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## H.R.3895

### 21st Century Firearm Technology and Safety Act of 1998 (Introduced in the House)

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#### SECTION 1. SHORT TITLE.

This Act may be cited as the '21st Century Firearm Technology and Safety Act of 1998'.

#### SEC. 2. FINDINGS.

The Congress finds that--

- (1) the National Institute of Justice Science and Technology program has played a critical role in improving law enforcement technology;
- (2) the National Institute of Justice Science and Technology program has successfully developed standards for soft body armor which have been critical to saving the lives of law enforcement personnel;
- (3) the National Institute of Justice Science and Technology program is assisting in the successful development of personalized firearms to improve firearms safety; and
- (4) the National Institute of Justice should continue to focus its resources on improving technology to assist law enforcement in reducing crime, and on making technological improvements in the safety of firearms.

#### SEC. 3. GRANTS TO IMPROVE GUN SAFETY.

- (a) IN GENERAL- The Director of the National Institute of Justice, in consultation with appropriate personnel of the National Institute of Justice who are involved in firearms technology and weapons technology matters, shall make grants to reduce firearms violence through improvements in firearms safety technology, weapons detection technology, and other technology.
- (b) 3-YEAR GRANTS- A grant awarded under this section shall be paid over a period not exceeding 3 years.
- (c) LIMITATIONS ON AUTHORIZATION OF APPROPRIATIONS- For grants under this section, there are authorized to be appropriated not more than \$20,000,000 for each of fiscal years 1998 through 2002.

#### SEC. 4. INDEPENDENT PANEL ON FIREARMS SAFETY.

- (a) ESTABLISHMENT- There is established in the Department of Justice the Independent Panel on Firearms Safety (in this section referred to as the 'Panel').

(b) DUTIES-

(1) IN GENERAL- The Panel shall--

(A) research how technology can be used in the area of weapons safety improvements to reduce violence; and

(B) direct, oversee, and review the work of the Technical Study Group on Firearms Safety.

(2) REPORTS-

(A) REPORT TO CONGRESS ON THE FINDINGS OF THE TECHNICAL STUDY GROUP ON FIREARMS SAFETY- Within 90 days after receipt of the report submitted pursuant to section 5(b)(2), the Panel shall submit to the Congress a report on the findings of the Technical Study Group on Firearms Safety. If the report submitted pursuant to such section contains a recommendation for standards governing the design of firearm safety locks, the Panel shall forward the recommendation to the National Institute of Justice.

(B) ANNUAL REPORTS- Within 1 year after the Panel is duly organized and annually thereafter, the Panel shall submit to the Congress a written report detailing the findings of the Panel and making recommendations on such firearms safety improvements as the Panel considers appropriate.

(c) MEMBERSHIP- The Director of the National Institute of Justice, in consultation with the Attorney General, shall appoint to the Panel at least 1 individual from each of the following categories:

- (1) Representatives from the National Institute of Justice.
- (2) Law enforcement experts.
- (3) Representatives from consumer product safety organizations.
- (4) Representatives of firearms manufacturers.
- (5) Injury prevention specialists.
- (6) Firearms technology experts.
- (7) Experts in other relevant areas.

(d) TERMS-

(1) IN GENERAL- Each Panel member shall be appointed for the life of the Panel.

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- (B) direct, oversee, and review the work of the Technical Study Group on Firearms Safety.
- (2) REPORTS-
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- (B) ANNUAL REPORTS- Within 1 year after the Panel is duly organized and

annually thereafter, the Panel shall submit to the Congress a written report detailing the findings of the Panel and making recommendations on such firearms safety improvements as the Panel considers appropriate.

(c) MEMBERSHIP- The Director of the National Institute of Justice, in consultation with the Attorney General, shall appoint to the Panel at least 1 individual from each of the following categories:

- (1) Representatives from the National Institute of Justice.
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(d) TERMS-

- (1) IN GENERAL- Each Panel member shall be appointed for the life of the Panel.
- (2) VACANCIES- A vacancy in the Panel shall be filled in the manner in which the original appointment was made.

(e) COMPENSATION-

- (1) RATES OF BASIC PAY- Panel members shall serve without pay.
- (2) PROHIBITION OF COMPENSATION OF FEDERAL EMPLOYEES- Members of the Panel who are full-time officers or employees of the United States may not receive additional pay, allowances, or benefits by reason of their service on the Panel.
- (3) TRAVEL EXPENSES- Notwithstanding paragraphs (1) and (2), each Panel member shall receive travel expenses, including per diem in lieu of subsistence, in accordance with sections 5702 and 5703 of title 5, United States Code.

(f) PROCEDURE-

- (1) CHAIRPERSON- The Director of the National Institute of Justice shall designate a Panel member who is a representative of the National Institute of Justice to be the Chairperson of the Panel (in this Act referred to as the 'Chairperson').

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(B) ANNUAL REPORTS- Within 1 year after the Panel is duly organized and annually thereafter, the Panel shall submit to the Congress a written report detailing the findings of the Panel and making recommendations on such firearms safety improvements as the Panel considers appropriate.

(c) MEMBERSHIP- The Director of the National Institute of Justice, in consultation with the Attorney General, shall appoint to the Panel at least 1 individual from each of the following categories:

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(2) PROHIBITION OF COMPENSATION OF FEDERAL EMPLOYEES- Members of the Panel who are full-time officers or employees of the United States may not receive additional pay, allowances, or benefits by reason of their service on the Panel.

(3) TRAVEL EXPENSES- Notwithstanding paragraphs (1) and (2), each Panel member shall receive travel expenses, including per diem in lieu of subsistence, in accordance with sections 5702 and 5703 of title 5, United States Code.

(f) PROCEDURE-

(1) CHAIRPERSON- The Director of the National Institute of Justice shall designate a Panel member who is a representative of the National Institute of Justice to be the Chairperson of the Panel (in this Act referred to as the 'Chairperson').

(2) ACTING CHAIRPERSON- The Panel members, by majority vote, shall select a Panel member to serve as the acting Chairperson when the Chairperson is unable to so serve.

(3) MEETINGS- The Panel shall meet at the call of the Chairperson.

(4) QUORUM- A majority of Panel members of the Panel shall constitute a quorum but a lesser number may hold hearings.

(g) PROFESSIONAL, ADMINISTRATIVE, AND TECHNICAL SUPPORT- The Attorney General shall provide the Panel with the administrative, professional, and technical support required by the Panel to carry out the duties of the Panel under this Act.

(h) POWERS-

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## H.R.3895

### 21st Century Firearm Technology and Safety Act of 1998 (Introduced in the House)

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#### SEC. 5. TECHNICAL STUDY GROUP ON FIREARMS SAFETY.

(a) ESTABLISHMENT- There is established in the Department of Justice the Technical Study Group on Firearms Safety (in this section referred to as the 'Technical Study Group').

(b) DUTIES-

(1) IN GENERAL- Subject to the oversight and review of the Independent Panel on Firearms Safety, the Technical Study Group shall undertake such studies and activities as the Technical Study Group considers necessary to determine the technical and commercial feasibility, economic impact, and other consequences of developing improvements in firearms safety technology. A main focus of the Technical Study Group shall be to reduce deaths and injuries resulting from the unintended or inappropriate discharge of firearms. The initial research conducted by the Technical Study Group should be a study of the reliability of firearm safety locks and a determination as to whether the locks prevent the unintended discharge of firearms.

(2) REPORT- Within 9 months after the date the Technical Study Group is duly organized, the Technical Study Group shall submit to the Independent Panel on Firearms Safety a report on the findings of the Technical Study Group. If the Technical Study Group determines that firearm safety locks can prevent the unintended discharge of firearms, the report shall include a recommendation for standards governing the design of firearm safety locks.

(c) MEMBERSHIP-

(1) APPOINTMENT-

(A) NIJ EXPERTS- The Director of the National Institute of Justice shall appoint to the Technical Study Group personnel and agents of the National Institute of Justice with technical or scientific expertise.

(B) NIST EXPERTS- The Director of the National Institute of Standards and Technology shall appoint to the Technical Study Group personnel of the National Institute of Standards and Technology with technical or scientific expertise.

(C) BATF EXPERTS- The Director of the Bureau of Alcohol, Tobacco and Firearms shall appoint to the Technical Study Group personnel of the Bureau with technical or scientific expertise.

(D) CPSC EXPERTS- The Director of the Consumer Product Safety Commission shall appoint to the Technical Study Group personnel of the Commission with technical or scientific expertise.

(E) HHS EXPERTS- The Secretary of Health and Human Services shall appoint to the Technical Study Group personnel of the Department of Health and Human Services with technical or scientific expertise.

(F) DOJ EXPERTS- The Attorney General, shall appoint to the Technical Study Group personnel of the Department of Justice with technical or scientific expertise.

(G) INDEPENDENT EXPERTS- The Chairperson of the Independent Panel on Firearms Safety shall appoint to the Technical Study Group 4 individuals who are not officers or employees of any government, each of whom have scientific or technical expertise in law enforcement, firearms manufacturing, weapons detection technology, injury prevention, and consumer safety, respectively.

(d) PROCEDURE- With the advice and consent of the Independent Panel on Firearms Safety, the Technical Study Group may designate, from among the Technical Study Group members, such persons to serve as team leaders, coordinators, or chairpersons, as the Technical Study Group deems necessary or appropriate to carry out the functions of the Technical Study Group.

(e) PRESERVATION OF CONFIDENTIALITY- Section 6 of the Cigarette Safety Act of 1984 shall apply to information provided to the Technical Study Group in the same manner in which such section applies to information provided to the Technical Study Group on Cigarette and Little Cigar Fire Safety.

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***Bill Summary & Status for the 105th Congress***

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**Item 20 of 22**

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**H.R.3895**SPONSOR: **Rep Kennelly** (introduced 05/19/98)

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**STATUS:** Detailed Legislative Status**House Actions****May 19, 98:**

Referred to the House Committee on the Judiciary.

# SENATE, No. 113

# STATE OF NEW JERSEY

## 208th LEGISLATURE

PRE-FILED FOR INTRODUCTION IN THE 1998 SESSION

**Sponsored by:**

**Senator RICHARD J. CODEY**

**District 27 (Essex)**

**Senator JOSEPH A. PALAIA**

**District 11 (Monmouth)**

**Co-Sponsored by:**

**Senators O'Connor, Adler, Vitale, Turner and Baer**

### **SYNOPSIS**

Permits sale of only personalized handguns after three years.

### **CURRENT VERSION OF TEXT**

Introduced Pending Technical Review by Legislative Counsel.

**(Sponsorship Updated As Of: 4/28/1998)**

**An Act** concerning the sale of handguns, supplementing chapter 58 of Title 2C of the New Jersey Statutes and amending N.J.S.2C:39-1.

**Be It Enacted** *by the Senate and General Assembly of the State of New Jersey:*

1. (New section) On and after the effective date of this act, no person registered or licensed by the Superintendent of State Police as a manufacturer, a wholesale dealer of firearms, an employee of a wholesale dealer of firearms, a retail dealer of firearms, or an employee of a retail dealer of firearms pursuant to the provisions of N.J.S.2C:58-1 or N.J.S.2C:58-2 shall transport into this State, sell, expose for sale, possess with the intent of selling, assign or otherwise transfer any handgun unless that is a personalized handgun, as defined in N.J.S.2C:39-1, and is identified as such on the list prepared and made available by the Superintendent of State Police pursuant to section 2 of this act.

A registered or licensed manufacturer or dealer or employee thereof who violates the provisions of this section is guilty of a crime of the fourth degree.

2. (New section) To effectuate the purposes of section 1 of this act, the superintendent shall prepare and make available to registered and licensed manufacturers and dealers a list of those personalized handguns that may be transported into this State, sold, exposed for sale, possessed with the intent of selling, assigned or otherwise transferred in accordance with the provisions of this act. The superintendent may amend and supplement the list at such times as he deems appropriate. Registered and licensed manufacturers and dealers shall be notified forthwith of any changes in the list. The notice shall be given in a manner prescribed by the superintendent.

3. (New section) The provisions of section 1 of PL. , c. (C. ) (now before the Legislature as this bill) imposing limitations on the transporting, selling and transferring of certain handguns shall not apply to handguns made available for purchase by or the official use of the State and local law enforcement officers of this State; federal law enforcement officers and any other federal officers and employees required to carry firearms in the performance of their official duties; and members of the Armed Forces of the United States or of the National Guard while actually on duty.

The transporting, selling, exposing for sale, possessing for sale, assigning or transferring of a handgun exempted under the provisions of this section shall be in accordance the procedures prescribed by the superintendent.

A registered or licensed manufacturer or dealer or employee thereof who violates the provisions of this section is guilty of a crime of the fourth degree.

4. (New section) a. There is established a New Jersey Personalized Handgun Study Commission to study and monitor the implementation of PL. , c. (C. ) (now pending before the Legislature as this bill) in order to assess the act's impact on handgun sales and transfers; law enforcement and crime; public safety and handgun accidents; the availability of personalized and non-personalized handguns; and the availability and effectiveness of technology to transform non-personalized handguns into personalized handguns. Upon the conclusion of its study and assessment, the commission shall report its findings, along with

any recommendations it may have, to the Governor and the Legislature.

b. The commission shall consist of eight members and shall include the Superintendent of State Police, or his designee, who shall serve as the chairman of the commission; the Commissioner of Health or his designee; the president of the New Jersey State Policemen's Benevolent Association; the president of the New Jersey Fraternal Order of Police; the president of the New Jersey Association of Chiefs of Police; and three public members appointed by the Governor, with the advice and consent of the Senate. Of those appointees, one shall be a representative of a handgun manufacturer and two shall be representatives of recognized organizations devoted to reducing firearm violence.

The members of the commission shall serve without compensation, but may be reimbursed for necessary expenses incurred in the performance of their duties. Any vacancy in the membership shall be filled in the same manner as the original appointment.

c. The commission shall organize as soon as may be practicable after the appointment of its members. The members shall select a secretary, who need not be a member of the commission.

d. The commission is entitled to the assistance and service of the employees of any State, county or municipal department, board, bureau, commission or agency as it may require and as may be available to it for its purposes, and to employ stenographic and clerical assistance and incur traveling and other miscellaneous expenses as may be necessary in order to perform its duties, within the limits of funds appropriated or otherwise made available to it for its purposes.

e. The commission may meet and hold hearings at the places it designates during the sessions or recesses of the Legislature and shall report its findings and recommendations to the Governor and the Legislature, along with any legislative bills it desires to recommend for adoption by the Legislature, no later than 24 months after the effective date of this act.

5. N.J.S.2C:39-1 is amended to read as follows:

2C:39-1. Definitions. The following definitions apply to this chapter and to chapter 58:

a. "Antique firearm" means any firearm and "antique cannon" means a destructive device defined in paragraph (3) of subsection c. of this section, if the firearm or destructive device, as the case may be, is incapable of being fired or discharged, or which does not fire fixed ammunition, regardless of date of manufacture, or was manufactured before 1898 for which cartridge ammunition is not commercially available, and is possessed as a curiosity or ornament or for its historical significance or value.

b. "Deface" means to remove, deface, cover, alter or destroy the name of the maker, model designation, manufacturer's serial number or any other distinguishing identification mark or number on any firearm.

c. "Destructive device" means any device, instrument or object designed to explode or produce uncontrolled combustion, including (1) any explosive or incendiary bomb, mine or grenade; (2) any rocket having a propellant charge of more than four ounces or any missile having an explosive or incendiary charge of more than one-quarter of an ounce; (3) any weapon capable of firing a projectile of a caliber greater than 60 caliber, except a shotgun or shotgun ammunition generally recognized as suitable for sporting purposes; (4) any Molotov cocktail or other device consisting of a breakable container containing flammable liquid and having a wick or similar device capable of being ignited. The term does not include any device manufactured for the purpose of illumination, distress signaling, line-throwing, safety or similar purposes.

d. "Dispose of" means to give, give away, lease, loan, keep for sale, offer, offer for sale, sell, transfer, or otherwise transfer possession.

e. "Explosive" means any chemical compound or mixture that is commonly used or is possessed for the purpose of producing an explosion and which contains any oxidizing and combustible materials or other

ingredients in such proportions, quantities or packing that an ignition by fire, by friction, by concussion or by detonation of any part of the compound or mixture may cause such a sudden generation of highly heated gases that the resultant gaseous pressures are capable of producing destructive effects on contiguous objects. The term shall not include small arms ammunition, or explosives in the form prescribed by the official United States Pharmacopoeia.

f. "Firearm" means any handgun, rifle, shotgun, machine gun, automatic or semi-automatic rifle, or any gun, device or instrument in the nature of a weapon from which may be fired or ejected any solid projectable ball, slug, pellet, missile or bullet, or any gas, vapor or other noxious thing, by means of a cartridge or shell or by the action of an explosive or the igniting of flammable or explosive substances. It shall also include, without limitation, any firearm which is in the nature of an air gun, spring gun or pistol or other weapon of a similar nature in which the propelling force is a spring, elastic band, carbon dioxide, compressed or other gas or vapor, air or compressed air, or is ignited by compressed air, and ejecting a bullet or missile smaller than three-eighths of an inch in diameter, with sufficient force to injure a person.

g. "Firearm silencer" means any instrument, attachment, weapon or appliance for causing the firing of any gun, revolver, pistol or other firearm to be silent, or intended to lessen or muffle the noise of the firing of any gun, revolver, pistol or other firearm.

h. "Gravity knife" means any knife which has a blade which is released from the handle or sheath thereof by the force of gravity or the application of centrifugal force.

i. "Machine gun" means any firearm, mechanism or instrument not requiring that the trigger be pressed for each shot and having a reservoir, belt or other means of storing and carrying ammunition which can be loaded into the firearm, mechanism or instrument and fired therefrom.

j. "Manufacturer" means any person who receives or obtains raw materials or parts and processes them into firearms or finished parts of firearms, except a person who exclusively processes grips, stocks and other nonmetal parts of firearms. The term does not include a person who repairs existing firearms or receives new and used raw materials or parts solely for the repair of existing firearms.

k. "Handgun" means any pistol, revolver or other firearm originally designed or manufactured to be fired by the use of a single hand.

l. "Retail dealer" means any person including a gunsmith, except a manufacturer or a wholesale dealer, who sells, transfers or assigns for a fee or profit any firearm or parts of firearms or ammunition which he has purchased or obtained with the intention, or for the purpose, of reselling or reassigning to persons who are reasonably understood to be the ultimate consumers, and includes any person who is engaged in the business of repairing firearms or who sells any firearm to satisfy a debt secured by the pledge of a firearm.

m. "Rifle" means any firearm designed to be fired from the shoulder and using the energy of the explosive in a fixed metallic cartridge to fire a single projectile through a rifled bore for each single pull of the trigger.

n. "Shotgun" means any firearm designed to be fired from the shoulder and using the energy of the explosive in a fixed shotgun shell to fire through a smooth bore either a number of ball shots or a single projectile for each pull of the trigger, or any firearm designed to be fired from the shoulder which does not fire fixed ammunition.

o. "Sawed-off shotgun" means any shotgun having a barrel or barrels of less than 18 inches in length measured from the breech to the muzzle, or a rifle having a barrel or barrels of less than 16 inches in length measured from the breech to the muzzle, or any firearm made from a rifle or a shotgun, whether by alteration, or otherwise, if such firearm as modified has an overall length of less than 26 inches.

p. "Switchblade knife" means any knife or similar device which has a blade which opens automatically by hand pressure applied to a button, spring or other device in the handle of the knife.

q. "Superintendent" means the Superintendent of the State Police.

r. "Weapon" means anything readily capable of lethal use or of inflicting serious bodily injury. The term includes, but is not limited to, all (1) firearms, even though not loaded or lacking a clip or other component to render them immediately operable; (2) components which can be readily assembled into a weapon; (3) gravity knives, switchblade knives, daggers, dirks, stilettos, or other dangerous knives, billies, blackjacks, bludgeons, metal knuckles, sandclubs, slingshots, cesti or similar leather bands studded with metal filings or razor blades imbedded in wood; and (4) stun guns; and any weapon or other device which projects, releases, or emits tear gas or any other substance intended to produce temporary physical discomfort or permanent injury through being vaporized or otherwise dispensed in the air.

s. "Wholesale dealer" means any person, except a manufacturer, who sells, transfers, or assigns firearms, or parts of firearms, to persons who are reasonably understood not to be the ultimate consumers, and includes persons who receive finished parts of firearms and assemble them into completed or partially completed firearms, in furtherance of such purpose, except that it shall not include those persons dealing exclusively in grips, stocks and other nonmetal parts of firearms.

t. "Stun gun" means any weapon or other device which emits an electrical charge or current intended to temporarily or permanently disable a person.

u. "Ballistic knife" means any weapon or other device capable of lethal use and which can propel a knife blade.

v. "Imitation firearm" means an object or device reasonably capable of being mistaken for a firearm.

w. "Assault firearm" means:

(1) The following firearms:

Algimec AGM1 type

Any shotgun with a revolving cylinder such as the "Street Sweeper" or "Striker 12"

Armalite AR-180 type

Australian Automatic Arms SAR

Avtomat Kalashnikov type semi-automatic firearms

Beretta AR-70 and BM59 semi-automatic firearms

Bushmaster Assault Rifle

Calico M-900 Assault carbine and M-900

CETME G3

Chartered Industries of Singapore SR-88 type

Colt AR-15 and CAR-15 series

Daewoo K-1, K-2, Max 1 and Max 2, AR 100 types

Demro TAC-1 carbine type

Encom MP-9 and MP-45 carbine types

FAMAS MAS223 types

FN-FAL, FN-LAR, or FN-FNC type semi-automatic firearms

Franchi SPAS 12 and LAW 12 shotguns

G3SA type

Galil type

Heckler and Koch HK91, HK93, HK94, MP5, PSG-1

Intratec TEC 9 and 22 semi-automatic firearms

M1 carbine type

M14S type

MAC 10, MAC 11, MAC 11-9mm carbine type firearms

PJK M-68 carbine type

Plainfield Machine Company Carbine

Ruger K-Mini-14/5F and Mini-14/5RF

SIG AMT, SIG 550SP, SIG 551SP, SIG PE-57 types

SKS with detachable magazine type

Spectre Auto carbine type

Springfield Armory BM59 and SAR-48 type

Sterling MK-6, MK-7 and SAR types

Steyr A.U.G. semi-automatic firearms

USAS 12 semi-automatic type shotgun

Uzi type semi-automatic firearms

Valmet M62, M71S, M76, or M78 type semi-automatic firearms

Weaver Arm Nighthawk.

(2) Any firearm manufactured under any designation which is substantially identical to any of the firearms listed above.

(3) A semi-automatic shotgun with either a magazine capacity exceeding six rounds, a pistol grip, or a folding stock.

(4) A semi-automatic rifle with a fixed magazine capacity exceeding 15 rounds.

(5) A part or combination of parts designed or intended to convert a firearm into an assault firearm, or

any combination of parts from which an assault firearm may be readily assembled if those parts are in the possession or under the control of the same person.

x. "Semi-automatic" means a firearm which fires a single projectile for each single pull of the trigger and is self-reloading or automatically chambers a round, cartridge, or bullet.

y. "Large capacity ammunition magazine" means a box, drum, tube or other container which is capable of holding more than 15 rounds of ammunition to be fed continuously and directly therefrom into a semi-automatic firearm.

z. "Pistol grip" means a well-defined handle, similar to that found on a handgun, that protrudes conspicuously beneath the action of the weapon, and which permits the shotgun to be held and fired with one hand.

aa. "Personalized handgun" means a handgun which incorporates within its design, and as part of its original manufacture, technology which automatically limits its operational use, and which cannot be readily deactivated, so that it may only be fired by an authorized or recognized user. The technology limiting the handgun's operational use may include, but not be limited to, radio tagging, touch memory, remote control, fingerprint, magnetic encoding, and other automatic user identification systems utilizing biometrics, mechanical and electronic systems.

(cf: P.L.1990, c.32, s.1)

6. This act shall take effect on the first day of the 37th month following enactment; provided, however, the Superintendent of State Police may take such anticipatory administrative action in advance as shall be necessary for the implementation of the act; and further provided that section 3 of this act shall expire upon the submission of the commission's final report, as prescribed therein.

## STATEMENT

This bill would impose limits on the types of handguns that may be sold in New Jersey in the future.

Under the provisions of the bill, beginning three years from the signing of the bill, it would be illegal for any registered or licensed firearms manufacturer or dealer to transport, sell, expose for sale, possess for sale, assign or transfer any handgun unless that handgun is a personalized handgun. A personalized handgun is a handgun that incorporates within its design, and as part of its original manufacture, technology which limits its operational use so that it can only be fired by an authorized or recognized user. The technology may involve a variety of systems, such as biometric, mechanical or electronic systems, which restrict the operation of the handgun through radio frequency tagging, touch memory, remote control, fingerprint, magnetic encoding or other automatic user identification programs. Manufacturers and dealers and their employees who violate these restrictions are guilty of a crime of the fourth degree. A crime of the fourth degree is punishable by a fine of not more than \$7,500, imprisonment for a term of not more than 18 months, or both.

These restrictions would not apply to State, federal and local law enforcement officers, the military and the national guard. Non-personalized handguns may be sold to or made available to these exempted individual persons, but only for official purposes and duties, not personal usage. All such sales are to be conducted in accordance with procedures prescribed by the Superintendent of State Police.

Finally, the bill establishes a special eight member study commission, the New Jersey Handgun Study

Commission, to study and monitor the bill's impact on handgun sales and transfers; law enforcement and crime; public safety and handgun accidents; the availability of personalized and non-personalized handguns; and the availability and effectiveness of technology to transform non-personalized handguns into personalized handguns.

The Superintendent of State Police is to chair the commission. The the other members of the commission are the Commissioner of Health; representatives of law enforcement (the presidents of the New Jersey State Policemen's Benevolent Association, New Jersey Fraternal Order of Police, and the New Jersey Association of Chiefs of Police); firearms manufacturers; and organizations devoted to reducing firearm violence.

The commission is to report its findings and recommendations to the Governor and Legislature within 24 months of the effective date of the sales restrictions imposed by this bill.

[Back To Colt's Home Page](#)

**COLT'S MANUFACTURING COMPANY, INC.**

**DR. STEVEN SLIWA, PRESIDENT AND CEO**

**TESTIMONY ON S 113**

**A BILL TO PERMIT THE SALE OF ONLY PERSONALIZED HANDGUNS AFTER THREE YEARS**

Mr. Chairman and Members of the Committee, thank you for inviting me here today to update you on the progress of our Smart Gun and to state our position about the proposed legislation to mandate it. As you know, we oppose this mandate because we believe it is irresponsible and will, in fact, have the reverse affect and destroy the program.

**HISTORY**

Our company developed a Smart Gun with our own funding in 1996. Using our existing Law Enforcement Pistol (LEP) as a baseline, we produced a first generation Radio Frequency Controlled (RF) handgun. When energized, the gun emits a radio signal. A small transponder worn by the person authorized to use the gun receives this signal and returns a coded radio signal. When the gun hears that signal, a blocking pin is removed from the trigger mechanism, enabling the gun to fire normally..

We developed the Smart Gun Prototype I because we became aware of a law enforcement requirement within the National Institute of Justice for such technology. That requirement was based on a request from law enforcement to develop the technology in response to the problem of law enforcement officers being killed with their own service weapon. In fact, FBI statistics show that over 16% of all officers killed are done so with their own service arm. We saw the Smart Gun as a way to help solve this problem through technology.

**PROTOTYPE II**

In order to move this technology to the next generation, however, we applied for a grant within NIJ to continue our work on a radio frequency based Smart Gun. We received a grant for \$500,000 that started in the beginning of fiscal year 1998 to develop a Prototype II. The current grant is to bring this technology to a production status, while investigating all of the difficulties that RF technology presents. We are close to completing this project and moving it to the testing stage. These tests will be conducted both at Colt's and at NIJ. The intention will be to demonstrate that the technology can operate, that all necessary electronic and mechanical components can be made to fit inside a full size pistol, and that the authorization can be made well within the time required to draw and aim a weapon.

**ISSUES**

At Colt's, we are very excited about moving into the 21<sup>st</sup> Century with our Smart Gun. We are, however, disturbed and concerned at how our technology is becoming a political tool with its advocates never raising the reality of how difficult it is for a gun manufacturer to build such a gun. The obstacles we face are numerous. To mention just a few, funding problems are evident, product liability issues remain and, despite what some say, technical obstacles still exist.

Developing this gun is not an inexpensive project. We have committed a significant amount of our own money to this program but the testing and the electronics are extremely expensive. Firearms are mechanical tools and we along with our fellow gun manufacturers have become experts at mechanical engineering. As firearm manufacturers, however, we do not possess the tools and skills necessary to develop and test cutting edge electronic components for such use. Therefore, we must go outside of our industry for these skills and they are very expensive. While we greatly appreciate the \$500,000 grant

from NIJ, it will only produce a next generation radio frequency Smart Gun prototype. With further funding we could continue our research and not only enhance this technology but perhaps develop systems that are even more advanced.

Colt's Manufacturing and its distributors consistently face the potential legal liability to compensate buyers, users, and even bystanders, for damages or injuries suffered because of defects in their products. The pressure on Colt's is immense since the presumption is that if there is damage or injury resulting from the use of Colt's products, Colt's bears the ultimate responsibility. The issue of culpability is in the eyes of some minimized due to our membership in the firearms industry, which is clearly unfair. Nonetheless, we at Colt's continuously strive to provide the safest, most technologically advanced products possible. For example, the Smart Gun. This is one of our responsibilities that we take very seriously but product liability is of great concern to us.

Finally, we chose radio frequency technology because we believed it was the best suited for our purposes. Since it was an off the shelf proven technology already being used in the automobile industry we believed it would be the most viable and simplest solution. In fact, the Sandia National Lab Report stated that it was the technology, which showed the most promise. However, the ability to activate and deactivate the firearm is still an area that requires the most work because there is no design method currently available to reliably turn a firearm on and off. Though the identification is there the actual mechanical and electronic lock is not. Though the identification methods such as fingerprint technology, radio tags, and magnetic tags are reliable the Electro-mechanical coupling has not been proven. Therefore, I am deeply concerned with mandating technology that has yet to proven.

I submit to you the that for the above reasons we should not mandate any Smart Gun technology.

Mr. Chairman and Members of the Committee, thank you for the opportunity to address this Committee.

weapons have a tendency to jam because shells do not always release when the gun is fired. During the tests, which took place over a period of two years, 88 guns malfunctioned a total of 134 times, with shells having to be manually dislodged from the weapons in more than 50 percent of the cases. The New York Police Department, whose arsenal includes 22,000 Glock handguns, has already taken steps to replace some of the faulty guns and is currently helping the manufacturer find solutions to the jamming problem.

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### **"Police Having Major Woes With Computer System"**

*Associated Press (10/07/98)*

The police department in Pawtucket, Rhode Island, is having serious computer problems, and is asking the U.S. Justice Department for a \$330,000 grant to upgrade the system. Police Chief Richard E. DeLyon says he has been told his department is still in the running to receive such a grant. The computer system has had to shut down twice recently to repair glitches. Consultants have recommended the system be completely overhauled, otherwise officers will have to go back to writing their reports on paper.

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### **"Glendening to Support 'Smart' Guns"**

*Baltimore Sun (09/29/98) P. 1B; Waldron, Thomas W.; Zorzi Jr., William F.*

In a move that is sure to spark controversy nationwide, Maryland Gov. Parris Glendening is expected to unveil a new bill today that would ban the sale of any handgun that is not equipped with technology to make it childproof. The proposal would make Maryland the first state in the country to pass legislation supporting exclusive use of "smart" weapons that can only be fired by authorized users. Gun manufacturers have developed several smart gun alternatives, including weapons fitted with a microchip that records and stores the fingerprints of authorized users, but the technology has not yet been perfected. Under Glendening's proposal, "personalized" handguns would be phased in over a three-year period. The strict plan has been applauded by gun-control advocates, but others have already started attacking the bill, saying it relies on emerging technology that has not prove to be reliable.

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### **"Trenton Debates Requiring Guns Only Owner Can Fire"**

*New York Times (09/24/98) P. A27; Kocieniewski, David*

New Jersey leaders and handgun manufacturers trying to push legislation mandating that all handguns sold in New Jersey be equipped with owner-controlled technology, are under fire from the National Rifle Association (NRA) and other groups representing gun owners. Gun manufacturers fearing costly product-liability lawsuits have been developing the so-called "smart gun" using a computer chip to recognize the registered owner by fingerprint, hand size or a coded transmission. The smart gun debate centers around purported constitutional infringements, and what gun-control activists argue is a growing public health problem. The NRA and the Coalition of New Jersey Sportsmen say mandating gun safety devices is unconstitutional because the measure would unfairly restrict a gun buyer's right to choose. Rather than require the use of smart gun technology, NRA officials have suggested that the state give tax rebates to those who voluntarily buy trigger locks--manual devices that fit on existing weapons and cost roughly \$12. Bryan Miller, executive director of Ceasefire New Jersey, a gun-control organization, said "We're not trying to take anyone's gun away," defending the measure that is designed to curb teen-age suicides and accidental shootings involving children. Supporters of the bill plan to pause its enforcement for three years after it is signed into law, providing manufacturers ample time to mass produce and market the smart gun. Gun-control activists, meanwhile, hope the efforts in New Jersey will be the first step in a campaign to promote smart gun use nationwide.

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**"Pursuit at High Speeds"***Law Enforcement Technology (09/98) Vol. 25, No. 9, P. 50; Strandberg, Keith W.*

To pursue or not to pursue. That is the issue being confronted by police departments across the country as safety issues regarding high-speed chases continue to be raised. Law enforcement experts, as well as the Supreme Court, seem to agree that despite the potential dangers of high-speed chases, officers must be allowed to pursue, so long as chases are undertaken with great discretion. "From a law enforcement standpoint, we'd have a major problem" if pursuits are not allowed, explains Lt. Gerald Roberts of the Pennsylvania State Police. "All anyone would have to do is drive away. It's a dangerous precedent to set." The problem, however, is that high-speed chases raise major liability concerns. The Supreme Court has ruled that police departments are not liable for injuries that occur when an officer uses sound judgment, but the ultimate goal is to eliminate as many accidents as possible. To achieve this goal, police departments are relying on a combination of technique and innovative technology. One of the newest developments is a line of spike strips that can be remotely operated. Officers simply flip a switch to either deploy the spikes when the subject approaches or retract them before pursuing officers or other vehicles drive through. Aircraft pursuit is another way law enforcement agencies are helping to make pursuits safer. Planes greatly reduce the need for officers to keep the subject in direct sight, which in turn helps to limit crashes and injuries. More developments on the way include a GPS tracking system for stolen vehicles and a remote ignition shut down system. Both tools would require fleeing vehicles to be equipped with a sensor that could be remotely activated by the pursuing officer.

**"When Pepper Spray Isn't Enough"***CIO (09/15/98) Vol. 11, No. 23, P. 22*

Pepper spray has its advantages, but imagine a self-defense tool that enables its user to both ward off an assailant and collect a DNA sample from the thug for law enforcers. Defender DNA, manufactured by Apik Inc. in Melrose, Fla., is a pocket-sized personal protection device that appears much like a small flashlight and works using a combination of electronics and biotechnology. When users strike an assailant with the device, it emits a loud alarm and extends a small needle-like probe to extract a small amount of blood or tissue from the attacker. Apik officials say that any purchasers who actually use their Defender DNA in a criminal case can have it replaced free of charge to avoid messy DNA mix-ups.

**"The Report on the Latest Advances in Armor Technology and Design"***Police and Security News (08/98) Vol. 14, No. 4, P. 51; Lesce, Tony*

Heated competition in the body armor industry has resulted in some important new innovations over the past year, including designs that are both lighter and more resistant. The basic concept behind the new armor designs is a sandwich of rigid and flexible materials. The rigid layer acts to blunt the projectile, while the flexible materials absorb the energy and spread it over a wider area. The design not only helps to drastically reduce blunt trauma, but it also enables manufacturers to produce armor that is lighter, less bulky, and more comfortable. The design innovations have helped make up for a relatively quiet period in terms of technological developments. No totally new materials have been introduced to the market for some time and that has prompted manufacturers to try new combinations of existing materials.

**"Will The Smart Gun Save Lives?"***Rolling Stone (08/06/98) No. 792, P. 36; Greider, William*

Gun control activists in New Jersey are promoting legislation requiring that all handguns sold in the state be loaded with owner-controlled technology. The Smart Gun, developed by Colt Manufacturing Co., is inoperable without a coded transmission from a transponder in a wristband worn by the registered owner to a receiver in the grip of the gun. Spurred by increasing instances of accidental shootings involving children, and statistics from the Justice Department indicating that one out of every six



## Law Enforcement & Corrections Technology News Summary

National Law Enforcement and Corrections Technology Center  
A Program of the National Institute of Justice

Friday, October 16, 1998

- "F.B.I. Set to Open Its DNA Database for Fighting Crime"
- "Gunpowder Markers Not Feasible, Panel Says"
- "Gore Unveils \$229 Million High-Tech Police Program"
- "AirTouch Gives Ventura DA New Tool to Fight Domestic Violence"
- "Police Shooting Flawed Guns, Says Report"
- "Police Having Major Woes With Computer System"
- "Glendening to Support 'Smart' Guns"
- "Trenton Debates Requiring Guns Only Owner Can Fire"
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The National Law Enforcement and Corrections Technology Center (NLECTC) provides the *Law Enforcement & Corrections Technology News Summary* as a service to law enforcement, corrections, and forensic science practitioners. The Summary includes abstracts of articles from major national newspapers, business magazines, Web sites, national and international wire services, and periodicals focusing on law enforcement and corrections technology.

Please note that providing synopses of articles on law enforcement and corrections technology or the mention of specific manufacturers or products does not constitute the endorsement of the U.S. Department of Justice or NLECTC.

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### **"F.B.I. Set to Open Its DNA Database for Fighting Crime"**

*New York Times (10/12/98) P. A1; Wade, Nicholas*

The Federal Bureau of Investigation (FBI) will officially open a national DNA database on Tuesday that is designed to help law enforcement agencies across the country improve crime detection and fight repeat offenders. In the works for nearly a decade, the national DNA system joins 50 separate databases operated by each individual state. The multistate system is deemed a major breakthrough in the world of law enforcement because for the first time investigators will be able to compare a DNA sample from a suspect or crime scene in one state with the thousands of others in the database. A similar system has been used with great success in Britain, but that has not kept the FBI database immune from attacks by critics. The loudest opposition has come privacy advocates who say the database violates citizens' basic constitutional rights. What worries critics the most is the possibility that the computerized database could be compromised, leaving sensitive genetic information open to tampering or theft. Federal officials say they have tried to minimize this possibility by instituting strict security policies and storing only a fraction of a person's genetic profile within the system.

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### **"Gunpowder Markers Not Feasible, Panel Says"**

*New York Times (10/09/98) P. A12; Leary, Warren E.*

A report issued by a National Research Council (NRC) panel on Thursday concludes that there are no effective ways to mark or tag gunpowder to make it more detectable or traceable when used to construct explosive devices. Federal researchers have been attempting to add tiny identification markers, or taggants, to gunpowder so that law enforcement authorities could trace the origin of explosives used in bombings. The 14-member NRC committee, however, determined that the use of taggants in gunpowder is not feasible--at least for now. Part of the problem is that the use of advanced tagging technology has not been extensively researched and some experts fear that the introduction of foreign chemicals might affect the gunpowder's performance. The report urges the government to continue its research in the tagging field "so that policymakers are better able to react if circumstances arise that warrant a more aggressive response" to explosives detection.

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### **"Gore Unveils \$229 Million High-Tech Police Program"**

*Reuters (10/01/98)*

Vice President Al Gore recently announced plans to allocate \$229 million to 605 police departments nationwide in an effort to upgrade technology. Highlighting the need to use technology advances to improve the efficiency of the police force, Gore said, "We must work to give law enforcement the 21st-century tools and technology they need to fight crime more effectively." Gore pointed specifically to the use of laptop computers by the Los Angeles Police Department as an example of efficiency at work. The computers, which are carried inside police squad cars, enable officers to write reports without having to return to the station.

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### **"AirTouch Gives Ventura DA New Tool to Fight Domestic Violence"**

*Business Wire (10/06/98)*

The Ventura County (Calif.) District Attorney's Office, AirTouch Cellular, and the California Highway Patrol (CHP) announced plans last week for a domestic violence cellular telephone program. Cell Phone SOS will allow victims of domestic violence to contact the CHP with pre-programmed one-button dialing; the dispatcher is automatically alerted to nature of the emergency by a special code--known only by the district attorney, the victim, and the CHP. To respond to such situations, dispatchers need only the victim's location. Ventura District Attorney Victim Services Division director Debbie O'Neill says, "The Cell Phone SOS program enables victims to go to work or to move about more freely within the community, with the peace-of-mind knowing that they ... have the ability to readily and easily access assistance in the event of an emergency." O'Neill adds that reports of domestic and family violence have increased significantly since 1995--her department assisted more than 7,500 victims of domestic violence in 1997. The district attorney's services center will be responsible for determining who meets the Cell Phone SOS program requirements, loaning phones, and then educating victims about proper use. AirTouch donated more than 30 Motorola cellular phones and free airtime to the project, which has garnered enormous support from sheriff and city police departments, as well as community partnerships that combat domestic violence.

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### **"Police Shooting Flawed Guns, Says Report"**

*Associated Press (10/05/98)*

The Patrolmen's Benevolent Association (PBA) says New York City police officers are putting themselves in danger by using Glock handguns, some of which have been found to have high malfunction rates. Firing range tests conducted on the 9mm semiautomatic handguns indicate that the

weapons have a tendency to jam because shells do not always release when the gun is fired. During the tests, which took place over a period of two years, 88 guns malfunctioned a total of 134 times, with shells having to be manually dislodged from the weapons in more than 50 percent of the cases. The New York Police Department, whose arsenal includes 22,000 Glock handguns, has already taken steps to replace some of the faulty guns and is currently helping the manufacturer find solutions to the jamming problem.

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law-enforcement officers fatally shot dies by his own gun, or a partner's, the technology marks a new trend in the gun-control debate. Researchers focusing on the engineering of smart weapons have received over \$1 million in financial support from the National Institute of Justice thanks to some encouragement from former Rep. Pat Schroeder of Colorado.

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## "Talk Power! Two-Way Radio System Extends Correctional Officers' Reach"

*Corrections Technology Management Online (08/98); Washington, Odie*

The Illinois Department of Corrections requested several propagation studies of correction facility communications systems in the early 90's that led to the installation of a trunked two-way radio at two of the state's maximum security prisons. So far, benefits of the 800 MHz radio have been immediate and plans are underway to install the same system at other key facilities statewide. The studies, conducted by Motorola in 1993 and 1995, found that corrections staff needed better radio coverage, including user ID, emergency call capabilities, and a man down switch; particularly during inmate transfers between facilities, and situations where the ability to communicate directly with outside entities is vital. Motorola found that 800MHz signals provided sufficient structural penetration in varying combinations of tower height, antenna type, and signal length. The system was tested extensively at the Stateville and Pontiac prisons late in 1997. Stateville Warden George DeTella noted, "With our old system, we had to go through the dispatcher about two-thirds of the time. Now we rarely do. This means we can respond to situations faster, and that's very important to us." Another advantage comes from the use of talk groups, which automatically sort the transmissions on the radio system and route them only to the people who need to hear them. Pontiac Correctional facility Warden Jerry Gilmore likes that the talk groups can be quickly reconfigured during a sensitive situation allowing tactical teams ease in communication. As soon as the 800MHz communications system is installed in other key state correctional facilities, the systems will be interoperable--meaning officers will be able to use their own radios when at another facility. The Stateville installation required some remodeling and cost \$1,035,000; the Pontiac upgrade also required remodeling, but was slightly less expensive at \$992,000. Funding for the projects came from the time fees of inmates' phone use as authorized from the state Central Management Services Department.

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*Last modified: 10/16/98 14:45:27.*



## Law Enforcement & Corrections Technology News Summary

National Law Enforcement and Corrections Technology Center  
A Program of the National Institute of Justice

Friday, October 16, 1998

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The National Law Enforcement and Corrections Technology Center (NLECTC) provides the *Law Enforcement & Corrections Technology News Summary* as a service to law enforcement, corrections, and forensic science practitioners. The Summary includes abstracts of articles from major national newspapers, business magazines, Web sites, national and international wire services, and periodicals focusing on law enforcement and corrections technology.

Please note that providing synopses of articles on law enforcement and corrections technology or the mention of specific manufacturers or products does not constitute the endorsement of the U.S. Department of Justice or NLECTC.

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### **"F.B.I. Set to Open Its DNA Database for Fighting Crime"** *New York Times (10/12/98) P. A1; Wade, Nicholas*

The Federal Bureau of Investigation (FBI) will officially open a national DNA database on Tuesday that is designed to help law enforcement agencies across the country improve crime detection and fight repeat offenders. In the works for nearly a decade, the national DNA system joins 50 separate databases operated by each individual state. The multistate system is deemed a major breakthrough in the world of law enforcement because for the first time investigators will be able to compare a DNA sample from a suspect or crime scene in one state with the thousands of others in the database. A similar system has been used with great success in Britain, but that has not kept the FBI database immune from attacks by critics. The loudest opposition has come from privacy advocates who say the database violates citizens' basic constitutional rights. What worries critics the most is the possibility that the computerized database could be compromised, leaving sensitive genetic information open to tampering or theft. Federal officials say they have tried to minimize this possibility by instituting strict security policies and storing only a fraction of a person's genetic profile within the system.

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### **"Gunpowder Markers Not Feasible, Panel Says"**

*New York Times (10/09/98) P. A12; Leary, Warren E.*

A report issued by a National Research Council (NRC) panel on Thursday concludes that there are no effective ways to mark or tag gunpowder to make it more detectable or traceable when used to construct explosive devices. Federal researchers have been attempting to add tiny identification markers, or taggants, to gunpowder so that law enforcement authorities could trace the origin of explosives used in bombings. The 14-member NRC committee, however, determined that the use of taggants in gunpowder is not feasible--at least for now. Part of the problem is that the use of advanced tagging technology has not been extensively researched and some experts fear that the introduction of foreign chemicals might affect the gunpowder's performance. The report urges the government to continue its research in the tagging field "so that policymakers are better able to react if circumstances arise that warrant a more aggressive response" to explosives detection.

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### **"Gore Unveils \$229 Million High-Tech Police Program"**

*Reuters (10/01/98)*

Vice President Al Gore recently announced plans to allocate \$229 million to 605 police departments nationwide in an effort to upgrade technology. Highlighting the need to use technology advances to improve the efficiency of the police force, Gore said, "We must work to give law enforcement the 21st-century tools and technology they need to fight crime more effectively." Gore pointed specifically to the use of laptop computers by the Los Angeles Police Department as an example of efficiency at work. The computers, which are carried inside police squad cars, enable officers to write reports without having to return to the station.

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### **"AirTouch Gives Ventura DA New Tool to Fight Domestic Violence"**

*Business Wire (10/06/98)*

The Ventura County (Calif.) District Attorney's Office, AirTouch Cellular, and the California Highway Patrol(CHP) announced plans last week for a domestic violence cellular telephone program. Cell Phone SOS will allow victims of domestic violence to contact the CHP with pre-programmed one-button dialing; the dispatcher is automatically alerted to nature of the emergency by a special code--known only by the district attorney, the victim, and the CHP. To respond to such situations, dispatchers need only the victim's location. Ventura District Attorney Victim Services Division director Debbie O'Neill says, "The Cell Phone SOS program enables victims to go to work or to move about more freely within the community, with the peace-of-mind knowing that they ... have the ability to readily and easily access assistance in the event of an emergency." O'Neill adds that reports of domestic and family violence have increased significantly since 1995--her department assisted more than 7,500 victims of domestic violence in 1997. The district attorney's services center will be responsible for determining who meets the Cell Phone SOS program requirements, loaning phones, and then educating victims about proper use. AirTouch donated more than 30 Motorola cellular phones and free airtime to the project, which has garnered enormous support from sheriff and city police departments, as well as community partnerships that combat domestic violence.

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### **"Police Shooting Flawed Guns, Says Report"**

*Associated Press (10/05/98)*

The Patrolmen's Benevolent Association (PBA) says New York City police officers are putting themselves in danger by using Glock handguns, some of which have been found to have high malfunction rates. Firing range tests conducted on the 9mm semiautomatic handguns indicate that the

**"Pursuit at High Speeds"***Law Enforcement Technology (09/98) Vol. 25, No. 9, P. 50; Strandberg, Keith W.*

To pursue or not to pursue. That is the issue being confronted by police departments across the country as safety issues regarding high-speed chases continue to be raised. Law enforcement experts, as well as the Supreme Court, seem to agree that despite the potential dangers of high-speed chases, officers must be allowed to pursue, so long as chases are undertaken with great discretion. "From a law enforcement standpoint, we'd have a major problem" if pursuits are not allowed, explains Lt. Gerald Roberts of the Pennsylvania State Police. "All anyone would have to do is drive away. It's a dangerous precedent to set." The problem, however, is that high-speed chases raise major liability concerns. The Supreme Court has ruled that police departments are not liable for injuries that occur when an officer uses sound judgment, but the ultimate goal is to eliminate as many accidents as possible. To achieve this goal, police departments are relying on a combination of technique and innovative technology. One of the newest developments is a line of spike strips that can be remotely operated. Officers simply flip a switch to either deploy the spikes when the subject approaches or retract them before pursuing officers or other vehicles drive through. Aircraft pursuit is another way law enforcement agencies are helping to make pursuits safer. Planes greatly reduce the need for officers to keep the subject in direct sight, which in turn helps to limit crashes and injuries. More developments on the way include a GPS tracking system for stolen vehicles and a remote ignition shut down system. Both tools would require fleeing vehicles to be equipped with a sensor that could be remotely activated by the pursuing officer.

**"When Pepper Spray Isn't Enough"***CIO (09/15/98) Vol. 11, No. 23, P. 22*

Pepper spray has its advantages, but imagine a self-defense tool that enables its user to both ward off an assailant and collect a DNA sample from the thug for law enforcers. Defender DNA, manufactured by Apik Inc. in Melrose, Fla., is a pocket-sized personal protection device that appears much like a small flashlight and works using a combination of electronics and biotechnology. When users strike an assailant with the device, it emits a loud alarm and extends a small needle-like probe to extract a small amount of blood or tissue from the attacker. Apik officials say that any purchasers who actually use their Defender DNA in a criminal case can have it replaced free of charge to avoid messy DNA mix-ups.

**"The Report on the Latest Advances in Armor Technology and Design"***Police and Security News (08/98) Vol. 14, No. 4, P. 51; Lesce, Tony*

Heated competition in the body armor industry has resulted in some important new innovations over the past year, including designs that are both lighter and more resistant. The basic concept behind the new armor designs is a sandwich of rigid and flexible materials. The rigid layer acts to blunt the projectile, while the flexible materials absorb the energy and spread it over a wider area. The design not only helps to drastically reduce blunt trauma, but it also enables manufacturers to produce armor that is lighter, less bulky, and more comfortable. The design innovations have helped make up for a relatively quiet period in terms of technological developments. No totally new materials have been introduced to the market for some time and that has prompted manufacturers to try new combinations of existing materials.

**"Will The Smart Gun Save Lives?"***Rolling Stone (08/06/98) No. 792, P. 36; Greider, William*

Gun control activists in New Jersey are promoting legislation requiring that all handguns sold in the state be loaded with owner-controlled technology. The Smart Gun, developed by Colt Manufacturing Co., is inoperable without a coded transmission from a transponder in a wristband worn by the registered owner to a receiver in the grip of the gun. Spurred by increasing instances of accidental shootings involving children, and statistics from the Justice Department indicating that one out of every six

law-enforcement officers fatally shot dies by his own gun, or a partner's, the technology marks a new trend in the gun-control debate. Researchers focusing on the engineering of smart weapons have received over \$1 million in financial support from the National Institute of Justice thanks to some encouragement from former Rep. Pat Schroeder of Colorado.

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## "Talk Power! Two-Way Radio System Extends Correctional Officers' Reach"

*Corrections Technology Management Online (08/98); Washington, Odie*

The Illinois Department of Corrections requested several propagation studies of correction facility communications systems in the early 90's that led to the installation of a trunked two-way radio at two of the state's maximum security prisons. So far, benefits of the 800 MHz radio have been immediate and plans are underway to install the same system at other key facilities statewide. The studies, conducted by Motorola in 1993 and 1995, found that corrections staff needed better radio coverage, including user ID, emergency call capabilities, and a man down switch; particularly during inmate transfers between facilities, and situations where the ability to communicate directly with outside entities is vital. Motorola found that 800MHz signals provided sufficient structural penetration in varying combinations of tower height, antenna type, and signal length. The system was tested extensively at the Stateville and Pontiac prisons late in 1997. Stateville Warden George DeTella noted, "With our old system, we had to go through the dispatcher about two-thirds of the time. Now we rarely do. This means we can respond to situations faster, and that's very important to us." Another advantage comes from the use of talk groups, which automatically sort the transmissions on the radio system and route them only to the people who need to hear them. Pontiac Correctional facility Warden Jerry Gilmore likes that the talk groups can be quickly reconfigured during a sensitive situation allowing tactical teams ease in communication. As soon as the 800MHz communications system is installed in other key state correctional facilities, the systems will be interoperable--meaning officers will be able to use their own radios when at another facility. The Stateville installation required some remodeling and cost \$1,035,000; the Pontiac upgrade also required remodeling, but was slightly less expensive at \$992,000. Funding for the projects came from the time fees of inmates' phone use as authorized from the state Central Management Services Department.

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Thursday Sept. 19, 1996

INDEX

## Colt's new 'smart gun': Personalized protection

*Scripps Howard News Service*

WASHINGTON - Lawmakers on Wednesday touted a "smart gun" that fires only for its owner.

Rep. Steve Schiff, R-N.M., joined with Rep. Patricia Schroeder, D-Colo., at a news conference to laud the life-saving possibilities of the gun, which could reduce the number of police officers killed when their weapon is turned against them by a criminal.

"We've come to the conclusion that law enforcement needs the benefit of more technology," Schiff said.

Statistics indicate that an average of 16 percent of police officers die each year when a criminal uses an officer's gun against him or her, Schiff said. Civilian lives also are needlessly lost when children gain access to a parent's loaded gun and fire it.

To combat the problem, Colt Manufacturing Co. has developed the first prototype, which it demonstrated at the news conference.

The gun, a standard-looking .40-caliber weapon, uses a radio frequency identification system.

The gun's owner carries a tiny transponder, fitted into a ring or watch-like band. When the owner grips the pistol, a "reader" inside the gun recognizes the transponder's signal and releases the firing mechanism.

Colt officials said they expect to begin selling the gun next year for about \$900 - \$300 more than a similar, non-smart gun.

But they also noted that they are working on a second, more sophisticated prototype, which they hope to offer to the law enforcement market in three years.

Police officers "have a very difficult set of requirements" that smart gun technology must meet, said Douglas Weiss, a scientist with Sandia National Laboratories who has studied the "smart gun" issue for the National Institute of Justice.

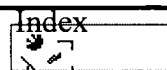
Most important, the smart gun must be as reliable as the weapons now used by police, he said.



**Mark Wilson /  
Associated Press**

**Rep. Pat Schroeder,  
D-Colo., gets a close  
look at the "smart  
gun," which fires with  
radio ID signal.**

**E-mail us at:** [netmail@detnews.com](mailto:netmail@detnews.com)



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## NOTES/COMMENTS

Professor Teret asked me to fax these  
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We will send additional materials  
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Thank you for your interest.

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---

## The Johns Hopkins Center for Gun Policy and Research

School of Public Health ■ 624 N. Broadway ■ Baltimore, MD 21205 ■ (410) 955-3995 ■ FAX (410) 614-9055

### **Personalized Handguns: *Questions and Answers***

#### **What is a personalized handgun?**

A personalized handgun is one that, by design, can only be fired when operated by an authorized user. Personalized handguns are child-resistant.

#### **Will personalized handguns prevent death and injury?**

In 1995, guns killed 35,957 people in the United States.<sup>1</sup> Personalized handguns can significantly reduce the likelihood of many of these gun-related deaths and injuries. Most gun deaths involve handguns rather than long guns. Handguns are the weapon of choice for people purchasing a gun for home defense, for the suicide victim, and for the criminal.<sup>2</sup> One in every four households in the U.S. contains a handgun.<sup>3</sup>

Young children find handguns in the home and are able to fire them, shooting themselves and others. In 1995, 181 children 14 years old and younger were unintentionally killed by firearms.<sup>4</sup> Children and teenagers also use guns found in the home to commit suicide. Suicide has become a leading cause of death among teenagers. The increase is due largely to gun-related suicides.<sup>5</sup> Among young people 10 to 19 years old, there were more than 1,400 suicides with guns in 1995.<sup>6</sup>

It has been estimated that more than one half million guns are stolen from homes each year.<sup>7</sup> Many of those guns are then illegally sold and used on the street.

Law enforcement officers are killed or seriously injured by their own or a fellow officer's handgun when a suspect or prisoner disarms them. On average 13 law enforcement officers are killed each year in this way.<sup>8</sup>

Personalized handguns can be especially effective in preventing unintentional firearm deaths and injuries among young children, teenage suicide, and shootings of police officers.

#### **Does the technology to personalize handguns exist?**

Yes. Many patents for personalized guns have been awarded in the last few decades. Colt's Manufacturing Company has developed prototypes of personalized handguns. The prototypes employ radio frequency technology. The authorized user wears a tiny transponder bearing a unique code. The firearm transmits low power radio signals to the transponder, which in turn "notifies" the firearm of its presence. If the transponder code is one that has been previously entered into the firearm, the firearm "recognizes" it, and it is enabled. Colt expects to market the handgun in the near future.

**Do trigger locks personalize a gun?**

No. A trigger lock is an accessory that requires several actions on the part of the authorized user for it to be protective. The authorized user must purchase the trigger lock, remember to reinstall the lock after every use, and use the lock correctly. Personalized guns provide automatic protection that is built into the design of the gun. Automatic or passive protection is far more effective in preventing injuries than those measures which require action on the part of the individual to be protected.

**Can lives be saved by making products safer?**

Yes. Many products have been modified to make them safer including motor vehicles, drug packages, and cigarette lighters. Government mandated changes in drug packaging have reduced the number of deaths from child poisonings.<sup>9</sup> Safer cigarette lighters have saved the lives of an estimated 80-105 children under 5 each year.<sup>10</sup> The decline in motor vehicle-related deaths and injuries over the last several decades has been largely the result of safer car design, such as laminated windshields, collapsible steering assemblies, dashboard padding, improved door locks, and air bags.<sup>11</sup>

**Will personalized handguns be expensive?**

It is estimated that prices for personalized handguns will be higher than for ordinary handguns. Over time, as personalized handguns become more widely available, prices are expected to decline.

**Will a personalized handgun address all gun safety issues?**

No. There is still a risk that an authorized user will harm himself or someone else with the gun. But, just as antibiotics only address certain infectious diseases and not other diseases, the personalization of handguns will effectively address some of the risks posed by handguns.

**Will personalized handguns make it safe to keep a gun in the home?**

While personalized handguns will likely reduce the risks of some gun deaths, reliable studies still teach us that possessing a gun in the home is more perilous than protective.<sup>12</sup> Those who have chosen not to keep a gun in the home would be wise to continue with that decision. For those committed to keeping a handgun in the home, it would be best to destroy the old handgun and replace it with a personalized handgun.

**Would non-personalized handguns be outlawed?**

Not under present law. The Johns Hopkins Center for Gun Policy and Research has developed a model law for states and localities that would require handguns, manufactured after a certain date, to be personalized. The model law provides for the adoption of a performance standard for personalized handguns, develops a procedure for certifying the personalized handgun as complying with the standard, formulates a time frame for compliance, and provides for enforcement.

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Established in 1995 with funding from The Joyce Foundation of Chicago, The Johns Hopkins Center for Gun Policy and Research is dedicated to reducing gun violence. For more information or for a copy of *A Model Handgun Safety Standard Act* and its companion document, *Personalized Guns: Reducing Gun Deaths Through Design Changes*, contact: The Johns Hopkins Center for Gun Policy and Research, School of Public Health, 624 N. Broadway, Baltimore, MD 21205-1996, 410/955-3995.

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**Revised 5/98**

# WILL THE SMART GUN SAVE LIVES?

Firearms makers already have the technology to make guns safer.  
Why won't Congress pull the trigger?

BY WILLIAM GREIDER

**F**ROM JONESBORO, ARKANSAS, TO Springfield, Oregon, the serial carnage in American schoolyards has generated the predictable outrage aimed at rap music and devil teenagers. Why are kids shooting each other, their parents and teachers? Americans always enjoy a lusty discussion of what's wrong with the younger generation. Plus, it lets everyone avoid the politically explosive question of what's wrong with the guns.

While talk shows and right-wing preachers obsess about the moral depravity of youth culture, the usual political adversaries are lining up for yet another long-running congressional struggle over various gun-control measures. The National Rifle Association knows that people are upset by the spectacle of gun-toting students and hopes to soften its image with Charlton Heston as its new president.

Meanwhile, Handgun Control Inc., the leading advocacy group of reformers, unveils a new grab bag of modest legislative ideas for reducing the bloodshed, such as mandatory trigger locks for handguns and criminal liability for careless parents who let their weapons turn small children into accidental killers.

HCI's various proposals sound reasonable enough (and might do some good on the margins), but the problem is, they are too reasonable. What's promised is another long and tedious slog through Washington's political labyrinth in search of very limited objectives. We did that already - with the "Brady Bill," which instituted a mandatory waiting period for the purchase of handguns, along with other incremental measures -

while the random gun violence continues to proliferate new forms of pointless tragedy.

This time around, though Washington doesn't seem to get it yet, the outcome can be dramatically different. Public attitudes on the need for real action have shifted significantly, including among gun owners, and genuine progress is within reach. A new reform dynamic is under way on many different fronts, from public-health advocates to handgun manufacturers and the trial lawyers who are suing the companies on behalf of victims. For instance, Cease Fire Inc. (a national educational campaign launched by Jann S. Wenner, editor and publisher of *ROLLING STONE*) broadcasts hard-hitting public-service announcements on television that warn parents that a handgun in their homes can be fatal to their children and their friends.

Together, these energies are going to refocus the debate on the nature of the guns themselves rather than on the behavior of people, whether kids or gun owners. What's required is serious safety regulation of this very dangerous product - the crucial first step toward drastically reducing its numbers.

What makes this breakthrough possible is a newly designed handgun that won't shoot if it's being held in the wrong hands - whether the shooter is a small child, or a depressed teenager attempting suicide, or even a felon who stole the weapon from someone's home. The technology exists. Working prototypes have already been developed. People should be able to buy them in the next couple of years.

This innovation won't eliminate the gun problem by a long shot - an estimated 65 million pistols and revolvers are in the hands of American civilians. But it changes everything in the political debate and opens the way for real reform.

Colt's Manufacturing Co., the venerable firearms manufacturer in Connecticut, calls its new version the Smart Gun. The company has been financially troubled in recent years but now hopes to steal the lead on competitors while avoiding potential lawsuits and the rising public outrage aimed at firearms.

Gun-control advocates prefer to call the new technology the "personalized" or "childproof" gun. They do not think this promising development should wait solely on the marketplace.

A reform organization called Ceasefire New Jersey is already pushing a bipartisan bill in the legislature to require that all new handguns sold in the state be equipped with the owner-control technology. Bryan Miller, a former businessman who heads the group, predicts that once New Jersey acts, other states will swiftly follow. His brother Michael, an FBI agent, was killed in a crazed incident of random shooting back in 1994.

"Why am I so upbeat? That's just the way I am," Miller says. "But I also think our bill in New Jersey is going to happen, and we're going to save some lives and have measurable impact - a decline in accidental child deaths and a decline in teenage suicides. And that's going to make it easier to do the next thing."

"I believe this country is at the start of a major sea change in its attitudes about guns that will lead to gun-safety measures and will dramatically cut down gun deaths and injuries. It's going to take time, but it's going to happen. My opinion: Ten years from now, you won't

## NO ONE SHOULD WANT TO OWN A HANDGUN OPERABLE BY A FOUR-YEAR-OLD," SAYS STEPHEN TERET.

be able to buy a handgun in this country that's not childproof. And we're going to lead the way in New Jersey."

After all the recent tragedies, does this sound too optimistic? I don't think so. The firearms industry is looking at the same confluence of political forces that Miller sees, and it is taking them very seriously. Gun makers also observe what happened to another industry that stonewalled public concern - tobacco. They are anxious to avoid a similar fate for guns.

THE OUTLINE FOR A CHILDPROOF gun is actually 100 years old. Smith & Wesson used to manufacture a handgun with a safety lever on the grip that young children couldn't operate while simultaneously pulling the trigger. In this age of semiconductor chips and electronic locking codes, it ought to be easy enough to produce a more sophisticated version - a gun that fires only if the owner is personally pulling the trigger.

That's what Professor Stephen P. Teret, director of the Johns Hopkins Center for Gun Policy and Research, believes. Teret is a former trial lawyer who has spent nearly twenty years in public-health research - a scholar who studies public-safety questions with a supple sense of how reforms can be achieved on many fronts. The professor is motivated partly by the memory of friends whose twenty-two-month-old son, while in a caretaker's home, was shot in his crib by a four-year-old who happened to find a handgun in the night table.

"That's just obscene," Teret says. "It's even more obscene because it didn't have to happen. There's no reason in the world why anyone should want to have a handgun that's operable by a four-year-old."

In 1992, Teret decided to stage a cheap experiment. The Injury Prevention Center at Johns Hopkins' School of Public Health, where he teaches, gave \$2,000 and a revolver to three undergraduate engineering students. Their senior project, Teret told them, was to reconfigure this handgun, using existing technologies, so that only its authorized user could make it shoot.

"And they did it," the professor exclaims. "They used 'touch memory' technology - a chip in a ring the gun owner wears that connects with the gun and matches the authorized code. That's when I knew this was going to happen: If engineering students could do it, I had no doubt the industry can do it."

As the professor searched for ways to promote the concept, his cause was advanced by an accidental encounter. On a long flight home from Los Angeles, Teret's seatmate happened to be Andrea

Camp, spokeswoman for Rep. Pat Schroeder of Colorado, herself a social reformer on many fronts. For five hours, Teret elaborated to his captive audience the life-saving potential of new gun technologies.

Back in Washington, Camp briefed her boss. And Schroeder (who retired from Congress last year) began pushing various federal agencies, from the Pentagon to the Justice Department, to put down some real money toward exploring the idea.

In 1994, the National Institute of Justice responded to her nudging and gave \$650,000 to Sandia National Laboratories to research the technology. Then it awarded a \$500,000 grant to Colt to refine its working prototype.

Colt's Smart Gun uses a transponder, a tiny transmitter that the authorized user would wear on a wristband, which sends a matching code to a receiver in the handgun's grip and enables the weapon to function. This concept is not so different, really, from the electronic keys that tenants use to operate an apartment elevator or that homeowners use to open an overhead garage door or unlock their cars.

The original objective of the Justice Department grants was to protect police. One of every six law-enforcement officers who gets fatally shot is killed by his own gun or his partner's, typically when an assailant seizes the weapon and turns it on the officer. If the officer's weapon could not be fired by a stranger, lives would be saved, for sure.

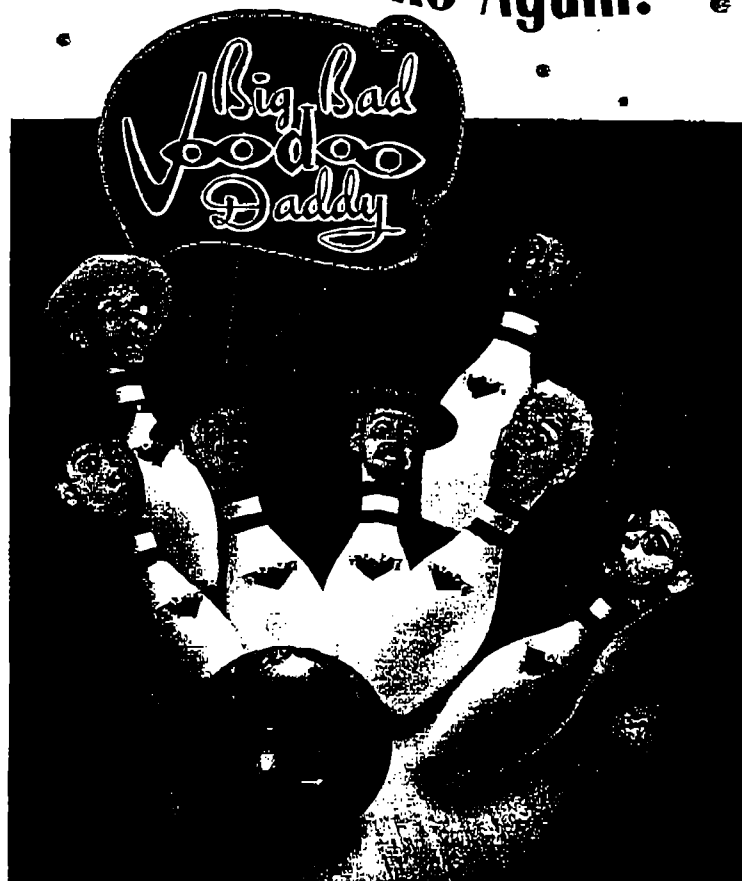
Technology is never foolproof, of course, and so the government says it will sponsor extensive field testing by police before the safety device is cleared for distribution. But this is a big leap forward. Reformers like Teret know that what works for police officers can work for others - a safety device far more certain than other options.

Trigger locks, which Handgun Control hopes to require in its legislation proposal, are already available to gun owners as add-ons, but they require a diligent owner, and the quality of the locks can be poor. Parental-liability laws, likewise, already exist in fifteen states, but whether they have had much impact is in dispute. In many instances when kids are killed accidentally by a parent's handgun, prosecutors are reluctant to add to the tragedy by prosecuting the owner as a felon.

"I'm very excited about personalized handguns," says Teret. "I think this is a solution to debates that have been gridlocked for the last several decades. Per-

National editor WILLIAM GREIDER wrote about the drug laws in RS 784.

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## GUN MAKERS ARE FACING A SERIOUS THREAT: LAWSUITS BROUGHT BY VICTIMS AND THEIR FAMILIES.

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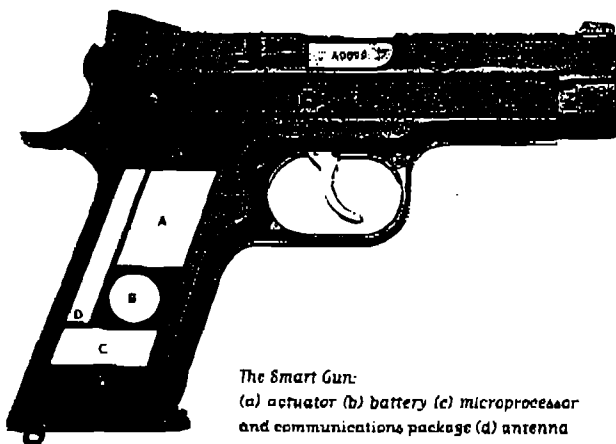
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MEANWHILE, HOWEVER, THE MANUFACTURERS are facing a very serious threat on another front: lawsuits by victims and their families. It took several decades of litigation before tobacco companies were cornered by clearly established legal liability, but guns are now more vulnerable because of the new technology. A potential breakthrough case is pending in Oakland, California, filed against Beretta U.S.A. Corp. by Lynn and Griffin Dix for the shooting of their fifteen-year-old son Kenzo four years ago.

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One market force unleashed by this innovation may cut in the other direction and shrink the market of potential buyers: the rising price of handguns. At least initially, the "personalized" feature is expected to add \$300 or more to the price tag and could double the cost of some of the cheaper handguns. In time the cost impact should fall, just as it did for computers and cell phones.

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## PERSPECTIVES

STEPHEN P. TERET  
SUSAN DEFRANCESCO  
STEPHEN W. HARGARTEN  
KRISTA D. ROBINSON

# Making Guns Safer

Children are killing children by gunfire. These deaths are occurring in homes, on the streets, and in schools. When possible solutions to this problem are discussed, conversation most often focuses on the troubled youth. Interventions involving conflict resolution programs, values teaching, reducing violence on television, and making available after-school activities and positive role models are proposed. Although each of these interventions may provide benefits, they are, even in combination, inadequate to eliminate childhood shootings. Behavior modification programs cannot possibly reach and successfully treat every troubled youth capable of creating mayhem if he or she finds an operable firearm within arm's reach.

Stephen P. Teret is professor of health policy and management and director of the Johns Hopkins Center for Gun Policy and Research at the Johns Hopkins School of Public Health. Susan DeFrancesco is the coordinator and Krista D. Robinson is a former project director of the center. Stephen W. Hargarten chairs the Department of Emergency Medicine and directs the Firearm Injury Center at the Medical College of Wisconsin.

*The technology now exists to make guns that only authorized users can operate. These safer guns could cut gun-related deaths and injuries.*

But behavior modification isn't the only possible solution. Another intervention is now being developed: the personalized gun, a weapon that will operate only for the authorized user. Personalized guns could reduce the likelihood of many gun-related injuries to children as well as adults. They could be especially effective in preventing youth suicides and unintentional shootings by young children. Personalized guns could also reduce gun violence by making the many firearms that now are stolen and later used in crime useless to criminals. Law enforce-

ment officers, who are at risk of having their handgun taken from them and being shot by it, would be safer with a personalized gun.

About 36,000 individuals died from gunshot wounds in 1995; of these, more than 5,000 were 19 years of age or younger. Suicide is among the leading causes of death for children and young adults. In 1995, more than 2,200 people between 10 and 19 years of age committed suicide in the United States, and 65 percent of these used a gun.

Adolescence is often a turbulent stage of development. Young people are prone to impulsive behavior, and studies show that thoughts of suicide occur among at least one-third of adolescents. Because firearms are among the most lethal methods of suicide, access to an operable firearm can often mean the difference between life and death for a troubled teenager. Studies have shown a strong association between the risk of adolescent suicide and home gun ownership. Although the causes of suicide are complex, personalizing guns to their adult owners should significantly reduce the risk of suicide among adolescents.

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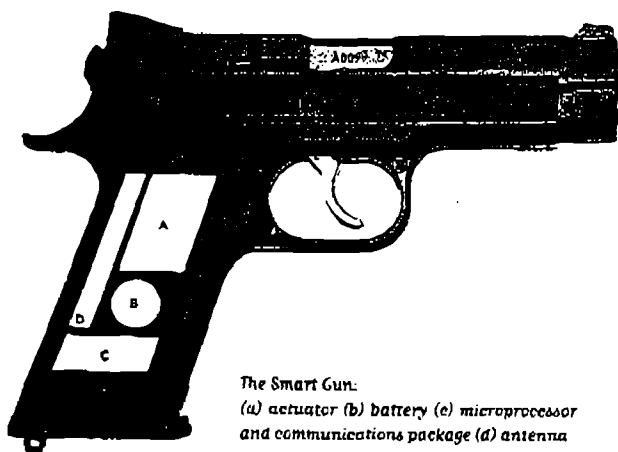
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The number of unintentional deaths caused by firearms has ranged between 1,225 and 2,000 per year since 1979. Many of the victims are young children. In 1995, the most recent year for which final statistics are available, 440 people age 19 and younger, including 181 that were under 15, were unintentionally killed with guns.

Some have argued that the best way to reduce these unintentional firearm deaths is to "gun-proof" children rather than to child-proof guns. It is imprudent, however, to depend on adults' efforts to keep guns away from children and on children's efforts to avoid guns. Firearms are available in almost 40 percent of U.S. homes, and not all parents can be relied upon to store guns safely. Surveys have documented unsafe storage practices, even among those trained in gun safety.

Stolen guns contribute to the number of gun-related deaths. Experts estimate that about 500,000 guns are stolen each year. Surveys of adult and juvenile criminals indicate that thefts are a significant source of guns used in crime. Roughly one-third of the guns used by armed felons are obtained directly through theft. Many guns illegally sold to criminals on the street have been stolen from homes. Research on the guns used in crime demonstrates that many are no more than a few years old. Requiring all guns to be personalized could, therefore, limit the availability of usable guns to adult and juvenile criminals in the illegal gun market.

### Advancing technology

The idea of making a gun that some people cannot operate is not new. Beginning in the late 1880s, Smith & Wesson made a handgun with a grip safety and stated in its marketing materials that "...no ordinary child under eight can possibly discharge it." More recently, some gun manufacturers have provided trigger-locking devices with their new guns. But trigger locks require the gun owner's diligence in relocking the gun each time it has been unlocked. Also, handguns are frequently purchased because the buyer believes he or she needs and will achieve a form of immediate self-protection. These gun owners may perceive devices such as trigger locks as a hindrance when they want the gun to be immediately available. Also, some trigger locks currently on the market are so shoddy that they can easily be removed by anyone.

Today, a number of technologies are available to personalize guns. For example, magnetic encoding has long been available for the personalization of guns. Magna-Trigger™ markets a ring that contains a magnet, which, when properly aligned with a magnet installed in the grip of the gun, physically moves a lever in the grip of the firearm, allowing the gun to fire. However, the Magna-Trigger™ system is not currently built into guns as original equipment; it must be added later. Because the gun owner must take this additional step and because the magnetic force is not coded to the gun owner, this technology is not optimal.

Another technology—touch

memory—was used in 1992 by Johns Hopkins University undergraduate engineering students to develop a nonfiring prototype of a personalized gun. Touch memory relies on direct contact between a semiconductor chip and a reader on the grip of the gun. A code is stored on the chip, which is placed on a ring worn by the user. The gun will fire only if the reader recognizes the proper code on the chip.

Another type of personalized gun employs radio frequency technology, for which the user wears a transponder imbedded in a ring, watch, or pin attached to the user's clothing. A device within the firearm transmits low-power radio signals to the transponder, which in turn "notifies" the firearm of its presence. If the transponder code is one that has previously been entered into the firearm, the firearm "recognizes" it and is enabled. Without the receipt of that coded message, however, a movable piece within the gun remains in a position that mechanically blocks the gun from firing. One major gun manufacturer has developed prototypes of personalized handguns using radio frequency technology and expects to market these guns soon.

The personalization method of the near future appears to be fingerprint-reading technology. A gun would be programmed to recognize one or more fingerprints by means of a tiny reader. This eliminates the need for the authorized user to wear a ring or bracelet. Regardless of the technology that is ultimately chosen by most gun manufacturers, several gun magazines have advised their readers to

## PERSPECTIVES

expect personalized handguns to be readily available within the next few years.

Prices for personalized handguns will be higher than for ordinary handguns. The Magna-Trigger™ device can be fitted to some handguns at a cost of about \$250, plus \$40 for the ring. One gun manufacturer originally estimated that personalizing a handgun would increase the cost of the gun by about 50 percent; however, with the decreasing cost of electronics and with economies of scale, the cost of personalization should substantially decrease. Polling data show that the gun-buying public is willing to pay an increased cost for a personalized handgun.

### Regulating gun safety

Most gun manufacturers have not yet indicated that they will redesign their products for safety. When the manufacturers of other products involved with injuries were slow to employ injury prevention technologies, the federal government forced them to do so. But the federal government does not mandate safety mechanisms for handguns. The Consumer Product Safety Commission, the federal agency established by Congress to oversee the safety of most consumer products, is prohibited from exercising jurisdiction over firearms. However, bills have been introduced in several states that would require new handguns to be personalized. Regulation and litigation against firearms manufacturers may also add to the pressure to personalize guns.

Important legislative and regulatory efforts have already taken

**Personalized guns  
could be especially  
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place in Massachusetts. The state's attorney general recently promulgated the nation's first consumer protection regulations regarding handguns. The regulations require that all handguns manufactured or sold in Massachusetts be made child-resistant. If newly manufactured handguns are not personalized, then stringent warnings about the product's danger must accompany handgun sales. Bills affecting gun manufacturers' liability have also been introduced in the state legislature. The proposed legislation imposes strict liability on manufacturers and distributors of firearms for the deaths and injuries their products cause. Strict liability would not be imposed, however, if a firearm employs a mechanism or device designed to prevent anyone except the registered owner from discharging it.

A bill recently introduced in California would require that concealable handguns employ a device designed to prevent use by unauthorized users or be accompanied by a warning that explains the danger of a gun that does not

employ a "single-user device." A bill introduced in the Rhode Island legislature would require all handguns sold in the state to be child-resistant or personalized.

To aid legislative efforts that would require personalized guns, the Johns Hopkins Center for Gun Policy and Research has developed a model law entitled "A Model Handgun Safety Standard Act." Legislation patterned after the model law has been introduced in Pennsylvania, New York, and New Jersey.

One objection to legislation requiring handguns to be personalized is that the technology has not yet been adequately developed. But in interpreting the validity of safety legislation, courts traditionally have held that standards need not be based on existing devices. For example, in a 1983 case involving a passive-restraint standard promulgated pursuant to the National Traffic and Motor Vehicle Safety Act of 1966, the Supreme Court ruled that "...the Act was necessary because the industry was not sufficiently responsive to safety concerns. The Act intended that safety standards not depend on current technology and could be 'technology-forcing' in the sense of inducing the development of superior safety design."

The model handgun safety legislation mandates the development of a performance standard and provides an extended time for compliance—two features that the courts have said contribute to the determination that a standard is technologically feasible. A performance standard does not dictate the design or technology that a manufacturer must employ to com-

ply with the law. The model law calls for adoption of a standard within 18 months of passage of the law, with compliance beginning four years after the standard is adopted.

Legislative efforts to promote the use of personalized guns can be complemented by litigation. For some time, injury prevention professionals have recognized that product liability litigation fosters injury prevention by creating a financial incentive to design safer

products. One lawsuit is already being litigated in California against a gun manufacturer in a case involving a 15-year-old boy who was shot unintentionally by a friend playing with a handgun. The suit alleges that, among other theories of liability, the handgun was defective because its design did not utilize personalization technology. Additional cases against gun manufacturers for failure to personalize their products can be expected.

Firearm manufacturers need to realize the benefits of personalized guns. The threat of legislation, regulation, or litigation may be enough to convince some manufacturers to integrate available personalization technologies into their products. When personalized guns replace present-day guns that are operable by anyone, the unauthorized use of guns by children and adolescents will decrease, as will the incidence of gun-related morbidity and mortality.

Smart gun business moving  
quickly

Colt ~~has~~ is ready to  
unveil 2<sup>nd</sup> prototype of  
Smart gun for police

Should be on market in  
1 1/2 years

legislation pending  
NY, NJ, other states —  
only new handguns  
that could legally be  
sold would be smart.

technology is radio  
frequency now →  
fingerprint recognition  
Oxford microdevices

polls -

would you favor a  
law 88% say yes  
personalized - yes.

litigation

going on against  
gun manufacturers  
New Orleans suing  
failure to make  
guns personalized  
personal liability

Congress

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President Clinton —

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Janet Reno

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price of gun  
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NYT

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NRA Orlando sentinel  
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