HB

2

HB 2 - Restricted ammo.
in Commission of a
Crime

To Testify

Bear
586-2660)

Brian Porter (586-3300)
Chief of Police Anch

2) Nat'l Rifle Assoc
(Ken Hankins - Board
of Directors) Wayne
~~Thurs.~~ morning

(277-6775)

Fiscal Notes

1) Dept of Law

2) Dept of Public
Safety

Ben Neff Kell
Peace Officers

Warren Siddock.

HBZ

A BILL

To establish minimum mandatory sentences for the use of armor-piercing handgun ammunition during the course of a violent crime.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that title 18, United States Code, is amended by adding a new section 929 as follows:

Sec. 929. Use of restricted ammunition.

"(a) Whoever, during and in relation to the commission of a crime of violence for which he may be prosecuted in a court of the United States, including a felony which provides for an enhanced punishment if committed by the use of a dangerous weapon or device, uses or carries any handgun loaded with armor-piercing ammunition as defined herein, shall, in addition to the punishment provided for the commission of such felony, be sentenced to a term of imprisonment for not less than five years. Notwithstanding any other provision of law, the court shall not suspend the sentence of any person convicted of a violation of this subsection nor place him on probation, nor shall the term of imprisonment run concurrently with any other term of imprisonment including that imposed for the felony in which the armor-piercing handgun ammunition was being used or carried. No person sentenced under this subsection shall be eligible for parole.

"(b) For purposes of this section:

(1) 'handgund' means any firearm, including a pistol or revolver, originally designed to be fired by the use of a single hand;

(2) 'armor-piercing ammunition' means ammunition which, when or if fired from any handgun used or carried in violation of subsection (a), under the test procedure of the National Institute of Law Enforcement and Criminal Justice Standard for the Ballistics Resistance of Police Body Armor promulgated December, 1978, is determined to be capable of penetrating bullet-resistant apparel or body armor meeting the requirements of Type IIA of Standard NILECJ-STD-0101.01 as formulated by the United States Department of Justice and published in December of 1978; and

(3) 'crime of violence' means (i) an offense, other than a misdemeanor that consists solely of damage to property and that does not place another person in danger of death or serious bodily injury, that has as an element of the offense the use, attempted use, or threatened use of physical force against the person or property of another; or (ii) any other offense that is a felony and that, by its nature, involves a substantial risk that physical force against the person or property of another may be used in the course of committing the offense.

NATIONAL RIFLE ASSOCIATION OF AMERICA
INSTITUTE FOR LEGISLATIVE ACTION
1600 RHODE ISLAND AVENUE, N.W.
WASHINGTON, D.C. 20036

KTW BULLET FACT SHEET

Recently there has been a great deal of controversy regarding bullets which are capable of penetrating most soft body armor ("bullet-proof vests").

Such projectiles are not novel. The French army used a copper alloy bullet at the turn of the century. Specifically armor-piercing bullets (with a steel core) have been made since the First World War, and our government has sold large quantities to civilians as surplus. Many if not most handgun ammunition incorporates a copper alloy jacket around the bullet; such jacketed handgun bullets have been specially designed to increase the penetration since the 1930's, when police began to demand bullets useful against criminals using vehicles.

The KTW projectile is one example of a large class of projectiles which can be used to defeat body armor. It is the National Rifle Association's understanding that although KTW projectiles have been available for over ten years, no policeman has ever had one fired at him, nor has NRA been able to locate any other case of criminal misuse. The KTW ammunition is expensive (about $1.50 per round), only a small proportion of licensed dealers stock it, and the manufacturer will distribute only to dealers who sign a contract agreeing to sell only to law enforcement personnel. The media's effort to generate a controversy over this ammunition has thus served to advertise a form of ammunition which has not been misused in ten years of availability.

Attempts to ban ammunition of this type pose a serious concern in that definition of "ammunition of this type" is a complex and subjective matter. Assuming that a ban would be objective, (not limited to "bullets made by KTW") it would have to be keyed to some index of penetration. The problem is that there is no simple dividing line between bullets that will defeat body armor and bullets that will not. Any index eliminating most bullets with a sufficient penetration would also eliminate practically all bullets used by sportsmen for hunting: deer, antelope, elk, etc.

Body armor comes in many types and grades. Many manufacturers produce five or more grades, which offer increasing protection at the price of higher cost and weight. The best grades (with this steel inserts) will stop KTW bullets. The lower grades are insufficient to stop many ordinary types of pistol ammunition. Only a few very heavy and very expensive vests will stop ordinary rifles using hunting ammunition. Most vests are supplied with a chart showing what types of ammunition they will stop and will not stop. Some types of ammunition may be stopped if fired from a firearm with a short barrel but not one with a longer one which develops more power. Even with the same type of ammunition and the same firearm, some brands may be stopped while others, loaded to higher power, will not be. (For example, a model X Second Chance vest will stop 9mm rounds made by Federal or Winchester, but not

European military surplus rounds; it will stop most .357 magnum rounds if fired from a 4 1/2 inch barrel, and none of them if fired from a 6 inch barrel). Additionally, penetration is dramatically increased if the vest is wet, is backed by a hard surface (reportedly, even a simple lead .38 will penetrate a vest backed by wood during testing), or if the vest is struck at certain angles.

The result of all this is that bullets cannot be neatly divided into classes which will or will not penetrate body armor. Any attempt to objectively define such runs a risk of outlawing many types of ammunition now used by sportsmen, including:

(1) Most ammunition for hunting rifles. Due to its much greater power and velocity, this will penetrate almost all soft body armor except the heavy "SWAT" team vests. The government has, incidentally, classified many traditional rifle rounds (including the venerable .30-30) as "handgun ammunition" for Gun Control Act purposes, since there are some handguns chambered for such.

(2) Many full-metal jacketed bullets for handguns, now used by target shooters and other sportsmen, which are covered by a copper-alloy jacket, do not deform upon impact, and have higher penetration. Most automatic pistol ammunition is jacketed to prevent jamming.

(3) Certain handgun loads designed for big-game shooting and therefore loaded for deep penetration (using jacketed bullets or lead bullets cast for special hardness).

(4) Most military surplus ammunition used by shooters preparing for matches requiring such, or for reasons of economy.

Given that the proponents of such a system of grading have not come forward with a single example where this ammunition has been criminally abused, that its cost, restricted availability and (prior to the recent media coverage) limited advertising must make such abuse a rarity, there seems little reason to focus additional public attention on such ammunition, much less start people thinking on other ways to defeat such armor or circumvent its protection.

*Prepared by the Institute for Legislative Action on January 21, 1982

KTW ISSUE BRIEF

What is the KTW bullet that has stirred up such a storm of controversy and legislative action? Why has such a furor erupted over a bullet which has never been criminally misused? How has the media been able to label this the "cop-killer bullet" when no police officer has ever even had one fired at him? Where is the justification for this media campaign highlighting the vulnerability of police "bullet proof" vests?

The KTW bullet, a bronze, teflon coated round, is one example of a large class of projectiles known as metal or armor-piercing ammunition. In January of this year, NBC television aired a dramatic and rather misleading demonstration of the penetration ability of the KTW through the equivalent of four police Kevlar vests and several Los Angeles city telephone directories.

No effort was made to follow the established scientific ballistic testing procedures prescribed by the U.S. Department of Justice's National Institute of Law Enforcement and Criminal Justice to conduct standard ballistics resistance tests. Neither did the demonstration allow for the increased bullet penetration which occurs when the armor is backed by a rigid object. If NBC had checked the NILECJ standards, they would have known that an accurate ballistics test must be run by using ballistics clay or modeling clay to simulate the interaction between the armor, the bullet and the resilient human body.

Particularly distressing is the fact that NBC did not inform the viewers that different types of bullet resistant vests are available for different threat levels. Although it is true that some soft body armor cannot protect against all types of ammunition, the episode failed to mention that armor is commercially available and used by police which can defeat the KTW metal -piercing bullet.

In addition, NBC implied that the KTW is widely available to citizens. This simply is not true. The KTW is limited strictly to police and military use only. Very few dealers carry the bullet and these must agree to sell only to law enforcement and military.

The KTW bullets used in the NBC demonstration were obtained by a former F.B.I. agent who posed as a California drug enforcement agent. He had to call both the manufacturer and distributor of KTW before he located a firearms dealer who carried these in the state of California. In order to purchase the rounds, he had the dealer send the bullets directly to the headquarters of the California Narcotics Authority!

Minimum equirement police soft body armor already protects against 95 percent of the firearms which could threaten law enforcement officers during daily police operations. Armor which is designed to defeat armor-piercing and high velocity bullets is commercially produced and is widely available.

It is simply incongrous to propose a ban on a single type of armor-piercing ammunition, replete with all the inherent problems of enforcement, definition and overwhelming expense, for an apparently non-existent problem.

Is the KTW bullet truly a public menace?

-- No police officer has ever been shot with a KTW.

-- No criminal misuse of this ammunition has ever been documented since the bullet was developed twelve years ago.

-- The ammunition is restricted by the manufacturer and dealers to military and law enforcement use only.

-- The police already have soft body armor which is capable of protecting them against the KTW.

According to a recent statement made by Richard C. Davis, President of Second Chance Body Armor, Inc., one of the oldest and most prestigious armor manufacturers, "Up until the recent outburst of KTW publicity there were only a relative handful of 'gun expert' type people who knew about the existence of armor piercing handgun ammunition.

"I am probably in a position to be more sensitive than anyone to reports of KTW of other armor piercing ammo being used by criminals -- up until now, it just hasn't happened."

"The nice thing about armor piercing rounds is that because they do not expand, they generally cause far less damage than lead or hollow point style bullets. My general feeling is that there is approximately a hundred times greater chance of the policemen being killed by a head shot due to this vest publicity than there is by a criminal seeking out exotic armor piercing ammunition and then deliberately shooting a policeman with it. (emphasis added) If a pure and simple killing of a policeman is the desired effect, this can be much more easily accomplished with a high-powered rifle from a distance, or with a sawed off shotgun in the face from close range. It has been our experience that the vast majority of cop killings are the unplanned result of a small time criminal being suddenly confronted with capture. What we call: 'The cornered rat syndrome.'"

The focus on the KTW ammunition misunderstands both the design intent and capabilities of the soft body armor, as well as the actual threat this bullet poses for police.

HD2"

LAW ENFORCEMENT STANDARDS PROGRAM

NILECJ STANDARD FOR THE BALLISTIC RESISTANCE OF POLICE BODY ARMOR

A Voluntary National Standard Promulgated by the National Institute of Law Enforcement and Criminal Justice.

DECEMBER 1978

U.S. DEPARTMENT OF JUSTICE
Law Enforcement Assistance Administration
National Institute of Law Enforcement and Criminal Justice

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402
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NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE

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LAW ENFORCEMENT ASSISTANCE ADMINISTRATION

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ACKNOWLEDGMENTS

This standard was formulated by the Law Enforcement Standards Laboratory of the National Bureau of Standards under the direction of Ronald C. Dobbyn, Manager, Protective Equipment Program, and Jacob J. Diamond, Chief of LESL. The technical research was performed by Nicholas J. Calvano, project leader, and other personnel of the NBS Center for Consumer Product Technology. The standard has been reviewed and approved by the National Advisory Committee for Law Enforcement Equipment and Technology of the International Association of Chiefs of Police and adopted by them as an IACP standard.

NILECJ STANDARD FOR THE BALLISTIC RESISTANCE OF POLICE BODY ARMOR

CONTENTS

FOREWORD

Following a Congressional mandate[1] to develop new and improved techniques, systems, and equipment to strengthen law enforcement and criminal justice, the National Institute of Law Enforcement and Criminal Justice (NILECJ) has established the Law Enforcement Standards Laboratory (LESL) at the National Bureau of Standards. LESL's function is to conduct research that will assist law enforcement and criminal justice agencies in the selection and procurement of quality equipment.

In response to priorities established by NILECJ, LESL is: (1) Subjecting existing equipment to laboratory testing and evaluation and (2) conducting research leading to the development of several series of documents, including national voluntary equipment standards, user guides and technical reports.

This document, NILECJ-STD-0101.01, Ballistic Resistance of Police Body Armor, is a law enforcement equipment standard developed by LESL and approved and issued by NILECJ. Additional standards as well as other documents are being issued under the LESL program in the areas of protective equipment, communications equipment, security systems, weapons, emergency equipment, investigative aids, vehicles and clothing.

This equipment standard is a technical document consisting of performance and other requirements together with a description of test methods. Equipment which can meet these requirements is of superior quality and is suited to the needs of law enforcement agencies. Purchasers can use the test methods described in this standard to determine firsthand whether a particular equipment item meets the requirements of the standard, or they may have the tests conducted on their behalf by a qualified testing laboratory. Law enforcement personnel may also reference this standard in purchase documents and require that any equipment offered for purchase meet its requirements and that this compliance be either guaranteed by the vendor or attested to by an independent testing laboratory.

The necessarily technical nature of this NILECJ standard, and its special focus as a procurement aid, make it of limited use to those who seek general guidance concerning body armor. The User Guide Series is designed to fill that need. We plan to issue guides to various items of law enforcement equipment as soon as possible, within the constraints of available funding and the overall NILECJ program.

The user guides being issued are highly readable and tutorial in nature in contrast to the standards, which are highly technical and intended for laboratory use by technical personnel. The guides provide, in non-technical language, information for purchasing agents and other interested persons concerning the capabilities of equipment currently available. They may then select equipment appropriate to the performance required by their agency. Recommendations for the development of particular guides should be sent to us.

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[1]Section 402(b) of the Omnibus Crime Control and Safe Streets Act of 1968, as amended.

NILECJ standards are subjected to continuing review. Technical comments and recommended revisions are invited from all interested parties. Suggestions should be addressed to the Program Manager for Standards, National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice, Washington, D.C. 20531.

Lester D. Shubin
Program Manager for Standards
National Institute of Law
Enforcement and Criminal
Justice

NILECJ STANDARD FOR THE BALLISTIC RESISTANCE OF POLICE BODY ARMOR

1. PURPOSE

The purpose of this standard is to establish minimum performance requirements and methods of test for the ballistic resistance of police body armor. This standard is a revision of NILECJ-STD-0101.00, dated March 1972 [2].

2. SCOPE AND CLASSIFICATION

2.1 Discussion

This standard is applicable to armors intended to protect the torso against gunfire. Many different types of armor are now available; they range in ballistic resistance from those designed to protect against small caliber handguns to those designed to protect against high-powered rifles.

Personal protective armor manufacturers make a great variety of armors, many to special order, but production is currently concentrated in six classes designed to resist the following threats:

- 22 LRHV, 40 gr RN lead (1050 ± 40 fps); 38 Spec., 158 gr RN lead (850 ± 50 fps); and 12 gauge #4 shot.
- 357 Mag., 158 gr JSP (1250 ± 50 fps); and 9 mm, 124 gr FMJ (1090 ± 75 fps).
- 357 Mag., 158 gr JSP (1395 ± 20 fps); and 9 mm, 124 gr FMJ (1175 ± 75 fps).
- 44 Mag., 240 gr JSP (1425 ± 50 fps).
- 30 Carbine, 110 gr M-1 (1950 ± 50 fps); and 12 gauge rifled slug (1600 ± 50 fps).
- 30-06 rifle, 166 gr AP M-2 (2750 ± 50 fps).

The ballistic threat posed by a bullet depends, among other things, on its composition, shape, caliber, mass, and impact velocity. Because of the wide variety of cartridges available in a given caliber, and because of the existence of hand loads, armors that will defeat a standard test round may not defeat other loadings in the same caliber. For example, an armor that prevents penetration by a 357 Magnum test round may or may not defeat a 357 Magnum round with higher velocity. In general, an armor that defeats a given lead-core round will not resist penetration by an identical round with an armor-piercing core. The test ammunitions specified in this standard represent common threats to law enforcement officers.

2.2 Classification

Police body armors covered by this standard are classified into five types, by level of performance. Table 1 summarizes the protection they afford.

TABLE 1. *Protection Afforded by Police Body Armor*

Threat	Ballistic Protection Afforded				
	Type I Armor	Type II-A Armor	Type II Armor	Type III Armor	Type IV Armor
22 LRHV (H)	Yes	Yes	Yes	Yes	Yes
25 Auto.	Yes	Yes	Yes	Yes	Yes
32 Auto.	Yes	Yes	Yes	Yes	Yes
38 Special Lead	Yes	Yes	Yes	Yes	Yes
12 Gauge #4 Lead Shot	Yes	Yes	Yes	Yes	Yes
357 Magnum JSP	No	Yes[1]	Yes[2]	Yes	Yes
9 mm Luger FMJ	No	Yes[3]	Yes[4]	Yes	Yes
38 Special HV	No	Yes	Yes	Yes	Yes
22 LRHV (R)	No	Yes	Yes	Yes	Yes
45 Auto.	No	Yes	Yes	Yes	Yes
12 Gauge 00 BK	No	Yes	Yes	Yes	Yes
7.62 mm FMJ	No	No	No	Yes	Yes
44 Magnum Lead	No	No	No	Yes	Yes
44 Magnum JSP	No	No	No	Yes	Yes
41 Magnum	No	No	No	Yes	Yes
30–06 PSP	No	No	No	Yes	Yes
30 Carbine	No	No	No	Yes	Yes
12 Gauge RS	No	No	No	Yes	Yes
30–06 AP	No	No	No	No	Yes

Abbreviations: AP—Armor; BK—Buckshot; FMJ—Full Metal Jacket; (H)—Handgun; HV—High Velocity; JSP—Jacketed Soft Point; LRHV—Long Rifle High Velocity; PSP—Pointed Soft Point; (R)—Rifle; RS—Rifled Slug

Footnotes: (1) Rounds up to 10.2 g (158 gr) with velocities up to 381 ± 15 m (1250 ± 50 ft) per second.
(2) Rounds up to 10.2 g (158 gr) with velocities up to 425 ± 15 m (1395 ± 50 ft) per second.
(3) Rounds up to 8.0 g (124 gr) with velocities up to 332 ± 15 m (1090 ± 50 ft) per second.
(4) Rounds up to 8.0 g (124 gr) with velocities up to 358 ± 15 m (1175 ± 50 ft) per second.

2.2.1 Type I (22 LR—38 Special)

This armor protects against the standard test rounds as defined in paragraph 5.1.1. It also provides protection against lesser threats such as 12 gauge No. 4 lead shot and most handgun rounds in calibers 25 and 32.

2.2.2. Type II-A (Lower Velocity 357 Magnum—9mm)

This armor protects against the standard test rounds as defined in paragraph 5.1.2. It also provides protection against lesser threats such as 12 gauge 00 buckshot, 45 Auto., 22 caliber Long Rifle High Velocity (rifle), High Velocity 38 Special and some other factory loads in caliber 357 Magnum and 9 mm, as well as the threats mentioned in paragraph 2.2.1.

2.2.3 Type II (Higher Velocity 357 Magnum—9 mm)

This armor protects against the standard test rounds as defined in paragraph 5.1.3. It also provides protection against lesser threats such as 12 gauge 00 buckshot, 45 Auto., 22 caliber Long Rifle High Velocity (rifle), High Velocity 38 Special and most other factory loads in caliber 357 Magnum and 9 mm, as well as the threats mentioned in paragraph 2.2.1 and 2.2.2.

2.2.4 Type III (High-Powered Rifle)

This armor protects against the standard test round as defined in paragraph 5.1.4. It also provides protection against lesser threats such as 223 Remington (5.56 mm FMJ), 30 Carbine FMJ, and 12 gauge rifled slug, as well as the threats mentioned in paragraphs 2.2.1, 2.2.2 and 2.2.3.

2.2.5 Type IV (Armor Piercing Rifle)

This armor protects against the standard test round as defined in paragraph 5.1.5. It also provides at least single hit protection against the threats mentioned in paragraphs 2.2.1, 2.2.2, 2.2.3 and 2.2.4.

2.2.6 Special Type

A purchaser having a special requirement for a level of protection other than one of the above standards should specify the exact test rounds to be used, and indicate that this standard shall govern in all other respects.

2.3 Configuration

Police body armor is offered in a variety of configurations. All makes and models offer protection for the torso front. Many models also cover the back, and some offer additional protection. Police body armor may be specified to contain armor parts to cover the:

(a) torso front, or front and sides
(b) torso back, or back and sides
(c) groin,
(d) coccyx (end of the spine)

or any practical combination of these, as required.

3. DEFINITIONS

3.1 Angle of Incidence

The angle between the line of flight of the bullet and the perpendicular to the plane tangent to the point of impact (see figure 1).

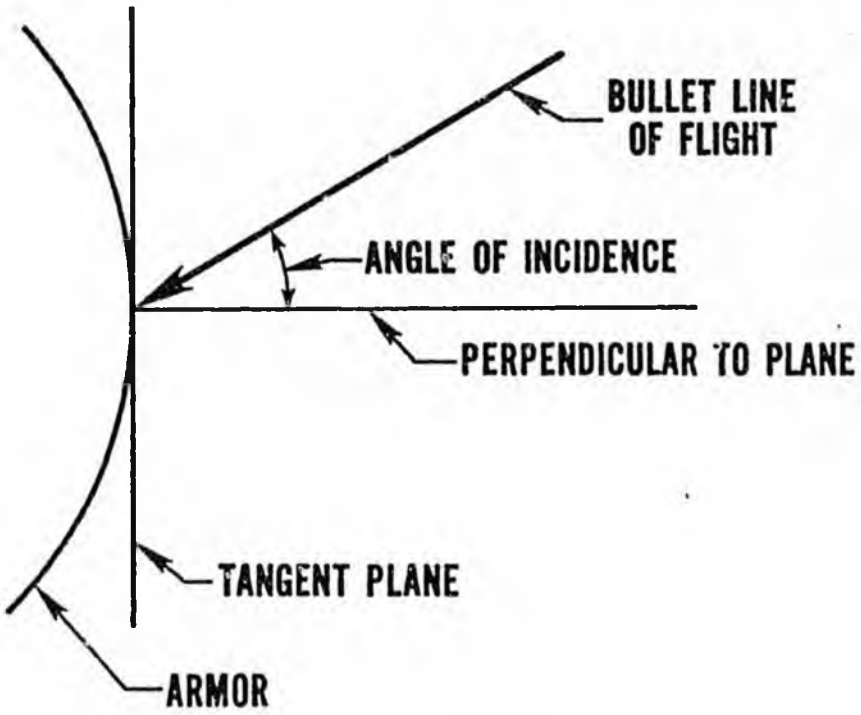

FIGURE 1. *Angle of incidence.*

3.2 Backing Material

A block of non-hardening, oil-base modeling clay, 45 cm by 45 cm by 10 cm thick (18 by 18 by 4 in), placed in contact with the back of the armor test specimen during ballistic testing.

3.3 Deformation

The maximum momentary displacement of the back surface of the armor test specimen caused by a fair hit that does not penetrate the armor.

3.4 Fair Hit

A bullet that impacts the armor at an angle of incidence no greater than 5 degrees, no closer to the edge of the armor part or to a prior hit than 5 cm (2 in), and at an acceptable velocity as defined in this standard. A bullet that impacts too close to the edge or a prior hit and/or at too high a velocity, but does not penetrate, shall be considered a fair hit for the determination of penetration but not deformation.

3.5 Full Metal Jacketed Bullet (FMJ)

A bullet made of lead completely covered, except for the base, with copper alloy (approximately 90 copper-10 zinc).

3.6 Jacketed Soft Point (JSP)

A bullet made of lead completely covered, except for the point, with copper alloy (approximately 90 copper-10 zinc).

3.7 Lead Bullet

A bullet made of lead alloyed with hardening agents.

3.8 Penetration

Complete perforation of an armor test sample by a test bullet or by a fragment of the bullet or armor, as evidenced by the presence of that bullet or a fragment in the backing material, or by a hole which passes through the backing material.

3.9 Strike Face

The surface of an armor designated by the manufacturer as the face that should be worn away from the body.

4. REQUIREMENTS

4.1 Sampling for Test

Two complete armors, selected at random, shall constitute a test sample. A maximum of two additional type I, II-A and II armors may be required for retesting.

4.2 Test Sequence

Armors shall be examined to determine compliance with the requirements of paragraphs 4.3 and 4.4, and shall then be tested for compliance with the requirements of paragraph 4.5.

4.3 Workmanship

Each armor shall be free from wrinkles, blisters, cracks or fabric tears, crazing, chipped or sharp corners and other evidences of inferior workmanship.

4.4 Labeling

Each armor shall be clearly and durably marked to provide the following information:

a) name, logo or other identification of the manufacturer
b) type of body armor, according to section 2 of this standard
c) size
d) lot number
e) month and year of manufacture
f) strike face, if any
g) cleaning instructions for the ballistic material and for the armor carrier, if any

Items d and e may be incorporated into a single number, e.g., a serial number.

4.5 Ballistic Penetration and Deformation

One complete armor shall be tested for resistance to ballistic penetration and ballistic deformation in accordance with paragraph 5.2. A second armor shall be so tested after wet conditioning in accordance with paragraph 5.1.8. Penetration by any fair hit, or deformation to a depth greater than 44 mm (1.73 in), in either test, shall constitute failure. The detailed requirements are summarized in table 2.

TABLE 2. *Test Summary*

	Test Variables				Performance Requirements		
Armor Type	Test Ammunition	Nominal Bullet Mass	Suggested Barrel Length	Required Bullet Velocity	Required Fair Hits Per Armor Part	Permitted Penetrations	Maximum Depth of Deformation
I	22 LRHV Lead	2.6 grams 40 grains	15 to 16.5 cm 6 to 6.5 in	320 ± 12 m/s 1050 ± 40 ft/s	5[a]	0	44 mm 1.73 in
	38 Special RN Lead	10.2 grams 158 grains	15 to 16.5 cm 6 to 6.5 in	259 ± 15 m/s 850 ± 50 ft/s	5[a]	0	44 mm 1.73 in
II-A	357 Magnum JSP	10.2 grams 158 grains	10 to 12 cm 4 to 4.75 in	381 ± 15 m/s 1250 ± 50 ft/s	5[a]	0	44 mm 1.73 in
	9 mm FMJ	8.0 grams 124 grains	10 to 12 cm 4 to 4.75 in	332 ± 15 m/s 1090 ± 50 ft/s	5[a]	0	44 mm 1.73 in
II	357 Magnum JSP	10.2 grams 158 grains	15 to 16.5 cm 6 to 6.5 in	425 ± 15 m/s 1395 ± 50 ft/s	5[a]	0	44 mm 1.73 in
	9 mm FMJ	8.0 grams 124 grains	10 to 12 cm 4 to 4.75 in	358 ± 15 m/s 1175 ± 50 ft/s	5[a]	0	44 mm 1.73 in
III	7.62 mm (308 Winchester) FMJ	9.7 grams 150 grains	56 cm 22 in	873 ± 46 m/s 2863 ± 151 ft/s	5[a]	0	44 mm 1.73
IV	30-06 AP	10.8 grams 166 grains	56 cm 22 in	838 ± 15 m/s 2750 ± 50 ft/s	1	0	44 mm 1.73 in

[a] Armor parts covering the torso front and torso back, with or without side coverage, shall each be impacted with the indicated number of fair hits. Armor parts covering the groin and coccyx shall each be impacted with 3 fair hits. The deformations due to the first two fair hits shall be measured to determine compliance.

Abbreviations: AP—Armor Piercing
FMJ—Full Metal Jacketed
JSP—Jacketed Soft Point
LRHV—Long Rifle High Velocity
RN—Round Nose

At the option of the tester, a type I, II-A or II armor part which has successfully withstood 5 fair hits with one test ammunition may thereupon be tested with the second test ammunition. However, if failure occurs with the second test ammunition a retest shall be conducted. A second specimen of that armor part shall be tested with the second test ammunition and the results of that test shall govern.

5. TEST METHODS

5.1 Test Equipment

It should be noted that hand-loaded ammunition may be required to achieve some of the bullet velocities required in the following paragraphs.

5.1.1 Type I Test Weapons and Ammunition

5.1.1.1 22 LR

The test weapon may be a 22 caliber handgun or test barrel. The use of a handgun with a 15 to 16.5 cm (6 to 6.5 in) barrel is suggested. Test bullets shall be 22 Long Rifle High Velocity lead, with nominal masses of 2.6 grams (40 grains) and measured velocities of 320 ± 12 meters (1,050 ± 40 feet) per second.

5.1.1.2 38 Special

The test weapon may be a 38 Special handgun or test barrel. The use of a handgun with a 15 to 16.5 cm (6 to 6.5 in) barrel is suggested. Test bullets shall be 38 Special round-nose lead, with nominal masses of 10.2 grams (158 grains) and measured velocities of 259 ± 15 meters (850 ± 50 feet) per second.

5.1.2 Type II–A Test Weapons and Ammunition

5.1.2.1 Lower Velocity 357 Magnum

The test weapon may be a 357 Magnum handgun or test barrel. The use of a handgun with a 10 to 12 cm (4 to 4.75 in) barrel is suggested. Test bullets shall be 357 Magnum jacketed soft point, with nominal masses of 10.2 grams (158 grains) and measured velocities of 381 ± 15 meters (1250 ± 50 feet) per second.

5.1.2.2 Lower Velocity 9 mm

The test weapon may be a 9 mm handgun or test barrel. The use of a handgun with a 10 to 12 cm (4 to 4.75 in) barrel is suggested. Test bullets shall be 9 mm full metal jacketed, with nominal masses of 8.0 grams (124 grains) and measured velocities of 332 ± 15 meters (1090 ± 50 feet) per second.

5.1.3 Type II Test Weapons and Ammunition

5.1.3.1 Higher Velocity 357 Magnum

The test weapon may be a 357 Magnum handgun or test barrel. The use of a handgun with a 15 to 16.5 cm (6 to 6.5 in) barrel is suggested. Test bullets shall be 357 Magnum jacketed soft point, with nominal masses of 10.2 grams (158 grains) and measured velocities of 425 ± 15 meters (1395 ± 50 feet) per second.

5.1.3.2 Higher Velocity 9 mm

The test weapon may be a 9 mm handgun or test barrel. The use of a handgun with a 10 to 12 cm (4 to 4.75 in) barrel is suggested. Test bullets shall be 9 mm full metal jacketed, with nominal masses of 8.0 grams (124 grains) and measured velocities of 358 ± 15 meters (1175 ± 50 feet) per second.

5.1.4 Type III Test Weapon and Ammunition

The test weapon may be a rifle or a test barrel chambered for 7.62 mm (308 Winchester) ammunition. The use of a rifle with a barrel length of 56 cm (22 in) is suggested. Test bullets shall be 7.62 mm full metal jacketed (U.S. military designation M80), with nominal masses of 9.7 grams (150 grains) and measured velocities of 873 ± 46 meters ($2{,}863 \pm 151$ feet) per second.

5.1.5 Type IV Test Weapon and Ammunition

The test weapon may be a rifle or a test barrel chambered for caliber 30–06 ammunition. The use of a rifle with a barrel length of 56 cm (22 in) is suggested. Test bullets shall be caliber 30–06 armor piercing (U.S. military designation APM2), with nominal masses of 10.8 grams (166 grains) and measured velocities of 838 ± 15 meters ($2{,}750 \pm 50$ feet) per second.

5.1.6 Chronograph

The chronograph shall have a precision of one microsecond and an accuracy of two microseconds. Its triggering devices shall be of either the photoelectric or conductive screen type.

5.1.7 Armor Backing Material

The armor backing material shall be conditioned by being kept for at least three hours at a temperature between 15 and 30°C (59 and 86°F), and shall be worked thoroughly to eliminate any voids. Its consistency shall be such that a depression of 25 ± 3 mm (1 ± 0.1 in) in depth is obtained when a 1 kg (2.2 lb) cylindrical steel mass, 45 mm (1.75 in) in diameter and having a hemispherical striking end, is dropped from a height of 2 meters (6.5 feet) onto one of its square faces. Three drop tests shall be made, and the center of each impact site shall be at least 75 mm (3 in) from a previous impact site and from any edge. A guide tube or other means may be used as required to assure that the striking end of the cylindrical mass impacts the backing material squarely. The backing material may be maintained at any temperature in the above range that will give it the required consistency.

A backing material found to be suitable is Roma Plastilina No. 1 modeling clay, available from Sculpture House, 304 West 42nd Street, New York, NY 10036, and other artist supply centers.

5.1.8 Wet Armor Conditioning

One complete armor shall be conditioned by subjecting both sides of each armor part to a water spray under the following conditions:

The spray nozzles shall be of such size and so spaced that 10 ± 2 liters (2.5 ± 0.5 gallons) of water per hour falls uniformly distributed on each 0.1 m^2 (1 ft^2) of spray booth floor area, and so located that the droplets are falling from gravitational force only, when they strike the armor surface.

Each surface of each armor part shall be sprayed for 3 minutes. Ballistic testing shall begin immediately after the armor is removed from the spray. The maximum time the armor may be out of the spray shall not exceed 10 minutes. After 10 minutes of testing, the armor shall be returned to the spray environment for an additional 3 minute spray on each surface.

5.2 Test Procedure

Set up the test equipment as shown in figure 2. Firmly clamp the appropriate test weapon, with barrel horizontal, in such a manner that alignment of the weapon is not altered when it is discharged.

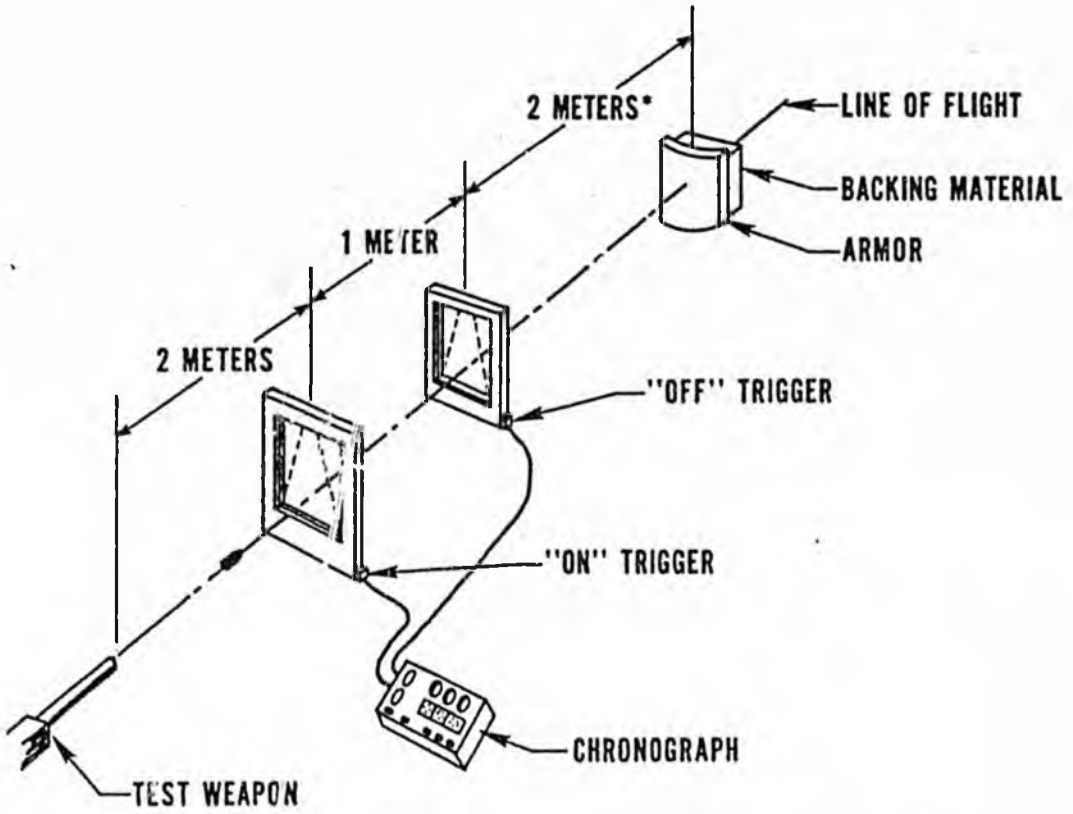

FIGURE 2. *Ballistic test setup.*

Allow all electronic equipment to warm up for 30 minutes or until stability is achieved, whichever time is greater. During testing, maintain the ambient temperature at 20–28°C (68–82°F) and the relative humidity at 30 to 70 percent.

Condition the armor test backing material and test it for consistency in accordance with paragraph 5.1.7. Reshape and smooth the backing material to its defined dimensions, and maintain it at the temperature required to maintain the required consistency.

Place the chronograph triggering screens two and three meters (6.6 and 9.8 feet), respectively, from the muzzle of the test weapon and arrange them so that they define planes perpendicular to the line of flight of the bullet. Measure the distance between the triggering planes with an accuracy of one millimeter (0.04 in).

Position a sheet of cardboard five meters (16 feet) from the muzzle of the test weapon if type I, II-A or II armor is being tested; position it 15 meters (50 feet) away if type III or IV armor is being tested. Fire a pre-test round through the cardboard to determine the line of flight and point of impact of the bullet; alternatively, use an aiming light or other suitable means.

Place one of the square faces of the armor backing material in intimate contact with the back face of the armor specimen under test and secure it with tape, the armor straps or

other means which will not interfere with the test. Place this assembly in back of the sheet of cardboard with the armor front face perpendicular to the line of flight of the bullet so that the desired point of impact touches the bullet hole made by the pre-test round, and then remove the cardboard.

Fire a test round at the armor. Record the time of flight of the bullet between the two triggering screens, as determined by the chronograph, and calculate the bullet velocity. Examine the armor and the backing material to determine whether penetration occurred when a bullet made a fair hit.

If no penetration occurred, measure and record the depth of the depression made in the armor backing material; do so for the first two (only) fair hits made with each test ammunition on each armor part.

If no failure occurred, reposition the armor so as to space additional impacts evenly over its surface or position another armor specimen (as required) and repeat the procedure with additional test rounds until the required number of fair hits (see table 2) has been obtained on each armor part. To minimize the concomitant bunching of ballistic material in soft armors, place each successive fair hit as far as possible from the center of each armor part. Reposition the backing material (as required) to avoid any overlap of depressions. If there are seams in the ballistic material, place the required number of fair hits so as to include impacts directly on those seams.

If no failure occurred, test the second complete armor, which had been preconditioned in accordance with paragraph 5.1.8.

U.S. GOVERNMENT PRINTING OFFICE : 1979 O—275-693

Department of Justice

Changed emphasis.

STATEMENT

OF

RUDOLPH GIULIANI
ASSOCIATE ATTORNEY GENERAL

202-633-3752

- Bob Bodenheim

BEFORE

THE

SUBCOMMITTEE ON CRIME
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

CONCERNING

ARMOR-PIERCING BULLETS

ON

MAY 12, 1982

ARMOR-PIERCING AMMUNITION
ENHANCED PUNISHMENT LEGISLATION

This legislation would provide for enhanced punishment of individuals committing violent crimes, when, at the time of the crime, the individual used or carried a handgun loaded with armor-piercing ammunition.

This legislation is designed to provide some additional deterrent effect against the use of handgun ammunition capable of defeating police body armor.

The legislation closely parallels an approach to this problem endorsed the the U.S. Department of Justice and approved by the United States Senate. While federal legislation containing this provision of law was not enacted during the 97th Congress, it is believed that the approach presented represents the best available balancing of the rights of handgun owners and the need to protect law enforcement officers.

The bill would provide that enhanced punishment would be in addition to other terms of imprisonment and not run concurrently with any other terms of imprisonment. The enhanced punishment may not be suspended or reduced, nor are individuals sentenced under this proposed provision eligible for parole.

Recognizing the legitimate uses of some handguns and ammunition that can penetrate body-armor, this legislation does not prohibit the sale, possession, or legal use of those kinds of ammunition. The legislation should, however, provide a significant inducement for individuals not to commit violent crimes with such weapons.

The attached statement by Rudolph Giuliani, Associate Attorney General, U.S. Department of Justice, which was presented to Congress earlier this year, provides an excellent discussion of the history of the problem and possible responses.

In 1971, a Justice Department employee working with the Department's technology development program became aware of a new synthetic fiber, marketed under the trademark name "Kevlar." This new fiber was originally developed for use as a replacement for steel cords in automobile tires. Recognizing the potential of this fiber, the Department of Justice pioneered the development of a prototype vest made from Kevlar and, following extensive laboratory work, tested this vest in fifteen cities. Results exceeded expectations. In addition to offering exceptional ballistics resistance, the new vests were light, flexible and could be worn unobtrusively under normal street clothes and uniforms.

By 1975, dozens of manufacturers had entered the body armor market producing a wide range of soft, lightweight body armor. Because few state or local agencies had the resources to test such body armor, the Department of Justice, as part of its Law Enforcement Technology Assessment Program, developed a body armor standard published in December of 1978. This standard establishes procedures for testing body armor and creates five different armor categories: Type I, Type IIA, Type II, Type III and Type IV. These body armor categories protect against increasing threat levels. For example, the Type I armor is the lightest weight providing protection against designated handgun ammunition when fired from a distance of five meters under specified conditions; the Type IV armor is the heaviest providing protection against designated armor-piercing rifle ammunition. Types I, IIA and II armor are varieties of soft body armor; Types III and IV incorporate metallic or ceramic materials and are

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to appear today to describe the threat posed to law enforcement and other officials -- including the President -- by the availability of handgun ammunition capable of penetrating soft body armor. As this Subcommittee is probably aware, the Department of Justice developed the body armor used today by an estimated 50% of the nation's law enforcement officials and it is largely through the efforts of the Department and the International Association of Chiefs of Police that soft body armor is so widely used. This Subcommittee has previously received testimony to the effect that the use of soft body armor has saved the lives of an estimated 400 police officers during the past seven years. We are, therefore, deeply concerned over the availability of ammunition capable of defeating soft body armor and have devoted substantial efforts in recent months to developing an appropriate and workable legislative remedy to the problem.

Before proceeding to our specific legislative recommendation, let me take a few moments to put the issue in perspective. Toward this end, I would like to discuss briefly the development of modern body armor and our reaction to the recent threat to persons who rely upon body armor for protection.

Personal body armor available during the earlier part of the century was inappropriate for normal police work. Early garments were so heavy and awkward that police officers avoided wearing them. In addition to their bulk and weight, such garments inhibited movements necessary for self-defense. Heat buildup was another problem adding to wearer discomfort.

normally used by special weapons teams in sniper or seige situations. We have brought with us today examples of different types of armor and will discuss these varieties of armor in detail at the conclusion of my statement if the Subcommittee so desires.

Extensive testing was performed by the Department of Justice during the course of developing this armor standard. Moreover, other entities, particularly the Department of the Army, have carried out numerous tests to determine the penetration potential of various classes of firearms and ammunition as well as the capabilities of various categories of bullet-resistant body armor. The Department of Justice has also tested a wide range of handgun ammunition in connection with efforts to assist law enforcement agencies in selecting the most effective possible ammunition for police use.

In short, our technicians have known from the beginning that soft body armor, like all other forms of armor, can be pierced by particular types of rounds. As noted above, the standards used for testing different classes of body armor require that the armor be able to withstand specific types of bullets posing particular threat levels in order to receive a rating. It is for this reason that body armor is referred to by technicians as "bullet-resistant" or "ballistics-resistant" apparel. The fact that body armor is more commonly referred to by the public as "bullet-proof" has created the mistaken impression that body armor can or should be able to stop any bullet. Rather, soft body armor is designed to stop the most common threats that police officers face.

With this background, experts were not at all surprised by a network News program earlier this year on the KTW bullet and its ability to penetrate multiple thicknesses of soft body armor. Our technicians were, however, deeply disturbed that such information was so widely distributed to the public, in essence creating a shopping list for professional criminals.

The concern of the experts over the publicity surrounding the KTW bullet is two-fold. First, we fear that publicity surrounding the availability of ammunition capable of defecting body armor will encourage assassins and other criminals to search out these particularly dangerous classes of ammunition to use in their endeavors. Although our technicians have known about the KTW bullet for many years, this and other forms of armor-piercing ammunition were not felt to constitute a substantial threat because most criminals are not so sophisticated as to realize that the protection afforded by body armor is limited and that there are varieties of ammunition commonly available which will penetrate body armor. In the past, the conclusion that armor-piercing rounds posed only a minimum threat was difficult to fault as we are unaware of any instance in which an armor-clad police officer has been shot with armor-piercing handgun ammunition. Now, however, the publicity surrounding the KTW bullet has, in our view, increased the likelihood of such attacks.

Our second concern over the publicity is that it will, we believe, encourage a fatalistic attitude among police officers resulting in reduced use of body armor. In this regard, although the new soft body armor is comfortable to wear by comparison with

and we believe it is contrary to the public interest to publicize such dangerous ammunition.

Penetration capacity is, of course, a matter of basic physics. There are two major factors which determine penetration capability. First is the surface area over which the force is distributed; a bullet which expands upon impact spreads its force over a larger area than one which retains its shape. Therefore, a projectile composed of a hard substance normally has greater penetration potential than a soft projectile which mushrooms upon impact. The second major factor in penetration is velocity; the higher the velocity of a bullet, the greater its penetration capability. Thus high-power rifles, because of the incredible velocities they produce, have greater penetration power than handguns. Soft body armor is designed primarily to protect against handgun bullets. This reflects the fact that handguns are the weapons of choice of criminals representing -- according to one survey -- 83% of firearms seized by police. Moreover, handguns represent a greater threat to law enforcement officials than long guns because they are easily concealable. We have, therefore, focused our attention on armor-piercing <u>handgun</u> ammunition.

One of the first actions taken by the Department of Justice in response to the publicity surrounding the KTW bullet was to arrange for a demonstration to verify that the information furnished by our technicians was indeed correct. In February, a variety of handgun bullets were tested against a Type II vest at the FBI firing range in Quantico, Virginia. That demonstration corroborated the

earlier types of armor, it is a constant problem for police administrators to insure that body armor issued to officers is indeed worn. Too often, officers to whom body armor was issued have been killed or severely wounded because the armor was left in a dressing room locker or the trunk of a squad car. Continuing publicity about the availability of armor-piercing handgun ammunition, together with the complete absence of any effective statutory safeguards, will, we fear, cause some police officers to decide that it is useless to wear their armor when ammunition is available on the streets that will defeat the armor. This potential indirect effect of armor-piercing handgun ammunition could result in more deaths and crippling injuries than the actual use of armor-piercing bullets against officers wearing body armor. In short, we believe it is important to let the law enforcement officers of the nation know that measures are being taken to prevent the criminal use of armor-piercing ammunition. Legislation in this area would, we believe, have the effect of encouraging law enforcement officers to wear body armor issued to them.

Again, because we feel that publicity surrounding armor-piercing ammunition has the effect of increasing the risk to those who use body armor, I will carefully avoid any discussion of specific handgun rounds capable of pentrating armor. I appreciate the cooperation of the Subcommittee in agreeing not to disclose the identity of particular armor-piercing ammunition. Suffice it to say that there are a number of handgun bullets capable of penetrating body armor in addition to the KTW which has received so much publicity

information furnished by technicians -- a number of the bullets tested, in addition to the KTW, defeated the body armor. The armor used in that demonstration has been submitted to the Subcommittee for inspection and we will, of course, be pleased to furnish additional information regarding the February demonstration so long as we can do so without publicly disclosing the varieties of bullets which defeated the armor.

Based upon this and other information, we commenced development of a legislative response to the problem of armor-piercing bullets. Because an early discussion draft of a proposed armor-piercing bullet bill was somehow disclosed to the media and published in a firearms publication, it is no secret that our initial proposals in this area were very similar to H.R. 5437 introduced by Representative Biaggi. As the Treasury Department indicated in its testimony before this Subcommittee earlier this year, however, our continuing study of this issue revealed that there are serious flaws in the broad ban on armor-piercing handgun ammunition proposed in early Department legislative proposals and in H.R. 5437.

First, to date we have been unable to describe armor-piercing handgun ammunition in a way which reaches all rounds capable of defeating soft body armor without including a number of popular handgun bullets which have long been widely used for legitimate sporting and recreational purposes. The simple fact is that some bullets with a legitimate use will defeat soft body armor. Moreover, in certain handgun calibers, the effect of a ban on armor-piercing bullets would effectively deprive firearms owners of the use of

their weapons by rendering illegal all presently available commercially manufactured ammunition.

Given the fact that we are aware of no instance in which an armor-clad law enforcement official has been attacked with armor-piercing handgun ammunition, we cannot justify legislation banning all ammunition capable of penetrating the type of soft body armor worn by law enforcement officials. Put simply, we cannot recommend legislation so seriously disrupting the firearms and ammunition industry and so clearly impinging upon the interests of legitimate gun owners where the basis is solely a potential rather than a demonstrated threat. Furthermore, I should note that the Department of the Treasury has negotiated agreements with several ammunition manufacturers which will reduce the potential that handgun bullets designed for penetration will be available to anyone other than law enforcement and military agencies. Treasury reports that ammunition manufacturers are sensitive to the problem and have responded in a responsible manner to our requests for limitations on armor-piercing bullets.

A second serious problem with H.R. 5437 is that it would produce unjust results. This difficulty arises from the fact that ammunition performs differently depending upon the type of firearm from which it is fired. A particular round fired from a revolver with a four-inch barrel, for example, might not penetrate body armor whereas the same ammunition, if fired from a revolver with a six-inch barrel might defeat the same armor. This is because increased barrel length affects projectile velocity thus enhancing penetration power. We believe, therefore, that it would be impossible to justify,

for example, imposition of a minimum mandatory prison sentence under H.R. 5437 when it could be demonstrated that the ammunition, although classified as "armor-piercing" under the definition in the bill, would in fact not penetrate soft body armor when fired from the handgun possessed by the defendant at the time of the underlying criminal offense.

In addition to these difficulties, there are others which have been discussed by the Department of Treasury which I will not dwell on today including the cost of testing all commercially available ammunition, the problem posed by ammunition which can be fired interchangeably from either handguns or long guns and so forth. Suffice it to say that we do not believe the ban proposals presently before the Subcommittee are appropriate.

Nevertheless, we see no legitimate reason for private use or possession of handgun bullets, such as the KTW, that are designed specifically for the purpose of armor penetration. Therefore, we will continue to work with the Department of the Treasury and with the Subcommittee to develop a workable definition of such bullets. Our clear objective is to prevent criminals from having access to handgun bullets designed specifically to penetrate armor. In the meantime, however, we believe that immediate action in this area is needed and have submitted to the Subcommittee a draft bill designed to fill the existing gap in federal law. We believe this stopgap proposal would provide a meaningful disincentive to use of armor-piercing bullets during the course of federal crimes. Our proposal would establish a minimum, mandatory prison sentence of five years for the use of armor-piercing handgun ammunition during

the course of a federal crime of violence. By contrast with other similar proposals, our bill would provide for imposition of this minimum mandatory sentence only where it can be proved that the ammunition would penetrate Type IIA body armor -- the most popular armor for law enforcement use -- when fired from the firearm in the possession of the defendant. This approach avoids the anomaly described above where a person could be subjected to enhanced sentencing even though a bullet classified as "armor-piercing" would not, in fact, penetrate body armor if fired from his weapon.

Our proposal covers only federal crimes committed with armor-piercing handgun ammunition as we believe that the state interest in prosecuting perpetrators of state offenses outweighs the federal interest. If our bill is enacted by the Congress, we will notify the 50 states and urge enactment of similar state laws to protect state and local law enforcement officials.

We believe that this legislation would provide a significant deterrent to the use of armor-piercing handgun ammunition and that, where such ammunition is used during the course of a federal crime, would insure that the offender is imprisoned for a lengthy period thereby incapacitating that individual from the further commission of such offenses. In this regard, our proposal makes clear that the minimum mandatory sentence is to be served consecutively with the sentence imposed for the underlying crime of violence, that the sentence is not subject to probation or suspension, and that a person so sentenced is not eligible for parole.

Finally, we recommend against the enactment of the various proposals before the Subcommittee to authorize detailed testing of

handgun ammunition and body armor. Although we do not have solid test data on every one of the hundreds of different types of handgun ammunition manufactured here and abroad in recent years, we do have extensive information on bullet characteristics and armor capabilities and do not feel that further elaborate testing such as that proposed in H.R. 2280 is necessary. Rather, we believe we have sufficient information upon which to base legislation along the lines of our proposal.

Mr. Chairman, we believe that handgun ammunition designed to penetrate armor must be kept out of the hands of criminals and we look forward to working with your Subcommittee toward that end. We also believe that the legislation we have proposed today -- although modest by comparison with some other bills -- would fill a gap in existing law by recognizing that certain types of handgun ammunition are particularly dangerous and that the commission of a crime involving such ammunition should result in harsher penalties than would otherwise be applicable. In essence, our proposal recognizes varying ammunition threat levels in determining sentencing just as do existing laws which provide for enhanced sentencing for use of a firearm during the course of a felony. This legislation would provide new and needed protection for law enforcement officials and others who use soft body armor. We will appreciate your attention to this proposal. Of course, we will be pleased to work closely with you and your staff in refining this proposal should you feel that further adjustments are needed.

STATE OF ALASKA

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF STATE TROOPERS

JAY S. HAMMOND, GOVERNOR

P.O. BOX 6188 ANNEX
ANCHORAGE, ALASKA 99502
PHONE:

September 21, 1982

The Honorable Joe L. Hayes
625 W. 5th Ave., Suite 1
Anchorage, AK 99501

Dear Mr. Hayes:

Thank you for your inquiry into the KTW projectile. This matter has received a great deal of national attention.

These cartridges are available in Alaska. Due to national publicity on their ability to penetrate soft body armour, we in the law enforcement profession are concerned.

It is not practical to wear a vest which would stop these projectiles. We, therefore, would support any legislation prohibiting the sale and possession of KTW bullets.

Again, thank you for your interest.

Sincerely,

T R Anderson

Colonel T. R. Anderson
Director

12-L13LH

The Library of Congress

Congressional Research Service

Washington, D.C. 20540

BULLET THREATS TO PROTECTIVE BODY ARMOR

November 27, 1979

Updated

March 25, 1982

William C. Boesman
Specialist in Science and Technology
Science Policy Research Division

CONTENTS

The Library of Congress
Congressional Research Service
Washington, D.C. 20540

INTRODUCTION AND SUMMARY

INTRODUCTION

Since about 1975, law enforcement officers have been using protective body armor of the "soft" or "lightweight" variety to an increasing extent. This type of body armor, unlike the heavy flak jackets worn by the military and by special police units on dangerous tactical assignments, is designed to be lightweight and soft enough to be worn comfortably under law enforcement officers' uniforms or under plain clothes officers' outer garments.

This type of soft or lightweight body armor has been developed to the extent that it quite effectively "defeats" (stops the penetration of) many types of handgun bullets and some rifle bullets. It is the purpose of this report to analyze the characteristics of bullets which are most likely to defeat soft, lightweight body armor. The following section discusses various types of bullets and the purposes for which bullets are designed. The third section discusses recent law enforcement officer fatalities and the related use of soft body armor. The fourth section discusses recent developments in, and characteristics of, soft body armor. The last section presents a brief analysis of bullet characteristics, particularly those that can defeat currently available soft body armor.

SUMMARY

Existing, commercially available soft, lightweight body armor apparently can effectively stop most of the handgun bullets which pose a threat to law enforcement officers today. However, there is a class of handgun [illegible] that can penetrate

such armor. These types of bullets are: generally constructed of steel-jacketed lead or hard metal alloys; often pointed in shape rather than being flat, rounded, or hollow-pointed; and generally high velocity. Smaller handgun and rifle bullets (for example, .22 caliber) with the above characteristics are generally more effective in penetrating soft body armor than larger bullets (for example, .45 caliber) with the same characteristics.

BULLETS

TYPES

There are many ways to classify the various types of bullets that have been or are in use. 1/ For purposes of this analysis, bullets will be discussed according to the following characteristics:

- For use mainly in handguns, rifles, or machine guns, or in more than one type of weapon;
- Velocity (low, for example, 730 feet per second, to high, for example, 1800 feet per second);
- Caliber (small, for example, .22 caliber, to large, for example, .45 caliber);
- "Hardness" (soft nosed lead bullet, or partially jacketed, to full metal jacketed (with copper or steel) to hard metal alloy bullet); and
- Shape (round or hollow point to pointed nose).

Sometimes bullets are classified according to either their "stopping power"—their ability to knock down or disable a human being—or their "armor- or metal-piercing" ability. These two types of characteristics, however, may be somewhat mutually exclusive. For example, one bullet designed for high "stopping power" is the .357 caliber magnum hollow point bullet. Upon impact, this bullet expands (because of its hollow point) and converts a large percentage of its (high) velocity to kinetic energy within the wounded body—thus knocking down, stopping, or disabling the person.

1/ There may be as many as 10,000 different bullets that have been manufactured since the development of the bullet cartridge around the time of the U.S. Civil War.

This type of bullet, however, may be effectively stopped by soft body armor without body penetration and hence without wounding, except for "blunt trauma". 1/ On the other hand, an armor-piercing bullet which will penetrate soft body armor may, because it is hard and retains its shape, pass through a body with relatively little damage if it does not hit a bone, other hard substance, or vital organ. Obviously, bullet wounding capabilities are not completely predictable because of the exceedingly complex structure of the human body, and even the relatively less devastating bullets can and often do kill. In fact, more law enforcement officers were killed with .38 caliber weapons in 1976 through 1980 2/ than with any other weapon, mainly because these weapons are in more common use than other, more devastating bullets like the various magnum and armor-piercing bullets.

PURPOSES

It can be seen from the above discussion that many, if not most, bullet characteristics derive from the purpose or purposes which the ammunition designers had in mind. Thus, expanding bullets, particularly hollow point bullets, were designed for the purpose of more effectively transmitting kinetic energy to the wounded body than do ordinary bullets.

1/ Blunt trauma is injury caused by bullets which do not penetrate armor. It is injury caused by the force of the blow itself, as when a person is hit in the chest by a hard swung baseball bat.

2/ Federal Bureau of Investigation. Law Enforcement Officers Killed 19,6. Washington, U.S. Department of Justice, 1976. p. 24.
Also for 1977, p. 13; 1978, p. 13; 1979, p. 13; and 1980, p. 12.

Protective body armor, including the soft or lightweight variety, has been and is being designed to defeat many types of bullets, including many of the relatively more devastating (high velocity, hollow point) bullets. However, certain types of high velocity bullets made entirely of hard metal alloys, or which are fully covered with steel jackets, can defeat the currently available soft body armor. Thus, certain bullets of the armor- or metal-piercing variety, whether or not designated as such by bullet manufacturers, pose a threat to existing body armor which can effectively defeat most "ordinary" bullet threats.

LAW ENFORCEMENT OFFICER FATALITIES

CURRENT STATISTICS

A number of law enforcement officers are killed and wounded each year by handguns, rifles, shotguns, and other weapons. Recent statistics from the Federal Bureau of Investigation (FBI) indicate that this number, while still large, has decreased rather significantly from 1974 and 1975 to 1978. The following table shows statistics for law enforcement officers killed by firearms and other weapons for this period:

Law Enforcement Officers Killed, by Type of Weapon

WEAPON USED	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
HANDGUN	97	77	93	95	93	66	59	67	76	69	792
RIFLE	16	16	21	12	21	12	13	13	18	13	155
SHOTGUN	11	18	13	21	13	16	11	11	6	13	133
TOTAL FIREARMS	124	111	127	128	127	94	83	91	100	95	1,080
KNIFE	2	3	2	1	--	5	--	--	4	3	20
BOMB	--	1	--	--	--	4	--	--	1	--	6
PERSONAL WEAPONS	2	--	--	--	--	--	1	1	--	--	4
OTHER (CLUBS, ETC.)	1	1	5	3	2	8	9	1	1	6	37
GRAND TOTAL	129	116	134	132	129	111	93	93	106	104	1,147

Source: Federal Bureau of Investigation. Law Enforcement Officers Killed 1980. - Washington, U.S. Department of Justice, 1980. p. 11.

There reportedly is a consensus that at least 400 U.S. law enforcement officers have been protected from death or injury through the use of bulletproof vests from 1975 to the present. 1/ Although such a consensus cannot be confirmed with existing data, it is interesting that the approximately 20 percent decrease in firearm-related deaths indicated in the above table since 1974 could be accounted for partially by increased use of soft body armor by law enforcement officers.

The following table shows the size of bullets and types of firearms which caused the deaths of the 95 law enforcement officers in 1980. The handgun bullets shown in that table are all of a class which can be defeated by existing soft body armor unless they are of the hard metal alloy or steel-jacketed, armor-piercing variety. Soft body armor cannot defeat high velocity, metal jacketed rifle bullets either, some of which may be represented in the "rifle" column of the table.

OFFICER FATALITIES WHILE WEARING ARMOR

In 1980, the first year such data were collected uniformly by the FBI, 14 law enforcement officers in the United States were killed in the line of duty while wearing protective vests. 2/ Seven of the officers were shot

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1/ Conversations with a Department of Justice official and a representative of the International Association of Chiefs of Police on March 24, 1982.

2/ These cases are taken from Federal Bureau of Investigation. Law Enforcement Officers Killed 1980. Washington, U.S. Department of Justice, 1980. This report does not include information sufficient to determine whether the "protective vests" were soft body armor or other types, nor is that information currently available from the FBI.

1980

LAW ENFORCEMENT OFFICERS KILLED
TYPE AND SIZE OF FIREARM

SIZE OF WEAPON	TYPE OF WEAPON			
	HANDGUN	OFFICER'S OWN WEAPON	RIFLE	SHOTGUN
Total	69	13*	13	13
Handgun size				
.22 Caliber	4			
.25 Caliber	2			
.32 Caliber	8			
9 Millimeter	2			
.357 Magnum	16	7		
.380 Caliber	1	1		
.38 Caliber	30	4		
.44 Magnum	2			
.45 Caliber	1			
Caliber Not Reported	3			
Rifle size				
.22 Caliber			4	
.223 Caliber			3	
7 Millimeter			1	
.30-06 Caliber			1	
.30-30 Caliber			1	
.303 Caliber			1	
.308 Caliber			1	
.444 Magnum			1	
Shotgun size				
20 Gauge				3
12 Gauge		1		10

*Included in appropriate category.

Source: Federal Bureau of Investigation. Law Enforcement Officers Killed 1980. Washington, U.S. Department of Justice, 1980, p. 12.

in the head and five received fatal gunshot wounds to areas of the upper torso not protected by the vests. One officer was struck by a vehicle. The remaining officer was shot in the back with a bullet that penetrated his vest, but this was a .30-06 caliber rifle bullet fired from about 50 yards away. Soft body armor is not designed to prevent the penetration of most rifle bullets, such as .30-06 caliber bullets. 1/

1/ Id. at p. 28, 30, 32, 33, 34, 36, 37, 38, 40, 42, 43, and 44.

BODY ARMOR

RECENT DEVELOPMENTS

Since at least the early 1970s, there has been considerable interest among law enforcement support agencies in developing effective soft body armor that would be comfortable and unobtrusive enough to be worn continuously by law enforcement officers while on duty. Organizations like the National Institute of Law Enforcement and Criminal Justice (NILECJ) of the Law Enforcement Assistance Administration (LEAA) of the U.S. Department of Justice, and the International Association of Chiefs of Police, have sponsored several studies of soft body armor. 1/ Research programs on soft body armor and weapons threats have been administered and carried out by the Law Enforcement Standards Laboratory of the National Bureau of Standards, Department of Commerce; Edgewood Arsenal, Aberdeen Proving Grounds, Department of the Army; the FBI Quantico Test Base; and several private weapons testing laboratories. About 25 to 30 manufacturers of soft body armor are now producing units commercially for sale to an increasing number of U.S. law enforcement organizations.

1/ For example, Montanarelli, Nicholas, Clarence E. Hawkins, and Lester D. Snubin. Body Armor: Lightweight Body Armor for Law Enforcement Officers. Washington, U.S. Department of Justice, LEAA, NILECJ, May 1976. p. 113; Goldfarb, Michael A. et al. Body Armor: Medical Assessment. Washington, U.S. Department of Justice, LEAA NILECJ, May 1976. p. 30; National Institute of Law Enforcement and Criminal Justice. NILECJ Standard for the Ballistic Resistance of Policy Body Armor. Washington, U.S. Department of Justice, LEAA, NILECJ, December 1978. p. 10; and International Association of Chiefs of Police. Policy Armor Testing and Summary of Performance Testing Data. Gaithersburg, Maryland, International Association of Chiefs of Police, December 1978. p. 23.

COMMERCIALLY AVAILABLE SOFT BODY ARMOR

Most, if not all, soft body armor commercially available today is made of differing numbers of layers of Kevlar, a synthetic (aramid) fiber produced by the Du Pont Company. In addition to the number of layers of Kevlar used, the weaving and other processes used in the production of the final protective vest affects the strength of the product.

In the early 1970s, protective body armor generally was classified as to whether it was made of 7, 12, 16, 24, or other numbers of layers of Kevlar. Currently, manufacturers and police departments often designate certain threats (types of bullets) that the vests are to protect against, regardless of the numbers of layers of Kevlar involved.

In 1982 it is estimated that approximately half (about 250,000) of the Nation's law enforcement officers own or have access to soft body armor. 1/

1/ Conversations with a Department of Justice official and a representative of the International Association of Chiefs of Police on March 24, 1982.

The state of the art of protective body armor, which today is largely based upon the use of Kevlar, involves a trade off between the thickness of the protective vest versus the types of bullets which the vest can defeat. Certain commercially available bullets, like .357 caliber magnum hard metal alloy bullets, and some foreign-made nine millimeter steel jacketed bullets, can defeat commercially available soft body armor.

PROTECTION AVAILABLE

A side-by-side comparison of the handgun weapons used to fatally injure law enforcement officers in 1980 (shown above and repeated for convenience here) and handgun bullets required to be defeated by soft body armor in the equipment purchase specifications of a number of U.S. cities indicates that currently available soft body armor apparently can protect against the large majority of bullet threats facing law enforcement officers today.

Handgun Weapons Used to Fatally Injure Law Enforcement Officers in 1978	Deaths in 1980 From Weapons in Column One	Handgun Bullets Required to be Defeated by Representative Police Department Soft Body Armor Specifications 1/
.22 caliber	4	S, M, N (all also include .22 magnum)
.25 caliber	2	--
.32 caliber	8	N
9 millimeter	2	S, M, N
.357 magnum	16	S, M, N
.380 caliber	1	N
.38 caliber	30	S, M, N
.41 magnum	0	S, M, N (N does not indicate magnum).
.44 magnum	2	S
.45 caliber	1	S, M, N
caliber not reported	3	—

1/ From 1979 soft body armor specifications of Milwaukie, Oregon (M); Nashville, Tenn. (N); and San Diego, Calif. (S). The San Diego specification has apparently been adopted by about 40 other U.S. cities.

While most commonly used bullets apparently can be defeated by existing soft body armor, there is a class of bullets which can defeat it. This subject is discussed in the following paragraphs.

POSSIBLE REMAINING THREATS

Bullet Characteristics

Although a number of bullets can be defeated by currently available soft body armor, a number of threats remain. Most, if not all, types of metal- or armor-piercing bullets will apparently defeat existing soft body armor, whether these bullets are hard, metal alloy bullets, or lead bullets which are steel jacketed. Other types of non-armor- or metal-piercing bullets which might defeat soft body armor are bullets which are small caliber (for example, .22 caliber) or high velocity (particularly magnum) bullets. Bullets which combine these latter two characteristics (small caliber plus high velocity) are more likely to defeat some types of soft body armor (depending upon its thickness and construction) even if these bullets are not of hard metal alloy or steel jacketed construction. Thus, there currently exist several specific bullets, and a class of bullets having certain characteristics, that can, or could be designed to, defeat currently available soft body armor.

Blunt Trauma

Even if bullets do not penetrate soft body armor, lethal wounds could be caused by "blunt trauma." This type of wounding effect can be described as being similar to being hit on the body by a hard swung baseball bat. Because this phenomenon currently does not appear to be a

major wounding cause, it is not discussed further here. However, it is conceivable that, were higher powered bullets used or developed to defeat soft body armor, blunt trauma effects might be a major cause of concern to body armor researchers, developers, and manufacturers, as well as medical practitioners.

BODY-ARMOR DEFEATING BULLETS: THREAT CHARACTERISTICS

This section describes some bullet characteristics that are important to a consideration of what types of bullets can defeat, or can be designed to defeat, existing soft body armor.

VELOCITY

Handgun bullets typically range in muzzle velocities from about 730 feet per second (fps) (low velocity) to over 1,800 fps (high velocity), depending upon the powder charge of the cartridge and the length of the handgun barrel. Eleven hundred fps (roughly the speed of sound in air) may be a convenient point to differentiate between low and high velocity bullets, although it is unlikely that a consensus could be obtained that significantly different wounding effects occur above and below this velocity for a given type of bullet.

It is clear, however, that high velocity bullets are more likely to defeat soft body armor than low velocity bullets, all other characteristics remaining constant.

CALIBER AND WEIGHT

Caliber measures the diameter of bullets, that is, a .45 caliber bullet has a diameter of .45 inch. Caliber is thus a measure of size. A .45 caliber bullet is considerably larger than a .22 caliber bullet. The most common police bullet, and the most common bullet causing police fatalities, is the .38 caliber, intermediate in size between the .22 caliber and the .45 caliber.

Weights of bullets are measured in grains. The larger the caliber, the more a bullet weighs, given a constant shape.

The smaller caliber bullets, for example, the .22 caliber, are more likely to penetrate the commercially available body armor than larger caliber bullets, other bullet characteristics remaining constant.

SHAPE AND HARDNESS

Bullets are produced in several shapes--including round or ball nosed, flat-nosed, pointed, and hollow pointed. Round, flat-nosed (some of which are called wadcutters or semi-wadcutters) and hollow point bullets are often constructed as lead or semi-jacketed bullets which expand upon contact. The hollow point bullets are generally the most effective of these "expanding" bullets. Pointed bullets generally are constructed of lead with metal jackets, which are usually of copper. If such bullets are jacketed with steel, they generally have armor- or metal-piercing capabilities. Another class of bullets is constructed of hard metal alloys and are also armor- or metal-piercing bullets.

Thus, the harder and more pointed a bullet is, the more likely it is to penetrate commercially available body armor, other bullet characteristics remaining constant.

SUMMARY OF BULLET THREAT CHARACTERISTICS

Given the characteristics of the most successful, currently available soft body armor, bullet threat characteristics can be summarized in the following way:

Bullet Characteristics	Lowest Level of Threat	Highest Level of Threat
Velocity	Low velocity	High velocity
Caliber, weight	Large caliber, heavy	Small caliber, light
Shape	Round or flat nose, hollow point	Pointed
"Hardness"	Lead, or copper semi-jacketed lead	Full steel jacketed lead, or hard metal alloy bullet

Thus, the bullet type with the highest probability of penetrating soft body armor, and with a proven capability of penetrating many layers of existing soft body armor, is a high velocity, small caliber, pointed, steel jacketed lead or metal alloy bullet. Such bullets may be handgun bullets, rifle bullets, or bullets which can be used in either handguns or rifles.

POSSIBLE RAMIFICATIONS OF "PERFECT" BODY ARMOR

Commercially available soft body armor is not perfect, that is, it can be defeated by certain bullets of the hard metal alloy or steel-jacketed armor- or metal-piercing types. Assuming that "perfect" body armor could be developed to meet current threat conditions, there is at least one positive and one negative ramification of such a development:

Possible Positive Ramification

Decreased wounding and death of law enforcement officers under current conditions, that is, continued use by criminals of existing types of bullets which, to a considerable extent, can be defeated by existing soft, light-weight body armor.

Possible Negative Ramification

An "arms and ammunition race" by the criminal segment of society for even more powerful bullets and other weapons to defeat existing armor, and increased use by criminals of such armor. This possible negative ramification could be precluded to some extent by controlling, by law and enforcement, the manufacture, distribution, sale, possession, and international trade of all bullets of the armor- or metal-piercing type and, perhaps body armor.

DON YOUNG
CONGRESSMAN FOR ALL ALASKA

COMMITTEES:
INTERIOR AND INSULAR AFFAIRS
MERCHANT MARINE AND FISHERIES

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TELEPHONE 907/456-6949

July 27, 1982

Mr. Francis C. Allan
President
The Alaska Cartridge Club
S.R.A. Box 4247
Anchorage, Ak. 99502

Dear Mr. Allan,

Thank you for your letter regarding the draft legislation concerning armor-piercing ammunition. I read the language of the legislation you sent, and I agree it is far too loosely worded to accomplish what the authors hope to.

As a result, I plan to oppose and will work to defeat any such legislation. The language is not the only reason I will oppose it. Now that armor-piercing ammunition has been developed, no act of Congress is going to prevent a person with criminal intentions from acquiring and using it. It is the same principle that applies to gun control. No matter what laws are passed, a criminally minded person will acquire a gun and ammunition. Therefore, only the legitimate and honest gun users will be hurt. Like you, I want to assist law enforcement officers, but it appears to me someone is going to have to invent another vest to stop these bullets.

Thank you for bringing this to my attention, and please inform your organization that I will oppose this legislation.

Best wishes,

Sincerely,

Don Young

DON YOUNG
Congressman for all Alaska

DY:lv

T H E
ALASKA CARTRIDGE CLUB

S.R.A. Box 4247, Anchorage. Alaska 99502

A Division of
THE ALASKA GUN COLLECTORS ASSOCIATION, INC.

Senator Ted Stevens
U S Senate
Washington, D.C. 20510

21 June 1982

Dear Senator Stevens,

Attached to this letter is a copy of draft legislation, S929 (Title 18 USC), which deals with the restriction of manufacture, importation and even possession of armor-piercing handgun ammunition which the Alaska Cartridge Club vehemently opposes. The subject was brought up by a television segment of the NBC-TV Magazine program which dealt with the ability of the "KTW" brand of ammunition to penetrate bullet-proof clothing. While the laudable intent of the proposed legislation is to protect law enforcement officers who wear such clothing on duty, it is so badly worded that it creates problems rather than solves them.

The language in the bill is all-inclusive and would certainly be detrimental to the hobby that is enjoyed by our organization. The term "armor-piercing" is not even properly defined. It is stated that ammunition will be classified after testing only. No guidelines of any value are given to the testing agency. It might be determined that any fully-jacketed bullet would be considered armor-piercing. Additionally, "body armor" is also not defined. Certainly, there are different grades of this material, some of which can be penetrated by normal "off-the-shelf" handgun ammunition at close range.

A section of the bill that we fully support is paragraph (b), which deals with the use of this type of ammunition by a criminal and the additional felony charge that would be brought as a result of its use. Regrettably, this is the only section that appears to be beneficial. The other sections will not help law enforcement officers to any measurable degree. Several brands of armor-piercing ammunition have been available for so many years that it would be nearly impossible to end their circulation. The "KTW" brand has been available for fifteen years, long before the protective clothing was in general use.

To illustrate the potential for abuse of this poorly-worded legislation, take my own situation as an example. I collect two types of ammunition, one of which is 9mm Luger (Parabellum) pistol ammunition. In my collection of more than four hundred examples, I have <u>one</u> round of KTW armor-piercing ammunition. Under this legislation, if I were to be caught with this one round in my possession, I could be fined $250,000 even though I do not own a 9mm handgun in which it could be fired!

I have also enclosed with this letter an article that I wrote on KTW ammunition for our newsletter. It appeared in our May 1981 issue--long before the current flap over armor-piercing ammunition. It provides an indication of the interest on the part of the serious collector in these cartridges, irrespective of their high penetrability.

I request that you or your staff look into the wording of this legislation, and, if it cannot be clarified or altered to make provision for legitimate collectors, that the proposed legislation be defeated. If we felt that the legislation would provide a degree of safety for peace officers, we would be willing to accept the negative impact on our hobby. However, this legislation simply does not provide the protection desired. Its only accomplishment is to restrict the activities of lawful citizens.

Our organization will be looking forward to hearing from you concerning this legislation and your intentions toward it. Thank you for your attention to this matter.

Sincerely,

Frank Allan

Francis C Allan
President

FRANK H. MURKOWSKI
ALASKA

COMMITTEE ON ENERGY AND NATURAL RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
COMMITTEE ON VETERANS' AFFAIRS

United States Senate
WASHINGTON, D.C. 20510

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July 12, 1982

Mr. Francis C. Allan, Pres.
Alaska Cartridge Club
SRA Box 4247
Anchorge, Alaska 99502

Dear Mr. Allan:

This is in response to your letter expressing your opposition to legislation to restrict the distribution and use of armor-piercing handgun ammunition.

Two bills are pending in the Senate Judiciary Committee which deal with this issue. They are S. 2017, introduced by Senator Hawkins, and S. 2128 introduced by Senator Moynihan. S. 2017 would require the Secretary of the Treasury to conduct a study of handgun bullets to determine which have the capacity to penetrate bulletproof vests. S. 2128 would limit the vailability and use of handgun bullets that are capable of penetrating certain body armor.

I have noted your comments about the lack of a proper definition of "armor-piercing." You may be assured that I will have your concerns in mind as I review these two bills. At the same time, I think it is important to review S. 2017 and S. 2128 to see if they are necessary in order to ensure the safety of our law enforcement officials.

Thank you for bringing your concerns to my attention. If you have further comments I would appreciate hearing from you.

Sincerely,

Frank H. Murkowski
United States Senator

AMENDMENT NO. --- Calendar No. ---

Purpose: To establish minimum mandatory sentences for the use of armor-piercing handgun ammunition during the course of a violent crime.

IN THE SENATE OF THE UNITED STATES--97th Cong., 2d Sess.

S. 2572

To strengthen law enforcement in the areas of violent crime and drug trafficking, and for other purposes.

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

Amendment intended to be proposed by Mr. Schmitt (for himself and Mr. Percy)

Viz:

At the end of the bill add the following:

Part P

Sec. 924. (a) Chapter 44 of title 18, United States Code, is amended by adding at the end thereof the following:

''§ 929. Use of restricted ammunition

''(a) Whoever, during and in relation to the commission of a crime of violence for which he may be prosecuted in a court of the United States, including a felony which provides for an enhanced punishment if committed by the use of a dangerous weapon or device, uses or carries any handgun loaded with armor-piercing ammunition as defined in subsection (b), shall, in addition to the punishment provided for the commission of such felony, be sentenced to a term of imprisonment for not less than five years. Notwithstanding any other provision of law, the court shall not suspend the sentence of any person convicted of a violation of this subsection, nor place him on probation, nor shall the term of imprisonment run concurrently with any other term of imprisonment including that imposed for the felony in which the armor-piercing handgun ammunition was used or carried. No person sentenced under this subsection shall be eligible for

parole.

''(b) For purposes of this section--

''(1) 'handgun' means any firearm, including a pistol or revolver, originally designed to be fired by the use of a single hand;

''(2) 'armor-piercing ammunition' means ammunition which, when or if fired from any handgun used or carried in violaiton of subsection (a), under the test procedure of the National Institute of Law Enforcement and Crimial Justice Standard for the Ballistics Resistance of Police Body Armor promulgated December, 1978, is determined to be capable of penetrating bullet-resistant apparal or body armor meeting the requirements of Type IIA of Standard NILECJ-STD-0101.01 as formulated by the United States Department of Justice and published in December of 1978; and

''(3) 'crime of violence' means--

''(i) an offense, other than a misdemeanor that consists solely of damage to property and that does not place another person in danger of death or serious bodily injury, that has as an element of the offense the use, attempted use, or threatened use of physical force against the person or property of another; or

''(ii) any other offense that is a felony and that, by its nature, involves a substantial risk that physical force against the person or property of another may be used in the course of committing the offense.''.

(b) The table of sections for chapter 44 of title 18, United States Code, is amended by adding at the end thereof the following:

''929. Use of restricted ammunition.''.

HB 2--Re: Penalties for useof Restricted Ammunition -- Hayes, Flood, Lindauer
in commission of a Crime

1. This adds to AS 12.55.125, dealing with sentences of imprisonment for felonies

   (If, in commission of a felony, convict uses handgun loaded with armor-piercing ammo, convict to be sentenced to no less than 5 years in addition to other sentence for commission of the felony itself....i.e. 5 years in addition for use of the described ammo in the handgun).

2. This is similar to bills introduced in U.S. Senate.

3. Reference to AS 12.55.080 and 12.55.085 refers to statutes that deal with probation and SUspended Imposition of Sentence, respectively.

   (j)(3) in this bill bars probation being granted or the handing down of a suspended imposition of sentence if such ammo is used in the handgun. Prescribed minimum term can't be reduced, and no convict would be eligible for parole.

IMPACT:

WITNESSES:

CHANGES:

COMMENTS: If enacted, this likely would be challenged in courts as too severe, in light of the convict being sentenced on the felony-in-chief and again having 5 years added for type of ammunition used.

Should such an act be struck down by courts, it might be construed as rewarding a convict for his efficiency in using this described kind of ammunition.

THE LEGISLATURE OF THE STATE OF ALASKA
THIRTEENTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. House Bill 2
Title An Act relating to the penalties for the use of restricted ammunition
Requested by Representative Hayes Date 1-17-83
commission of a crime.

II. FISCAL DETAIL

Agency Affected Health & Social Services
Program Category Affected Offender Confinement, Reformation & Supervision
BRU, Program or Subprogram(s) Affected Adult Confinement
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

		FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
100	PERSONAL SERVICES						
200	TRAVEL						
300	CONTRACTUAL						
400	COMMODITIES						
500	EQUIPMENT						
600	LAND & STRUCTURES						
700	GRANTS, CLAIMS ETC.						
	TOTAL	-0-	-0-	-0-			

FUNDING (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-			
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

Assumption

House Bill No. 2 amends AS 12.55.125 to provide penalties where the offender carries or uses a handgun loaded with armor-piercing ammunition.

RECEIVED
FEB 3 1983
LEGISLATIVE FINANCE

IV. DATE 1-20-83 PREPARED BY Roger C. Lange
AGENCY Division of Adult Corrections
PHONE 465-3376

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/79)
OMB Reviewed by: Nancy Dunn

THE LEGISLATURE OF THE STATE OF ALASKA
THIRTEENTH LEGISLATURE

FISCAL NOTE

☒ Expenditure Type
☐ Revenue Type

I. REQUEST
Bill/Resolution No. HB 2
Title A.P. Ammunition
Requested by House Judiciary Date

II. FISCAL DETAIL
Agency Affected Department of Public Safety
Program Category Affected Administration of Justice
BRU, Program, Or Subprogram(s) Affected A S T
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL						

FUNDING (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

No fiscal impact is anticapated.

RECEIVED
FEB 8 1983
LEGISLATIVE FINANCE

F.C.A.

IV. DATE January 19, 1983 PREPARED BY Francis C. Allan Phone 269-5691
DIVISION State Troopers Initials FCA
DEPARTMENT OF PUBLIC SAFETY Initials 2/7/83

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/82)
OMB Reviewed by: Eric Laschever

THE LEGISLATURE OF THE STATE OF ALASKA
THIRTEENTH LEGISLATURE

RECEIVED
FEB 7 1983

FISCAL NOTE

I. REQUEST
Bill/Resolution No. HB 2
Title "An Act relating to penalties for the use of restricted ammunition in the commission of crime."
Requested by House Judiciary Committee Date 1/28/83

II. FISCAL DETAIL
Agency Affected Department of Law
Program Category Affected Administration of Justice
BRU, Program, Or Subprogram(s) Affected Prosecution
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL		-0-	-0-	-0-		

FUNDING (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER (Specify Source)						
		-0-	-0-	-0-		

POSITIONS

FULL TIME						
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

This bill requires that a person who uses or carries a handgun loaded with armor-piercing ammunition during the commission of a crime of violence be sentenced to five years imprisonment in addition to the seven, ten or fifteen year presumptive term he would receive for possessing a handgun during the commission of the crime. It is not expected to require the commitment of additional prosecution staff or resources. Proof of the type of ammunition a defendant carried in his gun should not unduly complicate or prolong the trial on the underlying offense.

IV. DATE 1/28/83 PREPARED BY Daniel W. Hickey, Chief Prosecutor
AGENCY Department of Law
PHONE 465-3428

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
33-001 (Rev. 12/82)

OMB Reviewed by: Guy Bell

NOTIFICATION OF BILL HEARING

WEEK OF: 1/25

BILL #	BILL TITLE	DEPARTMENT	DATE	SPONSOR	DATE
HB 2	Ammunition in crime.	Pub Sec F.N.	1/21	Hayes	
	Veal				