaic to a modern electoral system."*

**Harry L. Roque v. Comelec G.R. 188456 September 10, 2009**

In this case, the Supreme Court affirmed the validity of the award by Comelec to SMARTMATIC-TIM the contract for the supply and management of the Automated Election System (AES) for the 2010 Elections, which included: Component 1: Paper-Based AES. 1-A. Election Management System (EMS); 1-B Precinct-Count Optic Scan (PCOS) System and 1-C. Consolidation/Canvassing System (CCS); Component 2: Provision for Electronic Transmission of Election Results using Public Telecommunications Network; and Component 3: Overall Project Management.

In his Petition, Atty. Harry L. Roque questioned the validity and sought to nullify the July 10, 2009 Comelec-Smartmatic-TIM Corporation automation contract with Comelec on, among others, the following grounds:

1. Comelec did not conduct any pilot testing of the PCOS Machines offered by SMARTMATIC-TIM in violation of Section 5 of Republic Act No. 8436, as amended by Republic Act No. 9369, which states:

> *Sec. 5. Authority to use an Automated Election System.- To carry out the above stated-policy, the [Comelec], x x x is hereby authorized to use an automated election system or systems in the same election in different provinces, whether paper-based or a direct recording electronic election system as it may deem appropriate and practical for the process of voting, counting of votes and canvassing/consolidation and transmittal of results of electoral exercises: Provided,* ***that for the regular national and local elections, which shall be held immediately after the*** <u>***effectivity of this Act,***</u> ***the AES shall be used in at least two highly urbanized cities and two provinces each in Luzon, Visayas, and Mindanao to be chosen by the [Comelec]:*** *Provided, further, That local government units whose officials have been the subject of administrative charges within sixteen (16) month prior to the May 14, 2007 elections shall not be chosen. Provided, finally, That no area shall be chosen without the consent of the Sanggunian of the local government unit concerned. The term local government unit as used in this provision shall refer to a highly urbanized city or province. In succeeding regular national or local elections, the AES shall be implemented. (Emphasis and underscoring added.)*

2. The PCOS Machines of SAMRTMATIC-TIM did not satisfy the minimum system capabilities set by Section 6, paragraphs (b) and (j) of RA 8436, as amended by RA 9369.  The said Section states:

> SEC. 6. *Minimum System Capabilities*. - The automated election    system must at least have the following functional capabilities:
>
> (a)   Adequate security against unauthorized access;
> **(b)   Accuracy in recording and reading of votes as well as in the tabulation, consolidation/canvassing, electronic transmission, and storage of results;**
> (c)   Error recovery in case of non-catastrophic failure of device;
> (d)  System integrity which ensures physical stability and functioning of the vote recording and counting process;
> (e)   Provision for voter verified paper audit trail;
> (f)   System auditability which provides supporting documentation for verifying the correctness of reported election results;
> (g)   An election management system for preparing ballots and programs for use in the casting and counting of votes and to consolidate, report and display election result in the shortest time possible;
> (h)  Accessibility to illiterates and disabled voters;
> (i)   Vote tabulating program for election, referendum or plebiscite;
> **(j)    Accurate ballot counters;**
> (k)  Data retention provision;
> (l)   Provide for the safekeeping, storing and archiving of physical or paper resource used in the election process;
> (m) Utilize or generate official ballots as herein defined;
> (a)   Provide the voter a system of verification to find out whether or not the machine has registered his choice; and
> (o) Configure access control for sensitive system data and function.

In striking down the argument of Atty. Roque that Comelec had violated RA 8436

for awarding the contract to an entity/technology that was not "pilot-tested" as required by said law, the Supreme Court explained that the legislative intent was, "*for the automation of the May 2010 and subsequent elections, the PCOS or any AES to be procured must have demonstrated its capability and success in either a local or a foreign electoral exercise. And as expressly declared by the provision, participation in the 2007 electoral exercise is not a guarantee nor is it conclusive of the system's fitness. Xxx As determined by the Comelec, the PCOS system had been successfully deployed in previous electoral exercises in foreign countries, such as Ontario, Canada; and New York, USA, albeit Smartmatic was not necessarily the system provider. But then, RA 9369 does not call for the winning bidder of the 2010 automation project and the deploying entity/provider in the foreign electoral exercise to be one and the same entity. Neither does the law incidentally require that the system be first used in an archipelagic country or with a topography or a voting population similar to or approximating that of the Philippines.*"

Further, the Court interpreted the act of Congress in enacting RA 9525 appropriating P11.301 billion to automate the 2010 election to mean that, "it was never Congress' intent to make the pilot testing of a particular automated election system in the 2007 elections a condition precedent to its use or award of the 2010 Automation Project."

As another ground for the nullification of the automation contract, Atty. Roque alleged that the PCOS machines did not satisfy the minimum system capabilities prescribed by RA 8436, as amended.

The Petitioner suggested that the PCOS system: (1) lacked the features that would assure accuracy in the recording and reading of votes, as well as in the tabulation, consolidation/canvassing, electronic transmission, storage results; and (2) failed in the accurate ballot counting rate of 99.95%.

The Supreme Court defined as speculation the allegations of Petitioner that the PCOS system did not satisfy the minimum and in support presented the SBAC-TWG report that TIM/Smartmatic's proposed systems and machines PASSED all the end-to-end demo tests using the aforementioned 26-item criteria, inclusive of the accuracy rating test of at least 99.955%. As appearing in the SBAC-TWG report, the corresponding answers/remarks to each of the 26 individual items, as herein indicated:

| ITEM | REQUIREMENT | REMARK/DESCRIPTION |
|------|-------------|--------------------|
| 1 | Does the system allow manual feeding of a ballot into the PCOS machine? | Yes. The proposed PCOS machine accepted the test ballots which were manually fed one at a time. |
| 2 | Does the system scan a ballot sheet at the speed of at least 2.75 inches per second? | Yes. A 30-inch ballot was used in this test. Scanning the 30-inch ballot took 2.7 seconds, which translated to 11.11inches per second. |
| 3 | Is the system able to capture and store in an encrypted format the digital images of the ballot for at least 2,000 ballot sides (1,000 ballots, with back to back printing)? | Yes the system captured the images of the 1,000 ballots in encrypted format. Each of the 1,000 images files contained the images of the front and back sides of the ballot, totaling to 2,000 ballot side.<br><br>To verify the captured ballot images, decrypted |

| | | copies of the encrypted files were also provided. The same were found to be digitized representations of the ballots cast. |
|---|---|---|
| 4 | Is the system a fully integrated single device as described in item no. 4 of Component 1-B? | Yes. The proposed PCOS is a fully integrated single device, with built-in printer and built-in data communications ports (Ethernet and USB). |
| 5 | Does the system have a scanning resolution of at least 200 dpi? | Yes. A portion of a filled up marked oval was blown up using image editor software to reveal the number of dots per inch. The sample image showed 200 dpi.<br><br>File properties of the decrypted image file also revealed 200 dpi. |
| 6 | Does the system scan in grayscale? | Yes. 30 shades of gray were scanned in the test PCOS machine, 20 of which were required, exceeding the required 4-bit/16 levels of gray as specified in the Bid Bulletin No. 19. |
| 7 | Does the system require authorization and authentication of all operators, such as, but not limited to, usernames and passwords, with multiple user access levels? | Yes. The system required the use of a security key with different sets of passwords/PINs for Administrator and Operator users. |
| 8 | Does the system have an electronic display? | Yes. The PCOS machine makes use of an LCD display to show information:<br><br>·     if a ballot may be inserted into the machine;<br>·     if a ballot is being processed; if a ballot is being rejected;<br>·     on other instructions and information to the voter/operator. |
| 9 | Does the system employ error handling procedures, including, but not limited to, the use of error prompts and other related instructions? | Yes. The PCOS showed error messages on its screen whenever a ballot is rejected by the machine and gives instructions to the voter on what to do next, or when there was a ballot jam error. |
| 10 | Does the system count the voter's vote as marked on the ballot with an accuracy rating of at least 99.995%? | Yes. The two rounds of tests were conducted for this test using only valid marks/shades on the ballots. 20,000 marks were required to complete this test, with only one (1) allowable reading error.<br><br>625 ballots with 32 marks each were used for this test. During the comparison of the PCOS-generated results with the manually prepared/predetermined results, it was found out that there were seven (7) marks which were inadvertently missed out during ballot preparation by the TWG. Although the PCOS-generated results turned out to be 100% accurate, the 20,000-mark was not met thereby requiring the test to be repeated.<br><br>To prepare for other possible missed out marks,650 ballots with (20,800 marks) were used for the next round of test, which also yielded 100% accuracy. |
| 11 | Does the system detect and reject fake or spurious, and previously scanned ballots? | Yes. This test made use of one (1) photocopied ballot and one (1) "re-created" ballot. Both were rejected by the PCOS. |
| 12 | Does the system scan both sides of a ballot and in any orientation in one pass? | Yes. Four (4) ballots with valid marks were fed into the PCOS machine in the four (4) portrait orientations specified in Bid Bulletin No. 4 (either back or front, upside down or right side up), and all were accurately captured. |
| 13 | Does the system have necessary safeguards to | Yes. The system was able to recognize if the |

| | | determine the authenticity of a ballot, such as, but not limited to, the use of bar codes, holograms, color shifting ink, micro printing, to be provided on the ballot, which can be recognized by the system? | security features on the ballot are "missing".

Aside from the test on the fake or spurious ballots (Item No. 11), three (3) test ballots with tampered bar codes and timing marks were used and were all rejected by the PCOS machine.

The photocopied ballot in the test for Item No. 11 was not able to replicate the UV ink pattern on top portion of the ballot causing the rejection of the ballot. |
|---|---|---|---|
| 14 | Are the names of the candidates pre-printed on the ballot? | Yes. The Two sample test ballots of different lengths were provided: one (1) was 14 inches long while the other was 30 inches long. Both were 8.5 inches wide.

The first showed 108 pre-printed candidate names for the fourteen (14) contests/positions, including two (2) survey questions on gender and age group, and a plebiscite question.

The other showed 609 pre-printed candidate names, also for fourteen (14) positions including three (3) survey questions. |
| 15 | Does each side of the ballot sheet accommodate at least 300 names of candidates with a minimum font size of 10, in addition to other mandatory information required by law? | Yes. The 30-inch ballot, which was used to test Item No. 2, contained 309 names for the national positions and 300 names for local positions. The total pre-printed names on the ballot totaled 609.

This type of test ballot was also used for test voting by the public, including members of the media.

Arial Narrow, font size 10, was used in the printing of the candidate names. |
| 16 | Does the system recognize full shade marks on the appropriate space on the ballot opposite the name of the candidate to be voted for? | Yes. The ballots used for the accuracy test (Item No. 10), which made use of full shade marks, were also used in this test and were accurately recognized by the PCOS machine. |
| 17 | Does the system recognize partial shade marks on the appropriate space on the ballot opposite the name of the candidate to be voted for? | Yes. Four (4) test ballots were used with one (1) mark each per ballot showing the following pencil marks:

· top half shade;
· bottom half shade;
· left half shade; and
· right half shade

These partial shade marks were all recognized by the PCOS machine |
| 18 | Does the system recognize check (ü)marks on the appropriate space on the ballot opposite the name of the candidate to be voted for? | Yes. One (1) test ballot with one check (ü) mark, using a pencil, was used for this test.

The mark was recognized successfully. |
| 19 | Does the system recognize x marks on the appropriate space on the ballot opposite the name of the candidate to be voted for? | Yes. One (1) test ballot with one x mark, using a pencil, was used for this test.

The mark was recognized successfully. |
| 20 | Does the system recognize both pencil and ink marks on the ballot? | Yes. The 1000 ballots used in the accuracy test (Item No. 10) were marked using the proposed marking pen by the bidder.

A separate ballot with one (1) pencil mark was also tested. This mark was also recognized by the PCOS machine. Moreover, the tests for Items |

| | | No. 17, 18 and 19 were made using pencil marks on the ballots. |
|---|---|---|
| 21 | In a simulation of a system shut down, does the system have error recovery features? | Yes. Five (5) ballots were used in this test. The power cord was pulled from the PCOS while the 3rd ballot was in the middle of the scanning procedure, such that it was left "hanging" in the ballot reader.<br><br>After resumption of regular power supply, the PCOS machine was able to restart successfully with notification to the operator that there were two (2) ballots already cast in the machine. The "hanging" 3rd ballot was returned to the operator and was able to be re-fed into the PCOS machine. The marks on all five (5) were all accurately recognized. |
| 22 | Does the system have transmission and consolidation/canvassing capabilities? | Yes. The PCOS was able to transmit to the CCS during the end-to-end demonstration using GLOBE prepaid Internet kit. |
| 23 | Does the system generate a backup copy of the generated reports, in a removable data storage device? | Yes. The PCOS saves a backup copy of the ERs, ballot images, statistical report and audit log into a Compact Flash (CF) Card. |
| 24 | Does the system have alternative power sources, which will enable it to fully operate for at least 12 hours? | Yes. A 12 bolt 18AH battery lead acid was used in this test. The initial test had to be repeated due to a short circuit, after seven (7) hours from start-up without ballot scanning. This was explained by TIM-Smartmatic to be caused by non-compatible wiring of the battery to the PCOS. A smaller wire than what is required was inadvertently used, likening the situation to incorrect wiring of a car battery. Two (2) COMELEC electricians were called to confirm TIM-Smartmatic's explanation. The PCOS machine was connected to regular power and started successfully. The following day, the "re-test" was completed in 12 hours and 40 minutes xxx 984 ballots were fed into the machine. The ER, as generated by the PCOS was compared with predetermined result, showed 100% accuracy. |
| 25 | Is the system capable of generating and printing reports? | Yes. The PCOS prints reports via its built-in printer which includes:<br>1. Initialization Report; 2. Election Returns (ER); 3. PCOS Statistical Report; 4. Audit Log. |
| 26 | Did the bidder successfully demonstrate EMS, voting counting, consolidation/canvassing and transmission? | Yes. An end-to-end demonstration of all proposed systems was presented covering: importing of election data into the EMS; creation of election configuration data for the PCOS and the CCS using EMS; creation of ballot faces using EMS; configuring the PCOS and the CCS using the EMS-generated election configuration file; initialization, operation, generation of reports and backup using the PCOS; electronic transmission of results to the: [1] from the PCOS to city/municipal CCS and the central server. [2] from the city/municipal CCS to the provincial CCS. [3] from the provincial CCS to the national CCS; receipt and canvass of transmitted results: [1] by the city/municipal CCS from the PCOS. [2] by the provincial CCS from the city/municipal CCS. [3] by the national CCS from the provincial CCS; receipt of the transmittal results by the central server from the PCOS. |

The Court found the report satisfactory in the absence of any empirical evidence to the contrary although, admittedly, the Court admitted that the true test of the capabilities of the PCOS system and the machines will come after the acceptance tests expressly specified in the RFP, namely, the lab test, field test, mock election test, transmission test and, lastly, the final test and sealing procedure of all PCOS and CCS units using the actual Election Day machine configuration.

Regarding the counting-accuracy feature of the PCOS machines, the recent evidence presented showed that the PCOS Machines had a 99.999% accuracy rating.

The Court also tackled the issue the possibility of hacking where it debunked the probability thereof when It observed:

> "*A view has been advanced regarding the susceptibility of the AES to hacking, just like the voting machines used in certain precincts in Florida, USA in the Gore-Bush presidential contests. However, an analysis of post-election reports on the voting system thus used in the US during the period material and the AES to be utilized in the 2010 automation project seems to suggest stark differences between the two systems. The first relates to the Source Code, defined in RA 9369 as "human readable instructions that define what the computer equipment will do." The Source Code for the 2010 AES shall be available and opened for review by political parties, candidates and the citizens' arms or their representatives; whereas in the US precincts aforementioned, the Source Code was alleged to have been kept secret by the machine manufacture company, thus keeping the American public in the dark as to how exactly the machines counted their votes. And secondly, in the AES, the PCOS machines found in the precincts will also be the same device that would tabulate and canvass the votes; whereas in the US, the machines in the precincts did not count the votes. Instead the votes cast appeared to have been stored in a memory card that was brought to a counting center at the end of the day. As a result, the hacking and cheating may have possibly occurred at the counting center.*

> "*Additionally, with the AES, the possibility of system hacking is very slim*. **The PCOS machines are only online when they transmit the results, which would only take around one to two minutes. In order to hack the system during this tiny span of vulnerability, a super computer would be required. Noteworthy also is the fact that the memory card to be used during the elections is encrypted and read-only––meaning no illicit program can be executed or introduced into the memory card.**" **[The Court did not anticipate that transmission could be held back, in two cases — Pinol and Gatlabayan — for over two days, that the PCOS could be kept open, that the PCOS could be reset to zero and could be re-fed scanned ballots, and that, in precincts completely controlled by a politician, "one can do pretty much what one wants with the machine," among other anomalies noted during the House Suffrage Committee hearings. Chairman's note.]**

While the Court in this Decision cast its lot towards the full automation of the May 10, 2010 elections using PCOS machines, the Court nevertheless recognized that the responsibility of a clean and honest election in the final analysis lay on the shoulders of Comelec, when It declared:

*"The Court, however, will not indulge in the presumption that nothing would go wrong, that a successful automation election unmarred by fraud, violence, and like irregularities would be the order of the moment on May 10, 2010. Neither will it guarantee, as it cannot guarantee, the effectiveness of the voting machines and the integrity of the counting and consolidation software embedded in them.* That task belongs at the first instance to Comelec, as part of its mandate to ensure clean and peaceful elections. This independent constitutional commission, it is true, possesses extraordinary powers and enjoys a considerable latitude in the discharge of its functions. The road, however, towards successful 2010 automation elections would certainly be rough and bumpy. The Comelec is laboring under very tight timelines. It would accordingly need the help of all advocates of orderly and honest elections, of all men and women of goodwill, to smoothen the way and assist Comelec personnel address the fears expressed about the integrity of the system. Like anyone else, the Court would like and wish automated elections to **succeed, credibly."**

## C. THE CHAIR'S OPENING REMARKS

**As Chairman Locsin, headlined the spreadsheets for consecutive days, the following were his opening remarks on particular dates:**

**1. May 21, 2010**

This meeting is hereby resumed. As in the past two days, these are the rules: priority will be given to the complaining candidates to present their grievances briefly, say 10 to 15 minutes, alleging events and transactions and avoiding conclusions and sweeping generalizations. Comelec and Smartmatic may choose to respond or not, but arguments are to be avoided. This is not an arbitration committee.

So far, these issues seem to boil down to the evidence provided by audit logs and other paper trails generated by the PCOS machines. We are here to plug the loopholes that have appeared in the automated system, such as the inability to perform so rudimentary a function as a Bundy Clock faithfully and flawlessly recording what happened when.

The media have asked, "Why are we giving losers the time of day?" My answer is because the media gave the biggest loser of them all, FPJ, all of six years. The media paid the most respectful attention to the claim that he was cheated yet all the critics had to go by was a vague phone call.

Surely, then, we can listen to those who are here presenting what Smartmatic sometimes says are inerasable and indubitable paper trails of fraud, one of the key security features of their automated election system that made people like me go gaga over it.

Oddly, even winners are complaining, like Baham Mitra and Gwen Garcia. That means we are addressing a real, valid and pressing political concern.

It has also been said by Malacanang no less that this committee should adjourn and leave Comelec to do its job. That is surely rich coming from the people who are behind the Koala Bear gimmick designed to throw into total discredit the superb leadership of the Comelec, which tried, not always with success, to prevent embedded operators and syndicates from capturing the new election system. The Anti-Money Laundering Council can easily track the 120 Smartmatic operators' bank accounts. Back to Malacanang, I know who you are. Do not provoke me to name you, you SOVs. That is Statement Of Votes, as Congressman Golez suggested I say. You should have hired a stylist before floating that marsupial with the big black nose so as to give him the credibility you are telling me he deserves. Well, until he removes his fur, I will not credit him with anything but a very good impersonation of a New Zealand creature. You say he is afraid and wants security. You people in Malacanang who abducted Jun Lozada, should know about security better than anyone else. Give him security and let him speak in the open.

Meanwhile, I have refused to read malicious text messages, also from administration sources, casting doubt on the integrity and fine record of the Comelec commissioners, sparing no one. I find such texts despicable.

Some members of the media have suggested that there are more important things than getting at the truth, such as speeding up the canvass. These hearings are not in the way of a canvass. At any rate, we shall never sacrifice the search for truth, once again,

on the altar of speed. Speedy but inaccurate elections in one case, speedy and cursory canvass in the other.

I will vindicate the automated system or I will stand condemned with it. These hearings are addressing a real and pressing political need to clear the air before the advent of a new administration so that it will not be clouded by the kind of doubt that shadowed the past one.

With that I turn over the chair to my senior vice chairs with the injunction that we end as usual at 3 p.m. because the Comelec has other work to do that is ALMOST as important as answering doubts. We will resume on Monday at 9:00 a.m. to 12noon. This is Friday, when I must check up on the work of the gardener tending my father's grave at the Libingan ng mga Bayani. Surely, you will excuse me. Thank you."

## 2. May 26, 2010

"We have had five hearings. We have listened to real, specific and substantive complaints as well as time consuming declamations from other interested parties. As Chairman, I will give some tentative but, I am convinced, definitive articulations of the issues as I have already done from time to time. I will now offer persuasive conclusions on some of the issues thus far raised. I am doing this by authority of the fact that everything that is said here both for and against the last automated exercise is attributed by mentally challenged newspaper editors to me, especially when I rephrased confused and incoherent questions and remarks for the benefit of those present here, the persons addressed, and radio and television audiences out there. Number 1. On the question of how many CF cards were actually imported by Smartmatic and received for configuration at the Cabuyao Plant, the answer is now available. Import documents have been submitted by Smartmatic which it will shortly explain. We must accept Smartmatic's answer as sufficient answer to this issue. Of course one can argue that more CF cards might have been procured than those reflected in the import documents, if not by Smartmatic, then by outside operators. But that would pose the question: Can Smartmatic prove that Smartmatic or someone else did not procure CF cards from other issues, from other sources? The answer is that there can be no obligation to prove or disprove a negative. Smartmatic is therefore cleared on this issue. Is it possible that others did, say operators in COMELEC? The answer is, that is not Smartmatic's problem, nor is it the COMELEC's obligation to prove or disprove a negative. But the qualification is whether such extra CF cards can be configured outside the Cabuyao plant to be compatible with PCOS machines of Smartmatic. That is the question. Can this extra, supposed extra CF cards have been configured outside the Cabuyao plant to become compatible with PCOS machines of Smartmatic? That although it has no obligations, Smartmatic, because they are not responsible for what people do outside their plant, but that can be answered by the offer of Smartmatic to take us to the Cabuyao plant and show the following: the speed of configuring CF cards, to address the issue of how Smartmatic fixed the CF card issue that Smartmatic itself admitted and exposed in the short time span left before election day. Smartmatic has made that offer, it is hereby taken up. A second query is, who had access to the program that configures CF cards and whether that program could be altered to accommodate other commands in addition to simple precinct and ballot recognition? Smartmatic has answered that not everyone who worked at the Cabuyao plant was privy to the know-how to configure CF cards, let alone change the program to add more commands than the original ones of

recognizing ballots and counting votes of the particular precincts to which those ballots were exclusively dedicated. Smartmatic may also explain to this Committee why it is practically impossible and logistically daunting even for those in the know who have altered the program for specific precincts and list of candidates. I have suggested the identification of the persons who were privy to the know-how for purpose of questioning by IT experts, along with the request for the Anti-Money Laundering Council to search their bank accounts for unexplained deposits. Number 2. On the issue of the adequacy of digital signature only for the PCOS machine as opposed to the literal definition in the E-Commerce Act that clearly requires that a digital signature be personal to the person using it. My colleagues are here, I would like to explain that I am giving this explanation because sometimes media attributes to me statements that comeeither from you or from other witnesses because I rephrase questions to make it clearer. This is what I have been saying. May I venture to say that since every PCOS machine is assigned and registered to be in the custody and operation of particular BEIs, then, for all practical purposes, we can trace the digital signature of a PCOS machine to its particular BEI custodians in the precinct. The PCOS signature, therefore, sufficiently serves as the signature of the particular precinct BEI custodians who can just as easily be held accountable for any electronic anomalies traced to their particular and specified machine as if their own personal signatures have been used. Therefore, there is not just sufficient but equivalent practical compliance with the definition of a digital signature in the E-Commerce Act.

In this regard, I must admit I was wrong to tell one reporter that the Congressional Canvass can constitutionally ignore the different meaning of digital signature in the E-Commerce Act, and accept without question all, strictly speaking, "unsigned ERs and COCs" purely for reasons of state because the elections are over and we need to proclaim a president even in the teeth of a violation of the E-Commerce Act's literal meaning. I admit I was wrong, there is a real reason why a PCOS signature is the practical equivalent of a personal signature. You can trace it to the custodian of that PCOS signature, or the PCOS machine assigned to him. Is that correct? MR. HEIDER GARCIA. (Electoral Systems Manager, Smartmatic-Total Information Management Corporation). That's correct, Your Honor. THE CHAIRPERSON. Okay. But it is also equally ignorant for one lawyer to argue that election laws are only mandatory before elections and merely directory and can be casually ignored after elections. This is pure ignorance. I do not believe that there are Supreme Court decisions that made such an ignorant ruling. It is precisely after elections that elections laws can be more strictly performed... executed because then actual and not speculative violations can be proved. Is that correct, Rufus Rodriguez? It is my view that the PCOS digital signature is fully compliant with the law. In a subsequent hearing, experts can dispute my views, but these are my views and not the views of anybody else and I think they are correct. From there we can move on to the remaining issues among which, I believe, the most significant are the discrepancies in the dates of ERs and Audit Logs and the claim of Smartmatic that the occurrences in date and time reflected in these documents are trivial considerations. They are not trivial. They illustrate the principle of *res ipsa loquitor*, as a broadcaster just reminded me this morning, the ERs and Audit Logs showing wrong dates and wrong times of voting speak for themselves and must be taken at face value. Boy, these radio guys are really smarter than the other guys in media. And when the Audit Log show no voting during voting hours when there are a thousand witnesses that say they voted during voting hours, then we have a variation of the alibi principle that while no person can be in two places at the same time, neither can he be both present and absent at the same time. No, these issues are of the highest importance. Without the assurance given by Smartmatic that these machines can definitively detect their own manipulation and provide incontrovertible proof of

tampering, then these machines are just counting machines that will count extra - perhaps from the unused pile – and falsely accomplished ballots as easily as faithfully filled out ballots. COMELEC will have to provide complainants all the torn unused ballots in all the precincts the complainants identify. Remember that we have the doing away of handwritten voting. There is no way now to distinguish between these two kinds of ballots. Opening the ballot boxes and holding manual audits may show nothing more than that the machine correctly counted both kinds of ballots. The falsely as well as the genuinely accomplished. And it will not be possible to prove that some if not all the ballots were fed or re-fed into the machine after or before the voting time, before or after the voting date of May 10, 2010."

### 3. May 28, 2010

"This is our seventh meeting.

You have watched me on television and heard me on radio say ibabasura ko ang whistle  blower testimony ni Koala Bear, Manoling Morato and those parts of Ace Barber's testimony that also refer to offers from so-called operatives. The Committee can do nothing with these reports. They may be true but the so-called operatives may also have been scam artists. We shall never know unless Morato IDs the four men in the COMELEC plantilla.

I have given my opinion—and my opinion can be overruled by this Committee—on the adequacy of the Smartmatic response to the question of the CF inventories based on the voluminous documentation submitted. In my view on that narrow issue, Smartmatic is cleared.

On the question of the legal adequacy of PCOS digital signatures, it was and remains my opinion that the universal lack of personal digital signatures of BEIs violates the Automation Law in relation to the E-Commerce Act in literal terms but that, in logical terms, the digital signatures of PCOS machines traceable to specific BEIs who may have manipulated the machines is equivalent compliance to the literal requirement and therefore sufficient. Of course, my colleagues have disagreed with me on the floor and, who knows, life is a mystery, and they may be right after all. The remaining issues, still unresolved to any reasonable person's satisfaction are:

1. The discrepancies in the dates of ERs and Audit Logs submitted by specific complainants, and the response of Smartmatic that the occurrences in date and time reflected in these documents are trivial considerations. They illustrate the principle of *res ipsa loquitur;* the erroneous ERs and Audit Logs showing wrong dates and wrong times of voting speak for themselves and must be taken at face value. No. These issues are of the highest importance. Without the assurance given by Smartmatic that these machines can definitively detect their own manipulation and provide incontrovertible proof of tampering, then these machines are just counting machines that will count extra, fraudulently filled out ballots whether genuine or not or recount the ballots the per cast minus the ballots favoring candidates that were taken out of the ballot box and reinserted after voting hours.

The explanation that the PCOS machines cannot be shaken too vigorously because they can sometimes change date and time was adequately rejected by Congressman Golez who has yet to encounter such a fragile machine in his long experience with computers, and by Congressman Biazon that shaking a machine, like a cellphone or a computer, so as to dislodge the battery will at worst return the date to the same date when the machine was purchased or produced.

There are technical objections still that the Monday visit to the Cabuyao plant may help resolve. I urge the IT experts to go and some of our colleagues as well but if they don't want to, the visit will nonetheless proceed and the Committee report will base its conclusions on the cogency of the arguments made by those who were present in the Cabuyao plant, on the validity of their objections to the working environment in the Cabuyao plant or on their total indifference to these proceedings, in which case we shall take Smartmatic's word on any related matters as final.

There is an ignorant comment that the Koala Bear—it appeared in one newspaper, it was pointed out to me because I do not read newspapers-- an ignorant comment that the Koala Bear DVD should never have been entertained. It violated procedure. It put one over media which was taken for a ride. Philippine media was already riding that DVD a week before I was taken on that ride by the Office of the Speaker, and before him by Secretary Ermita, and before him, by newspaperman Buddy Cunanan who had already shared it with the whole of media. Nobody takes Filipino media for a ride unless the Filipino media wants to take that ride and somebody else is paying the cab fare. The Philippine media is not stupid. Same with Morato's testimony that everyone but me was clamoring for.

On Monday, kanya-kanyang transport to Cabuyao. I am not offering anyone else a ride except Bettina Quimson. See you at Cabuyao at 9 a.m. or not. I couldn't care less because COMELEC has agreed to the visit. Smartmatic will require only the signing of confidentially agreements, which is to protect their proprietary rights although one intellectual property expert, Mr. Che Cristobal, told me the other day, proprietary rights yield to the public interest especially when the public paid for the use of those rights.

This meeting is resumed. We end at 12 or earlier, I hope.

We shall begin, I hope, with Congressman Arbison, followed by Attorney  Carrasco.. Attorney Mario Carrasco, endorsed by Congressman Klarex Uy, Cagayan de Oro. And then by Annie Susano with regard to her CF card. With regard to her CF card, if she will not demonstrate it, I will thenceforth ignore it. Again, as in all my other points, I can, of course, be overruled by my colleagues.

As you will have noticed, the difference between these meetings and the canvass below is that this is clearly an investigation and the canvass below is clearly a declamation contest, very proper, of course, but here in these meetings we seek material bases for our conclusions. There they state conclusions and then search for the basis.

**And finally, if some losers are whiners, let me tell you, some winners are cheaters.**

Proceed.

**D. ATTENDANCE:**

**The following members of the House, resource persons and witnesses appeared in the hearings to testify, provide their inputs on the issues raised in the public hearings or simply observe the proceedings:**

1) Hon. Teodoro L. Locsin, Jr.
2) Hon. Mary Ann Susano
3) Hon. Munir M. Arbison
4) Hon. Matias D. Defensor, Jr.
5) Hon. Pedro P. Romualdo
6) Hon. Mariano U. Piamonte, Jr.
7) Hon. Eduardo Nonato Joson
8) Hon. Arrel Olano
9) Hon. Teodulo M. Coquilla
10) Hon. Rufus B. Rodriguez
11) Hon. Roilo S. Golez
12) Hon. Rodante Marcoleta
13) Hon. Nur G. Jaafar
14) Hon. Candido P. Pancrudo, Jr.
15) Hon. Jonathan dela Cruz
16) Hon. Thomas I. Dumpit, Jr.
17) Hon. Angelito C. Gatlabayan
18) Hon. Yevgeny Vincente B. Emano
19) Hon. Glenn Chong
20) Hon. Rozzano Rufino Biazon
21) Hon. Monico O. Puentevella
22) Hon. George Arnaiz
23) Hon. Victor F. Ortega
24) Hon. Bienvenido Abante, Jr.
25) Hon. Eileen Ermita-Buhain
26) Hon. Joseph Santiago
27) Hon. Abraham Kahlil Mitra
28) Hon. Jeci Lapus
29) Hon. Leonardo Q. Montemayor
30) Hon. Angelito P. Reyes
31) Hon. Ferdinand Martin Romualdez
32) Hon. Magtanggol T. Gunigundo
33) Hon. Elpidio F. Barzaga, Jr.
34) Hon. Roman T. Romulo
35) Hon. Roque R. Ablan, Jr.
36) Hon. Edcel C. Lagman
37) Hon. Simeon Datumanong
38) Hon. Rene M. Velarde
39) Hon. Mar-len Abigail Binay
40) Hon. Luis R. Villafuerte
41) Hon. Abdullah D. Dimaporo
42) Hon. Raul T. Gonzalez, Jr.
43) Hon. Salvador Britanico
44) Hon. Raul V. del Mar
45) Hon. Rafael V. Mariano

46) Hon. Catalina Pizarro
47) Hon. Evelyn Reyes
48) Former Congressman Ruy Elias Lopez
49) Former Congresswoman Loretta Ann Rosales
50) Former Congressman Ace Barbers

**1) From the Commission on Elections**

   a) Chairman Jose A.R. Melo
   b) Commissioner Gregorio Y. Larrazabal
   c) Commissioner Rene V. Sarmiento
   d) Commissioner Nicodemo T. Ferrer
   e) Commissioner Lucenito V. Tagle
   f) Commissioner Nicodemo T. Ferrer
   g) Commissioner Lucenito V. Tagle
   h) Commissioner Elias R. Yusoph
   i) Executive Director Jose M. Tolentino
   j) Director James Jimenez

**2) From SMARTMATIC**

   a) Mr. Cesar Flores
   b) Mr. Alberto Castro
   c) Mr. Heider Garcia
   d) Mr. Eduardo Correia

**3) From PPCRV**

   a) Ambassador Henrietta de Villa
   b) Atty. Howard Calleja

**4) IT experts**

   a) Atty. Al Vitangcol        -        AVALaw Office
   b) Mr. Lito Averia           -        AES Watch
   c) Mr. Roberto Verzola       -        University of the Philippines
   d) Ms. Bettina Quimson       -        Navigation Information Technology

**5) Other offices and organizations**

   a) Ms. Grace Enriquez        -        National Printing Office

**C) Annexes of documents from the complainants**