REPORT OF THE
VIRGINIA STATE CRIME COMMISSION

Nondetectable Firearms and Court Security

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 10

COMMONWEALTH OF VIRGINIA
RICHMOND
1990

MEMBERS OF THE VIRGINIA STATE CRIME COMMISSION 1989

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Howard P. Anderson
Elmo G. Cross, Jr.

From the House of Delegates:

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Robert C. Bobb
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COMMONWEALTH of VIRGINIA

VIRGINIA STATE CRIME COMMISSION

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IN RESPONSE TO
THIS LETTER TELEPHONE
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ROBERT E. COLVIN
EXECUTIVE DIRECTOR

October 17, 1989

TO: The Honorable Gerald L. Baliles, Governor of Virginia
and Members of the General Assembly

House Joint Resolution 367, agreed to by the 1989 General Assembly, directed the Virginia State Crime Commission to "(i) evaluate the state of the art of manufacture of nondetectable firearms and firearms or explosives containing materials other than metal, (ii) determine what, if any, danger is presented to the Commonwealth by the existence of such weapons, (iii) determine the adequacy and effectiveness of jailhouse and courtroom weapons detection devices to detect metallic or nonmetallic firearms and explosives, (iv) evaluate the impact on the Commonwealth of recent federal legislation regarding plastic guns and whether similar state legislation is appropriate and (v) make any recommendations the Commission finds appropriate including minimum standards, if appropriate, for detection devices."

In fulfilling this directive, a study was conducted by the Virginia State Crime Commission. I have the honor of submitting herewith the study report and recommendations on nondetectable firearms and explosives.

Respectfully submitted,

Elmon T. Gray

ETG/sm

Law Enforcement Subcommittee Studying

COURT SECURITY AND PLASTIC FIREARMS (HJR 367)

Members

Delegate Raymond R. Guest, Jr., Chairman
Senator Elmon T. Gray
Senator Elmo G. Cross, Jr.
Delegate Robert B. Ball, Sr.
Delegate Warren G. Stambaugh
Mr. Robert C. Bobb
Mr. Robert F. Horan, Jr.
Mr. H. Lane Kneedler

Staff

Robert E. Colvin, Executive Director
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Susan A. Bass, Research Assistant
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I. AUTHORITY FOR STUDY

House Joint Resolution 367, sponsored by Delegate G. Steven Agee and passed by the 1989 General Assembly, authorized the Virginia State Crime Commission to "(i) evaluate the state of the art of manufacture of nondetectable firearms and firearms or explosives containing materials other than metal, (ii) determine what, if any, danger is presented to the Commonwealth by the existence of such weapons, (iii) determine the adequacy and effectiveness of jailhouse and courtroom weapons detection devices to detect metallic or nonmetallic firearms and explosives, (iv) evaluate the impact on the Commonwealth of recent federal legislation regarding plastic guns and whether similar state legislation is appropriate; and (v) make any recommendations the Commission finds appropriate including minimum standards, if appropriate, for detection devices."

§9-125 of the Code of Virginia establishes and directs the Virginia State Crime Commission (VSCC) "to study, report, and make recommendations on all areas of public safety and protection." §9-127 of the Code of Virginia provides that "the Commission shall have duty and power to make such studies and gather information in order to accomplish its purpose, as set forth in §9-125, and to formulate its recommendations to the Governor and the General Assembly." §9-134 of the Code of Virginia authorizes the Commission to "conduct private and public hearings, and to designate a member of the Commission to preside over such hearings." The Virginia State Crime Commission, in fulfilling its legislative mandate, undertook the Court Security and Plastic Firearms Study as requested by House Joint Resolution 367.

II. MEMBERS APPOINTED TO SERVE

During the April 18, 1989 meeting of the Crime Commission, its Chairman, Senator Elmon T. Gray of Sussex, selected Delegate Raymond R. Guest, Jr., to serve as chairman of the Law Enforcement subcommittee. Members of the Crime Commission who served on the subcommittee were:

Delegate Raymond R. Guest, Jr., of Front Royal, Chairman
Senator Elmon T. Gray, of Sussex
Senator Elmo G. Cross, Jr., of Hanover
Delegate Robert B. Ball, Sr., of Henrico
Delegate Warren G. Stambaugh, of Arlington
Mr. Robert C. Bobb, of Richmond
Mr. Robert F. Horan, Jr., of Fairfax County
Mr. H. Lane Kneedler, Attorney General's Office

III. EXECUTIVE SUMMARY

The full Crime Commission met on October 17, 1989, and received the report of the subcommittee. After careful consideration, the findings and recommendations of the Law Enforcement Subcommittee were adopted by the Commission.

The information received by the subcommittee indicated that, at this time, there are no all-plastic firearms in production nor any plans to manufacture such firearms. In addition, results of a survey on courtroom and jailhouse security distributed to all state sheriffs, indicated no outstanding problems overall in Virginia.

A leading gun manufacturer in Virginia, Heckler and Koch, Inc., utilizes plastic component parts to enhance the quality of many of its firearms; however, each firearm still contains a substantial amount of electromagnetic material and can be readily detected by conventional detection equipment.

In 1987, Byron, Inc. proposed a .22 LR plastic pistol with a ceramic barrel liner; however, in June of 1989, Mr. Byron indicated that his company had abandoned the idea of producing an all-plastic firearm.

The Bureau of Alcohol, Tobacco and Firearms Report on Undetectable Firearms evaluated detection equipment and identified existing detectors which have the ability to distinguish a security exemplar from other common metal objects. The BATF report concluded that operational location and routine adjustment affect the performance of walk-through detectors.

A North American Arms .22 caliber 5-shot revolver, weighing approximately 4.0 ounces with grips, was not detected within or without its camouflage plastic "paging device" by the walk-through device at a rural Virginia courtroom. However, at the time of the testing, the walk-through device was not in its normal operational location.

The subcommittee recognized the need to caution law enforcement agencies about the camouflage paging device and mini revolver and to provide these agencies with information from the BATF report concerning detection capabilities. The subcommittee recommended that the Commission notify law enforcement agencies of both problems. Finding that plastic firearms did not present a particular problem otherwise, no further recommendations were made.

IV. STUDY DESIGN

The subcommittee contacted the Bureau of Alcohol, Tobacco and Firearms (BATF) and received a copy of its report on Undetectable Firearms. The subcommittee also conducted a mail survey on Courtroom and Jailhouse Security of all Sheriffs' offices.

The subcommittee staff digested the information in the BATF report and presented its findings to the subcommittee on July 27, 1989. In addition, the subcommittee staff compiled and evaluated the data from the surveys and presented its findings to the subcommittee at the July meeting. Various field studies were done, the results of which were considered by the subcommittee.

MEETINGS

First Subcommittee Meeting:	June 20, 1989
Second Subcommittee Meeting:	July 27, 1989
Final Subcommittee Meeting:	September 18, 1989

REPORTS

Initial Staff Study:	June 20, 1989
Second Update for Subcommittee Review:	July 27, 1989
Subcommittee's Report to Full Commission:	October 17, 1989

V. BACKGROUND

In a 1987 Crime Commission study on firearms and ammunition, the Commission concluded that, at that time, there were no firearms being manufactured which could escape detection by a properly functioning magnetometer or x-ray device. However, the report noted that Byron, Inc. claimed to have developed, and to be about one to two years away from production of, a .22 caliber pistol which is plastic except for seven metal springs.

The 1988 Report of the Joint Subcommittee Studying Courtroom Security in the Commonwealth included the results of a survey conducted by the Sheriffs' Association which indicated that the majority of jurisdictions do not use either hand held or permanent metal detectors in their courts. The survey also revealed that, of the 31 jurisdictions that use these detection devices, a majority indicated that the detectors function properly at least 80% of the time.

The federal government recently enacted the Undetectable Firearms Act of 1988. (See Appendix B.) This provision amends the Gun Control Act of 1968 and makes it unlawful to manufacture, import, sell, ship, deliver, possess, transfer or receive any firearm that is not detectable by walk-through metal detectors or has, as a major component, a part that cannot be accurately depicted by x-ray equipment commonly used at airports. In addition, the Act includes a requirement that the Bureau of Alcohol, Tobacco and Firearms (BATF) evaluate state-of-the-art metal detectors.

BATF has completed its report on a study of plastic firearms and weapon detection devices. The Crime Commission subcommittee obtained and thoroughly reviewed a copy of this report.

The Code of Virginia was amended during the 1989 Session to make it unlawful to manufacture, import, sell, transfer or possess any plastic firearm. (See Appendix B.) Plastic firearm is defined as "any firearm... containing less than 3.7 ounces of electromagnetically detectable metal in the barrel, slide, cylinder, frames or receiver of which, when subjected to inspection by x-ray machines commonly used at airports, does not generate an image that accurately depicts its shape." A violation of this section is punishable as a Class 5 felony.

Of the 43 states responding to a 1988 survey conducted by the Virginia Legislative Research Library, five states had enacted plastic gun laws.

VI. OBJECTIVES/ISSUES

Based upon the explicit requirements of HJR 367 and additional recommendations made by Delegate G. Steven Agee, its sponsor, at the first meeting of the subcommittee, the following issues and objectives were identified by the subcommittee:

1. Determine whether the technology exists to produce plastic firearms or explosives undetectable to conventional x-ray machines and magnetometers.

2. Use survey results to determine whether jailhouses and court-rooms in Virginia are sufficiently protected from the threat of plastic weapons.

3. Determine the implications of the federal Undetectable Firearms Act.

4. Determine the state of readiness of Virginia's current detection systems.

5. Determine and/or recommend minimum standards for detection devices, if appropriate.

VII. ACKNOWLEDGEMENTS

The members extend thanks to the following agencies and individuals for their cooperation and valuable assistance to this study effort.

Armored Response Group United States
Col. J. C. Herbert Bryant, Jr., Commander
Sgt. Colleen Broderick, Director of Administration

Bureau of Alcohol, Tobacco and Firearms
Steve Rubenstein, Staff Attorney
Charles Demski, ITAR Program Manager
Eric A. O'Neal, Disclosure Officer

City of Richmond Sheriff's Office
Major Ron Elliott

Compensation Board
James Matthews, Executive Secretary

Heckler and Koch, Inc.
James P. Cowgill, Vice President
Brett Gunter, Marketing Representative

House Appropriations Committee
James Roberts, Senior Legislative Fiscal Analyst

Senate Finance Committee
Richard Hickman, Deputy Staff Director

Sheriffs' Offices Statewide

Virginia State Sheriffs' Association
John Jones, Executive Director

VIII. APPLICABLE LAW

A. Code of Virginia §18.2-308.5. Manufacture, import, sale, transfer or possession of plastic firearms prohibited. (See Appendix B.)

B. Section 922 of Title 18 U.S.C., Chapter 44. Undetectable Firearms Act of 1988. (See Appendix B.)

IX. PARALLEL STUDIES

A. Report on Firearms and Ammunition:

In 1987, the Virginia State Crime Commission was requested to conduct a study of issues "related to firearms and ammunition which appear to pose extraordinary threats to the safety of law enforcement and the general public." This study concluded that "at the present time there are no firearms being manufactured which can escape detection by a properly functioning magnetometer or x-ray device."

B. Report of the Joint Subcommittee Studying Courtroom Security in the Commonwealth (1988):

In this report, the joint subcommittee discussed the use of magnetometers in the courts. This study included a survey on courtroom security conducted by the Sheriffs' Association which indicated that the majority of jurisdictions do not use either hand-held or permanent metal detectors.

C. Bureau of Alcohol, Tobacco and Firearms Report on Undetectable Firearms.

1. Background

The chief purpose of the Undetectable Firearms Act of 1988 was to establish a minimum Federal standard for the detectability of firearms by walk-through metal detectors and x-ray systems.

In addition, the law requires that a security exemplar be constructed for use in determining if a firearm is as detectable as the security exemplar. Firearms that are as detectable as the exemplar would be lawful to produce for commercial sale, whereas those not as detectable could only be manufactured or imported for use by the U.S. Military or intelligence agencies.

The BATF Report uses data which the Federal Aviation Administration (FAA) was in the process of gathering from Science Applications International Corporation (SAIC).

Due to time constraints, no exemplar was constructed and the North American Arms .22 short revolver (NAA22S) was chosen as a substitute for the security exemplar.

2. Results

SAIC evaluated the following metal detectors for compliance with the Undetectable Firearms Act of 1988:

Del Norte Sentrie AT
Del Norte FS-3W
Del Norte FS 2W
Outokumpu Metor 120
Outokumpu Metor 118
Infinetics Friskem 500
Heimann MDT 8900

The following walk-through metal detectors were able to distinguish the NAA22S revolver from other metal objects commonly carried on one's person:

Sentrie AT (program 4)
Sentrie AT (program 5)
Outokumpu Metor 120 (program 1)
Outokumpu Metor 120 (program 0)
Outokumpu Metor 118
Infinetics Friskem 500
Infinetics Friskem 500 (modified cards)
Heimann MDT 8900

Conclusions

- Testing by SAIC identified existing detectors which have the ability to distinguish a small firearm from other common metal objects.
- During laboratory testing, the Del Norte FS-3W and FS-2W both failed to detect the NAA22S.
- Operational location for any walk-through detector can affect the performance of the detector.
- Walk-through metal detectors must be routinely adjusted to insure proper performance.

X. UPDATE ON CURRENT TECHNOLOGY

A. Introduction

A key issue in this study was to determine whether the technology exists

to produce firearms that cannot be detected by conventional detection devices.

In order to familiarize staff with present technology, Col. J. C. Herbert Bryant, Jr. arranged for staff to visit the Heckler and Koch, Inc. facility in Sterling, Virginia to discuss the use of plastics in firearms. In addition, Commission staff visited a gun distributor to inspect several hand guns utilizing high percentages of plastic parts. These included the 9mm Glock 17 and 19; Heckler and Koch P9S .45 caliber; Intratec 22LR; and AA Arms 9mm. Staff also visited the police range and test fired the two most well-known guns which use high percentages of composite material - the Glock 19 and the Heckler and Koch P9S. Staff also visited a Virginia district court and tested state of the art detection equipment on weapons containing plastic parts.

B. Test Site Detection Capability

At the test site courtroom, the staff found that the Glock 19 and Heckler and Koch P9S were readily detected by the walk-through and hand-held detection devices. A North American Arms .22 caliber 5-shot revolver, weighing, according to the manufacturer, approximately 4.0 ounces with grips, was not detected within or without its camouflage plastic "paging device," with or without ammunition, by the walk-through device; however, it was readily detected by the hand-held device. Both devices readily detected the handgun and rifle magazine using plastic parts. The walk-through device failed to detect the plastic 12-gauge shotgun shell, 12-gauge slug and .44 magnum plastic cartridge; however, they were readily detected by the hand-held device.

C. Heckler and Koch Current Technology

Heckler and Koch, which assisted the subcommittee throughout the study, does not currently manufacture any all-plastic firearms. It does use plastic/composite parts in many of its firearms, but each firearm still contains a substantial amount of electromagnetic material and can be readily detected by conventional detection devices.

Representatives from Heckler and Koch explained that the company is presently developing weapons utilizing more plastic/composite components, stressing, however, that plastic is being used to improve the quality of weapons rather than to prevent the detection of weapons and adding that detectable implants will be inserted to insure detectability.

The rationale for development of plastic/composite parts in firearms is that they are more resilient and less corrosive, they better retain their shape, they better absorb the "kick" when a weapon is fired, they are lighter weight, and they are cheaper to produce once moulds are made.

D. Byron Technology

In 1987, Byron, Inc. of Casselberry, Florida proposed a .22 LR pistol with an all-plastic frame, plastic internal workings and ceramic barrel liner. The total weight would be only 3.5 ounces. In addition, Byron had been working on a special detection system. Every plastic pistol produced would have had a special metal implant so that it could be detected by Byron's detector and

others. (See Appendix D.)

Mr. Dave Byron indicated in June of 1989 that Byron, Inc. had abandoned the idea of manufacturing an all-plastic handgun; the company is now concentrating on developing a military rifle with plastic/composite parts and plastic grips for handguns.

At the time of this report, there are no apparent plans to discontinue the use of metal barrels in the manufacture of firearms. The proposed ceramic barrel is very expensive to produce. Furthermore, the metal barrel is more durable and less affected by temperature than the ceramic version. The average steel barrel weighs 1.5 ounces per inch which would easily place most firearms over the 3.7 ounces required by law.

XI. SUMMARY OF COURT SECURITY/JAIL SECURITY SURVEY

Each Sheriff's office in Virginia was mailed a survey with questions about the type of electronic security system in place in the local jail and courthouse. (A sample questionnaire is included with summarized responses in Appendix C.) Of the 95 surveys mailed:

- 70 questionnaires were returned.
- 22 answered all preliminary questions "no," indicating that no electronic detection devices were in use.
- Four answered "no" to all preliminary questions, except "yes" to plans to get such a device for the courtroom.
- Two answered "no" to all preliminary questions except "yes" to plans to get such a device for the jail.
- The remaining 42 either had a detection device (or devices) in the courtroom or jail or both.

XII. FINDINGS

A. Courtroom and Jailhouse Security Survey Indicates No Outstanding Problems Overall.

- According to the survey, only seven jurisdictions reported using a walk-through device in the courthouse, none in the jail.
- Most reported satisfaction with the device or devices in use, the biggest complaints resulting from dead batteries.
- None reported encountering a plastic firearm; the only plastic weapons were filed-down pens and toothbrushes.
- Jailors rely on pat searches for weapon detection. Of those reporting possession of detection devices, most reported only sparse use, if any.

- Responses indicated no outstanding security problems overall.

B. The Bureau of Alcohol, Tobacco and Firearms Report on Undetectable Firearms Evaluates State-of-the-Art Detectors.

The BATF report identifies existing detectors which have the ability to distinguish a North American Arms .22 short revolver (NAA22S) from other common metal objects. During laboratory testing by Science Applications International Corporation (SAIC), two devices failed to detect the NAA22S; according to survey respondents, neither of these detectors is currently in use in Virginia.

In addition, the BATF report concluded that the operational location for any walk-through detector can affect the performance of the detector. Furthermore, walk-through metal detectors must be routinely adjusted to ensure proper performance.

C. Byron, Inc. Has Abandoned the Idea of Manufacturing an All-Plastic Handgun.

In 1987, Byron, Inc. of Casselberry, Florida proposed a .22 LR pistol with an all-plastic frame, plastic internal workings, ceramic barrel liner and a total weight of only 3.5 ounces. Mr. Byron indicated in June of 1989 that Byron, Inc. had relinquished the idea of producing an all-plastic handgun; the company is now concentrating on developing a military rifle with plastic/component parts and plastic grips for handguns.

D. A North American Arms .22 Caliber 5-shot Revolver (NAA22S) Was Not Detected With a Detection Device at a Rural Courtroom.

Staff found that a NAA22S, weighing approximately 4.0 ounces with grips, was not detected within or without its camouflage plastic "paging device," with or without ammunition, by the walk-through device; however, it was readily detected by the hand-held device. At the time of testing, the walk-through device was in storage and not in its normal setting.

XIII. RECOMMENDATIONS

Pursuant to HJR 367 (1989), the subcommittee studying court security and plastic firearms carefully considered the current status of weapons utilizing plastic/composite parts and detection equipment. In its final meeting on July 27, 1989, the subcommittee approved its report for presentation to the full Commission on October 17, 1989. At that meeting the Crime Commission carefully considered the findings of the subcommittee and unanimously adopted its report and following recommendations:

A. Caution Law Enforcement Agencies About the Camouflage Paging Device and the Mini-Revolver.

The subcommittee recommended informing sheriffs' offices and other law enforcement agencies statewide about the camouflage paging device which houses the North American Arms .22 caliber 5-shot revolver.

B. Provide Law Enforcement Agencies with Information from the BATF Report.

The subcommittee recommended informing sheriffs' offices and other law enforcement agencies statewide about the following conclusions of the BATF report:

1. During laboratory testing, two detectors failed to detect the NAA22S.

2. The operational location for any walk-through detector can affect the performance of the detector.

3. Walk-through metal detectors must be routinely adjusted to insure proper performance.

APPENDIX A

HP9064402

HOUSE JOINT RESOLUTION NO. 367

House Amendments in [ ] - February 6, 1989

Requesting the Virginia State Crime Commission to study nondetectable firearms and their effect on jail and courtroom security.

Patrons--Agee; Senators: Benedetti and Marye

Referred to the Committee on Rules

WHEREAS, the technology may soon exist to produce firearms or explosives made substantially from materials other than metal (primarily plastic); and

WHEREAS, such firearms or explosives would be undetectable or unidentifiable as such by security screening devices such as those used at courtrooms and jailhouses; and

WHEREAS, the technology to develop such weapons may have advanced significantly since last studied by the Crime Commission in its 1987 study of firearms and ammunition; and

WHEREAS, the federal government recently enacted the Undetectable Firearms Act of 1988, codified at 18 U.S.C. 922(p), which includes a requirement that the Bureau of Alcohol, Tobacco and Firearms evaluate state-of-the-art metal detectors; and

WHEREAS, the report of the Joint Subcommittee Studying Courtroom Security (Senate Document No. 5, 1988) found that most jurisdictions do not use either hand-held or permanent metal detectors; and

WHEREAS, a comprehensive study of the effectiveness and degree of use of such detectors and their effect on courtroom and jail security does not appear to have been done; and

WHEREAS, the General Assembly recognizes the importance of protecting the well-being of our citizens and judicial officials who are present in our courtrooms or jails; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Virginia State Crime Commission is requested to (i) evaluate the state of the art of manufacture of nondetectable firearms and firearms or explosives containing materials other than metal, (ii) determine what, if any, danger is presented to the Commonwealth by the existence of such weapons, (iii) determine the adequacy and [~~readiness~~ effectiveness] of jailhouse and courtroom weapons detection devices to detect [metallic or] nonmetallic firearms and explosives, (iv) evaluate the impact on the Commonwealth of recent federal legislation regarding plastic guns and whether similar state legislation is appropriate and (v) make any recommendations the Commission finds appropriate including minimum standards, if appropriate, for detection devices.

The Commission may employ whatever methods of inquiry it deems appropriate and necessary, including but not limited to the conducting of public hearings throughout the Commonwealth and the employment of additional temporary staff.

The Commission shall complete its study and submit its recommendations, if any, no later than December 1, 1989, as provided in the procedures of the Division of Legislative Automated Systems for processing legislative documents.

The direct costs of this study are estimated to be $5,500, and such amount shall be allocated to the Virginia State Crime Commission from the general appropriation to the General Assembly.

APPENDIX B

UNDETECTABLE FIREARMS ACT

Mr. BYRD. Mr. President, I ask that the Chair lay before the Senate a message from the House of Representatives on H.R. 4445.

The PRESIDING OFFICER laid before the Senate the following message from the House of Representatives:

Resolved, That the House agree to the amendment of the Senate to the bill (H.R. 4445) entitled "An Act to amend title 18, United States Code, to prohibit certain firearms especially useful to terrorists", with the following amendment:

In lieu of the matter inserted by said amendment, insert:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Undetectable Firearms Act of 1988".

SEC. 2. UNDETECTABLE FIREARMS.

(a) PROHIBITIONS.—Section 922 of title 18, United States Code, is amended by adding at the end the following:

"(p)(1) It shall be unlawful for any person to manufacture, import, sell, ship, deliver, possess, transfer, or receive any firearm—

"(A) that, after removal of grips, stocks, and magazines, is not as detectable as the Security Exemplar, by walk-through metal detectors calibrated and operated to detect the Security Exemplar; or

"(B) any major component of which, when subjected to inspection by the types of x-ray machines commonly used at airports, does not generate an image that accurately depicts the shape of the component. Barium sulfate or other compounds may be used in the fabrication of the component.

"(2) For purposes of this subsection—

"(A) the term 'firearm' does not include the frame or receiver of any such weapon;

"(B) the term 'major component' means, with respect to a firearms, the barrel, the slide or cylinder, or the frame or receiver of the firearms; and

"(C) the term 'Security Exemplar' means an object, to be fabricated at the direction of the Secretary, that is—

"(i) constructed of—

"(I) during the 12-month period beginning on the date of the enactment of this subsection, 3.7 ounces of material type 17-4 PH stainless steel in a shape resembling a handgun; and

"(II) after the close of such 12-month period, 3.7 or fewer ounces of such metal (as prescribed by the Secretary in regulations as state-of-the-art in weapons detection technology advances) in such shape, to permit the manufacture, importation, sale, shipment, delivery, possession, transfer, or receipt of firearms that are detectable and contain 3.7 or fewer ounces of such metal; and

"(ii) suitable for testing and calibrating metal detectors.

"(3) Under such rules and regulations as the Secretary shall prescribe, this subsection shall not apply to the manufacture, possession, transfer, receipt, shipment, or delivery of a firearm by a licensed manufacturer or any person acting pursuant to a contract with a licensed manufacturer, for the purpose of examining and testing such firearm to determine whether paragraph (1) applies to such firearms. The Secretary shall ensure that rules and regulations adopted pursuant to this paragraph do not impair the manufacture of prototype firearms or the development of new technology.

"(4) The Secretary shall permit the conditional importation of a firearm by a licensed importer or licensed manufacturer, for examination and testing to determine whether or not the unconditional importation of such firearm would violate this subsection.

"(5) This subsection shall not apply to any firearm which—

"(A) has been certified by the Secretary of Defense or the Director of Central Intelligence, after consultation with the Secretary and the Administrator of the Federal Aviation Administration, as necessary for military or intelligence applications; and

"(B) is manufactured for and sold exclusively to military or intelligence agencies of the United States.

"(6) This subsection shall not apply with respect to any firearm manufactured in, imported into, or possessed in the United States before the date of the enactment of the Undetectable Firearms Act of 1988.".

"(b) PENALTY.—Section 924 of title 18, United States Code, is amended—

(1) in subsection (a)(1), by striking "or (c)" and inserting in lieu thereof ", (c), or (f)"; and

"(2) by adding at the end the following:

"(f) In the case of a person who knowingly violates section 922(p), such person shall be fined under this title, or imprisoned not more than 5 years, or both.".

"(c) CONFORMING AMENDMENTS.—Section 925 of title 18, United States Code, is amended—

(1) in subsection (a), by inserting after "chapter" the following: ", except for provisions relating to firearms subject to the prohibitions of section 922(p),"; and

(2) by adding at the end the following:

"(f) The Secretary shall not authorize, under subsection (d), the importation of any firearms the importation of which is prohibited by section 922(p).".

"(d) RESEARCH AND DEVELOPMENT OF IMPROVED AIRPORT SECURITY SYSTEMS.—The Administrator of the Federal Aviation Administration shall conduct such research and development as may be necessary to improve the effectiveness of airport security metal detectors and airport security x-ray systems in detecting firearms that, during the 10-year period beginning on the effective date of this Act, are subject to the prohibitions of section 922(p) of title 18, United States Code.

"(e) STUDIES TO IDENTIFY EQUIPMENT CAPABLE OF DISTINGUISHING SECURITY EXEMPLAR FROM OTHER METAL OBJECTS LIKELY TO BE CARRIED ON ONE'S PERSON.—The Attorney General, the Secretary of the Treasury, and the Secretary of Transportation shall each conduct studies to identify available state-of-the-art equipment capable of detecting the Security Exemplar (as defined in section 922(p)(2)(C) of title 18, United States Code) and distinguishing the Security Exemplar from innocuous metal objects likely to be carried on one's person. Such studies shall be completed within 6 months after the date of the enactment of this Act and shall include a schedule providing for the installation of such equipment at the earliest practicable time at security checkpoints maintained or regulated by the agency conducting the study. Such equipment shall be installed in accordance with each schedule. In addition, such studies may include recommendations, where appropriate, concerning the use of secondary security equipment and procedures to enhance detection capability at security checkpoints.

(f) EFFECTIVE DATE AND SUNSET PROVISION.—

(1) EFFECTIVE DATE.—This Act and the amendments made by this Act shall take effect on the 30th day beginning after the date of enactment of this Act.

(2) 10-YEAR SUNSET.—Effective 10 years after the effective date of this Act—

(A) subsection (p) of section 922 of title 18, United States Code, is hereby repealed;

(B) subsection (f) of section 924 of such title is hereby repealed;

(C) subsection (f) of section 925 of such title is hereby repealed;

(D) section 924(a)(1) of such title is amended by striking ", (c), or (f)" and inserting in lieu thereof "or (c)"; and

(E) section 925(a) of such title is amended by striking ", except for provisions relating to firearms subject to the prohibitions of section 922(p)."

AMENDMENT NO. 3767

Mr. BYRD. Mr. President, I move that the Senate concur in the amendment of the House with a further amendment which I send to the desk on behalf of Senator METZENBAUM.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from West Virginia [Mr. BYRD], for Mr. METZENBAUM, proposes an amendment numbered 3767.

Mr. BYRD. Mr. President, I ask unanimous consent that the reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

Strike out paragraph 2(c) of subsection (p) as added by section 2 and insert in lieu thereof the following:

"(C) the term 'Security Exemplar' means an object, to be fabricated at the direction of the Secretary, that is—

"(i) constructed of, during the 12-month period beginning on the date of the enactment of this subsection, 3.7 ounces of material type 17-4 PH stainless steel in a shape resembling a handgun; and

"(ii) suitable for testing and calibrating metal detectors;

"Provided, however, That at the close of such 12-month period, and at appropriate times thereafter the Secretary shall promulgate regulations to permit the manufacture, importation, sale, shipment, delivery, possession, transfer, or receipt of firearms previously prohibited under this subparagraph that are as detectable as a 'Security Exemplar' which contains 3.7 ounces of material type 17-4 PH stainless steel, in a shape resembling a handgun, or such lesser amount as is detectable in view of advances in state-of-the-art developments in weapons detection technology;

o Mr. METZENBAUM. Mr. President, I am pleased that once again the Senate is passing legislation banning the sale of plastic and other undetectable guns. This bill originated as S. 465, legislation introduced by myself and cosponsored by Senator THURMOND, The ranking minority member of the Judiciary Committee, as well as several other Senators. When we became convinced that the detectability standard in S. 465 could be reduced if state-of-the-art metal detectors were installed in airports and other Federal facilities, we introduced a revised version of the bill, S. 2180.

From the beginning of our efforts on this legislation, we attempted to persuade the Justice Department to join us in devising an effective and workable bill. Unfortunately, the Justice Department initially decided to endorse a fundamentally different approach embodied in S. 2051, a bill which would have banned only totally plastic guns. This bill would have had no real impact in barring undetectable weapons, and, fortunately, the Justice Department was persuaded to reverse its position and endorse the approach taken by Senator THURMOND and myself.

The credit for the reversal in the Justice Department's position, as well as in the broad public support for this bill, goes first and foremost to the Nation's law enforcement organizations. Every major law enforcement organization in this country, which together constitute the law enforcement steering committee, worked long and hard to make sure this bill became law. I wish to thank again the efforts of these groups, which include the Fraternal Order of Police, the International Association of Chiefs of Police, the International Brotherhood of Police Officers, the Major City Chiefs Organization, the National Association of Police Organizations, the National Organization of Black Law Enforcement Executives, the National Sheriffs Association, the National Troopers Coalition, the Police Executive Research Forum, the Police Foundation, and the Police Management Association.

Over the last few months, my staff has worked with the staff of Congressman HUGHES to resolve the few differences between the House and Senate bills. With a few minor changes, this is the version that has been incorporated into the bill. I wish to commend Congressman HUGHES and this staff for their cooperation and leadership in the House on this issue.

We are amending the House bill for the purpose of making clear that authority granted to the Secretary to revise the exemplar standard extends only to reducing the metal content, and would be exercised in the event that advances in weapons detection technology makes such a reduction practical, consistent with the objectives of this legislation.o

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from West Virginia.

The motion was agreed to.

Mr. BYRD. Mr. President, I move to reconsider the vote by which the motion was agreed to, and I move to lay that motion on the table.

The motion to lay on the table was agreed to.

1989 SESSION

VIRGINIA ACTS OF ASSEMBLY - CHAPTER 663

An Act to amend the Code of Virginia by adding a section numbered 18.2-308.5, relating to plastic firearms; penalty.

[H 1390]

Approved MAR 27 1989

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 18.2-308.5 as follows:

§ 18.2-308.5. Manufacture, import, sale, transfer or possession of plastic firearm prohibited.—It shall be unlawful for any person to manufacture, import, sell, transfer or possess any plastic firearm. As used in this section "plastic firearm" means any firearm, including machine guns and sawed-off shotguns as defined in this chapter, containing less than 3.7 ounces of electromagnetically detectable metal in the barrel, slide, cylinder, frame or receiver of which, when subjected to inspection by x-ray machines commonly used at airports, does not generate an image that accurately depicts its shape. A violation of this section shall be punishable as a Class 5 felony.

Any firearm manufactured, imported, sold, transferred or possessed in violation of this section shall be forfeited to the Commonwealth and disposed of in accordance with § 18.2-310.

_____

President of the Senate

_____

Speaker of the House of Delegates

Approved:

_____

Governor

APPENDIX C

******CONFIDENTIAL******

SURVEY ON COURTROOM SECURITY

All Respondents

NAME TITLE

OFFICE/DIVISION:

ADDRESS:

TELEPHONE NUMBER: DATE:

Does your county or city employ any type of detection device for courtroom security? YES_____NO_____. Does your jurisdiction employ any type of detection device for jailhouse security? YES_____NO_____. If not, do you have plans to obtain such a device for the courtroom? YES_____NO_____for the jailhouse? YES_____NO_____. Have you ever borrowed a detection device from another locality? YES_____NO_____.

THE QUESTIONS IN PART I OF THIS SURVEY PERTAIN TO COURTROOM SECURITY WHEREAS THE QUESTIONS IN PART II REFER TO JAILHOUSE SECURITY. PLEASE RESPOND ACCORDINGLY.

PART I - COURTROOM SECURITY

1. Excluding court officials, is everyone entering the courtroom subject to screening by a detection device? If "NO," who is not and why?

   No: 20 Yes: 21

2. What kind(s) of device(s) do you have (e.g., walk-through or hand-held)?

   Hand held only: 31 Walk through only: 1 Both: 6

   How many of each kind do you employ?

   Hand held: one: 16
   two: 12
   three: 4
   four: 3
   five: 2

   Walk through: one: 4
   two: 2
   three: 1

3. Who manufactures the device(s)? Provide model no. if known.

Hand held:	Walk through:
Outokumpu: 1	Garrett: 3
Pocket-Redee: 1	Unknown: 2
Sirchie: 8	
Infinetics: 1	
Garrett: 4	
Federal Transfrisker: 12	
Frisk: 1	

What is the approximate cost of each?

Hand held:	Walk through:
$4500: 1	$5500: 1
$600: 1	$4500: 1
$300 to $359: 2	$3750: 2
$200 to $300: 2	$3300: 1
$100 to $200: 9	unknown: 2
$10 to $100: 9	
unknown: 17	

What was the source of funding?

Sheriff: 3	Grant: 7
County: 10	unknown: 7
City: 2	Local: 5
Court: 1	Borrowed (walk through): 1

4. How long have you been using the particular model(s)?

Results not tallied.

Do you find it satisfactory ? Why?

Hand held:	Walk through:
Yes: 28	Yes: 4
No: 8	No: 0
No answer: 3	

5. To your knowledge, exactly what material(s) can be detected by the device(s)?

Metal: 37
Ferrous metal: 2
"Most any kind:" 1

6. To your knowledge how much of the material(s) is required to activate the device(s)?

A small amount: 29
A large amount: 1
unknown: 10

7. Is it possible to adjust the sensitivity of the device(s)?

Hand held:	Walk through:
Yes: 31	Yes: 2
No: 6	No: 2

If so, at what level of sensitivity is it set? Why?

Results not tallied.

8. What percentage of the time do(es) the device(s) work properly?

Hand held and Walk through:

100%: 24
95%: 2
90%: 3
75%: 6
less that 50%: 1
unknown: 2

9. Who usually operates the device(s)? Please indicate title/position.

Courtroom security (deputy): 37
Corrections: 3
Bailiff: 6

10. If you did not have a detection device, would additional staff be necessary to maintain the same level of security? YES_____NO_____. If so, how many additional staff would be needed?

Yes: 19 No: 17

11. How many hours is/are the device(s) in operation each day?

Depends on docket: 8	Depends on threat: 5
Seldom: 6	1 to 4 hours: 7
4 or more hours: 6	8 hours: 2
none: 1	unknown or n/a: 4

12. How much special training do personnel receive on the equipment?

none: 23	4 hours: 3
1 hour: 8	Less than 1 hour: 6

13. What is the approximate cost of this training?

$0:-27 unknown: 10

14. Has a weapon ever passed through the device(s) undetected?

Yes: 1 Malfunction of circuit. No: 32

unknown: 7

15. Have you had any experience with plastic weapons in the courtroom?

Yes: 1 Toy guns. No: 39

PART II - JAILHOUSE SECURITY

1. Is everyone entering the jailhouse subject to screening by a detection device? If "NO," who is not and why?

   Results not tallied.

2. What kind(s) of device(s) do you have (e.g., walk-through or hand-held)?

   Hand held: 14

   How many of each kind do you employ?

   Hand-held:

   one: 7
   two: 4
   three: 1
   four: 1
   twelve: 1

3. Who manufactures the device(s)? Provide model no. if known.

   Hand held:

Garrett: 2	Bob Barker Co.: 1
Transfrisker: 6	Sirchie: 3
Rens Mfg.: 1	Maytronics: 4

   What is the approximate cost of each?

   $100 to 200: 5
   $201 to 300: 1
   unknown: 9

   What was the source of funding?

County: 3	Local: 2
unknown: 3	Grant: 2
Sheriff: 2	Comp. Bd. Funds: 1

4. How long have you been using the particular model(s)?

   Results not tallied.

   Do you find it satisfactory ? Why?

   Yes: 12 No: 3

5. To your knowledge, exactly what material(s) can be detected by the device(s)?

   Metal: 13
   Most metal: 1

6. To your knowledge how much of the material(s) is required to activate the device(s)?

unknown: 3 A small amount: 9

7. Is it possible to adjust the sensitivity of the device(s)?

Yes: 12 No: 2

If so, at what level of sensitivity is it set? Why?

Results not tallied.

8. What percentage of the time do(es) the device(s) work properly?

75%: 4 90 to 100%: 10

9. Who usually operates the device(s)? Please indicate title/position.

Duty officer: 1 Deputy: 7
Jailer: 6 Correctional Officers: 4

10. If you did not have a detection device, would additional staff be necessary to maintain the same level of security? YES_____NO_____. If so, how many additional staff would be needed?

Yes: 3 No: 10

11. How many hours is/are the device(s) in operation each day?

Depends on threat: 2 varies: 2
24 hours/day for inmates: 2 one hour: 2
seldom: 4 zero: 2

12. How much special training do personnel receive on the equipment?

none: 8 one hour or less: 4
four hours: 1 until person understands: 1

13. What is the approximate cost of this training?

$0: 12 unknown: 1

14. Has a weapon ever passed through the device(s) undetected?

Yes: 0 No: 11

unknown - 2

15. Have you had any experience with plastic weapons in the jailhouse?

Yes: 2 Toothbrushes, pens. No: 11

WE SINCERELY APPRECIATE YOUR TAKING THE TIME AND EFFORT TO COMPLETE THIS SURVEY. PLEASE RETURN THIS FORM TO US IN THE ENVELOPE PROVIDED.