

## **SWGTHREAD (Scientific Working Group on Shoeprint and Tire Tread Evidence) 2007 Input to the National Academy of Science**

These responses are specific to footwear and tire track evidence.

### **1. Assess the present and future resource needs of the forensic science community to include state and local crime labs, medical examiners and coroners.**

Many “expert witnesses” who testify in court regarding shoeprint and tire tread evidence are minimally qualified to offer expert testimony. Educate the judicial system regarding the proper training and qualifications of the expert who will be testifying in court

Provide funding for a National Training Academy to provide crime scene responders with the necessary tools to recognize, document, and recover footwear and tire impression evidence.

Provide funding for the production of a series of CD’s which could be used to provide basic training for crime scene responders who are unable to attend an in depth training class.

Provide funding for a National Training Academy to provide standardized training for qualified examiners who examine footwear and tire impression evidence

Provide funding and staffing to create a nationalized searchable database of shoe outsoles which could be used for identifying the brand name and manufacturer of the shoe that left a crime scene impression.

Provide funding for a study to generate statistical data regarding the frequency of a particular shoe design / size in the general population.

Provide funding for independent academic research in support of published articles and previous research in the forensic field relating to the frequency and relevance of individual characteristics on footwear and tires.

### **2. Make recommendations for maximizing the use of forensic technologies and techniques to solve crimes, investigate deaths, and protect the public.**

Provide funding for research into fully automated pattern recognition software for the purposes of building a national database of footwear designs to be used to identify manufacturer and brand information of crime scene impressions.

**3. Identify potential scientific advances that may assist law enforcement in using forensic technologies and techniques to protect the public.**

N/A

**4. Make recommendations for programs that will increase the number of qualified forensic scientists and medical examiners available to work in public crime laboratories.**

Academic institutions are already producing an overabundance of forensic students; however there is insufficient funding at most agencies to employ these graduates. Provide increased funding for positions for footwear and tire impression examiners in existing state, federal, and local laboratories.

Provide increased funding for continuing education for existing footwear and tire impression examiners.

Establish career paths for footwear and tire examiners to attract and retain expertise in this discipline. In most laboratories, this discipline is currently a sub-category of other disciplines and consequently does not receive training and funding priorities.

As a matter of background, forensic laboratories in Europe and other countries treat the discipline of footwear and tire examination more seriously and as a separate forensic discipline. They aggressively search for, recover, and examine this evidence in a far more productive manner than in the US. In the US, as state and local laboratories developed over the years, examination of this evidence was traditionally treated as a sub-discipline of fingerprint, document, or firearms and tool mark examinations. As a consequence, these examiners have not prioritized the recovery or examination of footwear and tire evidence, and this evidence has not been utilized to the extent that it is utilized elsewhere in the world. By funding and encouraging existing laboratories to create positions exclusively for footwear and tire examination, these examiners could more effectively influence the recovery, examination, and presentation of this evidence in court.

**5. Disseminate best practices and guidelines concerning the collection and analysis of forensic evidence to help ensure quality and consistency in use of forensic technologies to solve crimes, investigate deaths, and protect the public.**

Best practices and guidelines for the recognition, documentation, collection, and comparison of footwear and tire tread evidence have been

created and published by the Scientific Working Group for Shoeprint and Tire Tread Evidence (SWGTHREAD). Provide funding for broader dissemination of this information to the relevant communities, i.e. law enforcement, the judicial system, and criminal attorneys through various media vehicles including books, periodicals and scientific journals, web sites, forensic meetings, et al.

**6. Examine the role of the forensic science community in the homeland security mission.**

See #1 and #2 above

**7. Examine the interoperability of Automated Fingerprint Identification Systems:**

N/A

**8. Examine additional issues pertaining to forensic science as determined by the Committee.**

Several specific issues have been discussed above including the fact that in the United States, footwear and tire impression evidence continues to be greatly underutilized in the criminal justice system. The major reasons for this underutilization are the lack of understanding of the value of this evidence and the lack of adequate training in the recognition, collection, and examination of this evidence. In this era of over reliance on DNA and fingerprint evidence, footwear and tire impression evidence is often overlooked. Criminals always walk within or drive to the crime scene, and the fact that this evidence is so overlooked, diminishes the effectiveness of the entire criminal justice system in this country.