OSAC 2023-N-0002
Standard for Scene Documentation Procedures

Crime Scene Investigation & Reconstruction Subcommittee
Scene Examination Scientific Area Committee (SAC)
Organization of Scientific Area Committees (OSAC) for Forensic Science

OSAC Proposed Standard

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Prepared by
Crime Scene Investigation & Reconstruction Subcommittee
Version: 2.0
January 2024

Disclaimer:

This OSAC Proposed Standard was written by the Crime Scene Investigation & Reconstruction Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science following a process that includes an open comment period. This Proposed Standard will be submitted to a standard developing organization and is subject to change.

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Foreword

This document provides standards for scene documentation. Proper documentation procedures ensure that the integrity of the documentation is maintained from the point of recording to the presentation of the documentation or content therein at the time of judicial proceedings.

This standard should be utilized in conjunction with local laws and any requirements set forth by forensic service providers documenting scenes to inform individual agency protocols relating to the documentation of scenes. This document recommends generally accepted professional principles and practices. This document does not cover all document types that may be utilized at a given scene.

This document has been drafted by the Crime Scene Investigation & Reconstruction Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science through a consensus process.

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

Keywords: *crime scene investigation, documentation, record, notes, note taking, photography, imaging, imagery, diagram, diagramming*

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Standard for Scene Documentation Procedures

1 Scope

This document describes the minimum requirements for scene documentation regarding purpose, considerations, and preservation. Documentation encompasses written or typed material, imagery, and diagramming. The focus of this document will be on those methods as forms of documentation.

2 Normative References

The following reference is indispensable for the application of the Standard. For dated references, only the edition cited applies. The latest edition of the referenced document (including any amendments) applies for undated references.

OSAC 2021-N-0015, *Guiding Principles for Scene Investigation and Reconstruction*

See Annex A, (informative) Bibliography, for other references.

3 Terms and Definitions

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

NOTE: In a situation that involves a potentially criminal act, definitions in sections 3.1 through 3.7 would be preceded by “crime” (e.g., crime scene investigator).

3.1
datum
A reference point at a scene from which measurements are taken. (OSAC Lexicon)

3.2
diagram
two-dimensional representations of features found at the scene that are derives from measurements or visual data collected by hand, electronically, or a combination of both.

3.3
document (n)
information and the medium on which it is contained (e.g., specification, procedure document, policy, instruction or form, drawing, record, note, report, standard, flowchart.) The medium can be paper, magnetic, electronic or optical computer disc, photograph, or a combination thereof. [SOURCE: ISO 9000:2015, modified]

3.4
documentation (n)
a set of documents, for example, specifications and records [SOURCE: ISO 9000:2015, modified]

3.5
image
an imitation or representation of a person or thing drawn, painted, or photographed. [SOURCE: E2916-19e1]

3.6
note (n)
see document (3.3)

3.7
record (n)
see document (3.3)

4 Documentation

Scene documentation is an essential component of scene investigation and reconstruction, the quality and completeness of which are critical to ensure a complete scene recording. All scenes shall be documented using an established protocol even if it is determined that a scene is unrelated to criminal activity (e.g., a natural death scene). Documentation can be created in different formats (e.g., handwritten, typed, drawn, photographed, audio or video recorded, electronically diagrammed) and provides a detailed record of observations, aids in report writing, assists with testimony, and allows for independent review by others.

OSAC 2021-N-0015, *Guiding Principles for Scene Investigation and Reconstruction* shall be used in conjunction with this document because OSAC 2021-N-0015 provides the foundational principles upon which additional specific requirements, such as this document, will be based.

4.1 Purpose

4.1.1 Scene documentation as part of a scene investigation or reconstruction is a continuous process in which the procedures, observations, actions, and aspects of the scene and evidence are contemporaneously recorded.

4.1.2 The purposes of scene documentation include:

4.1.3 To create a factual, fair, and accurate record of the actions, observations, and conditions at a given scene using various methods and technologies.

4.1.4 To provide the basis from which a report or scene reconstruction could be created from the documentation alone.

4.1.5 To support all work, such that another practitioner could evaluate what was done and understand the basis of the results.

4.2 Considerations

4.2.1 All facts in scene documentation are typically subject to questioning in legal settings.

4.2.2 Case-related materials created or maintained as part of a scene investigation or reconstruction shall be saved per agency retention policy. This documentation may include but not limited to the chain of custody, search warrants, case-related paperwork, and crime scene log.

4.2.3 Documentation may exist in many different forms besides written records, including notetaking, imaging, and diagramming.

4.2.4 The forensic science service provider shall be aware of applicable laws regulating the manner, duration, and storage of documentation and should have policies that comply with those measures.

4.3 Minimum Requirements

4.3.1 All persons tasked with documenting a scene investigation or reconstruction are responsible for documentation applicable to their involvement with the investigation or reconstruction.

4.3.2 Documentation that is part of a scene investigation or reconstruction shall contain the following information, when applicable, to the event or the medium of recording.

- Names of involved persons (e.g., suspects, victims, witnesses).
- The scene's description and location include structures, boundaries, barriers, and anything that could impact the physical or mechanical reconstruction of events.
- Environmental conditions (e.g., weather, lighting conditions, temperature, odors).
- Description and location of all collected evidence, including measurements.
- Chain of custody information for all collected evidence.
- The date(s) on which the work was conducted.
- Identifying information for the individual(s) completing the action.
- Arrival and departure time(s) on the scene and relevant tasks or assignments as related to the scene.
- Unique case or scene identifier.

- Information that clarifies the completeness of a set of notes (e.g., page number or another manner of identifying the start and end of a set of notes).

- Agency-assigned testing equipment, calibrated instruments, and reagent tests, including identifying information of the equipment, instrument, or reagent (e.g., lot number, equipment identifier, etc.) used as part of the scene investigation or reconstruction.

4.3.3 Quality control tests performed, the result of the test, and the lot number or identifying number of the reagent.

4.3.4 If abbreviations or symbols specific to the forensic science service provider are used, the meaning of the abbreviations or symbols shall be defined either in agency policy or contained within the documentation.

4.3.5 Handwritten documentation shall be created using permanent ink, except when conditions exist which may alter or destroy the contents of the documentation (e.g., rain causing ink to run or bleed or the use of pencil when labeling entomological evidence) or creating a rough diagram.

4.3.6 The conditions shall be recorded when non-permanent methods are used due to adverse conditions. Any non-permanent methods shall be made permanent per agency policy (i.e., making a photocopy to create permanence).

4.4 Preservation

4.4.1 All documentation, regardless of type, recording format, or medium, created as part of an investigation or reconstruction shall be maintained in either original, copy, or electronic form.

4.4.2 Documentation shall be retained according to the agency retention policy.

4.4.3 Alterations to original records shall be made without obliteration, and the change shall be readily available to the reader. The person's identity (e.g., initials, name, signature) making the change shall be recorded. If the change is not contemporaneous, the date of the change shall also be recorded.

5 Imaging

5.1 Purpose

5.1.1 Imaging technology and techniques can be used to document a scene to generate a visual product showing what was observed at the scene. The images should be a fair and accurate representation of the subject or scene being recorded.

5.1.2 Images may be used to supplement minimum scene documentation requirements.

5.1.3 Technology, such as still cameras, scanning stations, and video recorders, can be used to provide clear, accurate, high-quality images that document the condition of a scene, including its immediate surroundings, evidence, actions, and persons related to an investigation.

5.2 Considerations

5.2.1 The choice of imaging equipment shall be based on capturing images that meet or exceed the requirements for their end uses.

5.2.2 Settings on devices that record the date and time an image is captured shall be monitored and adjusted for accuracy.

5.2.3 The sequence and methodology of capture should include long-range/overall, mid-range, and close-up images. The choice of images shall aid the viewer in understanding the identification or dimensions of items, spatial relationships, and orientation to the scene and its contents.

5.2.4 Images can be of value for both evidentiary as well as documentation purposes. The choice of image composition, format, resolution, perspective, and quality is a result of the intended purpose of the image.

5.3 Minimum Requirements

5.3.1 Information pertaining to imaging settings/parameters is typically captured in the Exchangeable Image File Format (EXIF)/metadata. If the information is not captured, it should be otherwise documented according to agency requirements.

5.3.2 The identity of the photographer shall be documented.

5.3.3 Any implements (e.g., filters, lenses, etc.) or methodologies should be documented.

5.4 Preservation

5.4.1 The operator shall not delete original scene images (see 5.4.3). All photographs, including poor-quality or unintended images, shall remain part of the case file.

5.4.2 Original scene images shall be stored and maintained to minimize damage, destruction, or loss.

5.4.3 Actions shall be taken to preserve, copy, and archive images to maximize the security and preservation of the original scene images.

5.4.4 Original scene images shall be copied and stored for archival purposes using methods and devices that minimize any potential for alteration, destruction, or loss of the images. Working copies of images may be created for other purposes beyond the scope of documentation; handling of these copies is not within the scope of this document.

6 Diagramming

6.1 Purpose

Diagramming a scene involves representing environmental features such as structural elements or topography within the scene in relation to the identified items of evidence to create a permanent record and visual depiction of spatial relationships and orientation of the documented items.

6.2 Considerations

6.2.1 The use of other terms such as sketch, and drawing are used in different ways depending on agency policy and may be used interchangeably with the term diagram.

6.2.2 The completion of final scene diagrams may not be required in some instances. The decision to complete a final scene diagram will be determined by the investigator, agency policy, and the scope of the investigation.

6.2.3 On-scene measurements are collected to give spatial meaning to diagrams. Measurements can be collected manually or electronically (e.g., tape measures, total stations, laser scanners).

6.2.4 Scene diagrams can be hand-drawn or computer-generated. Often, an initial draft is created on-scene, and when necessary, a final diagram is later produced based on the draft or electronically measured scene data.

6.2.5 Two-dimensional (2D) diagrams may be created from multiple planes if needed (e.g., plan view, elevation view, vertical surface view), as dictated by the circumstances of the scene and the depiction required.

6.2.6 Equipment used to measure scenes can create dynamic 3D deliverable products. Enhanced use of 3D data is subject to coverage in a separate standard of operation (e.g., point clouds, 3D models, etc.).

6.2.7 The minimum accuracy of each tool depends upon its application and intended use. The final product shall meet the minimum admissibility requirements of a fair and accurate scene representation.

6.2.8 Measuring equipment shall be capable of achieving the accuracy necessary according to the intended purposes of the diagram. Minimum requirements for traceability and calibration should be considered but are outside the scope of this document.

6.2.9 All measurement tools and instruments shall be handled, transported, and stored in accordance with the manufacturer's recommendations and in a manner to minimize damage or alteration between uses.

6.2.10 Proper safety and decontamination procedures shall be employed before, during, and following the use of measurement devices.

6.3 Minimum Requirements

6.3.1 The minimum requirements for documentation are specified in 4.3 above; diagrams shall also include:

- A legend describing any symbols.
- A scale (if used) with a scale factor; "Not to Scale" if none used.
- Direction or orientation indicator, if applicable.
- Datum (if relevant) used for reference.

6.4 Preservation

6.4.1 The original measurements, diagrams, and data created as a result of the diagramming process shall be archived per agency policy. Copies shall be made using methods and devices that minimize any potential for alteration, destruction, or loss of the data.

6.4.2 Due to the nature of hand-drawn drafts, using non-permanent writing utensils (e.g., pencil) is acceptable. If non-permanent writing utensils are used during data collection, the hand-drawn components should be made permanent via photocopy, photography, or document scanning as soon as practicable.

Appendix A

(informative)

Bibliography

This is not meant to be an all-inclusive list, as the group recognizes other publications on this subject may exist. When this document was drafted, these were some of the publications available for reference. Also, any mention of a particular software tool or vendor as part of this bibliography is purely incidental, and any inclusion does not mean that the authors of this document are endorsing it.

1] ASTM International, E1188-11:2017: *Collection and Preservation of Information and Physical Items by a Technical Investigator.* In: Book of Standards Volume: 14.02. DOI: 10.1520/E1188-11R17

2] ASTM International, E620-18: *Standard Practice for Reporting Opinions of Scientific or Technical Experts.* In: Book of Standards Volume: 14.02. DOI: 10.1520/E0620-18

3] ASTM International, E678-07 *Standard Practice for Evaluation of Scientific or Technical Data.* Standard Withdrawn 2022.

4] ASTM International, E2916-19- e1: *Standard Terminology for Digital and Multimedia Evidence Examination*. In: Book of Standards Volume: 14.02. DOI: 10.1520/E2916-19E01

5] International Organization for Standardization, *Quality Management Systems - Requirements ISO 9001:2015*

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7] Organization for Scientific Area Committees for Forensic Science. *Standard Guide for Crime Scene Photography*. Draft standard. Video/Imaging Technology and Analysis (VITAL) Subcommittee 2022.