

## Testimony

To Judiciary Committee

Hearing on

Proposed Bill No. 353 LCO No. 1672

### *AN ACT CONCERNING THE MICROSTAMPING OF SIMIAUTOMATIC PISTOLS*

By Drue Hontz Jr

Monday, March 16, 2009

Judiciary Committee staff in Room 2500

Judiciary Committee members, thank you for the opportunity to testify today. My name is Drue Hontz Jr. I am resident of Old Saybrook, Connecticut. My interest is in any legislation that intends to protect Connecticut citizens and their families. This is the single most important issue facing our society and way of life. I am married with 3 children 9,11, and 13. My interest in the public's safety is purely selfish: I want my family to be safe. I am the holder of a Connecticut State Permit to Carry Pistols and Revolvers. I have not ever made a living or been paid by any company or individual of a gun manufacture or lobby group. I am here representing myself and my family.

Today more than ever there is a concern of Connecticut citizens for their personal safety. This can be heard in the coffee shop, work place, soccer games, and gun stores. The home invasion and heinous crime and murder committed in Cheshire in 2007 is one example of the stories that add to our lack of security. The Cheshire incident happened to be my neighborhood. My family moved to Old Saybrook 18 months before that horrific crime, yet my wife and I did not sleep for 6 months.

As you are aware, the surge in gun sales and pistol permits show that the citizens of Connecticut feel a need to protect themselves from the "bad guys". These levels are setting new records.

The focus of my testimony today is the Proposed Bill No. 353 LCO No. 1672  
*AN ACT CONCERNING THE MICROSTAMPING OF SIMIAUTOMATIC PISTOLS*

Although I feel it is necessary to pass new legislation trying to make our society safer, I must strongly disagree with the referenced Proposed Bill.

In an effort to save paper (since 45 copies are required to be submitted to the committee for testimony), I have copied some highlights of the Executive Summary from a study on *Microstamping* that was mentioned on 60 Minutes and aired on CBS.

## **TECHNICAL EVALUATION: FEASIBILITY OF A BALLISTICS IMAGING DATABASE FOR ALL NEW HANDGUN SALES**

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In an effort to save time I will only read the items highlighted in yellow.

### **1.0 EXECUTIVE SUMMARY**

#### **Summary**

*Automated computer matching systems do not provide conclusive results. Rather, a list of potential candidates are presented that must be manually reviewed. When applying this technology to the concept of mass sampling of manufactured firearms, a huge inventory of potential candidates will be generated for manual review. This study indicates that this number of candidate cases will be so large as to be impractical and will likely create complications so great that they cannot be effectively addressed.*

#### **1.1 Firearms Identification and Automation**

*The concept of automated imaging was originally developed to aid the firearms examiner in keeping track of open case files. Open case files refer to those cases in which an evidence cartridge case or bullet could not be linked to any firearms in the possession of law enforcement at the time of examination. In 1994 the Office of National Drug Control Policy (ONDCP) validated the concept of ballistics imaging of firearms evidence in the forensic science community (consisting of bullets and cartridge cases in which they could be automatically compared to evidence specimens for preliminary correlation). There are several issues associated with an automated imaging concept that have to be considered. These relate to issues that impact the efficacy of the use of ballistics imaging when applied to large numbers of commercially produced firearms. These are:*

- 1. Current imaging systems require trained personnel, ideally a firearms examiner, for entry, searching and verification. The use of technicians typically results in higher numbers of false positives that need to be microscopically compared.*
- 2. Current systems may not be as efficient for rimfire firearms and are limited to auto loading weapons. Proposed systems will not practically accommodate revolvers, rim fires, certain shotguns and rifles. A large proportion of firearms sold in CA may never make entry into the system.*
- 3. It is unknown at this time whether or not the algorithm can successfully ID a*

*cartridge case fired after typical break-in and wear have occurred back to the #1 casing fired at the time of manufacture. Performance Test #7 (See page 8-11) showed that even in a limited database, the ranking of subsequently fired casings could drop enough to fall from a candidate list for consideration. Typically quoted existing research/papers regarding persistence of fired marks on fired cartridge cases were written based on manual comparison by qualified firearms examiners, not automated correlation techniques.*

1-2

*4. All potential "hits" selected for further inspection by computer correlation must be confirmed by "hands on" microscopic examination by a qualified firearms examiner.*

*5. Firearms that generate markings on cartridge casings can change with use and can also be readily altered by the user. They are not permanently defined identifiers like fingerprints or DNA. Hence, images captured when the firearm is produced may not have a fixed relationship to fired cartridge casings subsequently recovered.*

*6. Cartridge casings from different manufacturers of ammunition may be marked differently by a single firearm such that they may not correlate favorably.*

*7. As progressively larger numbers of similarly produced firearms are entered into the database, images with similar signatures should be expected that would make it more difficult to find a link. Therefore, this increase in database size does not necessarily translate to more hits.*

*8. Fired cartridge casings are much easier to enter, correlate, and review than fired bullets.*

*9. Not all firearms generate markings on cartridge casings that can be identified back to the firearm.*

### **1.5 Results of the Performance Tests**

*The performance tests have provided some results that indicate both the potential and limitations of a statewide database. Most of these results have not been mixed in a current real-life database. The combination of this test database and a current real-life database would have improved the information about correlation performance.*

#### **Computer Capability and Speed**

*The IBIS system appears to have the potential to be scalable and should be capable of operating with a large California database. This would not be for real time analysis since each search of a hypothetical 100,000-cartridge case database would require 1.5 hours using current hardware.*

#### **Effect of Cartridge Case Ranking and Database Size**

*As a database was increased in size by a factor of 7 (100 to 700), the position or ranking of test-evidence cartridge cases, initially in the 1st ten ranks, would change (with one exception) to undetectable ranks. This change in rank could be sufficient enough that an examiner might not link the test/evidence cartridge case to one in a larger database. If the test/evidence cartridge case was in the first or second rank, it had a tendency to stay in these ranks when there was a four-fold increase in database size. The interpretation of this is that one would like to see a cold hit in the 1st or 2nd position (rank) for large databases.*

### ***Comparison of Cartridge Cases from the Same Manufacture***

*The system looked at 50 duplicate test fired cartridge cases selected at random from the 792 Federal cartridge cases in the database. The results for these same ammunition tests are as follows:*

- 38% were missed and not in the top 15 ranks.*
- 48% with either the breech face or firing pin were in the 1st rank.*
- 62% with either the breech face or firing pin or both were in the top 15 ranks.*

### ***Comparison of Cartridge Cases from the Different Manufactures***

*The system looked at 72 test fired cartridge cases using different ammunition and fired from random CHP guns. The results for the different ammunition tests are as follows:*

*1-5*



- 22.2% with either the breech face or firing pin in the 1st rank.*
- 37.5% with either the breech face or firing pin or both in the top 15 ranks.*

*The reason figures are quoted for 1st rank and the top 15 ranks is that one may want to use the percentages for the 1st rank with large databases in order to more accurately estimate cold hit rates. Database size can become a key issue for potential identifications. This performance test illustrates the effect that the change of a cartridge can have on the perceived signature or image of a breech face or firing pin. Different cartridges can have this effect on the apparent signature because the impression may not mark in a similar manner with the same level of detail. The algorithm is still doing its basic job of identifying similar images, thus the algorithm cannot be faulted for its lack of identification if the apparent image is different. By increasing image quality or correlating images with different illumination methods there exists the potential for improving the algorithm hit rate.*

This is one of several studies that show the process known as *Microstamping* being very expensive with little to gain and the potential to be slower and less accurate than the current IBIS system we use today.

I applaud your efforts to work on legislation to help protect the citizens of Connecticut, but I must beg you to not pass a bill that will use valuable budget dollars that could have a much bigger impact on crime such as more police officers on the streets or more prosecutors to help put criminals behind bars.

Thank you for your time and attention.

Sincerely,

Drue Hontz Jr