23-Mar-20
ASB Std 117
Standard for Examination of Stamping Devices and Stamp Impressions

Note: a specific Proposed Resolution must accompany each comment or it cannot be considered.

#	Section	Type of Comment	Comments	Proposed Resolution	Final Resolution
1	3.2		Definitions: Please change:	3.2 class characteristic A feature or defect specific to a production run, or a specific portion of a production run, and not to a specific stamp (for example, size, type style, design, text, and shape). This is a compromise, if you don't want to include the term subclass.	Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.
2	3.18		Definitions: Please change:	3.18 progressive defect Change to transient defect and change the end to "can change over time."	Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.
3	3.18	T	progressive defect A defect or feature that appears during the use of the stamp can change with additional usage.	progressive defect A defect or feature that appears during the use of the stamp can change with additional usage or artificial damage.	Reject: Artificial damage is not a term used or defined.
4	3.19		Definitions: Please change:	3.19 Randomly Acquired Characteristic RAC A feature or defect that can occur in the manufacturing process or from post-manufacture usage of an individual stamp (for example, wear and damage defects such as cuts and gouges, reproducible blemishes, impression voids, improper and extraneous inking, or coincidental peripheral printing).	Accept with Modification: "occurring after manufacture" was added after "individual usage" in the first sentence.
5	3.19	E	The Standard's definition of a "Randomly Acquired Characteristic inappropriately relies on the concept of uniqueness, essentially claiming indirectly the impressions left by stamping devices are meaningfully unique. But first, the concept of uniqueness is not particularly relevant to the reliability or practice of identifying the source of a stamp impression. *See* PCAST, "*Forensic Science in Criminal Courts* ," at 62 (2016) ("The issue is not whether objects or features differ; they surely do if one looks at a fine enough level. The issue is how well and under what circumstances examiners applying a given metrological method can reliably detect relevant differences in features to reliably identify whether they share a common source. Uniqueness studies, which focus on the properties of features themselves, can therefore never establish whether a particular method for measuring and comparing features is foundationally valid. Only empirical studies can do so.") And, at all events, the concept of uniqueness is scientifically indefensible-at minimum it could never be proven through sampling (i.e. through failing to observe identical pairings during any period of casework). Michael J. Saks & Jonathan J. Koehler, "*The Individualization Fallacy in Forensic Science Evidence* " 61 Vand. L. Rev. 199 (2008) (explaining that "the claim of unique individuality cannot be proven with samples, especially samples that are a tiny proportion of the relevant population" and emphasizing that uniqueness "exists only in a metaphysical or rhetorical sense. It has no scientific validity, and it is sustained largely by the faulty logic that equates infrequency with uniqueness."); William Tobin & Peter Blau, "*Hypothesis Testing of the Critical Underlying Premise of Discernible Uniqueness in Firearms-Toolmark Forensic Practice* " 53 Jurimetrics 121, 122-23 (2013) ("The cited scholarly essays suggest that forensic individualization based on the claim of uniqueness has a scientifically indefensible conceptual foundation and is a fallacy promulgated by the forensic community.	Remove the word "uniqueness from the definition of RAC. One way to rephrase might be to change the language to "The position, orientation, size and shape of these characteristics contribute to the identification of a stamp as the source of an impression."	Accept with Modification: Last two sentences in this section were replaced with this sentence "The position, orientation, size and shape of these characteristics are essential to the identification of a stamp as the source of an impression."

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5 continued			The authors, and relevant mainstream scientists and colleagues with specialized forensic expertise with whom the authors have collaborated, agree."); Mark Page, Jane Taylor, & Matt Blenkin, "Uniqueness in the Forensic Identification Sciences-Fact or Fiction?" 206 Forensic Sci. Int. 12, 13 (2011) ("Accumulation of positive instances simple cannot lead to a conclusion of certainty."); John Thorton, "The General Assumptions & Rationale of Forensic Identification," In Modern Scientific Evidence: The Law & Science of Expert Testimony, at 12 (1997). (uniqueness does "not seem susceptible of rigorous proof. But the general principle cannot be substituted for a systematic and thorough investigation of a physical evidence category"). Ultimately, "the concept of uniqueness has more the qualities of a cultural meme than a scientific fact," and this standard should reject such fallacies not reinforce them. See Page, "Uniqueness in the Forensic Identification Sciences-Fact or Fiction?" 206 Forensic Sci. Int. at 15; see also "The Individualization Fallacy in Forensic Science Evidence" 61 Vand. L. Rev. at 208-09 (noting lack of science behind uniqueness concept: "various arguments have been offered on behalf of the individualization hypothesis. None are scientifically compelling. Some arguments rely on the metaphysical notion that because no two objects can be the same object, they will inevitably manifest observable differences. Some rely on appeals to venerated authority (dead members of our field said it was so), contemporary authority (living members of our field say it is so), wishful thinking (because object variability has been observed, there will always be discernible differences between any two objects), or the personal experience of practitioners (as if by doing casework on pairs of objects the nature of the population and relationships within that population are revealed). These approaches amount to nothing more than faith and intuition.")		
6	3.19	T	3.19 Randomly Acquired Characteristic RAC A feature or defect specific to one stamp that can occur in the manufacturing process or from individual usage (for example, wear and damage defects such as cuts and gouges, reproducible blemishes, impression voids, improper and extraneous inking, or coincidental peripheral printing). The position, orientation, size and shape of these characteristics contribute to the uniqueness of a stamp. Randomly acquired characteristics are essential for the identification of a stamp as the source of an impression.	A feature or defect specific to one stamp that can occur in the manufacturing process or from individual usage,or how long it has been used (for example, wear and damage defects such as cuts and gouges, reproducible blemishes, impression voids, improper and extraneous inking, or coincidental peripheral printing and the inartificial damages it produce in any time period). The position, orientation, size and shape of these characteristics contribute to the uniqueness of a stamp. Randomly acquired characteristics are essential for the identification of a stamp as the source of an impression.	Reject: The stamp use is not time dependent.
7	3.26		Definitions: Please change:	3.26 transitory defect change to post-manufacture transitory defect A post-manufacture RAC caused by an anomaly such as dust, hair, dirt, or fiber that attaches itself to the material of the stamp die and can create a non-print area in the impression. A transitory defect is not part of the die or stamp; therefore, it can easily be removed by use or cleaning.	Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.
8			Issue 1 – Definition for subclass characteristics One substantive issue involves the concept of subclass characteristics and the inclusion of a definition. This concept is fairly well developed among toolmark and firearm examiners and should be considered in the context of this document because the stamp die is a "tool" making a "toolmark" type impression on a "substrate".	Therefore, at a minimum, it would be best to include the AFTE definition of subclass characteristics: "features that may be produced during manufacture that are consistent among items fabricated by the same tool in the same approximate state of ware. These features are not determined prior to manufacture and are more restrictive than class characteristics." (AFTE 2013) Because direct access to the AFTE Glossary might be difficult, the following footnote could work in the Bibliography: AFTE Standardization and Training Committee. 2013. AFTE Glossary, 6th ed. As quoted in Nichols, Roland. Firearm and Toolmark Identification: The Scientific Reliability of the Forensic Science Discipline. Elsevier, Academic Press, 2018, p. 33. AFTE Standardization and Training Committee. 2013. AFTE Glossary, 6th ed. As quoted in Monturo, Chris. Forensic Firearm Examination. Elsevier, Academic Press, 2019, p. 219. As stressed in the literature, the main reason for including the concept of subclass characteristics is the danger of an examiner mistaking a subclass characteristic present in two or more individual stamps as a RAC unique to a single individual stamp. Of course, a properly trained examiner should know about this problem and take it into account, but not all training has the same content or emphasis, and even the best practitioner might have a momentary lapse in following the examination steps in this standard. To guard against this possibility, no matter how remote, this standard should ensure that the examiner following this set of procedures considers this issue, at least during the evaluation phases of the examination.	Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.

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9			The proposed definition of manufacturing defect at 3.12 describes a process, but does not include the concept of this defect being present in multiple, but not all, members of a group.		Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.
10			To include the concept of subclass in the document please make the following changes Foreword, line 5: determine class, subclass, and randomly 4.6.2.1, last phrase: and any possibility of a subclass characteristic or a duplicate 4.6.2.3 line 4: absent characters, class or subclass characteristics		Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.
11			Issue 2 RACs during manufacture and post-manufacture RACs Kelly (2002) points out that what we now call RACs can happen at various stages in the manufacturing process or during the post-manufacture use of the individual stamp. If the post-manufacture RACs are truly random, then they will be unique to that individual stamp. However, a RAC of matrix or negative during manufacturing run can generate a subclass of stamps reflecting that characteristic, particularly if the RAC during the manufacturing process is transitory. The proposed definition of manufacturing defect at 3.12 describes a process, but does not include the concept of this defect being present in multiple, but not all, members of a group. This concern stems from the shifting tool/substrate relations that generate the stamp impression. The stamp die is a tool that "works" on the (generally paper) substrate, imparting its class characteristics and RACs to the toolmark, the stamp impression. However, during the manufacturing process, the stamp die was the substrate and the matrix or negative was the tool imparting its class characteristics and RACs. This concept can back up to or those nasty air bubbles that can mar a single stamp die or one of several matrix boards (each used to make multiple dies) generated by the same handset or hot metal type set up.	To clarify this issue, I suggest rewriting 3.19 and 3.26, and inserting "post-manufacture" before RAC in 3.19 last sentence; 4.5.10.3 Note; 3.5.12; 4.6.2.1.	Reject: Section 3.19 was edited to include "occurring after manufacture" however this edit is in the definiton and it is not necessary/or does not need to be included in sections 4.5.10.3; 4.5.12 and 4.6.2.1. Also it does not apply to section 3.26.
12			Issue 3 4.5.11.6.7 "will be" indicates a prediction of what will happen in the future.	Use "should be" or "shall be"	Reject with modification: First sentence of section revised to "Obtain multi-generation stamp impressions from hand stamps and self-inking stamps."
13			My personal choice for a set of definitions in this area would be the definitions that have been distributed in my workshops for about two dozen years. These are appended at the end of this overly long document. Addendum As promised (threatened) above, here is my personal set of definitions that might work well in this standard. Of course RAC has now overtaken this last definition, although they both go to the same point.	Class Characteristic—a feature that is intended to be present in a particular form in every member of a group and can be used to define that group. Subclass Characteristic—a feature that is intended to be present in a particular form in every member of a sub-group within a class and can be used to define that sub-group. Subclass Defect—an unintended deviation from a class characteristic that is present in a particular form in all members of a definable sub-group within a class. Common Defect—a deviation from a class characteristic that is present in a similar, but not necessarily exact, manner in a significant number, even most, but not all, of the members of a class. Individual Characteristic—a deviation from a class characteristic that would be present only by chance in another member of the class.	Comment Withdrawn by Commenter during April 8, 2020 consensus body meeting.