FIREARMS THAT CAN ESCAPE DETECTION

HEARING

BEFORE THE

SUBCOMMITTEE ON CRIME

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

SECOND SESSION

ON

H.R. 4194 and H.R. 4223

FIREARMS THAT CAN ESCAPE DETECTION

MAY 15, 1986

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FIREARMS THAT CAN ESCAPE DETECTION

THURSDAY, MAY 15, 1986

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CRIME,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The subcommittee met, pursuant to call, at 10:05 a.m., in room 2237, Rayburn House Office Building, Hon. William J. Hughes (chairman of the subcommittee) presiding.

Present: Representatives Hughes, Mazzoli, Morrison, Feighan, Smith, Staggers, McCollum, Lungren, Shaw, and Gekas.

Staff present: Hayden W. Gregory, counsel; Eric E. Sterling, assistant counsel; Charlene Vanlier Heydinger, associate counsel; and Phyllis N. Henderson, clerical staff.

Mr. HUGHES. The Subcommittee on Crime will come to order.

The Chair has received a request to cover this hearing in whole or in part by television broadcast, radio broadcast, still photography, or by other similar methods. In accordance with committee rule 5(a), permission will be granted, unless there is objection. Is there objection?

[No response.]

Mr. HUGHES. Hearing none, permission is granted.

Today the Subcommittee on Crime is considering measures to get ahead of the curve in dealing with the problem of terrorism.

Very simply, terrorism is the most grave threat to the peace of mind and security of a great many people in the United States and other Western democracies.

This subcommittee, and indeed, the Congress, cannot solve the problem of terrorism, but we can, and must take steps to protect ourselves against terrorist acts. A new threat that seems to be emerging is firearms made of materials which can escape detection in x-ray machines, or which can be smuggled through metal detectors.

This subcommittee, I am pleased to say, has taken the steps in recent years to keep pace with the technological evolution of crime. We wrote the computer crime law and the credit card fraud law in the last Congress to help nip those crimes in the bud.

We wrote the enormously successful emergency scheduling law for designer drugs that has enabled us to shadow the criminal chemists who try to dream up new narcotic substances, and we are now working on new legislation to deal with the speed with which criminal chemists bring these particular drugs to the market.

We are fortunate in this country that we have been fairly successful in deterring and preventing those bent on acts of terrorism.

However, realistically, we know the problem is only going to get worse. Technological innovation, which is inevitable, is leading to the development of firearms that will require new methods of detection and crime prevention if we are to continue to protect ourselves as a free people. Undetectable firearms, the pocket-sized version of the Stealth bomber, if not tackled now, will give our enemies a new tool to use against us.

I want to commend my colleagues, Bob Mrazek, Mario Biaggi, Ted Weiss, and Chuck Schumer, in particular, for taking the lead on this particular problem in developing the bills that point toward potential solutions.

We are very pleased that Mr. Gaston Glock, the inventor of the controversial Glock 17 handgun, has come here today from Austria to testify about his particular weapon. We are looking forward to learning more about this very famous gun.

An important point needs to be kept in mind, however, and that is if we allow the controversy over the Glock 17—whether or not it can be identified by x-ray equipment—to distract us, we will have missed the main point, which is that the development of nonmetallic firearms, that will be even less traceable, and detectable, will soon be upon us.

We cannot permit a hiatus to occur between the marketing of weapons which are not detectable and the development and installation of devices to alert us to the presence of such weapons. The testimony today, I think, will be very helpful for this committee to assess the state of the art in manufacturing nonmetallic weapons, our ability to respond under present state of art detectors, and the need, if any, for legislative initiatives.

[The bills, H.R. 4194 and H.R. 4223, follow:]

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99TH CONGRESS
2D SESSION

H. R. 4194

To amend title 18, United States Code, to prohibit the manufacture and importation of certain firearms.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 19, 1986

Mr. MRAZEK (for himself and Mr. WEISS) introduced the following bill; which was referred to the Committee on the Judiciary

---

A BILL

To amend title 18, United States Code, to prohibit the manufacture and importation of certain firearms.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Terrorist Firearms Prevention Act of 1986".

SEC. 2. PROHIBITIONS WITH RESPECT TO CERTAIN FIREARMS.

(a) MANUFACTURE.—(1) Section 922 of title 18, United States Code, is amended by adding at the end the following:

"(n) Except as provided in section 925(f) of this title, it shall be unlawful for any person to manufacture any firearm that the Secretary determines is not—

"(1) readily detectable as a firearm by the standard security equipment commonly used at airports; and

"(2) readily identifiable as a firearm.".

(2) Section 925 of title 18, United States Code, is amended by adding at the end the following:

"(f) The Secretary shall declare an exemption from the prohibition of section 922(n) of this title with respect to firearms of a type determined by the Secretary to be identical to a type designed and produced in the United States for commercial sale before January 1, 1986.".

(b) IMPORTATION.—Section 925(d) of title 18, United States Code, is amended by inserting at the end the following: "The Secretary shall not authorize under this subsection the importation of any firearm that is not readily detectable as a firearm by the standard security equipment commonly used at airports and readily identifiable as a firearm.".

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99TH CONGRESS
2D SESSION

H. R. 4223

To amend chapter 44 of title 18, United States Code, to prohibit sale, delivery, and importation of certain nonmetal firearms, and to require the Administrator of the Federal Aviation Administration to conduct research to improve effectiveness of airport security devices with respect to detection of nonmetal firearms.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 25, 1986

Mr. BIAGGI introduced the following bill; which was referred jointly to the Committees on the Judiciary and Public Works and Transportation

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A BILL

To amend chapter 44 of title 18, United States Code, to prohibit sale, delivery, and importation of certain nonmetal firearms, and to require the Administrator of the Federal Aviation Administration to conduct research to improve effectiveness of airport security devices with respect to detection of nonmetal firearms.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. PROHIBITION OF SALE AND DELIVERY OF CERTAIN NONMETAL FIREARMS.

Section 922 of title 18, United States Code, is amended by adding at the end the following new subsection:

"(n)(1) It shall be unlawful for any licensed importer, licensed manufacturer, licensed dealer, or licensed collector to sell or deliver any nonmetal firearm that (as determined by the Secretary), by reason of nonmetal construction, is a danger to the public safety because of diminished susceptibility to detection by airport metal detectors or other security devices.

"(2) As used in this subsection, the term 'nonmetal firearm' means a firearm that is substantially constructed of plastic or other nonmetal material.".

SEC. 2. PROHIBITION OF IMPORTATION OF CERTAIN NONMETAL FIREARMS.

Section 925 of title 18, United States Code, is amended by adding at the end the following new subsection:

"(f)(1) The Secretary shall not authorize, under subsection (d) of this section, the importation or bringing in of any nonmetal firearm that (as determined by the Secretary), by reason of nonmetal construction, is a danger to the public safety because of diminished susceptibility to detection by airport metal detectors or other security devices.

"(2) As used in this subsection, the term 'nonmetal firearm' means a firearm that is substantially constructed of plastic or other nonmetal material.".

Mr. HUGHES. The Chair at this time recognizes the ranking Republican from Florida.

Mr. MCCOLLUM. Thank you, Mr. Chairman. I congratulate you on holding this hearing today regarding one of the more intriguing issues before our Subcommittee on Crime.

I am most interested to learn about the feasibility of nonmetal firearms, the state of technology, and the potential law enforcement threat posed by these weapons of the future.

We will learn today, we hope, from this hearing, whether the future has arrived with regard to these firearms. One witness before us today is at the forefront of this technology that we will be discussing. Actually, we may have a couple today, but one in particular I am concerned with is Mary Ellen McDonald Burns, the partner of David Byron of Byron's, Inc., which is located in my district in Florida.

I commend them for their willingness to bring their future product to the attention of the Federal officials at early stages of development so that law enforcement concerns can be addressed.

I join you, Mr. Chairman, in welcoming all of our witnesses.

Mr. GEKAS. Mr. Chairman?

Mr. HUGHES. The gentleman from Pennsylvania.

Mr. GEKAS. Thank you, Mr. Chairman.

I, too, join in the welcoming of the witnesses and the colleagues from the floor who will aid us in this particular issue. It is another giant step, I believe, in our continued efforts toward fighting terrorism in the first instance, and for all other elements in which this plastic device might be a serious part.

What we would like to hear, of course, is the efficacy of the types of statutes, the types of provisions that will sufficiently cover this particular situation for all the justice requirements that we have in the field of firearms.

I thank the chairman.

Mr. HUGHES. Our first panel this morning consists of some of the most distinguished and able Members of Congress. First, in order of seniority, is our colleague the Honorable Mario Biaggi, who has represented the 19th Congressional District of New York since 1968. The most highly decorated veteran of the New York City Police Department, he has frequently testified before this subcommittee on law enforcement matters and has been very helpful to this subcommittee. The second ranking member of the Merchant Marine and Fisheries Committee, he is the chairman of the Merchant Marine Subcommittee. He is also a distinguished member of the Education and Labor Committee and the Select Committee on Aging.

He is in the forefront of every battle that I am aware of in the last few years in protecting the rights of our law enforcement community in advancing their cause in the Congress, and we welcome him here this morning.

Our colleague, the Honorable Ted Weiss, has represented New York's 17th Congressional District since 1976, after a very distinguished career on the New York City Council. Ted is the chairman of the Intergovernmental Relations and Human Resources Subcommittee of the Committee on Government Operations, and is a

member of the Foreign Affairs Committee and the Select Committee on Children, Youth, and Families.

We welcome you here today. We are just delighted to have your testimony. It will be made a part of the record in full, without objection, and you may proceed as you see fit.

Mario, welcome.

STATEMENT OF HON. MARIO BIAGGI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. BIAGGI. Thank you very much, Mr. Chairman.

I think it is appropriate that on this National Peace Officers Memorial Day I testify about the issue of great concern to law enforcement—plastic handguns. And we thank you very much for the opportunity to talk to your prestigious committee today.

It has been under your leadership, Mr. Chairman, and your strong advocacy, that helped make the job of law enforcement a little bit easier and considerably safer. And also, special encomium should be extended to you for being so responsive to law enforcement concerns during the consideration of the firearms law reform legislation, and for coauthoring with me the bill to outlaw the armor-piercing bullet, which has passed both the House and the Senate.

As I said before, and no doubt will have to say again, the criminals and terrorists of this world remain one step ahead of law enforcement with their access to sophisticated weaponry.

One of those weapons is the plastic handgun—the latest tool of terrorist technology. That is why I have authored a bill, H.R. 4223, to require the Treasury Department to test nonmetal metal firearms for detectability. And if not detectable, would be banned from manufacture, importation, or sale, except for Government use.

It is the same as the other bill, H.R. 4194, in that respect, but it goes one step further. I would also direct the Federal Aviation Administration to conduct research and development activities aimed at improving airport weapon detection systems.

It does not specifically ban any particular weapon, but would leave final determination to the Treasury Secretary. However, the weapon that aroused my concern and led to this legislation was the Glock 17. It is an Austrian made, 9-millimeter automatic, first developed in 1981 for the Austrian Army; imported into the United States only recently. One hundred thousand of them are now in Europe and 10,000 or so in the United States. It is mostly plastic—only the barrel, slide, and spring are metal.

I speak from firsthand experience when I say that the Glock 17 is far more difficult to detect than any conventional metal weapon. At a test I conducted in February in the U.S. Capitol, security proved vulnerable to the Glock 17. That test, incidentally, was under the supervision of the U.S. Capitol Police. They were aware that the Glock 17 was in the case, and I should point out that Glock 17 was disassembled at the time. We walked the plastic frame and magazines through the metal detectors without setting off the alarm.

The metal barrel and slide were placed in the briefcase and it presented an unsuspicious image on the x-ray screen. The test

proved to me that the Glock 17 can beat U.S. Capitol security. And if it can beat U.S. Capitol security, it certainly can beat U.S. airport security.

Other facts supporting my findings: In March, a man tried to smuggle the Glock through the People Express security checkpoint at National Airport. FAA police at National told me that the Glock was not spotted by x-ray equipment. However, a metal weapon, the man was also carrying in the same bag, did get spotted. A subsequent search turned up the Glock and 126 rounds of ammunition. Clearly, if the man was not carrying a metal weapon, the Glock 17 would have gone through. .

But there is no need to rely solely on my findings, Mr. Chairman. I will let some photos, which I will talk about in a minute, present the case. After all, it has been said that one picture is worth a thousand words.

These photos are unretouched and were prepared for me by American Science and Engineering of Cambridge, MA. It is the world's second largest provider of airport x-ray machines. They reveal beyond any shadow of a doubt that the Glock 17 can be totally concealed from conventional airport x-ray equipment.

Now to challenge you, Mr. Chairman, or anyone else in this room who hasn't already seen these published photos, to show me where the Glock is in this x-ray picture. And remember, that people at the detection centers only have about 2½ seconds to make that determination.

These same photos also reveal that American Science and Engineering, whose president is Dr. Martin Annis, has developed a revolutionary type of x-ray called the Z system, which can turn a totally concealed plastic weapon into a totally detectable weapon.

I have formally urged the FAA to consider requiring this new x-ray equipment in all U.S. airports, and the matter is under active consideration.

The problem is, this new x-ray system is not at our airports now, and even if it was, the metal detectors would still be vulnerable to plastic handguns.

To make matters worse, the Office of Technology Assessment recently reported that Byron's, Inc., a Florida-based company has developed an all-plastic gun that should be ready for marketing in 1 to 2 years.

I would like to emphasize, Mr. Chairman, that it is not my main intent to ban the Glock 17 or any other firearm. My intent is to maintain an adequate level of security at our Nation's airports, the U.S. Capitol, and so many other security-conscious facilities in our country.

It may require prohibiting the Glock, but it could be achieved by modifying the Glock and other plastic weapons to ensure they can be detected. Or, as the second part of my bill suggests, we could simply develop a weapon detection system that can spot nonmetal weapons.

But let me stress that my bill is not antigun. It is antiterrorist. And that is a tough position to argue against.

I would like to show these photos and then I would like to complete my statement.

[Enlarged photos shown.]

Mr. BIAGGI. To begin with, this is the Glock 17. It is a well-made weapon. It is technically accurate, conforms to basic firearms requirements and can be utilized. The only metal area you have is the slide and barrel right here, and you have a spring inside. This is a plastic magazine. The American Science and Engineering Company has developed these photos for us.

This, Mr. Chairman, is a Glock, without a barrel, on a conventional x ray. I defy anyone to find it. Even an experienced eye could have difficulty finding it, never mind an operator with 2½ seconds or 3 seconds, to look at it. You know the attitude of the operator—if there is nothing that clearly looks like a weapon, they just let it go by. We have been through it. And I, on occasion, have had pieces of metal in my attaché case and was never stopped for that either. So this is what we are looking at today.

This is a Glock with a new Z x ray. This is disassembled. All you see here is plastic. And that comes with this new technology. It is disassembled but all the parts are in this photo. Now, where is the barrel? I happen to know where it is now but only because it was pointed out to me.

It is up here.

This is a Glock with barrel on a conventional x ray. I defy you to find it. Again, I point out the operators are generally not terribly proficient; and two, they are in a hurry, the pressure of the job. So, the likelihood of being found even by a chance is extremely remote.

Mr. HUGHES. Is the Glock fully assembled in that?

Mr. BIAGGI. In this case, the Glock is assembled.

Mr. HUGHES. Where is it?

Mr. BIAGGI. There's a strip—sometimes you can see the strip of metal. The strip of metal is not suspicious. Sometimes I have in my attaché case strips of metal. You are never stopped for that purpose.

Here we have the Glock with barrel on a new Z x ray. The same image as before and clearly it shows. Here it is. Now, the Z system can detect plastic, but it also provides the conventional photo that shows metal objects. Actually, the Z system projects two photos simultaneously—one of the low density items, such as plastic, and another of the high density items such as metal.

Mr. HUGHES. The dark line at the bottom is the barrel?

Mr. BIAGGI. Here's the plastic form and this is the barrel—slide and barrel. This would be most revealing. This would capture the attention of any operator, because that is clearly a gun—it looks like a gun—and they would have to stop the person carrying it.

This is an all-plastic gun and a metal gun. I gave you an illustration of the individual who was stopped, arrested—he was stopped. He had the metal gun and then he had the plastic gun. Here we have the metal gun. This is standard image—metal gun. Now, there is a plastic gun here somewhere. Find it—the plastic gun with the metal barrel. You can't find it.

Mr. HUGHES. Can you identify it for us?

Mr. BIAGGI. You can't even see it, even with the metal you can't see it.

Mr. HUGHES. Is that plastic weapon fully assembled?

Mr. BIAGGI. This is fully assembled.

Mr. HUGHES. What kind of a weapon is it?

Mr. BIAGGI. It is an all-plastic model. This is an all-plastic gun and a metal gun. I made the point before—this Z system can pick up plastic very effectively. Clearly you see it right there. There is is the metal gun. It is not as clear. The Z system projects two images simultaneously—one that shows metal objects and one that shows plastic objects.

Mr. HUGHES. What kind of a metal weapon is that in the Z x ray.

Mr. BIAGGI. He doesn't know the kind, but it is a standard all-metal weapon. It is really the plastic that is graphically demonstrated.

That's it.

I offered those photographs to place special emphasis on an alternate course of conduct. Now, if we are not able to develop the technology to detect the presence of plastic weapons, then, of course, prohibition of manufacture, importation, and sale would be in order. But here we have the image.

My purpose is to be able to detect their presence so they are not permitted to go into security areas where they can produce the kind of negative situation that would develop when terrorists are at work.

I would like to commend American Science and Engineering for cooperating with us in this regard.

I would like to address for a moment, Mr. Chairman, another very serious and frightening issue—that is the ballistic knife. I have one of them right here.

[Knife shown.]

Mr. BIAGGI. It is what we call a super or a ballistic knife. It has a spring. It is spring-propelled. This is the sheath. This could be projected like a bullet to a distance of 30 feet, with considerable accuracy.

Demonstration after demonstration has been made. It is extremely dangerous, especially for law enforcement—for anyone, really. It is available by mail order. I saw it advertised and I ordered one. This is it—for $79.95. The origin of it is curious. It was developed and is used by the Soviet Special Forces so they can kill swiftly and silently. And that is exactly what is in the advertising—to kill swiftly and silently. Now, I don't know where that would be necessary in America.

Clearly, it is a very dangerous situation. It has the ability to penetrate the soft body armor that policemen wear as well as a panel of wood up to three-quarters of an inch. We demonstrated it just yesterday in the Senate Building. I offer this to you for your consideration.

Mr. HUGHES. How does that show up on an x ray?

Mr. BIAGGI. Pardon me?

Mr. HUGHES. How does that show up on an x ray?

Mr. BIAGGI. I am sure this would show up, because it is metal.

I'll tell you what is dangerous about it, Mr. Chairman, extremely dangerous, in the process of law enforcement.

As you said, I was a policeman for 23 years. We know that if a man is out there with a knife, you maintain your distance—you are safe, at least with the ordinary knife. But what if the man has this—and it is tough to tell, very difficult to tell. The man holds it in his hand. You see the blade. You think it is an ordinary knife.

And ordinarily the police officer would say, don't get silly. I have a gun; you have a knife—I will get to you quicker. The police officer feels kind of comfortable in the fact that he has the edge in this case. He has the superior weaponry.

He doesn't know that all this man has to do is push this little trigger and this thing comes right at you. The police officer is struck even before he knows what occurred. The knife has the capability of going right through him.

Now, how this came to our attention. The first of these weapons—three of them, as a matter of fact, were confiscated in a narcotics raid in Nassau County, NY. That is where they were found. Anyone can have them. Anyone can buy them; a child—and there is no record of their purchase.

Mr. HUGHES. Mario, that sounds like it is something that this subcommittee ought to take a much closer look at it. It sounds like an extremely lethal weapon. I understand that it will penetrate the Kevlar vest.

Mr. BIAGGI. That is correct.

It is frightening. But I think it is important to understand the origin. Why was it developed in the first place? This is the American counterpart of the Soviet version. It was developed by the Soviets for their special elite forces, guerrilla forces, to kill—I don't have the advertisement here, but it says to kill swiftly and silently. An American company advertises it in that fashion, and tells you exactly how it was developed.

Now, when you talk to them—and they are cooperative. When you talk to them, they say, well, we have knife collectors, they might be interested.

All I can say, Mr. Chairman, is that there is clearly only one course of conduct for this one, and that is to ban it. Mr. Chairman, I know that later today you will be speaking to hundreds of police survivors who will be assembling in Senate Park. There is no better message we can give to those survivors than the assurance we are doing everything we can to make the job of law enforcement easier and safer. And by banning the ballistic knife and undetectable nonmetal firearms, we will be sending such a message with actions and not words.

Once again, I want to thank you for your time, your attention, and your relentless commitment to protecting law enforcement personnel.

Mr. HUGHES. Thank you very much, Mario, I appreciate that.

[The statement of Mr. Biaggi follows:]

NEWS

FROM CONGRESSMAN

MARIO BIAGGI

19TH CONGRESSIONAL DISTRICT, N.Y. — BRONX AND YONKERS

May 15, 1986

TESTIMONY IN SUPPORT OF H.R. 4223 DEALING WITH NONMETAL FIREARMS

PRESENTED BEFORE THE HOUSE SUBCOMMITTEE ON CRIME

BY THE HONORABLE MARIO BIAGGI OF NEW YORK

Mr. Chairman, on this, the occasion of National Peace Officers Memorial Day, I welcome the opportunity to testify here today about an issue of great concern to law enforcement--plastic handguns. This subcommittee has demonstrated a strong advocacy over the years for making the job of law enforcement easier and safer and this hearing is consistent with that record.

I want to especially salute you, Mr. Chairman, for the leadership role you played in responding to the concerns of law enforcement during the consideration of the firearms law reform legislation, and in achieving House and Senate passage of a bill we co-authored together to outlaw armor-piercing ammunition.

As I have said before, and no doubt will have to say again, the criminals and terrorists of this world remain one step ahead of law enforcement with their access to sophisticated weaponry. I appeal to this subcommittee, as I have before, let's make life as difficult as we can for terrorists and other criminals; let's go after the non-sporting weapons which have given the criminals such a clear advantage in our society.

One of those weapons is the plastic handgun and that is why I have authored a bill, H.R. 4223, to require the U.S. Treasury Department to test all nonmetal firearms to determine if they are detectable by standard airport security devices. If a weapon fails the detection test, it would be banned from manufacture, importation or sale in the United States, except for police, military or other government use. In that respect, my bill is virtually identical to H.R. 4194. However, my bill would also go an important step further. It would direct the Federal Aviation Administration to conduct research and development activities aimed at improving airport weapon detection systems.

Why should we be concerned about nonmetal weapons? Consider these facts. Since a rash of hijackings resulted in mandatory security screening procedures being put into effect at U.S. airports in January 1973, more than 33,000 firearms have been detected; almost 14,000 related arrests have been made; and 113 hijackings have been prevented. But, what has become a very effective security system against terrorists will become totally obsolete if we allow plastic weapons to enter our marketplace. Now, more than ever, we must improve airport security, not lose what we already have.

Make no mistake about it, terrorists fully recognize the capabilities and limitations of current airport security devices. That is why terrorists planted plastic explosives aboard the TWA jetliner that exploded in mid-air two months ago, killing four people, including three Americans. And, that is why reports strongly indicate that Libyan madman Muammar Qaddafi has attempted to obtain hundreds of plastic handguns. We cannot and must not bury our heads in the sand and pretend that plastic weaponry is not a problem. By acting to ban undetectable nonmetal firearms we can save lives, and that is an opportunity we cannot afford to miss.

I want to emphasize that my bill does not prejudge any weapon that may now exist. It simply directs the Treasury Department to establish standards for determining a weapon's detectability. It would then be up to the Treasury Department to determine which firearms are undetectable and should be banned.

However, there is a particular weapon that aroused my concerns and led me to introduce my legislation. It is the Glock 17, a mostly plastic Austrian-made weapon that was widely publicized in this country by a Jack Anderson/Dale Van Atta column in January. According to a recent Office of Technology Assessment report, "The Glock 17 is . . . made mostly of plastic with several metal parts, including the barrel." Officials at Glock, Inc., which has an office in Smyrna, Georgia, have informed me that about 100,000 of these weapons have been sold in Europe and "less than 10,000" have been imported to the United States, with U.S. sales on the increase. The Glock was first developed in 1981 for the Austrian Army.

Some have suggested that the Glock 17 is just as detectable as any other conventional metal weapon, and they are quick to point out that the Glock's mass is 83% metal. Well, my own experience suggests something far different. First, it is a totally false impression to say the Glock 17 is 83% metal. In weight, the gun's metal parts weigh more than the plastic parts, but that simply supports the law of physics. In truth, only the barrel, slide and spring of the weapon are metal; everything else is plastic, and the Office of Technology Assessment has confirmed this fact.

I wish to speak from first-hand knowledge about the Glock's detectability. In February, I tested the Glock 17 against the U.S. Capitol's security equipment, which is comparable to what we have at airports, under the supervision of the Capitol Police. When fully assembled, the Glock was spotted by the metal detector, and by the X-ray machine when placed in an empty briefcase. However, it occurred to me that the terrorist might not be quite so accommodating for the security people, so I decided to dismantle the Glock into three major parts--a process that takes no more than a couple of seconds. When dismantled, the frame and magazine of the weapon, which are made of plastic, went undetected through the metal detector, and the metal barrel created a very unsuspicious image on the X-ray screen. This test proved to me that the Glock 17 can beat U.S. Capitol security, and if it can beat U.S. Capitol security, it can certainly beat U.S. airport security.

Other facts support my findings. Consider, for example, that on March 17 at National Airport, a Russian-born individual named Leonid Avrashov was arrested attempting to smuggle a Glock 17 aboard a People Express airliner. According to FAA police officials I spoke to at National, the Glock 17 was not detected by the airport X-ray equipment, but another metal weapon, also carried by Avrashov, was spotted. A subsequent search of the man's carry-on baggage turned up the Glock and 126 rounds of ammunition.

A recent Jack Anderson/Dale Van Atta report stated that "the Pentagon's top expert on counterterrorism, Noel Koch, the Principal Deputy Assistant Defense Secretary . . . had succeeded twice in carrying a dismantled Glock 17 through the human and mechanical weapons detectors at Washington's National Airport." But, Mr. Chairman, your Subcommittee need not rely solely on my findings or those of Mr. Koch. As they say, Mr. Chairman, a picture is worth a thousand words, and I believe the pictures I have with me today tell the whole story. These photos, which are unretouched, were prepared for me by American Science and Engineering, the world's second largest provider of airport X-ray machines. They reveal beyond any shadow of a doubt that the Glock 17 can be totally concealed from conventional airport X-ray equipment.

Significantly, these same photos also reveal that American Science and Engineering has developed a new and improved type of X-ray equipment, called the Z System, which can detect plastic weapons. Their new system can turn a totally concealed weapon into a totally detectable weapon. The Office of Technology Assessment has acknowledged and confirmed the Z System's ability. It is a revolutionary development, and something I have formally requested the Federal Aviation Administration to consider requiring at all U.S. airports. The FAA has the matter under review. However, the Z System X-ray equipment does not provide us with an immediate answer to the plastic gun dilemma. First, it is not being used at U.S. airports and the fact that it costs approximately $20,000 more (Z System costs about $50,000) than the X-ray equipment now being used suggests that we might not see this improved X-ray equipment at U.S. airports anytime soon. But, perhaps even more discouraging is that even if we had an X-ray machine that could detect plastic guns, we are still not close to a metal detector that can spot plastic weapons.

This problem is made worse when we consider that there appears to be a totally plastic weapon on the near horizon. In fact, the Office of Technology Assessment has reported that a company by the name of Byron, Inc., in Castleberry, Florida, has developed an all-plastic firearm. They state that the handgun is "plastic except for seven metal springs," and would cost about $200 on the commercial market, far less than the $443 now being charged for the Glock. The OTA report states that this all-plastic handgun will be ready for marketing in one to two years.

I would like to reiterate that it is not my main intention to ban the Glock 17 or any other firearm. My main intent is to maintain an adequate level of security at our nation's airports, the U.S. Capitol, and so many other security-conscience facilities in our country. It may require prohibiting the Glock or other similar weapons, but my objective can be achieved through other means. For example, the makers of plastic firearms could add small particles of metal, or some other detectable feature when they make their weapons; or, as my legislation proposes, we could simply upgrade our airport weapon detection systems so that they could detect plastic guns. My bill is not anti-gun, it is anti-terrorist and that is a tough position to argue against.

There are some here today who will contend that the problem is not plastic weapons, nor the technology to detect those weapons; rather, it is the people who man the security checkpoints at our airports. I would agree that we need better trained, better paid security people at our nation's airports. However, no matter how much we train them or pay them, their job is going to be tough enough without having to worry about plastic guns.

Finally, Mr. Chairman, I think the plastic gun issue raises a broader question--namely, where do we draw the line between free enterprise and public safety. Just yesterday, I publically revealed the facts about a newborn cousin of the plastic gun named the Ballistic Knife. This new type of "super knife" is the latest in cop killing technology. It is marketed by a Florida-based company that recently began selling the weapon through the mail at a cost of $79.95. The four and one-half inch blade of the knife can be propelled 30 feet by a spring-operated mechanism at the push of a button. It was first developed in the Soviet Union for elite Soviet guerilla forces, and it is advertised to "kill swiftly and silently." I recently ordered my own Ballistic Knife and received it through the mail a week later. There were no questions asked, except my credit card number and address. I could have been anybody. The Ballistic Knife is totally accessible to anyone who wants it, and that is a shocking fact.

Mr. Chairman, I know that later today you will be speaking to hundreds of police survivors who will be assembling in Senate Park. There is no better message we can give those survivors than the assurance that we are doing everything we can to make the job of law enforcement easier and safer. We can start by banning the Ballistic Knife and undetectable nonmetal firearms.

Thank you for your time and attention.

AS&E

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Cambridge, Massachusetts 02139
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JANUARY 1986

PRODUCT DESCRIPTION

AS&E® MICRO-DOSE®

Z TECHNOLOGY

X-RAY INSPECTION SYSTEMS

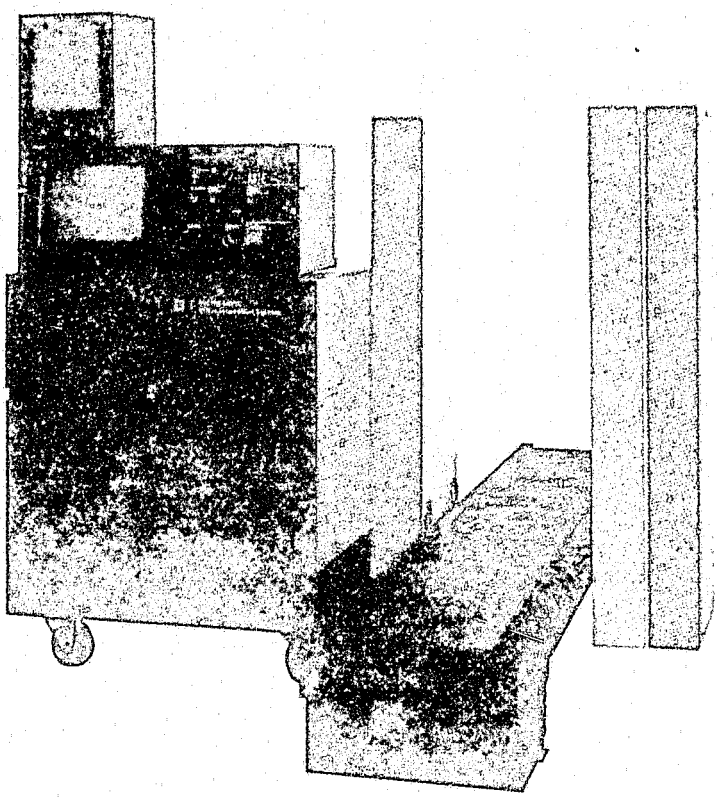
AS&E®

American Science and Engineering, Inc.

Z Technology

The AS&E® Z System technology offers vastly improved X-ray inspection of luggage, boxes and other containers by distinguishing and separating high and low atomic number (high and low Z) materials. The inspection process results in a simultaneous display of images on two TV monitors.

In addition to the standard transmitted image displayed in conventional systems, the Z system also provides an additional image specifically for low Z materials. Contraband such as guns, knives and other objects made of high Z material such as steel, tin, aluminum and iron are separated from confused backgrounds of low Z materials and are displayed on one monitor. Low Z objects such as drugs, plastic weapons (knives, guns, and explosives) and organic materials that are often invisible in conventional X-ray systems glow brightly white and are easily visible on the second monitor display. This low Z and high Z material separation procedure increases the amount of information obtained by as much as 100%.



AS&E ® MICRO-DOSE® MODEL Z X-RAY INSPECTION SYSTEM

American Science and Engineering, Inc. AS&E

TABLE OF CONTENTS

Section 1
Weapons

(High Z)/(Low Z) X-Ray Imaging Weapons

Image W1 — Conventional Transmitted X-Ray Image (high Z). In this suitcase the items easily identified are an umbrella, travel case, portable radio, electric razor, etc. This suitcase in fact has hidden within it a state-of-the-art Glock 17 automatic pistol made of plastic with a metal barrel assembly.

Image W2 — Z System Scattered X-Ray Image (low Z). Note immediately the lower housing of the Glock 17 which now can be easily seen in the lower front center of the suitcase, but is not seen in image above. The barrel assembly has been removed from the lower housing and hidden in the umbrella but cannot be seen in either image.

Images W1 and W2 are simultaneously displayed on two TV monitors and are viewed in pairs.

W1 EP-86140

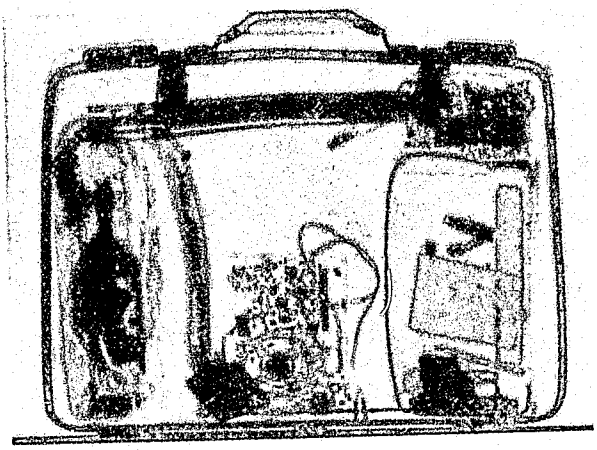
W2 EP-86105

(High Z)/(Low Z) X-Ray Imaging Weapons

Image W3 – Conventional Transmitted X-Ray Image (high Z). In this confused suitcase take note of the following easily recognizable objects: gun, travel case, radio, shoes, umbrella. Note in particular, the portable radio where one can easily identify the radio power cord, assorted electronics and speaker.

Image W4 – Z System Scatter X-Ray Image (low Z). Note immediately a plastic gun which glows brightly white and does not appear in the above standard transmitted X-ray image. Unless this bag was opened for inspection for another reason, this gun would have been missed.

Images W3 and W4 are simultaneously displayed on two TV monitors and are viewed in pairs.



W3 EP-86109

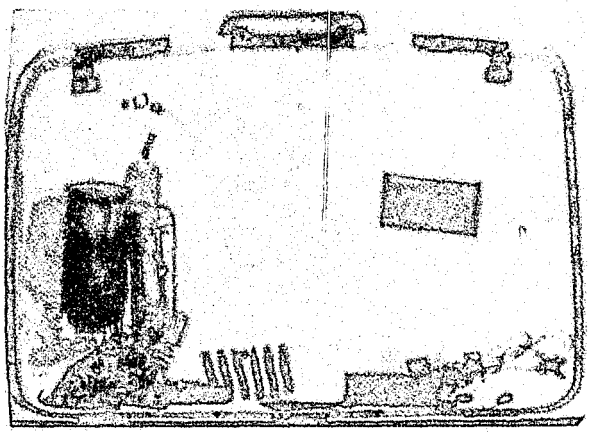
W4 EP-86110

(High Z)/(Low Z) X-Ray Imaging Weapons

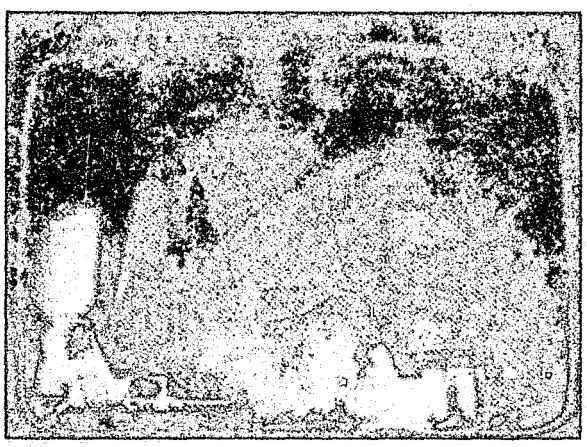
Image W5 — Conventional Transmitted X-Ray Image (high Z). Transmitted image of this suitcase allows the identification of many usual shapes: two metal cans can be readily identified, a bottle which is upside down appears as a light grey density and is in a travel case. Similarly, this high resolution image allows one to easily see a pair of rubbers. The six parallel bars at the bottom to left of center are brass collar stays.

Image W6 — Z System Scattered X-Ray Image (low Z). The scattered image again identifies many low Z or plastic objects. One can now easily recognize the silhouette of a gun. The gun is a state-of-the-art plastic 17 shot, automatic Austrian made Glock 17. The black rectangular void is from the Z elimination of the metal gun barrel. Looking back at the black rectangular outline in the transmitted image one would not question it without the Z image stock outline. Note the upside down bottle is low Z plastic and scatters brightly while the metal collar stays are eliminated as metal does not scatter.

Images W5 and W6 are simultaneously displayed on two TV monitors and are viewed in pairs.



W5 EP-86112



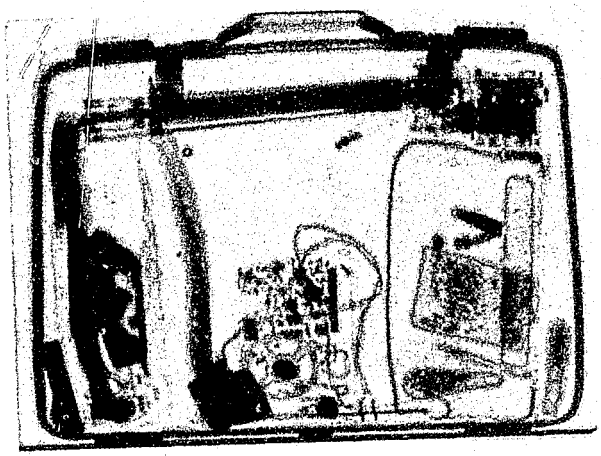
W6 EP-86111

(High Z)/(Low Z) X-Ray Imaging Weapons

Image W7 — Conventional Transmitted X-Ray Image (high Z). This transmitted X-ray is generally cluttered with recognizable material. Note that there are upright rectangular objects in the bottom left and right hand corner of the suitcase. Would the black object on the left cause any concern? Does the rectangular density in the right corner cause any concern? Note the second darker gray density superimposed on the object in the right corner.

Image W8 — Z System Scattered X-Ray Image (low Z). Note again the two objects in the lower suitcase corners. The object on the left is gone from view and indicates a solid metal object. The object on the right has taken a more distinct shape, glowing brightly white, a light grey density is attached to it. One can begin to see the handle and general shape of a small gun. The dark density (a gun) has been eliminated from the image above because it is solid metal. The gun probably would not be identified from the transmitted image.

Images W7 and W8 are simultaneously displayed on two TV monitors and are viewed in pairs.



W7 EP-86114

W8 EP-86113

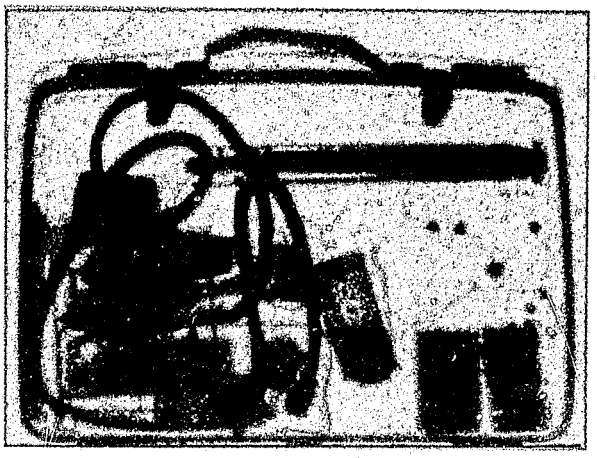
Section 2
Explosives

(High Z)/(Low Z) X-Ray Imaging Explosives

Image E1 – Conventional Transmitted X-Ray Image (high Z). Note the electronic circuit board in the left side of the suitcase overlapping an electric razor and travel case. In the lower right hand corner of the suitcase a bottle filled with fluid as well as a small tape recorder can be seen.

Image E2 – Z System Scattered X-Ray Image (low Z). Note the low Z elimination of metal. Note that the electronic circuit board is made of plastic but has an unfamiliar shape within it as does the tape recorder. These shapes are Flex X plastic explosives and can not be seen in the transmitted image. The bottle is made of plastic (note white silhouette) and is filled with a flammable fluid set to explode with the tape recorder with Flex X acting as a detonator.

Images E1 and E2 are simultaneously displayed on two TV monitors and are viewed in pairs.



E1 EP-86024

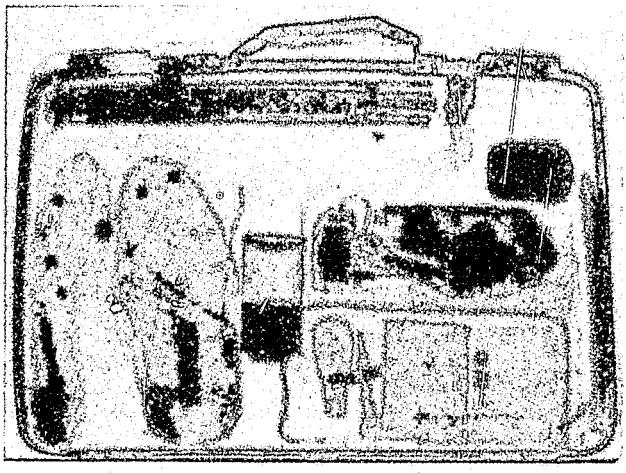
E2 EP-86023

(High Z)/(Low Z) X-Ray Imaging
Explosives

Image E3 – Conventional Transmitted X-Ray Image (high Z). Suitcase with no remarkable objects. Note the oval object in the upper right hand corner of the suitcase is an alarm clock on its side.

Image E4 – Z System Scattered X-Ray Image (low Z). Note the long thin bright white object in the left suitcase wall and the thin white bar where the alarm clock once was. Both the long thin strip and thin bar on the alarm clock are Flex X plastic explosive with the alarm clock acting as a proximity detonator.

Images E3 and E4 are simultaneously displayed on two TV monitors and are viewed in pairs.



E3 EP-86073

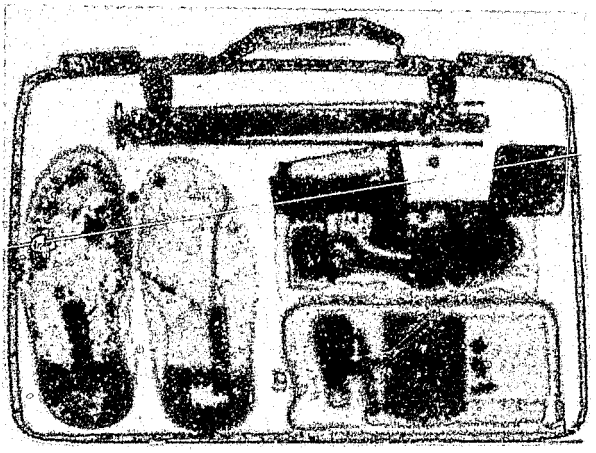
E4 EP-86079

(High Z)/(Low Z) X-Ray Imaging
Explosives

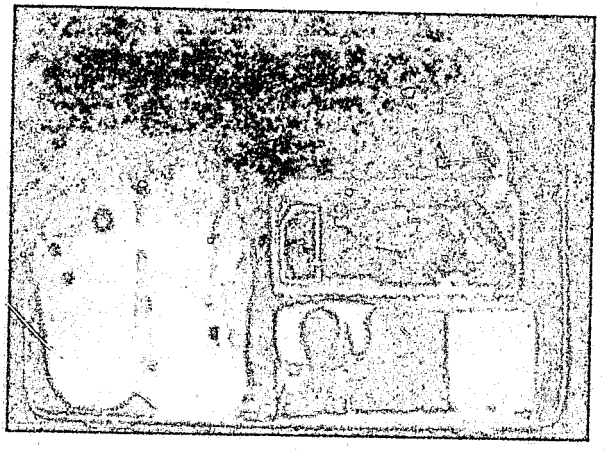
Image E5 — Conventional Transmitted X-Ray Image (high Z). In this confused suitcase environment one can easily recognize a variety of objects. Note in particular the travel case with two identical travel mirrors. In this transmitted image one mirror is clearly darker than the other, but both appear to be nothing more than travel mirrors.

Image E6 — Z System Scattered X-Ray Image (low Z). Note in general the High Z elimination of metals. A real metal mirror (previously in the center of the travel case) has been eliminated along with all other suitcase metals. The second mirror is a now bright white and is typical of a plastic based material. The mirror is in fact made of Flex X plastic explosive.

Images E5 and E6 are simultaneously displayed on two TV monitors and are viewed in pairs.



E5 EP-86016



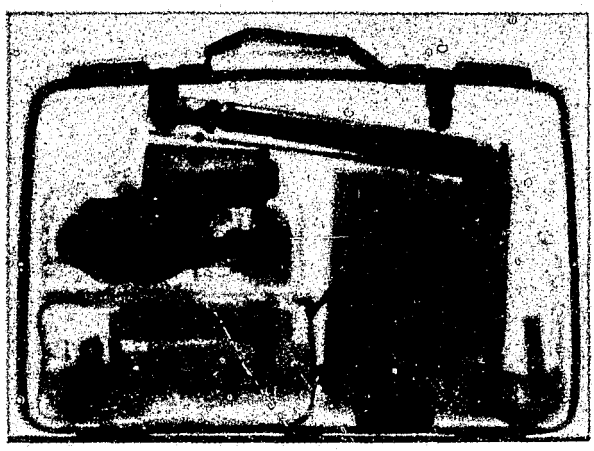
E6 EP-86017

(High Z)/(Low Z) X-Ray Imaging
Explosives

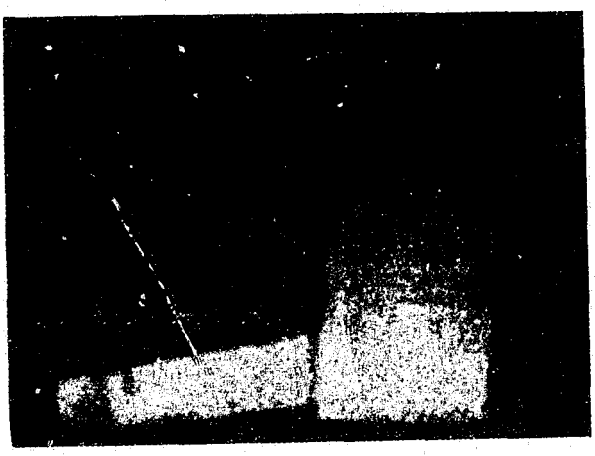
Image E7 — Conventional Transmitted X-Ray Image (high Z). Note the confused environment of this suitcase. High Z material such as the metal cans, umbrella, shoehorn, alarm clock (lower right of center) and general suitcase structure are easily visible. Lower Z materials such as a book (lower right) and a leather travel case (lower left) are also easily recognizable by their distinct shapes and light density. Note the density that is behind the travel case at a slight angle.

Image E8 — Z System Scattered X-Ray Image (low Z). Note the general High Z elimination of the can, razor, alarm clock, shoe horn and umbrella. The density seen behind the razor case is now bright white, due to its low Z make up. The shape of this object is unrecognizable as normal suitcase material. Further evaluation reveals that this shape is in fact the shape of a strip of Flex X plastic explosive.

Images E7 and E8 are simultaneously displayed on two TV monitors and are viewed in pairs.



E7 EP-86027



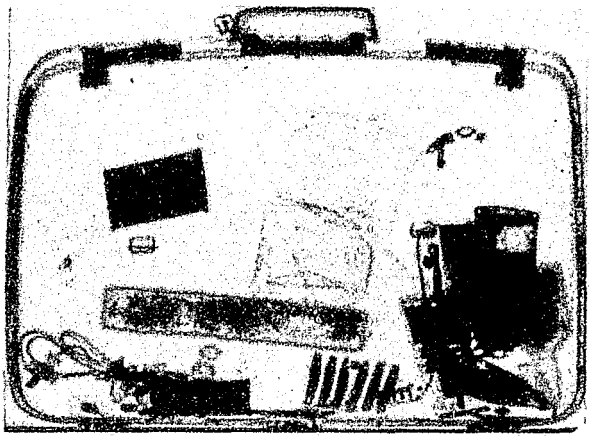
E8 EP-86022

(High Z)/(Low Z) X-Ray Imaging
Explosives

Image E9 – Conventional Transmitted X-Ray Image (high Z). Note the general unremarkable suitcase environment. This transmitted image allows the easy identification of the following objects: rubbers (upper center), two metal cans and an electric cord attached to an unrecognizable object. Note the light grey rectangular bar present in the left hand side of the suitcase.

Image E10 – Z System Scattered X-Ray Image (low Z). The scattered X-ray image has reduced or eliminated the metal objects in the suitcase. Further observation reveals that the electric cord was attached to a plastic hair dryer now easily identified. The light grey rectangular is now glowing brightly and indicates a low Z compound. The shape is not easily identified requiring further evaluation. Evaluation of this material reveals C4 explosive.

Images E9 and E10 are simultaneously displayed on two TV monitors and are viewed in pairs.



E9 EP-86122

E10 EP-86107

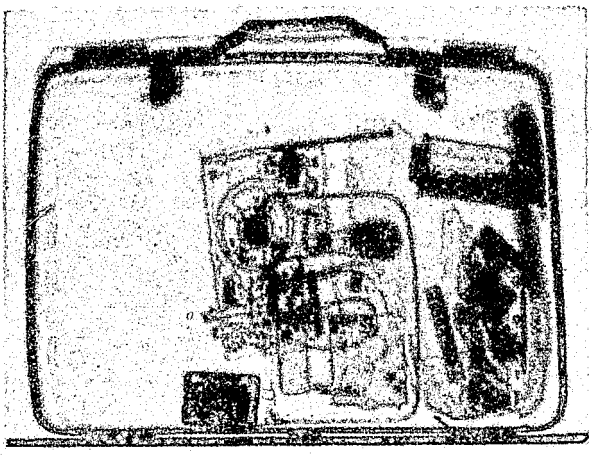
Section 3
Drugs

(High Z)/(Low Z) X-Ray Imaging
Drugs

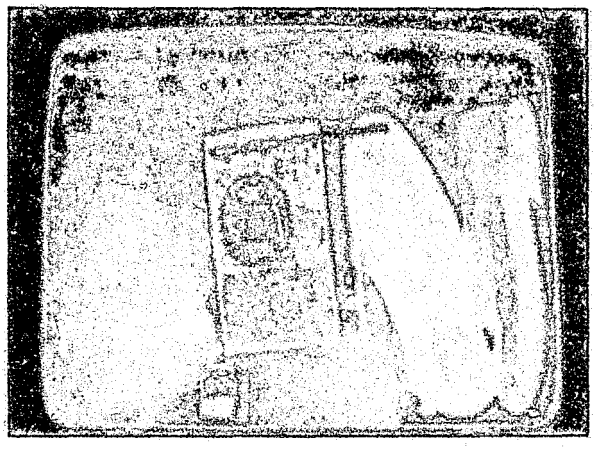
Image D1 — Conventional Transmitted X-Ray Image (high Z). In this confused suitcase note the alarm clock (bottom to the left of center) and the shoes (right side). The light grey density to the left side of the image is clothing.

Image D2 — Z System Scattered X-Ray Image (low Z). Note that the travel case and metal parts of the radio have been eliminated thereby reducing the confused environment of the suitcase. Note in particular that the alarm clock has been removed due to its high Z metal content and reveals a vial containing a narcotic powder. Also note a vial now visible in the heel of one of the shoes.

Images D1 and D2 are simultaneously displayed on two TV monitors and are viewed in pairs.



D1 EP-86144



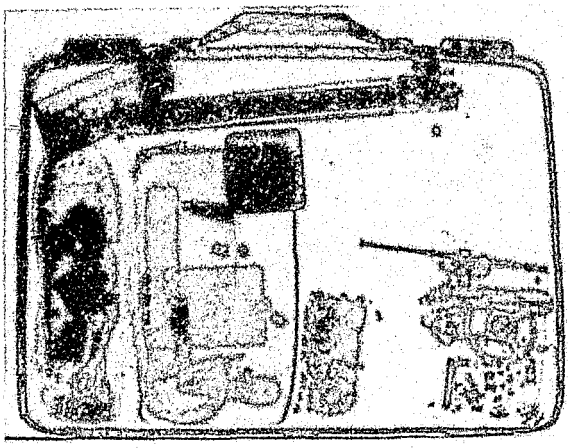
D2 EP-86133

(High Z)/(Low Z) X-Ray Imaging Drugs

Image D3 – Conventional Transmitted X-Ray Image (high Z). In this suitcase note again the abundance of high Z materials such as an umbrella, can, electric razor, tape recorder (bottom front center) alarm clock and portable radio (lower right hand corner).

Image D4 – Z System Scattered X-Ray Image (low Z). Note again the high Z elimination of the umbrella, metal razor parts and metal objects in the travel case. Take careful notice of the tape recorder where a solid oval white object can be identified at the bottom of the tape recorder. The tape recorder batteries have been replaced by a quantity of narcotics in a plastic bag. Similarly, an unrecognizable half moon shaped object, again a narcotic powder in a plastic bag also can be seen hidden in a cavity in the radio where the speaker is.

Images D3 and D4 are simultaneously displayed on two TV monitors and are viewed in pairs.



D3 EP-86145

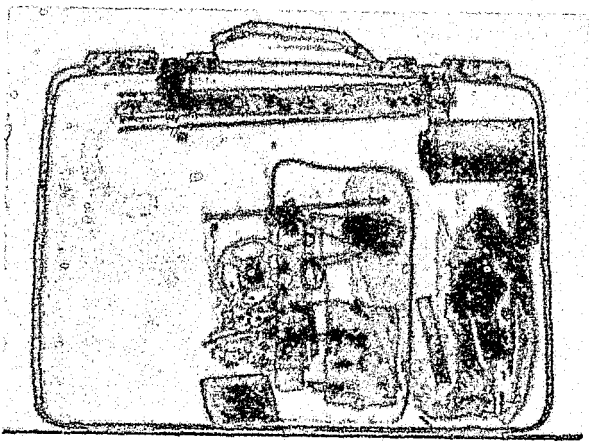
D4 EP-86138

(High Z)/(Low Z) X-Ray Imaging
Drugs

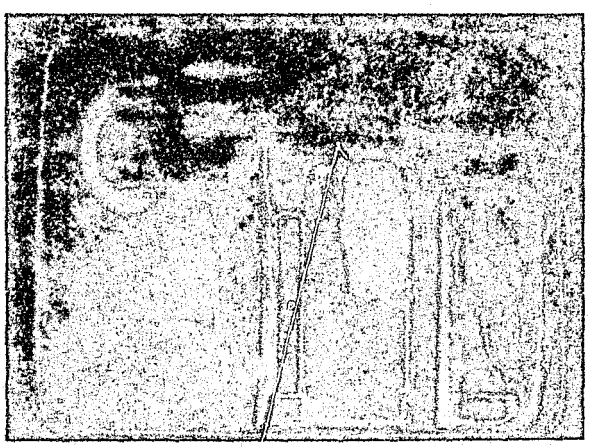
Image D5 – Conventional Transmitted X-Ray Image (high Z). Note again the high Z confused environment with many recognizable objects such as a portable radio, travel case, shoes, can, umbrella and electric razor. Typically we can also recognize a general light grey density throughout the suitcase which represents the X-ray signature of clothing.

Image D6 – Z System Scattered X-Ray Image (low Z). Note again the high Z elimination of metals. Also note that there are a variety of recognizable low Z objects present in the low Z image such as a plastic razor case, a plastic hair brush, plastic bottle and toothbrush holder in the travel case. Note an unrecognizable dense white shape in the umbrella case. In this case a plastic bag filled with narcotic powder has been hidden in the umbrella. This shape would not have been identified in the transmitted image as the small light density seen in the transmitted image appears to be only a clothing fold density. Retrospective viewing may help to prove the presence of the plastic bag in the transmitted image.

Images D5 and D6 are simultaneously displayed on two TV monitors and are viewed in pairs.



D5 EP-86142



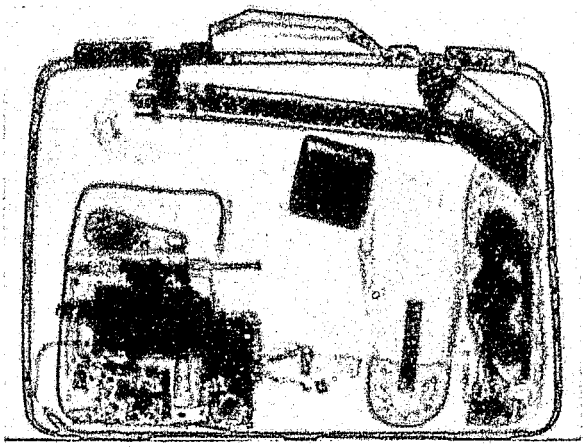
D6 EP-86137

(High Z)/(Low Z) X-Ray Imaging
Drugs

Image D7 — Conventional Transmitted X-Ray Image (high Z). Again we can identify many high Z objects; however, there is nothing in this image that would cause a more careful inspection by security personnel.

Image D8 — Z System Scattered X-Ray Image (low Z). Low Z separation allows the visualization of an unusual density in the lower right corner of the suitcase wall which is not visible in the transmitted X-ray image. This density was, in fact, a plastic bag filled with a narcotic. Again a bright white oval density can be identified in the tape recorder: a narcotic hidden in the battery compartment.

Images D7 and D8 are simultaneously displayed on two TV monitors and are viewed in pairs.



D7 EP-86123

D8 EP-86120

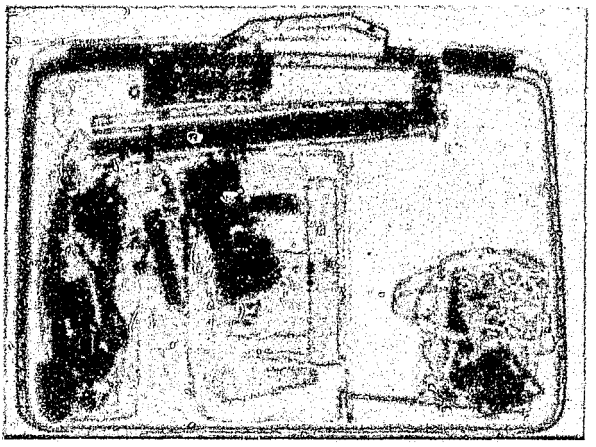
Section 4
Agricultural

(High Z)/(Low Z) X-Ray Imaging
Agricultural

Image A1 – Conventional Transmitted X-Ray Image (high Z). Suitcase with no unidentifiable objects.

Image A2 – Z System Scattered X-Ray Image (low Z). Note that all objects that contain low Z material can be easily compared to the transmitted X-ray image except for an oval shaped bright white object in the middle of the radio (lower right side). This object is a tropical star fruit which is invisible in the image above and is not unlike an orange or other fruits that are naturally of a low Z content.

Images A1 and A2 are simultaneously displayed on two TV monitors and are viewed in pairs.



A1 EP-86143

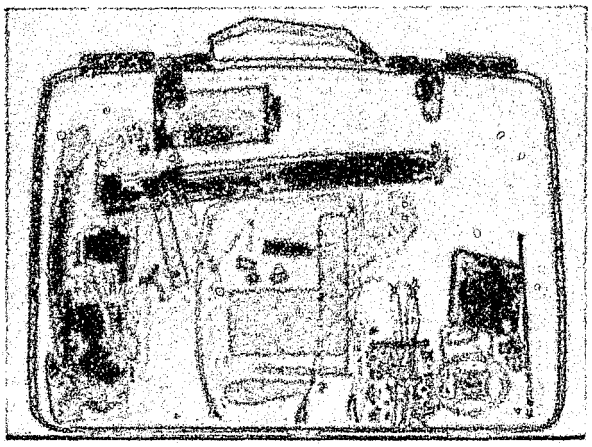
A2 EP-86139

(High Z)/(Low Z) X-Ray Imaging
Agricultural

Image A3 – Conventional Transmitted X-Ray Image (high Z). The transmitted X-ray image shows a typical assortment of traveler's articles. Included in the center is light grey density which might possibly and typically be the folds of clothing. Note also the radio in the lower right hand suitcase corner.

Image A4 – Z System Scattered X-Ray Image (low Z). The object thought to be clothing is now clearly defined and shows the branching leaf structure of a head of lettuce. Note that the lettuce center with the branching lace work of leaves is clearly defined. The triangular shaped object in the center of the radio is a slice of cheese that is invisible in the transmitted X-ray image.

Images A3 and A4 are simultaneously displayed on two TV monitors and are viewed in pairs.



A3 EP-86132

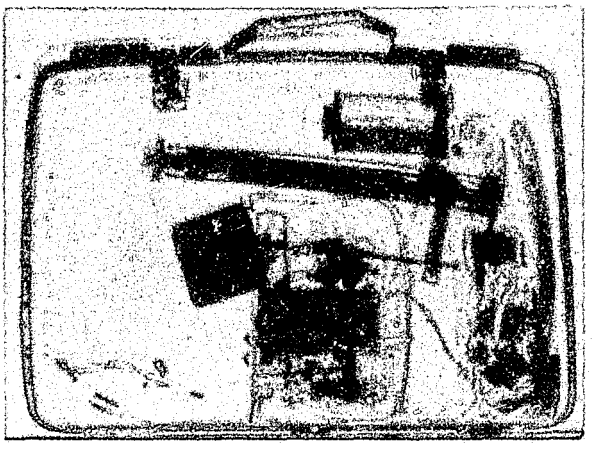
A4 EP-86080

(High Z)/(Low Z) X-Ray Imaging
Agricultural

Image A5 – Conventional Transmitted X-Ray Image (high Z). Confused suitcase with many easily recognizable objects including the X-ray pattern of cloth, aerosol can, alarm clock, shoes, umbrella, radio and electric razor.

Image A6 – Z System Scattered X-Ray Image (low Z). Z system imaging has removed much of the confusion of the high Z image allowing the visualization of many small round white objects in the center of the suitcase that are invisible in image above. The small round white objects are grapes.

Images A5 and A6 are simultaneously displayed on two TV monitors and are viewed in pairs.



A5 EP-86131

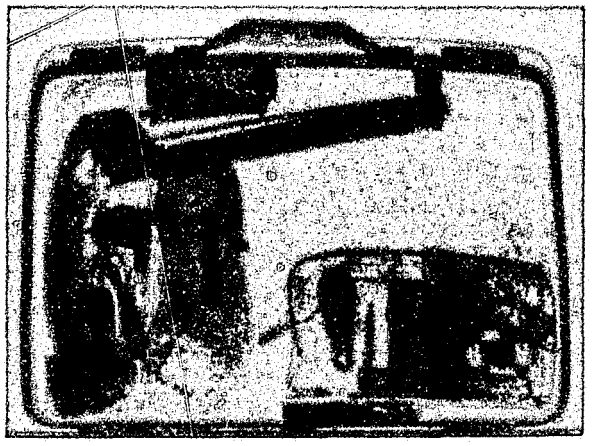
A6 EP-86082

(High Z)/(Low Z) X-Ray Imaging
Agricultural

Image A7 – Conventional Transmitted X-Ray Image (high Z). High Z image of a confused suitcase. Note the travel case, portable radio, umbrella, shoes, and an electric razor with an umbrella handle superimposed on it.

Image A8 – Z System Scattered X-Ray Image (low Z). Note the elimination of all of the above high Z materials except for the plastic profile of the radio case. Inside the lower left hand corner of the radio are six (6) grapes that now can be easily seen. In addition, also now visible is a baloney hidden inside of the shoe and now glowing brightly white.

Images A7 and A8 are simultaneously displayed on two TV monitors and are viewed in pairs.



A7 EP-86091

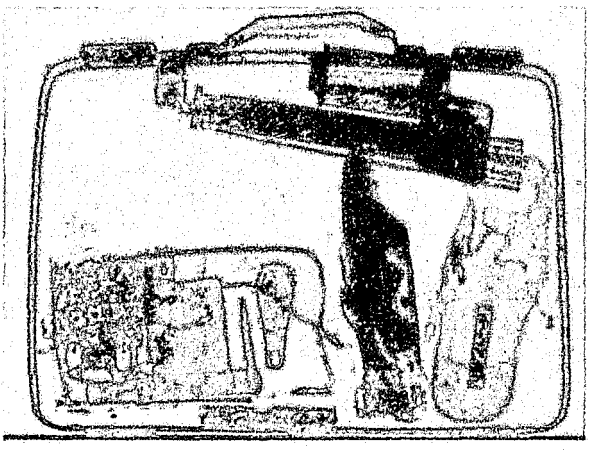
A8 EP-86095

(High Z)/(Low Z) X-Ray Imaging
Agricultural

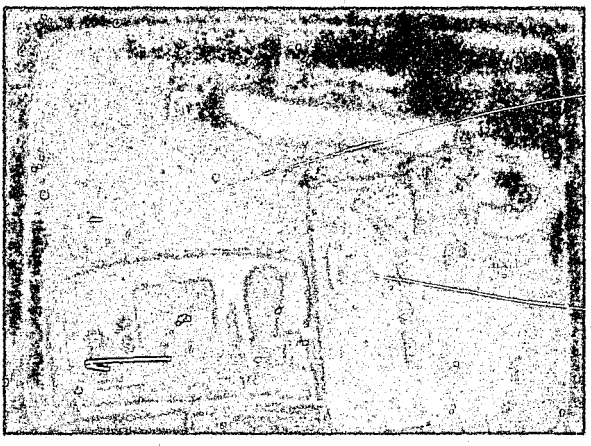
Image A9 — Conventional Transmitted X-Ray Image (high Z). Confused suitcase with no remarkable or unusual densities. The transmitted X-ray easily images high Z objects such as the shoes, electric razor, travel alarm clock, umbrella, can, portable radio, and the profile of a small tape recorder.

Image A10 — Z System Scattered X-Ray Image (low Z). Note that the umbrella has an unusual shape to its body, a shape that in fact scatters X-rays brightly. This previously invisible object is a low Z object, a large sausage. Also note the plastic umbrella button that can not be seen in the transmitted X-ray.

Images A9 and A10 are simultaneously displayed on two TV monitors and are viewed in pairs.



A9 EP-86130



A10 EP-86079

Section 5
Gemstones

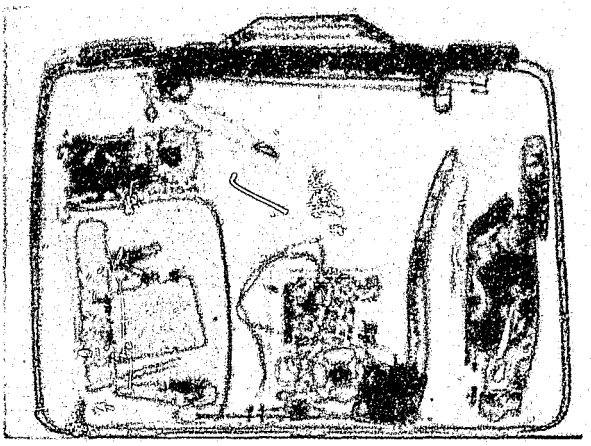
(High Z)/(Low Z) X-Ray Imaging
Diamonds

Image G1 — Conventional Transmitted X-Ray Image (high Z). Careful evaluation of this standard transmitted X-ray image of a suitcase does not reveal anything unusual. We can identify many common traveler's suitcase articles including in the left side a travel case; above it is a tape recorder. Found in the bottom center of the suitcase is a portable radio and a travel alarm clock. To the right side is a pair of men's shoes and an electric razor. Note in particular the umbrella at the top of the suitcase.

Image G2 — Z System Scattered X-Ray Image (low Z). Many of the objects mentioned above have been eliminated from the image because of their metal content. We can see the radio, razor case, and umbrella handle due to their plastic composition. Note that at the center of the umbrella, one can pick out four (4) glowing white spots. The spots are four (4) diamonds ranging from .65 to 1.50 carats. These diamonds can be seen only because of their low Z make up and are impossible to see in a standard transmitted X-ray.

Images G1 and G2 are simultaneously displayed on two TV monitors and are viewed in pairs.

65-046 O - 87 - 3



G1 EP-86108

G2 EP-86106

Mr. HUGHES. Since we began the hearing, we have been joined by two more of our very distinguished colleagues, the Honorable Charles Schumer, who has represented the 10th District of New York since 1980 after a most distinguished career in the New York Legislature. As a member of the Judiciary Committee, he served on this subcommittee with distinction in the last Congress. He also serves on the Banking, Finance and Urban Affairs Committee and the House Budget Committee.

We also want to welcome the Honorable Robert Mrazek, who has represented the Third District of New York since 1982, after a most distinguished career in the Suffolk County legislature. He currently serves on the Appropriations Committee and has been one of the leaders in the Congress focusing attention, along with Ted Weiss, Chuck Schumer, and Mario Biaggi, on the risk inherent in plastic or nonmetallic weapons.

At this time I am going to recognize Ted Weiss for his statement. The statements submitted by Chuck Schumer and Bob Mrazek will be received into the record in full.

Mr. SMITH. Mr. Chairman.

Mr. HUGHES. The gentleman from Florida.

Mr. SMITH. Before you proceed, I was wondering, since Mr. Mrazek's statement has already been submitted for the record, if I might submit for the record the editorial opinion page piece from the Washington Post today authored by Mr. Mrazek, which I thought was an excellent statement on the reasons for legislation on plastic guns and some of the reasons why arguments against such legislation are spurious.

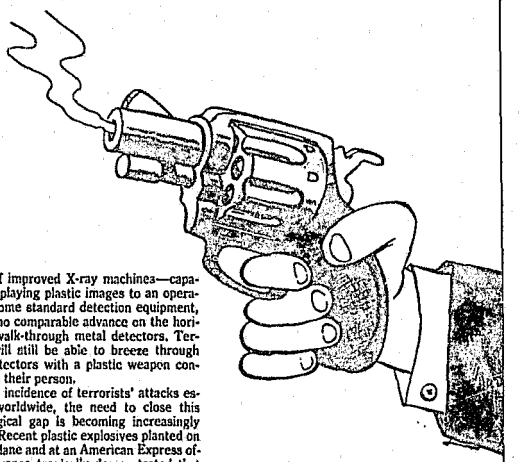
Mr. HUGHES. It will be so received, without objection.

[The news article follows:]

Robert J. Mrazek

The Deadly Truth About Plastic Guns

Why is the NRA so misinformed?



BY ENGLEHART

Three months ago, I introduced legislation "to prohibit the manufacture or importation of any firearm that the secretary of the Treasury determines *cannot be detected* by standard airport security devices." Since then, the National Rifle Association has knowingly persisted in a campaign of misinformation to defeat this urgently needed antiterrorist measure.

The Terrorist Firearms Prevention Act, H.R. 4194, simply preempts the proliferation of a new, emerging generation of plastic firearms that threaten to make security devices used in airports and public buildings obsolete. With their capability to slip through devices designed to identify metal guns, these "invisible" weapons could become deadly tools in the hands of terrorists.

But to hear the NRA tell it, the legislation would:

- ban plastic water pistols;
- ban the Glock 17 and other specific firearms;
- ban nonexistent technology;
- ban their legitimate use by law enforcement and military personnel;
- be unnecessary because metal detectors "detect" plastic, and
- be another attempt by gun control fanatics to deprive sportsmen and hunters of recreational guns.

Obviously, all of these contradictory claims can't be true. The sad truth is that none of them is. If the NRA is the most influential special-interest lobby in the nation, then it is also the most misinformed on this issue.

In March, I contacted the NRA in regard to its misconceptions about the bill. This was on the assumption that the organization would want to be at least factually correct on an issue so critical to the safety of American citizens.

In response, the NRA sent out a mailing to its members that accused me of "succumbing to media and antigun hysteria" and distorted my correspondence in the process. Someone also provided my constituents with preprinted form postcards, urging their congressional representative not to be fooled by "liberal rhetoric" and "the latest effort by the antigun lobby."

In my view, when the NRA opposes legislation to stop the spread of terrorism, it is perverting its legitimate responsibility to America's sportsmen and hunters by endangering their lives and those of every citizen who enjoys traveling in safety.

Since mandatory screening procedures went into effect in January 1973, the nation's airport security program has had a strong record of success. More than 33,000 firearms have been detected, almost 14,000 related arrests have been made, and 113 hijackings have been prevented.

Even if improved X-ray machines—capable of displaying plastic images to an operator—become standard detection equipment, there is no comparable advance on the horizon for walk-through metal detectors. Terrorists will still be able to breeze through metal detectors with a plastic weapon concealed on their person.

As the incidence of terrorists' attacks escalates worldwide, the need to close this technological gap is becoming increasingly evident. Recent plastic explosives planted on a TWA plane and at an American Express office in France tragically demonstrated that plastic is rapidly becoming the terrorist material of choice.

Ask anyone whose life is on the line daily in the airline business, law enforcement or government what he thinks about this invisible "terrorist's special." The answer has led more than 22 national organizations—representing the air carriers, the airline pilots, the flight attendants, the airport operators, police, sheriffs, mayors, cities and others concerned about terrorism—to support passage of H.R. 4194.

The legislation—which is the subject of a House hearing today—contains no hidden agenda. It does *not* ban plastic water guns, firearms manufactured in the United States prior to Jan. 1, 1986, or any specific imported weapons. Law enforcement and military uses are exempt.

The recent release of a report by the Office of Technology Assessment has silenced the NRA's chief argument that the technology for a plastic gun is nonexistent. It concluded: "From our investigations, it appears that the materials technology does exist to produce nonmetallic firearms whose only metal components may be some small springs."

The study also cited a Florida manufacturer, David Byron, who says he has developed a plastic handgun to be produced within one to two years. Byron also told a reporter, "If we don't do it [market the gun], someone else will."

Even the Austrian manufacturer of the partially plastic Glock 17 recently told the antiterrorism agency of the State Department that he can produce an all-plastic weapon, but has not done so "in the interest of international security." The question is no longer *whether* the technology is here, but when the weapons will be available in the marketplace.

I am not naive enough to believe that plastic gun technology can be delayed forever. But I do hope we can buy enough time so that the technology to differentiate between a hair dryer and a lethal weapon can be improved.

Against this evidence, the NRA is one of the few groups aside from the gun industry that has chosen to defend plastic guns.

Andy Molchan, president of the National Association of Federally Licensed Firearms Dealers, recently summed up why the industry is salivating for their arrival:

"We don't need plastic guns from a performance point. We need them from a marketing and sales point. The only thing that's ever going to do anything for new gun sales in the future is to make the 150 million old guns obsolete, and that's exactly the promise that the plastic gun holds forth."

Now, who does the NRA think it's fooling?

The writer, a Democratic representative from New York, is a member of the Appropriations Committee.

Mr. HUGHES. Ted, welcome.

STATEMENT OF HON. TED WEISS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. WEISS. Thank you very much, Mr. Chairman.

Let me start out by commending you and the subcommittee for taking a special interest in this legislation and for this expeditious opportunity to present our testimony and to move forward with consideration of this legislation.

As you know, Congressman Mrazek, Congressman Schumer, and I have sponsored the bill, H.R. 4194, to address the grave security problems posed by this emerging generation of weapons—problems that I think would be foolish to ignore at a time when we struggle to gain the upper hand in the battle against hijacking and terrorism.

Let me very briefly explain our legislation. It says that the Secretary of the Treasury would have the power to prohibit the manufacture and importation of any weapon that the Secretary determines is not readily detectable as a firearm by the standard security equipment commonly used at airports and readily identifiable as a firearm. That is essentially the legislation.

It does not seek to tell the Secretary of the Treasury how he shall make that determination. We leave that to him and to his people. It does not seek to freeze the current technology. It allows the Secretary of the Treasury to stay abreast of technology.

Whether or not the Glock 17 itself is able to evade standard airport security devices, it is now beyond question that the technology exists now, will exist or in the very, very near future, to manufacture a totally plastic gun—a weapon which would be totally invisible as far as the current airport security devices are concerned.

I think that Mr. Biaggi eloquently demonstrated how easy it is to evade standard security devices, and pointed out that new x-ray devices are being developed right now which may be able to pick up plastic devices that exist in packages, if they are pushed through the x ray. But you don't x ray passengers when they come to the airport. That would be dangerous, and is simply not going to be done. Instead, we rely on metal detectors. So even if the new x-ray machine is developed, somebody could simply carry an all-plastic weapon on their body, move through their metal detectors without the gun being picked up, and then go onto a plane and engage in whatever kind of misdeed they wanted to do.

So it seems to me that in this era of international terrorism—and I happen to serve with Mr. Smith on the Subcommittee on International Operations of the Foreign Affairs Committee where we have been focusing tremendous attention on the problem of international terrorism—that we would be simply foolhardy not to fill the gap which currently exists between firearms technology and firearms detection technology.

We don't know whether that gap will be a day, a week, a month, a year. In the meantime, we do know that people's lives are at stake, and I think that early action by your subcommittee, by the full committee, and by the Congress can definitely help to save lives. That is what this measure is all about.

Thank you, Mr. Chairman.
Mr. HUGHES. Thank you very much, Ted.
[The statement of Mr. Weiss follows:]

STATEMENT OF CONGRESSMAN TED WEISS
BEFORE THE JUDICIARY SUBCOMMITTEE ON CRIME
MAY 15, 1986

Mr. Chairman, I would like to begin by commending you for arranging these hearings today to consider the problems raised by a new generation of firearms composed largely or entirely of plastic. As you know, along with Congressman Mrazek and Congressman Schumer, I have sponsored a bill, H.R. 4194, to address the grave security problems posed by this emerging generation of weapons -- problems we would be foolish to ignore at a time when we struggle to gain the upper hand in our battle against terrorism.

Three broad questions are raised in the discussion about plastic guns:

* first, does the technology exist, or will the technology soon exist, to make firearms composed completely or almost completely of plastic?
* Second, if these guns can be made, would they pose a danger to airport security and other security systems?
* And, finally, if these weapons can be made and pose serious security problems, what can we do about it?

In March, along with my colleagues from New York, Mr. Mrazek and Mr. Schumer, I asked the Office of Technology Assessment to undertake a study that would answer the first two of these questions. My interest was to dispell uninformed speculation about the plastic gun issue and provide members with a sound technological basis for addressing this matter.

The OTA study, which was released on April 9, should put these two questions to rest. Regarding the question of whether or not the technology exists or will soon exist to manufacture plastic firearms, the study concludes,

> Today engineering plastics and fiber-reinforced plastic composites are displacing metals ...throughout the economy...this study finds that technology does exist to manufacture certain firearms which would be completely or almost completely non-metallic.

The study even cites a manufacturer in Castleberry, Florida, who has claimed to already developed an all-plastic handgun, and is one or two years away from production.

On the question of whether or not these all-plastic guns will present special security problems, the OTA study concludes:

> Non-metallic firearms with only very small metal parts such as springs would be much easier to smuggle through standard airport security equipment now in use for screening boarding passengers and carry-on baggage. Existing metal detectors are not set to alarm from very small metal objects and will not alarm with non-metallic objects. There is also a high probability that existing airport security X-rays would not detect plastic weapons concealed in baggage.

Thus the OTA study should settle the question of whether or not we should be concerned about non-metal firearms. The technology is here, and the danger to our airports and security systems is imminent.

The remaining question is how to address the dangers posed by this emerging generation of non-metal firearms. Although the OTA study offers no policy suggestions, it does point out that research is under way to develop a type of X-ray machine -- a so-called "low-z X-ray system" -- that would be able to detect plastics. While the low-z X-ray system may substantially improve our ability to detect plastic weapons carried in luggage, unfortunately there have been no corresponding new developments in metal detector technology to allow detection of hand-carried plastic weapons. In other words, with the low-z X-ray, the prospective terrorist would be prevented from putting a plastic gun in his luggage -- but he could still carry it in his coat pocket onto the plane.

So the question remains -- how do we make sure that the technology we have to enforce the law stays ahead of technologies that can be used to evade it?

Our bill offers a practical, straightforward approach to this problem. If the Secretary of the Treasury finds that certain firearms are not detectable by standard airport security equipment, then those firearms could not be imported or manufactured domestically.

This approach has many advantages. It would not prohibit manufacturers from marketing new, all-plastic guns if they wished, as long as they found a way to ensure their detectability. Gun makers could easily accomplish this by embedding either metal fibers or a distinct metal plate in the plastic body of the gun, so that the outline of the firearm would be apparent in an X-ray machine, and the alarm in a metal detector would be triggered.

Since our bill amends the 1968 Gun Control Act, it is subject the general exemption from firearms restrictions for military, federal, and state official use. Thus, our legislation would not affect military or police use of firearms -- in fact, H.R. 4194 has been endorsed by the Police Foundation, the Fraternal Order of Police, the Federal Law Enforcement Officers Association, the National Organization of Black Law Enforcement Executives, and the National Sheriffs Association.

Our bill also minimizes the regulatory burden of new restrictions on undetectable firearms. Since there is no evidence of any undetectable firearms having yet been manufactured domestically for commercial sale, the bill contains a grandfather clause exempting models of firearms made in the U.S. before January 1 of this year.

Our bill is also flexible enough to adapt to changing airport security technologies. H.R. 4194 directs the Treasury Secretary to determine a firearm's detectability measured by "the standard security equipment commonly used at airports." If airports someday employ fail-safe equipment that is capable of detecting all firearms, regardless of their composition, then the provisions of the bill would become obsolete. In the meantime, however, it would address the urgent need to safeguard our nation's airports as long as undetectable firearms are available, and the equipment to detect them is not.

Finally, even if no one ever builds an undetectable weapon, even if controversial weapons such as the Glock 17 are judged to be fully

detectable by metal detectors and X-ray machines, this bill makes sense. The Secretary of the Treasury does not now have the authority to ban firearms that are invisible to security equipment. Giving the Secretary this authority would put both the firearms industry and its prospective customers on notice that we will not allow the technology used to enforce the law be undermined by technology designed to evade it.

At a time of escalating terrorism, we only ignore the danger of undetectable firearms at our own peril. Our bill offers an approach to this new threat that is practical, flexible, and goes to the heart of the problem, and I urge the committee to take expeditious action on it.

Mr. HUGHES. Chuck, welcome. We have your statement which will be made a part of the record, and we hope that you can summarize it for us.

STATEMENT OF HON. CHARLES SCHUMER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. SCHUMER. Thank you, Mr. Chairman. I will be brief because both my colleagues, Mr. Biaggi and Mr. Weiss have made eloquent presentations about the need for legislation dealing with plastic guns.

The points that I would like to make are, first, that while there may be some controversy about the Glock 17, there is no doubt that technology will allow an all-plastic weapon to be made, there is no doubt right now that we have no way of detecting that. There are myriads of ways of smuggling such weapons through various detection devices and in fact those who seek to use these weapons for illicit or terroristic purposes will be way ahead of law enforcement. Every time a new way is found to detect them, a new way will be found to bring them in.

That is why the bill that Congressman Weiss and Congressman Mrazek and I have sponsored deals with banning them.

Finally, I would just make one other point. Mr. Chairman, the issue here is not gun control. The issue here is terrorism. It is whether or not Congress is willing to act to control terrorism. We now have a unique opportunity to take action on this issue before another terrorism tragedy occurs. We would all rue the day if this legislation had not passed and someone or a group of people were killed, or maimed, or injured, because of the use of plastic technology.

So I appreciate the committee's alacrity in moving to a hearing so quickly on this legislation. I join with my three other colleagues from New York here in urging speedy consideration of it.

I thank the chairman and members of the committee.

Mr. HUGHES. Thank you, Chuck.

[The statement of Mr. Schumer follows:]

STATEMENT OF CONGRESSMAN CHARLES SCHUMER
BEFORE THE HOUSE CRIME SUBCOMMITTEE HEARING ON PLASTIC FIREARMS
MAY 15, 1986

Mr. Chairman, I want to commend you for holding this hearing today on the issue of plastic firearms. This hearing provides a unique opportunity for Congress to prevent deadly and undetectable weapons from falling into terrorist hands before they use them against innocent civilians. I am hopeful that it will be the first step toward preventing terrorists from adding another weapon to their arsenal.

I have worked with both Congressman Mrazek and Congressman Weiss on legislation, the Terrorist Firearms Prevention Act of 1986, H.R. 4194, that would ban the manufacture and the importation of any firearms that the Secretary of the Treasury determines are not "readily detectable as a firearm by the standard security equipment commonly used at airports."

The problem of plastic firearms first came to our attention back in January when alarming reports began to circulate about a 9 millimeter pistol manufactured by the Gaston-Glock Company in Austria. The pistol is two-thirds plastic by volume. Only the barrel, slide and one spring of the pistol, the Glock 17, are made of metal. Because the weapon is comprised primarily of plastic, many were concerned that it could be easily smuggled through airport metal detectors and x-ray machines--our frontline of defense against terrorists. Initial reports also indicated that Libya's Qaddafi had ordered more than 100 of these pistols.

Representatives from the Federal Aviation Administration (FAA) and the Bureau of Alcohol, Tobacco and Firearms (ATF) immediately assured us that there was enough metal in the Glock 17 to set off airport metal detectors. In addition, we were assured that new x-ray equipment was being tested that detects low-density substances, such as plastics and narcotics.

However, this new technology will be limited to carry-on baggage. It will do nothing to lessen the possibility that terrorists will be able to carry plastic weapons through metal detectors unseen. Plus, despite the assurances of the FAA and the ATF concerning the Glock 17, there have been numerous reports about successful attempts to smuggle the Glock through both National Airport security and Capitol Hill security.

There is quite a bit of confusion about whether or not the Glock 17 can be smuggled through existing security devices. But there is little doubt that the technology is available to manufacture an all-plastic handgun. According to a report issued by the Office of Technology Assessment, "the technology does exist to manufacture certain firearms which would be completely or almost completely non-metallic." The report goes on to say

that "non-metallic firearms with only very small metal parts such as springs would be much easier to smuggle through standard airport security equipment," and it cites one manufactuer in Florida that is well on the way to producing an all-plastic handgun.

The OTA report leaves no doubt that Congress must stop the proliferation of all-plastic guns now, before they become the mainstay of violence and terrorism.

The Mrazek-Weiss-Schumer bill does not single out the Glock 17 nor does it prohibit law enforcement officials or the military from obtaining these weapons, as opponents of our legislation claim. It has a broad base of bipartisan support with more than 90 cosponsors. In addition, when our bill was scheduled to be considered as an amendment to gun legislation recently considered by the House of Representatives, it received the support of numerous law enforcement agencies, airlines, and veterans' groups.

The issue here, Mr. Chairman, is not gun control. It's whether or not Congress will act to control terrorism. Congress now has a unique opportunity to take action on terrorism before another tragic act of terrorism occurs. I urge the subcommittee to act favorably on H.R. 4194 and any other legislation designed to prevent these deadly weapons from becoming a mainstay of the terrorist's arsenal.

Mr. HUGHES. Bob, welcome.

Mr. MRAZEK. Thank you, Mr. Chairman.

Mr. HUGHES. Likewise, your statement will be made a part of the record.

Mr. MRAZEK. I simply wish to reinforce several points that have already been covered, but which I think are important to reiterate.

We are not only concerned about what someone could smuggle onto an aircraft with their hand luggage through a passenger gate, but what they can carry on their person. I don't know what the Z x ray is going to do to my toenails or to other parts of my body—my nose, my heart, and so on—but I do know that I wouldn't necessarily want to walk through a Z x ray.

My concern is that an all-plastic weapon, if that type of technology moves more quickly than we anticipate and goes into the type of production that makes it readily available, could be carried onto an aircraft and utilized for lethal purposes.

Needless to say, the legislation which we have introduced—Congressmen Schumer and Weiss and myself—is legislation that stays current with technology as it develops. In other words, it is up to the Secretary of the Treasury. It is up to the administration to determine what an undetectable weapon is in terms of standard security protection devices at our airports.

There may be new detection technologies in the future that we are only becoming aware of at the present time, or will become aware of in the future.

This legislation builds into it the readiness aspect so that we will not have to take the step of banning a particular weapon. I know the Glock 17 has been a central focal point for this debate, but I don't personally believe the issue really is the Glock 17. I think we can probably improve the technology to pick up this gun on an x-ray device.

It may be that the Secretary of the Treasury determines that the Glock 17 is a detectable weapon. Be that as it may, we are concerned about weapons that clearly would be undetectable, particularly if they are carried on one's person.

We think this legislation is fair and judicious. It gives the administration the capability to deal with terrorism in an important way without restricting the sales or manufacture of a weapon that could be used legitimately for hunting and sporting purposes.

I would conclude by saying that I personally believe that plastic weapons are going to be with us in the near future. But with passage of this legislation, we might buy enough time so that the technology developments to detect these types of weapons will catch up to the technology to manufacture them.

Thank you.

[The statement of Mr. Mrazek follows:]

TESTIMONY OF CONGRESSMAN ROBERT J. MRAZEK
BEFORE THE HOUSE JUDICIARY SUBCOMMITTEE ON CRIME
MAY 15, 1986

Mr. Chairman, I am honored to speak before you today on a subject with profound implications for the safety of U.S. citizens. I refer, of course, to the proliferation of a deadly new generation of plastic firearms. These weapons, undetectable by the standard security devices currently used in airports and other public buildings, threaten to outpace detection technology and to become the terrorist tool of the future.

The Terrorist Firearms Prevention Act (H.R. 4194), which I introduced early this year, would preempt this terrorist threat. The bill would ban the domestic manufacture or importation of any firearm that the Secretary of the Treasury determines would be undetectable by standard airport security detection devices. This legislation is intended to allow the technology for detection systems to catch up to the new technology for plastic weapons. It would ensure that such weapons could not enter our borders until detection devices can distinguish between a plastic water pistol, a hairdryer, and a lethal firearm.

H.R. 4194 would not affect any firearm currently manufactured in the United States, nor the vast majority of imported guns. As an amendment to the Gun Control Act of 1968, the bill contains a general exemption from firearms restrictions for military, federal and state official use. Plastic guns would therefore be available under this bill for legitimate government purposes.

As you may be aware, current airport security has a strong record of success. Since mandatory screening procedures went into effect at U.S. airports in January 1973, more than 33,000 firearms have been detected, almost 14,000 related arrests have been made, and 113 hijackings have been prevented. We cannot allow a very effective security system to become obsolete due to the emergence of plastic firearms.

Even if improved X-ray machines, capable of detecting plastic, soon become commonly-used security detection equipment, there has been no indication that metal detectors will ever be able to detect plastic guns. Until this deficiency in walk-through detectors can be remedied, terrorists will easily be able to slip plastic weapons through metal detectors. If we allow these weapons on the market without waiting for the needed detection technology, the only way to ensure our continued security in airports, public buildings, and other places guarded by standard airport security devices will be through the constitutionally questionable practice of body searches.

As terrorism escalates worldwide, the need for a strong congressional response is clear. Recent plastic explosives in a TWA plane and at an

American Express office in France indicate that plastic is rapidly becoming the terrorist material of choice. H.R. 4194 offers a rare opportunity to preempt this terrorist threat before it is too late. But we must act quickly.

A recent Office of Technology Assessment (OTA) study states, "From our investigations it appears that the materials technology does exist to produce non-metallic firearms whose only metal components may be some small springs." This study also cites a Florida manufacturer, David Byron Inc., who says he has developed a plastic handgun which he will produce within one to two years. Byron has stated that his handgun will not be manufactured until he can guarantee that it is readily detectable, but the next plastic gun manufacturer may not share his scruples.

Opponents of this much-needed legislation have focused their arguments on the Glock 17. H.R. 4194 does not ban any specific weapon. My position on the Glock 17 has always been that this gun is simply a crude prototype of the far more concealable weapons which we know will easily evade security systems. Even the Austrian manufacturer of the Glock recently told the anti-terrorism agency of the State Department that he is capable of producing a weapon that has a majority of plastic components, but that he has decided in the interest of international security not to do so. Plastic guns are not a thing of the distant future. Glock, Byron, and possibly other manufacturers, already have the technology.

H.R. 4194 has gained broad bipartisan support since its introduction early this year. The bill, which currently has 92 cosponsors, has been endorsed by a wide variety of transportation and law enforcement organizations. Among the groups endorsing the legislation are the Air Transport Association (representing all the major airlines), the Air Line Pilots Association, the Airport Operators Council International, the Association of Flight Attendants, the American Association of Airport Executives, Trans World Airlines, Eastern Air Lines, the Fraternal Order of Police, the Federal Law Enforcement Officers Association, the Police Foundation, the National Organization of Black Law Enforcement Executives, the National Sheriff's Association, the Port Authority of New York and New Jersey, the City of New York, the National Urban League, the U.S. Conference of Mayors, the American Israel Public Affairs Committee, and the American Jewish Congress.

The need for rapid congressional action to preempt this terrorist threat is evident. We must not allow the proliferation of plastic firearms to outpace the technology to detect such weapons. I urge you to join me in supporting a sensible approach to allow security technology to keep pace with undetectable firearms.

SUMMARY OF TESTIMONY OF CONGRESSMAN ROBERT J. MRAZEK
BEFORE THE HOUSE JUDICIARY SUBCOMMITTEE ON CRIME
MAY 15, 1986

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The Terrorist Firearms Prevention Act (H.R. 4194), which I introduced early this year, would preempt this terrorist threat. The bill would ban the domestic manufacture or importation of any firearm that the Secretary of the Treasury determines would be undetectable by standard airport security detection devices. This legislation is intended to allow the technology for detection systems to catch up to the new technology for plastic weapons. It would ensure that such weapons could not enter our borders until detection devices can distinguish between a plastic water pistol, a hairdryer, and a lethal firearm.

H.R. 4194 would not affect any firearm currently manufactured in the United States, nor the vast majority of imported guns. As an amendment to the Gun Control Act of 1968, the bill contains a general exemption from firearms restrictions for military, federal and state official use. Plastic guns would therefore be available under this bill for legitimate government purposes.

Opponents of this much-needed legislation have focused their arguments on the Glock 17. H.R. 4194 does not ban any specific weapon. My position on the Glock 17 has always been that this gun is simply a crude prototype of the far more concealable weapons which we know will easily evade security systems. A recent Office of Technology Assessment study cites a Florida manufacturer, David Byron Inc., who says he has developed a plastic handgun which he will produce within one to two years. Even the Austrian manufacturer of the Glock recently told the anti-terrorism agency of the State Department that he is capable of producing a weapon that has a majority of plastic components, but that he has decided in the interest of international security not to do so. Plastic guns are not a thing of the distant future. Glock, Byron, and possibly other manufacturers, already have the technology.

Even if improved X-ray machines, capable of detecting plastic, soon become commonly-used security detection equipment, there has been no indication that metal detectors will ever be able to detect plastic guns. If we do not preempt these weapons until this deficiency in walk-through detectors is corrected, the only way to ensure our continued security in airports and other public buildings will be through the constitutionally questionable practice of body searches.

H.R. 4194 has gained broad bipartisan support since its introduction early this year. The bill, which currently has 92 cosponsors, has been endorsed by a wide variety of transportation and law enforcement organizations. I urge you to join me in supporting this sensible approach to allow security technology to keep pace with undetectable firearms.

Mr. HUGHES. Thank you very much, Bob.

Just picking up on your last point, let me just indicate that I quite agree with you. I don't think we should be detracted as we focus on this issue by the attention that the Glock 17 has received. That is not the problem that we should be focusing on.

I want to congratulate the four of you for your tremendous leadership. I regret that time ran out on us as we debated the firearms bill that we could not reach your amendment, and a number of other amendments that had been noticed. I committed to you that we would have an early hearing, and I am endeavoring to discharge that commitment as well as focus on an issue that I think is extremely important.

I think there are number of issues that we have got to focus on as we begin to develop this issue. This may be the first of perhaps other hearings that we will have to convene on this subject. But it is an important enough issue that I think we should, first of all, determine what is the state of the art in the production of plastic, fiberglass, ceramic, or other nonmetallic weapons to try to determine just where that curve is. That is the first issue.

I think the second issue is, where are we with regard to developing the technology to detect these weapons, both carried on your person as well as through screening devices such as we see here.

The third issue, it seems to me, is if there is to be a hiatus, how do we deal with that hiatus. It seems to me it would be irresponsible on our part not to try to deal as a matter of public policy with any void or hiatus that might occur as that technology comes into being and those particular weapons are marketed—and I have no doubt but that they will be marketed—and the time that we have the ability to detect.

I think there are some overriding public policy issues that have to be addressed, not the least of which is, just what additional capability or virtue is developed in developing plastic weapons in the final analysis.

I would like to know from my own vantage point, aside from the commercial exploitation that would take place, I would like to know just exactly a little more about whether or not plastic weapons in fact would be attractive as a replacement for metallic weapons.

I just hope in the debate, as we move along, that we don't engender the same kind of gross distortions that I see anytime we deal with the weapons issue. In my some 11 years in Congress, I have never known an issue that develops more irrationality, more heat, and less light, than the subject of firearms.

So I just hope that we can maintain some degree of calm; that we can approach it objectively, and deal with it as an issue that we should deal with in the context of the incidence of terrorism.

So I look forward to working with you, as I know the members of this subcommittee do. We don't hesitate to deal with tough issues, and it is going to be a difficult issue. We hope as a result of the hearing record and whatever additional hearings we need that we can get the facts that we need to make responsible decisions as a subcommittee.

So, again, I thank you for your leadership.

The Chair recognizes the gentleman from Florida.

Mr. MCCOLLUM. Thank you.

I, too, appreciate the fact that you have developed legislation, all of you gentlemen, that we can use to examine and focus on what can become an extraordinarily difficult problem of security, as I think you clearly demonstrated, Mr. Biaggi, this morning, with those x-ray photographs.

I am concerned with something that I think is a bottom line that we should not overlook in all of this, and that is that whatever we might do with adopting legislation to ban the manufacture or the importation of these nondetectable or not readily detectable weapons isn't going to keep them from coming in here. They are going to be made somewhere outside this country and they aren't going to be detectable, and they are going to be brought in.

Our problems don't, by any means, cease if we adopt some legislation that is proposed today, or any variation on it. I, for one, am very conscious of that fact.

I am concerned about something else, too, in these hearings beyond the question of should we or shouldn't we adopt legislation to restrict or ban certain types of nondetectable weapons. I am concerned with the language that is used. The Bureau of Alcohol, Tobacco and Firearms, in testimony prepared for us and will be delivered later today, have said that they have examined the two proposed bills and they find them both defective in the sense that the language is not precise enough and not clear enough in its meaning.

For example, Mr. Biaggi, in your bill, the Bureau of Alcohol, Tobacco and Firearms says that you refer to a nonmetal firearm as one substantially constructed of plastic or other nonmetal material. That definition, according to the BATF, covers almost every existing rifle and shotgun in commerce, and almost any handgun using rubber, wood, or plastic organized grips—or oversized grips.

Under the same bill, your bill, they say a licensed gunsmith who affixes a custom fiberglass stock or oversized wooden grips to a firearm and removes some metal to accommodate the change may well have a weapon that has a diminished—that is quoting from your statute now—a diminished susceptibility to detection by airport metal detectors or security devices.

They say this is a very fairly common practice.

I am not trying to get into the merits of the language. I am just using the bill as an example to point out the difficulties that we have in working with you to craft language. The same goes for the other legislation H.R. 4194 in that they say they don't know what readily detectable really means, and they would have a very hard time defining it since hypothetically any all-metal firearm would be of a sufficient mass and density to be readily detectable on x ray. Obviously, you showed us what was an x ray earlier that doesn't seem to indicate that. However, they have testified before our committee earlier on this issue because of another subject matter they happened to be here on, and they are going to say, apparently, the same thing today, and that is that nonmetal weapons are detectable by mass by ordinary x rays if you have a trained observer. That may not be—but we are going to listen to them today and hear, and they are concerned about the definition in either bill.

I only raise it for that reason. I certainly welcome your response to their concern.

Mr. BIAGGI. The intent of both bills is to bring the issue before the committee. And as we know, as we go through the process, each bill is subjected to correction and improvement. Clearly, no one says we have the perfect bill. The BATF, we have great respect for them, and I am sure they have the same ultimate intention that the authors of both these bills have, and that is to make certain that we are able to detect weapons. Now, if they have more precise language, we have no problem with that whatsoever, nothing at all. It is the ultimate outcome that really matters here.

Mr. MCCOLLUM. Ted, do you want to comment on that?

Mr. WEISS. If I may. The language of our legislation does not go into telling the Secretary which kinds of guns should be restricted and which should not. It uses the term readily detectable. Now, Mr. Biaggi has clearly shown that any of us, as reasonable people, can look at those x rays and determine what is in fact reasonably detectable, readily detectable. So I don't think that that is a real problem.

Beyond that, I am waiting to hear what the Bureau of Alcohol, Tobacco and Firearms say in their testimony about metal detectors, and how do you deal with the carry-on weapons. It just seems to me that the way to deal with the problem of undetectable weapons is to put confidence in the Bureau, in the Secretary and let them exercise their discretion. You also know that the firearms manufacturers and dealers will be challenging the decisions, as they have every right to do, to have them determine whether or not a reasonable determination was made.

Mr. MCCOLLUM. Ted, it is that metal detector that really scares me right now. Whatever we do in the way of your legislation or any other legislation, I don't know how we are going to come up with anything that is going to keep a nonmetal weapon from being carried through a detector until we get some scientific technology that is different from what we have today, because they are going to come up with some somewhere.

I am not criticizing your legislation. I am just pointing out, a real problem that bothers me.

Mr. WEISS. But if you will, it seems to me, that if you work with the Secretary of the Treasury and the Bureau, you can design some detectable metal components to be embedded within the weapon itself.

I don't want to upset those standards in this legislation. But it is not beyond the capacity of intelligent people to determine how you design a gun and what kind of metal implacement you put in there so that it can be picked up by metal detectors.

Mr. MCCOLLUM. I understand, and that may well be what we do. But even if we do that we don't have control over somebody who manufactures outside the country and illegally brings them in here. We are going to have a big problem until our technology catches up.

Thank you.

Bob.

Mr. MRAZEK. I just want to add one point. I think that there is one other aspect to this issue, and that involves basic civil rights. I

think we are rapidly approaching a point where if we don't act quickly, then in order to provide security for frequent travelers, for flight attendants, for pilots, for people who are flying regularly, we are going to have to move to steps that are far more injurious to people's individual civil rights, and that includes body searches and individual searches of every component in people's luggage. Obviously, there is going to be not only a significant impact on individual civil rights but also the cost of the delay of having to inspect people and their luggage far more carefully than we have in the past.

I think we can buy some time with this type of legislation. And that time will allow for technology developments so that regardless of where these weapons are manufactured, we will be in a position to detect them far more capably than we are in a position to do now.

Mr. MCCOLLUM. Thank you.

Thank you, Mr. Chairman.

Mr. HUGHES. The Chair recognizes the gentleman from Kentucky.

Mr. MAZZOLI. Thank you very much, Mr. Chairman.

Let me first of all salute you for taking up the cudgels again. You have shown your courage in more ways than most of us have in our careers, and I thank you for continuing to show that sort of stalwart attitude.

I want to salute my four colleagues for their support and their sponsorship of these bills, because certainly they address a situation which needs to be addressed.

Let me just ask a couple of questions, and perhaps Mr. Biaggi, starting with you and your colleagues.

What is the genesis of this Glock weapon? Why did it start? For whom is it made? What is the reason for the development of this kind of a weapon?

Mr. BIAGGI. The origin of it is in Austria, and it is being used in Austria. I think it is being used by the armed forces if not the police in Austria. It is a good weapon. No one quarrels with the worthiness of the weapon.

Mr. MAZZOLI. Just to try to develop it for the record, what is the reason for this weapon, Mario? Why do the police need such a weapon? Why would the Armed Forces need this kind of a weapon?

Mr. BIAGGI. I guess it is lighter, clearly that's more comfortable. Ordinarily, a weapon of this size is heavier. I have carried them, and weight is a big factor. They do have the metal barrel which is the critical aspect of it. Now, how the all-plastic weapon deals with that remains to be seen.

Mr. MAZZOLI. In your testimony—I wasn't here for it and I apologize, but I read it—apparently there is a firm in Florida that is now making a full plastic gun with the exception of seven springs.

Mr. BIAGGI. Sure.

Mr. MAZZOLI. Bob.

Mr. MRAZEK. If I might suggest one other rationale for the emergence of a new generation of weapons, it would come from a quote by Andrew Molchan, the president of the National Association of Federally Licensed Firearms Dealers. An article he wrote in American Firearms Industry in April 1986 states, "There was a person

at one of the big manufacturers who said, 'But steel works just fine.' He is missing the point. We don't need plastic guns from a performance point. We need them from a marketing and sales point. The only thing that's ever going to do anything for new gun sales in the future is to make the 150 million old guns obsolete, and that's exactly the promise that the plastic gun holds forth. The plastic gun people would like to license the manufacturing. They are going to look to America first but they will go overseas if necessary."

Mr. MAZZOLI. I appreciate your bringing it up, Bob, because I had read your article in the morning paper before I came in, and that is used in that article. It seems to indicate that one of the many reasons for the development of this gun is to sort of obsolete all the other guns and create a market.

In that sense of the word, again I would ask any of you, are these guns inexpensive? Chuck.

Mr. SCHUMER. No.

Mr. MAZZOLI. They are expensive?

Mr. SCHUMER. The Glock is quite expensive.

Mr. MAZZOLI. How much would it be, about?

Mr. SCHUMER. I forget the exact price. Maybe one of my colleagues would know.

Mr. MAZZOLI. Mario, would you know about how much the Glock is?

Mr. SCHUMER. $400.

Mr. MAZZOLI. Let me ask—now this is a technical question which we may not have the expertise to answer, and this is my last question because we want to move on.

If a manufacturer wanted to both satisfy the legitimate ends of a lighter, more easily carried, more easily handled, weapon, and at the same time not to foster trade in weapons which could lead to terrorist incidences, death of innocent people, is there not some kind of a blend—we talk in this room about putting taggants into explosives so that they can be traced—could there not be some kind of material injected into the plastic so that it becomes identifiable on both the metal detection, which is what Ted brought up, as well as the x-ray machines? Is there a technology like that which would diffuse throughout this plastic element, or all the plastic elements, something which would reflect x rays and cause a metal detector to react?

Could someone answer? Bob.

Mr. MRAZEK. That might very well be a development that could be very helpful and productive in the future.

Mr. MAZZOLI. Chuck.

Mr. SCHUMER. What I was going to say is I think that could be done and there has been talk of doing that. One of the problems is that then—there are so many ways to get around the detection devices that I think it is a constant game of catch-up. And that is one of the challenges for the subcommittee and ATF about it, because you will do that and then there will be another way to get around the method that we have of detection.

Mr. MAZZOLI. I would feel more comfortable here since terrorism isn't an American monopoly, it is all around the world—I would be a lot more comfortable if these manufacturers, sensing the problem

of a nondetectable weapon or a harder-to-detect weapon, were to give them a signature, give them a fingerprint, and at the same time, keep them light, keep them easy to handle, make them easy to carry over long marches if you are in the military——

Mario.

Mr. BIAGGI. That is why I think both bills provide the Secretary with the authority to make a decision. Clearly, if we go back to the initial stage and the plastic can be impregnated with some element that would make it detectable, that would be ideal. I am sure it is feasible and some of my sources have suggested that very idea but I don't have the expertise in the plastic area to comment further.

Mr. WEISS. The fact is that there have been discussion about exactly the kind of manufacturing signatures that you are talking about. I think the reason why the term, "readily detectable" made such sense is because firearms dealers and manufacturers would have to demonstate to the Secretary that their product is readily detectable and you could keep up with the technology. I think that it is impossible and your suggestion is exactly on the mark.

Mr. MAZZOLI. Thank you, Mr. Chairman.

Mr. MRAZEK. Can I make one point?

In the past, we used to think that just by removing the firing pin from a machinegun we could sell it as surplus as a Federal Government to people, and we did that for a while. Then we took other steps to protect the machinegun from ever being operational in the future and thought we were being safe. Somehow, people were able to build conversion kits, which they advertise now in gun magazines all over the country, how to convert your machinegun into an operational weapon.

I am suggesting that we have to be pretty careful, needless to say, and the administration must have the flexibility to use that care in determining exactly what process could guarantee safety.

Mr. HUGHES. I wonder if I can just indicate to my colleagues that we have a long list of witnesses here today. I want all members to be able to question the witnesses, and I just hope that they can be brief.

The Chair recognizes the gentleman from California.

Mr. LUNGREN. Thank you very much, Mr. Chairman.

I just want to know from the four witnesses whether if we could come to some resolution of this problem by requiring a signature of a metal piece or something that is identifiable under current methods. Would that be acceptable to you as authors of the bill?

Mr. BIAGGI. We are dealing with the detectability feature. If it can be detected, then, fine, they don't have a problem.

Mr. SCHUMER. The reason that the legislation, H.R. 4194, and the Biaggi legislation was drawn—Mr. McCollum said maybe it is a little vague. I don't think it is vague. The reason we use terms like readily detectable is to give the authorities the latitude to come up with something in the way you suggest. You can't pinpoint it, again because the technology changes so quickly and we wouldn't want to have a hearing every 6 months on a new pistol or a new type of weapon that comes out that is not detectable.

Mr. LUNGREN. Mario, I would like to address a question to you. You gave us a demonstration of what you called the second largest manufacturer of security screening equipment. I have got a copy of

a letter addressed to you from AstroPhysics Research Corp. which claims to be the world's largest manufacturer of x-ray security screening equipment. It peaked my interest because I found out that their American facility happens to be in my district.

Evidently, you requested information from them about the Glock 17. In the letter they reported to you, they say this, "In all tests, the Glock 17 was x rayed while inside a standard briefcase," et cetera, et cetera. "When it is broken down in its three basic components, all three components—the metal barrel, the metal aluminum clip, and the plastic frame are still visible and identifiable on the television monitor of the x-ray system by a trained security operator."

It goes on to say that, "When it is in the briefcase with the normal amount of paper, the plastic frame shows as clearly as a toy plastic gun which," they say, "incidentally, is one of the most common items identified by airport security personnel screening packages and briefcases on the airport x-ray machine."

That seems to be a very, very different statement and analysis of the problem than the one that was presented here. Have you checked into that any further?

Mr. BIAGGI. Absolutely. There is a little difference. They put the weapon in an empty area of an attache case. As contrasted to the pictures you saw today, there are any number of items that can easily distort the plastic gun's image on an x-ray items—if you recall the photograph, we had arrows pointing into different articles within the attache case: Umbrellas, totes, and things like that.

The position taken by that company—the world's largest—is understandable, because in this case we are dealing with the Avis in their field, they are trying harder. But the pictures you saw deal with an attache case in an ordinary fashion, not an ideal one for sporting plastic weapons, I carry shirts and ties in my attache case and sometime totes, and sometimes a small umbrella. That was not the case in the illustration from the company you mentioned.

Mr. LUNGREN. Well, they do say they had the normal amount of paper and other items usually found in a briefcase.

I recognize we have got a problem we have got to face and I recognize that in dealing with this we are talking about probably having a large number of people who have no intention of breaking the law would be affected as you have with legitimate gunowners in this country.

So it makes it a very, very difficult question.

When you talk about the problem of murdering police officers, and terrorism, that really ups the ante, because that is what we are concerned about. So this bill is something that we would be addressing to a whole host of people probably that would not intend to break the law, but we are doing it because the problems on the other side are so great.

That is why I would like to ask the four of you on a very similar issue that I feel very strongly about in terms of murdering police officers or terrorism, whether the four of you are directed to those people who are involved in that sort of thing, whether you would help us in getting a death penalty out of the committee so that we might have that in terms of the murdering of police officers or terrorism?

Mr. BIAGGI. I would be happy to support that. I have always advocated that; in fact, I have authorized legislation this Congress and others to prescribe the death penalty for certain crimes, including murdering a police officer.

Mr. LUNGREN. Chuck?

Mr. SCHUMER. No, I don't think it is the answer.

Mr. LUNGREN. Ted?

Mr. WEISS. I think that you are mixing apples and gallows.

Mr. MRAZEK. I am here to speak on behalf of legislation on detectable weapons.

Mr. LUNGREN. I understand that, except we are talking about doing this because of murdering police officers and terrorism. And it is an immediate thing. We know that it is immediate. We have got to do something about it.

Mr. MRAZEK. I am confident there are a lot of things to end that.

Mr. LUNGREN. We can't wait 10 or 20 years, and we can't get any immediacy out of the full committee or out of the full House and I wish we would have the same attention——

Mr. BIAGGI. I might suggest that the notion raised by Mr. Mazzoli and others about injecting some identifiable element into the plastic gun would be a most acceptable and amenable solution to the problem of undetectable weapons.

Mr. WEISS. You should know also that all of the police organizations are supporting H.R. 4194 and I am sure they are supporting Mr. Biaggi's bill as well.

Mr. HUGHES. That is a vote that we have in progress. I wonder if we can recess for 10 minutes. Can you come back?

Mr. SHAW. Mr. Chairman, it is my time for questioning and unless anyone else has anything I would be glad to waive any questions that I have.

Mr. HUGHES. I have other members on this side of the aisle that are coming back that want to question the witnesses.

We are going to recess for 10 minutes.

[Recess.]

Mr. HUGHES. The Subcommittee on Crime will come to order.

Does the gentleman from California have any further questions of the panel?

Mr. LUNGREN. No, I do not.

Mr. HUGHES. Some of my colleagues expressed an interest in questioning you but they have not returned and they certainly have had sufficient time. I know that you all have busy schedules. I just want to thank you again for your testimony.

I am anxious to hear from the other witnesses. BATF in particular has criticized some of the language, and I would like to hear some constructive manner of advances on how we can deal with the problem. I am anxious to receive their testimony and the testimony of the other witnesses here today who, hopefully, will assist us in addressing a myriad of issues that I outlined at the very beginning.

You have been very helpful to us. I congratulate you on your leadership and we look forward to working with you. Thank you very much.

Mr. WEISS. Thank you.

Mr. MRAZEK. I also want to express, on behalf of all of us, particularly Congressman Biaggi, who apologized for not being able to come back—he had to go to another hearing—and Congressman Schumer, our gratitude to you for following through on holding such speedy hearings. Hopefully we will see some type of positive vehicle which will address the issue of security in the future. It may not be our bill, but we are very grateful to you.

Mr. HUGHES. Thank you. I am very proud of this subcommittee. This subcommittee tackles some tough issues. They are very meticulous and they try to develop generally balanced legislation. We look forward to working with you in that regard.

Mr. MRAZEK. Thank you.

Mr. WEISS. Thank you very much, Mr. Chairman.

Mr. HUGHES. Our next panel consists of Mr. Phillip McGuire, the Associate Director for Law Enforcement of the Bureau of Alcohol, Tobacco and Firearms; Billie H. Vincent, Director of Civil Aviation Security, the Federal Aviation Administration, and Peter A. Johnson, Senior Associate, Congressional Office of Technology Assessment.

Gentlemen, we have received your statements which will be made part of the record in full, without objection. We hope that you can summarize here for us today. Welcome.

Why don't we begin first of all with you, Mr. McGuire. Welcome.

STATEMENTS OF PHILLIP C. McGUIRE, ASSOCIATE DIRECTOR (LAW ENFORCEMENT) BUREAU OF ALCOHOL, TOBACCO AND FIREARMS, U.S. DEPARTMENT OF THE TREASURY, ACCOMPANIED BY EDWARD M. OWEN, JR., CHIEF, FIREARMS TECHNOLOGY BRANCH, ATF; BILLIE H. VINCENT, DIRECTOR FOR CIVIL AVIATION SECURITY, FEDERAL AVIATION ADMINISTRATION, AND PETER A. JOHNSON, SENIOR ASSOCIATE, OFFICE OF TECHNOLOGY ASSESSMENT, ACCOMPANIED BY GREG EYRING, ANALYST, OFFICE OF TECHNOLOGY ASSESSMENT

Mr. MCGUIRE. Yes, sir. Good morning.

Mr. Chairman, I have with me Ed Owen, whom you and other members of the committee know. He is the Chief of our Firearms Technology Branch. As you indicated, I have submitted a more lengthy statement for the record and would like to make some opening comments, with your concurrence.

Mr. Chairman, members of the subcommittee:

First of all, I would like to thank you for providing this opportunity to discuss the important issue of the detectability of firearms by security screening devices.

I think that this committee has been alert to potential problems facing law enforcement today, as you previously stated, and I think all of law enforcement is appreciative.

I think that Mr. Biaggi, Mr. Mrazek, and Mr. Weiss, in particular, have moved very quickly in light of the current concerns to focus attention on both firearms and security technology. In these days of threatened terrorism, their concern is clearly timely and commendable.

We share the concerns of the members of the subcommittee and law enforcement officials with respect to any types of weapons which may not be detectable by various security screening systems.

The proposed legislation under discussion today focuses primarily on firearms which may not be readily identifiable by airport screening devices due to their configuration, construction, or other factors.

The concept of outlawing firearms which are substantially constructed of plastic or other nonmetal material is an extremely complex issue and one which we feel like will require detailed study, and I fully recognize that that is the purpose of these hearings, to get started in that vein.

A major problem is that the plastics in particular have been used in the major components of firearms since World War II. With the advances in plastic technology and the development of other space age materials, there has been increasing use of plastic-type materials and firearms and other weapons over the past two decades.

In my previously submitted statement, Mr. Chairman, I indicated that to our knowledge the technology was not yet there to produce a fully plastic or nonmetal weapon. It is our understanding that an individual will testify later today that in fact that has occurred. Perhaps that is an indication of the speed that technology is moving forward today.

It must be pointed out that while the Glock 17 pistol uses a considerable amount of plastic in its construction, the pistol contains more metal by weight than many other handguns constructed almost entirely of metal.

Additionally, there are other handguns of both domestic and foreign manufacture which utilize nearly as much plastic in their construction as the Glock 17.

These firearms have been in production longer than the Glock 17 and to date, at least to our knowledge, has not been a detection problem. That is not to say that the weapons construction cannot be a factor in the problem of security detection. However, we don't feel that it is the entire problem.

H.R. 4194 would also outlaw firearms which are not readily identifiable as firearms. In addition to disguised weapons, such as cane guns and pen guns, which are currently regulated by the National Firearms Act, many conventional firearms may not be identifiable as firearms in standard security equipment due to factors unrelated to their construction.

Since these issues concern security screening and security equipment, we do not feel that they should be discussed in an open hearing. We would, of course, be happy to discuss this area with the subcommittee in a closed hearing.

In closing, I would like to state that the problem of weapon detectability by security screening systems is one of great importance which would be difficult to solve solely by regulating the materials used in firearms construction. The security system itself and the training of the operators are also of paramount factor in the detection of weapons. And to effectively deal with the problem, all of these areas, we feel like, should be addressed.

Mr. Chairman, we at BATF will be happy to work with the subcommittee and other interested agencies to achieve an effective solution to this important question.

I would also like to comment, Mr. Chairman, that you categorized the statement of BATF as being somewhat critical. I hope that you will accept that as being critical in the positive sense, because I think our objectives are the same. And as I indicated to you earlier, we are more than pleased to work with you on this issue.

Mr. HUGHES. Thank you.

[The statement of Mr. McGuire follows:]

TESTIMONY OF

PHILLIP C. MCGUIRE
ASSOCIATE DIRECTOR
(LAW ENFORCEMENT)

BUREAU OF ALCOHOL, TOBACCO AND FIREARMS

BEFORE

THE SUBCOMMITTEE ON CRIME

U.S. HOUSE OF REPRESENTATIVES

May 15, 1986

Chairman Hughes, members of the subcommittee:

Thank you for this opportunity to discuss the issue of so-called "plastic" firearms.

Mr. Biaggi, Mr. Mrazek, and Mr. Weiss, in particular, have moved very quickly in light of current concerns, to focus attention on both firearms and security technology. In these days of threatened terrorism, their concern is clearly timely and commendable.

Indeed, since there is no evidence that a firearm intrinsically capable of passing undetected through conventional x-ray and magnetometer systems exists, or is feasible under current law or technology, the efforts of these gentlemen, and this committee, serve to put us "in front of the curve" with regard to the problem. While that is not always the case with either crime or terrorism, in this instance we have the time to fully examine the issues and to formulate effective answers.

I must state upfront that we at ATF are greatly concerned that the initial approach taken, which focuses on firearms construction, is perhaps the most difficult answer to formulate and perhaps not the most effective answer to the problem. I would hope that this committee would equally examine the issue of security technology and operations. I say that for a number of reasons.

This entire issue was raised in response to reports, many

wildly inaccurate, concerning a particular firearm, the Glock 17.

To the best of ATF's knowledge there is nothing inherent in the Glock that would assist anyone in smuggling it, and ammunition for it, in a usable fashion through properly maintained x-ray and magnetometer screening such as that currently in use for security purposes.

Similarly, there is nothing about the Glock, disassembled, that should make it harder to detect, in a usable fashion, than any number of readily available firearms using more conventional materials. In this regard the issue is not one of the firearm itself, so much as it is the alertness of security personnel. Will they physically examine any article they cannot readily identify? Can they identify major components of a disassembled weapon? Certainly the record concerning domestic airline flights argues that they have been vigilant.

The Glock is approved for import and sale by ATF because it meets two legal tests. The first is that it is a high quality weapon, suitable for sporting purposes. The second is that it meets the criteria under 18 USC § 923(i) and 27 CFR § 178.92, requiring the engraving, casting, or stamping of identifying information on the frame, barrel, or receiver of the firearm,

"in a manner not susceptible of being readily obliterated, altered, or removed". While future technology may change things, ATF will not at this time approve the manufacture or import of a weapon with the required markings placed in plastic.

Since the manufacture of a firearm without the information affixed as required is already a felony, there is already significant control in the law limiting the possiblility of an all nonmetal firearm.

At the same time, I believe we need to recognize that, since we cannot reasonably bar the development of the raw materials from which an all nonmetal firearm might someday be constructed, we cannot absolutely prevent the unlawful making of such a weapon. In that light, even with additional statutory prohibitions, and overall budgetary limitation, the research and development of new generations of security equipment must continually be encouraged. It may well be that this is the correct approach, even at this point in time.

One of the problems in focusing on firearm technology is to clearly set standards by which to evaluate firearms. We at ATF fully understand that it is the intent of Mr. Biaggi's draft, and of H.R. 4194, only to bar "hijacker" specials and not to effect the lawful manufacture and transfer of sporting weapons. However, existing technology is such that language in both

bills could create serious problems, not for the terrorist, but for the legitimate firearms industry and for enforcers of the law.

For example, Mr. Biaggi's draft refers to a nonmetal firearm as one "substantially constructed" of plastic or other nonmetal material". That definition covers almost every existing rifle and shotgun in commerce and almost any handgun using rubber, wood, or plastic oversized grips. Under the same bill, a licensed gunsmith who affixes a custom fiberglass stock or oversized wooden grips to a firearm, and removes some metal to accomodate the change, may well have made a weapon that has a "diminished susceptibility to detection by airport metal detectors or other security devices". Certainly, reducing barrel length within legal limits diminishes the overall metal mass, and arguably the detectability of a firearm. Yet this is a fairly common practice.

H.R. 4194 focuses on the concept of "readily detectable" ...by standard security equipment commonly used at airports" without outlining what either "readily detectable" or "standard" imply. Hypothetically, an all nonmetal firearm would be of sufficient mass and density to be readily detectable by x-ray. equipment generally in use now. Similarly, the term "readily identifiable as a firearm" in H.R. 4194 is also unclear. Such items as pen or cane guns are already subject to the provisions

of Title II of the Gun Control Act. As such they are already subject to tight controls. Nor do they seem to be the kind of weapon which could be used to subdue passengers on an aircraft or security personnel. With regard to other types of firearms, I think we would quickly find this entirely too subjective a standard to effectively regulate and enforce.

With further research, it may prove that there are minimum levels of metal that a magnetometer will find that can be quantified and used as a standard, with little or no impact on the existing legal commerce in firearms. However, I propose that while this might be a better approach, it still does not effect the foreign made or unlawfully manufactured firearm. The answer to that must be found in security operations and technology, and any answer found in that field would make unnecessary additional controls on the materials used in making firearms other than those already in existance.

I would be happy to answer any questions.

Mr. HUGHES. Mr. Vincent, welcome.

Mr. VINCENT. Mr. Chairman and members of the subcommittee, I have a very brief statement. I welcome the opportunity to appear before the subcommittee today to provide the views of the Federal Aviation Administration concerning weapons detectability.

We appreciate the interest of the subcommittee in looking at ways in which to foster improvements in the air transportation security system. H.R. 4194 and H.R. 4223, two bills pending before the subcommittee, represent an effort to respond to the potential threat of firearms being developed which are not reasonably susceptible to detection by existing technology in use at our Nation's airports.

We share the concern of the members of this subcommittee that a successful effort to produce a firearm which is undetectable by current methods would introduce uncertainty and an additional element of risk into our air transportation system.

It is important to recognize, however, that, despite a relatively common impression to the contrary, as has been noted by others, there is no current nonmetal firearm which is not reasonably detectable by present technology and methods in use at our airports today, nor to my knowledge is anyone on the threshold of actually producing one tomorrow. As has been noted in this testimony and has been noted by Mr. McGuire, one company will present their case later this afternoon that they indeed may be on the verge of producing firearms in the next couple of years.

That certainly doesn't mean that we ought to be complacent. We are actively pursuing technology within the FAA that is intended to improve the state of the art in the detection of weapons. Our primary focus has been on explosives detection, for obvious reasons, but we are also engaged in a program to improve firearms detection as well. This research must continue since, even if laws were on the books prohibiting nondetectable firearms in the United States, the possibility would still remain that a terrorist or criminal could obtain access to such technology once it exists elsewhere in the world.

Consequently, improved methods of screening as well as improved technology must continue to be the first line of defense in combating the threat of hijackings or terrorist activity in our air transportation system as a result of future technological advancements in weaponry.

There is no one simple solution to what is a complex problem that continues to evolve as terrorists track the advancement of technology and employ more sophisticated methods, and I assure you they do track the advancements of the technology and the security methods.

It is important that our research and development activities be pursued with a full appreciation of the possibility that firearms technology could at some point threaten to outstrip the state-of-the-art detection technology.

For that reason, the FAA currently has a solicitation to the industry and academia in the United States for new weapons detection technology. Therefore, we are exploring, as well, with the Bureau of Alcohol, Tobacco and Firearms, since they are the agency charged with proposing and implementing firearms policy,

the feasibility of establishing some standards to ensure that firearms are detectable should an eventuality occur. I think that could be said with certainty that somewhere down the road that is going to occur.

In closing, Mr. Chairman, I would again like to acknowledge my appreciation for having the opportunity to appear today. I believe it is vitally important that we not only deal with the security problems of today, but that we continually look ahead to the future.

It is only with adequate foresight, planning, and commitment that we will be able to assure the continued safety of the traveling public in and our air transportation system.

We welcome the interest of this subcommittee in helping us to attain that necessary objective, and assure you of our commitment to working both with ATF and the Congress to make sure that our Nation's response to terrorist and other criminal threats is both proactive and adequate to meet the potential problems of undetectable firearms.

The high level of security of the United States air transportation system—and I am not speaking strictly of the domestic system, but the international system as well—has long been a model for the world community. We must continue to implement those measures necessary to protect our citizens traveling in this Nation's air transportation system.

This completes my prepared statement, Mr. Chairman. I would be pleased to respond to any questions you may have about weapons detectability to the extent that such a discussion might improve our chances of detection.

Thank you, sir.

Mr. HUGHES. Thank you, Mr. Vincent.

[The statement of Mr. Vincent follows:]

STATEMENT OF BILLIE H. VINCENT, DIRECTOR FOR CIVIL AVIATION SECURITY, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON JUDICIARY, SUBCOMMITTEE ON CRIME, CONCERNING WEAPONS DETECTABILITY. MAY 15, 1986.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee today to provide the views of the Federal Aviation Administration concerning weapons detectability.

We appreciate the interest of the Subcommittee in looking at ways in which to foster improvements in the air transportation security system. H.R. 4194 and H.R 4223, two bills pending before the Subcommittee, represent an effort to respond to the potential threat of firearms being developed which are not reasonably susceptible to detection by existing technology in use at our Nation's airports.

We share the concern of the Members of this Subcommittee that a successful effort to produce a firearm which is undetectable by current methods would introduce uncertainty and an additional element of risk into our air transportation system. It is important to recognize, however, that, despite a relatively common impression to the contrary, there is no current "non-metal" firearm which is not reasonably detectable by present technology and methods in use at our airports today, nor to my knowledge is anyone on the threshhold of developing such a firearm. Does that

mean we should be complacent? The answer is clearly "no." We are actively pursuing technology within the FAA that is intended to improve the state-of-the art in the detection of weapons. Our primary focus has been on explosives detection, but we also are engaged in a program to improve firearms detection as well. This research must continue since, even if laws were on the books prohibiting "non-detectable" firearms in the United States, the possibility would still remain that a terrorist or criminal could obtain access to such technology once it exists elsewhere in the world. Consequently, improved methods of screening as well as improved technology must continue to be the first line of defense to combatting the threat of hijackings or terrorist activity in our air transportation system as a result of future technological advancements in weaponry.

There is, however, no one simple solution to what is a complex problem that continues to evolve as terrorists track the advancement of technology and employ more sophisticated methods. It is important that our research and development activities be pursued with a full appreciation of the possibility that firearms technology could at some point threaten to outstrip state-of-the-art detection technology.

Therefore, we are exploring with the Bureau of Alcohol, Tobacco, and Firearms, since they are the agency charged with proposing and implementing firearms policy, the feasibility of developing

standards to ensure that firearms are detectable should such an eventuality occur.

In closing, Mr. Chairman, I would again like to acknowledge my appreciation for having the opportunity to appear today. I believe it is vitally important that we not only deal with the security problems of today, but that we continually look ahead to the future. It is only with adequate foresight, planning, and commitment that we will be able to assure the continued safety of the traveling public in our air transportation system. We welcome the interest of this Subcommittee in helping us to attain that necessary objective, and assure you of our commitment to working both with ATF and the Congress to make sure that our Nation's response to terrorist threats is both proactive and adequate to meet the potential problem of undetectable firearms. The high level of security of the United States air transportation system has long been a model for the world community, and we must continue to implement those measures necessary to protect our citizens traveling this in Nation's air transportation system.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to questions you may have about weapons detectability to the extent that such a discussion would not compromise our security programs.

Mr. HUGHES. Mr. Johnson, welcome.

Mr. JOHNSON. Thank you, Mr. Chairman.

I am happy to have the opportunity to present the results of some of OTA's recent work on this subject today.

As you know, we delivered a staff paper a short time ago addressing these subjects at the request of Congressmen Weiss, Mrazek, and Schumer. I was responsible for preparing that paper along with Mr. Greg Eyring, who is with me today.

We were able to respond in a reasonably short time to the questions we were asked by the Congressmen because we had two related assessments under way so we basically used the data we had collected on those assessments and applied them to the question of plastic firearms.

The two general areas that we looked into in our paper were the technical feasibility of manufacturing plastic firearms and the capabilities of airport inspection and detection systems, and the possible improvements in those capabilities.

Our investigations indicate that the materials technology certainly does exist today to produce essentially nonmetallic firearms. I think the way we came to such a conclusion was based on the fact that one could see these materials in use in other applications that have very similar temperatures and strength requirements that are required for plastic firearms.

There has been a lot of discussion today about the fact that there is a Florida manufacturer that claims to be within a few years of producing a .22-caliber plastic gun. I won't go over that.

There has also been a lot of talk today about the Glock 17 and the capability of detecting such a weapon in standard airport security systems.

We looked into that very briefly and concluded that basically the gun carries enough metal so that it is well within the alarm range of standard metal detectors. Also, that existing baggage x-ray devices would probably detect such a weapon but, of course, that depends on a lot of other factors, as several other people have noted to you. And as Congressman Biaggi has shown you, there is always the possibility of clever concealment of a weapon of that sort, as there is with other weapons as well.

We made some simple calculations of chamber pressures in handguns and related these to the materials strength requirements that might be necessary if one were to design and manufacture an all-plastic gun. We concluded that the modern reinforced plastic composites and advanced polymer materials could withstand the pressures and temperatures developed in a handgun, and that is really what led us to a conclusion that the technology is available, although we are not aware of any gun that is on the market today. We did not make an extensive survey but we turned up nothing on the market as such.

We also concluded that ceramics, for a barrel liner for the wear resistance would probably be necessary if you were to produce a gun that was intended for long-term use.

The second question we addressed was that of the capabilities of airport security devices. We have just heard from the FAA about the standard airport security systems and the fact that they are

under way with some new research to improve some of these detection systems.

We also concluded that nonmetallic firearms with very small metal parts such as springs would be much easier to smuggle through standard airport security equipment now in use, both for the screening of boarding passengers and for inspecting carry-on baggage.

Because of the limitations of existing metal detectors, we know that the FAA is conducting a number of technology development projects aimed at enhancing airport security systems and the detection of firearms, explosives, and other weapons that may be made of nonmetallic materials.

Airport x-ray screening of carry-on baggage presents somewhat a different problem. The quality of current x-ray images of baggage filled with a large variety of materials is generally too limited for operators to spot weapons if they are mostly nonmetallic.

Under most circumstances, plastics cannot be seen in a packed suitcase with standard x-ray equipment. However, if the suitcase didn't have a whole lot of other materials in it, a plastic gun image might be evident.

We also took a look at some of the new developments in x-ray devices, including the American Science and Engineering development. I also understand that AstroPhysics Research is working on an x-ray device that would improve the capabilities of the systems they have supplied for airport security use today.

In addition to the possibility of passengers carrying plastic weapons aboard planes, I should also mention that smuggling could also be attempted within checked baggage or air cargo. Here the Customs Service has the responsibility of stopping such smuggling at arrival terminals. Given the enormous volume of traffic entering the U.S. through airports, Customs is very selective about who and what they inspect. Even if x-ray capabilities were improved, x-ray equipment is not readily available to many of these customs inspectors.

Mr. Chairman, that concludes our remarks. Thank you very much for inviting us.

[The statement and staff paper of Mr. Johnson follows:]

TESTIMONY OF PETER A. JOHNSON

OFFICE OF TECHNOLOGY ASSESSMENT

Before

Subcommittee on Crime
House Committee on the Judiciary

May 15, 1986

Mr. Chairman, thank you for the opportunity to present the results of some of OTA's recent work on the technology of plastic firearms and airport security devices. As you know, we delivered a staff paper addressing these subjects on April 9 at the request of Congressmen Weiss, Mrazek and Schumer. I was responsible for preparing that paper along with Mr. Greg Eyring who is with me today. The paper applied data already collected for other purposes to the analysis of the plastic firearms question. The data were assembled for two related assessments: one on technologies to control illegal drug traffic - which I am directing; and the other on advanced ceramics and polymer composites - which Greg Eyring directs.

The proposed legislation before this subcommittee calls for a ban on the manufacture and importation of certain firearms not readily detectable by airport security equipment. OTA has not investigated policy implications of this proposal, but we have looked into the technical feasibility of manufacturing plastic firearms and evaluated the capability of airport inspection and detection systems. I will therefore briefly summarize our findings on these two technical questions.

First, our investigations indicate that the materials technology certainly does exist today to produce essentially non-metallic firearms. Engineering plastics and fiber-reinforced plastic composites are replacing metals in numerous applications with comparable temperature and strength criteria. While we are not aware of any <u>all</u>-plastic and ceramic handgun on the market today, one Florida manufacturer claims to be within two years of producing a 0.22 caliber plastic gun with only some small metal springs.

Some partial plastic handguns have been in the news recently, especially the one known as the "Glock 17," which is manufactured in Austria and is made of plastic with a metal barrel assembly. Since this gun contains over one pound of metal, it is well within the alarm range of airport metal detectors. Existing

baggage X-ray devices would also probably detect such a weapon if the operators were well-trained and diligent.

For the manufacture of an all-plastic gun, it appears that the greatest engineering problems relate to the gun barrel. The engineering problems are in two categories; first, the material must withstand the temperatures and pressures involved in the discharge of the firearm; and second, critical components like the barrel would have to be durable or wear-resistant to withstand long-term use. If the weapon is intended for one-time or limited use, the durability problem becomes much less critical.

The temperatures inside a firearm during discharge depend on the type of weapon and the type of cartridge. However, some general observations are possible. First, the energy in a single cartridge is relatively small. The fact that plastics are widely used in shell casings shows that the heat generated from a single shot is not likely to be a problem. A different situation could arise with a fully automatic weapon, with many rounds fired per second. Because the thermal conductivities of plastics are lower than those of metals, heat released would tend to build up, possibly to temperatures that could damage the weapon. Special precautions might need to be taken in automatic weapons to facilitate heat transfer.

OTA made some simple independent calculations of chamber pressures in handguns and related these to materials strength requirements. We concluded that modern reinforced plastic composites or advanced polymer materials could withstand the pressures and temperatures developed in a handgun. It is likely that the addition of a ceramic barrel liner for wear resistance would be needed if the weapon were to be intended for long term use.

The second question we addressed was that of capabilities of airport security devices.

From our investigations we concluded that non-metallic firearms with only very small metal parts such as springs would be much easier to smuggle through standard airport security equipment now in use for screening boarding passengers and carry-on baggage. Existing metal detectors are not set to alarm with very small metal objects and will not alarm with non-metallic objects. There is also a high probability that existing airport security X-rays would not detect plastic weapons concealed in baggage. However, research is underway, to improve these detection systems and enhance their capability to detect non-metallic weapons and explosives.

As you know, the Federal Aviation Administration requires metal detectors or equivalent techniques at boarding gates and X-ray inspection of carry-on baggage at all U.S. airports. Other nations have similar air and airport safety concerns, and similar metal detectors and X-ray inspection of baggage are found at international airports worldwide.

Because of the limitations of existing metal detectors, the FAA is currently conducting a number of technology development projects aimed at enhancing the capability of airport security systems in the detection of non-metallic firearms, explosives and other weapons which could pass through current devices undetected. The results of this research, however, are still some time away.

Airport X-ray screening of carry-on baggage presents another problem. The quality of current X-ray images of baggage filled with a large variety of materials is generally too limited for operators to spot weapons if they are mostly non-metallic.

Under most circumstances, plastics can not be seen in a packed suitcase with standard x-ray equipment. If the suitcase were empty except for a plastic gun, then the image of the gun would be evident. However, most suitcases contain some high density materials with metal parts such as hair dryers,

hangers, or shavers that obscure the x-ray image of low density materials.

Low-density materials appear to be able to be highlighted in a typically packed suitcase with recent technological developments. One such new device uses X-ray backscatter techniques. This new system is now under test and evaluation by U.S. Customs Service and could potentially be useful in inspection of packages or baggage containing plastic firearms or plastic explosives. We understand that Customs should have results from their X-ray system tests in a few months and that FAA is also monitoring these tests.

Other techniques may also be applicable to the detection of plastic weapons and the FAA research program is directed at investigating a range of new techniques for weapons detection over the next few years. Recent changes in air safety threats has increased the need for such efforts.

In addition to the possibility of passengers carrying plastic weapons aboard planes, smuggling could also be attempted within checked baggage or air cargo. The U.S. Customs Service has the responsibility of stopping such smuggling at arrival terminals. Given the enormous volumes of traffic entering the U.S. through airports, Customs is very selective about who and what they inspect.

However, even if X-ray capabilities were improved, X-ray equipment is not readily available to Customs at airports where incoming baggage is received. Baggage is not routinely x-rayed upon arrival at U.S. airports. Customs does use x-ray equipment to facilitate its inspection of specific objects for narcotics or other contraband. Neither suitcases nor cargo crates are routinely run through the x-ray equipment.

Mr. Chairman, that concludes my remarks, which are based on limited investigations of this subject that was necessarily confined to just a few technical areas. I would be happy to answer any other questions you may have.

- SUMMARY -
TESTIMONY OF PETER A. JOHNSON
OFFICE OF TECHNOLOGY ASSESSMENT
Before Subcommittee on Crime
House Committee on the Judiciary
May 15, 1986

The Office of Technology Assessment prepared a staff paper addressing plastic firearms subjects on April 9 at the request of Congressmen Weiss, Mrazek and Schumer. We were able to do this piece of work on short notice because we had two related assessments underway; one on technologies to control illegal drug traffic and the other on advanced ceramics and polymer composites. We could use data already collected and apply it to analysis of the plastic firearms question without extensive additional investigations.

The proposed legislation before this subcommittee calls for a ban on the manufacture and importation of certain firearms not readily detectable by airport security equipment. OTA has not investigated policy implications of this proposal but has looked into the technical feasibility of manufacturing plastic firearms and evaluated the capability of airport inspection and detection systems.

Our investigations indicate that the materials technology certainly does exist today to produce non-metallic firearms. Engineering plastics and fiber-reinforced plastic composites are replacing metals in numerous applications with comparable temperature and strength criteria. While we are not aware of any all-plastic handgun on the market today, at least one Florida manufacturer claims to be within two years of producing a 0.22 caliber plastic gun with only some small metal springs.

OTA made some simple independent calculations of chamber pressures in handguns and related these to materials strength requirements. We concluded that modern reinforced plastic composites or advanced polymer materials could withstand pressures and temperatures developed in a handgun. It is likely that the addition of a ceramic barrel liner for wear would be needed if the weapon is intended for long term use.

From our investigations of airport security devices we concluded that non-metallic firearms with only very small metal parts such as springs would be much easier to smuggle through standard airport security equipment now in use for screening boarding passengers and carry-on baggage. Existing metal detectors are not set to alarm from very small metal objects and will not alarm with non-metallic objects. There is also a high probability that existing airport security X-rays would not detect plastic weapons concealed in baggage. Research is underway, however, to improve these detection systems and enhance their capability to detect non-metallic weapons and explosives.

Staff Paper
Technical Questions Regarding Plastic Firearms

The views expressed in this Staff Paper are not necessarily those of the Technology Assessment Board, the Technology Assessment Advisory Council, or of individual members thereof

Congress of the United States
Office of Technology Assessment

April 1986

JOHN H. GIBBONS

April 4, 1986

The Honorable Robert Mrazek
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Mrazek:

Attached is OTA's response to the questions you asked in your March 4, 1986 letter about non-metallic firearms. This memo addresses your specific technical questions and does not analyze the effects of any policy alternatives.

We did find that technology does exist to manufacture certain firearms with very few and very small metallic parts. At present, non-metallic firearms would be difficult to detect with metal detectors and X-ray machines now in operation at most airports. However, the FAA and the Customs Service are actively developing and testing more capable detection devices. Some of these devices appear initially to be capable of detecting plastic firearms.

Thank you for the opportunity to provide this information to you.

Sincerely,

John H. Gibbons

Office of Technology Assessment

Staff Memorandum

Technical Questions Regarding Plastic Firearms

April 1986

The Office of Technology Assessment was requested by Congressmen Weiss, Mrazek and Schumer to investigate some technical aspects regarding the feasibility of manufacturing and smuggling firearms built largely or totally from non-metallic materials. These members have advocated legislation to ban the manufacture and importation of such firearms because of security concerns. They are seeking technical information that would help establish the extent of any threat these firearms could pose.

Specifically OTA was asked to address three specific questions:

1. Does the technology already exist, or will the technology soon exist, to produce completely non-metallic firearms?
2. If non-metallic firearms are or will soon be technologically feasible, will they be easier to smuggle through standard airport security equipment (i.e., metal detectors and X-ray machines?)
3. Is the Glock 17[1] easier to smuggle through standard airport security equipment than other firearms?

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1. The Glock 17 is a handgun manufactured in Austria which is made mostly of plastic with several metal parts including the barrel.

Since OTA already had two related assessments underway - one on technologies to control narcotics smuggling and another on advanced ceramics and polymer composites - we have been able to compile data already collected, supplement it with some additional investigations and prepare this staff memorandum addressing the above questions.

This staff memorandum was prepared by the project directors of the above assessments, Peter Johnson and Greg Eyring, assisted by Joan Harn and Denzil Pauli. Because of the short time requested to report this information, we were unable to seek outside review and critique of this memo -- a step always taken in full assessments undertaken by OTA. In addition, OTA staff memoranda are neither reviewed nor approved by the Technology Assessment Board. Finally, this memorandum contains only technical data and presents the limitations of such data; no policy discussion or options are included.

This brief OTA study finds that technology does exist to manufacture certain firearms which would be completely or almost completely non-metallic. The Glock-17 does not quite fit that category since it contains a substantial amount of metal (over one pound).

Non-metallic firearms with only very small metal parts such as springs would be much easier to smuggle through standard airport security equipment now in use for screening boarding passengers and carry-on baggage. Existing metal

detectors are not set to alarm from very small metal objects and will not alarm with non-metallic objects. There is also a high probability that existing airport security X-rays would not detect plastic weapons concealed in baggage. Research is underway, however, to improve these detection systems and enhance their capability to detect non-metallic weapons and explosives. One specific X-ray device shows promise for detection of plastic guns.

The Glock-17, with over one pound of metal content is much more readily detected by standard airport metal detectors. Existing X-ray systems would probably detect such a weapon if the operators were trained and diligent.

The following discussion is organized under headings relating to the specific questions addressed.

Non-Metallic Firearms Manufacture: (Question #1)

From our investigations it appears that the materials technology does exist to produce non-metallic firearms whose only metal components may be some small springs.

Today engineering plastics and fiber-reinforced plastic composites are displacing metals in highly loaded structural applications throughout the economy. The plastics offer the advantages of strength, light weight, corrosion resistance, and ease of manufacturing, all of which make them an attractive material for handguns.

Two areas of engineering concern arise in the consideration of plastics as a candidate material for handguns. The first is of greater interest to the terrorist who intends to discharge the weapon only a few times; the second is of interest to the sportsman who intends to fire the gun many times over a period of time:

1. Can plastics withstand the temperatures and pressures involved in the discharge of the firearm?

2. Would the critical components of a plastic handgun, such as the barrel, prove to be durable in long-term use?

The temperatures inside a firearm during discharge depend on the type of weapon and the type of cartridge. However, some general observations are possible. First, the energy in a single cartridge is released in a few milliseconds, and rapidly diffuses away. The fact that plastics are widely used in shell casings shows that the heat generated from a single shot is not likely to be a problem. A different situation could arise with a fully automatic weapon, with many rounds fired per second. Because the thermal conductivities of plastics are lower than those of metals, heat released would tend to build up, possibly to temperatures which could damage the weapon. Special precautions might need to be taken in automatic weapons to facilitate heat transfer. The best high-temperature plastics can retain their strengths to temperatures of 400-600° F.

The pressures inside a firearm present a more serious challenge to plastic materials. Chamber pressures for various weapons and cartridges may range from 50,000 psi in a high-powered rifle to about 15,000 psi in a .38 Special. A typical value for a small-caliber handgun would be about 20,000 psi.

Common plastics such as polyester or nylon do not have the strength necessary to withstand these pressures. However, several options exist to improve the strengths of plastic materials without the use of metals. One is to reinforce the plastic matrix with glass, aramid, or carbon fibers to form a composite. A second option would be to use a more exotic (and expensive) polymer material with self-reinforcing properties. Either the plastic composite or the self-reinforced polymer would appear to be a suitable material for the construction of a low-caliber handgun.

With regard to question 2 above, long-term wear is expected to be a problem for a plastic handgun, since plastics are generally softer than steel. A particular area of concern would be the barrel, especially the internal grooves which must spin the bullet in order to improve accuracy. It is likely that a commercial weapon intended for long-term use would require a liner inside the barrel to reduce wear. A ceramic liner material such as silicon nitride or perhaps boron nitride could be inserted.

In conclusion, modern reinforced plastic composites or advanced polymer materials could withstand the pressures and temperatures developed in a handgun.

It is likely that modifications such as a ceramic barrel liner would be required in a weapon intended for long-term use.

Some reports have been made recently that certain manufacturers are now producing plastic guns or developing the capability to produce them soon. OTA contacted Byron, Inc. of Castleberry, Florida. Dave Byron, president of the company, asserted that his primary goal was to produce all-plastic automatic cannon for use on aircraft or ships. However, he claims to have developed a plastic handgun to "prove the system". He describes his material as a self-reinforcing plastic with a tensile strength of 1.2 million psi, maximum use temperature of about 350 F. The handgun itself, plastic except for seven metal springs, weighs about a fifth of a comparable steel design, uses no oil, and has a ceramic liner in the barrel. The gun would be made by injection molding, and would require no finishing operations when it comes out of the mold. Byron estimates that his 0.22 caliber plastic gun would cost about $200 on the commercial market. He indicated he is about 1-2 years away from production.

If reports such as the above prove accurate, plastic handguns may be available on the commercial market quite soon.

Smuggling Non-Metallic Firearms (Questions #2 & 3)

The Federal Aviation Administration, as part of its responsibility for airport and air safety requires metal detectors or equivalent techniques at boarding gates and X-ray inspection of carry-on baggage at all U.S. airports.

These devices and this inspection, however, are routine only for passengers boarding flights and are not required for arriving passengers. Therefore, if one is concerned strictly with smuggling goods into the United States, the systems and personnel of the U.S. Customs Service represent the line of defense at U.S. airports. However, other nations have similar air and airport safety concerns, and, it is well known that similar metal detectors and X-ray inspection of baggage are carried out at international airports worldwide.

The FAA requirements do, in effect, protect against the threat of airline passengers carrying weapons aboard planes. The FAA, in agreements with other countries and foreign carriers, assures that equivalent security systems are in use at all foreign airports boarding planes destined for the United States. The FAA claims that this system is very effective and that almost all (with few current exceptions) international arriving passengers are screened at least as thoroughly in foreign airports as in the U.S. for departing passengers.

The FAA is currently conducting a number of technology development projects aimed at enhancing the capability of airport security systems in the detection of non-metallic firearms, explosives and other weapons which could pass through current devices undetected. Current metal detectors do alarm when very small amounts of metal pass through; a weapon such as "Glock-17" containing over one pound of metal would probably be detected under most circumstances. Alarms are not likely to be triggered by other weapons and explosives with only minute metal contents.

Airport X-ray screening of carry-on baggage presents another problem. The quality of current X-ray images of baggage filled with a large variety of materials is sometimes too limited for operators to spot certain objects that may be weapons if the weapons are mostly non-metallic. It should be noted, however, that the FAA is cooperating with the Customs Service in testing a more advanced X-ray device (described below) which could detect plastic materials.

In addition to the possibility of passengers carrying plastic weapons aboard planes, smuggling could also be attempted within checked baggage or air cargo. The U.S. Customs Service has the responsibility to stop such smuggling. Given the enormous volumes of traffic entering the U.S. through airports, Customs is very selective about who and what they inspect.

Customs inspectors use behavioral analysis and profiling techniques to screen arriving passengers at ports of entry. Travelers are briefly questioned (in a matter of seconds) by either a primary or roving inspector. The inspector has been trained to detect suspicious behavior and has been alerted to recognize profile characteristics of smugglers that have been caught. If the inspector is not satisfied with the results of the initial, or primary, interview, then the traveler is subject to a secondary inspection. He is questioned in more detail and his baggage may be given a more intensive search. In 1984, over 32 million persons were processed by Customs at airports. Only about thirteen percent of these travelers were subjected to a secondary inspection.

Customs inspectors at airports have access to the Treasury Enforcement Communication System (TECS) to help screen arriving travelers. TECS is a data base that includes lookout information on specific individuals who are known or suspected smugglers and other law violators. The primary inspector can enter the name and birthdate of an arriving traveler into the TECS terminal and receive a response in 3 seconds. The response indicates whether or not the queried name is listed in the TECS data base. If the response is positive, explanatory information is printed out at a secondary terminal. The use of this screening tool is limited because of the need to facilitate traffic (it takes 20-25 seconds to type in the name and birthdate) and equipment failures (most of the equipment is 8-12 years old and is difficult and costly to maintain). In particular, airport inspectors determine whether or not to enter the names of arriving passengers. Queries are made for 3 percent of passengers arriving at New York area airports and less than 2 percent of passengers arriving at all other airports.

The Customs Service selects only a portion of air cargo for examination. Information on the commodity, importer and origin are used to define high risk cargo which is subject either an intensive examination or, more likely, a brief look at a few items in the shipment.

X-ray equipment is not readily available to Customs at airports where incoming baggage is received. Baggage is not routinely x-rayed upon arrival at

U.S. airports. Customs does use x-ray equipment to facilitate its inspection of specific objects for narcotics or other contraband. Entire suitcases or cargo crates are not routinely run through the x-ray equipment.

Under most circumstances, plastics can not be seen in a packed suitcase with standard x-ray equipment. If the suitcase was empty except for a plastic gun, then the image of the gun would be evident. However, most suitcases contain some high density materials with metal parts such as hair dryers, hangers, or shavers that obscure the x-ray image of low density materials.

Low-density materials can be highlighted in a typically packed suitcase with a recent technological development using x-ray backscatter techniques. This new equipment has been developed by American Science and Engineering, Inc. combined with an x-ray machine that uses a pencil beam. Based on AS&E estimates, this equipment will cost several times as much as standard airport x-ray equipment used to screen hand-carried baggage before boarding aircraft.

AS&E has developed this version of X-ray system in an effort to enhance the detection of various low atomic weight materials such as plastics that existing X-rays cannot readily "see." They have furnished two systems to the U.S. Customs Service for testing. At their own plant they have simulated inspection of baggage with plastic firearms hidden within. Their own tests show two images of a plastic gun within a travel case using a conventional and a low density X-ray technique. With the conventional technique, the plastic gun is not detectable; with their low density technique the image of the gun is clear.

With present technologies and Customs techniques, a partial plastic firearm (like the Glock-17) or an almost-all plastic firearm would not differ too greatly in possible ease of smuggling because very little physical or X-ray or other detector inspection is carried out on incoming passenger and baggage.

However, the large metal content of a gun like the Glock-17 would make it very difficult to smuggle on to any airplane because of metal detectors and X-ray devices at almost all boarding locations. Customs mainly relies on selective sampling of suspected law violators, rather than routine inspection. However, if the inspection system were focused on a possible threat such as plastic firearms, then it would be prudent to utilize detection technologies which would highlight plastic materials. The new "Low-z" X-ray system now under test and evaluation by U.S. Customs Service offers unique capabilities and could potentially be very useful in inspection of packages or baggage containing plastic firearms or plastic explosives. Other technologies may also prove useful. By mid-1986, Customs should have results from their Low-z X-ray system tests.

Other techniques that may be applicable to the detection of plastic weapons and the FAA research program are directed at investigating a range of new techniques for weapons detection over the next few years. Recent changes in air safety threats has increased the need for such efforts.

The following sources and references were used in the preparation of this OTA staff memorandum:

1. Handloading, ASB 10120, available from: National Rifle Association, P.O. Box 37298, Washington, D.C. 20013.

2. Personal communication, Mr. Ed Owen, Bureau of Alcohol, Tobacco, and Firearms.

3. Personal communication, Mr. Jim Berthay, Interpol, 806 15th St. NW, Washington, D.C., March 1986

4. Personal communication, Mr. Dave Byron, Byron Inc., Castleberry, Fla., March 1986

5. Personal communication, Dr. William Wall and Lyle Malotky of the Federal Aviation Administration, March 1986.

6. Personal communication with Ray Mintz, Ernie Mercier, and Mickey Boyle of the U.S. Customs Service, March 1986.

7. Personal communication with Richard Sesnewisz, American Science and Engineering, Inc., March 1986.

8. Statement of Work for New Weapons Detection Concepts, Contract Solicitation from the Federal Aviation Administration, March 1986.

9. Product description of the AS&E "Micro-Dose Z Technology" X-ray inspection systems, American Science and Engineering, Inc., January, 1986.

10. Fiscal Year 1985 Authorizations for the U.S. Customs Service, International Trade Commission, U.S. Trade Representative; and Trade Recommendations for Report to Budget Committee. Hearing before the Subcommittee on Trade of the Committee on Ways and Means, House of Representatives, 98th Congress, Second Session, Feb. 7, 1984, Serial 98-60.

11. Customs Performance Report, Fiscal Year 1984.

12. Personal communication, Inspectional Enforcement Liaison Office, U.S. Customs, November 1985 and February 1986.

Mr. HUGHES. Thank you very much, Mr. Johnson.

It is about 7 minutes of 12 and there is a memorial service for police officers lost in the line of duty at noon time. I know many of you intend to be at that ceremony and many of us are participating in the ceremony, so the subcommittee is going to recess this hearing until 1:30.

We have a great deal of very interesting and very important testimony, and we hope that you can join us at 1:30. The subcommittee stands recessed.

[Whereupon, at 11:55 a.m., the subcommittee recessed, to reconvene at 1:30 p.m., the same day.]

AFTERNOON SESSION

Mr. HUGHES. The subcommittee will come to order.

I apologize for the delay but, as you know, we have had votes and a whole host of other activities, and I apologize for keeping you so long.

There has been some concern expressed by some of the witnesses, in particular from the Port Authority of New York and New Jersey, as to a demonstration that we are going to see in a little while, which would show how a weapon can be brought through these detectors without detection in a certain fashion. One of the concerns expressed is that we might be suggesting how a weapon can be taken apart and what parts could be taken through and otherwise, perhaps, provide information to individuals that might try it.

So the way we are going to deal with that, we are going to permit the demonstration. But publicly we will not permit an examination of just exactly what parts and how it was done specifically, except in executive session.

First, let me ask you, Mr. McGuire, is it your testimony that we don't have a problem today?

Mr. MCGUIRE. Absolutely not.

Mr. HUGHES. Is it your testimony that we do have a problem, but that it is not one that we will have a problem solving, obviously, in time, and that we must begin to deal with it now, using various strategies, perhaps?

Mr. MCGUIRE. I think that is an accurate assessment, yes, sir.

Mr. HUGHES. Is it your understanding that the state of the art has not reached that stage where we are manufacturing weapons that will avoid detection?

Mr. MCGUIRE. I think that the technology is there. It is our best information that the technology is there. It is not our information that the weapons are currently being produced but I think it is only a matter of time before that would occur.

Mr. HUGHES. So you would agree that while we may not have weapons marketed now that might present a problem to present electronic and other types of detection, that it is just a matter of time before that will occur?

Mr. MCGUIRE. Unless the technology improves as it relates to the scanning devices and detectability devices, then I think that that could occur; yes, sir.

Mr. HUGHES. Can we agree that as a matter of public policy we cannot permit a hiatus to occur?

Mr. MCGUIRE. I think that it is entirely appropriate that your committee and Congress look prospectively at ways to prevent the illegal and unlawful use of weapons, yes, sir.

Mr. HUGHES. One of the points made here today—and it is a good point—is that even if we were to give ATF the authority to ban nonmetallic weapons, adequately described, that we would still have a problem with the manufacturer in other parts of the world.

Mr. MCGUIRE. That would certainly be the case. Certainly, legislation could change the importability of weapons.

Mr. HUGHES. Obviously, we can't stop other countries from manufacturing plastic weapons if they so desire.

Mr. MCGUIRE. Correct.

Mr. HUGHES. If those weapons are manufactured to elude detection and we don't have, obviously, the wherewithal to detect them, they are going to be brought into this country.

Mr. MCGUIRE. That is a fair assumption. The potential certainly exists for that, yes, sir.

Mr. HUGHES. So even though we can't possibly address all aspects of the problem, we can certainly, if there is a need and there are no other alternatives, address the problem dealing with manufacture in this country, and distribution.

Mr. MCGUIRE. That is certainly within the authority of Congress.

Mr. HUGHES. Do you have the authority now to do that?

Mr. MCGUIRE. No, sir.

Mr. HUGHES. So you would have to have new authority to deal with what is an emerging problem?

Mr. MCGUIRE. Yes, sir.

Mr. HUGHES. Is it your view that if we determined, for instance, that by the time detectors are on the market and distributed, there is a lag time of a year, 2 years, 3 years, that it would be incumbent upon us as policymakers to endeavor to deal with that during that void?

Mr. MCGUIRE. It would be impossible for me to give a timetable in terms of how——

Mr. HUGHES. I didn't ask you for that. I asked you as a policy, shouldn't we be dealing with it. Even though we may not have a problem now, it is an emerging problem. And if we find that the lead time for developing the technology, to detect nonmetallic weapons, is longer than we had hoped, that we should attempt to fill that hiatus by at least dealing with it in this country.

Mr. MCGUIRE. I think that is appropriate, yes, sir.

Mr. HUGHES. Mr. Vincent, I was interested in your testimony that the Glock 17 weapon is detectable. I believe your testimony was today, and was previously, that when the Glock 17 came into this country on other occasions, or escaped detection, that it was an operator error.

Mr. VINCENT. Yes, Mr. Chairman, I did testify to that in a previous session. I was present when the Glock 17 was taken through on a test at National Airport approximately 1 year ago.

Mr. HUGHES. Am I right in assuming that you have under way some experimentations, some additional breakthroughs on detec-

tion that will, hopefully, deal with this problem we are talking about?

Mr. VINCENT. I think it would be optimistic to say at this time that there are any breakthroughs. We, as I noted in my opening statement, have a solicitation out which closes at the end of June, which asks academia as well as the industry, to come forward with ideas that we might pursue in new weapons detection technology.

I am aware of one other agency in the U.S. Government who has already done some work in this area, and they are exploring a laboratory experimental device at the moment, in new weapon technology, that is independent of the metal content of the weapon.

Mr. HUGHES. Is FAA doing any in-house research?

Mr. VINCENT. The solicitation that I just mentioned is the beginning of the in-house research. Once we get the proposals of the responses to the solicitations, we will then select those that are attractive from a technical standpoint and fund those efforts.

Mr. HUGHES. I was under the impression that the FAA Technical Center at Pomona, NJ was conducting some in-house research. Am I in error?

Mr. VINCENT. Mr. Chairman, that is our arm that is doing the solicitation. They are the ones that are managing the actual technical part.

Mr. HUGHES. So I am correct in assuming that there is presently no technology to detect nonmetallic weapons?

Mr. VINCENT. You are correct, Mr. Chairman, there is no current technology.

Mr. HUGHES. As someone who is actively involved in this entire issue—the research component and other components of it—what is your best estimate—I understand it is just an estimate—of the time it would take for us to develop that technology, working on the assumption that the invitations to bid develop some technology, how long would it take for us to put that in place once we developed the technology? What is the lead time necessary to put devices like this in airports and otherwise around the country that would implement any new technology ?

Mr. VINCENT. The implementation is the easiest portion, and that can be done relatively quickly.

Mr. HUGHES. That is why I asked you that first.

Mr. VINCENT. Probably within a year of the time the technology is developed. The difficult thing, as you probably already surmised, is the actual R&D. I think you perhaps are aware that the FAA has been involved in the explosive R&D for a decade. We are only now getting to the point where we have an explosive detector that looks like it will be on line in mid-1988. We will have the specifications, hopefully, in late 1987. Predicting success in R&D is a very risky business.

Mr. HUGHES. So it could take 10 years?

Mr. VINCENT. It could take 10 years. We could get lucky and it could take 3; it could take 2.

Mr. HUGHES. Is it your professional opinion that we will have that technology and have this technology in place before the state of the art is perfected so that we have such weapons in existence marketed?

Mr. VINCENT. I am not sure that I understand.

Mr. HUGHES. My question is: Do you have a professional opinion as to whether or not that technology will be in place to detect those weapons before the weapons are in existence in the marketplace?

Mr. VINCENT. That, again, is a risky prediction. But indeed someone is predicting that they are going to have an all-plastic handgun within 2 years—which, incidentally, I would be very skeptical of, it being ready that quick. It is not likely that we would have the technology to detect an all-plastic weapon by that time.

Mr. HUGHES. Would it be fair to say that even if you had that technology in 3 years that the chances are at this point that we are going to have weapons marketed in that interim period of time? Isn't that a high probability at this point?

Mr. VINCENT. I would say that that is a good assessment, yes.

Mr. HUGHES. The Chair recognizes the gentleman from Florida.

Mr. MCCOLLUM. Mr. Vincent, it is my understanding that you have agents, who are working the machines at the airports who can in fact detect the Glock gun. And it is also my understanding that despite the drama of what Congressman Biaggi presented to us today, that in at least two out of the three x-ray pictures over there, a well-trained person can observe where the gun is and find it in those pictures.

Is that correct?

Mr. VINCENT. Mr. McCollum, the pictures as presented first wouldn't be the whole story. That is one system and one manufacturer. I think we have to recognize that upfront. And it is not a scientific examination of the problem. But in most of those, the weapon is readily detectable. I would say in several they are readily detectable.

Mr. MCCOLLUM. Now, the Z image pictures are the ones that he pointed out to us are taken to show plastic. The ones on the bottom—1A, 2A, and 3A, the clearer, whiter ones, are the ones that don't detect plastic. They are your normal, standard operating x rays that you now have presumably in place at most airports.

What has been pointed out to me—and I don't know if you have examined them closely enough for this—but it has been pointed out to me that in 1A and 2A the springs in the guns are very clearly visible if you know what you are looking for.

Have you had a chance to look at those pictures to see if the springs are visible?

Mr. VINCENT. Yes, sir, I have. I saw those pictures previously in my office when Dr. Annis, the president of AS&E, visited me a few weeks ago.

Again, the pictures that are presented by AS&E does not tell the entire story. First, if you accepted that as the standard for the industry in detection capability of the current state of the art x ray, which is not necessarily so, there are still human factors involved in the security screening process that is supposed to catch anything that is not recognizable in those x-ray pictures.

Mr. MCCOLLUM. I understand that. But the springs are there—I can't see them as clearly from here as I could when I was there before. They are both somewhat out of my view. But they are in the lower left quandrant of each of those two pictures—1A and 2A.

Would one of your airline attendants who is checking these things—or airport attendants—be able to pick out the spring as something unusual, or wouldn't they?

Mr. VINCENT. No, sir. In the way—at least one of those are masked, not necessarily so. However, that same screener is supposed to examine any article that is unrecognizable in those bags.

Mr. MCCOLLUM. I understand. But would that be unrecognizable to them? Would those springs be unrecognizable to them?

Mr. VINCENT. It is possible, in some cases, yes.

Mr. MCCOLLUM. But you are saying in some cases they might——

Mr. VINCENT. Easy to see them.

Mr. MCCOLLUM [continuing]. See them. But would they know that there was anything wrong? Maybe they think they are springs. Regular people put springs in briefcases. Look like they are accordion. It looks to me like some of these little things you can stand up and put together, whatever you call those things, the little accordion stands.

Mr. VINCENT. Those operators that you are talking about, are contract employees generally to the airlines, and we regulate the airlines. They usually—if they have any time at all in the business—get pretty sharp at seeing and recognizing things within the bag.

Mr. MCCOLLUM. It still bothers me that that is the case because it seems to me that while it is visible to me now that it has been pointed out, it is very hard to see. You can see in the lower left corner there is a spring there. It is visible if you know what you are looking for.

Mr. VINCENT. You are absolutely correct.

Mr. MCCOLLUM. But would most attendants, most screeners, recognize that, or at least be suspicious of that because they didn't recognize it, is the question? I don't think you have answered that very clearly for us.

Mr. VINCENT. Whether or not they would recognize it, is they should, because they are trained to recognize those things.

Mr. MCCOLLUM. Including the spring?

Mr. VINCENT. Suspicious items that do not fit with the rest of the clutter within the bag.

Mr. MCCOLLUM. And you think that is a suspicious item that doesn't fit in that case? Would you think that was a suspicious item that didn't fit?

Mr. VINCENT. I can't see this one anymore. The one over on this one certainly would be, because there is nothing that I know of in the recorder that would have that configuration or that purpose.

Mr. MCCOLLUM. OK.

Mr. McGuire, does the BATF test firearms today to determine if they are detectable by security devices prior to granting import licensing?

Mr. MCGUIRE. No, sir, we do not.

Mr. MCCOLLUM. Is there any plan to do that?

Mr. MCGUIRE. No, we do not have the authority to do that.

Mr. MCCOLLUM. That is what Mr. Hughes was asking about in part, the authority that you do and don't have. You don't have the authority to do anything like that?

Mr. McGUIRE. We certainly test, but that is not one of the criteria for importability. The criteria for importation was developed in 1968 by a panel developed as a result of Executive order.

The criteria is based on essentially supportability, quality, safety, weight, and points are assigned for each one of these criteria. However, detectability is not one of those criteria.

Mr. McCOLLUM. When we say if it is detectable, presumably the language in the bill didn't meet your specification in either bill because you criticized that language.

Have you got any suggestions of the language that we could put in that would meet it?

Mr. McGUIRE. I haven't attempted to better the efforts of those individuals who introduced the bill.

Our principal problem with the language in the bill is that such terms as readily detectable, readily identifiable, or substantially constructed—it would place us in a position of very subjectively of meeting those standards or applying those standards.

Mr. McCOLLUM. We would certainly appreciate it if you could come up with any suggested better language for us if we were to proceed with this, which we might very well, if not this precise legislation, something else.

I know I, for one, would appreciate it if you would work on that for us.

I have got another question. In your statement you indicated that there are other handguns besides the plastic gun that use a considerable amount of plastic in their construction, or use other nonmetallic items.

Do you have any of those examples with you today, or could you tell us what they look like?

Mr. McGUIRE. Yes, sir, I do have them if you would like to see them.

Mr. McCOLLUM. I would certainly like to see them if you have got them.

[Weapons demonstration.]

Mr. McGUIRE. One of the early weapons was a single-barrel shotgun manufactured back in the 1960's that had a plastic, or what was referred to as a nylon stock in those days. Then in 1966, there was a .22-caliber rifle, semiautomatic version, a sporting weapon, came out. It was a Remington model 66, that had what they referred to as a nylon stock.

More recently, the KG-9, or the Tech-9 that it is now called, manufactured in Florida. As you can see, it has a—well, you couldn't tell from there—but it does have a plastic frame and receiver with the metal barrel.

Now, this is much more of a paramilitary type weapon than the Glock, admittedly. But it does in fact have approximately the same amount of plastic in it as the Glock 17 does.

Mr. McCOLLUM. Is this currently available on the open market for you or me to purchase?

Mr. McGUIRE. Yes, sir, it is.

Mr. McCOLLUM. It has been for some time, I gather?

Mr. McGUIRE. This particular weapon has been on the market for approximately 3 years, to the best of my recollection; yes, sir.

Mr. MCCOLLUM. Would anybody have any sporting purpose for that particular weapon, that you can think of?

Mr. MCGUIRE. You know, once again, if you ask, I think, firearms enthusiasts would—their perception would be different than mine, and perhaps they enjoy shooting them. My personal feeling is that it is not a sporting weapon.

Mr. MCCOLLUM. What about the others you have got there?

Mr. MCGUIRE. This is the model 66 Remington that has been on the market for, I guess, 20 years now, and has a full nylon stock. That was the point that I was trying to make when we use terms such as substantially manufactured—depending on how you measure it, if it is in terms of cubic inches or volume versus weight, as you can see, there would be more nylon here than metal. But there is no question but that this would meet those standards that I think the committee is interested in from a detectability standpoint.

Mr. MCCOLLUM. It would be readily detectable by common lay terms, if you used that less than perfect language that is in the second bill.

Mr. MCGUIRE. Yes, sir, I think.

Mr. MCCOLLUM. But it wouldn't work very well in the first one, I can see that.

What about the third weapon? You have three of them there.

Mr. MCGUIRE. This is just the frame for this particular weapon.

Mr. MCCOLLUM. I see.

Are there others? I mean, these are two examples. Are there other weapons of comparable quantity of nonmetallic material already on the market?

Mr. MCGUIRE. Yes, sir, there are.

Mr. MCCOLLUM. Are all of them readily detectable in the average layman's understanding of what that means, do you think, through the machines that are out there at the airports?

Mr. MCGUIRE. We haven't really done the testing ourselves with all of those.

Mr. MCCOLLUM. Has anybody? Mr. Vincent, have you done any testing with these weapons to see if they are detectable through your machines?

Mr. VINCENT. We have not with the Tech-9, I believe it is. I see nothing in it that would not make it readily detectable. In fact, that would be as easily detectable, certainly, as the Glock 17.

And now that I see this picture over here, it is not as readily visible as the spring you were talking about in the grip.

We have not taken every weapon that is manufactured in the United States, or the world, for that matter, and run a test on it. We do run tests on all of those that have some interest to us, such as this, and we will be running a test on that very shortly, and the Glock 17.

Mr. MCCOLLUM. What bothers me about all of this, is that I could take any one of these already existing weapons—not just the Glock—break it down in some way and place the pieces around in my bag. I am not confident, based on your testimony today, that the person who is doing the screening is going to pick it up as a not easily identifiable object.

I wish I had that confidence. But I think that is the problem. The public doesn't have the confidence that your screeners are going to really catch these things, or are catching them—maybe because we haven't had any testing, and you are not able to come up here before us today and say, we have run these things through, we have tried it, we have checked it. We have got a percentage of failure, we know what our people on the average do and don't get.

I am not trying to say you aren't making an effort. I am just saying it seems to me that you are not able to tell us enough to establish confidence in the public or me that we are indeed capable of screening these out today by the method of judging that we would ordinarily know what it is by nonrecognition, therefore, we are going to stop and look for it.

That is what is bothering me.

Mr. VINCENT. Mr. McCollum, your concern, perhaps, is quite justified. I would point out that the system—the screening system—has been in place with detection of weapons that have been used at times against aviation since January 1973. You have heard the impressive statistics from the Congressmen that testified before us. All of those are true.

At any time during these past 10 or 13, 14 years that that system has been in place, people could have, and have disassembled weapons—whether they are plastic or not—and attempted to, what we term, artfully conceal and to take them through screening units. We have detected those artfully concealed weapons.

So I would submit, regardless of whether it is plastic, partially, or whatever, we have, and will continue, on the human factor side, detect those weapons. There are a considerable array of countermeasures at our disposal that have been developed over the years, profiles and any number of other things that enable us to detect items coming through the screening point. The countermeasures enable us to focus our search of those things that are not readily identifiable.

We are talking about a very complex and a very comprehensive system that has worked, and will continue to work.

Mr. MCCOLLUM. I certainly agree with you that your track record is good. But I just hope that the testing procedures can be done on some of these that I think would probably be a little bit harder to find. I don't know if you have had any experience with where somebody has tried to slip one of these kind through where it is a lot less metal.

Thank you, Mr. Chairman.

Mr. HUGHES. I just want to pick up on that line of questioning because it ties in with my first line of questioning.

I share my colleague's dismay over the fact that we have weapons that have not been tested to determine whether or not they will elude detection.

You know, we talk about our track record—and I think the track record is pretty good. But we don't have any idea how many weapons we didn't pick up, do we?

Mr. VINCENT. Mr. Chairman, you can't prove a negative.

Mr. HUGHES. Of course, that is the point. That is not even arguable. But the point is that we have a weapon that is marketed—what is called? Tech-9?

Mr. McGUIRE. Tech-9.

Mr. HUGHES. Tech-9. And that is all plastic?

Mr. McGUIRE. The frame and receiver are plastic with a metal spring on the inside.

Mr. HUGHES. I wonder if you can do this for me, Phil. Will you walk it through the metal detector? Let's see if it triggers the system. We have never done this, have we? We have never checked it?

Mr. McGUIRE. No, sir.

Mr. HUGHES. It should be interesting. Why don't you walk through that and see if it is detectable.

[Walk-through demonstration by Mr. McGuire and Mr. Hughes through the metal detector.]

[Beep sound.]

Mr. HUGHES. Do you have change in your pocket, as they say? [Laughter.]

Mr. HUGHES. The point is that disassembled it won't trigger it.

Mr. McGUIRE. It didn't appear to.

Mr. HUGHES. Come on back to the witness table.

Phil, why shouldn't we be determining as new weapons come on line whether or not they are detectable?

Mr. McGUIRE. I have no argument with that. As a matter of fact, I think it is in the best interest of the law enforcement to know in order to train the people at the airport, if nothing else.

As I know you know, we don't have the resources, nor the authority to do it.

Mr. HUGHES. You don't have present authority to make that test?

Mr. McGUIRE. We could test but we couldn't do anything with the results other than simply make it——

Mr. HUGHES. Wouldn't it be interesting just to find out?

I mean, as policymakers, shouldn't we know whether it is going to avoid detection?

Mr. VINCENT. Mr. Chairman, if I might, I believe that would be the functional requirement of my organization as far as the detection.

Mr. HUGHES. I am going to get to you, Mr. Vincent.

I have a perception that agencies sometimes don't talk to one another about problems. You see, his mission is weapons and your mission is air. And sometimes air and weapons don't come together.

Now, do you want to tell me? Do you test weapons that are coming on the market for that purpose?

Mr. VINCENT. We test all of the weapons that we find that we have an interest in that would raise some question about their detectability.

Mr. HUGHES. I tell you, that sounds like you have just danced around the Maypole.

Mr. VINCENT. I don't intend to.

My point being, it doesn't make sense necessarily to test a .45 that is all metal, that weighs 1½ pounds, 2 pounds, whatever. But those weapons, particularly the small ones, yes, we are very interested. And, yes, we do track those, and we do issue alerts.

Mr. HUGHES. How do you find out about what weapons are coming on the market?

Mr. VINCENT. From ATF, from our own agents around the country, from any of the other law enforcement agencies.

Mr. HUGHES. Do you have a memorandum of understanding with the agency that they provide that information to you, that is, information on new weapons coming on the market, so you might run that test?

Mr. VINCENT. No, sir, we do not. But I have an intelligence unit that deals with nothing but full-time liaison—the intelligence flow and the liaison with other law enforcement agencies. That is their business, to make sure that we know, including the propelled knife that Congressman Biaggi showed us.

Mr. HUGHES. Now, if you make a determination that it could present a problem to detect, what do you do about it?

Mr. VINCENT. Then we issue an alert and it goes to the entire community that have an interest in the detection of weapons—that is ours as well as other law enforcement agencies.

Mr. HUGHES. But what is done to try to deal with it effectively besides issuing an alert that a weapon is being marketed that may present a problem of detection?

Mr. VINCENT. We would offer, within this alert, those things that the operators and the trainers ought to be alerted to, such as what the Congressman mentioned a moment ago about the springs and the clips.

Mr. HUGHES. I tell you, I wasn't impressed by that spring argument. That looks like one of my wife's hair curlers. I don't know that you could really determine just the nature of the spring. I mean, there are all kinds of springs, I realize. You know, all kinds of carrying cases you might carry. I don't know that the spring itself is going to tip you.

We keep talking about operators who are trained. Operators are human. They come and they go. They are busy. They are distracted. The difficulty is as we make items harder and harder for them to see and to recognize, we increase the chance that they are going to slip through, don't we?

Mr. VINCENT. That perhaps is true.

Mr. HUGHES. I think it is logical.

Mr. VINCENT. I would say, however, that if that argument is carried to its ultimate, that you would say that the only safe way that we can resolve this problem is technology. But I would also suggest that within the lifetime of anyone in this room, we will never see technology that can detect all the weapons that we are interested in.

What I am saying is, that you always have to have the human element in the system.

Mr. HUGHES. That is true, except that, for instance, this committee is now endeavoring to close another loophole. We tried to deal with the diversion problem and designer drug problem in the last Congress, and we passed a law that permits emergency scheduling. We found that our criminal chemists are ahead of us. Now we are going back and we are going to see if we can't anticipate where they are going. We do that all the time. Nobody is trying to

demean all the other components—the profile that is essential, the training.

But we are talking about human beings that have good days and bad days. It is hectic at airports, to begin with. We have a steady flow in and out of the airports of people that are operators. We know that some of these weapons have gotten through—Glock 17, in particular, which you say should have shown up, didn't show up because of operator error. But as we decrease the recognizable features of a weapon, we make it more difficult for even a trained operator to pick it up.

So it seems to me that what we have got to do to stay ahead of the curve, if possible, is to have technology to try to deal with these weapons as they come onto the marketplace. And if I hear you correctly, we have no system right now of really testing weapons; working with manufacturers to try to overcome the problem.

It seems to me that one of the things we should be doing, at the very least, is to try to develop some standards, to try to work with manufacturers that will assist us in detecting weapons, if we are moving to a new generation of weapons, should we not?

Mr. VINCENT. We agree with you on that. In my statement, I noted that we and the ATF were exploring the feasibility of developing those standards. I might note that we just finished, in the FAA, developing a standard on new tests for performance of the x-ray system. That was some 2 years in development. That was done with the American Society for Testing and Materials that sets the standards in virtually anything that you can name from a technical standpoint.

What we would propose to do, and intend to do, after exploring the feasibility of that is to then move into actual development of the standards; and most likely the approach we would take would be with ASTM, which is the bona fide and legitimate agency.

Mr. HUGHES. Let me ask you just a couple more brief questions.

What is the average number of months of experience of an airport x-ray operator?

Mr. VINCENT. I don't have that data with me. In many cases, it is extremely low. I hasten to add, that in recognition of that problem and with the desire to tackle any problems within the training system, the Secretary of Transportation, 2½ months ago, initiated a five-part study, of which two of those parts are supposed to be finished the end of this month. One of them is the airport training process and the other is the security at the airports, that is, the perimeter area. And from that, she then will decide what needs to be done to address the problems within that system, one of which is the rapid turnover of screeners.

Mr. HUGHES. Do you survey the level of experience of airport security personnel at the FAA?

Mr. VINCENT. No, sir, we do not.

Mr. HUGHES. Who does?

Mr. VINCENT. We have no requirement to survey the level of experience. We require the operators that are doing that work, through the air carriers who we regulate, to assure that those operators have a certain minimum of training—there are five different parts in training that they have to have, and that has to be cur-

rent. We check that periodically. We also test the metal detectors as well as the x ray by trying to slip weapons through them.

Mr. HUGHES. From what you tell me, however, we really do not do any monitoring of the experience level of operators. Obviously, it is important to have experienced operators who understand what is going through these machines.

Mr. VINCENT. Yes, sir. Obviously, the more experienced the operator you have, you should have better performance.

Mr. HUGHES. Is that a function the FAA should be performing?

Mr. VINCENT. I think the way we are doing it, which insures that the operator's performance is at a level that it should be is the way to address the problem rather than the turnover of the personnel. That is, we test the system and if the system is performing the way it should be performing, then we are assured by our check also that the screeners have received the appropriate training. I believe that is the best approach rather than going and serving how many months of experience the screeners have.

Mr. HUGHES. But that is a hit-or-miss proposition, isn't it?

Mr. VINCENT. No, sir. I would say that is the positive approach to make sure that the system is performing.

Mr. HUGHES. The sole level of discrimination required by the regulations, as I understand them, is that the system is capable of distinguishing an insulated 24-gauge solid copper wire. What does that mean?

Mr. VINCENT. You are asking a nontechnical person a very technical question. That is the standard that was developed with the American Society for Testing and Materials. I would be happy to submit for the record, if you would like, a technical explanation of that. A nontechnical explanation of the 24-gauge copper wire test is that this demonstrates that the very, very small wires that the x-ray system has to be capable of seeing and showing readily to an operator is detectable, which assures you that you would have the necessary discrimination.

Mr. HUGHES. Mr. Johnson, do you have an ongoing study at the present time at OTA, or have you completed your study?

Mr. JOHNSON. Yes; we have two studies that relate somewhat to this subject. One is on the evaluation of the Federal Government's efforts in control of narcotics smuggling in ports and in other ways as well. The other is an evaluation of advanced plastic materials.

We used the data from those studies and did a little bit of extra work in order to address this question.

Mr. HUGHES. Would you make your study available for the record?

Mr. JOHNSON. Certainly. These are ongoing studies and we have some preliminary material on each of them.

Mr. HUGHES. Would you submit that for the record?

Mr. JOHNSON. Yes.

Mr. HUGHES. Without objection, so ordered.

[The information follows:]

Excerpts from Ongoing OTA Study
on Technologies to Control Illegal Drug Traffic
June 1986

The following excerpts from the ongoing OTA study of drug trafficking are taken from the sections addressing drug smuggling through ports of entry. They are presented as an illustration of the technological approach now employed by the U.S. Customs Service to apprehend violators and prevent smuggling through U.S. ports. This approach and these technologies, or variations of them, may also be employed to prevent other smuggling activities. The full report is only partially prepared in draft form at this time.

DRUG SMUGGLING THROUGH PORTS OF ENTRY

Introduction

Numerous opportunities exist for drug smugglers to transport drugs into the U.S. through the official border crossings or ports of entry. There are over 300 ports of entry including airports, seaports, land border stations and mail processing facilities. An enormous amount and variety of traffic passes through these ports of entry each year.

The smuggler has some distinct advantages over the U.S. Customs Service, which has primary responsibility for drug interdiction at ports of entry. The amount and variety of traffic at ports of entry provides smugglers with almost unlimited places to conceal drugs. This same traffic creates a burden on Customs inspectors to facilitate movement while enforcing many laws besides those related to drug interdiction, including immigration, agriculture and health laws, trade restrictions and duty collection. Also, there are currently no fool-proof methods to detect drugs concealed in port of entry traffic.

A major advantage of Customs over drug smugglers is the authority for search and seizure without a warrant at the border. Major drug laws enforced by Customs include: 21USC952 - Unlawful Importation of Heroin, Cocaine, Marijuana, Hashish, 21USC953 - Unlawful Exportation of Heroin, Cocaine, Marijuana, Hashish), 18USC546 - LSD, Barbituates, Amphetamines Being Smuggled, and 21USC844 - Simple Possession of Any Controlled Substances.

Seizures and Drug Traffic

All types of drugs have been seized at ports of entry. High value, low bulk drugs, such as heroin are especially conducive to smuggling through ports of entry, given how easily valuable quantities can be concealed. Compared to other smuggling modes, relatively small amounts of marijuana and cocaine come through ports of entry.

Smugglers have concealed drugs in many different ways. The task of detecting drugs in ports of entry traffic is made especially difficult by the myriad of ways the drugs can be concealed, the large amount of traffic where drugs can be hidden at any given port, and the ability of smugglers to alter their concealment methods and/or use different ports of entry if the risk of detection is increased at a particular location.

Each of the different smuggling modes allow the smuggler to retain varying amounts of control over the shipment primarily related to the amount of time required for shipping across the border. Time in transit varies depending on whether the shipment is made through land, air or sea ports of entry. Land transport by private or commercial vehicles may provide one of the most opportune smuggling methods. Smugglers can hold loads close to the border until it appears that the chances of a detailed inspection are low. Customs personnel think that smugglers can effectively watch port operations and determine whether a blitz or special operation is in progress, or whether dogs are present.

The type of traffic also varies regionally and is partially the basis for allocation of Customs Service inspection resources. Other factors that are considered in the allocation of inspectors and equipment include: the timely communication of intelligence, the development of threat assessments for individual flights, and the evaluation of national and international smuggling methods and trends.

Technological and Other Detection Aids

Several requirements must be satisfied for any aids to be effective for the detection of drugs at ports of entry. Speed and accuracy are probably the most important considerations, given the Customs responsibility to facilitate traffic in addition to enforcing drug and other laws. Acceptability by Customs inspectors is an equally important consideration if the techniques are going to be used. Inspectors concerns include: ease of operation, accuracy, durability under field conditions, safety, compatibility with normal working techniques and low cost (no one wants to break a very expensive piece of equipment). Sensitivity to particular drugs and the quantities of concern are also important.

Customs has been seeking new techniques to detect drugs over the last few years. This is primarily the responsibility of the R&D Division. The Technical Services Office has also been involved in the development of some techniques. True R&D efforts with 1985 funding were for the optical passport reader, the license plate reader, nuclear magnetic resonance and ion mobility spectrometry, amounting to a total of $267,500.

Current and emerging technologies for drug detection at ports of entry are listed in the attached table. For this table, current means that the technology is fully developed and available for use. Demonstrated means that

the applicability of the technology to drug detection has been proven, but is still being refined for Custom's use. Exploratory means that the applicability of the technology is being investigated.

Techniques that have been reviewed, but ruled out for use for drug detection at ports of entry in the near term include: laser optoacoustics; plasma chromatography, neutron backscatter, computerized tomography; neutron activation anlaysis; dielectric analysis; and voice stress analysis.

While the Custom's budget for R&D of drug detection techniques is very low, the number of technologies being reviewed or in some stage of development is impressive. Openness to ideas from industry and Custom's staff ideas also leads to advancements. Cooperation with the Canadian and other foreign governments has added little to U.S. Customs efforts.

Very little technical equipment is actually in place to help detect drugs at ports of entry. There are 17 parcel x-ray systems located at 16 ports of entry, primarily used to inspect individual items in airport baggage; 8 x-ray systems located at 4 mail examination facilities; and 3 sets of probes, 16 fiberscopes and 24 ultrasonic range finders that have been distributed by Customs R&D to ports of entry, although additional equipment of this kind may have been obtained with other funds. The wind tunnel (thermionic vapor system) to screen passengers is scheduled to be installed at one airport in the Fall of 1986. The 4 gamma ray detection devices were sent back to the manufacturer for design correction. (Footnote: A gamma ray detection device, along with a fiberscope, ultrasonic range finder and selected probes and mirrors were packaged by the Customs R&D Office, in 3 Contraband Detection Kits to enhance the portability of this equipment. These kits were distributed to 3 different ports.) Drug detecting dogs, though not a technology per se, are located at 26 ports of entry.

Most of the technologies listed as current in the table do not actually detect drugs, rather they are facilitation tools that show abnormalities in materials (i.e., x-rays, fiber optics, probes, gamma backscatter, ultrasonic range finder) or the presence of substances often associated with drugs (i.e., vapor detection, dogs). Further inspection may indicate the presence of drugs. Dogs are also capable of directly detecting marijuana and hashish.

None of these techniques are fool-proof. Countermeasures can be developed for all of them. However, in most cases, techniques can also be developed to identify the use of countermeasures.

The list includes both nonvapor and vapor technologies. These two basic approaches have different advantages and requirements.

Nonvapor detection technologies are considered to be more cost-effective than vapor technologies. However, they use active systems that potentially create problems with safety (e.g., radiation hazards), housing and power. Nonvapor approaches are generally non-specific (i.e., with the exception of NMR which uses the intrinsic properties of the drugs, most detect drugs by the way they are concealed); they are subject to "fuzing" (i.e., the activation of an explosive device designed to disrupt, destroy, or injure upon sensing a probing field); there are countermeasures and interferences; most aren't capable of a high throughput rate because they require a long interrogation time; and most techniques require an operator and in some cases skill, training and experience are important.

Successful detection with vapor technologies requires the formation of a vapor envelope and proper sampling. Vapor envelope formation depends on a number of factors that are mostly controlled by the smuggler: the freshness of the drug or its state of decomposition; the quantity of drugs present; the use

of permeable packaging (e.g., plastic, paper, cardboard and rubber); and the length of time the drug is in place. For processed drugs like heroin and cocaine, vapor approaches would generally rely on detection of chemicals used in processing because the drug molecules themselves (usually in the form of hydrochloride salts) are not very volatile. Proper sampling is a major problem in developing vapor technologies. Sufficient time, adequate concentration of drug vapor and placement of the sampling probe are all critical for successful vapor detection. The sampling method must also avoid saturation or overload of the detector system with high concentrations of non-target substances and the method must avoid contamination by previous samples.

Table 17. CURRENT AND EMERGING TECHNOLOGY TO DETECT DIFFERENT DRUGS

Technology/Status	Potential Smuggling Mode					Configuration
	Aircraft, Ships and Vehicles	Mail	Persons	Baggage, Parcels and Light Cargo	Bulk Cargo	
CURRENT NON VAPOR TECHNIQUES						
X-ray		A	A	A		Cabinet and conveyerized
Fiberoptics	A			A		Handheld
Gamma Backscatter	A			A		Handheld
Probes	A	A		A		Handheld
Ultrasonic Rangefinder	A					Handheld
CURRENT VAPOR TECHNIQUES						
Wind Tunnel			C,H			Walk-thru
Dogs	H,C,M,Ha	H,C,M,Ha		H,C,M,Ha	H,C,M,Ha	Mobile
DEMONSTRATED NONVAPOR TECHNIQUES						
Mobile X-ray	A			A		Self-propelled, conveyerized
Nuclear Magnetic Resonance		C,H				Cabinet and conveyerized
EXPLORATORY NON-VAPOR TECHNIQUES						
Compton Backscatter X-ray				A		Cabinet and conveyerized
Microwaves				C		Portable
Imaging Gamma Backscatter	A			A		Portable
VAPOR TECHNIQUES						
Mass Spectrometry	C	C	C	C		Desktop
Ion Mobility Spectrometry	C	C	C	C		Desktop
Gas Chromatography	C	C,H	C	C		Desktop
Integrated X-ray and Vapor Detection					A,C	Fixed

A - Abnormalities in Materials C - Cocaine Ha - Hashish M - Marijuana H - Heroin

SOURCE: Office of Technology Assessment

Mr. HUGHES.All right.

The gentleman from Florida.

Mr. MCCOLLUM. Mr. Vincent, I am a commuter. I go home virtually every weekend to my district where my family lives and I fly back and forth to do that. I have a set of keys in my hand from my pocket. They are to my car. Every time I get on board the plane, before I do that I pass through one of those metal detectors. I have the keys in my right-hand pocket and I always have a handkerchief in that pocket. I don't try to hide the keys and the handkerchief—they are just both in there. Only about once out of every 40 or 50 times I go through a metal detector at an airport do these keys ever set off that detector.

If that is the case and someone has a weapon that is mostly nonmetal and the springs are capable of being that small in going into my pocket—if that is the case, and the person takes the springs out and sticks them in his pocket, has the weapon on his person, never checks anything through the bag for the x-ray machine—isn't that person likely to be able to take that weapon aboard a plane totally undetected in most airports today?

Mr. VINCENT. If in fact the all-plastic weapons with six or seven springs as you mentioned here earlier, is a reality and in today's system, then you are correct.

Mr. MCCOLLUM. That is what I am saying.

I know that we don't have it as a reality yet on the market, we haven't seen it there, but if that is the case, I am correct, with today's technology that is out there currently at our airports.

Mr. VINCENT. You are correct, and we would have to compensate for that with some other countermeasure. Let me back up now and hasten to add that any metal detector—certainly, the later state of the art, if they alarm on those keys that you have, then the metal detector is not performing properly.

Mr. MCCOLLUM. There are a lot of them. I have been through a lot of airports since I have been in Congress, and I am going to tell you, literally, once out of every 40 or 50 times does it ever go off, that I have to ever empty my pockets.

Mr. VINCENT. Some of those metal detectors are so good and discriminating past the metal that it creates another problem. The other problem being that no one ever hears it go off, which then they assume that it isn't working. So in some cases we are forced to crank up the sensitivity of the unit so that the public then perceives that the equipment is working.

Mr. MCCOLLUM. I hope that is the case. If it is not a problem for my keys to go through and it is a low volume and all that, then I am happy. But I got the impression that is not the case.

Thank you very much.

Mr. HUGHES. Thank you.

Phil, I really am concerned over the fact that we are not working more directly on firearms or coming on line to determine whether or not they are detectable. I don't perceive that to be just an FAA problem. Now, that is primarily an ATF problem, as I see it.

Mr. MCGUIRE. Would you like me to respond?

Mr. HUGHES. Yes.

Mr. MCGUIRE. Yes, sir.

First of all, you use the term come on line, which we don't have the authority to examine anything prior to its going into production and getting on the market. Now, after it is on the market we do look at many things.

As Mr. Vincent pointed out, despite the lack of a memorandum of understanding, Ed Owen, in my opinion, is accepted by all facets of both law enforcement and the industry as certainly one of the preeminent experts in the country. There is an ongoing dialog between ATF and all other Federal law enforcement organizations to include FAA. We do participate as well in putting out notices to FAA and others when we see a problem of that magnitude.

But the problem really goes beyond that, and that we don't have the authority. All we can do at this point is alert people to the potential problem.

Mr. HUGHES. Maybe I look at the issue a little differently.

I don't think it is a matter of your just having to be satisfied with the state of present authority. If the public interest requires you to request additional authority, that is part of your job. Isn't that part of your job? I always thought so.

Mr. MCGUIRE. It is.

Mr. HUGHES. I don't remember receiving any request from ATF for additional authority to deal with the problem.

On that score, let me just say to you, and you are, unfortunately, the messengers here today—you are here testifying, so you are the closest thing I have to the policymakers at ATF.

I want to tell you how disappointed I am with ATF. Their response, several weeks ago, in reference to our request for firearms legislation was nothing short of disgraceful. For an agency that is charged with the responsibility of protecting citizens in this country and promulgating decent, fair, equitable firearms legislation, I couldn't believe the failure to respond.

I requested, 2 months ago, information from ATF and never received it. Staff had to call time and time to get the information and have never received it. I have gotten the impression that you have been intimidated as an agency over the last few years, and I understand why. I was one of the people that helped lead the fight back in 1981 and 1982 to preserve your agency against the wrongful attacks. It is just absolutely disgraceful that your agency just cowers and bows to the pressures on—I realize a rather irrational issue—firearms.

I just hope you will take that message back. They do law enforcement a disservice.

Thank you very much. I appreciate your testimony.

Mr. MCGUIRE. Thank you.

Mr. HUGHES. Our next panel consists of Victor Strom, director of public safety, Port Authority of New York and New Jersey, accompanied by Henry DeGeneste, superintendent of police for the Port Authority; Richard Lally, assistant vice president for security, the Air Transport Association; Robert Wigington, director of public affairs for the Airport Operators Council International; Sterling Epps, special agent of the United States Customs Service, and legislative cochairman of the Federal Law Enforcement Officers Association, and Donald Cahill, national legislative committee for Fraternal Order of Police.

Gentlemen, we are just delighted to have you with us today. We have your statements which, without objection, will be made a part of the record in full. We hope that you can summarize your testimony and we are going to begin with you, Mr. Strom. Welcome.

STATEMENTS OF VICTOR T. STROM, DIRECTOR OF PUBLIC SAFETY, THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY, ACCOMPANIED BY HENRY I. DeGENESTE, SUPERINTENDENT OF POLICE, THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY; RICHARD F. LALLY, ASSISTANT VICE PRESIDENT FOR SECURITY, THE AIR TRANSPORT ASSOCIATION, WASHINGTON, DC; ROBERT R. WIGINGTON, DIRECTOR OF GOVERNMENTAL AFFAIRS, AIRPORT OPERATORS COUNCIL INTERNATIONAL, WASHINGTON, DC; STERLING B. EPPS, LEGISLATIVE CO-CHAIRMAN, FEDERAL LAW ENFORCEMENT OFFICERS ASSOCIATION, WASHINGTON, DC, AND DONALD L. CAHILL, MEMBER, NATIONAL LEGISLATIVE COMMITTEE, FRATERNAL ORDER OF POLICE

Mr. STROM. Mr. Chairman and members of the committee:

I am Victor Strom, director of public safety for the Port Authority of New York and New Jersey. With me today is Henry DeGeneste, superintendent of the port authority police.

We appreciate this opportunity to address the committee on this important issue. You have our written statement on the subject of undetectable firearms which deals with the security concerns of our organization as operators of one of the largest airport complexes in this country.

But I feel that several aspects of the issues we presented are worthy of special emphasis. The port authority, a public agency of the States of New York and New Jersey, operates the busiest regional airport complex in the Nation. In 1985, more than 78 million domestic and overseas passengers were served at John F. Kennedy International, LaGuardia, and Newark International airports.

We are vitally interested in the safety and security of all passengers using our facilities, not to mention the more than 64,000 people that are employed at the airports.

Recent terrorist activities abroad and the threat of such activities in the United States have, of course, heightened our concerns. Today, we are faced with an even more serious problem which could jeopardize all of our security efforts. I refer to the manufacture and importation of firearms that would be able to evade existing airport security systems.

Mr. Chairman, I don't need to emphasize to you that a major segment of our traveling population wants to feel secure traveling by air. Utilization of a magnetometer and x rays at departure screening points are two of the primary tools that airlines and the FAA rely on to accomplish that task. They are not perfect tools, dependent as they are, not only the accuracy and the sensitivity of the equipment, but also upon the alertness and thoroughness of the screening operator.

I submit that in these difficult times, any dimunition of the ability of the equipment or the operator to identify a weapon which could be used in a hijacking or terrorist action on board a plane is

a gross disservice to the world community. The advent of nonmetal firearms poses a very real threat to air passenger safety and can defeat one of the most important basis security systems currently in place at our airports.

The Port Authority of New York and New Jersey has conducted tests on the presently available Glock 17—a firearm that is largely made of plastic, and it raises grave concerns for us as airport operators.

Our tests have indicated that this particular weapon may not be readily detectable using current airport security systems due to its limited number of metal parts. The Glock 17 can be disassembled in about 30 seconds into six basic components. Reassembly of the gun can take place just as quickly. Those portions of the gun which are mostly plastic, and some of the metal parts, can pass through a magnetometer.

Mr. DeGeneste, will you show the committee?

[Weapon demonstration.]

Mr. STROM. These elements of the gun were in the possession of Superintendent DeGeneste not more than 2 minutes ago as he passed through that magnetometer, and it did not ring off the magnetometer.

Mr. HUGHES. Every one of the parts were from the Glock 17?

Mr. STROM. Not every one of them—shy of one part. But I submit, if I may, Mr. Chairman, this [holding up the receiver] is the profile which a lot of the operators are used to identifying, which clearly is the profile of a gun—can be seen in an x ray, no question about it. This portion of the gun—the receiver—was on the person of Mr. DeGeneste as he walked through that magnetometer, and that is not the part that would be passed through an x-ray machine. Moreover, the identification of the remaining metal component of the pistol, through the image presented on the x-ray machine, is a task that will test the abilities of even the best operators, particularly if the individual attempting to pass the weapon through the x ray takes the trouble to disguise this innocuous looking gun element.

More important than our concerns over this particular firearm, however, the Glock 17 calls attention to the new technological advances in the manufacture of weapons, where at some point in the near future, a weapon could be developed which could easily evade security systems used at the airports.

The developments in nonmetal firearms, quite frankly, are outpacing the technological developments in security equipment to protect our air passengers against the future criminal use of these weapons. As a result, there will be a window of opportunity for those who would misuse these weapons and the results could be tragic.

Until the technology of security devices advances fully enough to detect these weapons, we urge the Congress to take action to restrict the availability of these weapons and thereby protect the security of millions of air passengers.

Our purpose here today is not to single out any particular weapon, but to call attention of the Congress and the American people to the need to prevent the manufacturing and importation of undetectable firearms in the United States.

So we join with all parties who have an interest in insuring the safety of the air traveler in endorsing the legislation proposed by Representatives Biaggi and Mrazek as well as Mr. Weiss and Mr. Schumer—all of whom should be commended for their initiative.

We trust that the deliberations of this committee will result in positive support for the approval of such a law by the Congress.

Finally, Mr. Chairman, we are grateful to you for providing the opportunity for a public discussion of this important issue.

Mr. HUGHES. Thank you, Mr. Strom.

[The statement of Mr. Strom follows:]

STATEMENT OF

VICTOR T. STROM
DIRECTOR OF PUBLIC SAFETY

and

HENRY DE GENESTE
SUPERINTENDENT OF POLICE

of

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

before

THE HOUSE JUDICIARY SUBCOMMITTEE ON CRIME

MAY 15, 1986

Mr. Chariman, I appreciate this opportunity to address the committee today on a topic that is of major interest of The Port Authority of New York and New Jersey. The Port Authority, a public agency of the States of New York and New Jersey, operates the busiest regional airport complex in the nation. In 1985 more than 78 million domestic and overseas passengers were served at John F. Kennedy International, LaGuardia and Newark International Airports. These airports also handled over one million aircraft operations last year. We are vitally interested in the safety and security of all passengers using our facilities, not to mention the more than 64,000 people that are employed at the airports. As we proceed with our plans for the major expansion and the development of each of our airports, we are particularly concerned with the question of security and have established a special task force to address those concerns.

Recent terrorist activities abroad and the threat of such activities in the United States have, of course, heightened our concerns. Today we are faced with an even more serious problem which could jeopardize all of our security efforts. I refer to the manufacture and importation of firearms that would be able to evade existing airport security systems.

As you may know, airports rely on standard security equipment such as that used to protect this building. The basic tool of airport security which is provided at each of our airports by the airlines under the Code of Federal Regulations for air passenger travel at "exclusive areas" such as boarding gates, is a magnetometer which detects metal objects that an individual has on his person and an Xray machine that is designed to examine the contents of hand carried bags or luggage. A magnetometer, however, cannot detect non-metal objects; therefore, any object not made of metal--a pen, cigarette lighter or a plastic firearm--would not be detected by this security device. The advent of non-metal firearms poses a very real threat to air passenger safety and can defeat one of the most important basic security systems currently in place at our airports.

The Port Authority of New York and New Jersey has conducted tests on the presently available Glock-17, a firearm that is largely made of plastic, and it raises grave concerns for us as airport operators. Our tests have indicated that this particular weapon may be able to evade airport security systems due to its limited number of metal parts. More important than our concerns over this particular firearm, however, the Glock-17 calls attention to the new technological advances in the manufacture of weapons where, at some point in the near future, a weapon could be developed which could easily evade security systems used at in airports.

The developments in non-metal firearms, quite frankly, are outpacing the technological developments in security equipment to protect our air passengers against the future criminal use of these weapons. As a result, there will be a window of opportunity for those who would misuse these weapons and the results could be tragic. Until the technology in security

- more -

devices advances fully enough to detect these weapons, we urge the Congress to take action to restrict the availability of these weapons and thereby protect the security of millions of air passengers.

Our purpose here today is not to single out any particular weapon, but to call to the attention of the Congress and the American people the need to prevent the manufacturing and importation of undetectable firearms in the United States.

As a result we support the legislation introduced on this matter by Representative Mrazek and Representative Biaggi and cosponsored by several members of Congress. We are also pleased to know that similar legislation has been introduced in the Senate by Senator Kassebaum of Kansas who chairs the Senate Aviation Subcommittee.

We hope that Congress will act expeditiously on this matter. Finally, even with laws prohibiting certain weapons, the need for better and more effective detection methods is clear. We urge the Federal Aviation Administration and other agencies of the Federal Government to work for the development of improved security devices for use at the nation's airports.

For our part, we will continue to work closely with the FAA and the airlines to strengthen security at the airports under our jurisdiction. We ask you to support us in our efforts by passing this vital legislation.

Mr. HUGHES. At this time we will hear from Mr. Lally. We have your excellent statement which will be made a part of the record and we hope you can summarize for us.

Mr. LALLY. Yes; I will summarize it, Mr. Chairman.

Mr. HUGHES. Thank you.

Mr. LALLY. I am Richard Lally. I am assistant vice president for security for the Air Transport Association. I am pleased to appear before the subcommittee on behalf of the ATA member carriers to add the views of our industry as you consider legislation that would prohibit the domestic manufacture of new firearms or the importation of firearms not detectable by the weapons detection systems in use at airports in the United States.

I can assure you, Mr. Chairman, that the U.S. airlines have the best passenger screening system in the world. It is at the heart of our program to protect passengers and crews from crimes against air commerce.

Our screening system has been put to the test, and put to the test successfully by such unusual things as flammable liquids, flare guns and the so-called Saturday night special handguns that are so prevalent in the United States and that have less metal and are more difficult to detect in fact than the recently publicized Glock 17.

We believe, however, that legislation to ban the manufacture and importation of firearms that modern screening cannot readily detect is a prudent measure. Such a ban would not necessarily impact technological progress in firearms development, as a firearms manufacturer could include metal filings or fragments helping detection while still preserving the advantages of mostly plastic construction. Although invisible from an exterior view, the metal fragments could provide a flag to screeners or show a distinctive message under the x ray—the word "gun", for example.

Briefly, we endorse the objectives of the legislation before you and suggest only that the language of the proposed amendments in H.R. 4194 to sections 922 and 925 of title 18, be expanded to require that the Secretary of the Treasury consult with the Administrator of the Federal Aviation Administration in arriving at determinations to prohibit the manufacture or importation of firearms.

We believe that such consultation is essential because the weapons detection systems in place at U.S. airports were established pursuant to Federal aviation regulations and are maintained and operated by the airlines in accordance with FAA security standards and procedures.

It seems to us, therefore, that the airlines and the FAA can provide the best information and the best judgments as to the detectability of firearms so as to guide the Secretary of the Treasury in making the proposed determinations.

The airline passenger screening process is the cornerstone of the U.S. Civil Aviation Security Program that has served and continues to serve, we think, as the model for the rest of the world.

In addition to focusing on that system and recognizing that concerns about terrorism are increasing, from an aviation industry viewpoint we think it is important to put those concerns in some sort of perspective. By way of background from a statistical standpoint, these have been relatively good times for airline security.

There were only five U.S. airline hijackings attempted during 1984 and only four in 1985—the lowest annual record since 1976. So far, in 1986, there have been two attempts to hijack U.S. airline flights operating under FAA security requirements—both were unsuccessful.

These figures compare favorably to the peak hijacking years of 1968—1972, when there was a 5-year total of 173 U.S. airline hijackings, or an average of almost 35 each year. So, while not downplaying concerns about terrorism, we do think that it is important to keep the problem in perspective.

In summary, Mr. Chairman, we endorse the legislation you are considering and we recommend its passage and its enactment.

I would be happy to answer any questions that the subcommittee may have.

Mr. HUGHES. Thank you.

[The statement of Mr. Lally follows:]

TESTIMONY OF

RICHARD F. LALLY

ASSISTANT VICE PRESIDENT - SECURITY
THE AIR TRANSPORT ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON CRIME
OF THE HOUSE JUDICIARY COMMITTEE
U.S. HOUSE OF REPRESENTATIVES

MAY 15, 1986

My name is Richard F. Lally. I am Assistant Vice President - Security for the Air Transport Association, the trade and service organization of the U.S. scheduled airlines.

The airlines belonging to ATA account for more than 90 percent of the total revenue passenger miles produced by U.S. scheduled air carriers, for more than 95 percent of air freight ton miles and for the transportation of most intercity first class mail. ATA air carriers fly to more than 400 airports in the United States and to more than 70 other countries.

I am pleased to appear on behalf of ATA member carriers before this subcommittee to add the views of our industry as you consider legislation that would prohibit the domestic manufacture of new firearms or the importation of firearms not detectable by the weapons detection systems in use at airports in the United States.

I can assure you, Mr. Chairman, that the U.S. airlines have the best passenger screening system in the world. It is at the heart of our program to protect our passengers and crews from crimes against air commerce.

Our screening system has been put to the test -- and put to the test successfully -- by such unusual things as flammable liquids, flare guns and the Saturday night special that has less metal and is more difficult to detect than the recently highly publicized Glock 17.

Legislation to ban the manufacture and importation of firearms that modern screening cannot readily detect is a prudent measure.

A firearms manufacturer could include metal fragments, helping detection but still preserving the advantages of mostly plastic construction. Although invisible to an exterior view, the metal fragments could show a distinctive message under X-ray -- the word gun, for example.

Briefly, we endorse the objectives of H.R. 4194, the "Terrorist Firearms Prevention Act of 1986", and suggest only that the language of the proposed amendments of sections 922 and 925 of Title 18, United States Code, be expanded to require that the Secretary of the Treasury consult with the Secretary of Transportation or the Administrator of the Federal Aviation Administration in arriving at any determinations to prohibit the manufacture or importation of firearms.

We believe that such consultation is essential because the weapons detection systems in place at U.S. airports were established pursuant to Federal Aviation regulations and are maintained and operated by the airlines in accordance with FAA security standards and procedures. It seems to us, therefore, that the airlines and the FAA can provide the best information and judgments as to the detectability of firearms to guide the Secretary of the Treasury in making the proposed determinations.

The airline passenger screening process is the cornerstone of the U.S. Civil Aviation Security Program that has served and continues to serve, we think as the model for the rest of the

world. Before focusing on the passenger screening process and weapons detection systems specifically, it is desirable to examine some of the recent experience of U.S. airlines in combatting hijackings and related criminal acts against civil air commerce.

By way of background, from a statistical viewpoint, these have been relatively good times for airline security. There were only five U.S. airline hijackings during 1984 and only four in 1985 -- the lowest annual record since 1976. So far in 1986, there have been two attempts to hijack U.S. airline flights operating under FAA security requirements. Both were unsuccessful. These figures compare favorably to the peak hijacking years of 1968-1972 when there was a five year total of 173 U.S. airline hijackings or an average of almost 35 each year.

Statistics alone, however, do not present a full picture. Concerns about international terrorism have been heightened dramatically since the hijacking of TWA Flight 847 out of Athens on June 14, 1985. That incident -- a hijacking only in its initial hours -- developed into a 16 day hostage ordeal very much reminiscent of the 1979-1980 Iranian crisis. Quick on the heels of the June 14 incident came the June 23 explosion of a bomb in a suitcase at Narita Airport and on the same day the suspected -- and now proved -- bomb destruction of an Air India flight off the coast of Ireland with the loss of more than 200 lives. More recently, there was the explosion aboard the U.S. airline flight going into Athens on April 2, the first

bomb explosion aboard a U.S. airline flight since 1982. These incidents have resulted in heightened security measures at airports throughout the world.

As to the U.S. airline passenger screening system specifically, it is important to understand the scope and magnitude of this critical element of the U.S. civil aviation security program.

When screening of all U.S. airline passengers and their carry-on baggage was first proposed back in 1972, there were many in both government and industry who said this couldn't be done.

Such a reaction was understandable, given the millions of people, the baggage and the flights involved and -- for U.S. society -- the unprecedented nature of the personal inspections contemplated. Yet, with one of history's most outstanding examples of public-private sector cooperation, screening and other aspects of the air transport security program have worked remarkably well.

To understand the massive efforts behind successful air transport security, it is helpful to look first at the dimensions of the air transport system that industry and government are keeping secure.

- The nation's airlines transported more than 380 million passengers last year and may carry more than 400 million this year.
- these people moved along with millions of tons of freight and the vast majority of

the nation's intercity first class letters.

- Moving this traffic required the service of 5.5 million flights that had to be processed for security, as well as for a host of other reasons.
- These passengers checked some 550 million bags that moved in aircraft luggage compartments.
- They carried on board with them more than 370 million pieces of luggage.
- In total, the airlines screened more than one billion items that people carried aboard. In addition to the luggage, there were all of the briefcases and purses that passengers carry with them.
- These passengers passed through 1,200 screening points maintained by the airlines at 430 U.S. airports. Actually, more than 700 million people were screened -- counting passengers, people who came to see them off and others whose business takes them through the screening points.
- There are about 6,000 screeners at U.S. airports employed by contractors hired by the airlines. There are more than 1,500 law enforcement officers giving police support to screening activity. The compensation of these officers is being paid by the airlines. More than 1,000 X-ray units and 2,500 weapons detectors are in use at the screening points.

- It costs an average of 79 cents to screen a passenger. The screening phase of security alone costs the nation's airlines more than $200 million a year.

FAA's report to Congress on the effectiveness of the civil aviation security program, issued in November 1985, notes the following about the scope and effectiveness of screening from the time it began in early 1973 through June of 1985:

- Over six billion persons have been screened.
- Almost eight billion carry-on items have been inspected.
- More than 33,000 firearms have been detected, leading to about 14,000 related arrests.

The FAA estimates that 113 hijackings or related crimes may have been prevented by airline and airport security measures.

U.S. history records various instances in which given industries and their customers have been targets of crime, but the response to the security threat against air transportation is marked by a singular characteristic. This characteristic is the extent of responsibility assumed by the airlines in what has been vested traditionally in government as a public safety responsibility. Never before in history has private industry undertaken defenses of the scope, magnitude and duration that the airline industry has undertaken to protect passengers, crews, cargo and aircraft from outside threats.

The U.S. civil aviation program that has evolved over two decades is comprehensive in nature, yet one of shared

responsibilities on the part of government, primarily the FAA, airlines, airports and local communities. We believe the program is fundamentally sound and capable of responding to changes in the nature and level of threats to U.S. commercial aviation, including the threat of terrorism which is a concern of the subcommittee when it considers the potential use of so-called "plastic firearms".

On behalf of the nation's airlines, I thank you for the opportunity to appear here this morning. I will now answer any questions you may have.

* * * * *

Mr. HUGHES. Mr. Wigington, likewise, we have your statement, which will be made a part of the record. Please summarize for us.

Mr. WIGINGTON. Thank you, Mr. Chairman.

I am Robert Wigington, director of governmental affairs for the Airport Operators Council International. AOCI is the association of governmental bodies that own and operate the principal airports served by scheduled airlines in the United States and throughout the world.

We appreciate the opportunity to be here this afternoon to present our views on this important subject.

As you know, civil aviation has proven to be a most attractive target to the world's terrorist element. According to FAA data, between 1969 and 1972, there were 117 hijacking attempts on U.S. scheduled air carrier aircraft for an average during that period of 29 per year.

After the implementation of the current civil aviation security system in 1973, as pointed out by Mr. Lally's statistics, that dropped dramatically.

I have a number of other statistics which I won't go into that are in our written statement which demonstrate the high level of security that we do have today. Although the system is not 100 percent foolproof, and I don't think anybody believes any system could be, it has been very effective and all necessary precautions must be taken to maintain and improve the maximum level of security.

In recent months, we have seen an increase in terrorist activity at some international airports and aboard aircraft. Airport facilities and aircraft are prime targets for terrorist assaults.

The AOCI is greatly alarmed over the advent of plastic firearms which could, in the hands of terrorists, further jeopardize public safety at airports. The primary defense against terrorist infiltration of secure airport areas and aircraft is the use of x-ray machines and metal detectors. The obvious potential of plastic firearms to escape detection would make them extremely attractive to terrorists. At least this witness needs no further evidence than what we just saw with the Glock 17 weapon that there is obviously some controversy as to whether it is detectable or not. If firearms technology gets any better than that, I think we have real reasons to be concerned.

Therefore, AOCI offers its wholehearted support for the legislation introduced by Congressmen Mrazek and Biaggi, H.R. 4194 and H.R. 4223.

We believe as these measures would provide that no firearms should be allowed in this country which are undetectable by current technology standard airport security detection devices. I emphasize current technology because there now exists no x-ray baggage screening device or magnetometer which will detect a firearm made entirely of plastic.

As we have heard today, there is considerable controversy over the Glock 17 which is currently in production, and whether or not it contains enough metal to be detectable 100 percent or even part of the time. Based on the demonstration we have witnessed, I think the risk is very great and the obvious potential for further advancement in this technology is the real reason we are here and

the real reason I think there needs to be movement on this legislation.

Even if this particular gun is eventually found to be detectable, it is anticipated that the technology does exist and future firearms would become more advanced and have fewer and fewer metal parts.

You have heard from the Office of Technology Assessment that a new technology x-ray baggage screening device is being developed, and it was addressed in their paper of April 1986. However, I think as we have heard today, there is great doubt as to how effective the x-ray system will be, and it still does not address the problem of metal detectors, and the question of whether these weapons can be passed through in part or in whole through metal detector devices.

We must not allow plastic weapons technology to outpace our security detection technology. We, therefore, believe the prohibition of undetectable firearms as called for in these bills is appropriate, reasonable, and necessary in order for Congress to take action now before it is too late.

The time to take preventive action is not after such plastic firearms are fully in production and have gained a foothold in the United States and in the arsenal of terrorists, but before they are produced and distributed in such numbers that there would be no feasible way of turning back the threat.

While there may be legitimate recreational uses for plastic firearms, we believe their potential use by terrorists and public safety considerations must be given overriding importance. This legislation would serve to put potential manufacturers on notice that plastic firearms they plan to develop must have enough metal content to be detectable.

In conclusion, Mr. Chairman, this legislation offers an opportunity to protect the traveling public's safety from this new threat while depriving no one of their right to own currently manufactured firearms.

This new generation of plastic firearms is clearly on the horizon and looms ominously over aviation security. The AOCI urges this subcommittee and the Congress to act promptly on these legislative measures. The success of the aviation industry's past and present security efforts depends on this crucial action.

Thank you. I would be pleased to answer any questions you may have.

Mr. HUGHES. Thank you very much, Mr. Wigington.

[The statement of Mr. Wigington follows:]

AIRPORT OPERATORS COUNCIL INTERNATIONAL

TESTIMONY OF

ROBERT R. WIGINGTON
DIRECTOR OF GOVERNMENTAL AFFAIRS

of the

AIRPORT OPERATORS COUNCIL INTERNATIONAL

on

PLASTIC FIREARMS LEGISLATION

Before the

SUBCOMMITTEE ON CRIME

HOUSE COMMITTEE ON THE JUDICIARY

MAY 15, 1986

International Headquarters: 1220 Nineteenth Street, N.W., Suite 800, Washington, D.C. 20036
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Mr. Chairman and Members of the Subcommittee:

I am Robert Wigington, Director of Governmental Affairs for the Airport Operators Council International (AOCI). AOCI is the association of governmental bodies that own and operate the principal airports served by scheduled airlines in the United States and throughout the world. Our members enplane over 90% of the U.S. air passengers and 75% of the world's air passengers through 800 airports worldwide. Mr. Chairman, we appreciate the opportunity to present our views on this crucial subject.

As you know, civil aviation has proven to be a most attractive target to the world's terrorist element. According to Federal Aviation Administration data, between 1969 and 1972 there were 117 hijacking attempts on U.S. scheduled air carrier aircraft for an average of 29 per year during that period. After the implementation of the current civil aviation security system in 1973, as enforced by FAA under Federal Aviation Regulations Parts 107 and 108, the average number of hijacking attempts dropped dramatically to only eight between that year and 1984. During the first six months of 1985, there were only three hijacking attempts on U.S. carriers, only one of which was successful. It is easy to understand the industry's enthusiasm and support for the current civil aviation security system in the U.S. given these statistics and others, such as: between 1973 and mid-1985, over six billion persons were screened, eight billion pieces of carry-on items were inspected, over 33,000 firearms were detected with 14,000 related arrests, and 113 hijackings or related crimes may have been prevented by the system. Although the system is not 100% foolproof, it has been very effective and all necessary precautions must be taken to maintain and improve the maximum level of security.

In recent months, the U.S. air carrier industry has been handed a setback in the form of an increase in terrorist activity at some of the international airports it serves and aboard aircraft. In anticipation of possible airport attacks in the U.S., FAA has worked to strengthen the current system by requiring more exhaustive background checks on those employees who have access to secure areas at airports. The U.S. Customs Service has recently enacted a similar program on employees who have access to its secure areas. Working with the relevant federal agencies, airport operators are taking all appropriate steps to tighten security at their facilities and reduce the risk of exposure to terrorist acts. AOCI member airports stand ready to take whatever future actions are necessary to ensure the safety of the traveling public.

AOCI is greatly alarmed over the advent of plastic firearms which could, in the hands of terrorists, jeopardize public safety at airports. The primary defense against terrorist infiltration of secure airport areas and aircraft is the use of x-ray machines and metal detectors. The obvious potential of plastic firearms to escape detection would make them extremely attractive to terrorists.

In keeping with the need for stricter security in all areas, AOCI offers its wholehearted support for the legislation introduced by Congressmen Mrazek (H.R. 4194) and Biaggi (H.R. 4223). We believe, as these measures would provide, that no firearm should be allowed in this country which is undetectable by current technology standard airport security detection devices. Current technology is emphasized because there now exists no x-ray baggage screening device or magnetometer which will detect a firearm made entirely of plastic.

In fact, some controversy exists among experts concerning whether the highly-publicized Austrian Glock 17 handgun currently in production contains enough metal to be detectable by screening point personnel without extra training and diligence. Even if this particular gun is eventually found to be detectable under normal circumstances, it is anticipated that there will be some firearms made of non-metal substances in the near future as the requisite technology for this purpose already exists.

According to the staff paper written by the Office of Technology Assessment (April 1986) concerning non-metal firearms, a new-technology x-ray baggage screening device is being developed which will hopefully enable the screener to see even all-plastic items clearly. However, this technology may be some time away from production and, according to the OTA paper, it will "cost several times as much as standard airport x-ray equipment." To replace all the present screening equipment nationwide with new technology equipment would cost hundreds of millions of dollars. It seems imprudent to outlay such sums of money for new screening equipment to prevent a threat which can be "nipped in the bud" by the legislation before this Subcommittee.

Both bills would prohibit the manufacture, distribution or importation of any plastic or non-metal weapons which are found by the Treasury Secretary to be undetectable by standard airport security systems. We believe this is an appropriate, reasonable and necessary step that Congress must take now before it is too late. The time to take preventive action is not after such plastic firearms are fully in production and have gained a foothold in the United States and in the arsenal of terrorists, but before they are produced and distributed in such numbers that there would be no feasible way of turning back the threat.

While there may be legitimate recreational uses for plastic firearms, we believe their potential use by terrorists and public safety considerations must be given overriding importance. This legislation would serve to put potential manufacturers on notice that plastic firearms they plan to develop must have enough metal content to be detectable.

In conclusion, Mr. Chairman, when given an opportunity to not only ensure the traveling public's safety but also save the aviation industry hundreds of millions of dollars that would be needlessly spent, while depriving no one of their right to own currently manufactured firearms, it seems prudent to seize upon it. AOCI urges this Subcommittee and the Congress to act promptly on this legislation. The success of the aviation industry's past and present security efforts depends on this crucial action.

Thank you. I would be pleased to answer any questions you may have.

AIRPORT OPERATORS COUNCIL INTERNATIONAL

SUMMARY STATEMENT

OF THE

AIRPORT OPERATORS COUNCIL INTERNATIONAL

ON PLASTIC FIREARMS LEGISLATION

BEFORE THE

HOUSE JUDICIARY SUBCOMMITTEE ON CRIME

The Airport Operators Council International (AOCI) is greatly concerned over the potential threat of plastic or non-metal firearms in the hands of terrorists. At a time of heightened concern over terrorist attacks against civilians and air passengers when airport operators and airlines are increasing security precautions, it would be short-sighted to overlook the danger posed by firearms that may be undetectable by standard airport security equipment. Airports today are taking all appropriate steps to tighten security and reduce the risk of exposure to terrorist acts. The possibility that current security systems (e.g., X-ray equipment and metal detectors) could be rendered obsolete by the manufacture and proliferation of plastic firearms causes great concern. Airport facilities and aircraft are prime targets for terrorist assaults, and we must not allow the proliferation of any weapons capable of compromising our nation's current security technology. No security system is foolproof, and all due precautions must be taken to assure the maximum level of security.

AOCI fully supports the legislation proposed by Representatives Robert Mrazek (H.R. 4194) and Mario Biaggi (H.R. 4223) as appropriate, reasonable and necessary preventive steps that should be taken now before it is too late. These measures would require that plastic or non-metal firearms be banned from manufacture, distribution and importation in the United States if it is determined that they are not detectable with standard security equipment used at airports. In light of reports that technology already exists to manufacture plastic firearms with no or very little metallic content, and that their production in the U.S. may already be underway or soon will be, such legislation is urgently needed to forestall this potential security threat. This "new generation" of plastic firearms is clearly on the horizon and looms ominously over aviation security. AOCI joins with other aviation and law enforcement groups in urging prompt Congressional enactment of this legislation.

# # #

Airport Operators Council International is the association of governmental bodies that own and operate the principal airports served by scheduled airlines in the United States and throughout the world.

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Mr. HUGHES. Sterling Epps had to leave us. He is the legislative cochairman of the Federal Law Enforcement Officers Association of Washington, DC. His statement, without objection, will be made a part of the record.

[The statement of Mr. Epps follows:]

Federal Law Enforcement Officers Association

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(516) 248-1355

DATE: May 15, 1986

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Sterling Epps
(703) 455-3709

TESTIMONY BY

STERLING B. EPPS

LEGISLATIVE CO-CHAIRMAN

OF THE

FEDERAL LAW ENFORCEMENT OFFICERS ASSOCIATION

ON

H.R. 4194, THE TERRORIST FIREARMS PROTECTION ACT

AND

H.R. 4223, THE TOOLS OF TERRORISM ACT

BEFORE THE

SUBCOMMITTEE ON CRIME OF THE HOUSE OF REPRESENTATIVES

MAY 15, 1986

Mr. Chairman, Members of the Subcommittee, Ladies and Gentlemen:

Thank you very much for the opportunity to testify today on H.R. 4194, the Terrorist Firearms Protection Act, and on H.R. 4223, The Tools of Terrorism Act. H.R. 4194 introduced by Representatives Robert J. Mrazek and Ted Weiss and H.R. 4223 introduced by Representative Mario Biaggi both address an issue of vital importance to all police and public safety officials in our country.

As the Legislative Co-Chairman of the Federal Law Enforcement Officers Association, the largest professional association in the nation exclusively representing Federal law enforcement officers and criminal investigator, I am pleased to lend my support to both pieces of legislation. What I hope to do in my comments today is to suggest ways of combining and adding to these bills that will enhance their effectiveness.

H.R. 4223, the Tools of Terrorism bill introduced by Mr. Biaggi is very sound in seeking to prohibit the sale, delivery and importation of non-metal firearms that are determined to be undetectable on airport weapon detection systems. I would expand the reach of H.R. 4223 by drawing into it language from H.R. 4194 that would prohibit weapons which may be detectable, but are unrecognizable as weapons, and adding non-metal silencers. In this way the ban also covers partially plastic weapons and weapon parts that are disassembled, positioned in a carrier so as not to look like weapons, or otherwise camouflaged.

I would also extend the burden of responsibility for compliance with this law to those who knowingly purchase an undetectable weapon which would appear on the Secretary of the Treasury's prohibited list.

I would do this by adding language that amends Chapter 44 of Title 18 of the U.S. Code to read, "(n) (1) It shall be unlawful for any licensed importer licensed manufacturer, licensed dealer or licensed collector to sell or deliver any nonmetal firearms that (as determined by the Secretary), by reason of nonmetal construction, is a danger to public safety because of diminished susceptibility to detection by airport metal detectors or other security devices, and it shall be unlawful to knowingly purchase same."

Quite rightly Mr. Biaggi's Tools of Terrorism Bill mandates that the Administrator of the Federal Aviation Administration devote resources to research and development of better detection equipment. But our nation's love affair with technology will carry protection only so far if the men and women on hourly wages, who man checkpoints and monitor detection equipment, do not have their skills in detecting and identifying hidden weapons upgraded on a regular basis. For this reason I would recommend that the Administrator of the Federal Aviation Administration in conjunction with the National Institute of Justice devote research and development funds to:

1. Improving the quality of training materials used in teaching detection and identification skills,

2. Improving the quality of classroom and on-site training.

I want to be very clear about this last recommendation. This does not imply that there is anything wrong with the current training system. What I am saying is that there is always room to improve the quality, frequency, and thoroughness of training. There is always room to run competency audits of on-line personnel. There is always room to make a good system better.

In concluding my formal remarks I would like this Subcommittee to understand that the Federal Law Enforcement Officers Association feels that H.R. 4223 and H.R. 4194 are good first steps toward improving our national capacity to detect weapons which are in all likelihood going to be favored by terrorists, professional assassins and other criminals. We hope this first effort in the firearms area will lead to careful study of the detection problems associated with plastic explosives as well.

Mr. HUGHES. The next witness is Donald L. Cahill, from the National Legislative Committee for the Fraternal Order of Police of Stafford, VA.

Don, I want to welcome you here today and tell you that the memorial ceremonies today on the Capitol Grounds, were absolutely beautiful and very meaningful. I understand it was the fifth annual. The Fraternal Order of Police should be congratulated for setting aside a day to honor those men that lost their lives in the line of duty, and the families that were left behind.

In that regard, it is my pleasure to introduce two very special guests today in the hearing room, two constituents of mine. I am referring to Peggy Mallon and Irene Mallon. They are the wife and mother of Al Mallon, a very distinguished law enforcement officer, the best that the New Jersey State Police could provide, who lost his life in the line of duty last year. We are delighted to have you with us today.

Welcome, Don, congratulations on an excellent program today.

Mr. CAHILL. Thank you, Mr. Chairman. Let me tell you that it was a great pleasure to have you as our speaker today and your presence certainly added to the moments that we had there in Senate Park. We certainly do appreciate your personage out there.

Let me also say that I am here representing the Fraternal Order of Police of over 175,000 members throughout the United States.

I would also like to put in at this time that my associate, Mr. Epps, of the Federal Law Enforcement Officers Association, did leave with regrets. He was called out on official duties and did regret quite a bit that he could not address you in person, but he does appreciate the opportunity of being invited.

Mr. HUGHES. We are sorry that he can't be with us, Don, because he has testified before this subcommittee on several occasions and his testimony is always insightful, however, we have made his statement a part of the record.

Mr. CAHILL. Thank you, sir.

On behalf of the National Fraternal Order of Police, I would like to thank you, Mr. Chairman, for inviting us to present this testimony on this important legislation that is before the committee in H.R. 4194 and H.R. 4223.

Both of these bills do address some very important issues relative to the manufacture, import, and sale of firearms which have the capability of bypassing detection by metal detectors and x rays alike.

At a time when the United States of America is fighting terrorists overseas, we should not allow these terrorists any advantages here at home.

The harder we make it for terrorists and criminals to smuggle weapons on their persons or in hand-carried parcels during their travels, the safer our Nation will be.

Most of us remember the old cliche: Where there is a will, there is a way. And we certainly realize that anyone who is predisposed to committing a violent act such as a skyjacking, kidnaping, or homicide, can disassemble a firearm into many pieces and smuggle them onto an airplane or into a building with each piece hidden in a separate package or by different persons concealing separate pieces on their person.

But this is no reason to allow these persons to very simply conceal a weapon on their person and smuggle them onto an airplane or into a building to allow them to carry out their plan.

Studies by the Rand Corp. show that although there is a year by year fluctuation in terrorist incidents here in the United States, the long-range trend does show an upward movement.

Certainly we realize that other areas need to be addressed along with this legislation, one being the upgrading of detection equipment used in airports and secure buildings. The other being the upgrading of training for the operators of the detection equipment.

All too often, cost dictates the quality of security we are going to receive. We should set the standard first and then work out the cost.

The Fraternal Order of Police are not directly opposing any weapon in particular, although we all know that there is one particular handgun that has gotten quite a bit of notoriety since this legislation was first introduced.

We are opposed to any weapon being legal that has the ability to beat the system that is set up to detect it.

This particular gun is not a major concern to law enforcement if it is detectable by standard means. One faction states that it is detectable; one faction states that it is not detectable. But the Fraternal Order of Police is opposed to any weapon that can get past the system, whether it be this gun or the 99 percent plastic gun currently being talked about in Florida.

We believe that combined with this legislation, other legislation mandating the upgrading of detection equipment and training for operators that any weapon that because they are borderline are made illegal would automatically be legalized with the upgrading of the system.

The reason that the Fraternal Order of Police supports this legislation is that we do not consider it to be antigun legislation. We believe this legislation to be in the best interest of the citizens of the United States to help protect their lives. All too often, we act ex post facto—but then the lives are already lost.

Thank you for allowing me to present this testimony, and I will answer any questions.

[The statement of Mr. Cahill follows:]

TESTIMONY OF

THE FRATERNAL ORDER OF POLICE

ON THE

MANUFACTURE, IMPORTATION AND SALE
OF PLASTIC HANDGUNS

TO

THE HOUSE COMMITTEE ON THE JUDICIARY

SUBCOMMITTEE ON CRIME

MAY 15, 1986

Mr. Chairman, Members of the Subcommittee, My Name is Donald L. Cahill and I am a member of the National Legislative Committee of the Fraternal Order of Police. The Fraternal Order of Police is the largest police organization in the United States, with an active roster of over 175,000 members throughout our country.

On behalf of the National Fraternal Order of Police, I would like to thank the Chairman and members of the subcommittee for inviting us to present testimony on this important legislation that is before the committee in H.R. 4194 and H.R. 4223.

Both H.R. 4194 and H.R. 4223 address some very important issues relative to the manufacture, import and sale of firearms which have the capability of bypassing detection by metal detectors and x-rays alike.

H.R. 4194 amends Title 18 of the United States Code to prohibit the manufacture of firearms that are not readily detectable as a firearm by standard detection equipment and also prohibits the importaion of this firearm into the United States. H.R. 4223 further addresses the problems created by not only prohibiting the importation of this type weapon but goes even further by prohibiting the sale of these weapons.

The bill further addresses the fact that by reason of its non-metal construction, the weapon is a danger to Public Safety because of its diminished susceptibility to detection by airport metal detectors or other security devices.

Requirements for practical weapons detectors used in airports and other areas demanding security are usually dictated by several factors; large quantities must be available for use around the world because of the number of airports and buildings in need; the price must be within budget restrictions of the corporations in need. They must be simple to operate and have a low cost training program for the operators. The false alarm rate must be kept to a minimum so that the public will only be slightly inconvienienced.

As a result of all this, the level of effectiveness is much lower than desired for weapon screening.

At a time when the United States of America is fighting terrorists overseas we should not allow these terrorists any advantages here at home.

What happens when these non detectable weapons become available through normal purchasing channels? Are we to strip search all visitors to jails? Do we have travelers stand on lines for hours on end while extra security personel hand search each and every person and each and every parcel? This would be the only way we could be reasonable certain that weapons are not being smuggled. And who would end up paying for this? Certainly not

The harder we make it for terrorists and criminals to smuggle weapons on their persons or in hand carried parcels during their travels, the safer our nation will be.

Most of us remember the old cliche' "Where there is a will, there is a way". We certainly realize that almost anyone who is pre-disposed to committing a violent act such as a sky-jacking, kidnapping or homicide, can disassemble a firearm into many pieces and smuggle them onto an airplane or into a building with each piece hidden in separate packages or by different persons concealing separate pieces on their persons. But this is no reason to allow these persons to very simply conceal a weapon on their person and smuggle them onto the airplane or into the building to allow them to carry out their plan.

Law Enforcement intelligence sources advise us that we should prepare ourselves for many possible terrorist acts that may be carried out throughout the United States. One only needs to talk to a security specialist for a short time to discover how volnerable we are here in this country.

Studies by the Rand Corporation show that although there is a year by year fluctuation in terrorist incidents in the United States, (1982 / 51, 1983 / 31 and less in 1984) the long range trend shows an upward movement.

As a police officer, and prior to that, as while serving in the Armed Forces of the United States, I personally visited over twenty-five countries. During these visits I have taken particular notice of crimes committed by terrorists verses crimes committed by criminals. I, find it frightening, realizing what these criminals and terrorists are capable of now; but even more frightening thinking that because of modern technology, these same criminals and terrorists can aquire a non-detectable handgun and have a greater opportunity to commit their acts of aggression and violence.

I am certain that these weapons can continue to be manufactured as light weight handguns even if the composition of the parts were changed to include enough metal in with the plastic , to allow discovery by both metal detectors and x-ray equipment alike. I do not believe the weight would be seriously effected by this process. But until the manufacturers themselves take the initiative in this matter, I believe it is up to the United States Government to take action to protect our citizens. This action that the United States Government must take should be in the form of legislation to outlaw these weapons until such time that technology allows for the screening detectors to be upgraded to detect those lightweight part plastic handguns; and the training of detector operators is upgraded to a point that they are capable of effectively stopping the flow of these weapons.

The Fraternal Order of Police are not directly opposing any weapon in particular although we all know that one particular hand gun has gotten quite a bit of notariaty since this legislation was first introduced. We are opposed to any weapon being legal that has the ability to "beat the system" that is set up to detect it.

The reason that the Fraternal Order of Police supports this legislation and opposes these weapons is that we do not believe this legislation to be anti-gun legislation, but we do believe this legislation to be in the

best interest of the citizens of the United States to help protect their lives. All to often we act EX POST FACTO - But then the lives are already lost.

Thank you for allowing me to present our testimony for your consideration.

SYNOPSIS OF

TESTIMONY OF

THE FRATERNAL ORDER OF POLICE

ON THE

MANUFACTURE, IMPORTATION AND SALE
OF PLASTIC HANDGUNS

TO

THE HOUSE COMMITTEE ON THE JUDICIARY

SUBCOMMITTEE ON CRIME

MAY 15, 1986

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At a time when the United States of America is fighting terrorists overseas we should not allow these terrorists any advantages here at home.

The harder we make it for terrorists and criminals to smuggle weapons on their persons or in hand carried parcels during their travels, the safer our nation will be.

Most of us remember the old cliche "Where there is a will, there is a way". We certainly realize that almost anyone who is predisposed to committing a violent act such as a sky-jacking, kidnapping or homicide, can disassemble a firearm into many pieces and smuggle them onto an airplane or into a building with each piece hidden in separate packages or by different persons concealing separate pieces on their persons. But this is no reason to allow these persons to very simply conceal a weapon on their person and smuggle them onto the airplane or into the building to allow them to carry out their plan.

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The reason that the Fraternal Order of Police supports this legislation and opposes these weapons is that we do not believe this legislation to be anti-gun legislation, but we do believe this legislation to be in the best interest of the citizens of the United States to help protect their lives. All too often we act EX POST FACTO - but then the lives are already lost.

Mr. MAZZOLI [presiding]. Thank you very much. I apologize that I was not here to hear your colleagues. The chairman has a conflict and has asked me to Chair in his absence.

Is it fair to say that all of you support this legislation, or do you support this legislation?

Mr. STROM. The port authority supports the legislation.

Mr. MAZZOLI. As it is?

Mr. STROM. As it is.

Mr. MAZZOLI. Do you think it is specific enough and detailed enough?

Mr. Cahill, do you support this legislation, or oppose it?

Mr. CAHILL. Sir, we are for this legislation but we would like to see it broadened to include mandates on Federal agencies that oversee the training and operation of the equipment also. We would like to see the equipment utilized in the airports upgraded. We would like to see the training of the personnel operating that equipment upgraded.

Mr. MAZZOLI. I am not sure of the scope of this bill—it may be the germaneness would keep that from being a part of this bill and keep it within this committee, but I appreciate your observations.

Mr. CAHILL. We address it, keeping in mind that if a weapon is made illegal with this bill—which we are certainly for this bill—we feel that on upgrading the equipment, these weapons will eventually even out and become legalized.

Mr. MAZZOLI. Mr. Lally.

Mr. LALLY. Yes, sir, we support the legislation with one recommendation: that the decision process be expanded to include consultation with the Federal Aviation Administrator in determining whether a weapon should be banned.

Mr. MAZZOLI. In other words, the legislation today doesn't involve the FAA—it just involves the Justice Department or——

Mr. LALLY. As I read the one bill that I have read, it provides that the determination be made by the Secretary of the Treasury.

Mr. MAZZOLI. Treasury.

Mr. LALLY. And what we are talking about is the ability of airport weapons detection equipment operated under FAA regulations. The FAA has the experience of the airlines in the detection process, and FAA and the airlines are in the best position to provide advice and counsel to the Secretary of the Treasury in arriving at the determination.

Mr. MAZZOLI. I wasn't here but I understand that you or someone walked through that metal detector and that apparently you or the gentleman here—carried pieces of it. Is that correct?

Mr. STROM. He is Superintendent DeGeneste.

Mr. MAZZOLI. Thank you.

You disassembled that and carried them through and the machine didn't go bang or something; is that the idea?

Mr. DEGENESTE. No, sir, it did not.

Mr. MAZZOLI. So what Mr. Weiss said earlier today, is that we do not have to simply worry about the x ray or Z ray, or whatever they call their machines, but we have to worry about what the metal detector itself will pick up as much as anything else.

Mr. DEGENESTE. Exactly.

Mr. MAZZOLI. Thank you.

Mr. Wigington.

Mr. WIGINGTON. Yes, we support the legislation. Obviously, the two bills have some minor differences. We would agree with the ATA position that there should be consultation with the FAA. We would certainly recommend there be some way of looking at what research and development can be encouraged to increase the detectability of the current systems we have—to try and keep pace with the plastic firearms.

Mr. MAZZOLI. The chairman has returned and I will return the Chair back to him. I asked the question of whether or not a gun could be—these plastic parts they could be—somehow impregnated with some material or trace elements, or something, that would show up clearly defined on the x-ray machines, and possibly trigger the metal detector.

I don't know whether any of your testimony addressed that feasibility or whether or not you all have background in this area to see whether or not something like that could be done. But assuming—and I am not sure it is a correct assumption—there is some merit in having a lightweight weapon, assuming that it is easier to handle for police and law enforcement, less cumbersome for perhaps soldiers on long marches, and whatever else, is it possible to have that gun—and since they are not cheap, these are $200 and $300 weapons—somehow impregnated with elements that would solve our problem? Is that possible, Mr. Lally?

Mr. LALLY. My statement did comment on that, and without being an engineer or a manufacturer, I think it is entirely possible that metal filings or metal fragments in whatever designs, or shapes, or numbers, or letters, are appropriate, could be impregnated in the plastic to aid in detection—in fact, to provide a flag for the detection purposes, while at the same time, preserving the positive attributes and advantages of the plastic construction.

I see nothing that would make that not feasible. And if it can be done, I think that could be a big aid to airport detection capabilities.

Mr. MAZZOLI. Did any of the other panelists address that or have any observations on that? Yes, sir, Mr. Cahill.

Mr. CAHILL. Sir, I address that in my prepared testimony that was submitted, just exactly as the Congressman had brought it out, and I think that would certainly be a way of handling it without adding in too much additional weight to the property itself.

Mr. MAZZOLI. Anyone else?

[No response.]

Mr. MAZZOLI. I thank you gentlemen very much. I yield to the chairman.

Mr. HUGHES [presiding]. Thank you for chairing in my absence, I appreciate it.

I am interested, first of all, Mr. Strom, without identifying the part that you did not take through that machine that cleared the detector, would the part be easily recognizable as a handgun part?

Mr. STROM. I would suggest not. Not, certainly, without special training.

Mr. HUGHES. So if you were to carry that separately in your pocket, and it triggered an alarm and you pulled it out for the operator to see, would he or she know what they were looking at?

Mr. STROM. It would require special training on the part of the operator to identify that specific part.

Mr. HUGHES. Do your people have that special training?

Mr. STROM. My people are not involved in the screening of it, Mr. Chairman.

Mr. HUGHES. I see. How about the port authority, do they have knowledge as to whether or not the operators with the screening devices have that kind of training?

Mr. STROM. I respectfully submit, Mr. Chairman, that those questions might better be directed to the FAA. We do not have direct responsibility for the control of the screening operators.

Mr. HUGHES. I see.

One of the things that Sterling Epps suggested was that the bill, H.R. 4194, should be extended to nonmetallic silencers.

Don, do you have any feelings on that?

Mr. CAHILL. Sir, I have seen silencers made out of empty soda bottles, the plastic soda bottles. They are very effective silencers. I have seen silencers attached to that Tech-9. As a matter of fact, I was looking at one yesterday. They generally come threaded for these silencers.

I think these are areas that can certainly be addressed in this bill.

Mr. HUGHES. One other suggestion of Sterling Epps that I found interesting was that he would recommend that the Administrator of the FAA, in conjunction with the National Institute of Justice, promulgate a program to develop research and instructors from training programs to, first of all, improve the teaching detection and identification skills of operators. Second, he recommends setting a framework in motion that would improve the quality of classroom and onsite training.

How do you feel about those two recommendations? Let me ask you, Mr. Wigington, do you have any opinion on that?

Mr. WIGINGTON. We would certainly recommend something along those lines. During previous hearings in the Congress on the airport and aviation security situation, we recommended in our testimony that there be some leadership from FAA to try and develop programs of that nature and to try and provide more training and better awareness of the critical factors in dealing with potential terrorists and other crimes at airports and aboard aircrafts.

We don't have any specific recommendation as to exactly who should do that. Certainly the FAA should be involved, and we would certainly support that.

Mr. HUGHES. That would be within this committee's jurisdiction. I found his observations to be extremely interesting.

Mr. LALLY. Mr. Chairman.

Mr. HUGHES. Mr. Lally.

Mr. LALLY. I did have a comment to add onto that.

Mr. HUGHES. Yes, please.

Mr. LALLY. I think it is important, as was mentioned previously in this hearing, to note that the performance of the passenger screening system conducted by the U.S. airlines since 1973 has been remarkable. The numbers are awesome. Since 1973, we have operated under FAA requirements, procedures, and standards that deal with, first of all, the selection and hiring of screeners; then

their training before going on their job; then their training on the job; and their testing throughout their performance.

So I think what we have is a system that where we do have training procedures—and certainly we can improve on everything—but the idea of training, monitoring, and testing the screening process has not gone unattended all these years. As a matter of fact, these efforts have been remarkably effective.

Mr. HUGHES. Good. I appreciate that.

Mr. MAZZOLI. Mr. Chairman.

Mr. HUGHES. The gentleman from Kentucky.

Mr. MAZZOLI. Thank you.

I just have one quick question and I am sure it is very sophomoric but it reflects perhaps an angle to this thing. We have been talking about the gun and the barrel, the springs, and all that, but how about the bullets themselves? If a person wanted to board an airplane to do eventual damage or threaten the pilot, is there some way to sneak the ammunition aboard? Is that easy to do?

Could you put a bullet in one pocket, and a bullet in another pocket, and a bullet in your coat, and a bullet up under your hat, or something? Can you carry bullets through the metal detector without triggering the device?

Mr. CAHILL. Congressman, I would like to address that. I carry a key case with me, or change case, whatever you want to call it, and I always take my bullets out of my gun and stick them in that. And, of course, my gun——

Mr. MAZZOLI. Because that doesn't trigger, or doesn't——

Mr. CAHILL. My gun is usually locked up in a suitcase marked according to Federal regulations, or I am carrying it according to Federal regulations.

When I go through that metal detector, I take my key case out and throw it in the box along with my badge and my pager, so it doesn't set off the detector. I've never even given it a second thought. Those bullets go right along there with me.

Mr. MAZZOLI. I think that answers the question.

Mr. LALLY. No, the fact is that the bullets are not made of plastic, and are probably not likely to be made of plastic. So the metal components of the bullets are detectable by metal detection equipment if its adjusted at the proper level.

If we deal with U.S. airline experience, we have had many, many, many more hijackings committed without firearms than we have had with firearms. To concentrate solely and exclusively on this firearm or any particular type of firearm, I think might be a distraction and might take away from the advantages and the strengths of the system we have.

Mr. MAZZOLI. I think you can be proud of that. I have no concern at all. It has been a remarkable showing over these years. I was just curious.

Thank you, Mr. Chairman.

Mr. HUGHES. Let me see if I understand what you said, Don. I gather what you do is put the ammunition in a key case?

Mr. CAHILL. That is correct, sir.

Mr. HUGHES. So it is not recognizable as ammunition?

Mr. CAHILL. No, I just put it in there so I don't have bullets rolling around in my pockets.

Mr. HUGHES. So the case would actually disguise what it is.

Mr. CAHILL. I throw it in the tray right along with everything else. I have done it here at the Capitol. That is not unusual. There are bullets on the market now that are nonmetallic, with the exception of the primer load.

Mr. HUGHES. Thank you very much. You have been extremely helpful to us as a panel and we are grateful to you. We apologize for the delay in reaching you today.

Our fourth panel consists of Gaston Glock, the inventor of the Glock 17 handgun. Mr. Glock has traveled from Austria to be with us today, and is accompanied by Karl F. Walter, the vice president for Glock, Inc., from Smyrna, GA. We also have Mary Ellen McDonald Burns of Byron's, Inc., from Casselberry, FL.

We are just delighted to have you with us today. Mr. Glock, we certainly do appreciate your traveling to the United States to be with us to testify today and to have Mr. Walter accompanying you.

Likewise, we are delighted to have you, Ms. Burns.

We have your statements, which will be made a part of the record in full, and we hope that you will be able to summarize.

Welcome.

STATEMENTS OF GASTON GLOCK, GLOCK, INC., GES.M.B.H., DEUTSCH-WAGRAM, AUSTRIA; KARL F. WALTER, VICE PRESIDENT, GLOCK, INC., SMYRNA, GA, AND MARY ELLEN McDONALD BURNS, ON BEHALF OF BYRON'S, INC., CASSELBERRY, FL

Mr. WALTER. Thank you, Mr. Chairman.

First, I would like to state that testifying here today for us is a brand new experience, and I ask the committee to have some patience with us to explain our point on these two House bills.

We thank you for the opportunity to present our views regarding the proposed House bills, which, unfortunately, resulted from our product's widely announced appearance in the United States, the Glock 17 pistol. The bill proposes prohibiting the importation of firearms that are substantially constructed of synthetic materials and cannot be readily identified by airport security systems as a firearm and would require FAA approval before producing them in the United States.

With due respect to these proposals and their good intentions to protect U.S. citizens, I allow myself to state that, first these bills do not pertain to the Glock 17 and that the banning, restricting, or prohibiting modern firearms technology and/or its possession would not deter a terrorist act and, therefore, would not protect U.S. citizens in the United States or anywhere else in the free world.

Modern superior firearms, like the Glock 17 pistol, are primarily designed in free democracies to oppose, with effective force when needed, opponents and criminal elements of our prosperous societies—United States, Austria, or Germany.

The Glock 17 pistol now in use by more than 100,000 military officers of the Austrian Armed Forces, the officers of an allied member and other free nations, major Western law enforcement agencies and antiterrorist units, does not suggest that the Glock 17 pistol is a terrorist special, but rather, indicates that Mr. Gaston

Glock's designed and manufactured pistol is at this time the most modern and cost-efficient firearm that Western nations have chosen and acquired to defend their democracies and its citizens.

Contrary to the media reports, the Glock 17 pistol is not an entire plastic pistol. It contains 83 percent of hardened steel of its total 23 ounces, unloaded. That is more than a pound of metal, and as our submitted documentation indicate, it is clearly detectable at present airport security systems in the United States and abroad, and has not been, as of this date, used in any terrorist activity.

The real difficult detectable threats, like explosives and nonmetal firearms, are as much of a concern to myself as to any individual that travels extensively by air, especially abroad.

Though I am not an authority on security systems and its equipment it is obvious to me while on international travels that airport security in other nations appears to be much stricter than here in the United States. For example, in West Germany, Austria, or Switzerland, heavily armed and well-trained Federal police officers secure airports and have at their disposal at airports antiterrorist units for emergency backup.

In Tokyo, an empty cigarette pack containing a small amount of cello-foil will trip their magnetometers. Why don't ours do that?

The Israeli security is known to be one of the most thorough ones worldwide.

Since the beginning of the Glock 17 controversy, which we truly did not anticipate, our office in Georgia receives phone calls daily from U.S. citizens that suggest and support legislative actions to improve security devices and training for better security personnel on Federal, State, and local levels where it might be needed, rather than prohibiting the technical advancements or availability of technical advanced firearms in the United States, that might be used in the future to defend this great symbol of freedom and democracy: the United States.

Mr. Chairman, Mr. Gaston Glock does not speak English very well. Should you have any questions for Mr. Glock, I will be glad to translate them.

That concludes my oral statement. I thank you for your time.

Mr. HUGHES. Thank you very much.

[The statement of Mr. Walter follows:]

ORAL STATEMENT OF

GASTON GLOCK

KARL WALTER

GLOCK INCORPORATED

BEFORE THE

HOUSE JUDICIARY COMMITTEE

SUBCOMMITTEE ON CRIME

MAY 15, 1986

Mr. Chairman:

Thank you for opportunity to present our views regarding the proposed House bills, H.R. 4194 and H.R. 4223.

These two House bills are the result of our products widely announces appearance in the U.S.A., the Glock 17 pistol, which prompted these two House bill proposals which prohibit the importation of firearms that are substantially constructed of synthetic material, and cannot be readily identified by airport security as a firearm and would require FAA approval before producing in the United States.

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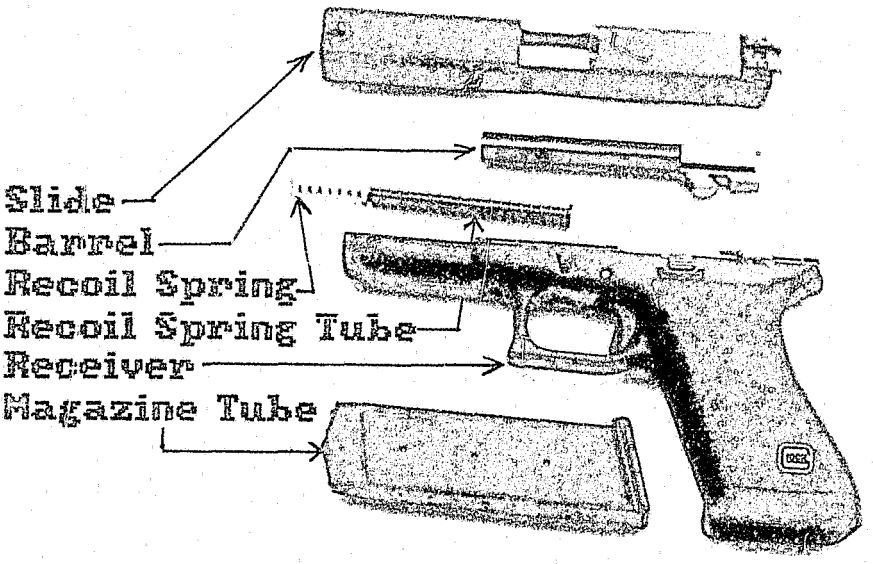
This concludes our oral statement. Thank you for your time.



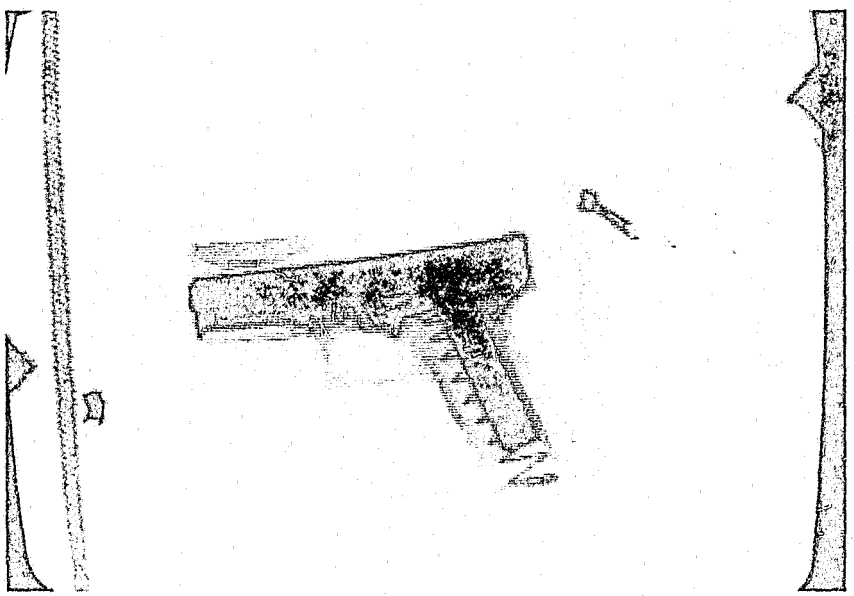
GLOCK 17 PISTOL

Stripped Down Into Six Major Components

65-045 O - 87 - 7

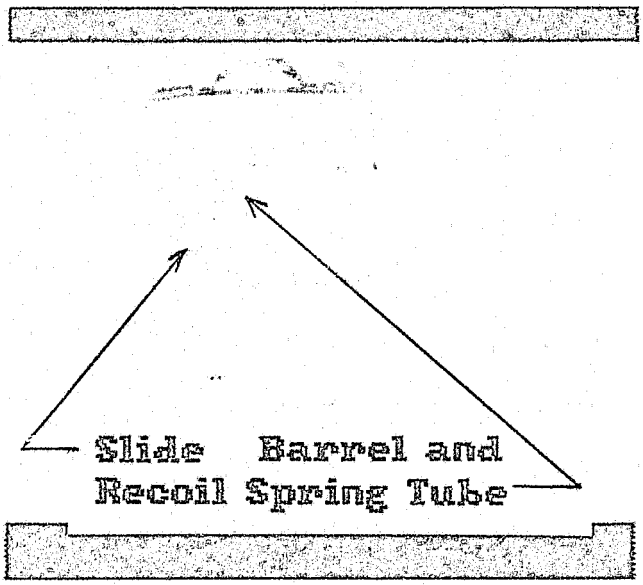
GLOCK 17 PISTOL

Fully Assembled

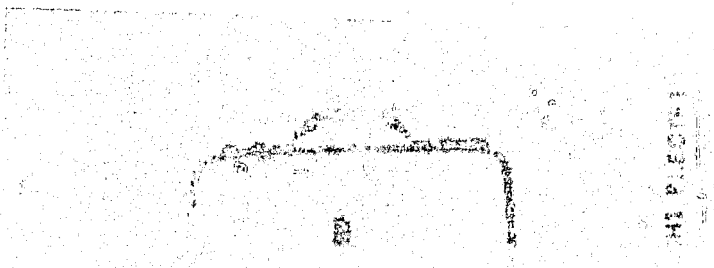


GLOCK 17 PISTOL

Fully Assembled
With Loaded Magazine
As Seen Through
Xray



Xray Picture of
of
GLOCK 17
Slide and Barrel,
and
Recoil Spring Tube
wrapped together with group of
pens/pencils



Xray Picture of
of
GLOCK 17 SLIDE
as seen in
attache case

GLOCK, INC.

TESTIMONY

U. S. HOUSE OF REPRESENTATIVES
Committee on the Judiciary
Subcommittee on Crime

May 15th, 1986

BRIEF BIOGRAPHICAL SKETCH

KARL F. WALTER

Date of Birth: February 8, 1947
Place of Birth: Vienna,Austria
Citizen: Austrian, Permanent Resident U.S.A.

EDUCATION

Higher Technical Teaching Institute, Steyr, Austria 1963 - 1968
Major: Engines & Agriculture Machines
Degree: Mechanical Engineer

MILITARY SERVICE

Austrian Federal Military Forces 1968 - 1969
Reserve Officer Training School, Engineering Corps, Klosterneuburg, Austria
Honorable discharge, October 1969.

WORK EXPERIENCE

Glock, Inc. 1985 to present
Form U.S. Distribution and manufacturing facility and its organization.
Position: Vice-President & Secretary.

Steyr-Daimler-Puch of America Corp., & GSI 1978 to 1985
Position: U.S. Sales and Product Manager for commerical and military firearms. Responsibilities: Servicing and broadening U.S. and Canadian Steyr produced and imported Firearms Distribution Network. Continuous training and managing North American Sales Force. Monitoring sales by area, and customer, preparing sales programs and sales forecasts, marketing strategies, programs and alternatives.

Coordinating with agencies, public relations and advertising. For additional corporate business, acquired bi-products in the U.S. and from overseas, hence position required extensive traveling by visiting suppliers and key U.S. customers, to obtain additional business and new marketing ideas.

In additional coordinated and assisted small military firearms sales to military, federal, state and local law enforcement agencies.

Steyr-Daimler-Puch of America Corp., Grand Rapids, Mich. 1976 to 1978
Position: Manager of Company, Midwest sales, service and distribution center, for all corporate product lines; bicycles, motorcycles, boats, firearms. Promoted to Product Manager, transferred to corporate headquarters in Secaucus, New Jersey.

L.E.S. Company, Skokie, IL 1974 - 1976
Position: Sales Manager for Law Enforcement Weapons, hired by Steyr April 1, 1976.

Michigan Consolidated Gas Company, Detroit, Mich. 1971 - 1973
Position: Draftsman, Drawing plans for gas main construction.

Gulf Development Corp., Torrence, CA 1970 to 1972
Position: Sales Representative in Detroit Area, direct sales of outdoor display signs to small businesses throughout the Detroit metropolitan area.

MEMBERSHIPS

Amateur Trap Shooting Association
American Defense Preparedness Association
National Rifle Association

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Telex: 543343 Glock Atl UD

Dear Honorable Chairman:

We thank you for the opportunity to present our views regarding the Glock 17 9mm pistol and the surrounding media reports which instigated the introduced legislative actions, HR 4194 and HR 4223 that led to this Congressional hearing.

Documentation concerning the issues of the Austrian Glock 17 pistol detectability, the use of composite materials and the widespread untrue accusation that Glock Ges. m.b.H. in Austria has sold or offered pistols to Libya, are attached for the records. Each document is individually addressed by sequence of happened events, beginning with the Austrian military pistol trials in 1982.

We hope that our documentation establishes that all accusations made against our product are unjustified, that introduced legislative actions on federal, state and local levels are not applicable to the Glock 17 9mm pistol or any other firearm on the market today and that the people of any free government will not pass legislative action directed to deter the manufacturing and sale of superior firearms that incorporate modern technology, vital for a superior national defense, law enforcement, general sporting use and for the welfare of a strong, competitive domestic firearms and defense industry.

Banning and stopping modern technology for firearms in the U.S. will not at all deter terrorist activities and will not protect U.S. citizens abroad or at home.

Applying decisive security measures and modern security equipment, as it may be needed by U.S. security authorities, that can identify, deter, or stop a terrorists's objective or act, can protect U.S. citizens.

We enclose as part of the documentation supporting our testimony copies of correspondence from the Austrian Minister of the Interior. We are not authorized to disclose publicly that correspondence and we appreciate your efforts to protect its confidentiality.

We thank you for your valuable time that you have granted our testimony.

Respectfully,

Karl F. Walter
Vice President

SUMMARY OF TESTIMONY

The Glock 17 was first produced in 1982 and in that year achieved best results in an Austrian Army test and won its first decisive victory against domestic and international competitors. The Austrian Ministry of Interior approved production of the pistol upon determining that the pistol was of no danger to public safety. Austrian security authorities confirmed the clear detectability of the pistol in tests at the Vienna International Airport in 1982. The Glock 17 has been available on the West European market and to Western law enforcement and military agencies since 1982. The U.S. Department of Defense received and evaluated four samples of the pistol in late 1983. In 1984 and 1985, the pistol was tested by a NATO member, which adopted the pistol as its official sidearm. At about the same time, the Glock 17 also became the choice of presidential guard units and world renowned anti- terrorist units in the free world and gained popularity among Western law enforcement officials.

The BATF received a sample of the pistol for importation evaluation in July 1985. Importation was initially approved in late November of 1985. Shortly after Glock, Inc., a Georgia corporation, commenced business (January of 1986), members of the media erroneously reported that Moammur Quaddafi was attempting to purchase large quantities of the pistol. These inflammatory and erroneous initial reports were picked up by other members of the media and published throughout the U.S. and the world, spreading misinformation about the pistol's detectability and the pistol's manufacturer. Contrary to the implication of published reports, the pistol has never been used in any terrorist activity.

Officers of the Austrian corporation, Glock, Ges. m.b.H., and of Glock, Inc. visited with four federal agencies in Washington, D.C. concerning the media reports and the dectability of the pistol. During the course of meetings at the Pentagon, it was acknowledged that, in the widely reported unofficial test at National Airport in which a Glock reportedly evaded detection by security devices, another fully assembled handgun in the same briefcase with the disassembled Glock 17 also evaded detection. All parties at the meeting acknowledged that the security problem was not particularly linked to the Glock 17 but centered on the alertness and training of security staff and/or the sensitivity of security devices.

The FAA has verified that the Glock 17 is clearly detectable provided that proper security guidelines are followed. To date, the media has focused on the Glock 17 and has totally ignored that another fully assembled gun passed through security devices and continues to ignore the fact that there are many firearms on the market (and there have been many manufactured in the past) that incorporate large amounts of synthetic components.

The widespread and one-sided media reports have resulted in increased advertising by the manufacturers of security detection devices, who have shown that detection devices in use today can and will detect not only the Glock, but other weapons incorporating synthetic materials and even plastic explosives and all plastic toy guns, providing that proper security guidelines are followed. Legislation and public opinion on federal, state, and local levels should be directed to improving security where it may be needed and not banning world-renowned modern firearms technology.

TESTIMONY DOCUMENTATION

INDEX

Exhibits Attached in Sequence Referred to in Text.

: TESTIMONY DOCUMENTATION

I. Austrian Army Trials, 1982

Glock 17 (P-80) prototypes, meeting the Austrian Army Test criteria (Page: 13) were submitted by Glock Ges. m.b.H. for testing, to the Austrian Ministry of Defense, in early 1982. Later that year, the Ministry of Defense notified Glock Ges. m.b.H. that the Glock 17 9mm pistol had achieved best test results (Page: 15).

The Glock 17 won, decisively, its first victory against domestic and major international competitors. (Page: 16)

II. Ministry Production Approval

The Austrian Ministry of Interior approved, that year, the production and commercial sale of the Glock 17 pistol upon tests determining that this pistol is of no danger to the public safety. In these tests, high ranking Austrian security authorities conducted, in 1982, detectability tests at the Vienna International Airport and concluded that Austrian airport security equipment and personnel can clearly and readily detect all individual components of the Glock 17 pistol. These findings are verified by the Minister of Interior, Karl Blecher. (Page: 17)

III. Glock 17 Availability is Public Knowledge

Beginning in late 1982, through 1985, the Glock 17 pistol has been available on the West European market, as well as to Western law enforcement and military agencies that wished to obtain test samples.

In early 1983, various international defense and international firearms industry publications reported the Austrian Army 9mm test results, as well as the advance technology the Glock 17 pistol incorporated.

U.S. Federal and military authorities have been aware of the existence of the Glock 17 pistol and its construction since late 1982.

IV. U.S. Inquiries and XM-9 Trials

Between 1982 and 1985, 36 U.S. Firearms Importers inquired to Glock Ges. m.b.H., seeking to obtain the exclusive right to import the Glock 17 pistol into the U.S.A., including companies that market competitive products, as well as the U.S. Department of Defense, which inquired about the gun in late 1983 and received four samples for unofficial evaluation.

In late 1983, Glock Ges. m.b.H. received the D.O.D. invitation to participate in the 1984 XM-9 Personal Defense Pistol Trials, but could not participate upon reviewing the D.O.D. documentation, the time frame requirement to submit data and could not retool existing production equipment to build 35 test samples that would meet the D.O.D. test sample criteria.

V. Allied Member Trials

Two Scandinavian Nations, among them an Allied member, jointly tested throughout 1984-85, modern sidearms, available at that time from western nations. Jointly, both of these nations selected, after extensive trials, the Glock 17 pistol, hence it is now a standard NATO classified and adopted sidearm. (NATO Stock No. 1005/25/133/6775).

Within 1984-85, the Glock 17 pistol also became the choice of various Presidential or Head of State guard units, world renowned anti-terrorists units in the free world and gained increased popularity in the Western law enforcement community.

VI. Entering the U.S. Market

Upon assessing and evaluating the Glock 17 interest in the U.S., Glock Ges. m.b.H. began planning to service the U.S. market beginning in 1986 and submitted to the B.A.T.F., in July of 1985, a Glock 17 pistol for importation evaluation. A second sample, complying with B.A.T.F. import regulations, was submitted in early November of 1985. Importation of the Glock 17 pistol was verbally approved in late November of 1985 and verified by documentation January 10, 1986. (Page: 19)

Between July and November of 1985, Mr. Gaston Glock and Mr. Wolfgang Riedl (Marketing Manager of Glock Ges. m.b.H.), chose to form Glock, Inc. The task of establishing Glock, Inc. and its U.S. location had been assigned to Karl Walter in November of 1985.

Upon receiving from the B.A.T.F. the verbal importation approval of the Glock 17 we issued our first news release informing the firearms industry of the U.S. availability of the Glock 17 pistol and our market intentions. (Page: 20)

VII. The Beginning of the Glock Controversy

Two days after opening the Glock, Inc. facility in Smyrna, Georgia, a January 15, 1985 Washington Post article by Jack Anderson erroneously reported "Quaddafi Buying Austrian Plastic Pistol." (Page: 21)

This article was picked up via UPI and within days appeared in various U.S. and international newspaper publications, which unjustly accused Glock Ges. m.b.H. of dealings with Libya, that the Glock 17 pistol evades U.S. airport detection equipment as demonstrated by a Pentagon Security expert and represents a public threat.

On January 22nd, Mr. Gaston Glock issued a news release which clearly indicated that the media reports are misleading. (Page: 22) However, the reports of the "hijacker special", "invisible weapon", and "terrorist special", continued defaming our product, our company integrity, and, in some cases, even the people and government of Austria.

VIII. Meeting with U.S. Security Authorities

A. Federal Agencies: February 12-14th

In view of the continuing defamation and alarming media reports, Mr. Gaston Glock, Mr. Wolfgang Riedl and Mr. Karl

Walter visited between February 12th and 14th with four (4) Federal Agencies in the Washington, D.C. area to determine whether U.S. Airport security (or general security) is inferior to European (Austrian) airport security.

All Federal Agencies that have been visited, including the F.A.A., and that tested the Glock 17 pistol, stated that the Glock 17 pistol is readily detectable, provided that security personnel are alert and follow security guidelines. (Page: 24)

B. Pentagon Meeting Feburary 14, 1986

Prior to this meeting, an Officer of the Armed Forces visited with Glock Ges. m.b.H. in Austria and with Viennese International Airport security authorities to report European security methods to the Secretary. This D.O.D. Officer stated in the Pentagon meeting February 14th, to us, as well as to the Under Secretary of Counter Terrorism, Deputy Under Secretary of Trade and Security Policy and various others attending Pentagon Officials that the Vienna Airport Security is one of the best in Europe.

During this meeting, the Under Secretary of Counter Terrorism stated that he had conducted the security test at National Airport (as reported by Jack Anderson, January 15th) in which he disguised parts of our pistol in various ways to evade detection. He further stated that a Heckler & Koch pistol, Model P-9, which was taped in his briefcase, fully assembled, evaded detection as well.

In these discussions, it was commonly understood that the fact that both pistols passed unnoticed through security

checkpoints clearly indicated that the security problem is not particularly linked to the Glock 17 pistol, but that steps must be taken to ensure the proper alertness and training of the security staff and/or the sensitivity of security devices in order to ensure desired security.

It was clearly pointed out that disclosure of the true test findings could encourage mad people to test security with their guns and that this would not be in anyone's best interest, hence no supplemental reports have been made to the media by the Pentagon Officials concerning the assembled H&K P-9 pistol in the Under Secretary's briefcase, which is approximately the same size as the Glock 17 pistol that evaded security personnel as well.

IX. Tying Austria and Glock with Libya

The Washington Post claimed in its January 15th issue that a few hundred Glock 17's have been sold to or are the subject of sales negotiation with Libya. This absolutely unfounded message was taken up and repeated by the media. The truth is: Glock has at no time since its foundation in 1963, offered directly or indirectly, or negotiated about, or concluded any deal, to or with Libya, Libyan agents or representatives or other individuals or entities representing Libya. The Austrian Export Law for pistols requires the prior issue of export permits for each individual case of exportation of pistols, regardless of the destination. Each application is carefully checked by high government officials from four Ministries in a weekly

meeting before each export license is granted. Neither Glock nor any other Austrian individual or entity has ever applied for an export permit to Libya. See Letters of Minister of Interior. (Page: 25)

Voluntarily and not required by law, Glock restricts all

- Exports outside Europe, U.S.A. and Canada to only cases where official Enduser Certificates are issued and, in addition,
- Exports exceeding 100 units Glock 17 to only cases where the Enduser Authority is personally known to Glock through negotiations.

Generally each Glock importer is restricted to his home territory and any export outside such home territory that has not been agreed by Glock in advance, represents a serious breach of agency agreement which may be cancelled then by Glock. So far, Glock neither has been asked by any of its importers for, or has granted, permission to sell to Libya.

Besides the unfounded media reports in the U.S.A. that refer to "unnamed U.S. Agents", no evidence has been presented showing that even a single unit of Glock 17 pistol in fact has shown up in Libya. It is unnecessary to repeat that Glock Ges. m.b.H. simply would not accept orders from Libya.

X. Public Response and Supporters of Legislative Actions

The January 15th Washington Post article quickly found its biased supporters to continue an unobjective, inflammatory

and alarming media campaign against the Glock 17 pistol suggesting that the pistol be banned, and drawing public support against the Glock 17 by spreading misinformation about the Glock 17 pistol which would be needed to pass legislation. Beating airport security and other security systems became the subject of sensational media and anti-firearm advocate reports that suggested how to beat the security systems. These reports posed a far greater risk to U.S. citizens than the Glock 17 pistol ever did. (Article samples are on Page: 27, along with a typical letter received by the Austrian Trade Commission). In view of this continuous anti-Glock campaign and in view of the legislative actions directed against the Glock 17 pistol on federal, state and local levels, Glock, Inc. issued to Members of Congress on April 6, 1986 a news bulletin entitled "The Truth About the Glock 17 Pistol." (See Page: 33) As of this date, the contents of our bulletin stating the true facts have been ignored by the general media, with the exception of a few. (One exception to the generally misinformed media reports was a fairly objective article published by the Kansas City Star, Page: 35).

XI. Composite Materials in Firearms

Synthetic firearm components have been in use since approximately 1940.

Some examples are:

WWII German MP 40, German FG 42 and G-41 weapons, where lower receivers, pistol grips and handguards have been made of composite materials.

Such materials are incorporated in U.S. manufactured firearms, both for military and sporting use, like grips of the .45 Government model, M-14 and M-16 (AR 15) rifle, high standard 12 gauge shotgun Model 10 (receiver, stock), Winchester shotgun model 50 (in production from 1954 to 1961) which had a composite material barrel, Remington Nylon 66 .22 rifles and the Tec 9 (KG 99) 9mm handgun produced in Miami today by Intertech, as well as the common H&K P-9 pistol and the H&K VP 70 C pistol.

The trend of modern composite materials in firearms is increasing steadily to meet military, law enforcement and commercial demands and today there are hundreds of thousands of firearms used by the U.S. population that are substantially constructed of composite materials as well as millions of firearms in use by militaries throughout the world.

A handgun made entirely of composite materials, that will meet military or law enforcement criteria, or sporting needs is not commonly or publicly available and/or is classified.

XII. Detection Capabilities

A. Repeatedly, authorities that oversee airport security testified that the Glock 17 pistol is readily detectable. (Page: 37)

B. Major manufacturers of F.A.A. approved security equipment state that the Glock 17 pistol is detectable with

present equipment as any other firearm, my magnatometers and X-ray equipment. (Page: 43) Line scanners commonly in use today can even detect all plastic toy pistols or plastic flare guns.

c. Modern security devices can also detect explosives and methods to detect golf ball size "bombs" on individuals.

XIII. Conclusion

Both House Bills H.R. 4194 and H.R. 4223 evidently are intended to protect U.S. citizens from terrorist acts but in effect may very well deter the progress of manufacturing modern weapons for general defense and sporting use and prohibit the legal importation of modern weapons produced outside the U.S.A.

These bills will not protect U.S. citizens, are counter productive to the U.S. industry, national and general defense purposes and the law enforcement community, with always is searching to obtain superior firearms to compete more effectively against armed terrorist and criminal elements.

House Bills H.R. 4194 and H.R. 4223 are (almost) obsolete, since modern detection and security devices in use by the industrial world, are capable of detecting not only our weapon, but also toy and flare guns made entirely of plastic, and plastic explosives.

The leaders and legislative members on federal, state and local levels can protect U.S. citizens by supporting measures to replace obsolete security devices with proven and modern security equipment methods, where it may be required.

LIMITING CRITERIA

The non-accomplishment of the set criteria means a non-fulfilment of the main demands, which in particular cases also excludes the release of the tested system PISTOL for military use.

The tested pistol will also be excluded of the rating procedure - unless it fulfils all limiting criteria, despite fulfilling the ordinary criteria as well as good price conditions.

1. The system has to be a self-loading pistol.

2. The pistol must be able to fire 9 mm S-round/P08 (parabellum).

3. The filling of the magazine must be possible without any auxiliary means.

4. The magazine must have a minimum capacity of 8 rounds.

5. All manipulations for
   - preparation for firing
   - firing itself and
   - manipulation of the pistol after firing

   must be done single-handed, by choice right-handed as well as left-handed.

6. The technical security of the pistol has to be unlimited guaranteed under any circumstances as they are:
   - shock
   - stroke
   - and dropping from a height of 2 m on a steel-plate.

7. Dismantling of the main parts of the pistol for cleaning and reassembling must be possible without any tools.

8. Maintaining and cleaning of the pistol must be possible without any tools.

9. The components of the pistol must not exceed more than 58 parts (equivalent of a pistol P 38).

10. Gages, measuring and testing devices must not be necessary for the long term maintaining.

11. The producer has to provide the Armed Forces at least at the time of the supplying of the pistol series with a complete set of drawings and exploded views. The drawings have to show measurements, tolerances, used material, surface treatment and all necessary details for the production of the pistol.

12. All component parts must be exchangeable without any adjustment.

13. Firing the first 10.000 rounds (ammunition according valid TL-regulations) not more than 20 jams are permitted, even if there would be no tools necessary for repairing.

14. Supply of all main parts must be secured after 15.000 rounds load with ordinary ammunition and excess pressure test cartridge to maintain the security of further use of the pistol, technically and functionally. The excess pressure test cartridge has to have, according to valid regulations, a pressure of 5000 bar.

15. When properly handled the user must under no circumstances be endangered by the case ejection.

16. The muzzle energy must be at least 441,5 (J) when firing a 9 mm s round/P08 Hirtenberger Patronen AG.

17. Pistols achieving less than 70 % of the maximum points will not be released for military use.

REPUBLIC OF AUSTRIA
MINISTRY OF DEFENCE

42.015/75-4.4/82

Pistol 80 / Test results

GLOCK Ges.m.b.H.

Hausfeldstraße
2232 Deutsch Wagram

Dear Mr. Glock:

With reference to your letter of 29 10 82, ref. Ing. Gl/h your request for submission of the test results for the pretesting of your pistol 80 according to VTL 1005/9-1 on the basis of the determinations as to ref. 61/065/00-0082-4.4 is herewith granted.

The following evaluation of the test results determined by a commission of the Ministry of Defence (according to an internal military rating of the following criteria -

- reliability of the system
- applicability of the system and
- logistic)

shows the result, that your pistol achieved 88,7 % of the possible maximum points.

No restrictions for publication or secrecy of the enclosed detailed test results (without classification of the specific criteria) are given by the Ministry of Defence.

05 11 82
For the Minister of Defence
WEISS

Seen for the legality of
the signature: (Rührig)

15

COMPARISON CHART OF MAIN COMPETITORS

(Classified, for internal use only)

ANNEX 3

	COUNTRY OF ORIGIN	MODEL DENOM. 9mmPara	MAGAZINE CAPACITY	NUMBER OF COMPON.	WEIGHT empty mag (g)	SLIDE mfg TECHNOL.:	CONVENT. DOUBLE(D) SINGLE(S) ACTION	OTHER TRIGGER/ COCKING-SYSTEM	LOCKING SYSTEM	RANKING: AUSTRIAN ARMY TEST
HECKEL & KOCH	FRG	P 7	8	49	882	•machined/ welded	-	•grip cocking	gas pressure retarded mass locking	
		P7A13	13	49 appr.	900 appr.	•machined/ welded	-	•grip cocking	- " -	
		P95	9	77	928	•pressed sheet/ welded	•D/S	-	•roller locking	
SIG - SAUER	SWIT-ZERLD.	P220	9	53	818	•pressed sheet, welded, rivetted	•D/S	-	•mechanical locking	
		P226	15 (using Beretta mag.)	58	845	•pressed sheet, welded, rivetted	•D/S	-	•mechanical locked	
BERETTA	ITALY	92SB-F	15	70	975	•cast machined	•D/S	-	•mechanical locking	
FN	BELGI-UM	FN35						-		
STEYR	AUS-TRIA	GB	18	49	1100		•D/S	-	•gas pressure retarded mass locking	
GLOCK	AUS-TRIA	GLOCK 17	17(18)* *18 rounds loadable	34	661	machined from one solid rolled steel bar, no weld./rivetting	-	new "Safe Action" system, constant trigger pull, 3 autom. safeties	•mechanical locking	1

KARL BLECHA
BUNDESMINISTER FÜR INNERES

Wien, am 23. April 1986

24. APR. 1986

Glock Ges.m.b.H.
z.Hd. Herrn
Ing. G. Glock

Hausfeldstraße 17
2232 Deutsch-Wagram

Dear Mister Glock!

In reply to your letter dated April 8th, 1986, we would like to express our strong surprise about the campaign against the GLOCK 17 in USA and are pleased to confirm to you our serious considerations and true experience concerning your fine product.

In 1985 the Austrian Federal Police including its S.W.A.T. units has decided to adopt the GLOCK 17 as their future standard sidearm. Among the currently available models it serves best the requirements of an efficient and modern police force and is certainly indispensable when engaging in anti-terrorist combat. It truly consists of over 80 % steel.

In the course of our extensive testing of the GLOCK 17 and before it was approved and adopted, a number of general and airport security tests were performed. We may state that due to our experience the GLOCK 17 is detectable by airport security equipment in the same way as any other

concentional pistol or revolver, standard alertness / training of security staff and proper setting of equipment provided.

We trust that the present misleading campaign cannot turn down the excellent properties of your product and remain

yours truly

Karl Bleiha

DEPARTMENT OF THE TREASURY
BUREAU OF ALCOHOL, TOBACCO AND FIREARMS
WASHINGTON, D.C. 20226

JAN 10 1986

REFER TO
LE:F:TE:EMO
7540

15. JAN.

Mr. Gaston Glock
Glock Ges, m.b.H.
2232 Deutch-Wagram
Hausfeldstrasse 17
Austria

Dear Mr. Glock:

This refers to the Glock Model 17 "U.S." version semiautomatic pistol which we have recently approved for importation into the United States as a sporting purpose firearm.

The submitted sample bearing serial number AN 011 US is equipped with a "click" adjustable sight and the serial number is stamped into a steel plate which is moulded into the frame/receiver forward of the trigger guard. The "U.S." version of the Glock Model 17 pistol accrues a qualifying score of 76 points of ATF Form 4590, Factoring Criteria for weapons and is suitable for importation into the United States as a sporting purpose firearm.

We would like to thank you for the donation of the submitted sample. The Glock Model 17 pistol will be a useful addition to our Firearms Reference Collection.

If we can be of any further assistance, please contact us.

Sincerely yours,

Edward M. Owen, Jr.
Chief, Firearms Technology Branch

RECEIVED
JAN 24 1986
GLOCK INC.

GLOCK, INC. 5000 Highlands Parkway, Suite 190
Smyrna, Georgia 30080
(205) 655-3352

NEWS BULLETIN

December 1, 1985

PRESS RELEASE

The Glock 17 cal. 9mm para semi automatic "safe action" pistol will be available in a commercial version, early 1986 in the United States.

A Glock, Inc. Distribution and future manufacturing center has been established in Smyrna, GA, to service the U. S. commercial, law enforcement and military markets.

The Glock 17 pistol has been in production by Glock Ges.m.b.H. in Austria since 1983. It has been approved and adopted by the Austrian Police and Military Forces after competing and winning with flying colors the vigorous Austrian Army Test trials against all major international and national competitors.

By late 1985, the Glock 17 pistol became also NATO classified, being already introduced as the standard side arm of a NATO country, and various special police/military units and sport shooters throughout the free world.

Its popularity is growing rapidly.

The Glock 17 pistol, reveals a new advanced manufacturing technology of a synthetic made (polymer) frame, magazine, (17 round capacity) and other pistol parts, resulting in the use of the lowest component requirement of any pistol which, combined with the newly developed Glock "safe action" firing mechanism offers utmost reliability, accuracy, lightweight and shooting comfort. It operates "revolver-like", without using the conventional lateral safety lever and is, therefore, ready for firing at once with a smooth and steady trigger-pull that does not change from the first to the last round.

For more Glock 17 Pistol information write to:

Glock, Inc.
5000 Highland Parkway, Suite 190
Smyrna, GA 30080

Enclosures

JACK ANDERSON and DALE VAN ATTA

Qaddafi Buying Austrian Plastic Pistols

Libyan dictator Muammar Qaddafi is in the process of buying more than 100 plastic handguns that would be difficult for airport security forces to detect.

Incredibly, the pistols are made in Austria—where Qaddafi-supported terrorists shot up the Vienna airport during Christmas week.

"This is crazy," one top official told us. "To let a madman like Qaddafi have access to such a pistol! Once it is in his hands, he'll give it to terrorists throughout the Middle East."

The handgun in question is the Glock 17, a 9mm pistol invented and manufactured by Gaston Glock in the village of Deutsch-Wagram, just outside Vienna. It is accurate, reliable and made almost entirely of hardened plastic. Only the barrel, slide and one spring are metal. Dismantled, it is frighteningly easy to smuggle past airport security.

In fact, one Pentagon security expert decided to demonstrate just how easy it would be to sneak a Glock 17 aboard an airliner. He stripped the gun down and disguised the metal parts in his carry-on luggage. For example, he wrapped the spring around a pair of eyeglasses.

The Pentagon man tested his system twice at Washington National Airport, and got past the security checks both times. He subsequently alerted airport security personnel, and taught them how to spot the elements of the pistol. Security measures have been tightened.

Intelligence sources tell us Qaddafi has nearly completed a deal to buy more than 100 Glock 17s, possibly as many as 300. They explain that Austrian arms merchants hoping to sell Qaddafi big-ticket items—such as tanks—are using the Glock 17s as "sweeteners" for future transactions.

A marketing official for Glock in Austria assured us that the company has not sold Libya any of the guns, at least not yet. He offered no information on current negotiations.

Austria's past dealings with Qaddafi suggest that even the obvious danger of such a sale would not be enough to bring government intervention. It was the first European country in nine years to entertain Qaddafi on an official state visit, in 1982. He used the platform provided by the Austrians in Vienna to denounce President Reagan.

The Austrians were rewarded for their attitude toward Arab extremists in 1981 when Palestinian terrorists assassinated Heinz Nittel, a prominent Austrian Jew and close friend of then-Chancellor Bruno Kreisky.

When Kreisky complained to Palestine Liberation Organization Chairman Yasser Arafat, the latter pointed the finger at his rival, Abu Nidal, and even offered to send a pair of "antiterrorist specialists" to Vienna to assist Austrian police. But Mossad, the Israeli secret service, learned that the two Palestinians had actually been sent to assassinate Egyptian President Anwar Sadat in Vienna, and to kill Kreisky, too, if he got in the way.

Austrian authorities arrested the two Palestinians at the Vienna airport, and found sharpshooters' weapons and grenades in their luggage. Follow-up searches of PLO safe houses in Austria turned up maps and plans for the Sadat assassination. The two gunmen were packed off to Beirut. Once again, Abu Nidal was blamed.

GLOCK, INC. 5000 Highlands Parkway, Suite 190
Smyrna, Georgia 30080
(205) 655-3352

NEWS BULLETIN

JANUARY 22, 1986

FROM: GASTON GLOCK
TO: PRESS RELEASES BY WASHINGTON POST, MR. J. ANDERSON,

GLOCK GES. m.b.H. AUSTRIA, IS THE ORIGINAL INVENTOR AND MANUFACTURER OF THE NEW GLOCK 17, 9MM SEMIAUTOMATIC PISTOL, HEREBY DECLARES AND CONFIRMS THE FOLLOWING:

A) WITH REFERENCE TO THE A.M. PRESS RELEASE BY WASHINGTON POST: BEFORE W. POST HAS ISSUED THE ARTICLE IN QUESTION, MR. ANDERSON HAD PHONED GLOCK, ASKING FOR GLOCK'S STATEMENT IN ADVANCE. ALTHOUGH GLOCK HAS TRULY GIVEN EXACTLY SUCH STATEMENT AS IS REPEATED HEREIN, THE ACTUAL PRINTED ARTICLE (AND THE INFORMATION DISTRIBUTED WORLDWIDE THROUGH ALL MAJOR NEW AGENCIES) HAS DISREGARDED GLOCK'S STATEMENTS, AND HAS REFLECTED OBVIOUSLY THE ORIGINAL OPINION OF THE JOURNALISTS ONLY.
GLOCK DEEPLY REGRETS THAT THE U.S. AND THE WORLD PUBLIC HAVE, THEREFORE, BEEN MISLED.

B) WITH REFERENCE TO SALES TO AND/OR SALES DISCUSSIONS WITH, LIBYA:

- GLOCK HAS, SINCE THE TIME OF ITS INCORPORATION IN 1963, NEVER SOLD ANY OF GLOCK'S PRODUCTS TO LIBYA, NEITHER DIRECTLY NOR INDIRECTLY, AND
- GLOCK HAS NEVER BEEN REQUESTED NOR INVITED BY ANY LIBYAN AUTHORITY OR INDIVIDUAL, TO MAKE AND PRICE OFFER FOR GLOCK'S PRODUCTS AND, THEREFORE, GLOCK HAS NEVER SUBMITTED ANY SUCH OFFER, AND
- NO MEMBER OF GLOCK'S MANAGEMENT AND SALES STAFF HAS EVER IN HIS LIFE VISITED LYBYA, AND
- THE ABOVE STATEMENTS REFER TO THE PAST AND PRESENT, THAT MEANS, THERE ARE ABSOLUTELY NO CONTACTS, DISCUSSIONS OR ANY OTHER ACTIVITIES WITH ANY LIBYAN AUTHORITY OR INDIVIDUAL AND GLOCK HAS NO KNOWLEDGE WHATSOEVER, THAT MAY CONTACTS, DISCUSSIONS, OR OTHER ACTIVITIES ARE PLANNED BY EITHER SIDE FOR THE FUTURE.
- AUSTRIAN APPLICABLE EXPORT REGULATIONS REQUIRE AN EXPORT PERMIT FOR ANY EXPORTATION OF FIREARMS, REGARDLESS OF THE DESTINATION. IN CASE OF INTENDED EXPORTATION TO COUNTRIES THAT ARE IN WAR OR WARLIKE CONDITIONS OR IF SUCH EXPORTATION WOULD ENDANGER AUSTRIA'S NEUTRALITY, SUCH PERMIT IS NOT GRANTED. ANYONE MAY INVESTIGATE WITH THE AUSTRIA AUTHORITIES THAT THE GLOCK HAS NEVER APPLIED FOR EXPORT PERMIT TO LIBYA.

- ALSO ALL TRANSIT DESTINATIONS IN EUROPE REQUIRE COPY OF OF THE AUSTRIAN EXPORT PERMIT, AS WELL AS, THE IMPORT PERMIT OF THE DESTINATION COUNTRY. FOR SALES TO U.S.A.E.G., GLOCK HAS TO FILE THE U.S. IMPORT PERMIT WITH THE BLEGIAN AUTHORITIES AT BRUSSELS, WHEREUPON THE MINISTRY WILL ISSUE TRANSIT PERMIT AFTER ABOUT 12 DAYS.

D) WITH REFERENCE TO AIRPORT SECURITY

- BEFORE THE GLOCK 17 COULD BE SOLD EVEN WITHIN AUSTRIA, STARTING FROM 1983, A TEST AT VIENNA INTERNATIONAL AIRPORT WAS PERFORMED, UNDER SUPERVISION OF OFFICIAL SECURITY SPECIALISTS. IT WAS CLEARLY STATED, THAT BOTH, SCANNERS AND DETECTORS CAN IDENTIFY THE GLOCK 17 WITH CONTENTS OF 83% STEEL ONLY 17% OF ITS MASS IS SYNTHETIC MATERIAL. SUCH TESTS WERE REPEATED RECENTLY AT VIENNA AIRPORT BY "TIME" MAGAZINE, REPORTEDLY WITH THE SAME RESULT (DATE: JAN.20TH, 1986). PHOTOS WERE TAKEN AT THAT OCCASION. AS, TO OUR KNOWLEDGE, IN NO CASE OF HIJACKING, OR AIRPORT TERRORISM SO FAR, WAS A GLOCK INVOLVED (BUT OTHER GUNS HAVE BEEN INVOLVED), THE PRINCIPAL AND SPECIFIC PROBLEM OF AIRPORT SECURITY, ALTHOUGH IT IS A VERY SERIOUS ONE, IS IN NO WAY PARTICULARLY LINKED WITH THE GLOCK 17.
- SINCE THE GLOCK 17 HAS BEEN NATO-APPROVED AND ADOPTED BY THE FIRST NATO COUNTRY IN 1985 AS THE STANDARD SIDE-ARM AND OTHER VARIOUS FAMOUS ANTI-TERROR UNITS WHICH HAVE CONFIRMED IT SUPERIORITY IN VARIOUS AREAS, THE GLOCK 17 IS CONSIDERED ONE OF THE MOST EFFICIENT MEANS FOR MODERN POLICE UNITS IN THE FREE WORLD TO FIGHT TERRORISM IN OUR DAYS.

U.S. Department
of Transportation
Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

21 MAR 1986

Mr. Carl Walter
Glock, Inc.
5000 Highlands Parkway
Suite 190
Smyrne, Georgia 30080

Dear Mr. Walter:

I want to thank Mr. Glock and you for taking the time to chat with me during your recent visit. Per our discussion, enclosed are the photographs of the Glock 17 as viewed in an approved airport security screening X-ray.

I look forward to your continued cooperation in our battle against misinformation about the detectability of your fine weapon.

Sincerely,

Billie H. Vincent
Director of Civil Aviation Security

Enclosure

RECEIVED
MAR 24 1986
GLOCK INC.

65-046 O - 87 - 8

KARL BLECHA
BUNDESMINISTER FÜR INNERES

Wien, am 23. April 1986

24. APR. 1986

Glock Ges.m.b.H.
z. Hd. Herrn
Ing. G. Glock

Hausfeldstraße 17
2232 Deutsch-Wagram

ref: commercial business between Glock Ges.m.b.H./ Austria and Libya

Dear Mister Glock!

Further to your information concerning the recent press campaign in USA against your product, the GLOCK 17, 9 mm Parabellum "Safe Action" pistol, we are pleased to certify the following:

GLOCK has never approached the concerned Austrian Authorities for the issue of an Export Permit of Libya, nor has any individual, company or group ever applied for an Export Permit to Libya, concerning Glock products.

As no exportation of firearm, regardless of the destination, can be undertaken from Austria without the prior issue of such Export Permit, reason for and justification whereof

is carefully checked in each case by a committee consisting of high-ranked and responsible officers of various ministeries, it can be conclusively stated, that no exportation whatsoever, of GLOCK 17 pistols to Libya, was performed or is pending.

We also acknowledge your witness that you have at no time received inquiries from or in connection with, Libya, and that you have no acknowledge whatsoever, of any third party that is or was likely to conclude any such business with Libya, concerning your product. Furthermore, we confirm that you have voluntarily proved to us that your standard Agenca Agreement from includes binding provisions that limit any actions of your Agents abroad strictly to their respective territories and do not allow them to re-export your products outside such territories.

We hope that our above statements will contribute to your unterstandable desire to re-establish the general excellent reputation of your product in USA.

Sincerely yours,

THE WASHINGTON POST FRIDAY, APRIL 18, 1986 C21

JACK ANDERSON and DALE VAN ATTA

Plastic Handgun Fools Airport Sensors

We stirred up a storm when we revealed that an Austrian manufacturer is producing plastic pistols, which can be smuggled undetected through airport security.

We also disclosed that Libyan dictator Muammar Qaddafi was dickering to buy 100 to 300 of the Glock 17 pistols on the black market. These handguns represent an obvious threat to airline passengers, because they are far easier than other weapons to slip by airport metal detectors.

The Austrian inventor-manufacturer, Gaston Glock, heatedly denied this, insisting that tests by Austrian security experts showed that "both scanners and detectors can identify the Glock 17." Tests by a Pentagon official at National Airport and by Rep. Mario Biaggi (D-N.Y.), however, proved how easy it is for a disassembled Glock 17 to evade security inspections.

Now there is an equally alarming report from West Germany. U.S. Ambassador Richard R. Burt in Bonn sent a cable March 27 to Secretary of State George P. Shultz that included an informal translation of a report on the Glock 17 by the West German interior ministry.

A high-level official in the ministry said he had "initiated a thorough investigation" and submitted a report.

"An apparently new Austrian 9mm pistol, the Glock 17, was subjected to test for detectability in airport X-ray apparatus—Hi-Scan 6040, Hi-Scan 9050, GPA 74—at Stuttgart Airport," the report said. "The weapon is of plastic material except for the barrel and the magazine spring. The tests showed that the completely assembled weapon is extremely hard to recognize on the X-ray screen. Disassembled, the weapon was X-rayed together with a camera in a camera bag. In this condition only the barrel could be detected as a thick black line. The plastic parts could not be detected."

The federal minister's report continued:

"A further test at Munich Airport produced the same findings. Additional tests, the results of which I will submit, are presently under way.

"Without anticipating the final assessment, the experiences until now with regard to detectability of the weapon during airline passenger checks again stress the need of strict compliance with rules regarding the quota for manual reinspections." This was apparently a reference to spot-checking of luggage by security officers.

The Glock maker's protestations on detectability were also refuted recently in Washington, when a Russian-born man of undetermined motivation tried to smuggle a Glock 17 aboard a domestic airliner. He would have succeeded if the Glock 17 had been the only weapon he was trying to take aboard.

As it was, the airport X-ray machine identified a standard metal handgun inside the man's suitcase. When inspectors opened the bag, they found the metal gun they were expecting—plus a fully loaded Glock 17 and 150 rounds of ammunition that had escaped identification by the X-ray machine.

The man told police he was taking the small arsenal to a friend in Colorado who was planning a trip overseas. Whatever his intentions, the incident demonstrated the danger posed by the Glock 17.

Footnote: Biaggi is sponsoring a bill to outlaw any pistol undetectable by standard scanning equipment.

TECHNOLOGY

A NEW X-RAY SCANNER TO HINDER HIJACKERS

American Science & Engineering Inc.'s "flying spot" beam can help inspectors detect plastic pistols, the newest terrorist tool.

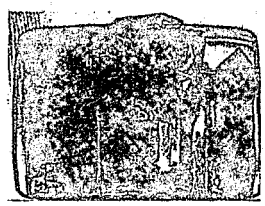
THE GLOCK 17 PISTOL is the latest terrorist weapon to menace air travelers around the world. The simple, lightweight, Austrian-made gun has a suggested retail price of $443 and has 32 pieces—many of them plastic, which does not show up as clearly as metal on X-ray machines. It can be taken apart or reassembled in less than a minute. Airport security officials fear that terrorists could disguise the pieces in luggage and smuggle them through X-ray inspection. Libya's Muammar Qaddafi reportedly has ordered up to 100 Glock 17s.

A new X-ray system introduced in January by American Science & Engineering Inc. of Cambridge, Massachusetts, may be the traveler's best defense. The company (1985 sales: $22.5 million), which made the X-ray telescope used to discover black holes in space, has devised an X-ray technique that makes a concealed Glock 17 easier to spot. Like a conventional X-ray, AS&E's "Z system" detects high-density materials like metals, which appear dark on a screen because they absorb X-rays. But the Z system also picks up lower-density substances like plastics and narcotics, which scatter X-ray beams in all directions, by pinpointing the source of the scattering.

AS&E's device scans the contents of a suitcase or package with a narrowly focused "flying spot" X-ray beam rather than a conventional fanlike beam. As the beam strikes the suitcase, separate detectors display different images simultaneously on two television monitors (see photographs). One screen shows the high-density materials—for example, a radio and a traveling case. The other reveals the plastic handle of a Glock 17 hidden beside the radio.

The weakest link in airport security remains the inspectors, who get bored and overlook suspicious objects. Theofolus Tsacounis, a retired Federal Aviation Administration security program manager, believes semiautomatic sensing devices might recognize objects and alert inspectors, although the systems require complex computer programs and are at least three years off. Westinghouse and Science Applications International Corp. of La Jolla, California, among others, are working on these devices.

Until they come along, airports will have to depend entirely on human operators. Despite the $55,000 price of AS&E's Z system, nearly twice that of the average airport X-ray machine, Finland and France have ordered it, and other countries including Israel and Egypt are negotiating. AS&E has promised delivery within six weeks, which may reassure summer travelers. AS&E stockholders are feeling reassured too: the stock has climbed 58%, from $4.75 to $7.50 a share, since January 1. —**Eleanor Johnson Tracy**



No weapon *appears in the type of X-ray image a conventional scanner displays.*

Z system X-rays *of the same suitcase reveal a hidden Glock 17 plastic pistol.*

The Washington Times March 7th 1988

INSIDE THE BELTWAY

Plastic handguns

At least one manufacturer in the United States has come up with an all-plastic handgun — like the Austrian Glock 17 — that can be smuggled past metal detectors. Federal Aviation Administration officials say these weapons pose serious problems for airport security requiring technological advancements in weapons detection.

Meanwhile, Rep. Mario Biaggi, New York Democrat, has introduced a bill to require federal testing of all non-metal firearms to check their detectability by airport security equipment. Mr. Biaggi recently tested the Glock 17 against metal detectors at the U.S. Capitol and the weapon passed through undetected.

Dean of diplomats

Swedish Ambassador Wilhelm

Politician Chet Atkins

Chet, meet Chet

Rep. Chet Atkins Massachu-

A heated exchange

Treasury Secretary James Baker and Rep. Frank Wolf, Virginia Republican, lost their tempers yesterday and the result was a loud verbal sparring match. The sparks flew when Mr. Wolf pressed Mr. Baker, who is ultimately in charge of the U.S. Customs Service, to act more forcefully to ban imports from countries that engage in slave labor, notably the Soviet Union.

"Bring a case...," Mr. Wolf shouted. "The CIA people will tell you there is proof. Your people know there's proof. Customs know there's proof." He then accused Mr. Baker of "shirking your responsibility."

"I don't plan to bring a case if I get shouted at one more time by you," Mr. Baker shot back.

"I'm telling you right now, you

New York Times, February 6, 1986, p. A22

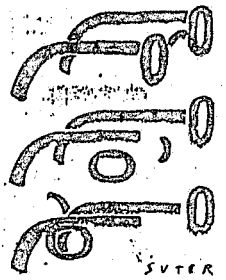
The Latest Thing in Plastic Is a Handgun

To the Editor:

Your article on selling plastic for its quality (Business Day, Jan. 28) praised a new generation of plastics, which are replacing the traditional materials of steel, glass and aluminum in many industrial and manufacturing areas. These new plastic compounds are, you say, "winning a reputation for durability, quality and versatility." To this list of accolades should be added deadliness.

New, highly durable plastic polymers are being used to construct handguns that are lighter and more easily concealed than ordinary metal handguns. Their firepower is just as effective. This combination could be a boon to hijackers, terrorists and others who seek to outwit X-ray machines and metal detectors. The National Coalition to Ban Handguns has named this hard-to-detect weapon the "Hijacker's Special."

The pioneer manufacturer of the plastic handgun is the Austrian company of Gaston Glock, near Vienna. The Glock 17 is a 9-millimeter pistol, composed almost entirely of plastic.



Only the barrel, slide and one spring are of metal. Broken down, these few metal parts could be hidden innocuously to escape X-ray detection. Col. Muammar el-Qaddafi is reportedly in the process of completing a deal to buy at least 100 of the plastic guns.

The Federal Bureau of Alcohol, Tobacco and Firearms has approved importation of the Glock 17, and although no U.S. company manufactures plastic handguns, it won't be long. In the April 1985 issue of American Firearms Industry, Andy Molchon, president of the National Association of Federally Licensed Firearms Dealers, states: "The American plastic gun will shortly make its appearance. The Austrian gun still uses a steel barrel, but the American model will be 100 percent plastic."

Congress can safeguard us from this deadly "benefit" of the new wonder plastics by taking legislative action to eliminate the importation, proliferation and manufacture of all plastic or partly plastic handguns in the U.S. before they become widespread and American companies become involved in the industry. After that, the National Rifle Association and other lobbies will block legislation limiting their use and distribution.

This kind of handgun is well designed for deception and terrorist activities. Congress must act now to nip the plastic pistol in the bud. If legislation is delayed for too long, the plastic handgun could become entrenched as one of the deadliest and feared of handguns.

JOSEPH E. GROVES
Washington, Jan. 29, 1986

THE AUSTRIAN TRADE COMMISSIONER IN THE UNITED STATES
SOUTHERN REGION OFFICE
4800 SAN FELIPE STREET, SUITE 500
HOUSTON, TEXAS 77056

GLOCK INC.
att'n. Mr. Karl Walter

500 Highlands Parkway, Suite 190
S m i r n a / GA 30080

YOUR REFERENCE
OUR REFERENCE 982/86/M/f

DATE 12. Maerz 1986

Betrifft: Glock - Pistole

Sehr geehrter Herr Walter!

Die Aussenhandelsstelle New York erhielt von dem ihr unbekannten THomas Donohue die beigelegte Mitteilung. Wie Sie aus dem ersten Satz derselben entnehmen, bez ieht er sich offensichtlich auf die von der Fa. Glock hergestellte Pistole. Ich hoffe, dass die unguenstigen Meldungen der letzten Wochen ihr definitives Ende haben, nehme aber an, dass die beigelegte Meldung fuer Sie von Interesse ist.

Mit freundlichen Gruessen

DER OESTERREICHISCHE HANDELSDELEGIERTE

Dr. Rudolf Nerten

Anlage

RECEIVED
MAR 17 1986
GLOCK INC.

PHONE (713) 850-8888 CABLE AUSTROTRAD HOUSTON TELEX 765544 ATD HOU

AUSTRIAN TRADE COMMISSIONER
21st Floor
845 Third Ave.,
New York, N. Y. 10022

2/25/86 MAR 3 - 1986

Sirs: It is not difficult to understand how Austria would be capable of this ultimate desecration of values and, ultimately, of life, by permitting the manufacture and exportation of a blatant hijacker's weapon, made of plastic. One has to recall Austria's joining forces with Hitler as a most eager & willing ally, then disclaiming responsibility . This to avoid costly reparations. Then there was the spiking of wine with antifreeze. What more can you expect from a nation of whores, whose only claim to fame is a nostalgic waltz, a reminiscence on Empire and a supersaturated Catholicism to redeem them from their present iniquities.

Very ~~sincerely~~,

42

GLOCK, INC. 5000 Highlands Parkway, Suite 190
Smyrna, Georgia 30080
(404) 432-1202

NEWS BULLETIN

April 6, 1986

THE TRUTH ABOUT THE GLOCK 17 PISTOL

"Hijacker special", "all plastic gun", "terrorist's pistol" — just a few of the provoking synonyms that were used during the last weeks by certain U.S. Press for the world's most advanced NATO service sidearm, the Glock 17-9mm "safe action" semiauto pistol.

What the media and anti-gun lobby do not know is that they have been badly misled by those elements who, be it for pure commercial reasons or others, attempt to manipulate the inherent sense of fairness and free competition of the world's freest nation.

The truth is, the Glock 17 is the world's most advanced semiautomatic handgun. You deserve to know the facts behind it.

FACT 1: In the initial tests, unofficially conducted by the Assistant Secretary of Defense on Counter Terrorism, Mr. Noel Koch, National Airport security personnel were so lax that **weapons made entirely of steel passed through detection devices several times because of human error. The media failed to report that fact, but instead reported that the Glock Pistol is not detectable.** That is twisting a news story and not addressing the true test findings. Since then, beginning with a Jack Anderson Editorial, our product the Glock 17 has been unjustly and falsely referred to by the media as, "the hijacker special" because it is 'almost entirely plastic and difficult to detect by airport metal detection security systems.' They couldn't be more wrong. Though the Glock 17 is extremely lightweight, because of the space-age polymers used in its design, **83 percent of the Glock's substantial weight of 24 ounces (unloaded) is hardened steel. That's more than a pound of metal.**

FACT 2: The Glock 17 has been fully examined, tested and approved for importation by the Bureau of Alcohol, Tobacco and Firearms.

FACT 3: The FAA, and other renowned National and International security and anti-terrorist specialists concluded in their own testing that the Glock 17 is as readily detectable assembled or disassembled as any metal made conventional pistol by alert U.S. and international security personnel at airport security checkpoints that follow strict security guidelines.

FACT 4: The Glock 17 has been originally designed as a superior military and law enforcement service pistol, featuring advance technology and trend setting quality. **It is fully NATO-approved and already adopted as standard service sidearm by the first allied member, also by the Austrian armed forces and Austrian anti-terrorist units.**

It has, within the last eight months succeded in winning every serious military and police test in the free world, wherever it has participated.

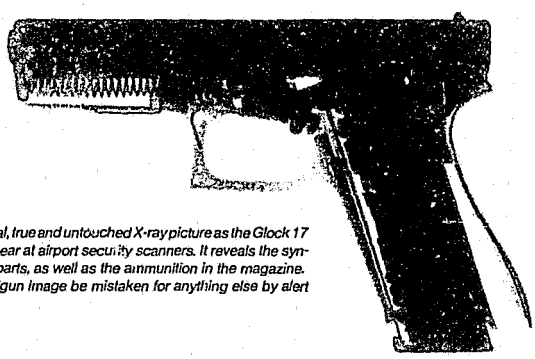
Within eight months, the Glock 17 has become a prime choice of the free world's most elite anti-terrorist and presidential guard units, who are using this accurate, safe and reliable handgun to fight criminal elements and terrorists more effectively than ever before.

FACT 5: Glock adversaries in our nation are striving and lobbying to have the Glock 17 importation and sale, and its production technology banned, in the U.S.A. because of the unfounded belief that the gun is a "terrorist special", is undetectable at airport security checkpoints, and an "all plastic gun"!!!.

Besides that, two bills are now pending in the U.S. House of representatives, HR4194 and HR4223 which, if passed, could be used to accomplish this.

Intelligent people have been badly misled. The Glock 17 has never been used in any terrorist activity nor has Glock offered or sold it to any country, or individual, that is, or was involved with terrorist activities.

Introducing legislative action directed against the Glock 17 would mean disapproval of a NATO and Austrian Army adopted product, and would serve only to place the U.S. at an international competitive disadvantage in terms of both technology and defense. That would be false security. Is that protecting U.S. Citizens' interest?



This is an actual, true and untouched X-ray picture as the Glock 17 Pistol would appear at airport security scanners. It reveals the synthetic and steel parts, as well as the ammunition in the magazine. Can this handgun image be mistaken for anything else by alert security people?

Based on international and U.S. Federal agencies test findings, we kindly ask you to oppose legislative action in the U.S. to ban modern and worldwide acknowledged firearms manufacturing technology, because it does not protect you and the U.S.A. in the future.

In all fairness, before you make a judgement take a look at the Glock 17 pistol and form your own opinion. Should you still have any questions, contact us, because we feel that someday all pistols may have similar technology and perform like the Glock 17.

We thank you for your attention, should you have any additional questions, please do not hesitate to contact us.

THE KANSAS CITY STAR

Monday evening, April 7, 1986, State Edition, 32 pages

High-tech handguns stir security conc

Plastic weapons will be a part of congressional debate

By Andrew C. Miller
The Star's Washington correspondent

Washington—To the eye, the sleek Austrian-made 9mm semiautomatic pistol looks no different than any other semiautomatic handgun.

From the base of the grip to the tip of the 4½-inch barrel, the all-black Glock 17 pistol projects a businesslike, nonsense image.

In a U.S. advertising campaign, the Austrian manufacturer proclaims its design—which incorporates new levels of high-density plastic—as a revolutionary concept in handgun construction.

"Set your sights on the handgun of the future," says Glock Inc. "It's here."

It's here and it's raising troubling new questions about airport security and the high-tech future of handguns.

Anti-gun groups and congressional critics are calling the Glock 17 a "hijacker special," or worse. When dismantled, they say, it can pass undetected through airport screening devices with ease.

But federal officials say the mass of high-density plastic, combined with its steel parts, makes the Glock 17 a pistol that is easily detected and poses no security threat.

"Contrary to the information that is being put out now . . . the Glock 17 is detectable on all of our airport systems, whether it is the metal detector or the X-ray system," said Billie Vincent, director of civil aviation security for the Federal Aviation Administration (FAA).

"The handgun, even the plastic grip, is detectable on the X-ray system at the airport," he added.

Michael Hancock, an official with the anti-gun Coalition to Ban Handguns, said federal officials underestimate the threat.

"I've seen the gun broken down and that profile (on an X-ray machine) which we commonly associate with a gun is made about entirely of plastic," said Mr. Hancock. "It . . . does not give that automatic, 'it's a gun' response."

A lax security guard, he said, might not see the plastic grip and the plastic trigger guard. And the guard might think the barrel and slide "are a cigar holder or just about anything."

Beyond the debate, most agree that the Glock 17 foreshadows the inevitability of a high-tech, all-plastic handgun of the

With antigun companies cu all-plastic gun reach the Ho bate on gun co

Two New Y propose an a power the Tr any firearm t standard secu

The Glock s tories of Ga plastics engin tion in the e pistol using

Guns

continued from pg. 1A

plastic.

The result is lighter in weight than semiautomatic pistols of comparable size. By weight, the Glock 17 is 83 percent steel, 17 percent plastic.

Most of the pistol's plastic is in its molded bottom half—the grip, the trigger guard and the barrel support—but there are metal working parts and supports.

Much more metal is on top—the barrel, the slide, a heavy recoil spring and smaller components.

Karl Walter, the company's U.S. representative, said the amount of metal assures detection. He said Austrian officials tested the Glock 17 through airport security devices when the Austrian army was considering buying the weapon shortly after it was introduced in 1983.

It passed. It was detected. The army bought 25,000 pistols.

After selling "hundreds of thousands" overseas, according to Mr. Walter, the Glock firm last year sought a U.S. import permit.

Preparing to certify the weapon for import, the Glock 17 was shipped to the basement offices of the bureau's Firearms Technology Branch in a huge federal office building four blocks from the White House.

"We had known of its existence for years," said Edward Owen, the branch chief. "It's nothing new or wild to us."

Operator error?

Soon after the Glock 17 was approved for import Jan. 10, concerns about security arose that never surfaced in Europe.

Syndicated newspaper columnist Jack Anderson reported in January that federal officials, in a test, took a dismantled Glock 17 twice undetected through security checkpoints at Washington's National Airport.

He wrote that the officials took such steps as dismantling it, then wrapping its heavy steel spring around a pair of eyeglasses.

Federal officials dispute Mr. Anderson's account.

Mr. Vincent, in congressional testimony, said he was present and the Glock 17 was visible on the X-ray screen. "Any failure to detect that weapon is operator error," he said.

The publicity led the Bureau of Alcohol, Tobacco and Firearms to issue a special memorandum to its regional offices, according to information obtained by *The Kansas City Star* under a Freedom of Information Act request.

The unsigned memo said the Glock 17 is a "high-tech, high-quality firearm and its use of plastic gives it an advantage in being lightweight—not in concealability."

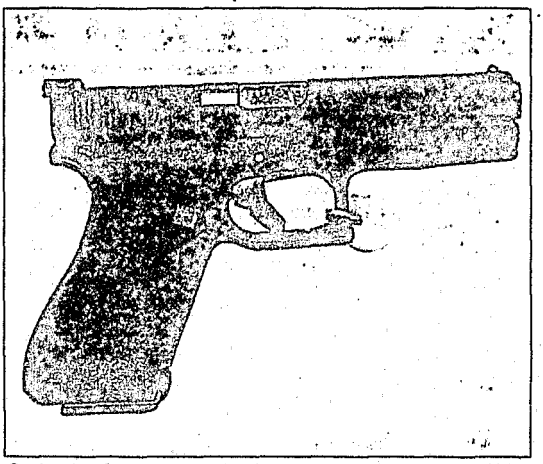
The memo added: "The problem posed by smuggling a disassembled Glock and its ammunition aboard an aircraft is not appreciably different from that posed by a more conventional firearm."

Rep. Mario Biaggi, a New York Democrat, recently arranged another test of the Glock 17 against metal detectors and X-ray machines at the U.S. Capitol.

"When dismantled, the frame and magazine of the weapon, which are made of plastic, went undetected by the metal detector and the barrel created a deceiving image on the X-ray screen," Mr. Biaggi said.

Mr. Biaggi said he is not necessarily advocating a ban, but he wants federal officials to be prepared for the next generation of handgun that could be nonmetal.

"It's obviously not the kind of development that bodes well for airport security," said John Mazor, an official with the Airline Pilots Association.



Construction of the Glock 17 handgun incorporates high-density plastic, which has raised concerns about airport security.

Too stressful

Overshadowing the Glock 17 controversy is whether a non-metal gun—all-plastic or ceramic—is feasible today.

Writing last April in the trade magazine *American Firearms Industry*, Andy Molchon, president of the National Association of Federally Licensed Firearms Dealers, predicted a "100 percent plastic" model was near production.

"An American plastic gun will shortly make its appearance," he wrote. "Plastic is the 'common word,' but it's really liquid crystal polymer . . ."

In an interview Mr. Molchon would not reveal the manufacturer. He only hinted it was not one of the U.S. firearm industry's giants.

"The plastic handgun people never wanted the publicity," he added. "They asked us not to say anything more since the Department of Defense was interested."

Mr. Molchon doubts a U.S. manufacturer would sell an all-plastic gun.

"An all-plastic handgun that had no detectable features, even if it had no problems with the law, would be a public relations disaster," he added. Instead, a manufacturer might put metal strips on the plastic or implant metal fibers in the plastic to assure detection.

Mr. Owen said a Dallas firm proclaimed a year ago that it would market an all-plastic handgun. He added that company officials "verbally indicated a willingness to explore the addition of a metallic substance, if necessary, in the design, should it ever develop."

The company, Plastic Guns Inc., has since disappeared without producing a prototype. The company's phone has been disconnected.

In a report issued last week, the National Coalition to Ban Handguns said federal documents it received indicated that Plastic Guns, Inc., has ceased operation. It had agreements to work with General Electric and 3M to develop the plastic handgun, the coalition said.

But, the coalition added, a company founder at Byron Inc., in Casselberry, Fla., is planning a plastic gun geared toward the military market. David Byron, the founder, told the coalition that technology was "absolutely" available to produce an all-plastic gun and that he had heard of other companies working on one.

He said his company would not consider marketing a plastic handgun to the civilian market unless a means is developed to detect it.

Other gun experts, however, disagree over whether plastics technology has advanced far enough.

Norman Dee, an official with Intratec, U.S.A. Inc., a Florida gun manufacturer, said a plastic has not yet been developed which can withstand the stress of a firearm.

"It would maybe fire two or three rounds," he said. "Then the heat and the explosion . . . would cause it to warp or be inaccurate.

"You still would have to put a steel sleeve in the barrel. Otherwise it would just tear the barrel up. There are certain parts you can't make out of plastic."

Mr. Walter said the technology does not exist for an all-plastic handgun, but asked: "Who knows whether a major plastic manufacturer will come up with something?"

But if an all-plastic firearm does become a reality, Federal Aviation Administration officials say they will be ready. Mr. Vincent recently promised a House subcommittee that new security systems would be in place before all-plastic or ceramic handguns are sold.

In January, the FAA asked detection equipment manufacturers to outline possible new technologies to detect all-plastic weapons.

Already major manufacturers have begun research, in part directed at detecting plastics explosives, such as that believed to have caused four deaths aboard a Trans World Airlines jet over Greece last week.

One device uses a computer to collect scattered X-rays and produce stronger images that more clearly outline plastic. Another possibility is an infrared scanner to detect an all-plastic gun as a cold spot on an otherwise warm human body.

Other high-tech technologies for plastics explosives include devices that "sniff" vapor emissions.

The FAA's move relating to plastic guns "was a measure of prudence, if you will," said Fred Farrar, an FAA spokesman.

"It was just the fact that our people are aware that the ideal—if you can use that word in this context—that a plastic handgun and its economic advantages has people working on one," he added.

"And if they are working on one, we'd like to be ready for it."

U.S. Department
of Transportation
Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

April 10, 1986

Mr. Carl Walter
1000 Highland Parkway
Suite 190
Smyrna, Georgia 30080

Dear Mr. Walter:

This is in response to your telephone conversation with Mr. David Leach of my staff, in which you requested my views concerning the ability of equipment currently in use at airport security checkpoints to detect the Glock 17.

As I recently testified before the Subcommittee on Crime of the House Judiciary Committee, the Federal Aviation Administration Office of Civil Aviation Security, of which I am Director, has been aware of the Glock 17 pistol for some time. We have conducted tests at airports to determine if x-ray machines and magnetometers currently in use are capable of detecting the weapon. Our tests have shown that the weapon is clearly detectable.

While any system that ultimately depends on the human element, such as airport security screening of passengers and carry-on articles, is vulnerable, the Glock 17 poses no more problem than many other weapons available on the market today.

I hope the above information is satisfactory. If you have additional questions, please feel free to contact Mr. Leach.

Sincerely,

Billie H. Vincent
Director of Civil Aviation Security

⊕
133307 glock a

tyo 16-4-86
attn mr w riedl
in taiwan, yesterday one major news paper announced chinese translate
d news what glock 17 could pass any airport security system.--- this
original news came fm usa. based on this news, garrison command
checkd on whether pistol can be detected at airport/seaport. as per
result, ours was completely detected.
today, news paper announced again that glock 17 was detected by
security system thus no harm.
i am askg garrison command to release their official report to us.

re: prc china
end user cert n invitation ltr are on my hand. mail tomorrow.
rgds
arnold
⊕
133307 glock a

via radio-austria
16/04/86 0601gmt

Massillon Police Department

102 CITY HALL STREET, S.E.
MASSILLON, OHIO 44646
830-1735

Chief Richard Bryan
830-1762

Mayor Delbert Demmer
830-1700

May 8, 1986

Carl Walter
Glock, Inc.
P.O. Box #369
Smyrna, Georgia 30081

Dear Mr. Walter,

I recently read several articles by "Experts", and have seen and heard on television, claims that the Glock 17 9mm Pistol can pass through airport security x-rays and metal detectors. Therefore, it is believed that this weapon is a high risk to security and likely to be used in airplane hijackings and for terrorism.

I have owned a Glock 17 9mm Pistol for some time now. Immediately upon purchasing this weapon and having heard the above claims of non-detection at airports, I contacted the Chief of Security at the Akron-Canton Airport, which is located between Akron and Canton, Ohio. We extensively tested the possibility of passing through their security with the Glock 17 9mm Pistol.

We first tried the metal detector. It was attempted to take the Glock 17 9mm Pistol through the detector with a loaded clip, and then without any ammunition in the clip. Both times, the detector revealed the fact that metal existed.

We then sent the Glock 17 9mm Pistol through the x-ray machine, both with and without ammunition in the magazine. The x-ray machine showed a clear image of the weapon. Anyone with any knowledge of security would have easily identified the image as a weapon, immediately.

I then field stripped the weapon into the four major parts. The barrel assembly and frame separately, again, showed a clear image on the screen, to the degree that they were noticeable as a weapon.

I personally think the claim that the Glock 17 9mm Pistol is a hazard and is a tool for terrorism is completely unfounded.

Very truly yours,

Richard J. Bryan
Chief of Police
Massillon Police Department

RJB:lsm

Astrophysics Research Corporation
4031 VIA ORO AVENUE, P.O. BOX 22709, LONG BEACH, CALIFORNIA 90801-5709
TELEPHONE (213) 513-1411 • TELEX 686233 ASTRO HRBO • FAX (213) 513-6593

March 27, 1986

The Honorable Mario Biaggi
The United States House of Representatives
2428 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Biaggi:

Our division in Windsor, England (Pantak, Ltd.) has forwarded a copy of your letter concerning the Glock 17 pistol to me requesting that I respond directly to you.

About two weeks ago, I had the opportunity of examining one of these pistols at our facility in Long Beach, California. I found that, although the frame is indeed plastic, the barrel and the ammunition clip are both made of metal. Fully assembled, the Glock 17 looks exactly like any other automatic pistol when viewed on the television monitor of our Linescan airport X-Ray security machine. Further, it causes our Mark 100 Metal Detector to alarm at the normal setting just as any other pistol does.

When the Glock 17 is broken down to its three basic components (metal barrel, metal ammunition clip and plastic frame), all three components are still visable and identifiable on the television monitor of the X-Ray system by a trained security operator. In all tests, the Glock 17 was X-Rayed while inside a standard briefcase with a normal amount of paper (approximately 1" thick) and other items usually found in a briefcase. Even the plastic frame shows as clearly as a toy plastic gun which, incidentally, is one of the most common items identified by airport security personell screening packages and briefcases on the airport X-Ray machine.

The barrel and the ammunition clip will cause the metal detector to alarm although the plastic frame, by itself, obviously will not. However, the plastic frame is completely harmless and, in fact, looks less like a pistol than a plastic toy gun because it lacks a barrel. In my estimation, it would be as difficult to pass a Glock 17 pistol through an X-Ray security checkpoint as it would be to pass any other real pistol through the same checkpoint. Further, any person attempting to smuggle a non lethal weapon past an airport metal detector would be well advised to use a plastic toy gun rather than the frame of a Glock 17.

Photographs were taken of the Glock 17 on the television monitor of the X-Ray unit. A set of these is included for your perusal.

Astrophysics Research Corporation is the worlds largest manufacturer of X-Ray security screening equipment. Over 90% of the units currently in use at airports in the United States and approximately 60% of the units currently in use overseas were designed and manufactured by us. We have worked closely with the Federal Aviation Administration's Office of Civil Aviation Security as well as the Aviation Security Agencies of many foreign governments assisting them in the positive identification of various contraband items and have earned an enviable reputation worldwide as authorities in the field of contraband detection by the use of X-Ray.

We respectfully submit the above information for your edification and possible use. If you believe that we might be of further assistance on your project, please do not hesitate to contact us.

Sincerely yours,

ASTROPHYSICS RESEARCH CORPORATION

John P. Battema
Vice President, Marketing

Enclosures

JPB/jj

MARIO BIAGGI
19TH DISTRICT, NEW YORK

WASHINGTON OFFICE
2428 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-2464

DISTRICT OFFICES
BRONX
1385 WESTCHESTER AVENUE
BRONX, NY 10461
(212) 931-0100

YONKERS
SECOND FLOOR
5 SEMINARY AVENUE
YONKERS, NY 10704
(914) 375-0500

Congress of the United States
House of Representatives
Washington, DC 20515

COMMITTEES
EDUCATION AND LABOR
SUBCOMMITTEES
POSTSECONDARY EDUCATION
LABOR-MANAGEMENT
SELECT EDUCATION
VICE-CHAIRMAN
MERCHANT MARINE AND FISHERIES
CONGRESSIONAL PORT CAUCUS
SUBCOMMITTEES
CHAIRMAN
MERCHANT MARINE
COAST GUARD AND NAVIGATION
PANAMA CANAL/OUTER CONTINENTAL SHELF
SELECT COMMITTEE ON AGING
SUBCOMMITTEES
CHAIRMAN, HUMAN SERVICES
CHAIRMAN, AD HOC CONGRESSIONAL COMMITTEE FOR IRISH AFFAIRS

March 4, 1996

RECEIVED
11 MAR 1996
PANTAK LIMITED

Pantak, Limited
Vale Road
Windsor SL4 5JP
Berkshire, England

Dear Sir or Madam:

Recently, it has come to my attention that a relatively new handgun, the Austrian-made Glock 17, is posing security problems at airports because its substantial plastic composition makes it difficult to detect with airport security equipment (e.g. metal detectors and X-ray machines).

Since you are a manufacturer of airport security equipment, I would like to know if you have tested the Glock 17 against your equipment and, if so, what were your findings? Also, I would be interested in your general views about the Glock 17 and what appears to be a trend in the direction of totally non-metal firearms. I would particularly appreciate receiving your comments on my legislative proposal (H.R. 4223 - copy enclosed) to prohibit the importation of U.S. manufacture of non-metal firearms that are less susceptible to detection by metal detectors and other security devices than firearms substantially constructed of metal.

For your easy reference, I am enclosing various materials discussing the Glock 17.

Sincerely,

MARIO BIAGGI, M.C.

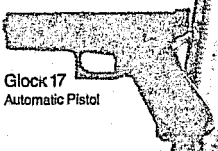
MB/cmf:mrc
Enclosure

As Advertised in THE WALL STREET JOURNAL.

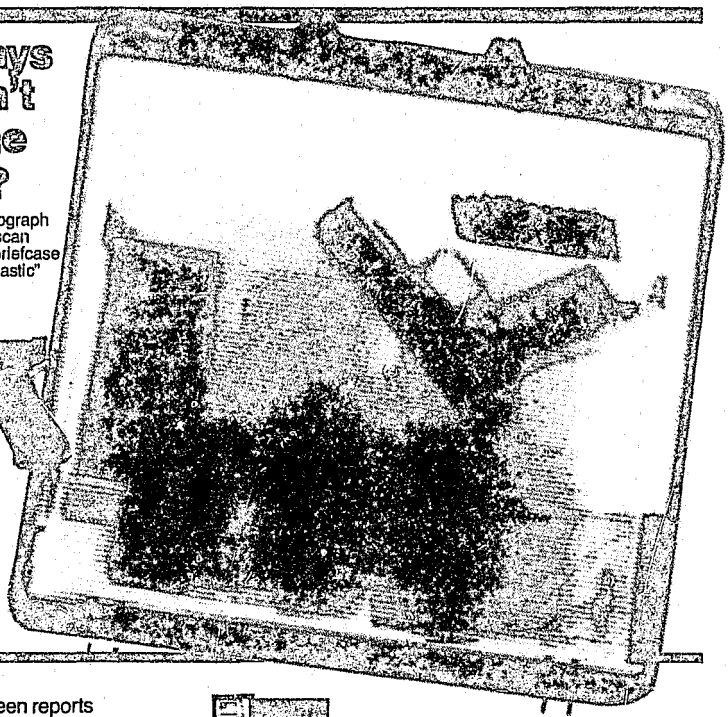
LINESCAN® STOPS THE GLOCK!

Who says we can't stop the Glock?

Unretouched photograph taken from a Linescan monitor, shows a briefcase with a Glock 17 "plastic" pistol inside.

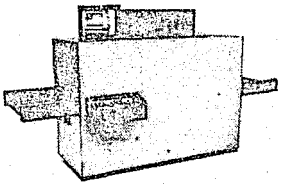


Glock 17
Automatic Pistol



There have been reports that the "plastic" Glock 17 automatic pistol can't be detected by present airport security methods. Since 92% of the x-ray security systems installed in United States airports are Linescan units (made by Astrophysics) we feel compelled to respond to these reports.

The Linescan X-ray Security System has no difficulty in detecting the Glock 17 Automatic Pistol (see photo) just as Linescan Systems have no difficulty in detecting metal guns and plastics in airports, correctional institutions, customs facilities, nuclear power plants, and corporate mailrooms around the world.



LINESCAN® SYSTEM 1, one of ten Linescan models to choose from. A Linescan X-ray Security System can be modified to meet your particular needs.

So whenever protection from weapons and explosives is necessary, look to Linescan — the leader in x-ray security systems. The more you want to see, the better Linescan looks.

43

Astrophysics Research Corporation

4031 Via Oro Avenue. P.O. Box 22709, Long Beach, California 90801-5709. Telephone (213) 513-1411. TELEX 686233 ASTRO HRBO. FAX (213) 513-6593.
Vale Road, Windsor, Berkshire, SL4 5JP, England Telephone Windsor (44) (753) 855611. TELEX: 849338 PANTAK G. FAX (0753) 854-823.

DER SPIEGEL (APR 14TH 1986)

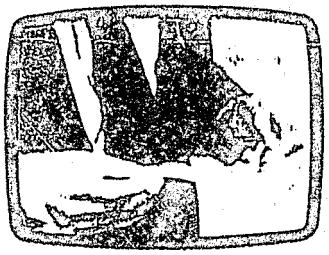
Tarnung – mit den Fingern, weil Detektoren und hochkomplizierte Röntgengeräte versagen.

Intensivere Handarbeit hatte Bonn nach den Bombenanschlägen auf die Berliner Diskothek „La Belle" (zwei Tote) und eine Boeing der US-Fluggesellschaft Trans World Airlines über Griechenland (vier Tote) angeordnet. Vor allem der Terrorakt gegen die TWA-Maschine – wieder einmal hatte Plastiksprengstoff die Flughafenkontrolle passiert – zwang die Politiker zum Handeln.

Doch der Appell wurde unterschiedlich befolgt. In Hamburg dauerte der Check gelegentlich drei Minuten statt bisher eine Minute pro Fluggast. In Hannover-Langenhagen dagegen meldete Polizeioberrat Helmut Voshage, trotz Messeandrangs, „business as usual".

Auch in Frankfurt, auf Deutschlands größtem Flugkreuz, gab es keine spürbaren Verzögerungen. „Was sollen wir denn noch verstärkt machen", fragte ein Mitarbeiter des Schutzdienstes, „sollen wir die Leute ausziehen?"

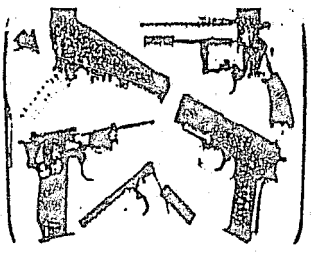
Die Polizei in München-Riem hält ebenfalls nicht viel von „manuellen Nachkontrollen". Denn Plastiksprengstoff, behauptet ein Grenzschutzbeamter, sei „sehr, sehr schwierig auszumachen, wenn er nur irgendwie verbröselt ist".



Sprengstoff aus Plastik
Bindfaden als Bombe

Wenn das explosive Zeug aus Kunststoff an Bord geschmuggelt werden soll, läßt sich das selbst mit elektronischen Spurgeräten nicht verhindern, schon gar nicht mit der Hand. Und Probleme bereiten den Kontrolleuren jetzt auch Handfeuerwaffen, die bislang immer mit simplen Metallsonden zu erfassen waren – es sind neuartige Pistolen, die im wesentlichen aus Plastik gefertigt werden.

Marktführer mit über 28 000 ausgelieferten Exemplaren ist die österreichische „Glock 17". Die vom Hersteller gepriesenen Vorzüge der 17schüssigen 9-Millimeter-Pistole sind das geringe Gewicht (650 Gramm) und die lange Lebensdauer. Die Combat-Waffe, wirbt die Firma aus Deutsch Wagram, könne naß „auf 40° Minus eingefroren", in „Schlamm getaucht" und „einem Sandsturm ausgesetzt" werden – „ohne Ladehemmung".



Plastikpistole „Glock 17" (Pfeil)*
Kernstück zeichnet sich nicht ab

Für Terroristen hat die leicht zerlegbare Wunderwaffe offensichtlich einen anderen Reiz. Nur Lauf, Verschluß und Feder sind noch aus Stahl, der Rest ist Kunststoff – für die Prüfer an den Sichtgeräten nur schwer zu erkennen.

Amerikanische Schießexperten sprechen von der „idealen Waffe für Hijakker". Die „Washington Post" meldete prompt, Libyens Gaddafi habe schon 100 Stück gekauft. Das US-Fernsehen erschreckte die Nation mit einem Test-Bericht: Auf dem internationalen Flughafen von Washington konnte ein Reporter den Plastik-Ballermann unbehelligt durch die Abfertigungsschleusen schmuggeln.

Sicherheitsexperten auf deutschen Flughäfen wie Hannovers Voshage geben sich über die US-Diskussion „amüsiert": Längst werde mit dem Schießeisen aus Kunststoff am Bildschirm geübt. Voshage will sogar mit dem Röntgengerät ganz leicht „eine Spielzeugpistole erkennen" können.

Ob die „Glock 17" wirklich so leicht zu entdecken ist, testete der Polizeiwaffen-Sachverständige Siegfried Hübner auf dem Stuttgarter Flughafen. Er zerlegte die Pistole und versteckte die Einzelteile in einer Phototasche zwischen Kamera, Blitzlicht und Filmen. An zwei Sperren, die mit dem modernen Röntgengerät „Hi-Scan 9050" ausgerüstet sind, blieb der Stuttgarter Waffenexperte hängen – neben den Metallstücken waren auch Plastikteile deutlich zu erkennen.

An einer dritten Schleuse, an der ein Modell älteren Baujahres aufgestellt war, konnte der Kontrolleur nur die Konturen der Metallteile sehen. Das aus Plastik gefertigte Kernstück der Waffe

* Röntgenbild

American experts are talking of the "Ideal Weapon for Hi-Jackers". "The Washington Post" reported promptly that Libya's Qaddafi has already bought 100 pieces. The U.S. television frightened the nation with a test report: „In the International Airport in Washington, a reporter was able to smuggle the plastic shooting instrument unnoticed through security gates.

Safety authorities in German airports like the Hannover Airport state that the U.S. discussion is "amusing".

For some time training has been conducted with weapons containing synthetic material.

The Hannover Airport can identify easily, toy pistols.

That the Glock 17 is easily detectable was tested by the police arms expert, Siegfreid Huebner at the Stuttgart Airport. He disassembled the pistol and concealed parts in a camera case between flashlight and films. (CAMERA)

On 2 safety controls, which are equipped with the modern X-ray unit, High Scan 9050, the Stuttgart arms expert got caught—next to the metal pieces, plastic parts were clearly recognized.

(This article is dealing with explosives and older X-ray equipment that does not clearly identify synthetic components used generally in firearms.)

Tim Bailey & Associates Inc.

MANUFACTURERS REPRESENTATIVE

May 8, 1986

Mr. Karl Walter, V.P.
Glock, Inc.
5000 Highland Parkway
Smyrna, GA 30080

Dear Mr. Walter:

As representatives for Garrett Metal Detectors of Garland Texas, it is our responsibility to demonstrate, sell and install metal detecting security devices for every conceivable application, including airports, schools and prisons.

In recent weeks, because of the heavy media coverage of your Glock 17 pistol, many of our prospective customers have requested that we include in our demonstrations the detectability of your product.

Our equipment, Garrett model 11652 Magnascanner, meets and/or exceeds all detection requirements of NILECJ standard 0601.00 for all levels, and FAA requirements for airport applications.

This unit is currently being utilized by such agencies as: Federal Prison San Quentin, Federal Prison Terminal Island, California Department of Corrections, County of San Diego, Arizona Department of Corrections, Joliet Prison Illinois, Detroit International Airport and the United States Navy.

In addition, Garrett was sole supplier for security devices for 1984 Republican National Convention and the 1984 Olympic Games in Los Angeles. The 1988 Olympic Games in Seoul Korea will also be protected by our equipment.

It is our considered observation, after repeated testing, that your Glock 17 pistol is clearly detectable, either assembled, or disassembled, to include any of the major components such as the synthetic grip portion with its permanent metal inserts, and even the unloaded magazine, provided the machine is being operated under proper conditions and adjustment.

CORPORATE OFFICE/18311 NAPA STREET • NORTHRIDGE, CA 91325 • (818) 993-3141

I am appalled by the recent flood of erroneous information that has been spread by the news media and would like to offer our services in stemming the tide.

If, in the course of your travels, you encounter any agency or department using less than state-of-the-art equipment that will not detect your pistol, feel free to have them contact me, as we would appreciate the opportunity to demonstrate our product and illustrate it's capability.

I am enclosing our current catalog for your reference.

Sincerely,

ALAN R. BROWN
General Manager

Mr. HUGHES. Ms. Burns, welcome.

Ms. BURNS. We appreciate this opportunity to set the record straight and correct the vast amount of misinformation that has been disseminated about the development of our plastic gun system.

It is amazing that all of this fuss is being made over something that should be detected, can be detected, and will be detected easily and cheaply, and that no mention is being made about the real threats—the plastic explosives and firearms that will be made overseas and brought into this country by terrorists who openly flaunt all laws of civilized societies.

It is our belief that the more detectable a weapon is, the less chance that there is of its use by criminals or terrorists. If a weapon can be detected by just being near a detection device, it would virtually guarantee that the person carrying it would be discovered. Such weapons would be too dangerous for criminals to carry.

It is because of this concern that Mr. Byron wanted his invention, the plastic gun, to be more detectable than any firearm now made. It was also because of this concern that he has kept the FAA appraised of our progress since the beginning.

Several years ago when he realized that on paper his equations worked and that the plastic gun could become a reality, he began to work on a method of detecting those guns. The requirements he set forth were: the weapon had to be detected at a longer range than with conventional detectors; it should work without operators automatically; it should be low in cost. We believe that we can accomplish these goals.

But the most important points that you should weigh in considering new legislation are that the technology to build plastic weaponry is here now, and that the detection system that is our first line of defense is based on the technology and needs of a quarter of a century ago.

Technology no longer occurs in a vacuum. The world is too large and research information is widely shared. Therefore, it is our absolute certainty that somewhere in the world plastic guns will be built and marketed.

America has the chance to show the rest of the world that when these guns are made they should incorporate something to enhance their detectability. Plastic guns as we envision them would be useless to criminals because they could be detected too easily for them to consider using them.

The other side of the coin is that there are plastic bombs on our doorsteps now. No law can possibly limit the activity of the kinds of people that use these devices. The technology exists to find these threats but the detectors have to be built and tested.

What we desperately need is to support the efforts of the FAA to upgrade the obsolete detectors now in use so that we can counter this very real threat. The danger that faces us will not be from plastic guns made in the United States. You can require that they and any legal imports have implants to enhance their detectability.

The detectors to locate plastic guns can be so inexpensive that even small retail shops could add them to their security systems, and since they are automatic, an operator is not necessary.

It doesn't matter whether a weapon is illegal if a criminal wants it. What does matter is detectability. A highly detectable weapon is useless to criminals and terrorists. The real danger we face is from the terrorists who have already publicly threatened to bring their war to our shores. These people will not obey any law that you might pass.

We must at this crucial time take the larger view and see the consequences of legislation passed without regard to the current worldwide level of technology and without regard to the fact that we face an implacable enemy that views every housewife and child in the free world as a military target.

The only way we can stop these criminals is to catch them in the detection net that you can help to create.

In conclusion, the plastic gun system is the first major change in the firearms industry in over 100 years. Such a development in technology should be viewed with our highest regards and the two bills introduced today should be replaced by a bill which will enhance the detectability of all weapons and mandating detection devices which will update our currently obsolete detection systems.

[The statement of Ms. Burns follows:]

Statement of Mary Ellen McDonald Burns
Representing Byron's Incorporated
May 15, 1986
Subcommittee on Crime
U.S. House of Representatives

The two bills that are now before your Committee regarding plastic firearms demonstrate that there is a necessary public concern about terrorism. Unfortunately, these bills are narrow in perspective and have controls preventing the military and police forces of the United States from acquiring and testing the next generation of military armament, preventing the implimentation of the world's most detectable firearm, while doing nothing to prevent the importation and use of these weapons by terrorist forces. Additionally, there are other ramifications that are wide-ranging and ultimately could result in the deaths of thousands of Americans.

War has been openly declared against our country by an enemy that bows to no rule of civilized behavior, that kills its own people without regard, just to achieve its short term goals.

According to news reports Libya has stockpiled tons of plastic explosives for terrorist use. The reality is that we live in a world where this material can and is being formed into almost any imaginable shape and tinted to almost any color which thoroughly disguises it. With the detector technology that is in current use a criminal bent on terrorism could carry his bombs almost anywhere without fear of discovery from either X-rays or metal detectors. This is a hard lesson that was recently pointed out to us through the deaths of innocents blown out of an airplane by a plastic bomb carried through more than one airport and onto more than one airplane.

When this criminal behavior began on an international scale twenty-five years ago detectors were developed to warn us of the presence of the most commonly used weapons of that time. The weapons that we are now confronting are of a type that we have not had to deal with before.

Technology, as well as the world, has changed in the twenty-five years since we began relying on our current detection systems. We've seen the advent of flammable liquids, small knives and metal guns that pass through holes in our system, and — most dangerous of all — plastic explosives. All of which have been and is being used against us.

To fully examine the scope of the problem before you, please consider the following factors:

1. The current level of weapons technology.
2. The types of detectors in use.
3. Are plastic firearms detectable?
4. What would happen if these bills were passed?
   a. Detector implications
   b. Military implications
   c. Criminal justice implications

1. Weapons Technology

As was publicized by the movie "The Graduate" half a generation ago, "The future is in plastics," and the future is here. The plastic resins and ceramics on the market today are leading us into the age of materials substitution, and is changing the face of what were our "basic industries."

Because of the military advantages of light weight, very low maintenance, and rapid production, the consideration of plastic small and medium weapons should be forthcoming. The primary problems to be overcome in the development of all-polymer arms are: strength of materials, resistance to thermal variations, recoil reduction, and design of the operating system to compensate for low mass constituents.

We feel that we have solved these problems, but if we could so can someone else. Technology no longer occurs in a vacuum. The world is too large, and technological information is freely disseminated. **Therefore it is an absolute certainty that somewhere in the world an all plastic gun will** be built and marketed.

2. Detector Technology

We are all familiar with the twenty-five year old detector technology that we have been relying on — the close-pass walk through metal detector and the X-ray machine.

Notwithstanding regulation, the defacto standard of detectability of weapons in the United States is limited to the level of operating efficiency of the worst security guard operating the least efficient machine at the machine's lowest sensitivity setting. The more than ample proof of this contention is the fact that it is not an unusual occurance for individuals to easily pass through checkpoints carrying all sorts of heavy weapons, including large steel guns as the media has so often pointed out!

3. The Plastic Gun

It's amazing that all of this fuss is being made over something that *should* be detected, *can* be detected, and *will* be detected easily and cheaply, and that no mention is being made of the real threats — the plastic explosives and plastic firearms that will be made overseas and brought into this country by terrorists who openly flaunt all laws of civilized societies. No mention is made of other threats that are not currently detectable, and can be purchased without regulation anywhere in the world.

A few years ago when David Byron realized that on paper his gun could work he sat back and examined the ramifications of an all plastic firearm. The first thing that struck him was that this weapon had to be made to be detectable. Detectable in such a way that detectors would not miss it even if the operator was asleep. Detectable in such a way that it would be virtually impossible to mask or shield the gun from detection. Detectable in such a way that if a miscreant attempted to remove the detectable implant it would *guarantee* that the gun would be destroyed. And detectable in such a way that the detection system should be inexpensive and easily installed as an upgrade to existing detectors.

Mr. Byron believes he can accomplish this, and this is why he has been in constant communication with the F.A.A. almost from the inception of this project. We feel that firearms with our detector implant system will be *useless* to terrorists and other criminals contemplating misdeeds. Our plastic guns will be

too easily detected for criminals to consider using!

4. Consequences of This Legislation

a. Detector Implications

There is a grave danger to America if these bills are passed in their current form. Saying "plastic weapons are outlawed" will deceive the public into believing that there will be no danger from plastic weapons. And as is usually the case in similar instances, this will inhibit both the F.A.A. and the private sector from updating and upgrading our first line of defense in our war with the Terrorist Powers.

If these bills are passed we will be lulled into pretending that detector technology from a quarter of a century ago will protect us from the definite threat of foreign plastic weapons. Without immediate Congressional action strongly supporting the F.A.A.'s attempt to create and implement the next generation of detection technology we will have no way to impede the threatened terrorist invasion of the U.S.

b. Military Implications

There is a technical problem with these bills as they are phrased, and in discussions with Congressman Mrazek's office, as well as his public statements, we are sure that this could not be his intention. But, as phrased, the *only* exemption to this bill would be specifically section 925(f). Since the military and police exclusion is 925(a) the U.S. military would be prohibited from developing, testing or adopting the next generation of weapon systems.

c. Criminal Justice

Technology advances inexorably, and the only way to prevent the criminal misuse of that new technology is to assure its detection. Outlawing things never kept those banished items out of criminal hands, witness alcohol during Prohibition or firearms in New York.

To believe that a cohort of Abu Nidal or his ilk will not show up on your doorstep with a plastic weapon manufactured overseas because he might be arrested is naive at best.

As long as we bury our heads in the sand and wish for the technological clock to start running backwards we will be in danger from the more Machivellian terrorist groups.

5. Can The Bill Achieve Its Stated Purpose?

A resounding NO!

The presenters argue that outlawing plastic guns will somehow protect us from them. The reality is that the technology has arrived. The weapons will be made. If detector technology is not in place criminals and terrorists will import and use them with impunity.

The presenters argue that they will not impede military progress. But the most adversely affected groups are the military and police agencies since the exemptions in section 925(a) to (e) are specifically excluded.

The presenters argue that this bill will not affect the current rights of gun owners. The truth is that "Detectable" and "Readily-Identifiable" are not defined, and the "Standard Security Equipment Commonly Used At Airports" means the defacto standard of the least common denominator. Therefore, since all manner of metal handguns, rifles and shotguns have passed through checkpoints at some time or another ALL GUNS WILL BE ILLEGAL under this bill, including all small arms owned by the police or military.

What Is The Truth About Plastic Firearms and Other Weapons and What Should Be Done?

Detectors

As a nation we must take the positive step of making sure that all weapons can be detected. Why pass a negative law that a criminal or terrorist by the very nature of his being is certainly not going to abide by?

This detection can be achieved in two steps. First, using implant technology in all weapons. A non-removable implant should be detectable up to ten feet away from the detector, and should be virtually impossible to mask or hide. No criminal or terrorist would risk that kind of exposure.

Implant technology is cheap and efficient, and is not reliant on detector operators. If an implant enters the radius of the detection field an alarm is triggered. We estimate implants to cost around two dollars, and the detector to be less than two thousand dollars installed.

Any weapon with an implant would be too detectable for criminal use, and even small retail establishments could afford this technology.

The second arena of detector technology is the new generation of machines to provide close-pass detection of non-implanted plastic weapons of the type now being used by terrorists. This new generation of detectors is long overdue. The technology is here, but the machines must be developed. This should have been of top priority when it was discovered that terrorists were going to smuggle plastic explosives all over the free world, but nothing was ever mentioned and the private sector received no impetus to spend the development money. It is still not too late. F.A.A. needs everyone's support for their development efforts to avert this real threat.

Plastic Firearms

As with all firearms, plastic weapons can be regulated and required to be detectable. And unlike the myths surrounding them, plastic firearms can be made to be *more* detectable than their steel cousins.

Because plastic weapons as we envision them can be detected so easily we take serious exception to the emotionally loaded phrase "highjacker special." A criminal wouldn't make it past the door with our gun.

We are also constantly being asked: what is the advantage of plastic guns and why are they needed? The answer is that plastic arms offer the following advantages over current arms: light weight, no rust or corrosion problems, simplified maintenance, self-lubricating - never use oil or grease, long storage life in use-readiness condition, recoil reduction, short lead time and high manufacturing output with complete parts interchangeability over long production runs, life span comparable to metal arms, and withal they are dishwasher safe.

We have have been characterized as simply developing a small handgun. This is somewhat misleading. Mr. Byron has invented a mechanical system for polymer weapons of calibers through 40mm. But we have to test the theory, and it's far cheaper to test the operation on a small gun with greatly reduced cross section to yield maximum stress for statistically reliable testing to destruction.

CONCLUSION

The United States has the rare opportunity to close the barn door with the animals

inside. If we move quickly we can spur the development and implimentation of the next generation of detector systems to protect our nation from the very real threat posed by terrorists with plastic bombs.

We can also protect ourselves from the criminal misuse of new firearms if legislation is enacted to ensure that all firearms are detectable to a greater degree than they are now via implant technology.

We must at this crucial time take the larger view and see the consequences of our action if legislation is passed without regard to the current worldwide level of technology, and without regard to the fact that we are in a state of war — a war in which every housewife and child is viewed as a military target by an implacable enemy who cares not one whit what laws we pass.

It matters not whether a weapon is legal or illegal if a criminal wants it. What does matter is its detectability. A highly detectable weapon is *useless* to criminals and terrorists.

And of course the bottom line is that we have developed a plastic gun that is far more detectable than any gun ever made, and rather than outlaw it, regulation should be adopted to require that all new guns have enhanced detectability.

Mr. HUGHES. Thank you very much, Ms. Burns. We appreciate your traveling to Washington to testify today. Please communicate our thanks to your company.

Mr. Glock, first of all, we want to welcome you and thank you for traveling to our country.

One of the things that I was wondering about is if you can tell us why when the Glock 17 was designed it was designed to be disassembled as it is?

[Answers of Mr. Glock were given through an interpreter, Mr. Karl F. Walter.]

Mr. GLOCK. This was a requirement of the Austrian Armed Forces.

It is a logistic problem to service the weapon at war easily and quickly.

Mr. HUGHES. Are there any advantages for peacetime conditions to having a weapon that is so easily disassembled, rather than military use?

Mr. GLOCK. This is an advantage for every weapon which you can assemble easily for cleaning purposes because even during peacetime training with weapons is required. Even when something has to be repaired it is very easy to do during peacetime.

Mr. HUGHES. Do you manufacture weapons other than the Glock 17?

Mr. GLOCK. The Glock 17 is the first pistol that has a small commercial application at this time.

Mr. HUGHES. I see.

The future generations of Glock 17 is designed to be disassembled in the same fashion as we have seen here today?

Mr. GLOCK. At this time there are no plans whatsoever at Glock in Austria to produce an entire plastic weapon. The weapon has been, again, purely designed for military and law enforcement application. There is no design at the time or requirement to produce a weapon in any other caliber than a law enforcement or a military caliber.

Mr. HUGHES. Is there something in particular about disassembling for cleaning purposes a weapon under battlefield conditions that requires it to be put together in the fashion that it is?

Mr. WALTER. That is the main reason why it was designed.

Mr. HUGHES. Yes, but what is it about battlefield conditions that would require it to be disassembled as it is? It seems to have about five different parts.

Mr. WALTER. Any modern weapon today, Mr. Chairman, is readily disassembled, whether it is the Glock pistol or any other comparative product, comes for maintenance as easily to be taken apart as the Glock pistol.

Mr. HUGHES. You are talking about in the European markets?

Mr. WALTER. Even the U.S. market.

Mr. HUGHES. Are there any other reasons beside for purposes of maintenance that it is manufactured with so many different parts?

Mr. WALTER. Yes, it is for law enforcement and the military an enormous advantage to have a weapon that is logistically supportable and cost efficient. Obviously, the more parts there are, the more difficult it is to support in an army logistically. The fewer parts is much more desirable that way for modern armies.

Mr. GLOCK. And our important thing is because of those few components, less parts can break and, therefore, the weapon will last longer.

Mr. HUGHES. Ms. Burns, I wonder if you can tell us if you have any idea how close you are to perfecting an all-plastic or all nonmetallic weapon?

Ms. BURNS. Mr. Chairman, we have the plastics to make an all 99 percent plastic weapon. We could, if it were our option, we could have it in the market within 6 months.

Mr. HUGHES. Is the barrel plastic also?

Ms. BURNS. The barrel is plastic with a ceramic liner.

Mr. HUGHES. I see. But just the liner is ceramic?

Ms. BURNS. Yes, sir.

Mr. HUGHES. Has it been tested as yet?

Ms. BURNS. We have done some preliminary testing but we have not gone into it—we have not made a statement on that.

Mr. HUGHES. Do you have a prototype weapon that you have manufactured and put together?

Ms. BURNS. No, we have not.

Mr. HUGHES. You have not?

Ms. BURNS. We do not, and we will not have one.

When we test our weapon, it will be proven to be safe to our public; we will have detection devices, some means of detection by our firearm.

Mr. HUGHES. Are you developing the detection device yourself?

Ms. BURNS. Yes, we are. We already have implant technology and we also have on our drawing board several different alternatives to the detection of plastics, including plastic explosives.

We hope that the results of this hearing will be to have better detection for plastics, period, not just dealing with the firearm issue.

Mr. HUGHES. I share that concern and interest.

Let me ask you about weapons. One of the things that our colleague from Kentucky actually asked previous witnesses about was the possibility of putting a substance in the plastic that would be readily detectable by devices. Is that what you are talking about with regard to new technology?

Ms. BURNS. When I talk about implant technology, I am talking about a microchip that would go into the machine. It would be very sensor so that whenever you came upon—a little small box, costing about $2,000. That is not very much for the safety of the country. On the same thing you have got here. It is obsolete but we could be putting it there. And within 10 feet, anyone could walk and it would buzz. You would know it. You don't need anyone there. You would hear it automatically and you know that there is a gun within your distance. It would protect this building.

Mr. HUGHES. But it is your testimony that you do have the capability now to produce an all-plastic or 99 percent plastic weapon——

Ms. BURNS. That is right.

Mr. HUGHES [continuing]. With a ceramic insert or liner in a barrel that would be suitable for firearms use?

Ms. BURNS. That is right. We would like to be pleased to say that we are the first who have developed an all-plastic or 99 percent

plastic gun. But it is my knowledge that we are not. We are the first in the United States, but we are not the first.

Mr. HUGHES. Well, as long as you are first in the United States, that is OK for Bill McCollum.

Bill McCollum.

Mr. MCCOLLUM. Ms. Burns and Mr. Byron are constituents of mine and I have been aware of this particular development for sometime, Mr. Chairman. It has been both of concern to me and pleasure, because I recognize that we do have a grave problem of potential security threat if not handled properly. And on the other hand, as Ms. Burns has pointed out, we are at the cutting edge of technology, and I am very pleased that constituents of mine are in that position.

I am concerned that we are sure that we lay on the table one thing. My understanding is that in your almost 99 percent plastic or ceramic, or whatever weapon, that there are springs still that have to be metal. Is that not correct?

Ms. BURNS. That is correct.

Mr. MCCOLLUM. But we are talking about the casing and the barrel and all of the other parts being polymer or plastic, or at least nonmetallic. Is that right?

Ms. BURNS. That is correct.

Mr. MCCOLLUM. Now, this would be a fairly lightweight weapon, wouldn't it?

Ms. BURNS. About 3½ ounces.

Mr. MCCOLLUM. If it is a 3½ ounce weapon, this could be something the military of our country could find very useful, could it not?

Ms. BURNS. Very useful.

Mr. MCCOLLUM. Has the Department of Defense discussed this with you at all?

Ms. BURNS. We have spoken with various agencies. Mr. Byron has spoken with your office about military application for our plastic weapon. Our firearm ha been made because its smaller version is cheaper. To prove a point, our major goal was for the military and the police agencies.

Mr. MCCOLLUM. So with a larger weapon than the small one you just described to us?

Ms. BURNS. Yes.

Mr. MCCOLLUM. But made with the same basic technology?

Ms. BURNS. Yes.

Mr. MCCOLLUM. Now, if you have the implant you are talking about, this little device that would sound an alarm, presumably would be in a portion of that weapon. Could the weapon be disassembled, or is what you envision a weapon that is, at least with respect to everything but the springs?

Ms. BURNS. You could take the gun completely apart. You could do anything with all the parts you want. But without the initial frame and the implant device switch on it, it will not fire. You can carry 10 pounds of pieces of gun and it won't be a weapon.

Mr. MCCOLLUM. What you are saying is, the implant device would be in that portion of it which is part of the firing mechanism. It would be required to be there to fire?

Ms. BURNS. Exactly. Also, the serial number so that it cannot be destroyed or altered without ruining the gun, period.

Mr. MCCOLLUM. But the fact remains that somebody—even under what you envision—could take that weapon apart and carry portions of it that might not be usable, that is, without the rest of it, but they could carry those portions without any detection. Is that correct?

Ms. BURNS. That is correct.

Mr. MCCOLLUM. But the way you envision the final product being with the implant you have got in mind, there would be no way to use it as a weapon without having the detection occur?

Ms. BURNS. That is exactly right.

Mr. MCCOLLUM. Do you know if this detection system has been developed outside the United States?

Ms. BURNS. I do not know that.

Mr. MCCOLLUM. But you are confident from your knowledge that there are polymer, plastic, nonmetal weapons similar to what you have in mind that have been developed outside the United States, not with the detection implant but just plain?

Ms. BURNS. Yes, sir, I am.

Mr. MCCOLLUM. The last question I would like to ask is related to part of your testimony—your concern with the actual language in this legislation. You are concerned that whatever we pass, that we pass language that allows for military usage of the state-of-the-art technology; is that not one of the main points you are making here today?

Ms. BURNS. Yes, it is. In one area it says that we cannot domestically make or manufacture a nonmetallic gun and we can't domestically import them. Yet, we can give them to the military and the police and law enforcement agencies. Well, sir, how? We can't buy them and we can't make them. How?

Mr. MCCOLLUM. OK.

Ms. BURNS. This is one part that I object to very strenuously.

Another area is that we are also leaving the ability to decide what is detectable and what is not detectable to the wrong agency. I feel it should be with the FAA, because they are the ones that are dealing with it extremely close.

I would rather see a piece of legislation come out of this room which would encourage the development of a new detector system for our society, for us to have research and development capital allotted for this purpose, and to get on it right away.

Mr. MCCOLLUM. Maybe what we are talking about, though, is not just that, but talking about requiring that handguns manufactured or any weapon manufactured in the United States have sufficient material in it, or state-of-the-art type of devices that are detectable, and put it on a positive basis. Because you are talking in language that we haven't developed yet, which is one of the problems with this whole discussion up to this point.

But if we did that in a positive fashion rather than saying we are going to ban the production, and we draft it in the sense that we are going to require that every weapon that is manufactured have certain specified devices built into it.

Would that be what you are looking for?

Ms. BURNS. I would have to read the bill and be sure that it is stated——

Mr. MCCOLLUM. Well, we haven't created it, and any suggestions that you have, or any suggestions that the other gentlemen have would be most welcome.

Congressman Mazzoli is here, so I would like to yield to be sure he gets to ask his questions.

Mr. MAZZOLI. I thank the gentleman.

Mr. HUGHES. The gentleman from Kentucky.

Mr. MAZZOLI. We do have to go and I appreciate it very much.

I would be a little more comfortable if, for example, in making that gun it would have occurred to you all just independently to impregnate it—not just with a microchip that would cause certain kinds of machines to go tilt, but that you impregnate all of the parts with a material which would provide a very clear picture on even the existing systems.

I would just ask you the question: Was that considered and abandoned, or just never considered?

Ms. BURNS. No, it was considered. And, yes, it was set aside for this specific reason. If we go ahead and we make our plastic by your conventional methods, you won't do anything about the obsolete detection we have.

Mr. MAZZOLI. That is not a persuasive argument to me.

Can I ask Mr. Glock this: Why did he not consider in making his gun using the plastic parts or some material to be impregnated in all of the plastic parts that would make it show up clearly on current detecting devices?

Mr. WALTER. The pistol was designed as such to maintain advantage, which is lightweight. To impregnate material was never a design to begin with, in a corporate design—to be corrosion resistant, impact resistant, and strong, was one of the main characteristics of the design of the pistol.

Mr. MAZZOLI. In any of the materials that would cause this kind of a picture would either cause it to corrode or cause it to——

Mr. WALTER. Would cause it to corrode or would lose strength.

Mr. MAZZOLI. You have to add it to show that that was considered and rejected—

Mr. WALTER. It was not even a considered design method.

Mr. MAZZOLI. Well, then, if it wasn't considered, then how do we know that it would have been corrosive or would have caused the gun to be weaker, or something like this?

Mr. WALTER. If there is powder would be included in an injection process certainly would come out to the surface as well, and could change the structure, the strength of the structure—and it does change the strength of the structure of the synthetic composition.

Mr. MAZZOLI. You said, respectfully, there apparently was no testing done and yet you feel—

Mr. WALTER. That is a known fact that it would.

Mr. MAZZOLI. Well, it is a known fact—it sounds good, but I am not sure that we can accept just that. I mean, is there any data to show that the industry—maybe not Glock, Mr. Glock himself, but maybe the industry tried that out and found it—

Mr. WALTER. We would be glad to look into that and see what can be done.

Mr. MAZZOLI. It is surprising that you haven't looked into it. I am a little surprised that that isn't done or—the same way the gentlelady's company, I am surprised that they haven't looked into it because if you have a concern about terrorism, and safety in this country and around the world, it might have occurred to you as we are looking for a cheaper, lighter weight weapon, we also try to make it detectable at the same time.

Mr. WALTER. Yes, sir. The Glock pistol contains metal that cannot be removed. The Glock pistol was tested in 1981–82 at the Viennese International Airport by high ranking security officers. Even detection equipment today, the magnetometers, that are trustable, have the capability to pick up a filling in your tooth, of the metal. It is entirely a subject of where do you set your magnetometers—just getting the frame through the magnetometer does not tell you have a few down on the other end; it still lacks the barrel, to slide in the ammunition. And that cannot go through the magnetometer.

Mr. MAZZOLI. Our time is expiring.

But, of course, as a frequent traveler—I am sure you are, as Mr. Glock is—you obviously can set those magnetometers, or whatever you call them, to the point where they could detect the fillings in my teeth—that means you have got lines three blocks long waiting to get to your plane.

Mr. WALTER. That is correct, sir.

Mr. MAZZOLI. We realize that what you have to do is to do something which would allow them to be tuned down to be realistic in its examination of a person, and yet pick up things like guns.

Thank you, Mr. Chairman.

Mr. HUGHES. Thank you, Mr. Mazzoli.

Thank you very much. I think that I am going to leave it at that. We might have some additional questions of you, Ms. Burns, but we will submit them in writing.

That is a vote that is in progress.

I want to thank the panel very much, and particularly you, Mr. Glock, for traveling today from Austria. You have been very helpful to us today. And you, Ms. Burns, for coming in from Florida.

Mr. WALTER. Thank you, Mr. Chairman.

Mr. HUGHES. I am going to recess just for 10 minutes and then we will finish the last panel.

The subcommittee stands in recess.

[Recess.]

Mr. HUGHES. The committee will come to order.

First, I want to apologize to the last panel and to those that have remained, that was just a series of votes. It has been the story of our legislative calendar today.

Our last panel today consists of James Jay Baker, deputy director for governmental affairs for the National Rifle Association; Lawrence D. Pratt, executive director, Gun Owners of America; John Snyder, executive director of the Citizens Committee for the Right to Keep and Bear Arms, and Neal Knox, director of the firearms coalition.

Gentlemen, we have received your statements, which, without objection, will be made a part of the record, and we hope that you can summarize for us.

Welcome.

STATEMENTS OF JAMES JAY BAKER, DEPUTY DIRECTOR, GOVERNMENTAL AFFAIRS DIVISION, INSTITUTE FOR LEGISLATIVE ACTION, NATIONAL RIFLE ASSOCIATION; LAWRENCE D. PRATT, EXECUTIVE DIRECTOR, GUN OWNERS OF AMERICA; JOHN M. SNYDER, DIRECTOR, PUBLICATIONS AND PUBLIC AFFAIRS, CITIZENS COMMITTEE FOR THE RIGHT TO KEEP AND BEAR ARMS, AND NEAL KNOX, DIRECTOR, THE FIREARMS COALITION

Mr. BAKER. Mr. Chairman, thank you for the opportunity to testify. I represent the National Rifle Association of America.

Specifically in an attempt to summarize, the National Rifle Association is opposed to H.R. 4194 and most of H.R. 4223. First, both bills deal directly with nondetectable firearms of which, there are currently no available examples. While there may be real undetectable threats such as some plastic explosives, nondetectable firearms are far down the list of those realistic threats. Yet, both H.R. 4223 and H.R. 4194 give the Secretary of the Treasury, the discretion to determine which firearms will be produced, based on a standard of detectability.

The so-called standard in one bill is readily detectable; in the other, diminished susceptibility of detection. Given the widely reported laxity of current airport security, personnel and lack of adequate, and in some cases, any training in the use of existing detecting equipment, the so-called standards embodied in H.R. 4223 and H.R. 4194 could be used to outlaw every firearm.

In other words, if the security personnel don't use the security equipment as they should, and there are many indications that they don't, every firearm is potentially not readily detectable.

Further, and most importantly, the two bills under consideration are objectionable aside from drafting problems. The most serious aspect of both bills is their tendency to shift the focus from away what we perceive to be the real problem at airports. It is becoming increasingly clear that terrorists don't need to develop exotic undetectable weapon systems to breach airport security in this country. In fact, all that a potential terrorist needs to do is apply for a job with airport security, or any of the many jobs that provide access to restricted areas. While FAA regulations exist as to employee screening, existing personnel and security equipment it has been widely reported that these minimal safeguards are not being complied with on a national level. The FAA is currently soliciting the security detection industry in an attempt to provide for the best possible detection equipment.

Further, we understand that technology exists in the form of backscatter x-ray that will detect all plastics. Better trained and screened employees should complement such technology.

Section 4 of H.R. 4223 further addresses the existing threat to airport security, by requiring the FAA to conduct additional research in the detection systems. However, this mandate should not be limited to only nonmetal firearms detection, but should include

all realistic, and in fact, more likely threats, such as nonmetallic explosives, and enforcement of existing FAA security guidelines.

Many explosives present a much more difficult security problem, given the fact that explosives may be disguised, remotely detonated, and do not depend on the presence of an on-site terrorist operator, as do firearms.

We believe the issue should be shifted toward better security, both personnel and equipment, and away from legislation containing definitional standards that given the current state of affairs at our Nation's airports, could be used to outlaw the manufacture of steel and plastic firearms.

To conclude, we do not believe that firearms technology will stop simply because it is legislated against. Anyone willing to commit a terrorist, or criminal act, is clearly willing to violate a law that prohibits the manufacture of plastic firearms .

Thank you, Mr. Chairman.

Mr. HUGHES. Thank you very much, Mr. Baker.

[The statement of Mr. Baker follows:]

TESTIMONY OF JAMES JAY BAKER

DEPUTY DIRECTOR

GOVERNMENTAL AFFAIRS DIVISION

NATIONAL RIFLE ASSOCIATION

INSTITUTE FOR LEGISLATIVE ACTION

BEFORE THE

HOUSE JUDICIARY COMMITTEE

SUBCOMMITTEE ON CRIME

MAY 15, 1986

Mr. Chairman,

The National Rifle Association of America appreciates the opportunity to testify on the issues raised by H.R. 4223 and H.R. 4194.

Initially, both H.R. 4223 and H.R. 4194 were generated in large part by inaccurate press reports of a new, supposedly undetectable pistol, the Glock 17, recently adopted by the Austrian Army. Before commenting on the specific problems with H.R. 4223 and H.R. 4194, I would like to set the record straight regarding this particular firearm.

The Glock 17 contains over 19 ounces of steel and is fully detectable with current airport security systems. Further, even the mostly plastic lower receiver of the Glock 17 is detectable by a magnetometer that has been set to FAA specifications. For the record, the Pentagon and Capitol Hill security systems are reportedly not subject to FAA security system guidelines, and therefore are not relevant in terms of establishing detectability of any contraband at airport security checkpoints that do follow FAA guidelines. To quote Mr. Vincent, Director of Civil Aviation Security for the FAA in testimony given before this subcommittee on March 4th of this year, ". . . any failure to detect that weapon (Glock 17) is operator error, not failure to see the weapon, because it is discernible easily on x-ray."

Specifically, the National Rifle Association is opposed to H.R. 4194 and most of H.R. 4223. First, both bills deal strictly with non-detectable firearms of which there are currently no available examples. While there may be real, undetectable threats such as some plastic explosives, non-detectable firearms are far down the list of those realistic threats. Yet both H.R. 4223 and H.R. 4194 give the Secretary of the Treasury the discretion to determine which firearms will be produced based on a "standard" of detectability. The "standard" in one bill is "readily detectable" in the other "diminished susceptibility of detection." Given the reported laxity of current airport security

personnel and lack of adequate, and in some cases any, training in the use of existing detection equipment, the "standards" embodied in H.R. 4223 and H.R. 4194 could be used to outlaw every firearm currently in production. In other words, if the security personnel don't use the security equipment as they should, and there are many indications they don't, every firearm is potentially not "readily detectable." Such a concern is highlighted by the fact that this legislation is being pushed primarily by the National Coalition to Ban Handguns, an organization that openly favors outlawing all private possession of handguns.

Further, and most importantly, the two bills under consideration are objectionable aside from drafting problems. The most serious aspect of both bills is their tendency to shift the focus away from what we perceive to be the real problem at airports. It is becoming increasingly clear that terrorists don't need to develop exotic undetectable weapons systems to breach airport security in this country; in fact, all that a potential terrorist needs to do is apply for a job with airport security or any of the many jobs that provide access to restricted areas. While FAA regulations exist as to employee screening, existing personnel, and security equipment, it has been widely reported that these minimal safeguards are not being complied with on a national level.

The FAA is currently soliciting the security detection industry in an attempt to provide for qualified personnel and state of the art detection equipment in our nation's airports. Further we understand that technology exists in the form of "backskatter" x-ray that will detect all plastics. Better trained and screened employees should complement such technology.

Section 4 of H.R. 4223 further addresses the existing threat to airport security by uiring the FAA to conduct additional research into detection systems. However, this ndate should not be limited to only "non metal firearms" detection, but should include il realistic, and in fact more likely threats, such as non-metallic explosives and enforcement of existing FAA security guidelines.

Many explosives present a much more difficult security problem given the fact that explosives may be disguised, remotely detonated and do not depend on the presence of an on site terrorist operator, as do firearms.

We believe the issue should be shifted towards better security, both personnel and equipment, and away from legislation containing definitional "standards" that given the current state of affairs at our nations airports could be used to outlaw the manufacturer of all firearms, be they steel or plastic.

Mr. HUGHES. Mr. Pratt, we have your statement.

Mr. PRATT. Thank you, Mr. Hughes.

I appreciate this opportunity to testify on behalf of Gun Owners of America. We are opposed to both of the bills. I would like to summarize my testimony.

As I have sat here today, I have had my convictions reinforced that the problem that we confront—and we do confront a problem—is that of enhancing the ability to detect. There is nothing that we can do—banning certain kinds of firearms in particular—that is going to improve the situation of the airline traveller.

The problem is facing us in terms of explosives, in terms of firearms that can be disassembled, and taken through the security systems that we now have. This disassembly can be done with existing firearms. So the problem is upon us already and does not await the development of plastic firearms, or any kind of implantation technology that could conceivably be required.

We would urge that this committee join in an effort to put the onus on the FAA and the other agencies responsible for winning the race on detection. The plastic guns are out there. We have heard that already said today. The bombs are certainly out there. The guns have been getting through the airline detection systems already, even metal guns.

So we would oppose these two bills as really a very unwise move that would jeopardize something that is an exciting possibility in the technology of firearms for consumers—something that is going to make it easier for people to take care of their weapon, and keep it longer, in better condition, and safer condition.

I would remind the chairman that he himself has pointed out in the past in another hearing like this that self-defense is a legitimate concern. I think particularly for women, the prospect of a lightweight firearm that can be more easily controlled, more accurate, enhances their likelihood of effective self-defense.

So for those reasons, as well as the detection race and war that we are in, we would ask this committee to drop these bills and turn instead to other areas that would be more likely of getting us the desired results.

Mr. HUGHES. Thank you, Mr. Pratt.

[The statement of Mr. Pratt follows:]

GUN OWNERS OF AMERICA

LAWRENCE D PRATT, *Executive Director*

Testimony of Lawrence D. Pratt, Executive Director of
Gun Owners of America
May 15, 1986 before the
Subcommitee on Crime of the House Judiciary Committee

Subject: Banning Plastic Guns

Mr. Chairman, Gun Owners of America appreciates the opportunity to appear before this committee to testify regarding banning plastic guns that have a "diminished susceptibility to detection" (H.R. 4223) and "guns that are not readily detectable as a firearm by the standard security equipment commonly used at airports" (H.R. 4194).

Gun Owners of America opposes both bills.

H.R. 4194 could result in every gun in the country being banned. This could happen if the test of "readily detectable" was conducted with a metal detector that was turned way down to minimize false alarms. H.R. 4194 is also deficient in that it provides no way for dealing with the ease in which a handgun could be disassembled and concealed in a briefcase so as to pass through an airport X-ray device.

The Jack Anderson columns decrying the concealability of the Glock 17 which is only 17% plastic and has nearly 1 and 1/2 pounds of metal was inaccurate in at least two ways. The Glock 17 is visible on X-ray monitors, as pictures published by Gun Owners of America from an airport X-ray monitor show. Moreover, the test that Anderson's column referred to included a standard metal pistol that went through intact and undetected, presumably because the attendant was not alert. Anderson made no mention of the standard metal pistol in his column, although it was reported by the Christian Science Monitor.

There is no need for this legislation. Plastic guns are visible on X-ray monitors now in use. I would request that a copy of our newsletter be included in the hearing record. The newsletter has a picture of an X-ray monitor wnich clearly shows a Glock. The Glock also is detectible by a properly operated metal detector. Completely plastic guns are also detectable by scanner machines.

(over,please)

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Just as important as detecting plastic guns is the need to detect plastic explosives. The FAA is already soliciting bids from private contractors for inexpensive equipment that will detect not only plastic guns, but all kinds of plastic explosives as well. When available, this technology will be in all 500 FAA regulated airports as well as all the other government installations where FAA specifications are binding for the use of security equipment.

The technology of making a gun from plastic is readily available to anyone who wants it. We should expect that the Soviet Union and the terrorist network of the world will have such weapons as soon as anyone else.

The necessity we face -- which the FAA is moving on -- is to have detection equipment that will pick up plastic explosives as well as plastic guns, whether carried on the person or in luggage. The Customs Service also is testing a system that will detect plastics.

Banning plastic guns would terminate one of the most promising technologies to become available for firearms in a long time. Plastic guns are lighter and thus easier to use and can be more accurate because of their ease of use. Plastic guns also offer the prospect of a gun that only needs to be run through soapy water to clean it, thus increasing both its safety and its durability. In other subcommittee hearings, the Chairman has supported the legitimate self-defense role of handguns. The easy maintenance and light-weight features of the plastic gun make it particularly attractive for women to use as a self-defense weapon.

If plastic guns are banned, detection equipment is still needed to warn of plastic explosives. Little peace of mind can come from banning plastic guns if detectors of plastic explosives are not available, and plastic gun technology is available to terrorists whether we ban guns in the U.S. or not. When such detectors are available, there will be no need to ban plastic guns. Banning them in the meantime will offer no protection, and could cost many lives if banning these guns lulls us into complacency about the need for plastic explosive detectors.

Mr. HUGHES. Mr. Snyder, welcome.

Mr. SNYDER. Thank you, Mr. Chairman. My name is John Snyder. I am the public affairs director of the Citizens Committee For the Right to Keep and Bear Arms. I appreciate this opportunity to testify here against these proposed measures.

I believe that these reflect a reactionary approach to technological development. In other words, that that is precisely what lies behind opposition to the construction of handguns from plastic materials, and the consequent attempt to ban their manufacture, importation or sale.

One of the effects of such prohibitory legislation, were it to succeed, would be the denial to tens of millions of law-abiding potential American purchasers of the opportunity to acquire a particular firearm which is the result of scientific innovation and which represents a breakthrough in firearms development akin in significance to the introduction of smokeless powder.

Whether part plastic or all-plastic, the handgun made from polymers is something new for the potential American consumer and the American consumer, in my opinion, should not be denied the opportunity to determine whether or not this modern, lightweight handgun will be accepted in the American marketplace.

If the Congress were to allow the Luddites in our midst to truncate technological development, which development long has been a factor—as a matter of fact, the hallmark of American societal and economic development, Congress conceivably could find itself a laughing stock of the international business community.

If Congress were, in the words of The New York Times of May 5 of this year, "to ban weapons that do not yet exist," Congress could find itself left with as much serious public respect as a character from Lewis Carroll's Alice in Wonderland.

Along with a desire to defend ingenuity and inventiveness and American consumers and American handgunners is a correlative commitments to the ability of authorized inspectors to detect and prevent attempts to smuggle actual firearms, of whatever construction, on board aircraft.

In fact, it is largely because of the erroneous proposition that handguns made out of plastics can not be detected with the use of detection equipment that much of the publicity surrounding the current legislative proposals has been generated.

As has already been pointed out in prior testimony today, this fact has been demonstrated—that is, it is possible to detect firearms of this construction with the proper applicable technologies. So I will just summarize that portion of my testimony.

Legislation supportive of technological developments to detect terrorist activity and to punish it would be more likely, in my opinion, to prevent it than would a possibly futile wholesale attempt to ban the existence of an item which might possibly, along with any number of other items, be used in the perpetration of such activity.

In my opinion, Congress, if it desires to get into this issue, would be well advised to declare war on terrorists and punish terrorist acts rather than to declare war on American consumers and producers and try to ban inanimate plastic handguns.

The whole mania over plastic handguns, including legislative attempts to ban them, manifests, again in my opinion, a strange fear, a kind of plastics paranoia—or plastinoia—if you will.

An attempt on the part of modern political man to ban the plastic handgun likely would have as much success as did the attempt on the part of medieval clerical man to ban the crossbow. If individuals wish thus to relegate themselves to such a dustbin of history, that simply is their problem provided they do not succeed in dragging in our Republic along with them. It is to this latter unfortunate possibility that we are opposed.

Thank you.

Mr. HUGHES. I take it you have made up your mind on the issue.

Mr. SNYDER. You might gather that, Mr. Chairman.

[The statement of Mr. Snyder follows:]

May 15, 1986

STATEMENT OF
JOHN M. SNYDER
DIRECTOR OF PUBLICATIONS AND PUBLIC AFFAIRS
CITIZENS COMMITTEE FOR THE RIGHT TO KEEP AND BEAR ARMS
BEFORE THE
SUBCOMMITTEE ON CRIME
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to testify in opposition to proposals to ban the manufacture, importation or sale in the United States of plastic handguns.

Who in his right mind ever would have believed that the Luddites would find a berth in the U. S. House of Representatives in 1986?

However, a reactionary approach to technological development is precisely what lies behind opposition to the construction of handguns from plastic materials and the consequent attempt to ban their manufacture, importation or sale.

One of the effects of such prohibitory legislation, were it to succeed, would be the denial to tens of millions of law-abiding potential American purchasers of the opportunity to acquire a particular firearm which is the result of scientific innovation and which represents a breakthrough in firearms development akin in significance to the introduction of smokeless powder.

Whether part plastic or all plastic, the handgun made from polymers is something new for the potential American consumer and the American consumer, in my opinion, should not be denied the opportunity to determine whether or not this modern, light-weight handgun will be accepted in the American market place.

If the Congress were to allow the Luddites to truncate technological development, a factor long a hallmark of American societal and economic development, Congress conceivably could find itself a laughing stock of the international business community.

If Congress were, in the words of The New York Times, May 5, 1986, "to ban weapons that do not yet exist," Congress could find itself left with as much serious public respect as a character from Lewis Carroll's Alice in Wonderland.

Along with a desire to defend ingenuity and inventiveness and American consumers and American handgunners is a correlative committment to the ability of authorized inspectors to detect and prevent attempts to smuggle actual firearms of whatever construction on board aircraft.

In fact, it is largely because of the erroneous proposition that handguns made out of plastics can not be detected with the use of detection equipment that much of the publicity surrounding the current legislative proposals has been generated.

However, as an April, 1986 Office of Technology Assessment Staff Paper on Technical Questions Concerning Plastic Firearms concluded, "the large metal content of a gun like the Glock-17 would make it very difficult to smuggle on to any airplane because of metal detectors and X-ray devices at almost all boarding locations. Customs mainly relies on selective sampling of suspected law violators, rather than routine inspection. However, if the inspection system were focused on a possible threat such as plastic firearms, then it would be prudent to utilize detection technologies which would highlight plastic materials. The new 'Low-z' X-ray system now under test and evaluation by U.S. Customs Service offers unique capabilities and could potentially be very useful in inspection of packages or baggage containing plastic firearms or plastic explosives. Other technologies may also prove useful. By mid-1986, Customs should have results from their Low-z X-ray system tests."

Furthermore, as R. A. Lesmeister reports in the May 15, 1986 issue of FFL Business News, a detector already has been developed which "is not one that picks up plastic, but an implant set into the pistol. The implant in the gun is totally passive, so users will not have to worry about radiation or the gun going 'beep-beep' every time it gets near machinery. The implant is placed in such a way that it would be impossible to remove it without destroying the gun itself."

Legislation supportive of technological developments to detect terrorist activity and to punish it would be more likely, in my opinion, to prevent it than would a possibly futile wholesale attempt to ban the existence of an item which might possibly, along with any number of other items, be used in the perpetration of such activity.

If Congress desires battle, it would be well advised, in my opinion, to declare war on terrorists and punish terrorist acts rather than to declare war on American consumers and producers and try to ban inanimate plastic handguns.

The whole mania over plastic handguns, including legislative attempts to ban them, manifests, again in my opinion, a strange fear, a kind of plastics paranoia - or plastinoia - if you will.

An attempt on the part of modern political man to ban the plastic handgun likely would have as much success as did the attempt on the part of medieval clerical man to ban the crossbow. If individuals wish thus to relegate themsleves to such a dustbin of history, that simply is their problem provided they do not succeed in dragging in our Republic along with them. It is to this latter unfortunate possibility that we are opposed.

Thank you.

Mr. HUGHES. Mr. Knox, welcome.

Mr. KNOX. Thank you, Mr. Chairman.

I appreciate this opportunity to comment concerning H.R. 4194 and H.R. 4223. I would like to say amen to the statement of Mr. Pratt concerning the need for improved technology at airports and improved training.

There was an item on CBS news last night concerning Pan American Airlines having taken the bit in their teeth and having set forth their own system of security. They have trained people akin to the way they are trained in Europe. They said that this group inspecting baggage was in fact a SWAT team, they were trained people, they had better equipment.

I know that in Europe they use far better equipment than what we use in this country. By the use of archaic and outdated magnetometers such as that, [indicating] they were able to play some games today. We saw one guy, for the benefit of the cameras go back and forth through there with what was professed to be a Glock 17 pistol. In fact, I talked to him. He had one major piece of that gun secreted in a location where people who are familiar know that that particular magnetometer doesn't detect—and we are not going to discuss where that is.

Also, he did not have the slide of that gun, which consists of about 65 percent of its total weight. In other words, he didn't carry the most important part. But, we will have all kinds of stories in the press about how the Glock 17 was carried through a standard security device without detection. You can do the same thing with virtually anything else.

He said the piece that he left out could be easily concealed in something else. But as one of the law enforcement officer said, anyone who is interested in achieving something can do it, where there is a will, there is a way. That is the point of the officer and it is my point as I said, it was game playing because he carried only one-third of a gun, not the full gun, the way it will be reported.

Going through my testimony rather quickly, I would like to point out that this Luddite attempt to freeze arms development could have a potentially disastrous future impact upon arms development in this Nation.

As a court-recognized firearms expert—I don't like the phrase—I have long been convinced that many American soldiers died in Vietnam solely due to their being armed with an inferior automatic weapon. Further, I am convinced that superior arms would exist, and our soldiers would have been carrying them in Vietnam, and would be carrying them today, if the U.S. Congress had not foreclosed development in automatic weapons when they passed the National Firearms Act of 1935.

I consider the two bills that have just been passed by the Congress to be in the same category of foreclosing—the armor piercing bullet ban and the ban on private possession or making of machine guns—technological development. I think that we are making a huge mistake for the welfare of this Nation.

The bills that are the subject of these hearings would compound this shortsightedness by preventing commercial arms designers from developing and using the most modern materials. No firearms

manufacturer can afford to design solely for military sales, so modern materials would not be incorporated in future designs.

Since World War II, there has been a steady progress in the use of plastics both in firearms and in ammunition. Today we have shotshells that are virtually 100 percent plastic—the metal that is on and in them, outside of the shot, is purely for decoration and for marketing.

The Glock 17 is not a revolutionary design. It is an evolutionary design. We are going more and more toward this total plastic—if we can use that term for polymer. The idea of putting detection strips in such a gun might be wonderful if you could talk the foreign terrorists into using those detection strips in their own guns.

I would like to quote the testimony, submitted for the record, of Dr. Edward Ezell, who is the curator of the Smithsonian firearms section. He says, on page 4, "there exists a class of firearms which have been designed specifically not to be detected by airport metal detectors. The Soviet Union's KGB and the clandestine services of states outside this continent have created just such weapons."

Those are the people we are most concerned about, Mr. Chairman, and there is no way that they are subject to the jurisdiction of this committee.

This legislation, I am afraid, has as its intent the banning of an entire class of firearms—the firearms of the future. I urge the committee to reject it.

Thank you very much.

[The statement of Mr. Knox follows:]

Testimony of Neal Knox

Director, The Firearms Coalition

Before The House Judiciary Subcommittee on Crime

Concerning H.R. 4194 and H.R. 4223

May 15, 1986

Mr. Chairman, Members of the Committee,

I appreciate this opportunity to comment concerning H.R. 4194 and H.R. 4223, bills to ban the manufacture, importation and sale to the general public of firearms with structural parts of plastic or other non-metal materials which are difficult to detect by airport security equipment.

While every law-abiding citizen is concerned about terrorism and high-jacking, these bills attack the problem of detection from the wrong direction -- attempting to ban domestic availability of the target firearms instead of focussing upon improved detection methods. Even if non-metal guns were banned in the United States, they would continue to be available outside the U. S., and available to the violent international terrorists the nation most fears.

If the problem is inadequate detection devices, then the enactment of this legislation is likely to exacerbate that problem by lulling our security system planners -- and the Congress which must fund those systems -- into thinking that the problem is solved. A ban on plastic pistols will not solve the problem, it would only bury the ostrich's head in the sand.

Although evidence has been presented that a disassembled pistol with plastic parts such as the Glock 17 can sometimes evade routine airport X-ray detection, the manufacturers of such security equipment have told me that disassembled steel firearms are equally difficult to detect -- that the problem doesn't lie with the existing equipment, but with the poorly trained, poorly paid operators of the equipment.

Even if the existing detection equipment is inadequate, the technology for improved equipment already exists. According to the May 1986 Popular Science magazine, "a new security device can detect concealed terrorist weapons, such as plastic handguns and explosives that were previously invisible to X-ray baggage-inspection machines."

Historically, for every weapons development there has been a

successive development of a defense against that weapon. The bills before you attempt to stop the clock of progress by denying the existence of improved technologies in both weaponry and detection. This Luddite attempt to freeze arms development would have a potentially disastrous future impact upon arms development in this nation.

As a court-recognized "firearms expert," I have long been convinced that many American soldiers died in Viet Nam solely due to their being armed with an inferior automatic rifle. Further, I am convinced that superior arms would exist, and our soldiers would have been carrying them in Viet Nam, if the U.S. Congress had not foreclosed most private development of automatic weapons by passage of the National Firearms Act of 1935.

The Congress has just enacted two bills that will place further handicaps upon innovative private arms designers -- possibly eliminating the ingenius developments of a future John M. Browning or a "Carbine" Williams. Both were independent inventors, yet their ideas have been copied by virtually every arms manufacturer and governmental armory.

The bills which are the subject of these hearings would compound this shortsightedness by preventing commercial arms designers from developing and using the most-modern materials -- no arms manufacturer designs exclusively for military or police sales. If American arms designers are denied the opportunity to experiment with superior materials, then America is perpetually going to be behind the rest of the world in arms development.

For reasons that I suspect are more political than real, the U.S. Army has already adopted a foreign-made design for its standard sidearm; we would see more such loss of American jobs and American prestige if the rest of the world moved ahead in smallarms design, while this legislation froze American arms development.

There are many disadvantages to the iron and steel parts which have been used throughout firearms history. Steel rusts; it is relatively expensive to machine or cast; it is heavy; moving parts must be precisely lubricated. All those undesirable traits can be eliminated by the use of space-age plastics.

Since World War II there has been a steady progression of the use of plastics in firearms and ammunition -- from cheap and flimsy grips and stocks to the high-quality polymer stocks used on the most accurate and durable stocks ever made. In ammunition, the progress has been just as compelling, with an increasing percentage being made of high-grade polymers; today, most shotshells are all-plastic with an unnecessary thin sheeting of metal to satisfy consumers.

In the early 1960's, Remington Arms began producing a .22 rimfire semi-automatic rifle in which the plastic stock also was the receiver. Due to the "self-lubricating" qualities of the plastic, that rifle had the lowest malfunction rate of any competitive commercial rifle.

The Glock Model 17 pistol, the standard sidearm of the Austrian armed forces, and already adopted by some U.S. police departments, is only an evolutionary development in arms design, for it is primarily composed of metal parts, while the technology exists for guns with 100 percent non-metal parts. According to the May 15 issue of "FFL Business News," the "World's First All-Plastic Pistol" -- made entirely of polymers and ceramics except for springs -- is within a year of production.

Even before seeking the patents for his design, the designer, David Byron of Casselberry, FL, patented a system of inserting a detectable strip into the frame. That would solve the detectability problem if foreign terrorists would agree to use only firearms with the detection strips. Of course, it is a certainty that they would not; just as it is a certainty that -- if either of these bills passed -- they would choose to enter the U.S. with a foreign-made plastic gun that would be more difficult to detect on design-frozen U.S. security equipment.

This legislation, which seeks to stop the clock of progress, has as its purpose the banning of an entire class of firearm -- the firearms of the future.

I urge the committee to reject these bills.

Thank your for this opportunity to appear.

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Mr. HUGHES. Thank you, Mr. Knox.

First, I think we can all agree that we have to do a number of things, including better training—ongoing training—better equipment. There is no question that we need the best equipment in place at our airports and in our public buildings, to screen out weapons, and hopefully in time, explosives.

There is no question that—and I think we can all agree—that explosives present a very serious problem, and have for some time, and we have not addressed the problem that explosives provide. In many instances, I am sure that explosives would present even a greater threat than firearms. So I think we can agree upon all those premises.

I think we can also agree that we can't prevent terrorists and other governments that are manufacturing weapons for their security police, whether it is KGB, or whatever. We can't prevent them from manufacturing weapons. But that just begs the question. The question basically is, if in fact we have a problem—and we do have a problem right now—I am not sure what the state of the art is in this country in detecting plastic weapons.

We saw a Z image x ray today, but that doesn't assist us with carrying on a person plastic weapons on a plane. We have had some testimony from a developer of a firearm today that in fact they have a weapon that now is all plastic and/or ceramic, which is capable of being produced, that will defy the detectors we have in place now.

So it is obvious that we have a problem. Would you agree with that?

Mr. KNOX. I believe that there is a problem in adequate security systems, sir.

Mr. HUGHES. We have a problem.

I think we can agree that we have to address the problem in a myriad of ways: Increasing our ability to gather intelligence to try to learn as much as we can about those that are bent on terrorism is certainly important; developing profiles for airport security and other port personnel is extremely important, and at other installations is extremely important.

The question is if the technology to detect plastic weapons has not been perfected, and we have potentially coming on line weapons that will elude our present technological advances of detection, what, if anything, should we be doing? And are you saying that we should do nothing to try to address it other than these other areas—training and moving ahead with our capability in detecting?

Are you saying that we should not endeavor to anticipate at this point perhaps a hiatus between the time that those weapons are developed and the time we have the capacity to detect them, and not try to protect ourselves from them?

Mr. PRATT. Mr. Hughes, as one of the witnesses said earlier, the majority of hijackings now are not carried out with firearms. The problem is other ways of doing it—explosives being the scariest, I guess, and the one we have heard a lot about recently. That problem is right in front of us, has been right in front of us for some time. And we don't talk about banning explosives.

Mr. HUGHES. We don't have plastic firearms marketed right now.

Mr. PRATT. The problem is, we need to address the problem that is upon us. The plastic firearms aren't even here yet.

Mr. HUGHES. We have to do both, don't we? We don't wait for problems to occur. Shouldn't we be dealing with all those problems? Shouldn't we be dealing with explosives on an emergency basis? And shouldn't we be trying to anticipate just as we are? You were here when I mentioned that we are trying to anticipate where the criminal chemists are going.

Mr. PRATT. Our position is that enhanced detection is the only way that is going to answer the problem.

Mr. HUGHES. Suppose we don't have the technology in place to detect, what is your answer then?

Mr. PRATT. Let us hypothetically assume you were to ban plastic guns in this Congress. You are not going to solve the hijacking problem. Not only that, there are existing guns that people can get through the existing detection devices.

Mr. HUGHES. You are not answering the question. The question is—we don't have plastic handguns now. There is nothing to stop manufacturers from moving ahead with plastic handguns. The question is whether or not we should be developing initiatives to work with the manufacturers now to develop the capability for——

Mr. PRATT. The plastic handgun, though, doesn't change the equation. We already have firearms that can get through and——

Mr. HUGHES. You think as a matter of public policy, our Government should encourage manufacturers to in fact incorporate into their design some type of a triggering mechanism that will indicate that it is a weapon, if in fact we can do that?

Do you think that would be an important public policy goal if we could do that?

Mr. PRATT. Our position is that that misses the mark and goes off into a tangent. The emphasis must be placed on detection.

Mr. HUGHES. But I say if we don't have the capability—and you heard the testimony today, the FAA indicated we may not have the technology for 10 years.

Mr. PRATT. That is not necessarily the case from what we apparently have heard of what is available in this country now that they just don't have on line here.

Mr. HUGHES. I don't know of any—maybe you do—I don't know of any detection device that will pick up an all plastic or ceramic handgun, do you?

Mr. PRATT. Part of it is procedures. There are things that go through our security.

Mr. HUGHES. Are you aware of anything that exists right now to pick up an all plastic or all ceramic?

Mr. PRATT. Yes, sir, procedures. We let things go through——

Mr. HUGHES. I am talking about the detection devices.

Mr. PRATT. This is what stops things. We are talking about how people do it. And right now people are letting things through.

Mr. HUGHES. You can have all the procedures you want in the world, and if somebody has concealed an all-plastic handgun, they are going to walk through these devices. I don't care how good you are at identifying profiles. You can have the best profile in the world. You know, even though we are improving our capability in

that regard, we don't have in place techniques today to pick up a criminal element coming through most airports.

Mr. PRATT. We don't have it for an all-plastic gun, but we don't have the all-plastic gun either.

Mr. HUGHES. That is why we have to rely on these devices. If they were so foolproof we wouldn't have devices like this.

Mr. BAKER. Congressman, it is my understanding—and I am not a security expert or detection expert, I have to read about it to gain expertise—but it is my understanding that they do have some sort of a sniffer device for plastic explosives now on line, and I think it can detect all kinds of plastics, is my understanding.

Mr. HUGHES. We don't have. We are developing some technology now that hopefully we will see some breakthroughs in from 6 months to 1 year, hopefully. It deals with vapors that are emitted.

Mr. BAKER. Right.

Mr. HUGHES. We are working on that technology. But the people that are working with technology such as these detectors told us today it could be as much as 10 years before we have devices that will pick up plastics, ceramics, and other nonmetallic substances.

Mr. BAKER. Other than x-ray machines, is what you are saying.

Mr. HUGHES. Other than x-ray machines.

Mr. KNOX. Mr. Chairman, prior to the Los Angeles games, we were all very worried about the possibility of terrorism there. A friend with the Bureau of Alcohol, Tobacco and Firearms told me of a system that they use for laboratory forensics which was in the developmental stage as a portable detector. A proposal to develop it had been made to the BATF to take that laboratory device and make it available in a semiportable, or at least transportable, form.

I talked to the people who were working on that system at ThermoElectron Corp., in Waltham, MA, and they sent me a copy of the work that they had proposed to BATF. They laid out a plan that in less than 6 months would have had a system on line, where it could have been used at least in limited areas to detect some 80 percent of explosives. Those detectable substances would have included some of the same materials that are used in plastic guns.

That system, I was disappointed to find out a couple of days ago, has never moved forward. They had proposed a 2-year plan to develop a reliable portable detector system and that was 2 years ago. I talked to some people at the FBI who got really got bent out of shape that I was mucking around in their area by wanting them to move forward in developing and testing the system. None of their bosses knew about it, so far as I could determine. I talked to the people on the Terrorism Committee over on the Senate side, and found a woeful lack of interest in getting this thing moving. We might have had this system today, with only $800,000 of funding for the project.

The technology does exist for better security. I know better technology is used in Europe than exists here. U.S. x-ray security devices line scan in only one plane—I am talking about from one angle—which is why briefcases must be placed flat on scanner belts. A three-dimensional format is used in Europe. We don't use that system.

If we are really serious about it, we can improve what is used, because Europeans are using that technology and we are not.

In all honesty, Mr. Chairman, we are messing around an area that is very important, but we are fooling with one tiny fringe area instead of the big, main problem.

I commend the committee for consideration of the security problem. We should all worry about it, but let's concentrate on that which offers the greatest solution to the greatest problem. We may not have a commercial all-plastic gun—but it is very easy to make a gun that will last three, four, five shots, and that is all that a terrorist needs.

Such guns do exist. We can move toward methods of protecting them, but the greatest problem we have is plastic explosives—and C3's have been around for 30 or 40 years.

Mr. HUGHES. Do all your organizations support improving our detection technology?

Mr. KNOX. Sir?

Mr. HUGHES. Do all of you support detection devices for explosives?

Mr. KNOX. Yes, sir.

Mr. HUGHES. What is your position on taggants and explosives for tracing?

Mr. KNOX. I was a member of the Office of Technology Assessment Panel on Taggants, and there are some huge problems with that proposal, because anytime you put a contaminant into an explosive, you make that contaminant potentially overly sensitive. You can cause it to blow without any intent. In the bill that was considered in about 1979 or 1980, military explosives would have been exempted from tagging because of the weird things that that stuff could do to explosives.

We would still have the problem of military and foreign explosives that wouldn't have the taggants in it.

Mr. HUGHES. I understand that. I mean, we keep hearing it. We can only deal with whatever part of the problem we can deal with here. The research project was about 90 percent complete. I don't recall any problems with the material that was inserted in the explosives creating problems.

Mr. KNOX. On the contrary—go ahead.

Mr. HUGHES. But the problem was not that the manufacturers objected to it, as you well know—I mean that was the bottom line. They objected to it because it meant increased costs and a whole host of other concerns, and derailed the research project. If, in fact, the research demonstrated that the explosives were unsafe in some fashion, you are not suggesting that we would permit explosives——

Mr. KNOX. That was demonstrated. There was a blow in Arkansas because of the addition of taggants at a Hercules plant.

Mr. HUGHES. You are not suggesting that that project would have gone forward if, in fact, the taggants presented a danger?

Mr. KNOX. They did present a danger.

Mr. HUGHES. It was a research project.

Mr. KNOX. It was a developmental stage. They tried identification tags in some composition C. This particular batch of explosive didn't cause any problem until the plant reprocessed it, not knowing that identification tags had been placed in the explosives by BATF's research firm. The supervisor in the plant saw the stuff

starting to boil abnormally, and evacuated his employees before it blew that plant.

Now, I have personally gone to an explosive plant and picked up the bodies of four people—one of them a dear friend of mine—after an explosion. And we still don't know why it happened.

I am very sensitive about putting anything into explosives. And the people who were explosives manufacturers on that OTA Panel argued vociferously against putting any foreign elements in it. Again, the people who were concerned about security wanted to have something to detect explosives and I concur with their desire to have something. But that system would have caused problems according to the experts, and would only have applied to 20 percent of U.S.-made explosives..

Mr. HUGHES. That is the purpose of research, though, isn't it, Mr. Knox, to determine whether or not, first of all, whether it is effective, whether it is safe?

We don't generally put material in substances, particularly explosives, if it is going to be unsafe. It was a research project to determine whether or not we could, in fact, change in some respect the composition of the explosives by inserting foreign material to trace it—so we could trace terrorists and criminals that would use that material. That was the purpose of it. It was research.

Mr. BAKER. The concerns of the National Rifle Association regarding taggants are limited to smokeless reloading powder and black powder used by sportsmen. Explosives are, as far as I am concerned, not our concern.

Mr. HUGHES. The gentleman from Florida is recognized.

Mr. MCCOLLUM. I just have one very narrow area of questioning.

Am I correct that every gun has a barrel? Is there any gun that doesn't have a barrel?

Mr. BAKER. Every gun doesn't need to have one, but every gun does, that I have seen. In other words, you could fire a cartridge through a firearm without it having a barrel on it.

Mr. MCCOLLUM. All right.

Mr. KNOX. It can have only a chamber, just something to maintain the——

Mr. MCCOLLUM. To have any accuracy, you have to have a barrel.

Mr. KNOX. At short distances you don't need accuracy and short distances are our concern, of course, Congressman.

Mr. MCCOLLUM. OK, you don't need a barrel at that distance.

Mr. KNOX. No. You can have anything to contain the cartridge. It doesn't have to have a barrel in front of it.

Mr. MCCOLLUM. But to go any distance accurately beyond a foot or two, you have got to have a barrel?

Mr. KNOX. A few feet.

Mr. MCCOLLUM. I guess the reason I asked that question is because the lady in here earlier this afternoon, Ms. Burns, was talking about an implant device in a portion—I don't know what portion because she didn't say, whether it is the handgun handle or the barrel, or whatever.

But if we were to be able to draft legislation—and that is a big if because of the technology in this case—that required some type of implant that was detectable in every nonmetal barrel, or every gun

that is more than 60 percent, nonmental, would that be a severe problem to any of the organizations if that were a requirement of the manufacturer?

I know it is not going to solve all the problems we have got. I recognize as much as any of you, and I hope if you were sitting in here earlier today that I asked those kind of questions. I am just concerned whether there would be difficulties that your organizations have with that kind of a requirement.

Mr. BAKER. If detectors for those trace elements and firearms are strictly at airports, I can't see any large problem with it. But I can see potential fourth amendment concerns should those detectors be carried around in mobile police units and if the firearms have trace elements in them that are detectable from a block away, or 50 feet away, I can see potential fourth amendment concerns regarding search and seizure.

Mr. MCCOLLUM. That is what I wanted to know.

Mr. KNOX. I would concur also, Congressman. The difficulty, Mr. McCollum, is that if you get into that type of program it is very easy to want to go to the next step—let's require all the existing guns to also have that implant.

Now, I don't have any objection should the manufacturer of a plastic gun decide to put that in, But I get a little flinchy when the Federal Government starts mandating it.

Mr. MCCOLLUM. One of the things I was thinking about was something along the lines of requiring all barrels to have an implant until I realized that it wouldn't solve that particular problem. But we aren't at the point where we can craft this legislation, I don't think. We are doing a lot of exploring. Part of that problem is the technology that we are talking about. We don't have enough knowledge—at least this member doesn't—I doubt if our staff does either—to come up with the wording because the technology hasn't been adapted and fully explained, or whatever.

But I am making some assumptions while we are sitting here at a hearing and while we are talking about it, so we can at least explore it. And one of those assumptions is that we could craft language that would allow us to require every barrel or every certain types of pieces to have those type of implants in them.

What you are saying to me is if it is something that is maybe just metal or something that is only going to be detected through that airport device or the device in front of this building when you walk through it, that is one thing. But if you have got something that you can stand down the hallway with or sit in your police car with a radar-type gun and determine someone else has a weapon, then you are concerned about that.

You answered the questions the best I think you can.

Thank you, Mr. Chairman, I don't have any more questions.

Mr. HUGHES. I just have a couple more questions.

Just to pick up, Mr. Knox, from your concern. You indicated you would have some concern about the Federal Government telling a manufacturer that he has to contain some material that would trigger an alarm or trigger some detection device.

Can you share with me the basis for that concern?

Mr. KNOX. As Mr. Baker, Esq., who is an attorney, mentioned, there are fourth amendment concerns with that. I am not con-

cerned about going on board an aircraft. That is not where that becomes so sensitive because we sort of give up the fourth amendment when we board a plane—we give up our right not to be searched. You don't have to get on one if you don't want to get on one.

But I am concerned, and I think what he is referring to, if you have that kind of technology in your firearms then it is not limited just to going on an airplane. You are talking about driving down the street and determining who has got it in what house, and where it is in that house. And I consider that to be a great fourth amendment consideration.

Mr. HUGHES. Of course, you know, we are way ahead of technologically. We don't even have the capability to detect plastic weapons going through machines when they are at the airport right now. We have hundreds and hundreds and hundreds of regulations that we promulgate which impinge our rights in one way or another. We have safe drinking water laws that we just worked on. We have all kinds of consumer products safety laws. We have all kinds of standards that we promulgated for industry.

How do you feel about those?

Mr. KNOX. The function of government is to infringe upon individual right. "There is a certain degree of infringement that it is necessary for the good of society"—quote, quote. And having said that, I think that anyone that would move to impinge upon the rights of society for a particular reason—whatever that reason might be—bears the burden of proving that it will serve some useful purpose.

And on the question of the firearms laws, my fundamental pragmatic approach is that there is yet to be any evidence that any of them do any good.

Mr. HUGHES. One of the things that we possibly could do would be to encourage ATF to work with the manufacturers in developing plastic firearms, if that is our next generation of weapons so that they will trigger an alarm.

What do you think would happen if we said in the Congress tomorrow, we ban any weapons, we ban any plastic weapons that will not trigger an alarm? What do you think the entrepreneurs in this country would do?

Mr. KNOX. I am sure that they would come up with methods that would trigger the alarm.

Mr. HUGHES. Precisely, precisely.

Now, is it a valid public policy function for us to encourage that if, in fact, we can save some lives?

Mr. KNOX. We are again concerned about the terrorists coming in from outside whose firearm doesn't contain the alarm-triggering device.

Mr. HUGHES. We have terrorists in this country.

Mr. KNOX. The downside of that is that if we had the problem solved we don't improve the deduction——

Mr. HUGHES. We have terrorists that try to get into the Capitol every other week or so.

Mr. BAKER. The criminals are going to look for one without the trace element in it.

Mr. KNOX. Always.

Mr. HUGHES. That is so, but in fact, you know, it is not a perfect world. The question is how we can best deal with it. If we can deal with it with little inconvenience as a legitimate public——

Mr. BAKER. I think what we are saying is that we feel we can best deal with it with increased security and better detection equipment. We think that that is the most efficient method for dealing with it.

Mr. HUGHES. OK, thank you.

I am sorry that we have taken so long to complete the hearing today—it has been one of those days. But we appreciate your testimony and it is good to see old friends. [Laughter.]

Mr. BAKER. Good to see you, Mr. Chairman.

Mr. PRATT. Thank you.

[The statement of Edward C. Ezell follows:]

SUMMARY OF
TESTIMONY ON
PROPOSED LEGISLATION RELATING TO NONMETAL FIREARMS

BY

DR. EDWARD C. EZELL
BEFORE THE
SUBCOMMITTEE ON CRIME
OF THE
HOUSE COMMITTEE ON THE JUDICIARY

The Jack Anderson and Dale Van Atta syndicated column about the leged "all-plastic" 9mm Glock pistol has generated justified concern bout the availability of modern weapons to international terrorists. Unfortunately, that concern has been translated into legislative proposals for responses that are inappropriate, and which will not eliminate the ability of terrorists being able to smuggle firearms aboard various forms of international transport. I would like to address some of the broader and more philosophical issues raised by the proposed legislation rather than examining the direct merits/demerits of the Glock pistol.

I am of the studied opinion that the proposed legislation has three major shortcomings. First, it will not be possible to successfully ban or suppress a technology that is international, such as the technology that has led to the creation of the Glock pistol. Second, the attempt to ban or suppress technology is not a realistic nor effective approach to improving either domestic or international travel security. And, third, the banning or suppression of a specific technology does not address the more basic issue of interdicting the suppliers of weapons to international terrorist organizations.

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2

BANNING AND/OR SUPPRESSING TECHNOLOGY

During the past four and a half decades, there has been a steady, perhaps irreversible, technological trend toward the incorporation of synthetic non-metallic materials into the construction of military and civilian firearms. This trend toward the use of so-called plastics has been encouraged by the continuous upward spiral in the cost of the metal and wood raw materials used in firearms, as well as the increasing cost associated with shaping those materials into completed firearms. The German military small arms manufacturers of the 1930s were the early pioneers of Kunststoff (plastic) assemblies for firearms. Early applications included plastic stock and handgrip assemblies for the Maschinenpistole 40 (MP40) and the Maschinengewehr 34 and 42 (MG34 and MG42).

In the post-World War II period, a number of major firearms manufacturers, US and foreign, have incorporated plastics of various types into the design of their guns. Some leading examples of such firearms include the .22 Long Rifle Remington Nylon 66 rifle (with stock, trigger guard and other assemblies of structural Nylon (DuPont "Zytel") integrated with other sheet metal and steel components); the 12 gauge High Standard Model 10 Bull Pup Police Shotgun (with synthetic stock assembly); the 12 gauge Winchester Model 53 "Winlite" shotgun (with synthetic stock assembly and fiberglass wrapped barrel); the 5.56 x 45mm M16/M16A1/M16A2 family of rifles (with nylon buttstock, pistol grip, and

forward handguards), the 5.56 x 45mm Austrian Armee Universal Gewehr (AUG), 9 x 19mm NATO Heckler & Koch P9S pistol, 9 x 19mm NATO Heckler & Koch VP70 machine pistol, and the 9 x 19mm NATO Glock P17. All of the firearms listed above could be described as having been "substantially constructed of plastic or other nonmetal material," but none have been clearly demonstrated to be a real and genuine danger "to the public safety because of diminished susceptibility to detection by airport metal detectors or other security devices."

But even if we were to concede for the moment that some of these firearms might present a danger "to the public safety because of diminished susceptibility to detection by airport metal detectors or other security devices," none of the proposed legislation would have a significant effect upon deterring dedicated terrorists. First, the design and manufacture trend evidenced by these "plastic" containing firearms indicates that no matter what action the United States Congress takes regarding firearms "substantially constructed of plastic or other nonmetal material," that technology is firmly intrenched in the international firearms manufacturing industry. Neither the technology nor the firearms built with that technology will go away just because members of the Congress are opposed to such arms. Such firearms can be excluded from the legal commerce of the United States, but the proposed laws will have little effect in deterring the willful terrorist. That individual will bring his tools of terror to the venue of his crime without hinderance or fear of the law. Both the Austrian and Norwegian

armies have adopted the Glock P17 pistol, and other national armed forces are likely to follow suit for one main reason -- firearms embodying plastic or other nonmetal materials are more economical to manufacture than are weapons using older traditional materials. It is this same economic concern that has driven the substitution of plastic or armies have adopted the Glock P17 pistol, and other national armed forces are likely to follow suit for one main reason -- firearms embodying plastic or other nonmetal materials are more economical to manufacture than are weapons using older traditional materials. It is this same economic concern that has driven the substitution of plastic or other nonmetal materials for steel and other metals in automobiles, household appliances, and even such building materials as vinyl siding for houses. Thus, it is possible to ban the importation, manufacture or sale of "non-detectable" firearms in the United States, but one cannot ban their use in the United States.

A second concern about terrorist weapons underscores this point. There exist a class of firearms which have been designed specifically not to be detected by airport metal detectors. The Soviet Union's KGB and the clandestine services of states outside this continent have created just such weapons. The proposed bans on importation and sale will in no manner affect the employment of these weapons some of which rely not only on plastic components, but other materials that do not readily show up in x-rays; e.g., ceramic bullets. Nor will the proposed legislation prevent states that sponsor terrorism from supplying terrorists with such weapons.

Careful consideration of the proposed legislation suggests that it has much in common with the unsuccessful American experiment with prohibiting the sale of alcohol in the post-World War I era. We succeeded in making the trafficking in alcoholic beverages a crime, but we did not significantly stem the flow of such beverages. I fear that we will make a type of technology illegal in our country, and thus deprive our military and law enforcement organizations the benefit of new technology, but that we will not seriously discomfit the potential terrorist.

ALTERNATIVES TO BANNING AND/OR SUPPRESSING TECHNOLOGY

Instead of attacking a specific type of product (i.e., firearms "substantially constructed of plastic or other nonmetal material") in order to reduce danger "to the public safety because of diminished susceptibility to detection by airport metal detectors or other security devices," the Congress of the United States would be better advised to seek improvement in the systems and people used to detect firearms, explosives and other tools of the terrorist trade so that those tools might be excluded from the transportation networks.

Simply put we need better and closer scrutiny of the baggage placed on aircraft and ships, and the passengers who fly and sail on them. We need closer scrutiny of people who have access to aircraft and

ships while they are being serviced. We are one of the few nations that continue to rely upon relatively poorly paid and insufficiently trained inspection personnel at our airports and other ports of departure. In other countries, such as Austria and Germany, the paramilitary border police conduct x-ray and physical searches of baggage and metal detector and physical searches of passengers. These are skilled personnel, who are trained, highly motivated, and who are valued by their society for their training and skills. In Israel, prior to boarding an aircraft, baggage and people are physically searched by student-aged personnel who do this task as an alternative form of national service. Any one who has come into contact with these students knows that they are serious, professional and efficient individuals who have an understanding of their crucial role in the prevention of terrorist activities.

The Congress of the United States needs to give a much higher priority to the improvement of airport security devices (as called for in Section 4 of H.R. 4223). But new screening technology needs to be coupled with a program to upgrade the personnel who do the inspecting. Improvement of training and wages for the security personnel who operate present and future security devices is just a basic starting point. In recent years, out of similar concerns for security of buildings and people, the Federal Government has improved the quality of its personnel assigned to guard government facilities through the greater professionalism of groups as the Federal Protection Service. Study should be given to examining the wisdom of relying upon private security

services rather than relying upon federal police personnel to be the first line of detection in our airports and other points of departure. There should be a major Federal Aviation Administration security guard program funded by a surcharge on travel tickets. At the very least, the government should establish a Federal training and certification program for those individuals charged with inspecting baggage and passengers. This is a more effective means of interrupting the introduction of weapons and explosives into the transportation network.

In summation, the problem faced by all nations wishing to conduct air, sea and land travel in a safe and unimpeded manner goes beyond the one being addressed in the proposed legislation to ban the importation, manufacture or sale of firearms "substantially constructed of plastic or other nonmetal material." Terrorism is international in scope, and it is in many cases state supported. Rather that concentrating upon one small aspect of the overall problem, the Congress of the United States should address the broader issues involved interdicting the flow of weapons and explosives which have been the main tools of the terrorist in recent attacks on airports, aircraft, ships and other public places. It is my opinion that this can be more effectively accomplished through a program to improve the screening of passengers and their luggage, than by trying to halt the inevitable course of an industry's technological development through a ban on a specific class of weapons.

Biographical Sketch of Dr. Edward C. Ezell

Dr. Ezell is an internationally recognized scholar in the field of military small arms developments. He has edited the 11th and 12th editions of Small Arms of the World (1977, 1983); compiled Small Arms Today (1984) a country-by-country inventory of small arms usage and arms transfers; and finished the writing of George C. Nonte's Combat Handguns (1980). He has also written Handguns of the World (1981); The Great Rifle Controversy (1984) and The AK47 Story (1986). In addition to writing articles for numerous periodicals on small arms technology (International Defense Review, National Defense, Defence Minister and Chief of Staff), Dr. Ezell has served as a consultant to Defense Department and Justice Department organizations. Currently, he is Supervisory Curator of the Division of Armed Forces History, National Museum of American History, Smithsonian Institution.

National Council for a Responsible Firearms Policy, Inc.
7216 Stafford Road, Alexandria, Virginia 22307 (703) 765-2472

May 27, 1986

The Chairman
Subcommittee on Crime
Committee on the Judiciary
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Through this letter, submitted for inclusion in the record of your subcommittee's hearing on H.R. 4194 and H.R. 4223, I am registering our Council's support for measures aimed at prohibiting the manufacture, sale, delivery and importation of firearms constructed substantially of plastic or other nonmetal material and thereby capable of readily evading security detection by inspection equipment at U.S. airports and other places where security protection is vital to the public interest.

Our Council, formed in 1967 and with the total national interest its only standard, has never advocated or registered any support for the banning of handguns or other firearms (except for extraordinarily small handguns if an appropriate definition could be found that protected the legitimate interests of law-abiding gun owners as well as the overall public interest). Our support for prohibiting the manufacture, sale, delivery and importation of nonmetal firearms able to evade detection by security devices is responsive to a special danger to public safety, indeed to national security, and is contingent on the lack of security devices capable of readily detecting firearms made substantially from plastic or other nonmetal materials.

We have no illusions about how far such legislation can go toward stopping, deterring, or reducing the severity of terrorism. But we believe that whatever contribution it makes toward these objectives is a rational, reasonable, responsible contribution to public safety, and, if properly administered, will not in any way impair the rights and privileges of legitimate, law-abiding and responsible gun owners. To help ensure that these rights and privileges are not impaired by such legislation, and that the overall public interest is amply served, we suggest that the legislation instruct the Secretary of the Treasury to seek, and take appropriate account of, the views of the public in designating firearms for the types of control authorized in such legislation.

Sincerely,

David J. Steinberg
Acting Chairman

Mr. HUGHES. The subcommittee stands adjourned.

[Whereupon, at 4:55 p.m., the subcommittee was adjourned, to reconvene subject to the call of the Chair.]

PART 107—AIRPORT SECURITY

Sec.
107.1 Applicability and definitions.
107.3 Security program.
107.5 Approval of security program.
107.7 Changed conditions affecting security.
107.9 Amendment of security program by airport operator.
107.11 Amendment of security program by FAA.
107.13 Security of air operations area.
107.15 Law enforcement support.
107.17 Law enforcement officers.
107.19 Use of Federal law enforcement officers.
107.21 Carriage of firearms, explosives, or incendiary devices.
107.23 Records.

AUTHORITY: Secs. 313, 315, 316, and 601, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354, 1356, 1357, and 1421); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)), unless otherwise noted.

SOURCE: Docket No. 16245, 43 FR 60792, Dec. 28, 1978, unless otherwise noted.

§ 107.1 Applicability and definitions.

(a) This part prescribes aviation security rules governing—

(1) The operation of each airport regularly serving the scheduled passenger operations of a certificate holder required to have a security program by § 108.5(a) of this chapter;

(2) The operation of each airport regularly serving scheduled passenger operations of a foreign air carrier required to have a security program by § 129.25 of this chapter; and

(3) Each person who is in or entering a sterile area on an airport described in paragraph (a)(1) or (a)(2) of this section.

(b) For purposes of this part—

(1) "Airport operator" means a person who operates an airport regularly serving scheduled passenger operations of a certificate holder or a foreign air carrier required to have a security program by § 108.5(a) or § 129.25 of this chapter;

(2) "Air Operations Area" means a portion of an airport designed and used for landing, taking off, or surface maneuvering of airplanes;

(3) "Exclusive area" means that part of an air operations area for which an air carrier has agreed in writing with the airport operator to exercise exclusive security responsibility under an approved security program or a security program used in accordance with § 129.25;

(4) "Law enforcement officer" means an individual who meets the requirements of § 107.17; and

(5) "Sterile area" means an area to which access is controlled by the inspection of persons and property in accordance with an approved security program or a security program used in accordance with § 129.25.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 16245, 43 FR 60792, Dec. 28, 1978, as amended by Amdt. 107-1, 46 FR 3785, Jan. 15, 1981]

§ 107.3 Security program.

(a) No airport operator may operate an airport subject to this part unless it adopts and carries out a security program that—

(1) Provides for the safety of persons and property traveling in air transportation and intrastate air transportation against acts of criminal violence and aircraft piracy;

(2) Is in writing and signed by the airport operator or any person to whom the airport operator has delegated authority in this matter;

(3) Includes the items listed in paragraph (b), (f), or (g) of this section, as appropriate; and

(4) Has been approved by the Regional Director.

(b) For each airport subject to this part regularly serving scheduled passenger operations conducted in airplanes having a passenger seating configuration (as defined in § 108.3 of this section of this chapter) of more than 60 seats, the security program re-

quired by paragraph (a) of this section must include at least the following:

(1) A description of each air operations area, including its dimensions, boundaries, and pertinent features.

(2) A description of each area on or adjacent to, the airport which affects the security of any air operations area.

(3) A description of each exclusive area, including its dimensions, boundaries, and pertinent features, and the terms of the agreement establishing the area.

(4) The procedures, and a description of the facilities and equipment, used to perform the control functions specified in § 107.13(a) by the airport operator and by each air carrier having security responsibility over an exclusive area.

(5) The procedures each air carrier having security responsibility over an exclusive area will use to notify the airport operator when the procedures, facilities, and equipment it uses are not adequate to perform the control functions described in § 107.13(a).

(6) A description of the alternate security procedures, if any, that the airport operator intends to use in emergencies and other unusual conditions.

(7) A description of the law enforcement support necessary to comply with § 107.15.

(8) A description of the training program for law enforcement officers required by § 107.17.

(9) A description of the system for maintaining the records described in § 107.23.

(c) The airport operator may comply with paragraph (b), (f), or (g) of this section by including in the security program as an appendix any document which contains the information required by paragraph (b), (f), or (g) of this section.

(d) Each airport operator shall maintain at least one complete copy of its approved security program at its principal operations office, and shall make it available for inspection upon the request of any Civil Aviation Security Inspector.

(e) Each airport operator shall restrict the distribution, disclosure, and availability of information contained in the security program to those persons with an operational need-to-know and shall refer requests for such information by other than those persons to the Director of the Civil Aviation Security Service of the FAA.

(f) For each airport subject to this part regularly serving scheduled passenger operations conducted in airplanes having a passenger seating configuration (as defined in § 108.3 of this chapter) of more than 30 but less than 61 seats, the security program required by paragraph (a) of this section must include at least the following:

(1) A description of the law enforcement support necessary to comply with § 107.15(b), and the procedures which the airport operator has arranged to be used by the certificate holder or foreign air carrier to summon that support.

(2) A description of the training program for law enforcement officers required by § 107.17.

(3) A description of the system for maintaining the records described in § 107.23.

(g) For each airport subject to this part where the certificate holder or foreign air carrier is required to conduct passenger screening under a security program required by § 108.5(a) (2) or (3) or § 129.25(b) (2) or (3) of this chapter, or conducts screening under a security program being carried out pursuant to § 108.5(b), as appropriate, the security program required by paragraph (a) of this section must include at least the following:

(1) A description of the law enforcement support necessary to comply with § 107.15.

(2) A description of the training program for law enforcement officers required by § 107.17.

(3) A description of the system for maintaining the records described in § 107.23.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 10245, 43 FR 60792, Dec. 28, 1978, as amended by Amdt. 107-1, 46 FR 3785, Jan. 15, 1981]

§ 107.5 Approval of security program.

(a) Unless a shorter period is allowed by the Regional Director, each airport

operator seeking initial approval of a security program for an airport subject to this part shall submit the proposed program to the Regional Director at least 90 days before any scheduled passenger operations are expected to begin by any certificate holder or permit holder to whom § 121.538 or § 129.25 of this chapter applies.

(b) Within 30 days after receipt of a proposed security program, the Regional Director either approves the program or gives the airport operator written notice to modify the program to make it conform to the applicable requirements of this part.

(c) After receipt of a notice to modify, the airport operator may either submit a modified security program or petition the Administrator to reconsider the notice to modify. A petition for reconsideration must be filed with the Regional Director.

(d) Upon receipt of a petition for reconsideration, the Regional Director reconsiders the notice to modify and either amends or withdraws the notice or transmits the petition, together with any pertinent information, to the Administrator for consideration.

(e) After review of a petition for reconsideration, the Administrator disposes of the petition by either directing the Regional Director to withdraw or amend the notice to modify, or by affirming the notice to modify.

§ 107.7 Changed conditions affecting security.

(a) After approval of the security program, the airport operator shall follow the procedures prescribed in paragraph (b) of this section whenever it determines that any of the following changed conditions has occurred:

(1) Any description of an airport area set out in the security program in accordance with § 107.3(b) (1), (2), or (3) is no longer accurate.

(2) The procedures included, and the facilities and equipment described, in the security program in accordance with § 107.3(b) (4) and (5) are not adequate for the control functions described in § 107.13(a).

(3) The airport operator changes any alternate security procedures described in the security program in accordance with § 107.3(b)(6).

(4) The law enforcement support described in the security program in accordance with § 107.3 (b)(7), (f)(1), or (g)(1) is not adequate to comply with § 107.15.

(b) Whenever a changed condition described in paragraph (a) of this section occurs, the airport operator shall—

(1) Immediately notify the FAA security office having jurisdiction over the airport of the changed condition, and identify each interim measure being taken to maintain adequate security until an appropriate amendment to the security program is approved; and

(2) Within 30 days after notifying the FAA in accordance with paragraph (b)(1) of this section, submit for approval in accordance with § 107.9 an amendment to the security program to bring it into compliance with this part.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 16245, 43 FR 60792, Dec. 28, 1978, as amended by Amdt. 107-1, 46 FR 3786, Jan. 15, 1981; 46 FR 35053, July 13, 1981]

§ 107.9 Amendment of security program by airport operator.

(a) An airport operator requesting approval of a proposed amendment to the security program shall submit the request to the Regional Director. Unless a shorter period is allowed by the Regional Director, the request must be submitted at least 30 days before the proposed effective date.

(b) Within 15 days after receipt of a proposed amendment, the Regional Director issues to the airport operator, in writing, either an approval or a denial of the request.

(c) An amendment to a security program is approved if the Regional Director determines that—

(1) Safety and the public interest will allow it, and

(2) The proposed amendment provides the level of security required by § 107.3.

(d) After denial of a request for an amendment the airport operator may petition the Administrator to reconsider the denial. A petition for reconsid-

eration must be filed with the Regional Director.

(e) Upon receipt of a petition for reconsideration the Regional Director reconsiders the denial and either approves the proposed amendment or transmits the petition, together with any pertinent information, to the Administrator for consideration.

(f) After review of a petition for reconsideration, the Administrator disposes of the petition by either directing the Regional Director to approve the proposed amendment or affirming the denial.

§ 107.11 Amendment of security program by FAA.

(a) The Administrator or Regional Director may amend an approved security program for an airport, if it is determined that safety and the public interest require the amendment.

(b) Except in an emergency as provided in paragraph (f) of this section, when the Administrator or the Regional Director proposes to amend a security program, a notice of the proposed amendment is issued to the airport operator, in writing, fixing a period of not less than 30 days within which the airport operator may submit written information, views, and arguments on the amendment. After considering all relevant material, including that submitted by the airport operator, the Administrator or the Regional Director either rescinds the noticeor notifies the airport operator in writing of any amendment adopted, specifying an effective date not less than 30 days after receipt of the notice of amendment by the airport operator.

(c) After receipt of a notice of amendment from a Regional Director, the airport operator may petition the Administrator to reconsider the amendment. A petition for reconsideration must be filed with the Regional Director. Except in an emergency as provided in paragraph (f) of this section, a petition for reconsideration stays the amendment until the Administrator takes final action on the petition.

(d) Upon receipt of a petition for reconsideration, the Regional Director reconsiders the amendment and either rescinds or modifies the amendment or transmits the petition, together with any pertinent information, to the Administrator for consideration.

(e) After review of a petition for reconsideration, the Administrator disposes of the petition by directing the Regional Director to rescind the notice of amendment or to issue the amendment as proposed or in modified form.

(f) If the Administrator or the Regional Director finds that there is an emergency requiring immediate action that makes the procedure in paragraph (b) of this section impracticable or contrary to the public interest, an amendment may be issued effective without stay on the date the airport operator receives notice of it. In such a case, the Administrator or the Regional Director incorporates in the notice of the amendment the finding, including a brief statement of the reasons for the emergency and the need for emergency action.

§ 107.13 Security of air operations area.

(a) Except as provided in paragraph (b) of this section, each operator of an airport serving scheduled passenger operations where the certificate holder or foreign air carrier is required to conduct passenger screening under a program required by § 108.5(a)(1) or § 129.25(b)(1) of this chapter as appropriate shall use the procedures included, and the facilities and equipment described, in its approved security program, to perform the following control functions:

(1) Controlling access to each air operations area, including methods for preventing the entry of unauthorized persons and ground vehicles.

(2) Controlling movement of persons and ground vehicles within each air operations area, including, when appropriate, requirements for the display of identification.

(3) Promptly detecting and taking action to control each penetration, or attempted penetration, of an air operations area by a person whose entry is not authorized in accordance with the security program.

(b) An airport operator need not comply with paragraph (a) of this sec-

tion with respect to an air carrier's exclusive area, if the airport operator's security program contains—

(1) Procedures, and a description of the facilities and equipment, used by the air carrier to perform the control functions described in paragraph (a) of this section; and

(2) Procedures by which the air carrier will notify the airport operator when its procedures, facilities, and equipment are not adequate to perform the control functions described in paragraph (a) of this section.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 16245, 43 FR 60792, Dec. 28, 1978, as amended by Amdt. 107-1, 46 FR 3786, Jan. 15, 1981; Amdt. 107-2, 47 FR 13316, Mar. 29, 1982]

§ 107.15 Law enforcement support.

(a) Each airport operator shall provide law enforcement officers in the number and in a manner adequate to support—

(1) Its security program; and

(2) Each passenger screening system required by Part 108 or § 129.25 of this chapter.

(b) For scheduled or public charter passenger operations with airplanes having a passenger seating configuration (as defined in § 108.3 of this chapter) of more than 30 but less than 61 seats for which a passenger screening system is not required, each airport operator shall ensure that law enforcement officers are available and committed to respond to an incident at the request of a certificate holder or foreign air carrier and shall ensure that the request procedures are provided to the certificate holder or foreign air carrier.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Amdt. 107-1, 46 FR 3786, Jan. 15, 1981]

§ 107.17 Law enforcement officers.

(a) No airport operator may use, or arrange for response by, any person as a required law enforcement officer unless, while on duty on the airport, the officer—

(1) Has the arrest authority described in paragraph (b) of this section;

(2) Is readily identifiable by uniform and displays or carries a badge or other indicia of authority;

(3) Is armed with a firearm and authorized to use it; and

(4) Has completed a training program that meets the requirements in paragraph (c) of this section.

(b) The law enforcement officer must, while on duty on the airport, have the authority to arrest, with or without a warrant, for the following violations of the criminal laws of the State and local jurisdictions in which the airport is located:

(1) A crime committed in the officer's presence.

(2) A felony, when the officer has reason to believe that the suspect has committed it.

(c) The training program required by paragraph (a)(4) of this section must provide training in the subjects specified in paragraph (d) of this section and either—

(1) Meet the training standards, if any, prescribed by either the State or the local jurisdiction in which the airport is located, for law enforcement officers performing comparable functions; or

(2) If the State and local jurisdictions in which the airport is located do not prescribe training standards for officers performing comparable functions, be acceptable to the Administrator.

(d) The training program required by paragraph (a)(4) of this section must include training in—

(1) The use of firearms;

(2) The courteous and efficient treatment of persons subject to inspection, detention, search, arrest, and other aviation security activities;

(3) The responsibilities of a law enforcement officer under the airport operator's approved security program; and

(4) Any other subject the Administrator determines is necessary.

(Secs. 313, 315, 316, 317, 601-610, Federal Aviation Act of 1958 (49 U.S.C. 1354(a),

1356, 1357, 1358, 1421-1430); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

[Doc. No. 16245, 43 FR 60792, Dec. 28, 1978, as amended by Amdt. 107-1, 46 FR 3786, Jan. 15, 1981]

§ 107.19 Use of Federal law enforcement officers.

(a) Whenever State, local, and private law enforcement officers who meet the requirements of § 107.17 are not available in sufficient numbers to meet the requirements of § 107.15, the airport operator may request that the Administrator authorize it to use Federal law enforcement officers.

(b) Each request for the use of Federal law enforcement officers must be accompanied by the following information:

(1) The number of passengers enplaned at the airport during the preceding calendar year and the current calendar year as of the date of the request.

(2) The anticipated risk of criminal violence and aircraft piracy at the airport and to the air carrier aircraft operations at the airport.

(3) A copy of that portion of the airport operator's security program which describes the law enforcement support necessary to comply with § 107.15.

(4) The availability of State, local, and private law enforcement officers who meet the requirements of § 107.17, including a description of the airport operator's efforts to obtain law enforcement support from State, local, and private agencies and the responses of those agencies.

(5) The airport operator's estimate of the number of Federal law enforcement officers needed to supplement available officers and the period of time for which they are needed.

(6) A statement acknowledging responsibility for providing reimbursement for the cost of providing Federal law enforcement officers.

(7) Any other information the Administrator considers necessary.

(c) In response to a request submitted in accordance with this section, the Administrator may authorize, on a reimbursable basis, the use of law enforcement officers employed by the FAA or by any other Federal agency, with the consent of the head of that agency.

§ 107.21 Carriage of firearms, explosives, or incendiary devices.

(a) Except as provided in paragraph (b) of this section, no person may have a firearm, an explosive, or an incendiary device on or about the individual's person or accessible property—

(1) When performance has begun of the inspection of the individual's person or accessible property before entering a sterile area; and

(2) When entering or in a sterile area.

(b) The provisions of this section with respect to firearms do not apply to the following:

(1) Law enforcement officers required to carry a firearm by this part while on duty on the airport.

(2) Persons authorized to carry a firearm in accordance with § 121.585 or § 129.27.

(3) Persons authorized to carry a firearm in a sterile area under an approved security program or a security program used in accordance with § 129.25.

§ 107.23 Records.

(a) Each airport operator shall ensure that—

(1) A record is made of each law enforcement action taken in furtherance of this part;

(2) The record is maintained for a minimum of 90 days; and

(3) It is made available to the administrator upon request.

(b) Data developed in response to paragraph (a) of this section must include at least the following:

(1) The number and type of firearms, explosives, and incendiary devices discovered during any passenger screening process, and the method of detection of each.

(2) The number of acts and attempted acts of air piracy.

(3) The number of bomb threats received, real and simulated bombs found, and actual bombings on the airport.

(4) The number of detentions and arrests, and the immediate disposition of each person detained or arrested.

[Doc. No. 16245, 43 FR 60792, Dec. 28, 1978]

PART 108—AIRPLANE OPERATOR SECURITY

SPECIAL FEDERAL AVIATION REGULATION NO. 46 [NOTE]

AUTHORITY: Secs. 313, 315, 316, 317, 601 and 604, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1356, 1357, 1358, 1421 and 1424); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).

SOURCE: Docket No. 107-1, 46 FR 3786, Jan. 15, 1981, unless otherwise noted.

SPECIAL FEDERAL AVIATION REGULATION NO. 46

EDITORIAL NOTE: For the text of SFAR No. 46, see Part 91 of this chapter.

§ 108.1 Applicability.

This part prescribes aviation security rules governing the operations of holders of FAA air carrier operating certificates or operating certificates engaging in scheduled passenger operations or public charter passenger operations. This part does not apply to helicopter operations or to all-cargo operations.

§ 108.3 Definitions.

The following are definitions of terms used in this part: (a) "Certificate holder" means a person holding an FAA operating certificate when that person engages in scheduled passenger or public charter passenger operations or both.

(b) "Passenger seating configuration" means the total number of seats for which the aircraft is type certificated that can be made available for passenger use aboard a flight and includes that seat in certain airplanes which may be used by a representative of the Administrator to conduct flight checks but is available for revenue purposes on other occasions.

(c) "Private charter" means any charter for which the charterer engages the total capacity of an airplane for the carriage of: (1) Passengers in civil or military air movements conducted under contract with the Government of the United States of the Government of a foreign country; or

(2) Passengers invited by the charterer, the cost of which is borne entirely by the charterer and not directly or indirectly by the individual passengers.

(d) "Public charter" means any charter that is not a "private charter."

(e) "Scheduled passenger operations" means holding out to the public of air transportation service for passengers from identified air terminals at a set time announced by timetable or schedule published in a newspaper, magazine, or other advertising medium.

(f) "Sterile area" means an area to which access is controlled by the inspection of persons and property in accordance with an approved security program or a security program used in accordance with § 129.25.

§ 108.5 Security program: Adoption and implementation.

(a) Each certificate holder shall adopt and carry out a security program that meets the requirements of § 108.7 for each of the following scheduled or public charter passenger operations: (1) Each operation with an airplane having a passenger seating configuration of more than 60 seats.

(2) Each operation that provides deplaned passengers access, that is not otherwise controlled by a certificate holder using an approved security program or a foreign air carrier using a security program required by § 129.25, to a sterile area.

(3) Each operation with an airplane having a passenger seating configuration of more than 30 but less than 61 seats; except that those parts of the program effecting compliance with the requirements listed in § 108.7(b) (1), (2), and (4) need only be implemented when the Director of Civil Aviation Security or a designate of the Director notifies the certificate holder in writing that a security threat exists with respect to the operation.

(b) Each certificate holder that has obtained FAA approval for a security program for operations not listed in paragraph (a) of this section shall carry out the provisions of that program.

§ 108.7 Security program: Form, content, and availability.

(a) Each security program required by § 108.5 shall—

(1) Provide for the safety of persons and property traveling in air transportation and intrastate air transportation against acts of criminal violence and air piracy;

(2) Be in writing and signed by the certificate holder or any person delegated authority in this matter;

(3) Include the items listed in paragraph (b) of this section, as required by § 108.5; and

(4) Be approved by the Administrator.

(b) Each security program required by § 108.5 must include the following, as required by that section:

(1) The procedures and a description of the facilities and equipment used to perform the screening functions specified in § 108.9.

(2) The procedures and a description of the facilities and equipment used to perform the airplane and facilities control functions specified in § 108.13.

(3) The procedures used to comply with the applicable requirements of § 108.15 regarding law enforcement officers.

(4) The procedures used to comply with the requirements of § 108.17 regarding the use of X-ray systems.

(5) The procedures used to comply with the requirements of § 108.19 regarding bomb and air piracy threats.

(c) Each certificate holder having an approved security program shall—

(1) Maintain at least one complete copy of the approved security program at its principal business office;

(2) Maintain a complete copy or the pertinent portions of its approved security program or appropriate implementing instructions at each airport where security screening is being conducted;

(3) Make these documents available for inspection upon request of any Civil Aviation Security Inspector;

(4) Restrict the availability of information contained in the security program to those persons with an operational need-to-know; and

(5) Refer requests for such information by other persons to the Director of Civil Aviation Security of the FAA.

§ 108.9 Screening of passengers and property.

(a) Each certificate holder required to conduct screening under a security program shall use the procedures included, and the facilities and equipment described, in its approved security program to prevent or deter the carriage aboard airplanes of any explosive, incendiary device, or a deadly or dangerous weapon on or about each individual's person or accessible property, and the carriage of any explosive or incendiary device in checked baggage.

(b) Each certificate holder required to conduct screening under a security program shall refuse to transport—

(1) Any person who does not consent to a search of his or her person in accordance with the screening system prescribed in paragraph (a) of this section; and

(2) Any property of any person who does not consent to a search or inspection of that property in accordance with the screening system prescribed by paragraph (a) of this section.

§ 108.11 Carriage of weapons.

(a) No certificate holder required to conduct screening under a security program may permit any person to have, nor may any person have, on or about his or her person or property, a deadly or dangerous weapon, either concealed or unconcealed, accessible to

him or her while aboard an airplane for which screening is required unless:

(1) The person having the weapon is—

(i) An official or employee of the United States, or a State or political subdivision of a State, or of a municipality who is authorized by his or her agency to have the weapon; or

(ii) Authorized to have the weapon by the certificate holder and the Administrator and has successfully completed a course of training in the use of firearms acceptable to the Administrator.

(2) The person having the weapon needs to have the weapon accessible in connection with the performance of his or her duty from the time he or she would otherwise check it in accordance with paragraph (d) of this section until the time it would be returned after deplaning.

(3) The certificate holder is notified—

(i) Of the flight on which the armed person intends to have the weapon accessible to him or her at least 1 hour, or in an emergency as soon as practicable, before departure; and

(ii) When the armed person is other than an employee or official of the United States, that there is a need for the weapon to be accessible to the armed person in connection with the performance of that person's duty from the time he or she would otherwise check it in accordance with paragraph (d) of this section until the time it would be returned to him or her after deplaning.

(4) The armed person identifies himself or herself to the certificate holder by presenting credentials that include his or her clear, full-face picture, his or her signature, and the signature of the authorizing official of his or her service or the official seal of his or her service. A badge, shield, or similar device may not be used as the sole means of identification.

(5) The certificate holder—

(i) Ensures that the armed person is familiar with its procedures for carrying a deadly or dangerous weapon aboard its airplane before the time the person boards the airplane;

(ii) Ensures that the identity of the armed person is known to each law enforcement officer and each employee of the certificate holder responsible for security during the boarding of the airplane; and

(iii) Notifies the pilot in command, other appropriate crewmembers, and any other person authorized to have a weapon accessible to him or her aboard the airplane of the location of each authorized armed person aboard the airplane.

(b) No person may, while on board an airplane operated by a certificate holder for which screening is not conducted, carry on or about that person a deadly or dangerous weapon, either concealed or unconcealed. This paragraph does not apply to—

(1) Officials or employees of a municipality or a State, or of the United States, who are authorized to carry arms; or

(2) Crewmembers and other persons authorized by the certificate holder to carry arms.

(c) No certificate holder may knowingly permit any person to transport, nor may any person transport or tender for transport, any explosive, incendiary, device or a loaded firearm in checked baggage aboard an airplane. For the purpose of this section, a loaded firearm means a firearm which has a live round of ammunition, cartridge, detonator, or powder in the chamber or in a clip, magazine, or cylinder inserted in it.

(d) No certificate holder may knowingly permit any person to transport, nor may any person transport or tender for transport, any unloaded firearm in checked baggage aboard an airplane unless—

(1) The passenger declares to the certificate holder, either orally or in writing before checking the baggage, that any firearm carried in the baggage is unloaded;

(2) The firearm is carried in a container the certificate holder considers appropriate for air transportation;

(3) When the firearm is other than a shotgun, rifle, or other firearm normally fired from the shoulder position, the baggage in which it is carried is locked, and only the passenger checking the baggage retains the key or combination; and

(4) The baggage containing the firearm is carried in an area, other than the flightcrew compartment, that is inaccessible to passengers.

(e) No certificate holder may serve any alcoholic beverage to a person having a deadly or dangerous weapon accessible to him or her nor may such person drink any alcoholic beverage while aboard an airplane operated by the certificate holder.

(f) Paragraphs (a), (b), and (d) of this section do not apply to the carriage of firearms aboard air carrier flights conducted for the military forces of the Government of the United States when the total cabin load of the airplane is under exclusive use by those military forces if the following conditions are met:

(1) No firearm is loaded and all bolts to such firearms are locked in the open position; and

(2) The certificate holder is notified by the unit commander or officer in charge of the flight before boarding that weapons will be carried aboard the aircraft.

§ 108.13 Security of airplanes and facilities.

Each certificate holder required to conduct screening under a security program shall use the procedures included, and the facilities and equipment described, in its approved security program to perform the following control functions with respect to each airplane operation for which screening is required:

(a) Prohibit unauthorized access to the airplane.

(b) Ensure that baggage carried in the airplane is checked in by a responsible agent and that identification is obtained from persons, other than known shippers, shipping goods or cargo aboard the airplane.

(c) Ensure that cargo and checked baggage carried aboard the airplane is handled in a manner that prohibits unauthorized access.

(d) Conduct a security inspection of the airplane before placing it in service and after it has been left unattended.

§ 108.15 Law enforcement officers.

(a) At airports within the United States not governed by Part 107 of this chapter, each certificate holder engaging in scheduled passenger or public charter passenger operations shall—

(1) If security screening is required for a public charter operation by § 108.5(a), or for a scheduled passenger operation by § 108.5(b) provide for law enforcement officers meeting the qualifications and standards, and in the number and manner specified, in Part 107; and

(2) When using airplanes with a passenger seating configuration of 31 through 60 seats in a public charter operation for which screening is not required, arrange for law enforcement officers meeting the qualifications and standards specified in Part 107 to be available to respond to an incident, and provide to its employees, including crewmembers, as appropriate, current information with respect to procedures for obtaining law enforcement assistance at that airport.

(b) At airports governed by Part 107 of this chapter, each certificate holder engaging in scheduled or public charter passenger operations, when using airplanes with a passenger seating configuration of 31 through 60 seats for which screening is not required, shall arrange for law enforcement officers meeting the qualifications and standards specified in Part 107 to be available to respond to an incident and provide its employees, including crewmembers, as appropriate, current information with respect to procedures for obtaining this law enforcement assistance at that airport.

§ 108.17 Use of X-ray systems.

(a) No certificate holder may use an X-ray system within the United States to inspect carry-on articles unless specifically authorized under a security program required by § 108.5 of this part or use such a system contrary to its approved security program. The Administrator authorizes certificate holders to use X-ray systems for inspecting carry-on articles, under an approved security program, if the certificate holder shows that—

(1) For a system manufactured before April 25, 1974, it meets either the guidelines issued by the Food and Drug Administration (FDA), Department of Health, Education, and Welfare (HEW) and published in the FEDERAL REGISTER (38 FR 21442, August 8, 1973); or the performance standards for cabinet X-ray systems designed primarily for the inspection of carry-on baggage issued by the FDA and published in 21 CFR 1020.40 (39 FR 12985, April 10, 1974);

(2) For a system manufactured after April 24, 1974, it meets the standards for cabinet X-ray systems designed primarily for the inspection of carry-on baggage issued by the FDA and published in 21 CFR 1020.40 (39 FR 12985, April 10, 1974);

(3) A program for initial and recurrent training of operators of the system is established, which includes training in radiation safety, the efficient use of X-ray systems, and the identification of weapons and other dangerous articles;

(4) Procedures are established to ensure that each operator of the system is provided with a personal dosimeter (such as a film badge or thermo luminescent dosimeter). Each dosimeter used will be evaluated at the end of each calendar month, and records of operator duty time and the results of dosimeter evaluations will be maintained by the certificate holder; and

(5) The system is capable of distinguishing an insulated 24-gauge, solid copper wire.

(b) No certificate holder may use an X-ray system within the United States unless within the preceding 12 calendar months a radiation survey has been conducted which shows that the system meets the applicable performance standards in 21 CFR 1020.40 or guidelines published by the FDA in the FEDERAL REGISTER of August 8, 1973 (38 FR 21442).

(c) No certificate holder may use an X-ray system after the system is initially installed or after it has been moved from one location to another, unless a radiation survey is conducted which shows that the system meets the applicable performance standards in 21 CFR 1020.40 or guidelines published by the FDA in the FEDERAL REGISTER of August 8, 1973 (38 FR 21442) except that a radiation survey is not required for an X-ray system that is moved to another location if the certificate holder shows that the system is so designed that it can be moved without altering its performance.

(d) No certificate holder may use an X-ray system that is not in full compliance with any defect notice or modification order issued for that system by the FDA, unless that Administration has advised the FAA that the defect or failure to comply does not create a significant risk or injury, including genetic injury, to any person.

(e) No certificate holder may use an X-ray system to inspect carry-on baggage or items unless a sign is posted in a conspicuous place which notifies passengers that such items are being inspected by an X-ray system and advises them to remove all X-ray and scientific film from the carry-on articles before inspection. This sign shall also advise passengers that they may request that a physical inspection be made of their photographic equipment and film packages without exposure to an X-ray system. If the X-ray system exposes any carry-on article to more than one milliroentgen during the inspection, the certificate holder shall post a sign which advises passengers to remove film of all kinds from their carry-on articles before inspection. If requested by passengers, their photographic equipment and film packages shall be physically inspected without exposure to an X-ray system.

(f) Each certificate holder shall maintain at least one copy of the results of the most recent radiation survey conducted under paragraph (b) or (c) of this section and shall make it available for inspection upon request by the Administrator at each of the following locations:

(1) The certificate holder's principal business office; and

(2) The place where the X-ray system is in operation.

§ 108.19 Bomb or air piracy threats.

(a) Upon receipt of a bomb threat against a specific airplane, each certificate holder shall attempt to deter-

mine whether or not any explosive or incendiary device is aboard the airplane involved by doing the following:

(1) Conducting a security inspection on the ground before the next flight or, if the airplane is in flight, immediately after its next landing.

(2) If the airplane is being operated on the ground, advising the pilot in command to immediately submit the airplane for a security inspection.

(3) If the airplane is in flight, immediately advising the pilot in command of all pertinent information available so that necessary emergency action can be taken.

(b) Immediately upon receiving information that an act or suspected act of air piracy has been committed, the certificate holder shall notify the Administrator. If the airplane is in airspace under other than United States jurisdiction, the certificate holder shall also notify the appropriate authorities of the State in whose territory the airplane is located and, if the airplane is in flight, the appropriate authorities of the State in whose territory the airplane is to land. Notification of the appropriate air traffic controlling authority is sufficient action to meet this requirement.

§ 108.21 Carriage of passengers under the control of armed law enforcement escorts.

(a) Except as provided in paragraph (e) of this section, no certificate holder required to conduct screening under a security program may carry a passenger in the custody of an armed law enforcement escort aboard an airplane for which screening is required unless—

(1) The armed law enforcement escort is an official or employee of the United States, of a State or political subdivision of a State, or a municipality who is required by appropriate authority to maintain custody and control over an individual aboard an airplane;

(2) The certificate holder is notified by the responsible government entity at least 1 hour, or in case of emergency as soon as possible, before departure—

(i) Of the identity of the passenger to be carried and the flight on which it is proposed to carry the passenger; and

(ii) Whether or not the passenger is considered to be in a maximum risk category;

(3) If the passenger is considered to be in a maximum risk category, that the passenger is under the control of at least two armed law enforcement escorts and no other passengers are under the control of those two law enforcement escorts;

(4) No more than one passenger who the certificate holder has been notified is in a maximum risk category is carried on the airplane;

(5) If the passenger is not considered to be in a maximum risk category, the passenger is under the control of at least one armed law enforcement escort, and no more than two of these persons are carried under the control of any one law enforcement escort;

(6) The certificate holder is assured, prior to departure, by each law enforcement escort that—

(i) The officer is equipped with adequate restraining devices to be used in the event restraint of any passenger under the control of the escort becomes necessary; and

(ii) Each passenger under the control of the escort has been searched and does not have on or about his or her person or property anything that can be used as a deadly or dangerous weapon;

(7) Each passenger under the control of a law enforcement escort is—

(i) Boarded before any other passengers when boarding at the airport where the flight originates and deplaned at the destination after all other deplaning passengers have deplaned;

(ii) Seated in the rear-most passenger seat when boarding at the airport where the flight originates; and

(iii) Seated in a seat that is neither located in any lounge area nor located next to or directly across from any exit; and

(8) A law enforcement escort having control of a passenger is seated between the passenger and any aisle.

(b) No certificate holder operating an airplane under paragraph (a) of this section may—

(1) Serve food beverage or provide metal eating utensils to a passenger under the control of a law enforcement escort while aboard the airplane unless authorized to do so by the law enforcement escort.

(2) Serve a law enforcement escort or the passenger under the control of the escort any alcoholic beverages while aboard the airplane.

(c) Each law enforcement escort carried under the provisions of paragraph (a) of this section shall, at all times, accompany the passenger under the control of the escort and keep the passenger under surveillance while aboard the airplane.

(d) No law enforcement escort carried under paragraph (b) of this section or any passenger under the control of the escort may drink alcoholic beverages while aboard the airplane.

(e) This section does not apply to the carriage of passengers under voluntary protective escort.

§ 108.23 Crewmember emergency training: Hijacking and other unusual situations.

Each certificate holder shall provide each appropriate crewmember hijack emergency training as required by § 121.417(c)(1)(v) or § 135.331(b)(2)(v).

§ 108.25 Approval of security programs and amendments.

(a) Unless otherwise authorized by the Administrator, each certificate holder required to have a security program for a passenger operation shall submit its proposed security program to the Administrator for approval at least 90 days before the date of the intended passenger operations. Within 30 days after receiving the program, the Administrator either approves the program or notifies the certificate holder to modify the program to comply with the applicable requirements of this part. The certificate holder may petition the Administrator to reconsider the notice to modify within 30 days after receiving the notice, and, except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

(b) The Administrator may amend an approved security program if it is determined that safety and the public interest require the amendment, as follows:

(1) The Administrator notifies the certificate holder, in writing, of the proposed amendment, fixing a period of not less than 30 days within which it may submit written information, views, and arguments on the amendment.

(2) After considering all relevant material, the Administrator notifies the certificate holder of any amendment adopted or rescinds the notice. The amendment becomes effective not less than 30 days after the certificate holder receives the notice, unless the certificate holder petitions the Administrator to reconsider the amendment, in which case the effective date is stayed by the Administrator.

(3) If the Administrator finds that there is an emergency requiring immediate action with respect to safety in air transportation or in air commerce that makes the procedure in this paragraph impracticable or contrary to the public interest, the Administrator may issue an amendment, effective without stay, on the date the certificate holder receives notice of it. In such a case, the Administrator incorporates the findings, and a brief statement of the reasons for it, in the notice of the amendment to be adopted.

(c) A certificate holder may submit a request to the Administrator to amend its program. The application must be filed with the Administrator at least 30 days before the date it proposes for the amendment to become effective, unless a shorter period is allowed by the Administrator. Within 15 days after receiving a proposed amendment, the Administrator either approves or denies the request. Within 30 days after receiving from the Administrator a notice of refusal to approve the application for amendment, the applicant may petition the Administrator to reconsider the refusal to amend.

PART 109—INDIRECT AIR CARRIER SECURITY

Sec.
109.1 Applicability.
109.3 Security program.
109.5 Approval of security programs and amendments.

AUTHORITY: Secs. 313(a), 316, 601, 1005, Federal Aviation Act of 1958 (49 U.S.C 1354(a), 1357, 1421, and 1485); and sec. 6(c), Department of Transportation Act (49 U.S.C 1655(c)).

SOURCE: Docket No. 19840, Amdt. 191-1, 44 FR 72344, Dec. 13, 1979, unless otherwise noted.

§ 109.1 Applicability.

(a) This part prescribes aviation security rules governing each air carrier, including each air freight forwarder and each cooperative shippers' association, engaged indirectly in air transportation of property;

(b) For the purposes of this part, "property" means any package cargo.

§ 109.3 Security program.

(a) Each indirect air carrier shall adopt and carry out a security program that—

(1) Is designed to prevent or deter the unauthorized introduction of any explosive or incendiary device into any package cargo intended for carriage by air;

(2) Is in writing and signed by the carrier or any person delegated authority in this matter;

(3) Includes a system of security safeguards acceptable to the Administrator; and

(4) Has been approved by the Administrator.

(b) Each indirect air carrier shall maintain at least one complete copy of its security program at its principal business office, and a complete copy or the pertinent portions of its security program or appropriate implementing instructions at each office where package cargo is accepted, and shall make those documents available for inspection upon request of any Civil Aviation Security Inspector.

(c) Each indirect air carrier shall—

(1) Restrict the distribution, disclosure, and availability of information contained in the security program to persons with an operational need-to-know;

(2) Require those persons to keep that information confidential; and

(3) Refer requests for such information to the Director of the Office of Civil Aviation Security Service of the FAA.

§ 109.5 Approval of security programs and amendments.

(a) Each indirect air carrier shall submit its security program to the Administrator for approval. Each carrier engaged in the air transportation of property before December 13, 1979, shall submit its program no later than January 14, 1980. Each carrier not engaged in air transportation or intrastate air transportation of property before December 13, 1979, shall submit its program at least 30 days before the date it intends to engage in that transportation.

(b) Within 30 days after receipt of the program, the Administrator either approves the program or notifies the carrier as to modifications necessary for the program to comply with this part.

(c) Any person notified pursuant to paragraph (b) of this section may petition the Administrator to reconsider the notice to modify within 30 days after receipt of the notice and, except in the case of any emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

(d) The Administrator may order amendment of an approved security program, if it is determined that safety and the public interest require the amendment, as follows:

(1) The Administrator notifies the carrier, in writing, of the proposed amendment, fixing a period of not less than 30 days within which it may submit written information, views, and arguments on the amendment.

(2) After considering all relevant material, the Administrator notifies the carrier of any amendment adopted, or rescinds the notice of the proposed amendment. The amendment becomes effective not less than 30 days after such person receives the notice, unless

it petitions the Administrator to reconsider the amendment, in which case the effective date is stayed by the Administrator.

(3) If the Adminstrator finds that there is an emergency requiring immediate action with respect to safety in air transportation or in air commerce that makes the procedure in this paragraph impracticable or contrary to the public interest he may issue an amendment, effective on the date the carrier receives notice of it, and not subject to stay. In such a case, the Administrator incorporates the findings and a brief statement of the reasons for it, in the notice of the amendment to be adopted.

(c) A carrier may submit a request to the Administrator to amend its program. The application must be filed with the Administrator at least 30 days before the date it proposes for the amendment to become effective, unless a shorter period is allowed by the Administrator. Within 15 days after receipt of a proposed amendment, the Administrator either approves or denies the request. Within 30 days after receiving from the Administrator a notice of refusal to approve the application for amendment, the applicant may petition the Administrator to reconsider the refusal to amend.

certificated mechanic or repairman constitutes that certification.

[Doc. No. 5032, 29 FR 11708, Aug. 15, 1964, as amended by Amdt. 127-2, 30 FR 6432, May 8, 1965; Amdt. 127-6, 31 FR 10613, Aug. 9, 1966]

PART 129—OPERATIONS OF FOREIGN AIR CARRIERS

Sec.

AUTHORITY: Secs. 313(a) and 601, 72 Stat. 752; 49 U.S.C. 1354(a), 1421, and 1502, unless otherwise noted.

SOURCE: Docket No. 1994, 29 FR 1720, Feb. 5, 1964, unless otherwise noted.

§ 129.1 Applicability.

This part prescribes rules governing the operation within the United States of each foreign air carrier holding a permit issued by the Civil Aeronautics Board under section 402 of the Federal Aviation Act of 1958 (49 U.S.C. 1372) or other appropriate economic or exemption authority issued by the Civil Aeronautics Board.

(Secs. 313(a), 601 through 605, Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421 through 1425); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.49)

[Doc. No. 21129, Amdt. 129-12, 47 FR 13317, Mar. 29, 1982]

§ 129.11 Operations specifications.

(a) Each foreign air carrier shall conduct its operations within the United States in accordance with operations specifications issued by the Administrator, including—

(1) Airports to be used;

(2) Routes or airways to be flown, and

(3) Such operations rules and practices as are necessary to prevent collisions between foreign aircraft and other aircraft.

(b) An application for the issue or amendment of operations specifications must be submitted in duplicate, at least 30 days before beginning operations in the United States, to the International District or Field Office in the area where the applicant's principal business office is located or to the Regional Director having jurisdiction over the area to be served by the operations. If a military airport of the United States is to be used as a regular, alternate, refueling, or provisional airport, the applicant must obtain written permission to do so from the Washington Headquarters of the military organization concerned and submit two copies of that written permission with his application. Detailed requirements governing applications for the issue or amendment of operations specifications are contained in Appendix A.

§ 129.13 Airworthiness and registration certificates.

(a) No foreign air carrier may operate any aircraft within the United States unless that aircraft carries current registration and airworthiness certificates issued or validated by the country of registry and displays the nationality and registration marking of that country.

(b) No foreign air carrier may operate a foreign aircraft within the United States except in accordance with the limitations on maximum certificated weights prescribed for that aircraft and that operation by the country of manufacture of the aircraft.

§ 129.15 Flight crewmember certificates.

No person may act as a flight crewmember unless he holds a current certificate or license issued or validated by the country in which that aircraft is registered, showing his ability to perform his duties connected with operating that aircraft.

[Amdt. 129-3, 30 FR 16074, Dec. 24, 1965]

§ 129.17 Radio equipment.

(a) Subject to the applicable laws and regulations governing ownership and operation of radio equipment, each foreign air carrier shall equip its aircraft with such radio equipment as is necessary to properly use the air navigation facilities, and to maintain communications with ground stations, along or adjacent to their routes in the United States.

(b) Whenever VOR navigational equipment is required by paragraph (a) of this section, at least one distance measuring equipment unit (DME), capable of receiving and indicating distance information from the VORTAC facilities to be used, must be installed on each airplane when operated at or above 24,000 feet MSL within the 50 states, and the District of Columbia.

[Doc. No. 1994, 29 FR 1720, Feb. 5, 1964, as amended by Amdt. 129-2, 30 FR 10288, Aug. 19, 1965, Amdt. 129-7, 41 FR 47230, Oct. 30, 1976]

§ 129.19 Air traffic rules and procedures.

(a) Each pilot must be familiar with the applicable rules, the navigational and communications facilities, and the air traffic control and other procedures, of the areas to be traversed by him within the United States.

(b) Each foreign air carrier shall establish procedures to assure that each of its pilots has the knowledge required by paragraph (a) of this section and shall check the ability of each of its pilots to operate safely according to applicable rules and procedures.

(c) Each foreign air carrier shall conform to the practices, procedures, and other requirements prescribed by the Administrator for U.S. air carriers for the areas to be operated in.

§ 129.21 Control of traffic.

(a) Subject to applicable immigration laws and regulations, each foreign air carrier shall furnish the ground personnel necessary to provide for two-way voice communication between its aircraft and ground stations, at places where the Administrator finds that voice communication is necessary and that communications cannot be maintained in a language with which ground station operators are familiar.

(b) Each person furnished by a foreign air carrier under paragraph (a) of this section must be able to speak both English and the language necessary to maintain communications with the aircraft concerned, and shall assist ground personnel in directing traffic.

§ 129.23 Transport category cargo service airplanes: Increased zero fuel and landing weights.

(a) Notwithstanding the applicable structural provisions of the transport category airworthiness regulations, but subject to paragraphs (b) through (g) of this section, a foreign air carrier may operate (for cargo service only) any of the following transport category airplanes (certificated under Part 4b of the Civil Air Regulations effective before March 13, 1956) at increased zero fuel and landing weights—

(1) DC-6A, DC-6B, DC-7B, and DC-7C; and

(2) L-1049 B, C, D, E, F, G, and H, and the L-1649A when modified in accordance with supplemental type certificate SA 4-1402.

(b) The zero fuel weight (maximum weight of the airplane with no disposable fuel and oil) and the structural landing weight may be increased beyond the maximum approved in full compliance with applicable rules only if the Administrator finds that—

(1) The increase is not likely to reduce seriously the structural strength;

(2) The probability of sudden fatigue failure is not noticeably increased;

(3) The flutter, deformation, and vibration characteristics do not fall below those required by applicable regulations; and

(4) All other applicable weight limitations will be met.

(c) No zero fuel weight may be increased by more than five percent, and the increase in the structural landing weight may not exceed the amount, in pounds, of the increase in zero fuel weight.

(d) Each airplane must be inspected in accordance with the approved special inspection procedures, for operations at increased weights, estab-

lished and issued by the manufacturer of the type of airplane.

(e) A foreign air carrier may not operate an airplane under this section unless the country of registry requires the airplane to be operated in accordance with the passenger-carrying transport category performance operating limitations in Part 121 or the equivalent.

(f) The Airplane Flight Manual for each airplane operated under this section must be appropriately revised to include the operating limitations and information needed for operation at the increased weights.

(g) Each airplane operated at an increased weight under this section must, before it is used in passenger service, be inspected under the special inspection procedures for return to passenger service established and issued by the manufacturer and approved by the Administrator.

[Amdt. 129-1, 29 FR 19098, Dec. 30, 1964]

§ 129.25 Airplane security.

(a) The following are definitions of terms used in this section:

(1) "Approved security program" means a security program required by Part 108 of this title approved by the Administrator.

(2) "Certificate holder" means a person holding an FAA air carrier operating certificate or operating certificate when that person engages in scheduled passenger or public charter operations, or both.

(3) "Passenger seating configuration" means the total number of seats for which the aircraft is type certificated that can be made available for passenger use aboard a flight and includes that seat in certain airplanes which may be used by a representative of the Administrator to conduct flight checks but is available for revenue purposes on other occasions.

(4) "Private charter" means any charter for which the charterer engages the total capacity of an airplane for the carriage only of:

(i) Passengers in civil or military air movements conducted under contract with the Government of the United States or the Government of a foreign country; or

(ii) Passengers invited by the charterer, the cost of which is borne entirely by the charterer and not directly or indirectly by the individual passengers.

(5) "Public charter" means any charter that is not a "private charter."

(6) "Scheduled passenger operations" means holding out to the public of air transportation service for passengers from identified air terminals at a set time announced by timetable or schedule published in a newspaper, magazine, or other advertising medium.

(7) "Sterile area" means an area to which access is controlled by the inspection of persons and property in accordance with an approved security program or a security program used in accordance with § 129.25.

(b) Each foreign air carrier landing or taking off in the United States shall adopt and use a security program, for each scheduled and public charter passenger operation, that meets the requirements of—

(1) Paragraph (c) of this section for each operation with an airplane having a passenger seating configuration of more than 60 seats;

(2) Paragraph (c) of this section for each operation that will provide deplaned passengers access, that is not controlled by a certificate holder using an approved security program or a foreign air carrier using a security program required by this section, to a sterile area;

(3) Paragraph (c) of this section for each operation with an airplane having a passenger seating configuration of more than 30 seats but less than 61 seats for which the FAA has notified the foreign air carrier that a threat exists; and

(4) Paragraph (d) of this section for each operation with an airplane having a passenger seating configuration of more than 30 seats but less than 61 seats, when the the Director of Civil Aviation Security or a designate of the Director has not notified the foreign air carrier in writing that a threat exists with respect to that operation.

(c) Each security program required by paragraph (b) (1), (2), or (3) of this section shall be designed to—

(1) Prevent or deter the carriage aboard airplanes of any explosive, incendiary device or a deadly or dangerous weapon on or about each individual's person or accessible property, except as provided in § 129.27 of this part, through screening by weapon-detecting procedures or facilities;

(2) Prohibit unauthorized access to airplanes;

(3) Ensure that baggage is accepted by a responsible agent of the foreign air carrier; and

(4) Prevent cargo and checked baggage from being loaded aboard its airplanes unless handled in accordance with the foreign air carrier's security procedures.

(d) Each security program required by paragraph (b)(4) of this section shall include the procedures used to comply with the applicable requirements of paragraphs (h)(2) and (i) of this section regarding law enforcement officers.

(e) Each foreign air carrier required to use a security program by paragraph (b) of this section shall, upon request of the Administrator, and in accordance with applicable law, provide information regarding the implementation and operation of its security program.

(f) No foreign air carrier may land or take off an airplane in the United States, in passenger operations, after receiving a bomb or air piracy threat against that airplane, unless the following actions are taken:

(1) If the airplane is on the ground when a bomb threat is received and the next scheduled flight of the threatened airplane is to or from a place in the United States, the foreign air carrier ensures that the pilot in command is advised to submit the airplane immediately for a security inspection and an inspection of the airplane is conducted before the next flight.

(2) If the airplane is in flight to a place in the United States when a bomb threat is received, the foreign air carrier ensures that the pilot in command is advised immediately to take the emergency action necessary under the circumstances and a security inspection of the airplane is conducted immediately after the next landing.

(3) If information is received of a bomb or air piracy threat against an airplane engaged in an operation specified in paragraph (f)(1) or (f)(2) of this section, the foreign air carrier ensures that notification of the threat is given to the appropriate authorities of the State in whose territory the airplane is located or, if in flight, the appropriate authorities of the State in whose territory the airplane is to land.

(g) Each foreign air carrier conducting an operation for which a security program is required by paragraph (b)(1), (2), or (3) of this section shall refuse to transport—

(1) Any person who does not consent to a search of his or her person in accordance with the security program; and

(2) Any property of any person who does not consent to a search or inspection of that property in accordance with the security program.

(h) At airports within the United States not governed by Part 107 of this chapter, each foreign air carrier engaging in public charter passenger operations shall—

(1) When using a screening system required by paragraph (b) of this section, provide for law enforcement officers meeting the qualifications and standards, and in the number and manner, specified in Part 107; and

(2) When using an airplane having a passenger seating configuration of more than 30 but less than 61 seats for which a screening system is not required by paragraph (b) of this section, arrange for law enforcement officers meeting the qualifications and standards specified in Part 107 to be available to respond to an incident and provide to appropriate employees, including crewmembers, current information with respect to procedures for obtaining law enforcement assistance at that airport.

(i) At airports governed by Part 107 of this chapter, each foreign air carrier engaging in scheduled passenger operations or public charter passenger operations when using an airplane with a passenger seating configuration of more than 30 but less than 61 seats for which a screening system is not re-

quired by paragraph (b) of this section shall arrange for law enforcement officers meeting the qualifications and standards specified in Part 107 to be available to respond to an incident and provide to appropriate employees, including crewmembers, current information with respect to procedures for obtaining law enforcement assistance at that airport.

[Amdt. 129-11, 46 FR 3790, Jan. 15, 1981; 46 FR 7936, Jan. 26, 1981]

§ 129.26 Use of X-ray system.

(a) No foreign air carrier may use an X-ray system in the United States, to inspect carry-on baggage or items, unless:

(1) For a system manufactured prior to April 25, 1974, it meets either the guidelines issued by the Food and Drug Administration (FDA), Department of Health, Education, and Welfare and published in the FEDERAL REGISTER (38 FR 21442, August 8, 1973); or the performance standards for cabinet X-ray systems designed primarily for the inspection of carry-on baggage issued by the FDA and published in 21 CFR 1020.40 (39 FR 12985, April 10, 1974);

(2) For a system manufactured after April 24, 1974, it meets the standards for cabinet X-ray systems designed primarily for the inspection of carry-on baggage issued by the FDA and published in 21 CFR 1020.40 (39 FR 12985, April 10, 1974);

(3) A program for initial and recurrent training of operators of the system has been established, which includes training in radiation safety, the efficient use of X-ray systems, and the identification of weapons and other dangerous articles;

(4) Procedures have been established to ensure that each operator of the system will be provided with a personnel dosimeter (such as a film badge or thermo luminescent dosimeter), each dosimeter used will be evaluated at the end of each calendar month, and records of operator duty time and the results of dosimeter evaluations will be maintained by the foreign air carrier; and

(5) The system has the capability of distinguishing an insulated 24-gauge, solid copper wire.

(b) No foreign air carrier may use an X-ray system as specified in paragraph (a) of this section—

(1) Unless within the preceding 12 calendar months a radiation survey has been conducted which shows that the system meets the applicable performance standards in 21 CFR 1020.40 or guidelines published by the Food and Drug Administration in the FEDERAL REGISTER of August 8, 1973 (38 FR 21442);

(2) After the system is initially installed or after it has been moved from one location to another, unless a radiation survey is conducted which shows that the system meets the applicable performance standards in 21 CFR 1020.40 or guidelines published by the Food and Drug Administration in the FEDERAL REGISTER on August 8, 1973 (38 FR 21442); except that a radiation survey is not required for an X-ray system that is moved to another location, if the foreign air carrier shows that the system is so designed that it can be moved without altering its performance;

(3) That is not in full compliance with any defect notice or modification order issued for that system by the Food and Drug Administration, Department of Health, Education, and Welfare, unless that Administration has advised the FAA that the defect or failure to comply is not such as to create a significant risk or injury, including genetic injury, to any person; and

(4) Unless a sign is posted in a conspicuous place which notifies passengers that carry-on baggage or items are being inspected by an X-ray system and advises them to remove all X-ray and scientific film from their carry-on baggage and items before inspection. This sign shall also advise passengers that they may request a physical inspection to be made of their photographic equipment and film packages without exposure to an X-ray system. If the X-ray system exposes any carry-on baggage or item to more than one milliroentgen during the inspection, the foreign air carrier shall post a sign which advises passengers to remove film of all kinds from their carry-on baggage and items before inspection. If requested by pas-

sengers, their photographic equipment and film packages shall be physically inspected without exposure to an X-ray system.

(c) Each foreign air carrier shall maintain at least one copy of the results of the most recent radiation survey conducted under paragraph (b)(1) or (b)(2) of this section at the place where the X-ray system is in operation and shall make it available for inspection upon request by the Administrator.

[Doc. No. 15286, Amdt. 129-6, 41 FR 30106, July 22, 1976, as amended by Amdt. 129-8, 43 FR 11978, Mar. 23, 1978; Amdt. 129-10, 44 FR 54467, Sept. 20, 1979]

§ 129.27 Prohibition against carriage of weapons.

(a) No person may, while on board an aircraft being operated by a foreign air carrier in the United States, carry on or about his person a deadly or dangerous weapon, either concealed or unconcealed. This paragraph does not apply to—

(1) Officials or employees of the state of registry of the aircraft who are authorized by that state to carry arms; and

(2) Crewmembers and other persons authorized by the foreign air carrier to carry arms.

(b) No foreign air carrier may knowingly permit any passenger to carry, nor may any passenger carry, while aboard an aircraft being operated in the United States by that carrier, in checked baggage, a deadly or dangerous weapon, unless:

(1) The passenger has notified the foreign air carrier before checking the baggage that the weapon is in the baggage; and

(2) The baggage is carried in an area inaccessible to passengers.

[Doc. No. 15286, Amdt. 129-6, 41 FR 30107, July 22, 1976]

APPENDIX A—APPLICATION FOR OPERATIONS SPECIFICATIONS BY FOREIGN AIR CARRIERS

(a) *General.* Each application must be executed by an authorized officer or employee of the applicant having knowledge of the matter set forth therein, and must have attached thereto two copies of the appropriate written authority issued to that officer or employee by the applicant. Negotiations for permission to use airports under U.S. military jurisdiction is effected through the respective embassy of the foreign government and the United States Department of State.

(b) *Format of application.* The following outline must be followed in completing the information to be submitted in the application.

APPLICATION FOR FOREIGN AIR CARRIER OPERATIONS SPECIFICATIONS

(OUTLINE)

To: The Federal Aviation Administration
Washington, D.C., 20553

In accordance with the Federal Aviation Act of 1958 (49 U.S.C. 1372) and Part 129 of the Federal Air Regulations, application is hereby made for the issuance of Foreign Operations Specifications.

Give exact name and full post office address of applicant.

Give the name, title, and post office address (within the United States if possible) of the official or employee to whom correspondence in regard to the application is to be addressed.

Unless otherwise specified, the applicant must submit the following information only with respect to those parts of his proposed operations that will be conducted within the United States.

SECTION I. *Operations.* State whether the operation proposed is day or night, visual flight rules, instrument flight rules, or a particular combination thereof.

SEC. II. *Operational plans.* State the route by which entry will be made into the United States, and the route to be flown therein.

SEC. III. A. *Route.* Submit a map suitable for aerial navigation upon which is indicated the exact geographical track of the proposed route from the last point of foreign departure to the United States terminal, showing the regular terminal, and alternate airports, and radio navigational facilities. This material will be indicated in a manner that will facilitate identification. The applicant may use any method that will clearly distinguish the information, such as different colors, different types of lines, etc. For example, if different colors are used, the identification will be accomplished as follows:

1. Regular route: Black.
2. Regular terminal airport: Green circle.
3. Alternate airports: Orange circle.
4. The location of radio navigational facilities which will be used in connection with the proposed operation, indicating the type of facility to be used, such as radio range ADF, VOR, etc.

B. *Airports.* Submit the following information with regard to each regular terminal and alternate to be used in the conduct of the proposed operation:

1. Name of airport or landing area.

2. Location (direction distance to and name of nearest city or town).

SEC. IV. *Radio facilities: Communications.* List all ground radio communication facilities to be used by the applicant in the conduct of the proposed operations within the United States and over that portion of the route between the last point of foreign departure and the United States.

SEC. V. *Aircraft.* Submit the following information in regard to each type and model aircraft to be used.

A. *Aircraft.*

1. Manufacturer and model number.

2. State of origin.

3. Single-engine or multiengine. If multiengine, indicate number of engines.

4. What is the maximum takeoff and landing weight to be used for each type of aircraft?

B. *Aircraft Radio.* List aircraft radio equipment necessary for instrument operation within the United States.

C. *Licensing.* State name of country by whom aircraft are certificated.

SEC. VI. *Airmen.* List the following information with respect to airmen to be employed in the proposed operation within the United States.

A. State the type and class of certificate held by each flight crewmember.

B. State whether or not pilot personnel have received training in the use of navigational facilities necessary for en route operation and instrument letdowns along or adjacent to the route to be flown within the United States.

C. State whether or not personnel are familiar with those parts of the Federal Air Regulations pertaining to the conduct of foreign air carrier operations within the United States.

D. State whether pilot personnel are able to speak and understand the English language to a degree necessary to enable them to properly communicate with Airport Traffic Control Towers and Airway Radio Communication Stations using radiotelephone communications.

SEC. VII. *Dispatchers.*

A. Describe briefly the dispatch organization which you propose to set up for air carrier operations within the United States.

B. State whether or not the dispatching personnel are familiar with the rules and regulations prescribed by the Federal Air Regulations governing air carrier operations.

C. Are dispatching personnel able to read and write the English language to a degree necessary to properly dispatch flights within the United States?

D. Are dispatching personnel certificated by the country of origin?

SEC. VIII. *Additional Data.*

A. Furnish such additional information and substantiating data as may serve to expedite the issuance of the operations specifications.

B. Each application shall be concluded with a statement as follows:

I certify that the above statements are true.

Signed this ——— day of ——— 19——

——————————— (Name of Applicant)

By ———————————

(Name of person duly authorized to execute this application on behalf of the applicant.)