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**FINAL REPORT OF THE  
ATM SAFETY STUDY COMMITTEE**

**COMMITTEE MEMBERS**

Honorable John J. Wiles, Chairman  
Senator, 37<sup>th</sup> District

Honorable John Bulloch  
Senator, 11<sup>th</sup> District

Honorable George Hooks  
Senator, 14<sup>th</sup> District

Honorable Nancy Schaefer  
Senator, 50<sup>th</sup> District

Honorable Ed Tarver  
Senator, 22<sup>nd</sup> District

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**Prepared by the**  
**Senate Research Office**

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## **INTRODUCTION**

The Senate ATM Safety Study Committee was created pursuant to the authority granted in Senate Resolution 5. The Committee's purpose was to study issues pertaining to automated teller machine (ATM) related crime. Among its goals, the Committee sought to ascertain the pervasiveness and characteristics of this type of criminal activity and to consider possible ways to better protect ATM users in Georgia, including a variety of proposed technological safeguards.

Senator John J. Wiles served as the Committee's Chairman. The other members of the Committee were Senator John Bulloch, Senator George Hooks, Senator Nancy Schaefer, and Senator Ed Tarver.

The Committee held one public meeting in Atlanta on December 21, 2006. During this meeting, the Committee heard testimony from Mr. Ron Russikof, representing ATMOnGuard; Mr. Chip Minto, Safe Alert Systems; Mr. Joe Zingher, inventor of the SafetyPIN System; Dr. Milos Prvulovic, Assistant Professor at the Georgia Institute of Technology, College of Computing; Mr. Mike Boyd, whose wife, Kimberly, tragically died during the course of an ATM related robbery in 2005; Mr. Frank Vincent Rotunda, Georgia Association of Chiefs of Police; and Mr. Steve Bridges, Community Bankers Association of Georgia and speaking on behalf of Georgia's financial institutions.

## **BACKGROUND**

Although there are estimated to be more than 400,000 ATMs throughout the United States,<sup>1</sup> statistics on the dangers of ATM-related crimes are difficult to gather. Neither the Georgia Bureau of Investigation nor the Federal Bureau of Investigation separately track ATM related crimes. The American Bankers Association estimates that one crime is committed for every 3.5 million ATM transactions per year, while A BAI Global, Inc. study suggests a crime rate of one for every two million transactions or about 5,500 crimes a year.<sup>2</sup>

High profile criminal attacks on bank customers in the past few years have raised the public's interest in the issue of ATM safety. A variety of technological solutions, ranging from "panic buttons" to emergency personal identification numbers (PINs), have been proposed that may provide more protection to ATM users. Some states, such as Illinois, have considered legislation requiring ATMs to be equipped with such safeguards, but so far no jurisdiction mandates the use of any of these technologies.<sup>3</sup> In Georgia, Senate Bill 513 was introduced in 2006 and would require the use of 911 emergency call capability to be installed on all ATMs operated in the state.

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<sup>1</sup> "Financial Institution ATMs: The Roles they Play in the 21<sup>st</sup> Century," 2006.

<sup>2</sup> "Crime Continues to Dog ATM Industry," ATMmarketplace.com, 2002.

<sup>3</sup> Illinois Senate Bill 562, passed in 2003, made the implementation of reverse PIN technology for ATM terminals optional. See 205 Ill. Comp. Stat. § 616/50(i) (2006).

## **COMMITTEE HEARING**

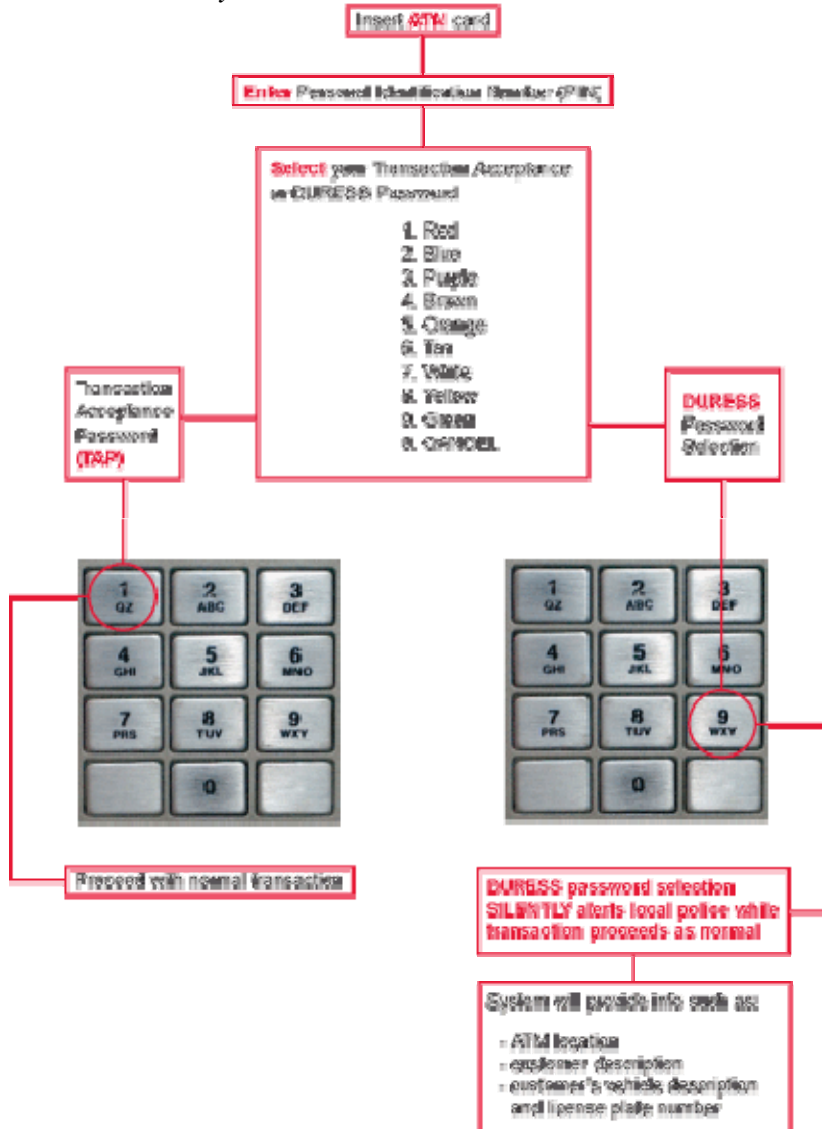
The December 21 Committee meeting was held at the Capitol, and the Committee heard from several witnesses on the merits and feasibility of implementing new protective features to ATMs in Georgia. In particular, the Committee heard testimony regarding two separate possibilities: the installation of 9-1-1 emergency call capability on ATMs; and emergency PIN technology.

### **ATMOnGuard**

The first witness, Mr. Ron Russikof of ATMOnGuard, discussed his company's system for emergency PINs that would allow banking customers to signal for help if forced to withdraw cash from an ATM. His proposal calls for customers to choose a second form of authentication in addition to their regular PIN. Under this system, in order to use an ATM, customers would insert or swipe their ATM cards and enter their PIN as is typically done now. After entering their PIN, however, customers would be prompted to enter a second code: either a Transaction Acceptance Password (TAP) for a normal transaction; or a duress password to signal a crisis (see chart below). If the duress password is chosen, the system alerts local police of an emergency and provides them with information about the customer and the location of the ATM. The transaction will continue as usual so as not to alert an assailant that authorities have been summoned.

The entire process, Mr. Russikof testified, would take "milliseconds" and would give police a valuable lead in the pursuit of criminals. He told the Committee that approximately 90 percent of all forced ATM withdrawals do not originate at ATMs. According to Mr. Russikof, ATMOnGuard would give authorities important information about the whereabouts of a criminal and his or her victim even if the two leave the ATM location, as the system would transmit to police identifying facts such as a description of the customer and his or her license plate number. When asked about the cost of this system, Mr. Russikof said that costs would vary based on the size of the bank, but he estimated that a bank with about ten branches would need to spend about \$5,000 to install the system and approximately \$7 to \$11 per month thereafter for maintenance.

## ATMOnGuard System<sup>4</sup>



## ATM911 Communication Emergency System

The second witness to testify to the Committee was Mr. Chip Minto of Safe Alert Systems, discussing his company's ATM911 Communication Emergency System. Unlike any other system discussed at the meeting, ATM911 has actually been tried at various ATMs across the nation, with Mr. Minto reporting that it has been installed at over 2,000 locations in over 30 states. This system consists of a button on an ATM that becomes activated once a customer inserts or swipes his or her ATM card into the

<sup>4</sup> From ATMOnGuard's website, <http://www.atmonguard.com/system/index.htm>

machine; after activation, it can be pressed to call 911. Pressing the button initiates a two-way call to the local 911 call center, a call that only the 911 call center may terminate. This audio connection allows a 911 operator the ability to hear what is occurring at and around the ATM and to communicate with persons surrounding the ATM, up to 30 feet. Mr. Minto emphasized that this system was not intended for victims to call the police in the midst of a crime, as such an action in many instances would be quite dangerous. Instead, the system was designed for victims to be able to summon for help after an ATM robbery. This would allow police to arrive at the scene of a crime quickly and could be potentially lifesaving for an injured crime victim with no other means to call for help. That the system could only be activated by the swiping or insertion of an ATM card would reduce the risk that ATM911 would be used for prank calls or false alarms. Mr. Minto estimated that the cost of installing this system would be on average a one-time expense of approximately \$1,000 per ATM.

### **SafetyPIN System**

The third witness to testify was Mr. Joe Zingher, inventor of the SafetyPIN System, popularly known as the reverse PIN system. Under Mr. Zingher's proposal, banking customers would be able to enter their PIN in reverse order in the event of an emergency, thus alerting authorities of the crisis. For PINs that would be the same number if reversed, such as 2442 or 8888, the SafetyPIN System provides for an emergency PIN with different methods, such as turning the PIN inside out (2442 would become 4224) or with the system's Plus-1PIN method. As with Mr. Russikof's system, the transaction would proceed as usual while signaling to authorities that a crisis is afoot. The advantage of this system, according to Mr. Zingher, is that it can already be implemented with current hardware and software; banking customers will not be required to select an emergency PIN, as the system dictates what that number would be. Mr. Zingher emphasized that he believes his system could be installed in all the ATMs in the United States at a cost of approximately \$10 million.

### **Additional Testimony**

After Mr. Zingher's testimony, Georgia Institute of Technology professor Dr. Milos Prvulovic addressed the Committee to discuss the technological aspects of these proposals. Dr. Prvulovic, a professor of computer architecture, expressed confidence that an emergency PIN system could be implemented if desired. He testified that a reverse PIN system would require no new hardware.

The fifth witness to testify was Mr. Mike Boyd, whose wife, Kimberly, died after her car was hijacked and her assailant forced her to withdraw money from an ATM. During his emotionally charged testimony, Mr. Boyd recounted this tragedy and stressed his fervent belief that more must be done to protect the public from ATM-related crimes. Mr. Boyd expressed his strong support for requiring that banks implement an emergency PIN system. Addressing the concern that a crime victim would be unable to remember his or her PIN in reverse in the midst of a robbery, Mr. Boyd told the Committee that he believed that many victims would be able to perform this mental task and recalled that his

own wife had the poise during her ordeal to withdraw money from the couple's business account (which had overdraft protection) rather than their personal account. In all, Mr. Boyd was highly confident that a reverse PIN system would work to prevent future tragedies.

The next witness, Mr. Frank Vincent Rotunda, Executive Director of the Georgia Association of Chiefs of Police, addressed the issue of ATM safety from a law enforcement perspective. He did express concern about the potential for false alarms with these proposed safety measures, noting that false alarms curtail the speed and efficiency of police responses. Mr. Rotunda also observed that statistics on ATM related crimes are very difficult to gather, as the Federal Bureau of Investigation has no separate code for such incidents. Mr. Rotunda suggested the possibility that legislation be passed that would allow for local police to collect and release ATM crime statistics.

The final witness to speak at the hearing was Mr. Steve Bridges of the Community Bankers Association of Georgia. Addressing the concerns of financial institutions in Georgia, Mr. Bridges stated his reasons why his organization would oppose the proposed technologies be required for the State's ATMs. Regarding "panic buttons," Mr. Bridges stated that these features have been previously tried on various ATMs in Georgia but have been removed from most of them. He said he was not aware of a customer ever using one to report a crime. Instead, he reported that banks had a problem with customers pressing them for non-emergency situations, such as for customer service concerns. He also said that he did not believe these buttons to be a deterrent to crime. Mr. Bridges said he was concerned that a victim attempting to press one during the course of a crime would be dangerous and undermine the safety of banking customers.

Regarding emergency PINs, Mr. Bridges told the Committee that the difficulty of remembering a secondary PIN in the midst of a robbery would increase the risk of harm to victims. He also testified that even if summoned with an emergency PIN, help would probably arrive too late to help the victim. Mr. Bridges also expressed doubts about the technological feasibility of these proposals and provided Committee members with a flow chart detailing the numerous entities involved in authorizing a typical ATM transaction. He noted that most institutions use third party processors that would not necessarily be located within Georgia and that would not have any personal information on the ATM customer. He went on to say that it would be imprudent of banks to provide this personal information to the processors because of privacy and identity theft concerns.

In either the case of panic buttons or emergency PINs, Mr. Bridges expressed his concern that legislation mandating these features would be preempted by federal law. When asked to provide figures on ATM related crimes, Mr. Bridges said that his organization does not keep statistics on such incidents.

After Mr. Bridges's testimony, the prior witnesses spoke again to the Committee to address some of his points. Mr. Minto rebutted the suggestion that the 911 buttons were not a deterrent to crime, noting that testimony given by a representative of Wachovia to a New Jersey legislative committee stated otherwise. Mr. Minto also referred to the

positive feedback that he had received from mayors of municipalities that required these buttons. Mr. Zingher told the Committee that false alarms would be minimal with his SafetyPIN system; he also rejected Mr. Bridges's preemption concerns and noted that there is no case law directly addressing this issue. Dr. Prvulovic also spoke again to reiterate his confidence that an emergency PIN system could be successfully implemented and, after the meeting, provided the Committee members with a further explanation of the technology behind this proposal.

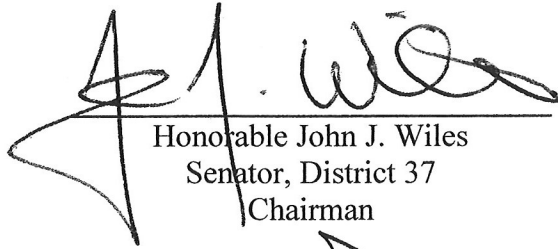
## **CONCLUSION**

Throughout its study, the Committee encountered the problem of a lack of reliable data on the pervasiveness of ATM related crime. The Committee finds that more information is needed on the dangers facing users of Georgia's ATMs and on possible technological safeguards. After further consideration, legislation implementing some form of alert system on ATMs may be warranted. The Committee would also like to consider means of better gathering statistics on ATM related crime.



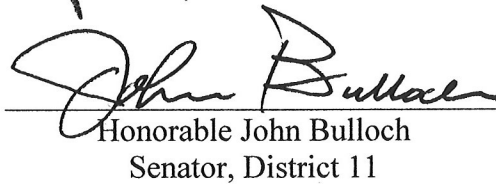
Respectfully submitted,

**THE SENATE ATM SAFETY STUDY COMMITTEE**



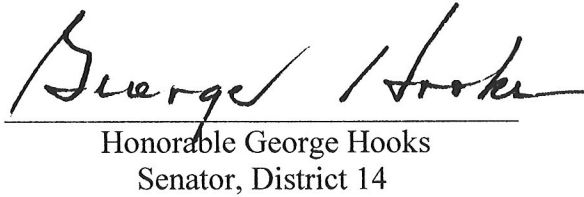
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Honorable John J. Wiles  
Senator, District 37  
Chairman



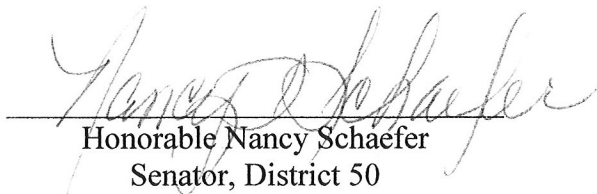
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Honorable John Bulloch  
Senator, District 11



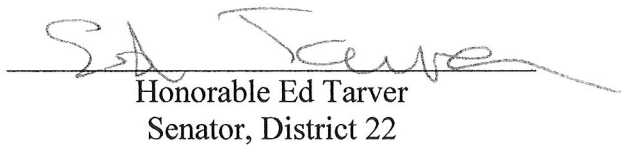
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Honorable George Hooks  
Senator, District 14



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Honorable Nancy Schaefer  
Senator, District 50



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Honorable Ed Tarver  
Senator, District 22