STANDARDS BULLETIN

February 2024

This Standards Bulletin from the Organization of Scientific Area Committees (OSAC) for Forensic Science provides a monthly update on:

- Standards moving through the OSAC Registry approval processes for published and OSAC Proposed Standards.
- Standards moving through the development process at standards development organizations (SDOs).

Bulletin Summary:

- New standards added to the OSAC Registry: 4
- Standards under consideration for the Registry and open for comment: 2
- New SDO Published Standards: 11
- New Work Proposals: 3
- Standards open for comment at SDOs: 14

OSAC Registry Updates

The OSAC Registry is a repository of selected published and proposed standards for forensic science. These documents contain minimum requirements, best practices, standard protocols, terminology, or other information to promote valid, reliable, and reproducible forensic results.

The standards on this Registry have undergone a technical and quality review process that actively encourages feedback from forensic science practitioners, research scientists, human factors experts, statisticians, legal experts, and the public. Placement on the Registry requires a consensus (as evidenced by 2/3 vote or more) of both the OSAC subcommittee that proposed the inclusion of the standard and the Forensic Science Standards Board.

OSAC encourages the forensic science community to implement the published and proposed standards on the Registry to help advance the practice of forensic science.

Four New Standards Added to the OSAC Registry

2 SDO Published Standards (added February 6, 2024):

- ANSI/ASB Best Practice Recommendation 142, *Best Practice Recommendations for the Resolution of Conflicts in Friction Ridge Examination*. 2022. 1st. Ed.
- ANSI/ASB Best Practice Recommendation 156, *Best Practices for Specimen Collection and Preservation for Forensic Toxicology* 2023. 1st. Ed.

2 OSAC Proposed Standards (added February 6, 2024):

- OSAC 2021-N-0018, *Standard for On-Scene Collection and Preservation of Physical Evidence*
- OSAC 2022-S-0008, *Standard Guide for Minimum Facial Image Comparison Documentation*

Standards Open for Comment for OSAC Registry Approval

SDO Published Standards

The OSAC Registry approval process for published standards is used to review existing SDO published standards for technical quality and placement on the Registry.

- At this time, there are no SDO published standards open for comment for OSAC Registry approval.

OSAC Proposed Standards

The OSAC Registry approval process for OSAC Proposed Standards is used to review OSAC drafted standards for technical quality and placement on the Registry. The following draft OSAC Proposed Standards are being considered for submission to an SDO. The final draft provided to the SDO will be available on the OSAC Registry as an "OSAC Proposed Standard."

OSAC welcomes comments on whether the current drafts are suitable for release to the SDO as well as suggestions for improvements in content and wording. **To be considered, comments must be placed in the OSAC Comment Form and sent to comments@nist.gov by 11:59 p.m. ET, on March 4, 2024.**

- OSAC 2024-N-0004, *Standard Guide for Capturing Iris Images for Use with Iris Recognition Systems*
- OSAC 2024-N-0005, *Standard Guide for Minimum Training Recommendations of Iris Image Examiners*

Is your organization implementing standards on the OSAC Registry?

Complete OSAC's Registry Implementation Declaration Form found on the OSAC website and send it to forensics@nist.gov to let us know. Your organization will subsequently be awarded an OSAC Registry Implementer Certificate.

Interested in learning more about implementation? Check out OSAC's Implementation Recognition Factsheet

SDO UPDATES

New Published Standards

ASB recently published the following standards:

- ANSI/ASB Standard 123, *Standard for Routine Internal Evaluation of a Laboratory's DNA Interpretation and Comparison Protocol.* 2024. 1st. Ed.
- ANSI/ASB Standard 159, *Standard for Scene Investigation and Reconstruction - Foundational Principles*. 2024. 1st. Ed.
    - NOTE: This is the SDO Published version of OSAC 2021-N-0015, *Standard for Guiding Principles for Scene Investigation and Reconstruction* currently on the OSAC Registry.
- ANSI/ASB Best Practice Recommendation 160, *Best Practice Recommendation for Initial Response at Scenes by Law Enforcement Officers.* 2024. 1st Ed.
    - NOTE: This is the SDO Published version of OSAC 2021-N-0016, *Standard for Initial Response at Scenes by Law Enforcement* currently on the OSAC Registry.
- ANSI/ASB Best Practice Recommendation 165, *Best Practice Recommendation for Analysis of Friction Ridge Impressions*. 2024. 1st. Ed.
- ANSI/ASB Best Practice Recommendation 166, *Best Practice Recommendation for Comparison and Evaluation of Friction Ridge Impressions*. 2024. 1st. Ed.
- ANSI/ASB Standard 168, *Standard for Testimony Monitoring in Friction Ridge Examination*. 2024. 1st. Ed.
- ANSI/ASB Standard 172, *Standard for Examination of Mechanical Checkwriters and Their Impressions*. 2024. 1st. Ed.

ASTM recently published the following standards:

- ANSI/ASTM E2927-23, *Test Method for Determination of Trace Elements in Soda-Lime Glass Samples Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry for Forensic Comparisons* (revision of ANSI/ASTM E2927-16e1).
    - NOTE: The previous version, ANSI/ASTM E2927-16e1, is currently on the OSAC Registry.
- ANSI/ASTM E3391-24, *Standard Terminology Relating to Gunshot Residue Analysis*
- ANSI/ASTM E3392-24, *Guide for Forensic Physical Fit Examination*
    - NOTE: This is the SDO Published version of OSAC 2022-S-0015, *Standard Guide for Forensic Physical Fit Examination* currently on the OSAC Registry.

NFPA recently published the following standard:

- ANSI/NFPA 921:2024, *Guide for Fire and Explosion Investigations* (revision of ANSI/NFPA 921:2021).
    - NOTE: The previous version, NFPA 921:2021, is currently on the OSAC Registry.

Withdrawn as American National Standards

- ANSI/ASTM E2327-15e1, *Standard Practice for Quality Assurance of Laboratories Performing Seized-Drug Analysis* (withdrawn 2024)
- ANSI/ASTM E3046-15, *Standard Guide for Core Competencies for Mobile Phone Forensics* (withdrawn 2024)

Work Proposals for New or Revised Standards

On January 5, 2024, a Project Initiation Notification System (PINS) was published on pages 2 and 6 in the *ANSI Standards Action*. This will begin ASB and ASTM's work on the following standards:

- BSR/ASB Standard 072-202x, Standard for the Validation of Procedures in Bloodstain Pattern Analysis (revision of ANSI/ASB Standard 072-19). This document provides the requirements for the validation and evaluation of procedures and methods for bloodstain pattern analysis (BPA) casework and new equipment. It also provides the requirements for the internal validation and evaluation of established procedures and methods existing within the BPA community when such procedures or equipment are being used for the first time within an agency.
- BSR/ASTM E1459-202x, Guide for Physical Evidence Labeling and Related Documentation (revision of ANSI/ASTM E1459-13 (2018)). This practice covers the labeling of physical evidence collected during field investigations; received; or isolated, generated, or prepared from items submitted for laboratory examination.

On January 19, 2024, a PINS was published on page 2 in the *ANSI Standards Action*. This will begin ASB's work on the following standard:

- BSR/ASB Standard 020-202x, *Standard for Validation Studies of DNA Mixtures, and Development and Verification of a Laboratory's Mixture Interpretation Protocol* (revision of ANSI/ASB Standard 020-18). This standard provides the requirements for (1) the design and evaluation of internal validation studies for mixed DNA samples; (2) the development of appropriate interpretation protocols for mixtures based on the validation studies performed; and (3) verification that the mixture interpretation protocols developed from the completed validation studies generate reliable and consistent interpretations and conclusions for the types of mixed DNA samples typically encountered by the laboratory. This standard applies to any type of DNA testing technology and methodology used, including but not limited to, STR testing, DNA sequencing, SNP testing, haplotype testing, traditional and rapid protocols, etc., where mixtures of DNA may be encountered, analyzed, and interpreted.
    - NOTE: ANSI/ASB Standard 020 *Standard for Validation Studies of DNA Mixtures, and Development and Verification of a Laboratory's Mixture Interpretation Protocol.* 2018. 1st Ed. is currently on the OSAC Registry.

On February 2, 2024, a PINS was published on page 2 in the *ANSI Standards Action*. This will begin ASB's work on the following standard:

- BSR/ASB Best Practice Recommendation 209-202x, *Best Practice Recommendations for Communicating with Next of Kin during Medicolegal Death Investigations.* This document provides recommendations for medicolegal death investigation authorities communicating with next of kin during an investigation including delivery of information, associated training, dissemination of information, recognizing and accommodating cultural and religious beliefs, and timely response to inquiries. This document does not address specific investigative practices.
    - NOTE: This is OSAC 2023-N-0022, *Best Practice Recommendation for Communicating with Next of Kin during Medicolegal Death Investigation*, currently on the OSAC Registry.
- BSR/ASB Standard 207-202x, *Standard for Collection and Preservation of Document Evidence*. Proper collection and preservation of document evidence ensures that the integrity of the

evidence is maintained from the point of collection, through possible forensic examination, and to the presentation of the evidence in the courtroom.

- NOTE: This is OSAC 2022-N-0035, *Standard for On-Scene Collection and Preservation of Document Evidence*, currently on the OSAC Registry

Standards Open for Comment at SDOs

Stakeholders from the forensic science community are encouraged to provide input on standards as they are being developed at SDOs. For SDO published standards going through the OSAC Registry approval process, the public will have an opportunity to comment on a standard during the SDO's public comment period but will not be given a second opportunity to comment through OSAC on whether the resulting standard should be placed on the Registry.

Visit OSAC's Standards Open for Comment webpage to see the full list of forensic science standards open for comment at SDOs and how to submit your feedback. This page consolidates and tracks comment deadlines for you and will be updated on a weekly basis. It currently includes:

- 4 standards open for comment at ASB in the following disciplines: crime scene investigation (1), forensic toxicology (1), friction ridge (1), and firearms & toolmarks (1).
- 10 standards open for comment at ASTM in the following disciplines: fire debris and explosives (5), gunshot residue analysis (1), trace evidence (3), and an interdisciplinary training standard (1).

OSAC PROGRAM OFFICE NEWS

Forensic Science Standards in the Courts - Legal Citations Needed

The OSAC Program Office (OPO) is engaged in an effort to better understand if and how courts and other legal stakeholders are using forensic science standards on the OSAC Registry in legal proceedings. Documenting how these standards are being used in the legal community will help OSAC learn from their use and ultimately improve the production of forensic science standards over time. To this end, if you have examples of cases or testimony in which forensic science standards listed on the OSAC Registry (either SDO published or OSAC Proposed Standards) were mentioned, please consider sending any case citations, opinions, filings, transcripts or other materials to **forensics@nist.gov**.

OSAC Registry Implementation Mentors and Subject Matter Experts Needed

The FSSB Implementer Cohort Task Group is looking for mentors to help FSSPs on their implementation journey. If your organization has implemented standards on the OSAC Registry and is interested in being a mentor to other organizations, let the Implementer Cohort TG know! Complete and submit the **Mentor Exchange Program Form** and a TG member will be in touch.

The Implementer Cohort is also seeking Subject Matter Experts (SMEs) for each forensic science discipline. Ideally, the candidate(s) must be established in their discipline, must have assisted with bringing their organization in compliance with OSAC Registry implementation, and should be capable of

providing guidance to other FSSPs on their implementation journey. If you are interested in becoming a SME or know someone who would be perfect for this role, please contact **crystal.degrange@nist.gov**. The cohort is interested in candidates who are currently external to OSAC (Note- this can include non-members, past members, and/or current affiliates).

OTHER FORENSIC SCIENCE NEWS, EVENTS & TRAINING

Participate in an Interlaboratory Study on Image Comparison Conclusions

NIST recently funded a cooperative agreement to complete an interlaboratory study to assess the practical utility, accuracy and reproducibility of OSAC 2022-S-0001, *Standard Guide for Image Comparison Opinions*.

We are actively two cohorts of participants: 1) **forensic practitioners** who have been determined to be competent by their respective agency, organization, or other entity, and currently conduct forensic casework on face, hands, or clothing image comparisons; and 2) **laypersons** composed of individuals trained in forensic science but not image comparisons, undergraduate/graduate forensic science students, and the general public.

To learn more and register your interest, please fill out this Google **form** **by February 29, 2024.**

Solicitation for Industry Collaboration

The OSAC Crime Scene Investigation and Reconstruction (CSIR) Subcommittee is currently drafting standards for terrestrial laser scanners (TLS). We are seeking technical points-of-contact with TLS manufacturers who can be available to answer technical questions from the subcommittee about their device's capabilities to ensure that the standards being drafted can be successfully implemented. Please contact CSIR Subcommittee Chair Charles S. DeFrance at csdefrance@fbi.gov if your company is interested in participating.

AAFS Standards Resources and Training

As part of a cooperative agreement with NIST, the American Academy of Forensic Sciences (AAFS) is developing training, tools, and resources to enhance implementation efforts and broaden awareness of forensic science standards among communities of interest.

- Standards factsheets provide a clear, concise, and easy way to understand the purpose of a specific standard, why it is needed, and the benefits of adoption. **Standards factsheets are available for 135+ standards on the OSAC Registry.**
- Standards checklists are a tool that forensic science service providers can use to track progress towards implementation, identify gaps or barriers to implementation, or document objective evidence of implementation or compliance with a standard. **Checklists are available for 130 standards on the OSAC Registry.**

- Standards videos and webinars are available for free from AAFS Connect. Learn about the standards development process, standards development activities in various disciplines, and information about specific SDO published standards on the OSAC Registry.

Upcoming Events

- 2024 AAFS Annual Conference | Denver, CO | Feb 19 - 24. There will be numerous OSAC and standards-related presentations happening at this year's AAFS Conference! Mark your calendars for these events and visit NIST and OSAC at booth #714!
- 2024 OSAC Meeting | Indianapolis, IN | April 2 - 4
    - Chemistry: Toxicology & Seized Drugs SAC and SCs
    - Digital/Multimedia SAC and SCs
    - Scene Examination SAC and SCs
    - FSSB Human Factors and Legal Task Groups
- 2024 OSAC Meeting | Jacksonville, FL | May 14 - 16
    - Biology SAC and SCs
    - Chemistry: Trace Evidence SAC and SCs
    - Medicine SAC and SCs
    - Physics/Pattern Interpretation SAC and SCs
- CSAFE webinars:
    - Webinar: Inconclusive Decisions and Error Rates in Forensic Science | February 27, 2024 |1:00 PM CT | Presenter: Henry Swofford, the lead scientist with the Forensic Science Research Program in the Special Programs Office at NIST. | The treatment of inconclusive decisions and calculation of error rates have become controversial topics in forensic science. This presentation will provide a summary of the challenges, highlight prior viewpoints and suggestions that have been proposed to address the issues, and recommend a path forward for the forensic science community.