



Crime Scene and Death Investigation Scientific Area Committee Activities

Jason Wiersema PhD, Chair
September 2020

Crime Scene/ Death Investigation SAC Leadership

SAC Officers

Jason Wiersema, Chair, Harris County (Houston, TX) Institute of Forensic Sciences

Mike Kessler, Vice Chair, National Forensic Sciences Technology Center

Jeremy Chappell, Executive Secretary, Kansas City (Missouri) Police Department

Subcommittee Chairs

Kenneth Aschheim, Chair, Odontology, New York City Office of Chief Medical Examiner

Michael Kessler, Chair, Crime Scene Investigation, National Forensic Science Technology Center (NFSTC)

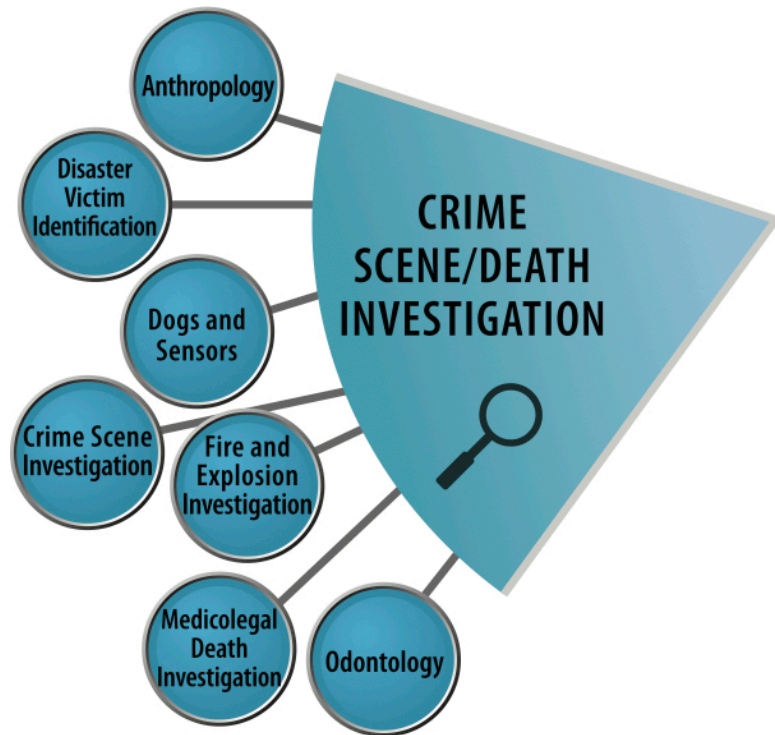
Craig Beyler, Chair, Fire and Explosion Investigation, Jensen Hughes

Kenneth Furton, Chair, Dogs and Sensors Subcommittee, Florida International University

Thomas Holland, Ph.D., Chair, Anthropology, DOD Joint POW/MIA Accounting Command, Central Identification Laboratory

Keith Pinckard, Chair, Medicolegal Death Investigation, Travis County Medical Examiner's Office

Elissia Conlon, Chair, Disaster Victim Identification, Office of the Chief Medical Examiner, New York



SAC Mission

Improve forensic practice by creating and promoting standard guidelines and protocols to ensure that the results of forensic analyses are reliable and reproducible.

Crime Scene Investigation

Accomplishments

- 5 documents published by an SDO (ASTM)
 - ASTM E620-11(18) Standard Practice for Reporting Opinions of Scientific or Technical Experts.
 - ASTM E860-07(13)e2 Standard Practice for Examining and Preparing Items that are or may Become Involved in Criminal or Civil Litigation.
 - ASTM E1020-13e1 Standard Practice for Reporting Incidents that may Involve Criminal or Civil Litigation.
 - ASTM E1188-11(17) Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator.
 - ASTM E1459-13(18) Standard Guide for Physical Evidence Labeling and Related Documentation.

Crime Scene Investigation

Accomplishments (continued)

- 2 Documents submitted to an SDO (Academy Standards Board [ASB])
 - Guiding Principles of Crime Scene Investigation & Reconstruction
 - Standard for Response at Scenes by Law Enforcement
- 2 additional standards awaiting 2.0 transition to submit to SDO
 - Standard for On-Scene Collection and Preservation of Physical Evidence
 - Standard Practice for the Documentation and Processing of Shooting Scenes
- Streamlined Task Group organization and workflow to promote efficient and responsible development of standards (8 active Task Groups)
 - Began development of 12 new proposed standards
 - Fully developed 4 new proposed standards and moved out of SC
- Baseline documents approved for posting on SC website
 - Crime Scene Investigations: Existing Standards and Guides
 - Animal Involved Investigations: Resources for Investigators and Veterinarians

Crime Scene Investigation

Priorities

- Focus on completion of standards that relate to the base of practice including education/training/professional development for specialties, crime scene investigation and reconstruction fundamental principles (e.g., initial response and identification, collection and preservation, documentation and reporting, specialized scene fundamentals, and QMS/QA-QC).
- Following base of practice standards development, move into specific methods.
- Continued collaboration with overlapping SCs or SCs with shared interest in standards under development as well as support to SDOs (ASTM & ASB).

Non-standard activities

- Conduct process mapping for Crime Scene Reconstruction examinations.
- Continued outreach activities at forensic science conferences and professional association meetings to promote implementation and participation in the standards development process

Other highlights

- Charles (Stephen) De France incoming Chair



Dogs and Sensors

Accomplishments

- 1 document on the OSAC Registry
 - ASB Technical Report 025, Crime Scene/Death Investigation - Dogs and Sensors - Terms and Definitions, First Edition
- 1 document published by an SDO
 - General Guidelines for Training, Certification, and Documentation of Canine Detection Disciplines (ASB Standard 088)
- 7 documents submitted to an SDO (ASB) at various stages of ASB and/or public review:
 - Standard for Training of Pre-scented Canines Aged Trail Search (ASB Standard 026)
 - Standard for Training of Pre-scented Canines Location Check (ASB Standard 024)
 - Standard for Training and Certification of Canine Detection of Humans: Patrol Canine Team (ASB Standard 027)
 - Standard for Canine Detection of Explosives (ASB Standard 092)
 - Dogs and Sensors Standard for Training Canine Detection of Human Remains in Water (ASB Standard 075)
 - Dogs and Sensors Standard for Training Canine Detection of Human Remains on Land (ASB Standard 076)
 - Detection Canine Selection, Kenneling and Healthcare (ASB Standard 085)

Dogs and Sensors

Non-standard activities

- Developed task group on canine detection of COVID-19
- Facilitating networking opportunities between groups to encourage collaboration on interdisciplinary documents.
- Paola Tiedeman voted to Chair (Ken Furton termed out)

Other highlights

- SC prioritized 66 research topics into 5 highest priority (priority I) and 8 priority II areas seeking funding to fill in major gaps in current knowledge.

Disaster Victim Identification

- Accomplishments
 - 2 Documents posted on the OSAC Registry
 - ANSI/ASB Best Practice Recommendation 007, Postmortem Impression Submission Strategy for Comprehensive Searches of Essential Automated Fingerprint Identification System Databases, First Edition, 2018(*effective September 5, 2019*).
 - ANSI/ASB Best Practice Recommendation 010, Forensic Anthropology in Disaster Victim Identification: Best Practice Recommendations for the Medicolegal Authority, First Edition, 2018 (*effective September 5, 2019*).
 - 2 Documents published by an SDO (ASB)
 - ANSI/ASB Best Practice Recommendation 006, Best Practice Recommendations for DNA Analysis for Human Identification in Mass Fatality Incidents, First Edition, 2019.
 - ANSI/ASB Best Practice Recommendation 009, Best Practice Recommendations for the Examination of Human Remains by Forensic Pathologists in the Disaster Victim Identification Context, First Edition, 2019.

Disaster Victim Identification

- Accomplishments (continued)
 - 3 documents submitted for review by an SDO (ASB)
 - Mass Fatality Incident Data Management: Best Practice Recommendations for the Medicolegal Authority.
 - Mass Fatality Scene Processing: Best Practice Recommendations for the Medicolegal Authority.
 - BPR 094: Postmortem Fingerprint Recovery

Disaster Victim Identification

Priorities

- 4 documents to submit to an SDO (ASB):
 - Best Practice Recommendations for Disaster Victim Accounting
 - Mass Fatality Incident Management: Standard for the Medicolegal Authority
 - Standard for Disaster Victim Identification
 - Forensic Odontology in Disaster Victim Identification: Best Practice Recommendations for the Medicolegal Authority
- BPR 005: MFI Data Management will be revised by the DVI Subcommittee and resubmitted into the SDO Process.
- The DVI Subcommittee has established a working group to update BPR 006: DNA Sample Collection and Analysis
- BPR 007: PM Impression Submission Strategy will be revised into a stand-alone technical report.

Disaster Victim Identification

Highlights (continued)

- Shawn Wilson was voted to Vice Chair
- DVI SC will transition to Task Group under MDI in OSAC 2.0
- DVI Subcommittee membership directly engaged in COVID-19 response operations in our local jurisdictions utilizing various BPRs developed by this SC
 - Lessons learned from these experiences will inform this subcommittee on our further document development and refinement.

Fire and Explosion

- Accomplishments
 - The subcommittee's strategic plan for fire and explosion investigation, "Strengthening Fire and Explosion Investigation in the United States: A Strategic Vision for Moving Forward" is under FSSB review. The subcommittee seeks to publish it as a Technical Series Publication. The publication of the plan will be accompanied by press releases and other forms of communications, including papers, presentations, and workshops.
 - The Subcommittee has tasked itself with supporting the development and adoption of the National Fire Protection Agency Fire Investigation Unit (FIU) standard. The FIU subcommittee at NFPA expects to post their draft Fire Investigation Standard for public input soon and to publish the final version in 1-2 years. This standard is anticipated to be the basis for FIU accreditation. To facilitate this process, the OSAC Fire and Explosion subcommittee is developing template SOP's for FIU. These template documents will provide a roadmap to accreditation to the FIU standard.

Fire and Explosion

Priorities

- Completion of the FIU standard and adding the standard to the OSAC registry
- Completing template SOPs to facilitate the development of quality systems under the FIU standard and subsequent use for accreditation of FIUs

Non-standard activities

- Advocacy for development included in the strategic plan (operations, education, oversight, research)
- SOP template development

Other highlights

- Change of subcommittee leadership

Forensic Anthropology

Accomplishments

- **3 documents published by an SDO (ASB):**
 - ASB 045. Standard for Stature Estimation in Forensic Anthropology, First Edition, 2019.
 - ASB 090. Standard for Sex Estimation in Forensic Anthropology, First Edition, 2019.
 - ASB 089. Best Practice Recommendation for Facial Approximation in Forensic Anthropology, First Edition, 2020.
- **2 documents submitted to OSAC 2.0 for STRP review or open comment:**
 - Best Practice Recommendation for Skeletal Preparation and Sampling in Forensic Anthropology.
 - Standard for Qualifications in the Practice of Forensic Anthropology.

Forensic Anthropology

Accomplishments (continued)

- **9 documents submitted to an SDO (ASB for all) at various stages of the SDO process:**
 - ASB 132 – Standard for Ancestry Estimation in Forensic Anthropology
 - ASB 133 - Standard for Age Estimation in Forensic Anthropology.
 - ASB 134 – Standard for Analyzing Pathological Conditions and Anomalies in Forensic Anthropology.
 - ASB 135 – Scene Detection and Processing
 - ASB 146 – Standard for Resolving Commingled Remains in Forensic Anthropology
 - ASB 147 – Standard for Analyzing and Reporting on Skeletal Trauma in Forensic Anthropology.
 - ASB 11 (NWP) – Standard for Personal Identification in Forensic Anthropology
 - ASB 12 (NWP) – Standard for Taphonomic Observations in Support of the Postmortem Interval.
 - ASB 13 (NWP) – Standard for Determining Medicolegal Significance from Skeletal Remains.

Forensic Anthropology

Priorities

- Standard for Proficiency Testing in Forensic Anthropology
- Best Practice for Documentation, Records, Reporting, and Testimony in Forensic Anthropology
- Standard for Research on Recent Human Remains
- Standard for Isotope Analysis in Forensic Anthropology

Non-standard activities

- Diane France replaces Thomas Holland as Chair (Holland termed out)

Forensic Odontology

- Accomplishments

- 2 documents on the OSAC registry
 - ADA 1088-2017D *Human Identification by Comparative Dental Analysis*
 - ANSI/ADA 1058-2010D *Forensic Dental Data Set*
- 3 documents approved for submission to an SDO (ANSI)
 - ANSI/ American Dental Association Technical Report No. 1077 Human Age Assessment by Dental Means (OSAC initiated) approved by the Standards Committee on Dental Informatics (SCDI) to be forwarded to ANSI
 - Revision of ANSI/ American Dental Association Technical Report No. 1088 Human Identification by Comparative Dental Analysis (OSAC initiated) approved by SCDI to be forwarded to ANSI
 - ISO TC 106/SC 3/WG 5 Dentistry — Vocabulary and designation system for forensic oro-dental data (OSAC Participation) FDIS stage

- Priorities

- Terminology for Suspected Patterns of Dental Origin – Drafting Committee
- ISO/NP 5365 Dentistry -- Designation system for tooth developmental stages (OSAC Participation)

Medicolegal Death Investigation

Accomplishments

- 2 Documents sent to an SDO (ASB)
 - Organizational and Foundational Standard for Medicolegal Death Investigation
 - Crime Scene/Death Investigation: Medicolegal Death Investigation Terms and Definitions

Priorities

- “Medicolegal Death Investigation Workflow and Information Requirements” was written as a white paper submitted to the FSSB for approval to post to OSAC MDI webpage. This is a background document for a forthcoming standard on this topic
- Draft Standard in Progress: “Workload Limitations for Medicolegal Death Investigators”

Medicolegal Death Investigation

Non-standard activities

- Published resource document: OSAC Medicolegal Death Investigation Subcommittee Recommendations for Medical Examiner/Coroner Drug-Related Death Investigations on website

The logo graphic consists of several concentric, overlapping arcs in shades of purple, blue, green, and yellow, resembling a stylized globe or a signal wave. The text 'OSAC' is positioned to the right of these arcs.

OSAC

Organization of Scientific Area
Committees for Forensic Science

Thank you

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science>