



The Magnolia Print Mississippi Division International Association for Identification

In Case You Missed It...

The Bi-Annual MDIAI Conference was this past April in Olive Branch, Mississippi. One of our keynote speakers was Mr. Dick Warrington, who did a lecture and hands-on presentation of "Gizmos and Gadgets." It provided information on a number of new and cost-effective items to make the job of crime scene investigation easier. The other keynote speaker was Mr. Chris Stewart, who did a lecture on the "Introduction to Shooting Incident Reconstruction." This included information about what the reconstruction is (or is not), how to document the scene, specialized equipment used as well as a case study.

Pictures from the conference have been included in this publication.

2008-2009 Officers Have Been Appointed



From Left to Right: Michael Moore, former President; Ron Smith, President; Jimmy Perdue, 1st Vice-President; Kevin Houston, 2nd Vice-President; Marie Pace, Secretary; Mike Hood, Sergeant-at-Arms; Jason Pressly, Regional Rep and Webmaster; Lynée Burleigh, Editor; Paulette Weible, Historian; and Heather McNeill, Treasurer.





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Firearms Microstamping Feasible But Variable, Study Finds. *ScienceDaily*. University of California-Davis (2008, May 16)

Microstamping technology uses a laser to cut a pattern or code into the head of a firing pin or internal surface. The method is similar to that used to engrave codes on computer chips. When the trigger is pulled, the firing pin hits the cartridge case or primer and stamps the code onto it. In principle, the spent cartridge can then be matched to specific gun.

In October 2007, Gov. Arnold Schwarzenegger signed into law AB 1471, requiring that all new models of semiautomatic pistols sold in California on or after Jan. 1, 2010, be engraved in two or more places with an identifying code that is transferred to the cartridge case on firing. Similar legislation has been proposed in other states and at the federal level.

In March 2008, a report from the National Research Council, part of the National Academies of Science, described microstamping as a "promising" approach and called for more in-depth studies on the durability of microstamped marks under different firing conditions.

"Our study confirms the NRC position that more research should be conducted on this technology," said Fred Tulleners, director of the forensic science graduate program at UC Davis. Tulleners is former director of the California Department of Justice crime labs in Sacramento and Santa Rosa. If successfully implemented, microstamping would be one additional piece of evidence for investigators to link various shooting events, Tulleners said.

UC Davis graduate student Michael Beddow looked at the performance of microstamped marks in one location, the firing pin. He tested firing pins from six different brands of semi-automatic handguns, two semi-automatic rifles and a shotgun. The firing pins were purchased from ID Dynamics of Londonderry, N.H. and engraved with three different types of code: a letter/number code of the face of the firing pin; a pattern of dots or gears around the pin; and a radial bar code down the side of the pin.

To test effects of repeated firing, Beddow fitted engraved firing pins into six Smith and Wesson .40-caliber handguns issued to California Highway Patrol cadets for use in weapons training. After firing about 2,500 rounds, the letter/number codes on the face of the firing pins were still legible with some signs of wear, but the bar codes and dot codes around the edge of the pins were badly worn. "They were hammered flat," Beddow said.

Tests on other guns, including .22-, .380- and .40-caliber handguns, two semi-automatic rifles and a pump-action shotgun, showed a wide range of results depending on the weapon, the ammunition used and type of code examined, Beddow found. Generally, the letter/number codes on the face of the firing pin and the gear codes transferred well to cartridge cases, but the bar codes on the sides of the firing pin performed more poorly. Microstamping worked particularly poorly for the one rimfire handgun tested.

The researchers did not have access to patented information allowing them to read the bar- and gear-codes, and

could not determine if these remained legible enough to be useful. Codes engraved on the face of the firing pin could easily be removed with household tools.

Researchers estimated that setting up a facility to engrave alphanumeric codes on firing pins would cost about \$7 to \$8 per firing pin in the first year, assuming that such marks would be required on all handguns sold in California, and on efficiencies associated with high-volume production costs.

Tulleners said that a larger test of about 3,000 firing pins, from a wider range of guns, would allow for more "real-world" test of the technology, as called for by the NRC report. About 2,000 makes and models of handguns are sold in California, compared with the nine tested, Beddow estimated in the study. A larger study could also show how this technology could detect and prevent crime.

AB1471 also requires at least one other internal location for microstamping a number. This was not tested in this study. Based on the study's preliminary results with a .22-caliber pistol, where the code on the firing pin was transferred to the brass of the cartridge rather than the softer primer, effectiveness of this needs further assessment, Tulleners said.

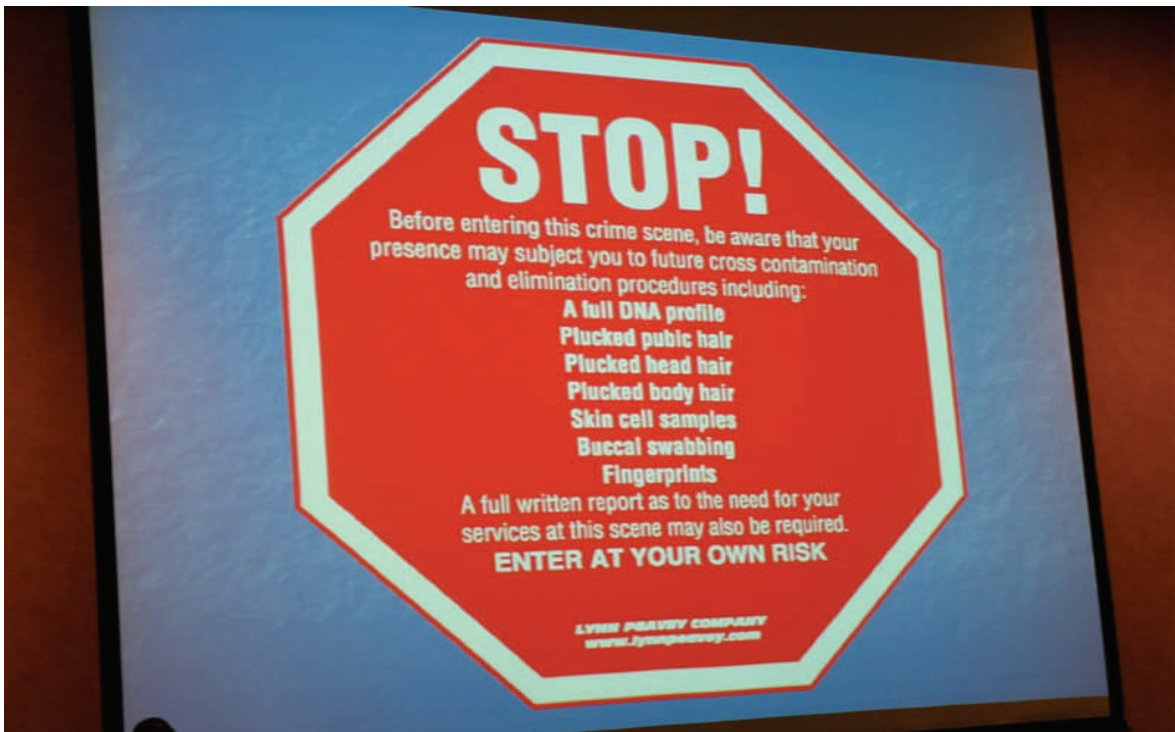
A paper describing results has been accepted and scheduled for publication in an upcoming issue of the Association of Firearm and Toolmark Examiners (AFTE) Journal.



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Send your articles or let us know what you are doing! We'll include them in the next issue of The Magnolia Print!

Contact the Editor: lburlleigh@mcl.state.ms.us



Upcoming Conference Information

Inside the Tape: Homicide and Crime Scene Management Training

October 14, 15, and 16, 2008

Gulf Hills Hotel and Conference Center

13701 Paso Road

Ocean Springs, Mississippi