General Update
105th IAI Annual Educational Conference

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Opinions provided in this presentation are mine and not necessarily those of the National Institute of Standards and Technology, U.S. Department of Commerce, U.S. Department of Homeland Security, U.S. Customs and Border Protection, the U.S. Government, or the IAI.
Forensic Science Landscape in U.S.

U.S. population of 327M | 50 States divided into 3007 counties:

- 409 Federal/State/Local Crime Labs
  - 88% accredited (as of December 31, 2014)
- 18,000+ Law Enforcement Agencies
- 2,400+ Medical Examiner/Coroner Offices
- 2,300+ Prosecutor Offices
- 1,000+ Public Defenders Offices

**Data Sources: DOJ's Bureau of Justice Statistics**
Issues in Forensic Science

• Fragmented and inconsistent operations within and between jurisdictions

• Under resourced and understaffed labs

• Different types of practitioners with different levels of training and performance standards

• Lack of mandatory training, continuing education, certification, and accreditation programs

• Limited opportunities for research funding

• Lack of standards within and between disciplines
OSAC’s Origin

February 18, 2009
National Academy of Sciences (NAS) Report published

February 2013
DOJ and NIST sign MOU to strengthen the nation’s use of forensic science through creation of National Commission on Forensic Science (NCFS) & Guidance Groups (later called OSAC)

February 4, 2014
NIST announces creation of OSAC at NCFS

January 2015
NIST held first OSAC Subcommittee Meetings

October 1, 2020
OSAC’s new structure and processes launched (2.0)
Scientific Working Groups (SWGs)

- Collectively, these 21 SWGs have had over 750 participants and produced over 250 documents
- Most SWGs have ceased operations
- SWGDAM, SWGDE, SWGDRUG, & FISWG continue to operate

At least three other SWGs existed previously:

- SWGIBRA  Illicit Business Records
- SWGMGF  Microbial Genetics and Forensics
- SWGCBRN  Chemical, Biological, Radiological and Nuclear Terrorism
To create a sustainable organizational infrastructure dedicated to identifying and fostering the development of technically sound, consensus-based documentary standards and guidelines for widespread implementation throughout the forensic science community.
OSAC Stakeholders

To support its mission, OSAC collaborates with and supports a wide-range of stakeholders with varied interests:

- NIST
- The U.S. Department of Justice (DOJ)
- OSAC members (present and future)
- Forensic science service providers
- Academic institutions
- Representatives of the criminal justice system
- International and national standards development organizations (SDOs)
- Professional organizations (forensic science & others)
- Federal, state & local government agencies
- Non-government organizations (NGOs)
- Private sector manufacturers & service vendors supplying forensic service providers
- Quality system providers (accrediting & certifying bodies)
- The public
OSAC’s Structure

Forensic Science Standards Board (FSSB)

Seven Scientific Area Committees (SACs)

22 Subcommittees (SCs)

Four Resource Task Groups:
- Human factors
- Quality
- Legal
- Statistics

OSAC Program Office (OPO): NIST staff who provide operational support to the organization
### OSAC Membership Snapshot & What They Do...

- **478** members
- **324** active affiliates
- **3,300+** applications received

**Employer Classification**
- Federal: 20%
- State: 21%
- Local: 19%
- Academic: 21%
- Private: 17%
- FFRDC: 1%

**Job Classification**
- Practitioner: 51%
- Researcher: 18%
- Educator: 10%
- Lab Mgr/Director: 8%
- Other: 4%
- Quality: 3%
- Lawyer: 3%
- Judge: 2%
- R&D Tech: 1%

- **Facilitate development** of science-based standards through the formal SDO processes
- **Evaluate OSAC proposed and SDO published standards** for placement on the OSAC Registry
- **Promote** implementation of standards on the OSAC Registry
What OSAC...

**DOES**

- Facilitates development of science-based standards through the formal SDO processes
- Evaluates OSAC proposed and SDO published standards for placement on the OSAC Registry
- **Endorses** OSAC proposed and SDO published standards on the Registry & **promotes** their implementation

**DOESN’T**

- Publish standards
- Have the authority to enforce standards
OSAC Registry

- Repository of high-quality, technically sound published and proposed standards and guidelines for forensic science.

- All standards on the OSAC Registry have passed a rigorous technical and quality review by OSAC members, including forensic science practitioners, research scientists, statisticians and legal experts.

- OSAC encourages the forensic science community to implement published and proposed standards.
OSAC Registry Growth

FY 2021 (Oct 1 start) – Added 18 additional standards and counting. 55 as of today

https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/osac-registry
OSAC Registry Standards

- 6 Biology/DNA (4 published & 2 OSAC Proposed)
- 1 Bloodstain Pattern Analysis
- 3 Digital Evidence
- 1 Dogs & Sensors
- 4 Facial Identification (3 published & 1 OSAC Proposed)
- 2 Fire & Explosion Investigation
- 6 Fire Debris Analysis
- 1 Firearms & Toolmarks
- 1 Footwear & Tire
- 2 Medicolegal Death Investigation
- 2 Odontology
- 6 Seized Drugs
- 4 Toxicology
- 9 Trace Materials
- 5 Wildlife Forensics (4 published & 1 OSAC Proposed)
- 6 Interdisciplinary

https://www.nist.gov/osac/osac-registry
Scope: This document provides a list of recommended terms and definitions to be used in published manuscripts, forensic reports discussing the conclusions of scientific examination of bloodstains, in courtroom testimony, and when teaching bloodstain pattern analysis. The target audience of this document includes crime scene investigators, forensic scientists, investigators, attorneys, judges, and researchers. (37 Terms)
Scope: This is a compilation of terms and corresponding definitions used in the examination of digital and multimedia evidence to include the areas of computer forensics, image analysis, video analysis, forensic audio, and facial identification. (217 Terms)
Scope: Magnetic card readers, when used for illegal purposes, are commonly referred to as skimmers. This practice provides information on seizing, acquiring, and analyzing skimming devices capable of acquiring and storing personally identifiable information (PII) in an unauthorized manner.
Scope:

1.1 This guide sets forth recommendations for the creation of a forensic audio laboratory space as well as the configuration, verification, and maintenance of the equipment contained within the lab.

1.2 In designing and configuring an audio laboratory, it is important to consider the acoustical environment/room of the laboratory, as well as climate control. Other than having a viable location for the laboratory, computer hardware and software applications are the most important components of a laboratory.
**Scope:** This document is meant to be used in conjunction with [ASTM E3149-18] for Morphological Analysis. This document refers only to images appearing to be adult (i.e., post-pubescent) subjects and does not address the stability of features in children due to rapid developmental changes. This document does not prescribe methods, techniques, or processes, it is limited to a presentation of the stability of the feature set to be considered in a comparison.
Scope: This document provides forensic footwear and tire impression examiners guidance in the preparation of two and three-dimensional test impressions from known footwear and tires for use in the comparison process. The purpose of creating test impressions from known footwear or tires is to record the characteristics on the outsole or tread and attempt to reproduce the conditions present when the questioned impression was made.
## OSAC Standards Activities

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<tr>
<th>Tier</th>
<th>Description</th>
<th>Documents</th>
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| 1    | Documents on the OSAC Registry  
     | Approved by OSAC – highest level of vetting                                 | 59        |
| 2    | OSAC supported standards **published** by an SDO  
     | Completed SDO consensus process                                            | 121       |
| 3    | OSAC drafted standards **sent to an SDO**  
     | Drafted with input from RC and approved by SAC                             | 142       |
| 4    | Under development  
     | Working draft document inside OSAC development process and not yet publicly available | 173       |
An SDO published standard is considered for placement on the OSAC Registry. Input from Resource Committees are provided, and Subcommittee approves moving the standard through Registry Approval process. A 30-day comment period is open where the forensic science community can provide feedback on whether the standard should be included on the Registry.

Standard is listed on OSAC Registry. FSSB reviews comment adjudication and approves the standard for the Registry. Subcommittee adjudicates any feedback from the comment period and approves sending the standard to the FSSB.
SC drafts a new standard or revises an existing one.

If applicable, an STRP reviews the draft and shares feedback with the drafting SC.*

Stakeholders are invited to comment on the standard during a 30-day open comment period.*

SC reviews comments from the STRP (if applicable), Resource Task Groups, and open comment period. Any comments received from the open comment period will be adjudicated.

SDO published standard replaces the OSAC Proposed standard on the Registry.

FSSB has another opportunity to appeal the standard before it is added to the Registry.

SC approves adding SDO published standard to the Registry.

Standard is sent to an SDO to be further developed and published following the specific SDO’s processes.

The standard is listed on the Registry as an “OSAC Proposed Standard”.

*NOTE: The STRP evaluation and public open comment period happen concurrently, along with review and input from Resource Task Groups.
OSAC Registry Implementation Pathways

• Self-Implementation
• Professional Associations
• Legal Community
• Certification & Accreditation Bodies
• Funding Bodies
• State Forensic Science Commissions/Regulatory Authorities
IAI Ways to Help OSAC

- Participation
  - Smaller SCs need more members/bigger pool

- Cross-Pollination
  - More interaction between SCs, SACs, RCs, S&Ps, Cert Boards

- Information Sharing
  - More SC specific articles in IDNews

- SC Workspace at IAI conferences
  - In-person areas to work outside of OSAC semi-annual meetings

- Initial Implementation for SC work products
OSAC Registry Implementation Resources

• Frequently Asked Questions (FAQs)

• Standards Implementation Tracker that lists all standards by discipline and categorizes them into various development stages (Tier 1-4)

• Detailed “How To” Guidelines with step-by-step instructions for labs

• OSAC Registry - Standards Implementation Declaration Form

https://www.nist.gov/osac/osac-registry-implementation
OSAC’s Other Work Products

- Bibliographies
- Interlaboratory comparisons
- **OSAC Lexicon**
- Process maps
- **R&D needs**
- Reference documents
- Standards development maps
- Technical guidance documents
- Webinars/presentations

OSAC Website

www.nist.gov/osac
Stay Informed!

- Provides monthly updates on forensic science standards moving through development process at SDOs and those moving through OSAC Registry process.

- Quarterly communication that provides updates on OSAC’s program status, activities, accomplishments, and opportunities for public input with internal and external audiences.
  - Available on OSAC’s website: https://www.nist.gov/osac/osac-newsletter

- Follow us! https://www.linkedin.com/showcase/organization-of-scientific-area-committees-osac-for-forensic-science/
How Can You Get Involved?

- **Sign up for OSAC communications**
  - https://service.govdelivery.com/accounts/USNIST/subscriber/new

- **Become an OSAC member**
  - https://www.nist.gov/osac/apply-join-osac

- **Review and comment on documents**

- **Stay informed**
  - https://www.nist.gov/osac
QUESTIONS/ COMMENTS?
Thank You From OSAC OPO

As the oldest and largest forensic association in the world, [YOU represent] a diverse, knowledgeable, and experienced membership that diligently focuses on educating its members and sharing, critiquing and publishing methods, techniques and research in the physical forensic science disciplines. These objectives are aligned with the mission of OSAC...

We appreciate all of IAI’s contributions and... for having [important representation] on the FSSB.

John Paul “JP” Jones II
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THANK YOU!

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