

# International Association for Identification (IAI)




NAS - Committee on Identifying the Needs of the  
Forensic Science Community

Presentation December 6, 2007

President Kenneth F. Martin

# IAI

- Represents some 7,000 members
  - January 2007, Joe Polski, Chief Operations Officer presents to NAS
  - September 19, 2007 IAI Positions and Recommendations Paper submitted to NAS for consideration
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# IAI

- Disciplines Represented:
  - Bloodstain Pattern Identification
  - Crime Scene Investigation
  - Latent Fingerprint Identification
  - Tenprint Identification
  - Firearm and Toolmark Identification
  - Footwear and Tire Track Identification
  - Forensic Art
  - Forensic laboratory Analysis
  - Forensic Podiatry
  - Forensic Odontology
  - Forensic Photography and Electronic Imaging
  - Questioned Documents
  - Forensic Anthropology
  - Digital Evidence

# IAI

- If for any reason the IAI becomes aware of any forensic science discipline represented by this Association as being unreliable or lacking a sufficient basis for conducting forensic examinations or reaching stated conclusions, the IAI would take immediate action. Either by removal of the discipline or a revised position regarding reliability

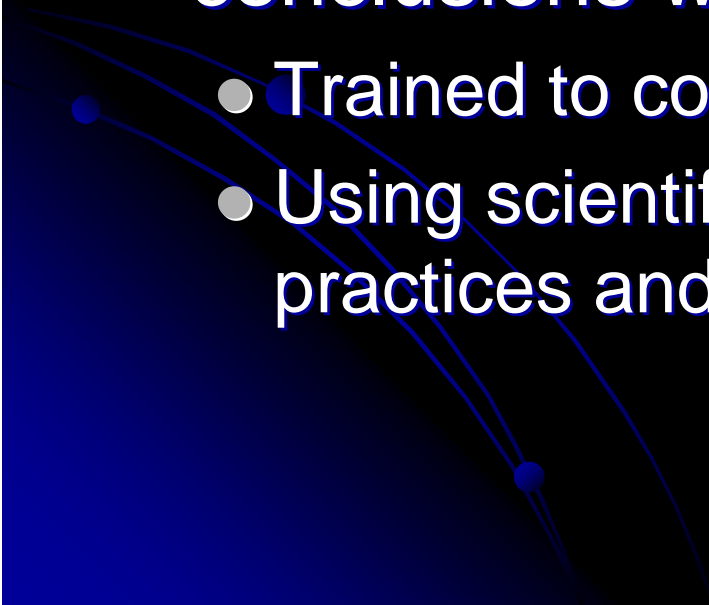
# Position Paper Highlights

- The IAI strives for excellence by its members in performing forensic examinations regardless by whom they are employed in support of civil and criminal investigations
- The IAI fosters this goal by its
  - Educational conferences
  - Standing committees
  - Certification Programs
  - Application to the Forensics Specialties Accreditation Board (FSAB)
  - Professional Review Boards (PRB)

# Position Paper Highlights

- Current IAI Certification Programs:
  - Bloodstain Pattern Analysis
  - Crime Scene Certification
  - Footwear Certification
  - Forensic Art Certification
  - Latent Print Certification
  - Forensic Photography/Imaging Certification
  - Tenprint Fingerprint Certification

# Position Paper Highlights

- The IAI believes that the forensic science disciplines represented by the IAI are capable of performing forensic examinations which provide reliable conclusions when the individuals are:
    - Trained to competency
    - Using scientific and professionally accepted practices and procedures
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# Position Paper Highlights

- The IAI believes that each of the forensic disciplines represented by the IAI would benefit from an improved NATIONAL infrastructure which provides:
  1. A standardized education and training program
  2. A strategic plan to include both a short term and long term research agenda
  3. Standardized operating procedures
  4. Enforcement mechanisms to comply with 1-3
  5. Adequate funding necessary to achieve 1-4 and to sustain the infrastructure



# Position Paper Highlights

- The IAI recognizes and supports the Scientific Working Groups (SWG's) sponsored by the FBI, as an integral part of maintaining the forensic science disciplines currently providing guidelines to practitioners
  - Many IAI members are also members of the various SWG's
- The IAI recognizes that neither the IAI nor the SWG's (with the exception of SWGDAM- for forensic DNA) has any enforcement authority concerning the enforcement of guidelines and standards
  - **With the lack of enforcement abilities coupled with the lack of recognition by some agencies has created a problem in some instances that can only be satisfied by a formalized standard setting body such as DAB (DNA Advisory Board) with similar standard setting authority**

# Position Paper Highlights

- The IAI believes that historically, forensic sciences have addressed the needs of the public and judicial communities, and as any good science, continuously strives to improve
  - **This has been a struggle due to the lack of a well-defined and funded forensic science infrastructure**
- Over the past 10 years emphasis on DNA has brought forward a business model that has proved effective in establishing the discipline to a well respected and scientifically sound science. It is a model that needs to be fostered for the remaining forensic disciplines.

# Position Paper Highlights

- The DNA business model has led to:
  - Congressional legislation
  - Enforcement authority over the discipline
  - Training requirements
  - Mandated Standard Operating Procedures (SOP's)
  - Accreditation and Certification Programs
  - **FUNDING** to insure success
    - Funding has exceeded all other forensic sciences combined
    - Continued backlog of cases

# Position Paper Highlights

- The IAI recognizes the need and the importance of research
- The IAI realizes that research is best performed as a cooperative initiative with:
  - Colleges and universities
  - Private and public research laboratories
  - Product manufacturers
  - Forensic practitioners

# Position Paper Highlights

- The IAI believes that there are numerous research initiatives being funded and pursued with no over-arching strategic plan
- The current approach at best provides little benefit at a great cost in comparison to a well formulate and administered program on a national if not in conjunction with an international program

# Position Paper Highlights

- There is a need for a National/International Forensic Science Research Strategic Plan which coordinates:
  - Discipline specific research
    - Determined by a discipline specific strategic board
  - Research priorities and goals
  - Sequence of research
  - Data collection and availability
  - A mechanism for continuous funding

# Position Paper Highlights

- The IAI supports the creation of a business infrastructure which encourages a greater involvement of those outside the forensic science community providing a mechanism for communicating their concerns
  - Judiciary
  - General scientific community

# Position Paper Highlights

- The IAI endorses the accreditation of forensic science operations
  - Although widely accepted by crime labs, it is not necessarily the case with other forensic service providers such as ID Units
  - **Accreditation would solve the debate over placement of services by forcing agencies to make decisions**
    - Some advocate for their elimination not feasible (66% fingerprint analysis by ID Units)



# Position Paper Highlights

- The IAI believes that the NAS recommend to Congress that a national forensic science program be established that would create the business infrastructure to achieve:
  1. A standardized education and training program for each forensic discipline
  2. A short and long term research plan for each forensic discipline
  3. Standardized operating procedures for each forensic discipline
  4. Enforcement mechanisms to comply with 1-3
  5. Adequate funding necessary to achieve 1-4 and to sustain the infrastructure
  6. Provide a means where a joint effort between the general scientific community and the specific forensic science community can develop 1-3

# Position Paper Highlights

- The IAI believes that the NAS recommend to Congress:
  - The establishment of a mandate with the funding and support for forensic science laboratory accreditation that must be achieved within a 3 year period of its legislation passage
  - An effort be made to publicize the importance of accreditation to forensic service providers to raise their level of understanding thereby facilitating compliance
- The intent of this legislation would be its adoption by every state

# Position Paper Highlights

- The IAI endorses certification of forensic science practitioners along with annual proficiency testing
- The natural progression from the quality system (accreditation) is to the competency of the individual (certification) addressing the entire system
  - IAI, ABC, ABFT, ABFDE, .....
- While no program (certification or accreditation) can guarantee quality, certification, at a minimum, attests that the individual has met a certain standard of competence
- Regular proficiency testing is also desirable to assure that competency is maintained

# Position Paper Highlights

- The IAI believes that the NAS recommend to Congress:
  - The establishment of the requirements for forensic science practitioners to :
    - Obtain Certification from an independent, recognized certifying body for each forensic discipline being performed.
    - Successfully complete an annual proficiency test for each forensic discipline being performed by an examiner
  - An effort be made to publicize the importance of certification to forensic service providers to raise their level of understanding thereby facilitating compliance

# Position Paper Highlights

- The IAI encourages colleges and universities to incorporate performance related courses applying in forensic examinations
  - Current programs only provide theory and procedures but lack actual performance based instruction resulting in training upon employment
  - Trained new hires having participated in performance based training
    - Significantly reduce training time
    - Demonstrate aptitude for conducting these types of examinations

# Position Paper Highlights

- The IAI believes that the NAS recommend to Congress the establishment of a forensic science business infrastructure to include direction for modifying current university forensic science programs to provide more performance related courses in applying the respective forensic science discipline, e.g., structured exercises involving large volumes of comparison exercises for forensic impression evidence.

# Position Paper Highlights

- AFIS – Automated Fingerprint Identification System (as well as other automated databases used by the forensic community for impression evidence)
  - Unlike CODIS or NIBIN, AFIS is decentralized
  - 100's of systems currently in use
  - Perceived philosophy
    - Enter Once
    - Search Many
  - Interoperability of systems

# Position Paper Highlights

- IAI Position Statements in this area
  - Friction ridge skin identification are a reliable means to individualize
  - AFIS technology is an excellent and powerful tool that provides a candidate list from large populated databases from which to match latent and recorded prints
  - AFIS results do not provide sufficiently reliable results, therefore the process still requires a competent examiner
  - Latent and recorded print searches as well as other impression evidence should be exploited by improving and increasing the utilization of automated technology via properly secured electronic connectivity/networking
  - **Can't even get a directory of users**
  - National legislation is MANDATED to advance the use of print/impression services via improved and increased automation interoperability and broader connectivity, with standard security measures
  - National legislation must be adequately funded and supported



# Position Paper Highlights

- Standards to be interoperable and the technology to be widely connected have existed for at least a decade
- To the contrary, the capability to search is quite limited and does not provide all the potential that should be exploited for such a powerful tool in our arsenal to fight crime, identify terrorists, and even potentially prevent acts of terrorism

# Position Paper Highlights

- Law enforcement managers seem reluctant to permit the open connectivity without understanding the consequences, and rightly so
  - MOU's
- Connectivity/networking/interoperability inadequacies
  - States can't search state to state
  - Nor can federal law enforcement search directly against a certain state's files
- All fingerprint records are not centrally located
  - Many reasons why
  - Mobility of criminals
- Address the need to maintain accuracy
- Workload management
- Provide up-to-date information for what each agency can support

# Position Paper Highlights

- The IAI believes that the NAS recommend to Congress the necessity for national legislation to advance the use of latent and recorded print services, as well as other forms of impression evidence, via improved and increased automation interoperability and broader connectivity.
- National legislation must be adequately funded and supported

- The establishment of a Governing Body (NTBDL) by Congress to include all forensic disciplines including DNA\*



\*The statements expressed in this slide are solely those of the presenter and have neither been proposed nor endorsed by the IAI and should not be construed as such

- A paradigm shift on both sides the “us against them” mentality needs to be abandoned
- Although an adversarial system exists within our judicial system and it is in most instances played out in the arena of forensic sciences, the sciences and the community would be better served if we were to embrace and include all those that are effected by our services\*

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- The Governing Board would be comprised of the following:
  - One member from each of the forensic disciplines:
    - Bloodstain Pattern Identification
    - Crime Scene Investigation
    - DNA
    - Latent Fingerprint Identification
    - Tenprint Identification
    - Firearm and Toolmark Identification
    - Footwear and Tire Track Identification
    - Forensic Art
    - Forensic Laboratory Analysis
    - Forensic Podiatry
    - Forensic Odontology
    - Forensic Pathology (NAME)
    - Forensic Photography and Electronic Imaging
    - Questioned Documents
    - Forensic Anthropology
    - Digital Evidence
  - Said member shall in addition be the chairman of their respective forensic subcommittee discipline
  - Said member shall be a subject matter expert (SME) and if at all possible a current practitioner as well
    - This is extremely important for the Governing Body's effectiveness, efficiency, and its overall success\*



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- One member from the following forensic stakeholders:
  - NIST - National Institute of Standards and Technology
  - ASCLD - American Society of Crime Laboratory Directors
  - FEPAC - Forensic Science Education Programs Accreditation Commission - ACADEMIA
  - FSAB - Forensic Specialties Accreditation Board
  - OLETC - Office of Law Enforcement Technology Commercialization – National Laboratory affiliation
  - IAI - International Association for Identification
  - AAFS –American Academy of Forensic Science
  - Defense Bar Representative
  - Prosecution/Federal/District/State’s Attorney Representative (e.g. DA’s Association)
  - Judiciary
  - **Department of Energy - National Laboratory System**
  - **NASA – National Aeronautics and Space Administration**
- All individual member’s terms to include those of the forensic disciplines should be no longer than 6 continuous years and should be implemented on a rolling basis ( $\frac{1}{3}$  of the membership every two years) \*

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- A second tier (descending order) consisting of forensic disciplines - Subject Matter Experts (SME) could be SWGS
- Given direction and timeline by the Governing Body
  - Tasks
    - SOPs
    - Training and education requirements
    - Research topics
  - Work product brought back to Governing Body for review and comment \*

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- Advantages

- BUDGET – One appropriation to be divided as requested in budget proposal
  - No fighting amongst disciplines for \$\$\$\$\$
  - Appropriations to be determined by Governing Body upon submission of requests by each forensic discipline
- A unified mission statement to be adopted by the Governing Body
  - For the first time forensic science would have a unified mission statement
  - Common goals would be established and fostered amongst all the forensic disciplines
  - Specific objectives would be set for each of the specific discipline in achieving the goals thereby fulfilling the mission
- Addressing Common Issues
  - In all of the forensic disciplines there are common issues that would be better served collectively
    - Currently this is not addressed even amongst the SWGs with the possibility of inconsistent messages resulting
  - The Governing Body when appropriate could form special committees and draw on all of its members to address these issues
- Direction and Control over ALL forensic subcommittees
  - Perceived ineffectiveness could be minimized if not eliminated by the Governing Body's direction in matters perceived relevant to its mission along with the implementation of a timeline
- The Governing Body would receive, consider, and approve the issue(s)/project(s) to be considered by forensic discipline committees, the duration of such task(s), resources to be expended, and the approval of the necessary funding to complete the project
- Coordinating, facilitating, and determining how best approach to approach research both discipline specific and common to the disciplines thereby eliminating duplication and insuring the most efficient and effective use of limited of monies
- FEPAC - Forensic Science Education Programs Accreditation Commission
- FSAB - Forensic Specialties Accreditation Board\*

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On behalf of the IAI, I would like to take this to thank the NAS Committee on Identifying the Needs of the Forensic Science Community for affording me the opportunity to appear before you.

