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**Best Practice Recommendation for Limited Friction
Ridge Examinations**

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Best Practice Recommendation for Limited Friction Ridge Examinations

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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 401 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.

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Keywords: *limited examinations, friction ridge processing, friction ridge examination*

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1 Best Practice Recommendation for Limited Friction Ridge Examinations

2 1 Scope

3 This document provides best practice recommendations for policies and procedures regarding
4 limited examinations of latent friction ridge impression evidence, and proper documentation for
5 these examinations. Limited exams are partial analyses, comparisons, and/or processing that do
6 not fully utilize the capabilities of a Forensic Service Provider (FSP).

7 2 Normative References

8 There are no normative references.

9 3 Terms and Definitions

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

11 3.1

12 **examiner (friction ridge)**

13 An individual authorized to conduct independent friction ridge examinations for the forensic
14 service provider by observing and interpreting data, making decisions, forming conclusions and
15 opinions, issuing reports and/or providing testimony. Use of the term “examiner” in these
16 documents refers to a “*competent friction ridge examiner*” and not a “*trainee*.”

17 3.2

18 **Forensic Service Provider**

19 **FSP**

20 Organization or individual that conducts and/or supplies forensic services.

21 *ISO 21043-1¹*

22 3.3

23 **friction ridge detail**

24 **friction ridge features**

25 The combination of ridge flow, ridge characteristics, and ridge structure of friction ridge skin, as
26 reproduced and observed in an impression. The observed data used to compare and interpret
27 similarity or dissimilarity between impressions.

28 3.4

29 **limited examinations**

30 Examinations of latent friction ridge evidence that are not complete as defined by Standard
31 Operating Procedures (SOPs).

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32 **3.5**

33 **minutia**

34 The point where a friction ridge terminates, or splits into two or more ridges. A subset of the
35 friction ridge detail/features traditionally consisting of ridge endings, bifurcations, and dots, or any
36 combination thereof, used to compare and interpret similarity and dissimilarity between two
37 impressions.

38 **4 Recommendations**

39 **4.1 Administrative**

40 **4.1.1** Each FSP should decide whether they will perform limited examinations or not. The FSP
41 shall have a written policy regarding if it performs limited examinations, as well as how to carry out
42 limited examinations should they be performed.

43 NOTE 1 This document does not state nor imply that performing limited examinations is best practice, nor
44 does it take position on whether limited examinations should be performed.

45 NOTE 2 Limited examinations are an operational process. The decision to perform a limited examination is
46 based on operational, non-scientific reasons."

47 **4.1.2** The FSP should assess the risks when deciding to implement a limited examination policy,
48 including published or internal research on potentially missed data.

49 **4.1.3** Examiners and FSPs should apply tools to identify potential biasing information and to
50 minimize the effects of bias.

51 **4.1.4** Limited examinations shall not be performed through random sampling.

52 **4.2 Evidence Processing**

53 **4.2.1** When deciding which evidence to process first, if evidence is identified by the relevant
54 stakeholder as probative, the FSP should take that recommendation into consideration.

55 **4.2.2** FSP should consider risk factors if choosing to limit the extent to which particular items in a
56 case will be processed. Factors to consider may include offense type, success rate of the item
57 surface, and success rate of the processing techniques(s). When selecting limited processing
58 techniques, the FSP should consider the potential of a given technique for negatively impacting
59 subsequent processing, selecting specific processing techniques with higher sensitivity versus
60 conducting full sequential processing. At a minimum, any friction ridge detail of potential value that
61 has been developed shall be photographed and/or retained and the integrity of the item shall be
62 maintained for potential future examination.

63 **4.2.3** Conducting limited processing of evidence for latent prints should not be done in such a
64 way as to inhibit or jeopardize additional processing techniques from being applied in the future.
65 The requesting stakeholder shall be notified prior to employing limited processing techniques that
66 may negate further processing in the future.

67 **4.3 Friction Ridge Examinations**

68 **4.3.1** If evidence is identified by the stakeholder as probative, the FSP should take that
69 recommendation into consideration if choosing to search and/or compare certain friction ridge
70 impressions first as part of a limited comparison. The FSP may take into consideration the
71 investigative needs of the stakeholder if choosing to discontinue searches or comparisons. The FSP
72 shall preserve and retain all suitable friction ridge impressions. Evidence shall be maintained so
73 that future examinations can be conducted.

74 **4.3.2** The FSP should search all ABIS quality friction ridge impressions. ABIS searches may be
75 conducted and reported prior to conducting manual comparisons to named persons.

76 **4.3.3** When an examiner performs an auto-extracted minutiae ABIS search first and no source
77 identifications are made, the examiner should perform a second search by using manually encoded
78 minutiae or 'cleaning up' the auto-extracted minutiae.

79 **4.3.4** FSP policy should address which ABIS databases are searched and how many candidates
80 are requested, if being utilized as part of a limited examination.

81 **4.3.5** The FSP should communicate with the requesting stakeholder the existence of a policy
82 allowing for limited examinations. The FSP shall communicate with the requesting stakeholder
83 prior to limiting any portion of the friction ridge examination(s) or ABIS search(es).

84 **4.3.6** If the FSP chooses to defer any manual comparisons (to requested individuals or to
85 candidates from an ABIS search), they may do so only once each individual has been identified on a
86 particular surface or item(s); or once multiple source identifications have been made to the same
87 individual.

88 **4.4 Documentation and Reporting**

89 **4.4.1** The written report should state what additional processing or examinations could be
90 conducted (within the bounds of FSP capabilities at the time) in the future. The extent of the limited
91 examination shall be documented in the case file and outlined in the written report, including any
92 evidence that was not processed and/or any friction ridge impressions that were of potential value
93 that were not analyzed or compared.

94 **4.4.2** Any request from a stakeholder to discontinue/stop work as part of a limited examination
95 should be fully documented in the case file and report (if applicable).

96 Any pertinent communication with the stakeholder regarding how the examination was limited
97 should be documented in the case file.

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