OSAC Overview and CSI Subcommittee Update
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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
- 3,000+ Public Defenders Offices

U.S. has NO forensic science owner!

**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

- 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 2013
- NIST announces creation of OSAC at NCFS: February 4, 2014
- NIST held first OSAC Subcommittee Meetings: January 2015
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:

<table>
<thead>
<tr>
<th>SWG</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>SWGIBRA</td>
<td>Illicit Business Records</td>
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<tr>
<td>SWGMGF</td>
<td>Microbial Genetics and Forensics</td>
</tr>
<tr>
<td>SWGCBRN</td>
<td>Chemical, Biological, Radiological and Nuclear Terrorism</td>
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Scientific Working Group | Topic (Forensic Discipline) | Years
---|---|---
SWGDAM | DNA | 27+
SWGMAT | Materials (Trace) | 23
SWGFAST | Friction Ridge (Fingerprints) | 20
SWGDRUG | Controlled Substances | 18
SWGIT | Imaging Technologies | 18
SWGDOC | Document Examination | 18
SWGDE | Digital Evidence | 17+
SWGUN | Firearms & Toolmarks | 17
SWGEX | Fire Debris & Explosives | 17
SWGSTAIN | Bloodstain Pattern | 13
SWGTREAD | Shoeprint & Tire Tread | 11
SWGDOG | Dog & Orthogonal Detector | 11
SWGSSR | Gun Shot Residue | 8
SWGANTH | Anthropology | 7
SWGTOX | Toxicology | 6
FISWG | Facial Identification | 6
SWGDI | Disaster Victim Identification | 5
SWGMDI | Medicolegal Death Investigation | 5
SWGEO | Geological Materials | 4
SWGWILD | Wildlife Forensics | 4
SWGSPKR | Voice Analysis | 3
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.

HARMONIZATION

BALANCE

CONSENSUS

OPENNESS
OSAC Stakeholders

To support it’s 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)
- Scientific Area Committees (SACs)
- Subcommittees (SCs)
- Resource Committees (RCs)
- Task Groups (TGs)
OSAC Membership Snapshot

- **550+ Members**
- **325 Affiliates**
- **245 Task Groups**
- **2600+ Applications**
- **48 States Represented**

As of October 31, 2018
What OSAC...

**DOES**

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

**DOESN’T**

- Publish standards
- Have the authority to enforce standards
OSAC Document Tiers

1. Documents on the OSAC Registry
   - Approved by OSAC – highest level of vetting

2. OSAC supported standards **published** by an SDO
   - Completed SDO consensus process

3. OSAC drafted standards **sent to an SDO**
   - Drafted with input from RC and approved by SAC

4. Under development
   - Working draft document inside OSAC development process and not yet publicly available

- 24 documents
- 63 documents
- 110 documents
- 183 documents
OSAC Registry

- Trusted repository of high-quality, science-based standards and guidelines for the practice of forensic science
- Documents developed using a consensus-based process and pass a technical merit review by forensic science practitioners, academic researchers, statisticians and measurement scientists
- Adoption by relevant agencies and practitioners encouraged

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

24 documents

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

- Self Implementation
- Professional Associations
- Legal Community
- Certification & Accreditation Bodies
- Funding Bodies
- State Forensic Science Commissions/Regulatory Authorities

https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/implementation-plan
OSAC Lexicon

- 4,000+ terms
- Organized by forensic discipline

http://lexicon.forensicosac.org/Term/Home/Index
OSAC Website

www.nist.gov/osac
How Can You Get Involved?

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

- **Become an OSAC member**
  

- **Review and comment on documents**

- **Stay informed**
  
  [https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science](https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science)
Crime Scene Investigation Subcommittee

Task Group Organization
Research & Development Needs

• Assessing the Culture of Contextual Bias in Forensic Scene Evidence Collection, Handling, and Processing
• Assessment of Level of Personal Protective Equipment (PPE) Required at Crime Scenes
• Decontamination of Crime Scene Equipment
• Laboratory Techniques and Technologies at the Crime Scene
• Use of Technology for Crime Scene Documentation

https://www.nist.gov/topics/forensic-science/osac-research-development-needs
Development Priorities

- Education, Training, Credentials
- Guiding Principles
- Methods
Draft Standards in Development

- Standard for Crime Scene Investigation Guiding Principles
- Standard Guide for Crime Scene Reconstruction
- Standard Practice for the Documentation and Processing of Shooting Scenes
- Standard for Law Enforcement Response to Crime Scenes
- Standard Method for the Chemical Testing of Suspected Projectile Impacts
- Standard Method for Measuring Trajectory Angles
- Standard for the Collection and Preservation of Physical Evidence During Crime Scene Investigations
- Standard Collection and Preservation of Arthropod Samples from Humans or Other Animals
New Standards Sent to SDO

**Standard Practice for Crime Scene Investigator Training, Continuing Education, Professional Development, Certification, and Accreditation**

- Sent to ASTM (Spring 2019)
- Received persuasive negatives votes upon initial ballot (Summer 2019)
- Reballoted at ASTM as Annex to E2917-19a (Fall 2019)
- Undergoing changes based on persuasive negative votes (currently)
Interdisciplinary Training Standard Added to the OSAC Registry

National Institute of Standards and Technology (NIST) sent this bulletin at 12/02/2019 10:00 AM EST

Interdisciplinary Training Standard Added to the OSAC Registry
Highlights from Training & Education Draft Standard (as proposed)

Crime Scene Investigator (definition) - a forensic science practitioner whose responsibility is to use the appropriate combination of knowledge, skills, and experience to undertake one or more of the following tasks in relation to a crime scene investigation: documentation, search for or identify evidence, evidence collection, and preservation of evidence.
Highlights from Training & Education Draft Standard (as proposed - continued)

Education Requirement (proposed)
• Associate’s Degree with at least 8 hours of physical science coursework.
  • Current practical experience and acquired knowledge, skills, and abilities may be substituted when assessing whether a current practitioner meets the minimum educational requirement.

Continuing Education (proposed)
• A minimum of 48 hours over the course of 2 years.
  • Shall include external training.
  • Responsibility of parent agency.
  • Continuing education must be structured, measurable, and documented.
Highlights from Training & Education Draft Standard (as proposed - continued)

**Certification / Accreditation (proposed)**

- All CSIs certified/licensed or unit accredited.
- Certification/licensure within 2 years of meeting eligibility requirements.
- Accredited certification body.
- Accreditation to ISO/IEC 17020 or ISO/IEC 17025 by accredited accrediting body.
- The crime scene unit, forensic service provider, and its parent agency shall provide funding, support, and opportunities for certification/licensure and/or accreditation.
Revised Standards Sent to SDO

E1843-16 Standard Guide for Sexual Assault Investigation, Examination, and Evidence
• Sent to ASTM for revision (Fall 2019)
• Currently on open ballot

E2123-16 Standard Practice for Transmittal of Evidence in Sexual Assault Investigation
• Sent to ASTM for revision (Fall 2019)
• Currently on open ballot

E2124-15 Standard Practice for Specification for Equipment and Supplies in Sexual Assault Investigation
• Sent to ASTM for revision (Fall 2019)
• Currently on open ballot
Existing ASTM Standards in Registry Approval Process

E1459 – Standard Guide for Physical Evidence Labeling and Related Documentation
• Virtual Subcommittee 8

E1188 – Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator
• Virtual Subcommittee 8

E1492 – Standard Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory
• Virtual Subcommittee 8

E620 – Standard Practice for Reporting Opinions of Scientific or Technical Experts
• Virtual Subcommittee 8
Existing ASTM Standards in ASTM Revision Process

E678 – Standard Practice for Evaluation of Scientific or Technical Data

E860 – Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation

E1020 – Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation
ISO 21043-2 Forensic Sciences - Part 2: Recognition, recording, collecting transport and storage of items

- **SCOPE**: This document specifies requirements for the forensic process focusing on recognition, recording, collection, transport and storage of items of potential forensic value. It includes requirements for the assessment and examination of scenes but is also applicable to activities that occur within the facility. This document also includes quality requirements.
Accessing Published Standards

ASB – public access (currently)
ASTM – free access via OSAC
How Can You Get Involved?

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

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Review and comment on documents

Stay informed
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THANK YOU!

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