Guiding Principles for Crime Scene Investigation and Reconstruction

Crime Scene Investigation Subcommittee
Crime Scene / Death Investigation Scientific Area Committee
Organization of Scientific Area Committees (OSAC) for Forensic Science

OSAC Proposed Standard

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Prepared by
Crime Scene Investigation Subcommittee
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This document has been developed by the Crime Scene Investigation Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science through a consensus process and *proposed* for further development through a Standard Developing Organization (SDO). This document is being made available so that the forensic science community and interested parties can consider the recommendations of the OSAC pertaining to applicable forensic science practices. The document was developed with input from experts in a broad array of forensic science disciplines as well as scientific research, measurement science, statistics, law, and policy.

This document has not been published by an SDO. Its contents are subject to change during the standards development process. All interested groups or individuals are strongly encouraged to submit comments on this proposed document during the open comment period administered by the AAFS Standards Board (ASB) (www.asbstandardsboard.org).

Foreword

This standard was developed to provide guidance to crime scene investigators and crime scene reconstructionists a baseline for the guiding principles for crime scene investigation and reconstruction.

This document has been prepared by the Organization of Scientific Area Committees (OSAC) for Forensic Science Crime Scene Investigation Subcommittee.

All hyperlinks and web addresses shown in this document are current as of the publication date of this standard.

Keywords: *Crime scene, reconstruction, chain of custody, ethics, bias, safety, contamination, validity, reconstructionist, scene investigation*

Abstract: This document provides minimum standards and recommendations for practicing crime scene investigation and reconstruction. This document provides guiding principles for the identification, documentation, collection, preservation of physical evidence, and crime scene reconstruction.

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Guiding Principles for Crime Scene Investigation and Reconstruction

1 Scope

This document provides guiding principles and recommendations for practicing crime scene investigators and reconstructionists.

Each crime scene is unique and requires crime scene investigators and reconstructionists to continuously evaluate how to proceed with processing in a manner that is safe and best preserves the evidence and its context. All decisions made by a crime scene investigator or reconstructionist before, during, and after a crime scene is processed should consider the following:

1. Legal Considerations
2. Personnel Safety
3. Scientific Reliability and Validity
4. Preserving Context
5. Maintaining Evidence Integrity
6. Transparency and Ethics
7. Managing Bias

2 Normative References

There are no normative documents.

3 Terms and Definitions

For purposes of this document, the following definitions and acronyms apply.

3.1
crime scene investigation
CSI
A methodical, scientific approach to examining a scene to document, search for, identify, collect, interpret, and preserve items of evidentiary value to help in understanding the elements of an incident. Note: Though commonly applied to criminal investigations, the same principles and methods can be more broadly applied to scene investigations that are not criminal in nature.

3.2
crime scene investigator
CSI

A forensic science practitioner, however named, whose responsibility is to use the appropriate combination of knowledge, skills, training, and experience to undertake one or more of the following tasks in relation to scene investigation: document, search for, identify, collect, interpret, and preserve evidence.

3.3
crime scene reconstruction
CSR
An applied science employing the scientific method to identify the best explanation and to provide for an objective sequence of actions for an event or events in question. When performed using generally-accepted methodology and subjected to peer review, CSR provides a holistic approach to the formal and objective analysis of complex issues while considering sources of potential bias.

3.4
crime scene reconstructionist
A forensic science practitioner, however named, who analyzes and evaluates information from all reasonably available sources such as scene documentation, investigative reports, physical evidence, laboratory analysis reports, autopsy documentation, photographs, video, and statements to identify hypotheses within the context and limited universe of a scene.

3.5
scene
A place or object that is subject to and/or requires forensic examination. Note: A crime scene is a common description of a scene where a presumed crime has been committed. The scene can be a person or an animal. (ISO/FDIS 21043-1:2018[E])

4 Guiding Principles

Crime scene investigation and reconstruction are led by general guiding principles. Though all the guiding principles listed in this document are important, some circumstances could require a crime scene investigator or reconstructionist to give greater weight to one principle over another. A decision to deviate from a guiding principle shall be documented and explained.

4.1 Legal Considerations

Crime scene investigators and reconstructionists shall conduct themselves with the expectation that their work may be used in every step of the legal process, and therefore shall ensure that they comply with applicable legal standards including those of search and seizure.

4.2 Personnel Safety

Crime scenes can present a wide variety of physical, biological, chemical, and situational hazards with a level of personal risk of injury, illness, or exposure almost always present. Personnel shall not be exposed to an unreasonable level of risk to personal safety and shall be provided with the equipment and training necessary to mitigate risks.

a) Crime scene investigators and reconstructionists shall have appropriate personal protective equipment (PPE) to mitigate hazards presented by the scene and by any processing tools, equipment, or reagents used.

b) Crime scene investigators and reconstructionists shall be trained in the proper use of PPE. Some forms of PPE may require fit testing or certification for safe use.

c) PPE protocols shall include:

    i) Hazard assessment and PPE selection.

    ii) PPE cleaning, maintenance, decontamination, and storage.

d) PPE considerations should include, but not limited to, protection of eyes and face, head, foot and leg, hand and arm, body (torso), respiratory system, and hearing; and protection against, falls, and drowning.

4.3 Scientific Reliability and Validity

Crime scene investigators and reconstructionists shall use scientifically reliable and valid methods, practices, and analytical procedures.

a) Methods, practices and analytical procedures shall be based on best practices, peer-reviewed studies, and/or validated techniques prior to use on scenes.

b) When applicable, methods, practices and analytical procedures published in the OSAC Registry shall be employed.

4.4 Preserving Context

Crime scene investigators and reconstructionists shall document a crime scene in such a way that it preserves the context of the evidence to ensure others can later understand not just what was collected, but also where, how, and in what condition it was found.

4.5 Maintaining Evidence Integrity

Crime scene investigators and reconstructionists shall take appropriate steps to maintain evidence integrity by preventing contamination, tampering, alteration, or loss of evidence. Procedures and documents shall be utilized to account for the integrity and possession of evidence by tracking its handling and storage from its point of collection to its final disposition.

4.6 Transparency and Ethics

The work of a crime scene investigator and reconstructionist generates the underlying basis for all subsequent analysis of the scene. The crime scene investigator and reconstructionist shall provide documentation and testimony of the scene that clearly represents its initial condition, their actions on-scene, and any other relevant factors.

a) If an action by an investigator will intentionally deviate from, or set aside, one of the principles, the circumstances and justification shall be fully documented.

b) Upon discovery of unintentional deviations, errors, omissions, or acts of nonconformance with the principles, the circumstances shall be fully documented.

c) While an enumerated Code of Ethics is beyond the scope of this standard, crime scene investigators and reconstructionists have professional duties that they are bound to and shall execute. These include the duty to:

   i) remain competent in a wide range of scientific fields.

   ii) be objective as reasonably as possible.

iii) act thoroughly and to produce results and conclusions within the scope of the expertise of the individual practitioner.

4.7 Managing Bias

Crime scene investigators and reconstructionists are uniquely positioned at the intersection of law enforcement and scientific investigations, and shall ascertain the facts, without regard to external influences.

a) Crime scene investigators and reconstructionists shall take steps to mitigate negative impacts of cognitive biases on their work.

b) The scene of the crime may be full of potentially biasing influences. Decisions made by crime scene investigators and reconstructionists *depend on* and *require* some contextual information and hypothesis formulation, which guide them in their search for evidence and/or analysis. It is critical that hypotheses are well determined, as they can lead to identification and collection of important evidence or mislead the investigator.

c) However, as with forensic laboratory analysis, the crime scene investigator and reconstructionist shall remain as independent as possible from non-crime-scene-related and potentially biasing case information (e.g. suspect or victim criminal history).

Annex A
(informative)

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