

ASB Technical Report 224, First Edition
202X

**Technical Report for Task-relevant Information in
Friction Ridge Examination**

DRAFT



ASB
AAFS STANDARDS BOARD

Technical Report for Task-relevant Information in Friction Ridge Examination

ASB Approved Xxxxx 202X



410 North 21st Street
Colorado Springs, CO 80904

This document may be downloaded from: www.aafs.org/academy-standards-board

This document is provided by the AAFS Standards Board (ASB). Users are permitted to print and download the document and extracts from the document for personal use, however the following actions are prohibited under copyright:

- *modifying this document or its related graphics in any way;*
- *using any illustrations or any graphics separately from any accompanying text; and,*
- *failing to include an acknowledgment alongside the copied material noting the AAFS Standards Board as the copyright holder and publisher.*

Users may not reproduce, duplicate, copy, sell, resell, or exploit for any commercial purposes this document or any portion of it. Users may create a hyperlink to www.aafs.org/academy-standards-board to allow persons to download their individual free copy of this document. The hyperlink must not portray AAFS, the AAFS Standards Board, this document, our agents, associates and affiliates in an offensive manner, or be misleading or false. ASB trademarks may not be used as part of a link without written permission from ASB.

The AAFS Standards Board retains the sole right to submit this document to any other forum for any purpose.

Certain commercial entities, equipment or materials may be identified in this document to describe a procedure or concept adequately. Such identification is not intended to imply recommendations or endorsement by the AAFS or the AAFS Standards Board, nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

Proper citation of ASB documents includes the designation, title, edition, and year of publication.

Foreword

This document has been developed with the objective of improving the quality and consistency of friction ridge examination practices.

The American Academy of Forensic Sciences established the Academy Standards Board (ASB) in 2015 with a vision of safeguarding Justice, Integrity and Fairness through Consensus Based American National Standards. To that end, the ASB develops consensus based forensic standards within a framework accredited by the American National Standards Institute (ANSI), and provides training to support those standards. ASB values integrity, scientific rigor, openness, due process, collaboration, excellence, diversity and inclusion. ASB is dedicated to developing and making freely accessible the highest quality documentary forensic science consensus Standards, Guidelines, Best Practices, and Technical Reports in a wide range of forensic science disciplines as a service to forensic practitioners and the legal system.

This document was revised, prepared, and finalized as a standard by the Friction Ridge Consensus Body of the AAFS Standards Board. The draft of this standard was developed by the Friction Ridge subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science

Questions, comments, and suggestions for the improvement of this document can be sent to AAFS-ASB Secretariat, asb@aafs.org or 410 N 21st Street, Colorado Springs, CO 80904.

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

ASB procedures are publicly available, free of cost, at www.aafs.org/academy-standards-board.

Key Words: *TBD*

Table of Contents *(to be updated prior to publication)*

- 1 Scope.....
- 2 Normative References.....
- 3 Terms and Definitions.....
- 4 General Information
- Annex A. (informative) Bibliography

DRAFT

Technical Report for Task-relevant Information in Friction Ridge Examination

1 Scope

This document addresses task-relevant and task-irrelevant information for the analysis, comparison, and evaluation phases of friction ridge examinations. This document does not address other tasks that friction ridge examiners perform, such as collection, preservation, processing, conducting Automated Biometric Identification System (ABIS) searches, conflict resolution, and verification; the relevance of information necessary for administrative tasks, accreditation requirements, or reporting of results; or requirements or recommendations for managing exposure to task-irrelevant information in friction ridge examinations.

2 Normative References

There are no normative reference documents. See Annex A for bibliographical references.

3 Terms and Definitions

3.1 contextual information

The information external to the friction ridge impressions that has the potential to affect their interpretation.

3.2 exemplar impression

The deliberately recorded images or impressions from the friction ridge skin of an individual.

NOTE Examples may include, but are not limited to, inked tenprints, inked palm prints, Livescan prints, powder and lift prints, casted/molded prints, or photographs of friction ridge skin.

3.3 matrix

The substance that is deposited or removed by the friction ridge skin when making an impression, e.g., sweat, oils, blood, dust.

3.4 questioned impression

An impression or image of friction ridge skin whose source or identity is unknown; it can include latent impressions, impressions from an unknown source or a known source.

3.5 substrate

The surface or material upon which a substance is deposited.

3.6 task-relevant

The contextual information that can help in conducting the examination or interpreting the observations.

38 **3.7**39 **task-irrelevant**

40 The contextual information that cannot help in conducting the examination or interpreting the
41 observations.

42 NOTE Information that is irrelevant for friction ridge examination may well be relevant for other
43 administrative, analytical, or reporting tasks.

44 **4 General Information**

45 **4.1** During the analysis phase of friction ridge examination, all information other than the
46 questioned impression is considered contextual.

47 **4.2** During the comparison and evaluation phases of friction ridge examination, all information
48 other than the questioned impressions and the exemplar impressions is considered contextual.

49 **4.3** During friction ridge examination, the following contextual information can be task-relevant if
50 it helps the examiner conduct the examination or interpret the observations:

51 a) substrate;

52 b) matrix;

53 c) processing methods;

54 d) collection or recording methods;

55 e) orientation and location of impressions;

56 f) environment or locality from which questioned impressions were recovered;

57 **4.4** The following contextual information can be task-relevant during the comparison and
58 evaluation phases only if it helps the examiner conduct the examination or interpret the
59 observations:

60 a) date of recording of exemplar; and

61 b) if any exemplars were generated by a database search, the size of any databases searched, and
62 any search parameters.

63 NOTE The size of the database searched can impact the decision threshold due to the statistically higher
64 risk of a close non-match in a large database.

65 **4.5** All contextual information not enumerated in 4.3 through 4.4 is presumed task-irrelevant for
66 the analysis, comparison, and evaluation phases of friction ridge examination. Although it is not
67 possible to enumerate an exhaustive list of contextual information that is task-irrelevant for friction
68 ridge examinations, contextual information that is task-irrelevant for the analysis, comparison, and
69 evaluation phases of friction ridge examination includes the following:

70 a) results of other forensic services;

- 71 b) documentation, or conclusions, or both by other friction ridge examiners;
- 72 c) crime type;
- 73 d) procedural status of each case or how the sources of exemplar impressions relate to a case (e.g.,
74 suspect, victim);
- 75 e) other evidence or investigative information, whether forensic or not;
- 76 f) any information about the identity, relationship to the investigation, criminal history, or
77 demographic information about the source(s) or exemplar(s);
- 78 g) identities of personnel involved in the investigation, e.g., submitting officer;
- 79 h) laboratory and agency case numbers;
- 80 i) item number(s);
- 81 j) Automated Biometric Identification System (ABIS) rank or score; and
- 82 k) any information about the reference population, *i.e.*, the population of potential donors of
83 questioned impressions.

84

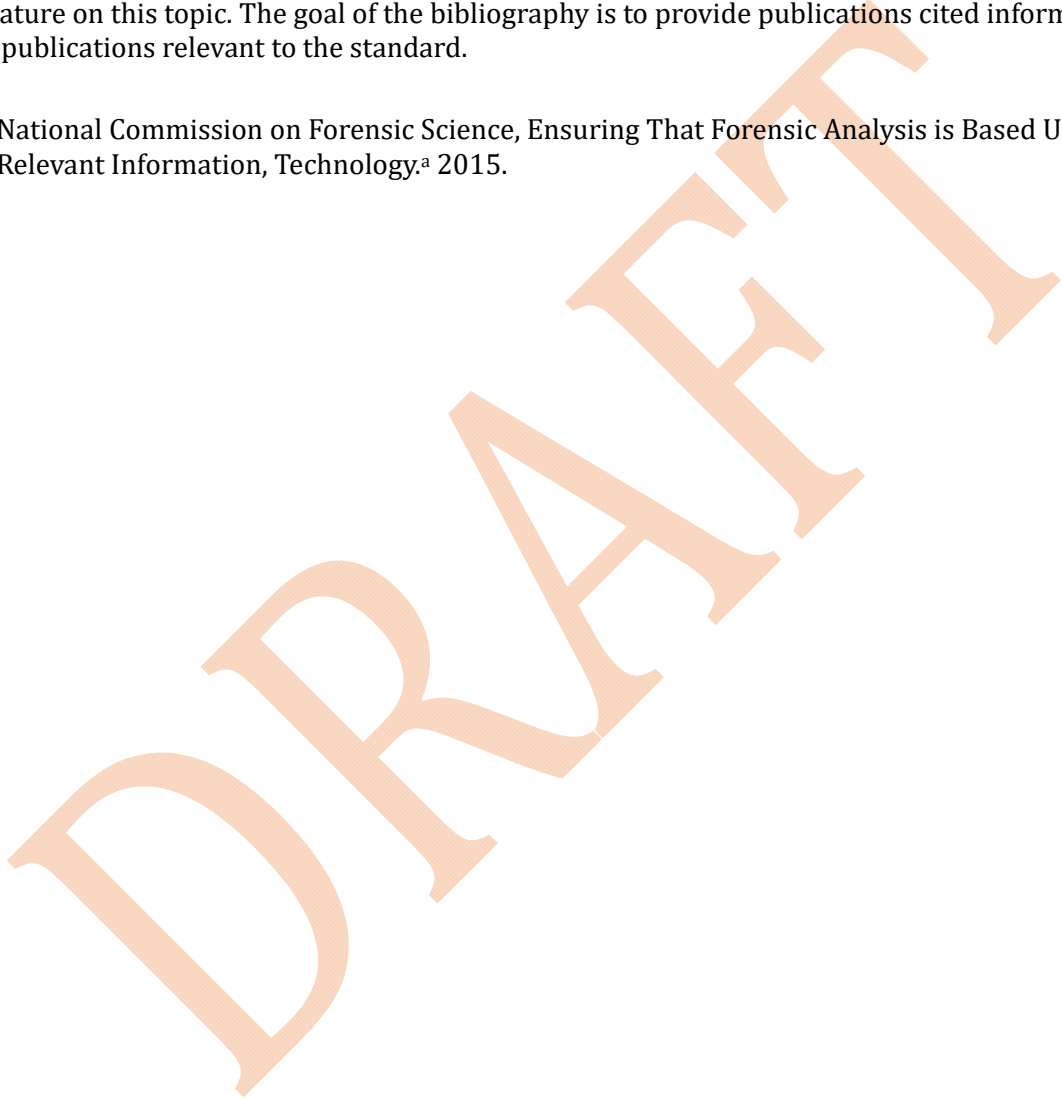
85
86
87
88
89
90
91
92
93

Annex A
(informative)

Bibliography

The following bibliography is not intended to be an all-inclusive list, review, or endorsement of literature on this topic. The goal of the bibliography is to provide publications cited informationally, and publications relevant to the standard.

- 1] National Commission on Forensic Science, Ensuring That Forensic Analysis is Based Upon Task-Relevant Information, Technology,^a 2015.



^a Available from: <https://www.justice.gov/ncfs/file/818196/download>



ASB
AAFS STANDARDS BOARD

Academy Standards Board
410 North 21st Street
Colorado Springs, CO 80904

www.aafs.org/academy-standards-board