



# STANDARDS BULLETIN

September 2024

This [Standards Bulletin](#) from the Organization of Scientific Area Committees (OSAC) for Forensic Science provides a monthly update on forensic science standards moving through the OSAC Registry and standards development process, along with other OSAC news and standards-related information.

## STANDARDS UPDATES

### OSAC Registry Updates

The following **nine** SDO published standards have been added to the [OSAC Registry](#), effective **September 3, 2024**.



#### Academy Standards Board (ASB)

- [ANSI/ASB Standard 134, Standard for Analyzing Pathological Conditions and Anomalies in Forensic Anthropology. 2021. 1st. Ed.](#)
- [ANSI/ASB Standard 135, Scene Detection and Processing in Forensic Anthropology. 2023. 1st. Ed.](#)
- [ANSI/ASB Standard 146, Standard for Resolving Commingled Remains in Forensic Anthropology. 2021. 1st. Ed.](#)

#### ASTM

- ANSI/ASTM E1388-24, *Standard Practice for Static Headspace Sampling of Vapors from Fire Debris Samples* | Replaces E1388-17
- ANSI/ASTM E2927-23, *Standard Test Method for Determination of Trace Elements in Soda-Lime Glass Samples Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry for Forensic Comparisons* | Replaces E2927-16e1
- ANSI/ASTM E3197-23, *Standard Terminology Relating to Examination of Fire Debris* | Replaces E3197-20

- ANSI/ASTM E3284-23, *Standard Practice for Training in the Forensic Examination of Primer Gunshot Residue (pGSR) Using Scanning Electron Microscopy/Energy Dispersive X-Ray Spectrometry (SEM/EDS)*.

#### Scientific Working Group on Digital Evidence (SWGDE)

- [21-F-001-1.1, SWGDE, Best Practices for Acquiring Online Content v1.0 \(2022-01-13\)](#).
- [23-F-005-1.0, SWGDE, Best Practices Apple MacOS Forensic Acquisition \(2024-03-15\)](#).

The OSAC Registry now contains 206 standards (144 published and 62 OSAC Proposed) representing over 20 forensic science disciplines.

### Standards Open for Comment

#### SDO Published Standards Under Consideration for the OSAC Registry

The [OSAC Registry approval process for published standards](#) is used to review existing SDO published standards for technical quality and placement on the Registry. **Please submit your comments by 11:59 p.m. ET on September 30, 2024**, on whether the following SDO published standard should be included on the Registry:

- ANSI/ASB Standard 055, *Standard for Breath Alcohol Measuring Instrument Calibration*. 2024.1st Ed. **Submit your comments [here](#)**.

#### OSAC Proposed Standards Under Consideration for the OSAC Registry

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](mailto:comments@nist.gov) by 11:59 p.m. ET on September 30, 2024.

- [OSAC 2024-S-0020, Method for Measuring Spatter Stain](#)
- [OSAC 2024-S-0021, Method for Estimating the Angle of Impact of Spatter Stains](#)
- [OSAC 2024-S-0022, Method for Determining Directionality](#)
- [OSAC 2024-S-0023, Standard for the Systematic Verification of Alternative Training Aids for Detection Canine Disciplines](#)

## Standards Open for Comment at Standards Development Organizations (SDOs)

There are 23 forensic science standards currently open for public comment at:

- ASB in the areas of:
  - Biology/DNA (1) with a public comment deadline of **September 9**.
  - Crime Scene Investigation & Reconstruction (1) with a public comment deadline of **September 16**.
  - Firearms & Toolmarks (1) with a public comment deadline of **September 9**.
  - Forensic Odontology (1) with a public comment deadline of **September 9**.
  - Forensic Toxicology (1) with a public comment deadline of **October 14, 2024**.
- ASTM in the areas of:
  - Digital/Multimedia (4) with deadlines of **September 9 and 16**.
  - Fire Debris (2) with a comment deadline of **September 16**.
  - Trace Materials (2) with a comment deadline of **September 16**.
- SWGDE has 10 documents with a comment deadline of **September 15**.

Visit OSAC's [Standards Open for Comment](#) webpage to access these documents and for the instructions on how to submit your comments.

## SDO Updates

### New Published Standards

#### From ASTM:

- ANSI/ASTM E3406-24, *Standard Guide for Microspectrophotometry in Forensic Fiber Analysis*
- ANSI/ASTM E3423-24, *Standard Guide for Forensic Analysis of Explosives by Polarized Light Microscopy*

#### From NFPA:

- NFPA 1321:2025, *Standard for Fire Investigation Units*

### Work Proposals for New or Revised Standards

On August 9, 2024, a Project Initiation Notification System (PINS) was published on page 2 in the [ANSI Standards Action](#). This will begin ASB's work on the following standard:

- BSR/ASB Standard 215-202x, *Standard for Determining Analytical and Stochastic Thresholds for Application to Forensic DNA Casework Using Electrophoresis Platforms* (new standard). This standard sets the requirements for establishing thresholds based on statistical analysis of relevant empirical data gathered through validation studies. This

standard applies to short tandem repeat (STR) DNA typing on electrophoresis platforms in forensic laboratories making determinations regarding the nature of peaks (signal versus noise) and whether drop-out of a heterozygous sister allele to an observed peak may or may not have occurred. This does not apply to probabilistic genotyping systems that calculate a probability-based analytical threshold as a part of its analysis process.

- NOTE: This OSAC Proposed Standard, OSAC 2021-S-0003, is currently on the [OSAC Registry](#).

## IMPLEMENTATION IMPACTS & RESOURCES

As the 2024 OSAC Registry Open Enrollment period comes to a close, we would like to thank each and every forensic science service provider (FSSP) that took the time to complete and submit a survey. We know how busy you all are, and we greatly appreciate the precious time that you devoted to this process!

Thanks to your efforts, the 2024 Open Enrollment event was a tremendous success! The surveys are still coming in, but we received over 100 responses which included almost 50 new FSSPs joining the cohort. As of this writing, 201 FSSPs have graciously provided their implementation data to help demonstrate the wide scale implementation of standards from the OSAC Registry and show the importance of the work being performed by the approximately 800 dedicated individuals volunteering their time to develop, review, and refine these standards.

A more detailed report is forthcoming, but a few figures are provided below to share a taste of how these data will be used to assess the impact of the forensic science standards development process. Figure 1 depicts the spread of implementers across the United States with numbers of implementers per state. As can be seen on the map, Texas is leading the charge and there are still a few states that have yet to enter the process. Figure 2 is a list of the top 10 most implemented standards (full and partial implementations combined). There should be no surprise that ISO/IEC 17025 takes the top spot, but there is some great diversity across the other top nine standards listed.

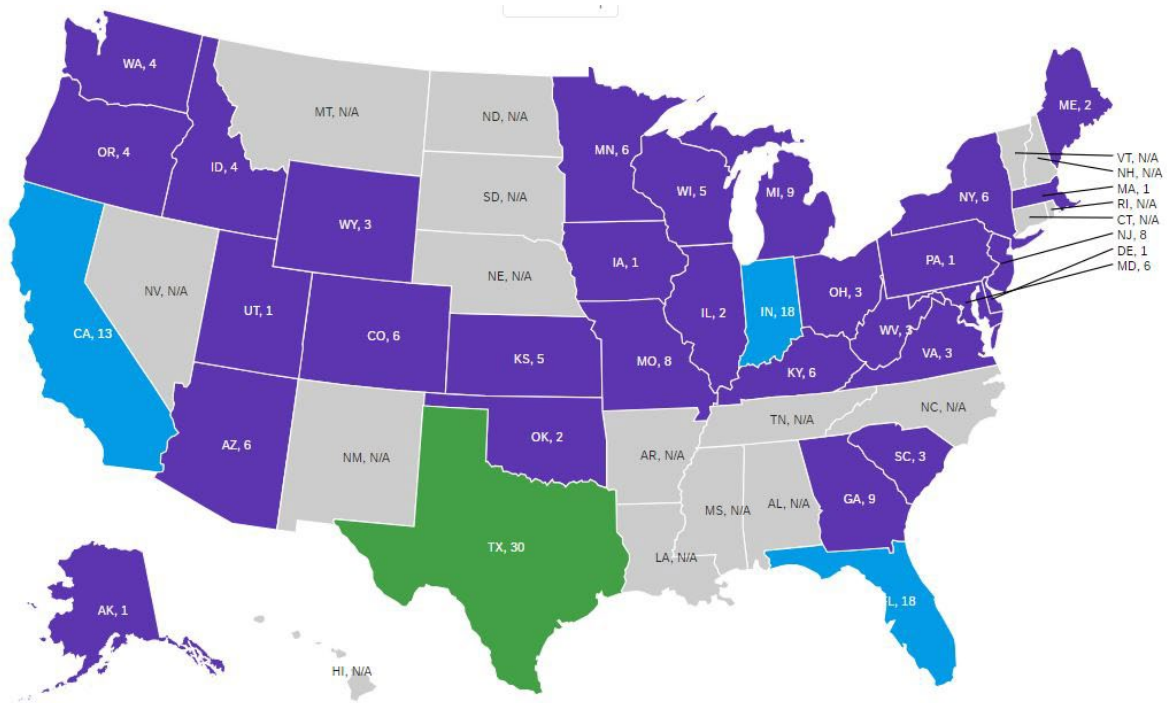


Figure 1- Number of Implementers Per State.

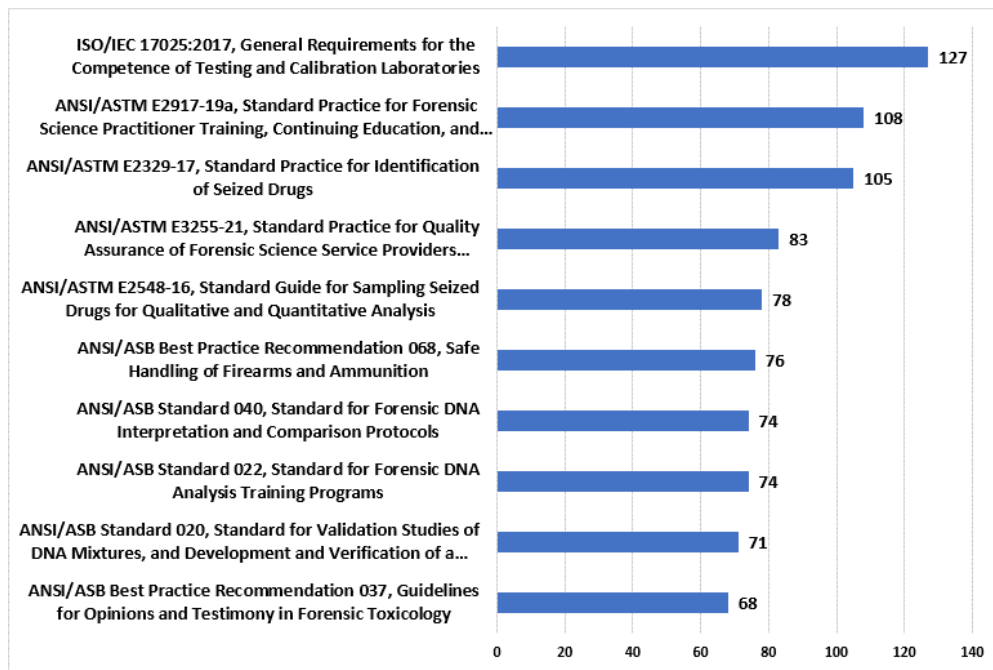


Figure 2- Top 10 Implemented Standards.

For those of you still considering submitting a survey, rest easy, you can do so at any time. The survey will remain open all year for off cycle submissions so that you can jump in when ready. The open enrollment period was created as a targeted opportunity for FSSPs to submit their implementation data on an annual cadence and the data could be analyzed and reported to the forensic community in a concentrated manner. Once in this cadence, the open enrollment period is the perfect time to review your implementation status, update your survey, and continue to help strengthen the national forensic science standards landscape.



For the next cycle, let's all work together to turn those gray states purple and get some more blue and green on that map!

## OSAC Registry Implementation Mentor Program

The **OSAC Registry Implementation Mentor Program** is preparing to be launched soon! Make sure you are a part of the journey!

Do you know of a Forensic Science Service Provider (FSSP) that is **interested in implementing OSAC Standards** and does not know where to start? Be a friend and send them a link to the [Mentor Request Form](#) so they can be connected with an available FSSP mentor who is within a similar jurisdiction, size, type of FSSP, and capabilities.



**Mentors 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 [Volunteer Mentor Form](#) and a TG member will be in touch.



For additional information on implementation, visit the new [Implementation Resource Tools](#) webpage.

## OSAC OUT & ABOUT

### 32nd ANNUAL INTERNATIONAL ASSOCIATION FOR FORENSIC PHONETICS AND ACOUSTICS (IAFPA) CONFERENCE

OSAC [Speaker Recognition](#) (SR) Subcommittee member, David Marks, attended the 32nd Annual International Association for Forensic Phonetics and Acoustics (IAFPA) Conference in Montreal, Canada on July 28-31, 2024. At the plenary session, he gave a one-hour presentation, *Advancing with One Voice: Consensus Standards for Forensic Speaker Recognition*. The presentation began with a brief history of automated methods for speaker recognition, followed by a review of key developments in the U.S. legal system that have shaped forensic testimony, in general, and the forensic use of speaker recognition technology, specifically. These histories and an overview of the OSAC organization provided context to cover the essential issues involved in moving toward the admissibility of speaker recognition in U.S. courts. The presentation concluded with a summary of the past, present, and future efforts of the Speaker Recognition Subcommittee. SR members John Hansen, Emily Whitmarsh, Anil Alexander, and Finnian Kelly also attended the conference.



David Marks presenting at the IAFPA Conference

### 2024 ANNUAL INTERNATIONAL ASSOCIATION FOR IDENTIFICATION (IAI) CONFERENCE

The Annual International Association for Identification (IAI) Conference was held at the Peppermill Resort Casino in Reno, NV from August 11-17. And....



OSAC made a grand appearance on many fronts!



**“TO DECLARE OR NOT TO DECLARE, THERE’S LOTS OF QUESTIONS?” PRESENTATION**



OSAC’s Implementation Ambassador and former President of IAI, Steven Johnson and Vincent Desiderio, OSAC Physical Scientist educated attendees about the OSAC program and discussed what it means to become an OSAC implementer during their presentation. Approximately 15-20 persons attended and asked inviting questions about implementation.

**“GOING FOR THE OLYMPIC GOLD/OSAC GOLD IN PARIS/RENO” PRESENTATION**

The 2024 IAI Conference kicked-off as the 2024 Summer Olympic games came to a close. In this presentation, OSAC Program Manager, JP Jones, and OSAC Program Office staff member, Allison Getz, provided IAI attendees with the latest standards development updates, described the available resources for standards implementation and described how organizations can achieve implementation gold!





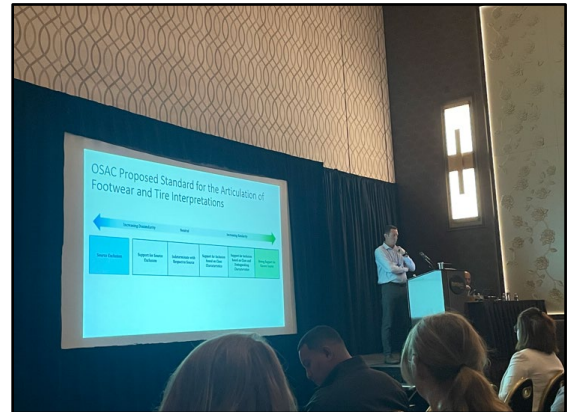
## “DIGGING INTO THE SOURCE OPINION STANDARD” PRESENTATION



Lora Sims, [OSAC Digital Multimedia SAC](#) Chair, attended the IAI conference this year and gave presentations specifically related to OSAC standards. She first presented on “Digging into the Source Opinion Standard,” and gave a workshop called, “Extensive Documentation in Facial Comparisons.”

## “MOVING BEYOND THE IDENTIFICATION PARADIGM” PRESENTATION

Members of [OSAC’s Footwear and Tire Subcommittee](#) (John Grassel, Nicole Richetelli and David Kanaris) participated in a panel discussion on their new draft articulation standard at the IAI meeting. The discussion, “Moving beyond the identification paradigm”, introduced the new scale to the footwear and tire community. The document and scale was well received and led to some great questions and discussion.



## “DOES IRIS RECOGNITION EXHIBIT GENDER BIAS!?” PRESENTATION



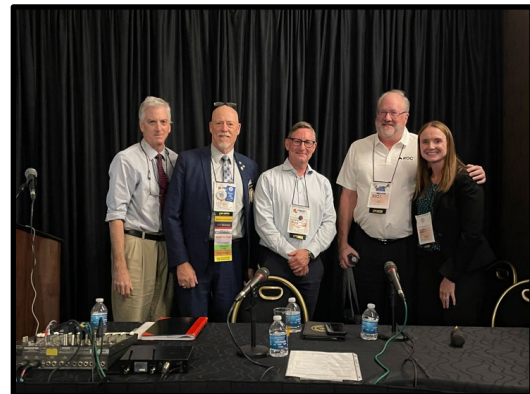
Adam Czajka, [OSAC Facial & Iris Subcommittee](#) member, provided a presentation on “Does iris recognition exhibit gender bias!?” Adam provided research information on iris differences between genders with approximately 35 persons in attendance.

## “DIFFERENT USE CASES/APPLICATIONS FOR FACIAL COMPARISON” DISCUSSION

An all-star female panel! Moderated by Lora Sims, OSAC [Digital/Multimedia SAC Chair](#), along with panelists: Denelle Payne, Aniela Petierse, Allison Miller, and Krystal Howard, OSAC Facial & Iris Subcommittee Chair gave insight into the different use cases and applications for facial comparison to include mobile facial recognition, forensic facial examination, investigative leads to name a few. Roughly 25 people were in attendance.



## “HUMAN REVIEW OF FACIAL COMPARISONS AND SEARCHES” PRESENTATION



Richard Vorder Bruegge, Steven Johnson, Jakob Glynstrup, Neal Gieselman, and Krystal Howard provided insight into the need for humans and algorithms to work together in the facial identification process. The importance of training for human examiners and the need for algorithm testing.

## 2024 INTERNATIONAL CONFERENCE ON FORENSIC NURSING SCIENCE AND PRACTICE

OSAC was part of the International Conference on Forensic Nursing Science & Practice held in Denver, Colorado from August 27-29, 2024. Joyce Williams (OSAC Forensic Nursing Subcommittee Chair), Nancy Downing (OSAC Forensic Nursing Subcommittee Vice Chair), Marnie Shiels (U.S. Department of Justice, The Office on Violence Against Women), Jennifer Pierce-Weeks (International Association of Forensic Nurses), and JP Jones (OSAC Program Manager) participated in a 1.5 hour panel discussion titled "Why Standards in Forensic Nursing?" The session had approximately 200 attendees and facilitated a great dialogue on the value and importance of standards for forensic nursing.



## 37TH ANNUAL INTERNATIONAL BIOMETRICS ASSOCIATION CONFERENCE



Steve Johnson, OSAC Implementation Ambassador, was asked by the leadership of the International Biometrics Association (IBA) to provide an update to attendees at their 37<sup>th</sup> annual users' conference at the Kimpton Shane Hotel in Atlanta, GA August 26-28. The IBA was formed to provide automated biometric identification system (ABIS) users an opportunity to annually get together to

"take part in engaging panel and roundtable discussions, participate in educational sessions, workshops, product trainings, certification classes, peer-to-peer networking and more". With increased interest in facial recognition technology and its applications in ABIS enterprises, system developers and users are looking for "best practices" as they apply to the end-users of these systems. Well over 100 people from all over the world were in attendance. Next year's conference will be in California in late August and it's likely that the IBA will want to remain informed about OSAC standards that could benefit or impact their stakeholders.

## UPCOMING EVENTS

- September 8-13: Midwestern Association of Forensic Science (MAFS) | Kansas City, MO
- September 9-10: [FSSB fall quarterly meeting](#) | Research Triangle Park, NC
- September 16-19: Scientific Working Group on Digital Evidence (SWGDE) Meeting | Houston, TX
- September 19-23: National Association of Medical Examiners (NAME) Annual Meeting | Denver, CO

- September 23-26: International Symposium on Human Identification (ISHI) Meeting | San Antonio, TX
- October 1-4: 23rd Annual Association of Quality Assurance Managers (AFQAM) Conference | Daytona Beach, FL
- October 7-11: International Association of Bloodstain Pattern Analysts (IABPA) Annual Conference | Kansas City, MO
- October 19-22: International Association of Chief of Police (IACP) Annual Conference and Exposition | Boston, MA
- November 20-23: Arizona Identification Council (AIC) Educational Conference | Tucson, AZ

## OTHER FORENSIC SCIENCE NEWS & TRAINING

### 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.

## CONNECT WITH OSAC

### Follow us on Social

**Media.** To stay up to date on the latest OSAC news, be sure to follow us on [LinkedIn](#) (#ForensicOSAC).



**Contact Us.** If you have feedback, questions, or want to learn more about how you can help strengthen forensic science through standards, contact us at [forensics@nist.gov](mailto:forensics@nist.gov).