

Definitions and Approved Abbreviations for the Latent Print Units

1 Purpose

To define terms and abbreviations used in the Latent Print Units.

2 Scope

The definitions and abbreviations in this document apply to the FBI Latent Print Units Quality Assurance Manual and the FBI Latent Print Units Operations Manual as well as any Latent Print Units casework or other applications.

3 Terms and Definitions

Ad Hoc Search - Search of the Next Generation Identification System based on specific description information contained in the identity history.

Adobe Photoshop Action - A series of pre-defined digital processing steps created by Foray™ to be used on a digital image.

Adhesive Lifters - Flexible lifting material often utilized for lifting powder prints.

Analysis - The first step of Analysis, Comparison, and Evaluation. The primary examination of a friction ridge print by an examiner, in which the quality and quantity of information, including the rarity/specificity of features and their relationships, are assessed in addition to tolerance for variations in appearance. [Note: “Analysed” is an acceptable spelling for “Analyzed”]

Analysis, Comparison, Evaluation - A methodology for conducting a friction ridge print examination.

Antemortem- Preceding death.

Automated Fingerprint Identification System- Biometric recognition system that uses digital imaging techniques to obtain, store, and analyze fingerprint data.

Biometric Set Identifier - Number in the Next Generation Identification System assigned to each individual card within an event.

Blind Verification - Application of Analysis, Comparison, and Evaluation to a friction ridge print by an examiner who does not know the evaluation conclusion of the primary examiner.

Candidate List - Compiled ranking of images generated from a Next Generation Identification System search. Rankings are arranged from highest to lowest score based on the information entered.

Capture Device - A device, such as a digital camera, flatbed scanner, or film scanner used to record a digital image of an object.

Case (as used in Next Generation Identification System) - The combination of a Latent Case Number and Latent Case Extension.

Certification File - Original image of the known fingerprint card as submitted to the Criminal Justice Information Services Division database for a specific event.

Civil File - Gallery in the Next Generation Identification System that contains known exemplars of individuals who served or are serving in the US military, have been or are employed by the federal government, have applied for US citizenship, and other non-criminal applicants.

Claimed – Term that can be used synonymously with “suitable for comparison”.

Clarity - The quality of being clear. In particular, the quality of being easy to see or hear, the sharpness of image or sound.

Color Channel - A series of pixel values comprised of a specified number of bits which represent specific color components within an image. The number of channels is dependent on the color mode. For example, CMYK has four color channels, one each for cyan, magenta, yellow, and black, whereas grayscale has only one.

Comparison - The second step of Analysis, Comparison, and Evaluation. The side-by-side observation of suitable for comparison friction ridge prints to determine whether the information observed during analysis is in disagreement or agreement between two prints.

Complex Analysis or Complex Conclusion - The examination of a friction ridge print(s) where factors influencing the quality of the print(s) could interfere with the proper interpretation of the information in the print(s).

Compression - A process which reduces the size of an electronic file.

Compression, Lossless - Compression in which no pixel values are lost and the image can be retrieved in its precise, original form.

Compression, Lossy - Compression of data to a format which, when re-expanded, has most, but not all of the original information. Once re-expanded, lossy images are close, but not identical to the original image; however, the difference between the original and the re-expanded image may be imperceptible to normal viewing by the human eye.

Conclusion - Determination made during the analysis stage or evaluation stage of Analysis, Comparison, and Evaluation.

Conditioner - See “Restorative”

Confirmation Bias - Tendency to search for or interpret data in a way that supports one’s preconceptions.

Consensus Panel – A consultation meeting of internal latent print experts used as a means to address technical disagreement in latent print casework.

Contextual Bias - Tendency to allow information or outside influences to interfere with the interpretation of data.

Crease - A line or linear depression; grooves at the joints of the phalanges, at the junction of the digits and across the palmar and plantar surfaces that accommodate flexion.

Criminal File - Next Generation Identification System gallery of known exemplars submitted by duly authorized law enforcement agencies.

Cyanoacrylate (Superglue) - An adhesive used in a fuming method to develop friction ridge detail.

Decision - see “Conclusion”

Dermal Papillae - Dermal papillae are branched dermal cells that flank both sides of the primary ridges on the underside of the epidermis. Double rows of dermal papillae follow the same path of the surficial friction ridges, providing them with structural support.

Dermis - Anatomical term for the inner layer of skin under the epidermis.

Desiccated - Condition where the friction ridge skin becomes thoroughly dried out.

Digit - A toe or finger.

Digital Capture - Process of recording data using digital equipment.

Digital Image - A numerical representation recorded as a series of binary digits (bits) either as 1 or 0 with no values in between.

Digital Image Processing - Any process intended to improve the visual appearance of a digital image.

Digital Media - Any object on which a digital image is preserved.

Digitally Processed Image - Image generated after digital image processing tools have been applied to an image.

Discrepancy - The presence of friction ridge detail in one print that does not exist in the corresponding area of another print.

Dissimilarity - A difference in appearance between two friction ridge prints.

Distortion - Variances in the reproduction of friction skin caused by pressure, movement, force, contact surface, etc.

Dividing Ridge (Bifurcation) - One of three standard characteristics where a single friction ridge divides into two distinct friction ridges.

Dot - One of three standard characteristics where an isolated friction ridge unit has a length that approximates its width in size.

Draft Notes - Handwritten examination notes used to generate typed notes.

Encode - In the Next Generation Identification System, the process used to mark dividing ridges and ending ridges for automated searches.

Encryptor - Hardware or software used to scramble data which makes it unreadable to everyone except the recipient.

Ending Ridge - One of three standard characteristics where a single friction ridge terminates within the friction ridge structure.

Epidermis - Anatomical term for the outer layer of skin.

Evaluation - The third step of Analysis, Comparison, and Evaluation. The formation of a conclusion based on the examiner's observations, assessments, and documentation generated during the analysis and comparison of the friction ridge prints.

Event - In the Next Generation Identification System, the individual record corresponding to the acquisition of known prints for an arrest or for civil purposes.

Exclusion - The conclusion that two friction ridge skin prints did not originate from the same source due to sufficient friction ridge skin features in disagreement.

Exemplar - see "Known Print"

File Format Conversion - The process of changing the structure by which data is organized in a file.

Fingerprint - A reproduction of the friction ridges of all or any part of the finger.

Fluorescence - The emission of light, resulting from the absorption of radiation from another source.

Footprint - A reproduction of the friction ridges of all or part of the foot.

Foray™ Digital Workplace (Adams Workplace) - Program that digitally archives original and processed images and associated history.

Foray™ Action - See Adobe Photoshop Actions

Forensic Light Source - Any light source used for the detection of friction ridge prints.

Forensic Information Scanning Hub - Program that digitally archives original and processed images and associated history.

Forward Laboratory – Any laboratory or similar organization that is part of the Department of Defense.

Friction Ridge - A raised portion of the epidermis on the palmar or plantar skin, consisting of one or more connected ridge units of friction ridge skin.

Friction Ridge Detail (Morphology) - The level one, level two, and level three detail on an area of friction skin.

Friction Ridge Investigation File - In the Next Generation Identification System, a searchable repository that contains a collection of all event sets that can include ten print rolls, upper and lower palm prints, and supplemental fingerprints for both criminal and civil known identities and is used for latent print searches.

Gallery - In the Next Generation Identification System, the grouping of an individual's known record(s) by a defined flag (filter) (i.e., Criminal, Civil, Special Population Cognizant), based on how the known card set was added to the Friction Ridge Investigation File database.

Gloved Skin - A condition that occurs when the epidermal layer has become detached from the dermal layer. When the entirety of the skin detaches from the hand it is referred to as “gloving” or “gloved skin.”

Handprint - A fingerprint(s) and palm print, all deemed suitable for comparison individually, that appear to be deposited by the same touch or a continuous impression across finger and palm that together is determined to be suitable for comparison.

Human Remains Pouch - Another term for body bag.

Identification - The conclusion that two friction ridge prints originated from the same source. The conclusion is an examiner's decision that the observed friction ridge skin features are in sufficient correspondence such that the examiner would not expect to see the same arrangement

of features repeated in a print that came from a different source and insufficient friction ridge skin features in disagreement to conclude that the prints came from different sources.

Image Processing History - A record of the steps used to digitally process an image.

Impression - A friction ridge print whose anatomical region cannot be determined.

Inconclusive - The conclusion that there is insufficient quantity and quality of corresponding friction ridge skin features between two prints such that the examiner is unable to identify or exclude the two prints as originating from the same source. The inconclusive conclusion can be based on insufficient information in either a latent print or a known print.

Inherent Fluorescence - To fluoresce naturally, specifically without any chemical processing.

Integrated Automated Fingerprint Identification System - Biometric system that stores and searches electronic friction ridge images and associated data. Legacy system prior to the Next Generation Identification System.

Intentionally Recorded Prints - Friction ridge prints recorded under known and controlled conditions (includes both known prints and unknown deceased recordings).

Investigative Value - Information that is of value for the investigator or contributor of a case and not the individual conducting the examinations.

Joint Photographic Experts Group - A standardized image file exchange format that is lossy. Known as JPG or JPEG.

Joint Photographic Experts Group 2000 - A standardized image file exchange format that can be lossless or lossy. Known as JPEG 2000.

Known Print (Finger, Palm, Foot) - Friction ridge recordings of an individual associated with a known or claimed identity and deliberately recorded with black ink, electronic imaging, photography, or other medium (e.g., a standard ten print card and a single print from a driver's license).

Known to Known Comparison - Comparison of a known print (either ten print or single print) with another known print.

Latent Case Number - A number within the Next Generation Identification System which is based on the FBI Case ID number and contains the field office designator and the field office case number.

Latent Case Extension - Five digit serial in combination with the Latent Case Number in the Next Generation Identification System that makes the Next Generation Identification System case unique.

Latent Print - A transferred impression of friction ridge detail that is not readily visible; generic term used for unintentionally deposited friction ridge detail.

Latent to Latent Comparison - Comparison of one latent print with another latent print.

Latent Print Digital Imaging System - A computer network designed to allow the Latent Print Units to capture images, process images, and compare prints.

Level One Detail - Friction ridge flow and general morphological information.

Level Three Detail - Friction ridge dimensional attributes (e.g., width, edge shapes, and pores).

Level Two Detail - Individual friction ridge paths and friction ridge events (e.g., dividing ridges, ending ridges, dots).

Light Amplification by Stimulated Emission of Radiation - Device that produces coherent wavelengths of light. Also known as LASER.

Live Scan - Digital capture of the friction ridges.

Lower Joint - Specific area of the finger appearing between the first and third joints of the finger or first and second joints for the thumb.

Maceration - Condition of the friction ridge skin from prolonged water or moisture exposure.

Major Case Prints - see “Secondary Biometrics”

Manual Comparison Function - Function within the Next Generation Identification System that allows images to be compared on screen outside of the home page.

Matrix – the substance that makes up the latent print. The matrix can consist of a single substance, or a combination of substances, which generally includes perspiration or oil from an individual. Other substances, such as blood, grease, paint, dust, and other compounds that allow the friction ridge details to transfer to an object, can also be a matrix.

Metadata - A set of data that describes and gives information about other data.

Minutia - Event along a ridge path, including dividing ridges, ending ridges, and dots. Sometimes referred to as “points”.

Next Generation Identification System - National database containing friction ridge prints.

Not Claimed - Term that can be used synonymously with “not suitable for comparison”.

Not Suitable for Capture - Decision that a print lacks sufficient reliable information such that there is no expectation that a capture would yield a print suitable for comparison. This

designation is also applicable when no friction ridges are observed, and when friction ridges are observed, but have already been captured and no additional capture is deemed necessary.

Not Suitable for Comparison - When an examiner determines that a print lacks sufficient reliable information such that an identification decision to any individual would not be considered possible.

No Value - When a print lacks sufficient reliable information to reach an identification conclusion, given a reliable recording from the same source. [Note: No longer used in Latent Print Units.]

Object Shot(s) - Any image(s) that does not contain evidentiary information relevant to the affected friction ridge print examination(s).

One to one (1:1) - Actual size.

Originating Agency Identifier - In the Next Generation Identification System, identifier for the originating agency of a case.

Original Image - First recording of an image or an accurate and complete replica of the first recording of an image.

Orientation Shot(s) – A specific type of object shot taken to show where a friction ridge print is located on an item.

Output Device - A device used in the presentation of an image for examination or observation.

Palm (Palmar Area) - The friction ridge skin area on the side and underside of the hand.

Palm Print - A reproduction of the friction ridges of all or part of the palm area of the hand.

Postmortem - Occurring after death.

Preservative - Embalming chemical used to process human remains.

Primary Examiner - The examiner who conducts an examination, arrives at a conclusion and submits the print(s) for verification or blind verification.

Quality - The clarity of the information contained within a friction ridge print.

Quantity - The amount of information contained within a friction ridge print.

Rarity – The frequency at which a feature, or set of features, is expected to be observed.

RAW - Image file that contains the unprocessed data from the image sensor of a digital camera. This format is proprietary and differs from one manufacturer to another, and sometimes amongst cameras made by one manufacturer.

Recording Session - The writing of a digital file or files to digital media at one time.

Resolution - The number of pixels displayed per unit of printed length in an image, usually measured in pixels per inch.

Restorative - Embalming chemical used to rehydrate desiccated tissue.

Ridge Flow - The direction of one or more friction ridges. A component of Level 1 detail.

Ridge Path - The course of a single friction ridge. A component of Level 2 detail.

Rigor Mortis - Stiffening of the body musculature after death.

Secondary Biometrics - Recordings of friction ridge skin not contained on a standard known fingerprint card, typically palm print exemplars and fully rolled tips, sides, and lower joint areas of the fingers. Sometimes referred to as Major Case Prints.

Signature - Term refers to written signature or electronic equivalent.

Single Conclusion - When only one unknown print is identified with a known exemplar, excluded from any number of known exemplars, or inconclusive with any number of known exemplars.

Source - Refers to the section of friction ridge skin from which a friction ridge print originated.

Source Exclusion - See "Exclusion".

Source Identification - See "Identification".

Special Population Cognizant File - As used by the Latent Print Units, a minutia-based, searchable gallery in Next Generation Identification System that contains images based on specific parameters.

Specificity - The ability to discriminate, or level of discriminability, between different sources.

Subject Search - Search of the Next Generation Identification System based on the input of an individual's biographical data. The search type requires entry of specific information prior to submission as listed in the Latent Print Units Operations Manual, Standard Operating Procedures for the Next Generation Identification System.

Substrate - Surface upon which a friction ridge print is deposited.

Sufficiency - Enough rarity and/or specificity in a print or between prints to come to an analysis or evaluation decision.

Suitable for Capture - Decision that sufficient reliable information is present, such that a capture of the print may yield a print suitable for comparison.

Suitable for Comparison – When the examiner determines that sufficient reliable information may be present in a print, such that an identification decision could be reached.

Target Group - A distinctive group of ridge features, and their relationships, that can be recognized.

TEDACnet - A computer network that allows the Latent Print Units to capture images, process images, and compare prints.

Ten Print Record - A controlled recording of an individual's available fingers using ink, digital capture, or other method. The record is usually produced in a standard or official format, such as an official ten print card.

Thermal Modification - Damage associated with the friction ridge skin due to incomplete combustion (burned or charred skin).

Tagged Image File Format - A standardized image file exchange format that is widely supported by both hardware and software manufacturers, platform independent, and can be lossless or lossy; however, the file is generally lossless. Known as a TIFF or TIF.

Tissue Builder - Liquid that forms a gel when injected hypodermically filling out sunken or emaciated tissue.

Toe Print - A reproduction of the friction ridges of all or part of the toe.

Transfer Medium - Substance with which a friction ridge print is deposited.

Universal Control Number - Unique number assigned to Criminal File, Civil File, Special Population Cognizant File, and Unsolved Latent File prints in Next Generation Identification System.

Universal Latent Workstation - FBI software (written and maintained by Criminal Justice Information System Division) which provides remote access to the Criminal Justice Information System Division Criminal and Civil galleries for the purpose of requesting images and automated searches.

Unsolved Latent File - File containing unidentified prints.

Unsolved Latent Match - Notification of a possible identification of a latent print in the Unsolved Latent File.

Value - Decision by an examiner that sufficient reliable information is present, such that, when compared to another reliable print from the same source, an identification decision can be reached. [Note: No longer used in Latent Print Units].

Verification - Application of Analysis, Comparison, and Evaluation to friction ridge prints by another examiner.

Wavelet Scalar Quantization Compression - A format by which digital images are compressed to reduce file size. Also known as WSQ Compression.

Working Image or Working Copy - Any image subjected to digital image processing.

4 Abbreviations

Abbreviations are acceptable in lower or upper case.

Ø , Φ, φ	Identification
non-Ø, non-Φ, non-φ	Exclusion
2°	Secondary Evidence
ABP	Alternate Black Powder
ACE (-V)	Analysis, Comparison, Evaluation (-Verification)
ACL	Activity and Communication Log
ACS	Automated Case Support
ADH	Adhesive processes (Black WetWop™ or White WetWop™)
ADO	Also Detected On
ADX	Ardrox
AFIS	Automated Fingerprint Identification System
AGP	Ash Gray Powder
AM	Antemortem
AMB	Amido Black
ANS	Automated Name Search
ANSI	American National Standards Institute, Inc.
AS	Adhesive Side
AU	Arch
BAU	Biometrics Analysis Unit
BIAR	Biometric Intelligence Analysis Report
BIIR	Biometric Identity Intelligence Resource
BSI	Biometric Set Identifier
BTB	Believed To Be
BV	Blind Verification, Blind Verified
BWW	Black WetWop™
C	Claimed
CBB	Coomassie Brilliant Blue
Cert	Certification

CIV	Civil File
CJIS	Criminal Justice Information Services Division
CMF	Criminal Master File
CIDNE RoAR	Combined Information Data Network Exchange Relevant Operational Area Reporting
Comm(.) Log, Com(.) Log	Communication Log
CRN	Civil Record Number
CS	Crimescope
CSS	Wavelength setting on the CS
CVL	Civil File
DAB	Diaminobenzidine
DART	Database for Automated Reporting in the TEDAC Biometrics Analysis Unit
DFO	1, 8-Diazafluoren-9-One
DHS	Department of Homeland Security
DoD	Department of Defense
DVI	Disaster Victim Identification
DW	Digital Workplace (Foray or Adams Digital Workplace)
EFP	Explosively Formed Projectile
EFTS	Electronic Fingerprint Transmission Specification.
EIN	Evidence Image Number
EXPeRT	Explosives Reference Tool
FA	Forensic Advantage (Laboratory Information Management System)
FDS	Forensic Dye Stain
FISH	Forensic Information Scanning Hub
Fgpt(s)	Fingerprint(s)
Fgr(s)	Finger(s)
FLS	Forensic Light Source(s)
FNU	FBI Number
Fp(s)	Fingerprint(s)
FPT(S)	Fingerprint(s)

FRIF	Friction Ridge Investigation File
FRP	Friction Ridge Print
FRS	Friction Ridge Skin
FSC, FSIS	16 MP Digital RUVIS Full Spectrum Camera Capture System
Ftpt	Footprint
GTV	Gentian Violet
GYRO	Green-Yellow-Red-Orange (Friction ridge marking technique)
HC	Humidity Cabinet
HEAT	Hazardous Evidence Analysis Team
I2	Identity Intelligence Squad
IAFIS	Integrated Automated Fingerprint Identification System
ID	Identification
Ident	Identification
IED	Improvised Explosive Device
Imp(s)	Impression(s)
Inc, Incl	Inconclusive
IND	1,2-Indanedione-Zinc
IOD	Iodine Fuming
JPG/JPEG (2000)	Joint Photographic Experts Group (2000)
KI	Known Inconclusive
KSL	Known Standard Library
LAS, LASER	Light Amplification by Stimulated Emission of Radiation
Lat(s)	Latent Print(s)
LCN	Latent Case Number
LCX	Latent Case Extension
LCV	Leucocrystal Violet
LI	Latent Inconclusive
LIMS	Laboratory Information Management System
LJ(s)	Lower Joint(s)
LN, LIN	Latent Number or Latent Image Number

LPDIS	Latent Print Digital Imaging System
LP(P), LPP(T)	Left Palm Print
LPSS	Latent Print Summary Sheet
LRCT	Long Range Cordless Telephone
LS	Left Slope Loop
MBD	7-P-Methoxybenzylamine-4-Nitrobenz-2-Oxa-1-3-Diazole
MCP(s)	Major Case Print(s)
MFI	Mass Fatality Incident
MGP	Magnetic Powder
MRM	Maxillon Flavine 10GFF/Rhodamine 6G/MBD
NAS	Non-Adhesive Side
NC	Not Claimed
NGI	Next Generation Identification System
NIN	Ninhydrin
NLV	No Latent Prints of Value
Non-ID	Exclusion
Non-ident	Exclusion
NSC	Not Suitable for Capture
NV	No Value
OBIM	Office of Biometric Identity Management
ORI	Originating Agency Identifier
PCB	Printed Circuit Board
PCOT	Print Captured Other Technique
PD, PDV	Physical Developer
PM	Postmortem
PMR	Personal Mobile Radio
POS ?	Position Unknown
POW	Powder
PPR	Previously Processed, Appears to be Previously Processed
P(P)(s)	Palm Print(s)

PPT	Palm Print
PR	Photo Requisition
PRT(s)	Print(s)
R6G	Rhodamine 6G
RAM	Rhodamine 6G/Ardrox/MBD
RD 1	Round 1 Processing
RD 2	Round 2 Processing
RFI	Request for Information
RP(P)/RPP(T)	Right Palm Print
RS	Right Slope Loop
RUVIS	Reflective Ultraviolet Imaging System
SAO	Safranin O
SDB	Sudan Black
SE	Secondary Evidence
SID	State Identification Number
SEI, SEL	Secondary Evidence
SGF	Cyanoacrylate (Super Glue) Fuming
SLC	Special Latent Cognizant File
SOFEX Portal	Special Operations Forces Exploitation Portal
SOP	See Other Photo
SPC	Special Population Cognizant File
SPR	Small Particle Reagent
SWGDE	Scientific Working Group on Digital Evidence
SWGFAST	Scientific Working Group on Friction Ridge Analysis, Study and Technology
SWGIT	Scientific Working Group on Imaging Technology
TAG	Terrorism Analysis Group
TEDAC	Terrorist Explosive Device Analytical Center
TIFF/TIF	Tagged Image File Format
TP	Ten Print
TPIS	Ten Print Image Search

TRI	Trident (Alternate Light Source)
TTP	Tactics, Techniques and Procedures
UC	Unable to Classify
UCN	Universal Control Number
ULF	Unsolved Latent File
ULM	Unsolved Latent Match
ULW	Universal Latent Workstation
UV	Ultraviolet Light (Source)
V	Verification, Verified
Val	Value
VBIED	Vehicle Borne Improvised Explosive Device
VIS	Visual
VWO	Vault Witnessing Official
WEAT	Weapons Technical Intelligence Exploitation and Analysis Tool
WW	WetWop™
WTW	WetWop™
WWW	White WetWop™
WU	Whorl

5 References

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FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for the Next Generation Identification System. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for Processing Unknown Deceased Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

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FBI Latent Print Units Processing Manual, Preamble. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Scientific Working Group of Friction Ridge Analysis, Study and Technology, Standard Terminology of Friction Ridge Examination (Latent/Tenprint). Latest Version.

Scientific Working Group on Imaging Technology, Overview of SWGIT and the Use of Imaging Technology in the Criminal Justice System. Latest Version.

Scientific Working Group on Imaging Technology, Guidelines for Image Processing. Latest Version.

Rev. #	Issue Date	History
5	02/07/18	Minor wording or punctuation changes throughout document. Section 3, Abbreviations removed or moved to Section 4; Antemortem, Dermis, Joint Photographic Experts Group, Join Photographic Experts Group 2000, Latent Print, Postmortem, Special Population Cognizant File, Tagged Image File Format, Universal Control Number, and Wavelet Scalar Quantization Compression modified; Consensus Panel, Matrix, Object Shot(s), and TEDACnet added. Abbreviations DFBA, PR, and TPIS added. Automated Name Search, DVD-R and Safety Data Sheet removed.
6	07/25/18	Throughout document, suitable for comparison replaced claimed. Updated definitions to incorporate language from the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline. “Claimed”, “Exclusion”, “Identification”, “Inconclusive”, “Investigative Value”, “Not Claimed”, “Not Suitable for Capture”, “Object shot”, “Special Population Cognizant File”, “Sufficiency”, and “Suitable for Capture” modified. “Forward Laboratory”, “Not Suitable for Comparison”, “Orientation Shot”, “Rarity”, “Source Exclusion”, “Source Identification”, “Specificity”, and “Suitable for Comparison” added. ACME, BIMA, CEXC, DFBA, EAC, ISR, JEFF, LQD, and SSP removed. ADO, CIDNE RoAr, RD 1, and RD2 added. SOFEX modified.

Redacted - Signatures on File

Approval

Latent Print
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Date: 07/19/2018

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Latent Print Support
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Date: 07/19/2018

Biometrics Analysis
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Date: 07/19/2018

QA Approval

Quality Manager

Date: 07/19/2018

Friction Ridge Discipline Introduction

1 Scope

In this manual, the Friction Ridge Discipline Operations Manual, the Friction Ridge Discipline Training Manual, and the Friction Ridge Discipline Processing Manual, the use of Latent Print Units and Friction Ridge Discipline refers to the Latent Print Operations Unit, the Latent Print Support Unit, and segments of the Terrorist Explosive Device Analytical Center Scientific and Biometrics Analysis Unit. Quality documents are currently transitioning to the use of Friction Ridge Discipline. In the interim documents may use either Latent Print Units or Friction Ridge Discipline interchangeably. The official names of the units themselves are not affected.

The Scientific and Biometrics Analysis Unit is comprised of multiple disciplines; however, the Friction Ridge Discipline quality documents will only apply to those assigned to the Friction Ridge Discipline as well as personnel in the Latent Print Operations Unit and the Latent Print Support. Individuals in other units who conduct support work for Friction Ridge Discipline casework will follow all relevant documents. Additionally, a Fingerprint Specialist/Forensic Examiner or Physical Scientist/Forensic Examiner may be referred to as an examiner; a Physical Scientist (Non-Examiner) may be referred to as a technician; and a Supervisory Physical Scientist/Forensic Examiner may be referred to as a sSupervisor in this manual. in this manual.

2 Mission Statements

2.1 Latent Print Operations Unit

The mission of the Latent Print Operations Unit is to conduct timely, high-quality, scientific examinations in the area of friction ridge print examinations; to report results; to provide expert testimony relating to these examinations in legal proceedings; to provide training to the law enforcement community; and to provide forensic field support to the law enforcement community on a national and international level.

2.2 Latent Print Support Unit

The mission of the Latent Print Support Unit is to ensure the quality and advancement of the Friction Ridge Discipline by providing tools, training, and support for investigative, humanitarian, and intelligence programs. The programs of the Latent Print Support Unit include the Next Generation Identification System, Major Incident Management, Standards and Practices, Technology Development, Research, Training, and Validation. Photography assistance is provided by the Latent Imaging Team.

2.3 Scientific and Biometrics Analysis Unit

The mission of the Terrorist Explosive Device Analytical Center Scientific and Biometrics Analysis Unit is to conduct timely, high-quality, scientific examinations in the area of friction ridge print examinations, with a focus on cases associated with improvised explosive device investigations world-wide; to provide results and expert testimony relating to these examinations in legal proceedings; and provide training and field support to the law enforcement community and other federal partners on a national and international level.

3 Organization

3.1 Latent Print Operations Unit

3.1.1 Unit Chief

The Latent Print Operations Unit Chief is responsible for the overall coordination of Latent Print Operations Unit case examinations, programs, budget, and interactions with internal and external partners. The Latent Print Operations Unit Chief ensures adherence to FBI Laboratory policies and practices and Friction Ridge Discipline procedures for examinations, quality assurance, case reviews, safety, and Latent Print Operations Unit personnel issues.

3.1.2 Supervisory Physical Scientist/Forensic Examiners

Supervisory Physical Scientist/Forensic Examiners are responsible for the daily operation of their respective teams, including the supervising, mentoring, and advising of examiners. Latent Print Operations Unit supervisors may also act as a designee to the role of Latent Print Operations Unit Chief, as needed. Supervisors may also perform the duties of an examiner, as appropriate.

3.1.3 Laboratory Manager

With the exception of equipment and chemicals used by the Latent Imaging Team, the Laboratory Manager is responsible for Quantico Laboratory equipment calibration and maintenance, as well as procurement, reception, and storage of Quantico Laboratory chemicals and supplies, and coordinating appropriate services. The Laboratory Manager may also perform the duties of an examiner, as appropriate. Laboratory Manager duties can be performed by a supervisor or an examiner.

3.1.4 Fingerprint Specialists/Forensic Examiners and Physical Scientists/Forensic Examiners

Fingerprint Specialists/Forensic Examiners and Physical Scientists/Forensic Examiners are responsible for examining evidence, reporting results, testifying to results, and/or providing training. Examiners may also assist in Friction Ridge Discipline programs and initiatives.

Physical Scientist/Forensic Examiners may also coordinate designated programs in addition to their examiner duties. Program Coordinator areas include Hazardous Evidence Analysis Team, Administrative Review, Major Case Management, Indian Country, Crime Scene Management, Cold Case Management, Case Flow Management, and Case Review Management. The Case Review Program Manager may also perform the duties of a supervisor, as appropriate.

The Latent Print Operations Unit Case Flow Program Manager is responsible for case assignments for all Latent Print Operations Unit examiners. The Case Flow Program Manager acts as a liaison for the Latent Print Operations Unit with other Laboratory units and outside entities concerning case acceptance and other relevant topics. The Case Flow Program Manager may also perform the duties of a supervisor, as appropriate.

3.1.5 Management and Program Analyst

A Management and Program Analyst is responsible for research and analysis of management and program functions for the purpose of ascertaining improvement, efficiency, effectiveness, modification, and/or recommendation of better management and operational goals.

3.2 Latent Print Support Unit

3.2.1 Unit Chief

The Latent Print Support Unit Chief is responsible for the overall coordination of Latent Print Support Unit programs and budget; coordination of training and proficiency testing of all Latent Print Units personnel; and the implementation of new technologies. The Latent Print Support Unit Chief ensures the coordination, implementation, and maintenance of the Friction Ridge Discipline segment of the Quantico Laboratory Division Continuity of Operations Plan. The Latent Print Support Unit Chief ensures adherence to FBI Laboratory policies and practices and Friction Ridge Discipline procedures for quality assurance and Latent Print Support Unit personnel issues.

3.2.2 Supervisory Physical Scientist/Forensic Examiner

A Supervisory Physical Scientist/Forensic Examiner is responsible for the daily operation of the Latent Print Support Unit, including the supervising, assisting, and advising of Latent Print Support Unit personnel. Supervisors may also perform the duties of an examiner or program manager, as appropriate. A Latent Print Support Unit supervisor(s) may also act as a designee to the role of Latent Print Support Unit Chief, as needed.

3.2.3 Program Managers

Program Managers are responsible for their respective program. The Latent Print Support Unit programs include Next Generation Identification System, Major Incident Management, Standards and Practices, Technology Development, Research, Training, and Validation. A Program Manager may also perform the duties of an examiner or a supervisor, as appropriate.

3.2.3.1 Next Generation Identification System Program Manager

The Next Generation Identification System Program Manager is the discipline manager for all matters related to the Friction Ridge Discipline's use of the Next Generation Identification System to include: provide procedures for the utilization of the Next Generation Identification System to ensure accurate and reliable search results; act as point of contact for questions regarding the Next Generation Identification System and Criminal Justice Information Services Division procedures; and coordinate, test, evaluate, and implement new Next Generation Identification System software. Additionally, the Next Generation Identification System Program Manager works with the Criminal Justice Information Services Division to coordinate non-traditional searching efforts, support the sharing of latent and known images, resolve Next Generation Identification System technical issues, and coordinate the replacement and maintenance of hardware for the Next Generation Identification System.

3.2.3.2 Major Incident Management Program Manager

The Major Incident Management Program Manager is the discipline manager for all matters related to the operational response of personnel in the Friction Ridge Discipline, outside of direct investigational support, to include: managing and maintaining the infrastructure for the victim identification response; serving as the point of contact for deceased processing and associated antemortem/postmortem record requests; and providing worldwide technical, educational, and research support for disaster victim identification issues.

3.2.3.3 Standards and Practices Program Manager

The Standards and Practices Program Manager is the discipline manager for all matters related to FBI Laboratory and Friction Ridge Discipline quality assurance policies including: corrective actions and preventive actions; deviations; annual reviews; internal and external audits; proficiency testing; ; and all other aspects of maintaining the accreditation of the Friction Ridge Discipline. The Standards and Practices Program Manager will assist with recommendations for initiating, suspending, or resuming operations of the unit, or individuals within the unit, based on impact to the quality system and work product.

3.2.3.4 Technology Development Program Manager

The Technology Development Program Manager is the discipline manager for all matters related to the use of digital technology in the Friction Ridge Discipline including: coordination, testing, evaluation, and implementation of relevant biometric technology; liaison with the criminal justice community on all biometric and digital imaging issues and sharing procedures; coordination management of the operation of the digital imaging applications used by the Friction Ridge Discipline; providing procedures for the utilization of the digital imaging applications to obtain best possible friction ridge/friction ridge print images; and coordination, testing, evaluation and implementation of new digital imaging hardware and software. The Technology Development Program Manager also assists with the coordination, testing, evaluation, and implementation of new Next Generation Identification System software.

3.2.3.5 Research Program Manager

The Research Program Manager is the discipline manager for all matters related to research in the Friction Ridge Discipline including: developing and applying optimal science and technology through internal and external research and development projects; managing, coordinating, and directing all research projects in the Friction Ridge Discipline related to the science of friction ridge print examination; assisting with validation projects, as appropriate; liaising with internal research units and teams to ensure research projects are managed as planned; and acting as the point of contact for all friction ridge print-related research issues that arise from external sources.

3.2.3.6 Training Program Manager

The Training Program Manager is the discipline manager for all matters related to training in the Friction Ridge Discipline including: continuing education opportunities for examiners; training discipline personnel to competency and making recommendations for qualification; developing and providing curriculum for training provided by discipline personnel; recruitment of personnel; reviewing applications to ensure that individuals meet requirements for hire; and making recommendations for conference presentations and attendance.

3.2.3.7 Validation Program Manager

The Validation Program Manager is the discipline manager for all matters related to validation in the Friction Ridge Discipline including: developing and prioritizing validation ideas; training Friction Ridge Discipline personnel on validation procedures; coordinating with personnel concerning existing and potential validation projects; providing input and guidance to individuals concerning existing validation projects; interpreting results and providing guidance on use of new or updated validation projects or plans; and serving as a liaison with other agencies and entities concerning validation projects and information.

3.2.4 Technical Specialist

A Technical Specialist serves as programmatic support to the Latent Print Support Unit with expertise in friction ridge analysis, latent print processing, and/or searching of latent prints in automated systems.

3.2.5 Management and Program Analyst

A Management and Program Analyst is responsible for research and analysis of management and program functions for the purpose of ascertaining improvement, efficiency, effectiveness, modification, and/or recommendation of better management and operational goals.

3.2.6 Photographers

Photographers capture digital images of evidence and/or suspected friction ridge prints and process digital images, as needed. The photographers in the Latent Print Support Unit are referred to as the Latent Imaging Team.

3.2.6.1 Supervisory Photographer

A Supervisory Photographer is responsible for the daily operation of the Latent Print Support Unit Latent Imaging Team, including the supervising, assisting, and advising of Latent Imaging Team personnel. A Supervisory Photographer will act as the Laboratory Manager for all equipment and chemicals under Latent Imaging Team control. A Supervisory Photographer may also perform the duties of a photographer, if authorized, and act as a designee to the role of Latent Print Support Unit Chief, as appropriate.

3.3 Scientific and Biometrics Analysis Unit

3.3.1 Unit Chief

The Scientific and Biometrics Analysis Unit Chief is responsible for the overall coordination of Scientific and Biometrics Analysis Unit case examinations, programs, budget, and interactions with internal and external partners. The Scientific and Biometrics Analysis Unit Chief ensures adherence to FBI Laboratory policies and practices and Friction Ridge Discipline procedures for examinations, quality assurance, safety, case reviews, and Scientific and Biometrics Analysis Unit personnel issues.

3.3.2 Supervisory Physical Scientist/Forensic Examiners

Supervisory Physical Scientist/Forensic Examiners are responsible for the daily operation of their respective teams, including the supervising, mentoring, and advising of examiners. Supervisors may also perform the duties of an examiner, as appropriate. A Scientific and Biometrics Analysis Unit supervisor may also act as a designee to the role of Scientific and Biometrics Analysis Unit Chief in Friction Ridge Discipline matters, as needed.

3.3.3 Physical Scientists/Forensic Examiners

Physical Scientists/Forensic Examiners are responsible for examining evidence (processing and/or Analysis, Comparison, and Evaluation examinations), reporting results, testifying to results, and/or providing training. Examiners may also assist in Friction Ridge Discipline programs and initiatives.

Physical Scientist/Forensic Examiners may also coordinate designated programs in addition to their examiner duties. Program Coordinator areas include Biometrics, Laboratory Management, and Technical Review/Compliance. These individuals may also perform the duties of a supervisor, as appropriate.

The Laboratory Manager is responsible for Huntsville Laboratory equipment calibration and maintenance as well as procurement, reception, and storage of Huntsville Laboratory chemicals and supplies, and coordinating appropriate services. The Laboratory Manager is a liaison in regards to Huntsville Laboratory digital imaging applications.

3.3.4 Physical Scientists (Non-Examiners)

Physical Scientists (Non-Examiners) are responsible for processing physical evidence. The position is not intended to testify.

3.3.5 Case Flow Program

3.3.5.1 Case Flow Program Manager

The Scientific and Biometrics Analysis Unit Case Flow Program Manager is responsible for case acceptance, assignment of cases, and other requests for information for all Scientific and Biometrics Analysis Unit examiners. The Case Flow Program Manager acts as a liaison for the Scientific and Biometrics Analysis Unit with other Laboratory units and outside entities, including other FBI Divisions, concerning case acceptance and other relevant topics. The duties of the Case Flow Program Manager may be conducted by a unit supervisor, examiner, or Management and Program Analyst.

3.3.6 Management and Program Analyst

The Management and Program Analyst is responsible for research and analysis of management and program functions for the purpose of ascertaining improvement, efficiency, effectiveness, modification, and/or recommendation of better management and operational goals.

3.4 Contractors

Contractors are employed on an as-needed basis and may perform Latent Print Examiner, Latent Print Examiner (Non-Testifying), Latent Print Technician, Management and Program Analyst, or administrative duties, as appropriate. Contractors are required to meet the provisions of the FBI Laboratory quality system, including successful completion of the appropriate training program, when applicable.

3.4.1 Latent Print Examiner/Latent Print Examiner (Non-Testifying)

Latent Print Examiners are responsible for conducting Analysis, Comparison, and Evaluation examinations as well as automated searches. Latent Print Examiners (Non-Testifying) will only perform work intended to generate intelligence or develop investigative leads. Their work product is not intended for use in prosecutions. Neither position is intended to testify.

3.4.2 Latent Print Technician

Latent Print Technicians are responsible for processing physical evidence. The position is not intended to testify.

3.5 Technical Leader – Friction Ridge Discipline

The Technical Leader for the Friction Ridge Discipline will oversee all technical operations for the Friction Ridge Discipline. The individual will perform the responsibilities as stated in the FBI Laboratory Quality Assurance Manual, FBI Laboratory Operations Manual, and all Friction Ridge Discipline documents.

4 References

FBI Laboratory Operations Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Date	History
10	08/21/19	Updated Biometrics Analysis Unit to Scientific and Biometrics Analysis Unit throughout document. Removed duplicate information, broadened disciplines, and moved sentence in Section 1. Section 2.2, removed Forensic Systems. Removed paragraph from Section 3.1. Moved old Section 3.1.3 to new Section 3.1.4. New Section 3.1.3, added allowance for examiner. Removed old Section 3.1.5. New Section 3.1.4, incorporated updated old Section 3.1.7 and added Case Flow and Case Review titles and removed Training Coordination. Renumbered old Section 3.1.8. Removed paragraph from Section 3.2, removed Forensic Systems Program and added Technical Specialist in new Section 3.2.4 and renumbered old Section 3.2.4. Added Section 3.2.6. Updated duties for Section 3.2.3.1. Removed paragraph in Section 3.3. Section 3.3.3, added mention of Biometrics and Technical Review and Compliance. Added testimony notation for Section 3.3.4. Changed Section 3.3.5 to overall Case Flow Program. Changed Case Flow Program Manger to Section 3.3.5.1 and added allowance for verifications and blind verifications. Added Section 3.3.5.2. Old Section 3.3.5.3 for Laboratory Manger moved to Section 3.3.3 and removed old Section 3.3.5.2 and old Section 3.3.5.4. Section 3.4, changed examiner to Latent Print Examiner. Section 3.4.1, added Latent Print Examiner and testimony options. Section 4 incorporated into Latent Print Discipline Training Manuals. Section 5 removed.
11	04/17/20	Latent Print Units and latent discipline changed to Friction Ridge Discipline throughout most of document. Minor wording, grammar, and organizational changes throughout document. Removed “lead” and replaced with “discipline manager” in Support Unit. Section 1, extraneous information removed and section streamlined and renamed Scope. Section 2.2, added Latent Imaging Team. Section 2.3, removed TEDAC. Section 3.1.1 Section 3.3.1, clarified liaison. Section 3.1.3, divided responsibilities from Latent Imaging Team. Section 3.2.1, moved responsibility for Continuity of Operations Plan from Section 3.2.3.2 to Unit Chief. Seciton 3.2.3.3, updated duties. Section 3.2.3.4 and Section 3.3.3, removed Forensic Imaging Scanning Hub and generalized with digital imaging applications. Added Section 3.2.6.1. Section 3.3.5.1, removed allowance for Supervisor duties and broadened role participants. Removed Section 3.3.5.2.

Approval

Redacted - Signatures on File

Friction Ridge Discipline
Technical Leader .

Date: 04/16/2020

Latent Print Operations
Unit Chief .

Date: 04/16/2020

Acting Latent Print Support
Unit Chief .

Date: 04/16/2020

Acting Scientific and Biometrics
Analysis Unit Chief .

Date: 04/16/2020

QA Approval

Quality Manager .

Date: 04/16/2020

FBI Friction Ridge Discipline Procedures for Case Acceptance

1 Purpose/Scope

These procedures apply to Friction Ridge Discipline personnel who initially receive requests for examinations. Examinations are considered to be both the processing of evidence and the comparison of prints.

2 Procedures

Appropriate Friction Ridge Discipline personnel will determine if a submission meets case acceptance guidelines as listed in the FBI Laboratory Handbook of Forensic Services or FBI Laboratory policy, and communicate with relevant contacts concerning acceptance or rejection of all or a portion of a submission.

Cases may be considered “complex” when the case involves multiple items, requests for examinations, comparisons, and/or short deadlines. A case does not have to carry a major case title in order to be deemed “complex”. A Unit Chief or Supervisor may direct other employees to assist in the case examination. Although a case may be worked by multiple employees, the case will still be assigned to only one employee.

Supervisors, select Program Coordinators, and Program Managers are not routinely assigned cases, unless circumstances require the assignment.

2.1 Re-examination Requests

2.1.1 Examinations may be conducted on previously processed evidence; however, examinations will be limited to those processes or examinations that are not affected by the previous processing. Depending on case circumstances, personnel are encouraged, but not required, to contact a contributor or other individuals on prior processing; however, any communications about the previous processing that occur must be recorded on the Communication Log.

2.1.2 In any non-Terrorist Explosive Device Analytical Center case in which manual comparisons have been conducted and reported by another agency, the same exact comparisons will not be repeated. Due to the variables involved in automated searching, any unidentified prints previously searched in any automated system may be searched again. The re-examination of Terrorist Explosive Device Analytical Center case comparisons will adhere to Laboratory requirements for re-examinations as stated in the FBI Laboratory Handbook of Forensic Services or FBI Laboratory policy.

2.1.2.1 A Friction Ridge Discipline examiner may re-examine a previous FBI examiner's work if the re-examination meets the needs of the unit or the case. Examples of this are when an examiner is asked to testify in a case in which a former examiner performed comparisons, when a corrective action requires re-examination, or when a case is re-assigned to an examiner and comparisons were conducted by another examiner.

2.1.2.2 Any other exceptions may be granted only in writing by the Laboratory Director or the appropriate designee.

2.1.3 Outside Contributors

2.1.3.1 Examinations and/or services (e.g., automated searches) will not be conducted for laboratories or agencies that have the capability of conducting the same examinations except in cases that meet the Laboratory requirements as stated in the FBI Laboratory Handbook of Forensic Services, FBI Laboratory Policy, or when the evidence is submitted to the FBI Laboratory for forensic examinations in other units. Additionally, due to the variables involved in automated searching, any unidentified prints previously searched in any automated system may be searched again regardless of the capability of the original agency.

2.1.3.1.1 Any other exceptions may be granted only in writing by the Laboratory Director or by the appropriate designee.

2.1.4 Sharing Images with Outside Agencies

2.1.4.1 Notifications received as a result of an identification made through sharing efforts with an outside agency may be compared without approval as described above.

2.2 Requirements for Submitted Non-Original Latent Evidence

Examiners should obtain substrate information. Knowledge of the substrate is useful for the Analysis, Comparison, and Evaluation process; however, not knowing the substrate does not prevent an examiner from properly conducting the process. When conducting examinations on non-original submitted latent evidence, personnel will proceed with the expectation that the information provided is a true and accurate representation of the original, unless otherwise indicated.

2.2.1 Digital Images of Latent Friction Ridge Prints

All digital images submitted to the FBI Laboratory may be accepted for examination. Personnel may reject an image for examination if the file properties negatively impact the quality of the print(s) appearing in the image(s) such that the print(s) cannot be reliably analyzed. Rejection of an image because of the file properties requires supervisor approval, and disagreements will be addressed through the FBI Laboratory Operations Manual, Practices for Resolution of Scientific or Technical Disagreement and the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework. For rejected images, personnel will

communicate to the contributor what could potentially assist with future submissions (e.g., higher resolution, uncompressed file).

2.2.2 Digital Images of Friction Ridge Skin

Digital images of actual friction ridge skin may be submitted for examination. In these circumstances, it is the examiner's discretion if the friction ridge skin in the image(s) possesses sufficient quality for examination. Any resulting identification(s) will follow the procedures set forth in the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Verification and Blind Verification.

2.3 Requirements for Submitted Intentionally Recorded Prints (Original and Non-Original)

Intentionally recorded prints are defined as any friction ridge print(s) collected under controlled conditions. Examples include a fingerprint card, a single inked fingerprint on a cashed check, or a set of major case prints. Examples of Friction Ridge Discipline examinations include searches of a single fingerprint from a notary book, a single fingerprint from a driver's license, or a single inked print on a cashed check. Ten print cards, fingerprint strips, and major case prints are examples of standard intentionally recorded prints. Single prints on a driver's license or in notary books are examples of non-standard intentionally recorded prints. See the Friction Ridge Discipline Operations Manual Procedures for Examining Unknown Deceased Friction Ridge Prints for submissions of unknown deceased prints.

The source (e.g., name, biographical information), if known, must be included in the case record.

Non-original intentionally recorded print(s) examples include a photocopy of a fingerprint card, a digital file of a single fingerprint on a driver's license, a digital printout of a fingerprint card, or a photocopy of a single fingerprint on a notary page.

When conducting examinations on non-original submitted intentionally recorded prints, personnel will proceed with the expectation that the information provided is a true and accurate representation of the original, unless otherwise indicated.

2.4 Support for the Criminal Justice Information Services Division

Examiners providing support for the Criminal Justice Information Services Division (e.g., identity validation) will follow procedures and recording requirements established for and by the Criminal Justice Information Services Division and those relevant paragraphs of the FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints and the Next Generation Identification System. An initial Electronic Communication will be generated for the support request detailing the scope and pertinent details, such as result dissemination. Assignment of FBI Laboratory numbers and generation of FBI Laboratory reports are not required for such requests, and all relevant supporting records will be retained.

3 References

FBI Laboratory Handbook of Forensic Services. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Operations Manual, Practices for Resolution of Scientific or Technical Disagreement. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Operations Manual, Procedures for Examining Unknown Deceased Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Verification and Blind Verification. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
8	02/07/18	Section 4 moved to FBI Latent Print Units Operations Manual, Procedures for Examining Unknown Deceased Friction Ridge Prints. Removed “designee” and slight modification of wording under Section 3. Section 3.1.2, name corrected. Section 3.1.4.1, made singular. Modified location in Section 3.3. Section 3.3.1, added example.
9	04/17/20	Latent Print Units changed to Friction Ridge Discipline throughout document as well as other appropriate changes with similar terms. Minor wording, grammar, and punctuation changes in document. Section 1 removed, Section 2 renamed and all sections renumbered. Section 2, removed first paragraph and clarified affected individuals in last paragraph. Added clarification in Section 2.1.1. Added clarification on automated and manual searches in Section 2.1.2 and 2.1.3.1. Section 2.2, removed the information on substrate. Removed blind verification requirement from Section 2.2.2. Added standard and non-standard descriptions to Section 2.3. Section 2.3.1 became Section 2.4 and content generalized to address multiple situations.

Approval

Redacted - Signatures on File

Friction Ridge Discipline Technical Leader	-	Date: <u>04/16/2020</u>
Latent Print Operations Unit Chief	-	Date: <u>04/16/2020</u>
Acting Latent Print Support Unit Chief	-	Date: <u>04/16/2020</u>
Acting Scientific and Biometrics Analysis Unit Chief	-	Date: <u>04/16/2020</u>

QA Approval

Quality Manager	-	Date: <u>04/16/2020</u>
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FBI Latent Print Units Procedures for the Examination of Evidence

1 Purpose

The purpose of this document is to establish procedures for the examination of evidence in the Latent Print Units. These procedures supplement the corresponding sections of the FBI Laboratory Operations Manual.

2 Scope

These procedures apply to personnel who are involved in answering requests for examination and/or the examination of friction ridge print(s) and/or evidence.

3 Procedures

3.1 Examination Process

3.1.1 The individual assigned to the case will review all relevant case information to determine the appropriate examinations that need to be conducted, if any, and follow the applicable FBI Laboratory practices and FBI Latent Print Units procedures. All relevant materials in Forensic Advantage will be reviewed.

3.1.1.1 If Latent Print Units personnel identify an additional examination(s) that may be probative, (e.g., possible trace exams on adhesive surfaces), he/she will follow the appropriate sections in the FBI Laboratory Operations Manual, Practices for Assigning Cases and Conducting Examinations.

3.1.2 Validation of methods or procedures used in the Latent Prints Unit will follow the FBI Laboratory Operations Manual Practices for Developing Methods and Validating Technical Procedures and the FBI Latent Print Units Quality Assurance Manual, Procedures for Validation of Technical Procedures and Methods.

3.1.3 An object shot(s) is any image(s) that does not contain evidentiary information relevant to the affected friction ridge print examination(s). Object shots may be submitted by a contributor or taken by the FBI Laboratory for a variety of purposes, such as capturing a crime scene, providing an overview of captured latent prints, or capturing images of a shoeprint. Examiners, technicians, or Physical Scientists (Non-Examiners) will determine the relevance of object shots to the requested examinations. Orientation shots are a specific type of object shot that shows the location of a friction ridge print on an item.

3.1.4 To prevent cross-contamination, examiners, technicians, or Physical Scientists (Non-

Examiners) will use some or all of the following: blotters, paper, and/or cleaning of work surfaces after each process or examination. Examiners, technicians, or Physical Scientists (Non-Examiners) will properly handle evidence to ensure the integrity of the item(s) is maintained.

3.1.5 Processing for latent prints can damage or discolor the item of evidence. The examiners, technicians, or Physical Scientists (Non-Examiners) should determine if special handling or considerations will be needed for evidence prior to beginning exams. As necessary, the examiners, technicians, or Physical Scientists (Non-Examiners) will discuss any potential issues with the contributor or Scientific and Biometrics Analysis Unit Case Flow Program Manager, as appropriate, prior to conducting possibly detrimental examination(s) and record relevant information in the Communication Log.

3.1.6 Upon completion of the examinations, results will be communicated as appropriate. If the result of an examination would provide a new lead (e.g., an identification as a result of a Next Generation Identification System search), an examiner will contact the affected parties prior to the issuance of the *Laboratory Report* (7-1, 7-1 LIMS, 7-273, or 7-273 LIMS) or final communication. Documentation of the contact will be retained in the case record.

3.1.6.1 For cases where an individual's name and/or personal data must be protected (such as for a confidential human source(s)), the contributor may request that the examiner not use the name and/or personal data in the case record and/or report. The examiner will use a confidential human source(s) number or similar unique number provided by the contributor instead of the individual's name and/or personal data. If the case record already contains the individual's name and/or personal data, the examiner will replace that information with the confidential human source(s) or unique number to the best of his or her ability; however, it is recognized that the examiner may not be able to completely remove the information from the record. The examiner will record specifically what was modified without referencing the individual's name and/or personal data, and the contributor will be advised of the situation if data is unable to be removed. All communication will be recorded in the Communication Log.

3.1.7 External agency personnel may provide additional information, such as analysis decisions, or specifying prints suitable for automated searches, prior to submitting the case to the Latent Print Units. When this occurs, the prints will be reanalyzed in the Latent Print Units and a suitability for comparison determination will be made according to the FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. If automated searches are requested, a Latent Print Units examiner will decide which prints are suitable for search in the Next Generation Identification System. Differences between the contributor and the Latent Print Units may result from any number of factors including:

- Latent prints damaged or destroyed when evidence is packaged and shipped to the Latent Print Units.
- Latent prints faded or obliterated due to chemical processing by the contributor prior to shipment to the Latent Print Units.
- Agency-specific definitions.
- Differing automated search software requirements.

Any such differences between the contributor and the Latent Print Units will be recorded in the case record, as appropriate, but will not be considered a disagreement and will not be reported.

3.1.8 Evaluation results reported by another agency will be addressed according to the applicable sections in the FBI Latent Print Units Quality Assurance Manual, Procedures for Case Acceptance and appropriate sections of the FBI Laboratory Operations Manual and FBI Laboratory Quality Assurance Manual. If a technical disagreement occurs such that Latent Print Units comparison results (identification, exclusion, latent inconclusive, or known inconclusive) do not agree with those of the external agency, the disagreement will be addressed according to the FBI Laboratory Operations Manual, Practices for Resolution of Scientific or Technical Disagreement.

3.1.9 All Unsolved Latent File matches by external agencies will be handled as described in the FBI Latent Print Units Operations Manual, Standard Operating Procedures for the Next Generation Identification System.

3.1.10 The Next Generation Identification System and Known Standard Library are reference collections and meet the requirements listed in the FBI Laboratory Quality Assurance Manual.

3.2 Secondary Evidence

There are three scenarios in which an examiner will produce secondary evidence.

- When the image of a claimed latent print is not retained in Digital Workplace or the Forensic Information Scanning Hub, and may not be present on the evidence after subsequent processing.
- When lifts or casts are generated by Latent Print Units personnel (as directed by the Latent Print Units Processing Manual, Preamble).
- When physical recordings of friction ridges from an unknown deceased person(s) (excluding digital printouts or photocopies) are generated by Latent Print Units personnel and returned to the contributor.

Secondary evidence will be unmarked. Once designated, secondary evidence is tracked on the secondary evidence log, and recordings from unknown deceased will be treated as biohazard. See appropriate sections in FBI Laboratory Operations Manual, Practices for Assigning Cases and Conducting Examinations for further information.

From Item	Quantity	Description
Item 1	5	Photographs
Item 12	2	Lifts
Item 16	1	Prints from Deceased
Item 13, Item 17 through Item 19	1	Disk

Figure 1: Example of Latent Print Units Secondary Evidence Log.

3.3 Initialing and Labeling Evidence

3.3.1 When practicable, every item of evidence will be labeled with the item identifier, initials of the individual processing the evidence, and the FBI Laboratory number. If the item of evidence is too small, the surface condition or type does not lend itself to marking, additional laboratory examinations are requested on the item, or there is a recorded contributor-related reason, the item(s) will not be marked. In addition, Terrorist Explosive Device Analytical Center cases that may be examined in the future by the Technical Exploitation Unit or where another Government Agency or other organization may request to have the item of evidence returned unmarked will be exempt from marking. In these situations, the required markings will be placed on the proximal evidence container.

3.3.1.1 In cases where the evidence is submitted with a unique contributor number affixed by sticker to the evidence and the unique number is associated to the FBI Laboratory number through the *Laboratory Report* and an internal Latent Print Units database, the examiner is not required to record the FBI Laboratory number on the item of evidence and will place it on the proximal container.

3.3.1.2 For items attached to a backing (e.g., tape placed on an acetate) where it is not practicable to mark each individual item, the examiners, technicians, or Physical Scientists (Non-Examiners) can note the required information on the backing. The backing and items will then be completely heat sealed. Either the backing itself will be heat sealed or a proximal container containing the backing and items will be heat sealed.

3.4 Case Records

3.4.1 Throughout the Laboratory and unit documents, when referring to case records, the term examiner's, technician's, or Physical Scientist's (Non-Examiners) initials will refer to either handwritten initials or signature.

Any examiners, technicians, or Physical Scientists (Non-Examiners) conducting work on a submission will acknowledge agreement with his/her work in the case record. Prior to the issuance of a *Laboratory Report*, the assigned examiner will acknowledge his/her agreement with the completeness of all case records (e.g., all images, the Next Generation Identification

System) by approving the case notes in the Case Record Object Repository in Forensic Advantage and/or initialing each page of the physical case notes.

3.4.2 When standards and controls are specified in a procedure, the examination records or appropriate logbook will reflect that a standard or control was used. Personnel will refer to the appropriate document within the FBI Latent Print Units Processing Manual for specific information.

3.5 Evidence Storage

3.5.1 Known cards, images, negatives, and secondary evidence, excluding lifts and original unknown deceased records, may be stored on the office side of the Laboratory.

3.5.2 An examination is considered to be active if some entry of activity in the examination records is made within the past sixty (60) days or any portion of the evidence has been transferred for photography purposes.

3.6 Subdivided Evidence

For Terrorist Explosive Device Analytical Center legacy cases, personnel may subdivide using a character designation (e.g., Q1A). The designation is used to easily distinguish a piece from the full item and each part is further described in the case record. The designation may be used in all case records including communications and reports.

4 References

FBI Laboratory Operations Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Safety Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Quality Assurance Manual, Procedures for Validation of Technical Procedures and Methods. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Quality Assurance Manual, Laboratory Reports, Reviews, and Retained Records. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for the Next

Generation Identification System. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Processing Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
10	07/25/18	Minor grammar, punctuation, and wording changes throughout document. Section 2 scope broadened. Added orientation shots to Section 3.1.3. Section 3.1.7, modified for suitability for comparison term and minor rewording. Added Section 3.1.10. Removed one bullet in Section 3.2, added castings, and clarified unknown deceased. Added exception in Section 3.3.1.
11	08/21/19	Changed unit name to “Scientific and Biometrics Analysis Unit” throughout document. “Conflict” was changed to “disagreement” throughout document. Section 3.1.1.1, removed Biometrics Analysis Section exemption. Section 3.1.10, updated to match new definitions for reference collections and individual characteristic databases. Section 3.2, bullets two and three further clarified. Section 3.3.1.2, reworded for to better reflect expectation.

Approval

Redacted - Signatures on File

Latent Print
Technical Leader

Date: 08/02/2019

Latent Print Operations
Unit Chief

Date: 08/02/2019

Latent Print Support
Unit Chief

Date: 08/02/2019

Scientific and Biometrics
Analysis Unit Chief

Date: 08/02/2019

QA Approval

Quality Manager

Date: 08/02/2019

Redacted - Form on File

FBI Latent Print Units Procedures for Open Proficiency Testing

1 Purpose

This document establishes the procedures for open proficiency testing in the Latent Print Units. These procedures supplement the corresponding section of the FBI Laboratory Operations Manual.

2 Scope

These procedures apply to personnel in the FBI Laboratory who perform latent print analytical or interpretative procedures on evidentiary items or approved Laboratory personnel who want to retain qualification in comparison (6.2 *Latent Comparison*) and/or processing (6.1 *Latent Processing*) in the latent print discipline.

3 Procedures

The Technical Leader will ensure that proficiency tests are prepared, distributed, evaluated and/or records are maintained as appropriate. The Standards and Practices Program Manager will serve as the Latent Print Units' Proficiency Test Representative in accordance with the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing. Any external proficiency tests that are conducted for research purposes only will follow all appropriate practices and procedures but records or reviews will not be retained in Forensic Advantage. An external or internal proficiency test may be used for a re-qualification test.

3.1 Participation

All tests will be external and obtained from an approved vendor. An internally created test may be substituted if an external test is not available at the needed time.

3.1.1 Individuals who want to retain both processing and comparison qualifications will complete one open proficiency test annually in the area of latent print comparison.

Additionally, each individual will complete one open proficiency test per accreditation cycle in the area of latent print processing.

3.1.2 Individuals who want to retain only processing qualification will complete one open proficiency test annually in the area of latent print processing.

3.1.3 Individuals who want to retain only comparison qualification will complete one open proficiency test annually in the area of latent print comparison.

3.1.4 Laboratory personnel who no longer work in the Latent Print Units but want to retain qualification in comparison and/or processing in the latent print discipline may take an external proficiency test through the Latent Print Units with approval from the Technical Leader and if

sufficient tests are available during the proficiency cycle. Internal proficiency tests may be offered with Technical Leader approval on an individual basis.

3.2 Preparation of an Internal Processing Proficiency Test

For internal processing proficiency tests, prints will be deposited on a specimen(s) and the specimen(s) will then be processed by the participant using a designated latent print processing technique(s). The participant will be evaluated on appropriate sequential processing of the specimen(s) in the test and the designation of prints suitable for photography, if developed. Refer to the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing for additional requirements for internal proficiency test preparation.

3.2.1 The Standards and Practices Program Manager will ensure a test design is prepared and recorded on the Internal Processing Proficiency Test Form (Appendix A).

3.2.1.1 The test design must be approved by the Technical Leader. The approval will be recorded on the Internal Processing Proficiency Test Form.

3.2.1.2 The test design must be reviewed by the Proficiency Test Program Manager to determine the appropriateness and completeness of the design relative to quality assurance. The review will be recorded on the Internal Processing Proficiency Test Form.

3.2.2 The Standards and Practices Program Manager will ensure the required batch of tests is prepared according to the test design and assign each test a unique identification number. The preparation will be recorded on the Internal Processing Proficiency Test Form.

3.2.3 The test will be verified by a second employee who witnesses the preparer deposit latent prints on the specimens to be processed and confirms the accuracy of the test identifiers. The verification will be recorded on the Internal Processing Proficiency Test Form.

3.2.4 The test or batch of tests will be validated by a third employee, qualified in processing, who will process one of the prepared specimens according to the test design. If the test is satisfactory, validation will be recorded on the Internal Processing Proficiency Test Form.

3.3 Preparation of an Internal Comparison Proficiency Test

3.3.1 The Standards and Practices Program Manager will ensure a test design is prepared and recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form (Appendix B).

3.3.1.1 The test design must be approved by the Technical Leader. The approval will be recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form.

3.3.1.2 The test design must be reviewed by the Proficiency Test Program Manager to determine the appropriateness and completeness of the design relative to quality assurance. The review will be recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form.

3.3.2 The Standards and Practices Program Manager will ensure the required test(s) are prepared according to the test design and assign each test a unique identification number. The preparation will be recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form. The verification will be recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form.

3.3.2.1 A previously administered external proficiency test may be used as an internal proficiency test. Such tests will be generated following the appropriate sections of the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing.

3.3.2.2 An internal proficiency test may be generated without the use of a previously administered external proficiency test. Such tests will be created following the appropriate sections of the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing.

3.3.2.2.1 An internally prepared test(s) will be verified by a second employee who confirms the accuracy of the test identifiers. The verification will be recorded on the Internal Analysis Comparison, and Evaluation Proficiency Test Form.

3.3.2.2.2 The test(s) will be validated by a third employee, qualified in comparison, who will analyze, compare, and evaluate the specimens according to the test design. If the results are satisfactory, the validation will be recorded on the Internal Analysis, Comparison, and Evaluation Proficiency Test Form.

3.4 Recording of Internal and External Proficiency Test Results

Recording of internal and external proficiency test results will follow procedures established by the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing. For an external comparison or processing proficiency test, the participant will record his/her results in Forensic Advantage and on the test provider's website. For an internal comparison and processing proficiency tests, the participant will record his/her results in Forensic Advantage.

3.5 Verification and Review of Internal and External Proficiency Tests

After completion of the proficiency tests, each test will be subjected to the same review process as in casework to ensure the conclusions reached are accurate, fully supported by test notes, and that the records are complete and comply with Laboratory and Latent Print Units policies, practices, and procedures.

3.5.1 For latent print comparison proficiency tests, the review includes verification (as defined in the FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification) of all conclusions reached, and technical and administrative reviews. The verification(s) will not be recorded on a separate photograph(s), and blind verification(s) will not be conducted on proficiency tests. The technical and administrative reviews for all tests will be recorded in Forensic Advantage. A participant must complete his/her test before participating in the review process on another participant's test, as applicable.

3.5.2 For latent print processing tests, none of the developed prints will be photographed and the check of any development (whether suitable for capture or not) will be recorded in the

test records. In some cases, the friction ridge detail or other indications that a print may be present may appear on an item, but is not deemed suitable for capture. The test participant will record all processing results, to include suitability for capture.

3.5.3 The test notes of the individual being tested will be technically and administratively reviewed after completion of the proficiency test to ensure compliance with Laboratory and Latent Print Units policies, practices, and procedures. The technical and administrative reviews for all tests will be recorded in Forensic Advantage. A participant must complete his/her test before participating in the review process on another participant's test, as applicable.

3.6 Evaluation of Internal and External Proficiency Tests

3.6.1 The Standards and Practices Program Manager will ensure each completed proficiency test is evaluated and will compare the observed results with the expected results for internal tests or provider supplied results for external tests. If the evaluation individual is being tested, another employee, qualified in that category of testing, will conduct the evaluation(s) of the individual's test.

3.6.2 The evaluation of the test will be recorded in Forensic Advantage by the evaluator.

3.6.3 The results of the tests will be reviewed with the Technical Leader.

3.6.4 If the evaluation is found to be satisfactory, no subsequent action is necessary.

3.6.5 If the evaluation is found to be unsatisfactory, appropriate action will be taken according to the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing.

3.6.6 The test results and evaluation will be provided to the employee who will record the receipt in Forensic Advantage.

3.6.7 Refer to the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing for additional evaluation requirements.

4 Records

Applicable proficiency test related records will be permanently retained by the Latent Print Units or in Forensic Advantage. Refer to the FBI Laboratory Operations Manual, Practices for Open Proficiency Testing for additional records requirements.

5 References

FBI Laboratory Operations Manual, Practices for Open Proficiency Testing, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
5	10/26/16	<p>Minor wording, grammar, and punctuation changes throughout. “Unit” changed to “Units” in unit name. Term “document” as verb changed to “record” throughout document. Section 1, ASCLD/LAB removed. Section 2, title made general and last sentence added. Section 3.1, first, second and third bullet combined and fourth bullet, added “non LPU”. Section 3.2, first bullet, made general. Section 3.3, Section 3.4, and Section 3.5, modified to address circumstances individually. Section 4.1, statement duplicated in sections below relocated. Section 4.1.1, modified to address individuals with processing and comparison qualification. Section 4.1.2, modified to address processing only qualification. Section 4.1.3, modified to address comparison only qualification. Section 4.1.1, Section 4.1.2, removed non ASCLD/LAB approved test information. Section 4.1.4, added. Appendix B changed to Appendix A and old Appendix A removed. Appendix C changed to Appendix B and old Appendix C removed. Sections 4.3.2.1 and 4.3.2.2, removed LOM specific section numbers and made more general. Section 4.4, modified for new vendor website and Forensic Advantage. Section 4.5.1, modified for Forensic Advantage. Section 4.5.2, modified for Forensic Advantage and clarified. Section 4.6.2, modified for Forensic Advantage. Section 4.6.6, modified for Forensic Advantage. Section 5, modified for designee and Forensic Advantage. Section 6, updated. Appendix D removed.</p>
6	10/02/17	<p>Minor wording, grammar, and punctuation changes throughout the document. Position and document abbreviations modified throughout document. Changed “Unit” to “Units” throughout document (to include Appendices) to add Biometrics Analysis Unit. Section 2, added category numbers. Section 3 through Section 3.5 removed and remaining renumbered. Section 3 paragraph added. Section 3.1, changed end of year to needed time. Section 3.1.1, Section 3.1.2, Section 3.1.3, and Section 3.1.4, wording modified. Section 3.1.1 and Section 3.1.2, removed suitability requirement. Section 3.2.1 and Section 3.2.2, changed manager to ensuring process is done. Section 3.2.1.2, added job title. Section 3.3.1, changed manager to ensuring process is done and ACE defined. Section 3.3.2, changed manager to ensuring process is done and added last sentence. Section 3.4, changed header and first word of first sentence. Section 3.5.1, document changed and removed internal test review recording. Section 3.5.2, modified to address changes due to external test design. Section 3.5.3 number added and removed recording location. Section 3.6.1, changed manager to ensuring process is done and SPPM reference removed in rest of section. Section 3.6.2, wording</p>

changed and SPPM reference removed. Section 3.6.3, SPPM reference removed. Section 3.6.4 and Section 3.6.5, reworded. Section 4, retention changed. Appendix A and Appendix B modified.

Approval

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Appendix A: Latent Print Unit Internal Processing Proficiency Test Form

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Appendix B: Latent Print Unit Internal ACE Proficiency Test Form

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FBI Friction Ridge Discipline Procedures for Verification and Blind Verification

1 Purpose

Verification is the application of Analysis, Comparison, and Evaluation to a friction ridge print(s) by another examiner.

Blind verification is a type of verification by another examiner who has limited case information and does not know the evaluation decision of the primary examiner. Blind verification is used as a means to reduce confirmation bias and limit contextual bias in the examination process.

2 Scope

These procedures apply to all appropriate personnel who are involved in conducting verifications or blind verifications.

Verifications must be performed on all identifications; however, other evaluation decisions may be verified. Verifications cannot be performed by an examiner who has consulted on the print(s) to be verified.

A blind verification must be performed in cases with a single evaluation decision (with the exception of the circumstances listed in Section 3.2.7 and 3.2.8). In addition, a blind verification will be performed when a print(s) being reported as an identification(s) has required resolution of a technical disagreement, unless a Consensus Panel was used. Blind verifications cannot be performed by an examiner who has consulted on the print(s) to be blind verified, has knowledge of the evaluation conclusion(s), or has detailed case information.

3 Procedures

When required, verification or blind verification must be completed prior to providing those results to the contributor. If a blind verification is conducted, a separate verification is not required. A supervisor may determine that a print(s) not meeting those requirements in Section 2 will be verified and/or blind verified as the case or examination dictates.

The role of facilitator is performed by a supervisor. However, in immediate cases or other situations established by management, all or some of the administrative functions may be performed by an individual in a non-supervisor role. Permissions and limitations will be established by management in writing.

If there is a difference of conclusion (to include anatomical region and suitability for comparison), all parties will follow the FBI Laboratory Operations Manual Practices for

Resolution of Scientific or Technical Disagreement and the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework, as well as Section 3.3 of these procedures.

3.1 Verification

3.1.1 The primary examiner will provide:

- The examiner's evaluation(s).
- Unmarked image(s) of the print(s) to be verified.
- Any other image(s) relied upon to arrive at the examiner's Analysis, Comparison, and Evaluation conclusion(s) (e.g., image(s) of the same print developed in a different development medium).
- All associated known exemplar(s) used by the primary examiner to support the examiner's evaluation conclusion.

3.1.2 The facilitator selects the verifier and ensures the applicable verification materials are provided. The facilitator may be asked to provide additional information concerning the print (such as evidence type) or coordinate the transfer of a digital image(s). The appropriate Unit Chief ensures that verifiers are chosen on a rotational basis.

3.1.3 The verifier receives the verification materials and:

- Ensures that he/she is eligible to perform a verification as described in Section 2.
- Conducts and records an Analysis, Comparison, and Evaluation examination of the print(s) submitted for verification following the procedures in the FBI Friction Ridge Discipline Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints.
- May request a digital copy of the original and/or digitally processed image(s) from the facilitator.
- May consult with another examiner. This consultation must be recorded in the case record.

3.1.4 The verifier records the following:

- All appropriate markings on the provided unmarked image(s) of the print(s) to include:
 - The information used to reach the conclusion(s) as described in the FBI Friction Ridge Discipline Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints.
 - The analysis and evaluation decision(s) reached. If the print is determined to be not suitable for comparison, the verifier must record that the verification was completed and the conclusion reached was not suitable for comparison.
 - For intentionally recorded non-standard prints that are verified as part of a records check, the verifier may record an all-inclusive agreement

with the original examiner versus recording verifying information for each print individually.

- The name(s) or unique number(s) (e.g., Universal Control Number(s)) of the individual(s) compared. For ten print verifications of submitted records, the item number of the submitted record(s) will be used.
- The notation that it is a verification.
- Signature of verifier and date or date range of verification.
- Indication in the case record of which known exemplar(s) was provided. Examples of this include transfer of the original item(s) on the chain of custody or secure initialing of a digital or physical copy of the exemplars.

3.1.5 Once verification is completed:

- The verifier returns the completed verification materials to the facilitator.
- The facilitator will:
 - Review the conclusion(s) reached by the verifier.
 - Ensure all applicable records are returned to the primary examiner.

3.1.5.1 If there is no disagreement, the following is recorded in the case notes:

- The conclusion(s) reached.
- Indication of which prints were verified.
- Identity of the verifier.

3.2 Blind Verification

3.2.1 The primary examiner will provide:

- The examiner's evaluation(s).
- Unmarked images(s) of the print(s) to be blind verified.
- Any other unmarked image(s) relied upon to arrive at the examiner's Analysis, Comparison, and Evaluation conclusion(s) (e.g., image(s) of the same print developed in a different development medium).
- All associated known exemplar(s) used by the primary examiner to support the examiner's evaluation conclusion.

3.2.2 The facilitator selects the blind verifier and ensures the applicable blind verification materials are provided. The appropriate Unit Chief ensures that blind verifiers are chosen on a rotational basis.

- The facilitator must avoid providing a known exemplar(s) that may bias the blind verifier's examinations (e.g., only providing multiple recordings of the left index finger and no other known exemplar may bias the blind verifier to compare the left index finger).
- The facilitator may be asked to provide additional information concerning the print (such as evidence type) or coordinate the transfer of a digital image(s).

3.2.3 The blind verifier receives the blind verification materials and:

- Ensures that he/she is eligible to perform a blind verification as described in Section 2.
- Conducts and records an Analysis, Comparison, and Evaluation examination of the print(s) submitted for blind verification following the procedures in the FBI Friction Ridge Discipline Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints.
- May request a digital copy of the original and/or digitally processed image(s) from the facilitator.

May request to consult with another examiner. The facilitator will identify examiners with no prior knowledge of the conclusion(s). This consultation must be recorded in the case record.

3.2.4 The blind verifier records the following:

- All appropriate markings on the provided unmarked image(s) of the blind verified print(s) to include:
 - The information used to reach the conclusion(s) as described in the FBI Friction Ridge Discipline Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints.
 - The analysis and evaluation conclusion(s) reached. If the print(s) is deemed not suitable for comparison, the blind verifier must record that a blind verification was completed and the conclusion(s) reached was not suitable for comparison.
 - The name(s) or unique number(s) (e.g., Universal Control Number(s)) of the individual(s) compared.
 - The notation that it is a blind verification.
 - Signature of the blind verifier and date or date range of blind verification.
- Indication in the case record of which known exemplar(s) was provided. Examples of this include transfer of the original item(s) on the chain of custody or initialing a digital or physical copy of the exemplars.

3.2.5 Once blind verification is completed:

- The blind verifier returns the completed blind verification materials to the facilitator. The blind verifier must await notification from the facilitator prior to any discussions about the print(s).
- The facilitator reviews the conclusion(s) reached by the blind verifier and ensures all records are returned to the primary examiner.

3.2.5.1 If there is no disagreement, the quality step is met and the following is recorded in the case notes:

- The conclusion(s) reached.
- Indication of which prints were blind verified.
- Identity of the blind verifier.

3.2.6 Single Exclusion/Inconclusive Decisions with Multiple Individuals

In instances where a single exclusion or inconclusive decision will be reported with multiple individuals, the blind verification will be performed with one or more of the known individuals. The number of individuals will be at the discretion of the facilitator and based on data such as case information or a discussion with the primary examiner.

3.2.7 Human Remains, Intentionally Recorded Prints, Next Generation Identification System Comparisons, and Latent to Latent Comparisons

Blind verification is not required, but may be performed on single conclusions in the following scenarios as dictated by the needs of the examination or case:

- Unknown deceased.
- Standard or Non-standard Intentionally recorded prints.
- Next Generation Identification System comparisons, including Unsolved Latent Match cascade examinations (exclusions and inconclusive decisions only).
- Reported latent to latent identification(s) require only verification. All other conclusions of latent to latent comparisons are not verified or blind verified.

3.2.8 Unknown Biometric Identity Tracker

The Unknown Biometric Identity Tracker is used to collect information about latent to latent identifications that are made between incidents as a result of an automated search in the Unsolved Latent File. All latent to latent associations were verified when originally effected. At times, a collection of associated latent to latent prints recorded in the Tracker is identified with a known individual. The required quality check for these associations will be one of the following options:

- A blind verification between the known record and a single latent print in the collection OR
- A verification between the known record and two latent prints in the collection, provided the two latent prints came from two different incident numbers.

Once the quality check requirement has been reached, no additional verifications or blind verifications are required. If there is a difference of conclusion (to include anatomical region and suitability for comparison), all parties will follow the FBI Laboratory Operations Manual Practices for Resolution of Scientific or Technical Disagreement and the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework, as well as Section 3.3 of these procedures.

3.3 Disagreement Resolution

If differences in conclusions (including anatomical region and suitability for comparison) are apparent after verification or blind verification, the primary examiner and the verifier or blind verifier, as applicable, will reference the FBI Laboratory Operations Manual Practices for

Resolution of Scientific or Technical Disagreement, the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework, as well as Section 3.3.1 through Section 3.3.3 of these procedures to resolve these differences.

If examiners disagree on the type of print claimed (fingerprint, palm print, or impression) but the evaluation decisions agree, discussion is needed between the examiners to obtain a single analysis decision. All appropriate comparisons must be completed for the final decision of type of print. Any additional comparison(s) conducted will be treated as an additional verification or examination and recorded as such.

3.3.1 Differences That Do Not Require Resolution

3.3.1.1 If a verifier or blind verifier does not deem a print to be suitable for comparison, he/she will not be in disagreement with a conclusion of inconclusive due to the latent print and no resolution will occur. The print will be reported as inconclusive due to the latent print.

3.3.1.2 Blind verifications conducted in Next Generation Identification System resulting in differing “no identification” conclusions (e.g., inconclusive vs. exclusion) are not considered to be in disagreement and will be reported as no identification effected.

3.3.2 Blind Verification

If a blind verification undergoes disagreement resolution and the blind verifier’s original evaluation conclusion (to include anatomical region and suitability for comparison) changes, the comparison will change from a blind verification to a verification and be recorded as such.

3.3.2.1 If, after disagreement resolution, the blind verifier changes their original conclusion to identification, an additional blind verification is required, unless a Consensus Panel was used. All other disagreement resolutions do not require an additional blind verification.

3.3.2.2 After two unsuccessful blind verification attempts, the final quality measure will be a Consensus Panel as described in the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework. All discussions and determinations will be recorded in the case record.

4 References

FBI Laboratory Operations Manual, Practices for Resolution of Scientific or Technical Disagreement. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Disagreements in Technical Casework. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

SWGFAST Glossary. Latest Revision.

Rev. #	Issue Date	History
6	10/02/17	Document names updated. Abbreviations addressed. Section 3 through Section 3.4 removed, remaining renumbered and Unit Chief responsibility place in Section 3.1.2 and Section 3.2.2.
7	04/17/20	Latent Print Units changed to Friction Ridge Discipline throughout document. Supervisor has been mostly replaced with facilitator concept which is explained in Section 3 and represented throughout document. Minor grammar, wording, and formatting changes throughout document. Added clarification to “difference of conclusion” throughout document. Claimed changed to suitable for comparison throughout document. Universal Control Number changed to unique number throughout document. Section 2, added Section 3.2.8 reference and added last paragraph. Section 3.1.4, clarification added for non-standard prints in third bullet addition. Section 3.2.7, added Standard or non-standard. Added Section 3.2.8. Added second paragraph to Section 3.3. Section 3.3.2.1 reworded for clarification.

Approval

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Friction Ridge Discipline Technical Leader	—	Date: <u>04/16/2020</u>
Latent Print Operations Unit Chief	—	Date: <u>04/16/2020</u>
Acting Latent Print Support Unit Chief	—	Date: <u>04/16/2020</u>
Acting Scientific and Biometrics Analysis Unit Chief	—	Date: <u>04/16/2020</u>

QA Approval

Quality Manager	—	Date: <u>04/16/2020</u>
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FBI Approved Standards for Scientific Testimony and Report Language for the Friction Ridge Discipline

1 Purpose

This document provides examples of the statements approved for reporting examination results and providing expert conclusions and opinions during testimony by FBI examiners within the Friction Ridge Discipline. It is noted that these examples are not intended to be all-inclusive and may be dependent upon the precedent set by the judge or locality in which testimony is provided. Furthermore, these examples are not intended to serve as precedent for other forensic laboratories and do not imply that statements by other forensic laboratories or those made in previous FBI Friction Ridge Discipline reports or testimony are incorrect, indefensible, or erroneous.

2 Scope

This document applies to Friction Ridge Discipline examiners who communicate results and/or provide testimony.

3 General Information

3.1 The examiner will ensure that all communications of Friction Ridge Discipline results are consistent with the statements contained within this document.

3.2 The examiner will ensure that their testimony related to Friction Ridge Discipline examinations is consistent with the statements contained within this document.

3.3 An Administrative Reviewer will ensure that Friction Ridge Discipline communications of results that undergo administrative review are consistent with the statements contained within this document.

3.4 To ensure compliance with the statements contained within this document, all Friction Ridge Discipline testimony will be reviewed in accordance with the FBI Laboratory Operations Manual, Practices for Testimony Related Activities.

4 Statements Approved for FBI Friction Ridge Discipline Examination Testimony and/or Communications of Results

4.1 Identification

Identification is an examiner's conclusion that two friction ridge prints originated from the same source. The conclusion is an examiner's decision that the observed friction ridge skin features are in sufficient correspondence such that the examiner would not expect to see the same arrangement of features repeated in a print that came from a different source and has found insufficient friction ridge skin features in disagreement to conclude that the prints came from different sources.

The basis for an identification conclusion is an examiner's decision that the observed corresponding friction ridge skin features provide extremely strong support for the proposition that the two prints came from the same source and extremely weak support for the proposition that the two prints came from different sources.

An identification is the statement of an examiner's opinion (an inductive inference¹) that the probability that the two prints were made by different sources is so small that it is negligible. An identification is not based upon a statistically-derived or verified measurement or actual comparison to all other friction ridge print features. The terms identification and source identification are interchangeable.

4.2 Exclusion

Exclusion is an examiner's conclusion that two friction ridge prints did not originate from the same source. The basis for an exclusion is an examiner's decision that the observed friction ridge skin features are in sufficient disagreement and provide extremely strong support for the proposition that the two prints came from different sources and extremely weak or no support for the proposition that the two prints came from the same source. The terms exclusion and source exclusion are interchangeable.

4.3 Inconclusive

Inconclusive is an examiner's conclusion that there is insufficient quantity and/or clarity of corresponding friction ridge skin features between two prints such that the examiner is unable to identify or exclude the two prints as originating from the same source. The basis for an inconclusive conclusion is an examiner's decision that an identification or exclusion cannot be made due to insufficient information in either of the two prints examined. The conclusion can be based on insufficient information in either a latent print or a known print.

¹ "By the process of induction or inference, predictions about new situations are inferred or induced from the existing body of knowledge. In other words, an inference is a generalization, but one that is made in a logical and scientifically defensible manner." Oxford Dictionary of Forensic Science 130 (2012).

5 Statements Not Approved For FBI Friction Ridge Discipline Examination Testimony and/or Communications of Results

5.1 Uniqueness and Exclusion of All Other Sources

An examiner shall not assert that an identification or exclusion conclusion is based on the uniqueness² of an item of evidence. In addition, an examiner shall not assert that two friction ridge prints originated from the same source to the exclusion of all other sources or use the terms “individualize” or “individualization.” This may wrongly imply that an identification is based upon a statistically-derived or verified measurement or comparison to all other friction ridge skin prints, rather than the examiner’s expert conclusion.

5.2 Zero Error Rate

An examiner shall not assert that friction ridge print examination is infallible or has a zero error rate.

5.3 Statistics or Probability

An examiner shall not provide a conclusion that includes a statistic or numerical degree of probability except when based on relevant and appropriate data.

5.4 Measure of Accuracy

An examiner shall not cite the number of friction ridge print examinations performed in their career as a direct measure for the accuracy of a conclusion provided. An examiner may cite the number of friction ridge print examinations performed in their career for the purpose of establishing, defending, or describing the examiner’s qualifications or experience.

5.5 Scientific Certainty

An examiner shall not assert that two friction ridge prints originated from the same source with absolute or 100% certainty; or use the expressions “reasonable degree of scientific certainty,” “reasonable scientific certainty,” or similar assertions of reasonable certainty in either reports or testimony unless required to do so by a judge or applicable law.³

² As used in this document, the term ‘uniqueness’ means having the quality of being the only one of its kind. OXFORD ENGLISH DICTIONARY 804 (Oxford Univ. Press 2012).

³ See *Memorandum from the Attorney General to Heads of Department components* (Sept. 9, 2016), <http://www.justice.gov/opa/file/891366/download>.

6 References

The Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline, Department of Justice. Latest revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Operations Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Memorandum from the Attorney General to Heads of Department components (Sept. 9, 2016), <http://www.justice.gov/opa/file/891366/download>.

Oxford English Dictionary 804 (2012).

Oxford Dictionary of Forensic Science 130 (2012).

Rev. #	Issue Date	History
3	07/25/18	Definitions and Not Approved Statements updated to better mirror the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline.
4	04/17/20	Changed Latent Print Unit and Latent Print to Friction Ridge Discipline throughout document. Minor wording, grammar, and punctuation changes in document. Updated wording to agree with updated Department of Justice issued document. Modified to meet current Laboratory documents regarding testimony monitoring. Switched Sections 3.2 and 3.3. Removed Section 6 and Section 7 and renumbered.

Approval

Redacted - Signatures on File

Friction Ridge Discipline
 Technical Leader

-

Date: 04/16/2020

Latent Print Operations
 Unit Chief

-

Date: 04/16/2020

Acting Latent Print Support
 Unit Chief

-

Date: 04/16/2020

Acting Scientific and
 Biometrics Analysis Unit Chief

-

Date: 04/16/2020

QA Approval

Quality Manager

-

Date: 04/16/2020

FBI Latent Print Units Procedures for Development, Validation, Verification, and Modification of Technical Procedures, Methods, and Equipment

1 Purpose

This document establishes development, validation, verification, and modification procedures for the Latent Print Units and supplements the FBI Laboratory Quality Assurance Manual, and the FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures.

2 Scope

These procedures apply to personnel who address new or modified technical procedures, methods, and equipment (which includes software) under consideration for use in casework by the Latent Print Units. The size and scope required for each technical procedure, method, and equipment to be validated, verified and/or modified will depend on available information and/or research previously conducted.

3 Procedures

The Technical Leader will determine what technical procedures, methods, and equipment will be addressed under this document. The Technical Leader will ensure the requirements set forth in this document, the FBI Laboratory Quality Assurance Manual, and the FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures are followed and all records retained.

3.1 Levels

If a technique or piece of equipment is novel, it must undergo more rigorous testing before being accepted. Procedures or equipment that have been accepted by standards or technical organizations, or well supported by scientific literature, internal/external research, or by the manufacturer still need to be verified. The Levels below break down scenarios seen in the Latent Print Units.

3.1.1 Level I Scenarios (Method Development/Validation)

A Level I scenario applies to novel procedures, chemicals, or equipment as well as any modifications deemed by the Technical Leader to require method development or a validation. Testing will be conducted to test the following, if applicable, unless previously tested and documented in publications, internal research, or external research:

- Accuracy

- Precision
- Scope
- Robustness
- Specificity
- Sensitivity

3.1.2 Level II Scenarios (Verifications/Significant Modifications)

A Level II scenario applies to procedures, chemicals, or equipment that have been accepted by standards or technical organizations, or are well supported by scientific literature, internal/external research, or the manufacturer. Significant modifications to previously validated or verified procedures or equipment can be included under Level II scenarios per the Technical Leader.

3.1.3 Level III Scenarios (Equipment or Software Check)

A Level III scenario is not a validation or verification, but instead applies to approvals of new equipment or software that should not significantly impact the current procedure (e.g., a new processing chamber that is from the same manufacturer and is a similar model). All equipment must still meet the Laboratory's requirements. See Appendix A for an example of equipment check records. Prior to use in case work, the final equipment or software check record must be approved by the following individuals:

- location Laboratory Manager or applicable Program Manager
- Validation Program Manager or Technical Leader.

Negligible equipment or software does not need a recorded equipment or software check (e.g., tweezers, ambient light lamps, magnifying glasses, word processing software, virus software). Additionally, maintenance or performance checks of equipment or software do not fall under these requirements.

3.1.4 Offsite Examinations

When processing of physical evidence occurs at a temporary site, such as a partner laboratory or crime scene, all chemicals, reagents or equipment are brought from the Laboratory. Control testing is done at the site and recorded in the case record. If the relevant items do not come from the Laboratory, the appropriate validation or verification is conducted based on the scenarios listed above.

3.2 Software

Software used by the Latent Print Units that meets the requirements listed below must be recorded with sufficient detail and validated or verified to show adequacy.

- Software that may significantly and adversely affect the integrity of friction ridge print images or supporting data (e.g., digital history),

- Software that produces reportable statistical conclusions based on latent print information, or
- Software where the Technical Leader decides validation is necessary.

Software in general use that does not fall under the conditions listed above does not need to be validated or verified.

3.2.1 Next Generation Identification, including any Criminal Justice Information Services Division provided interface programs is maintained and tested by the Criminal Justice Information Services Division. A record of the tests will be retained. The Latent Print Units will additionally verify or validate major upgrades to the latent print algorithm and other upgrades deemed necessary by the Technical Leader.

3.3 Requirements for Method Development, Validation, and Verification

The Technical Leader, with input from the Validation Program Manager, will determine which procedures, methods and/or equipment will require method development or a validation as defined in the FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures. A Level I scenario is expected to always fall under the previously mentioned document while a Level II or Level III scenario is expected to not fall under the document. All method development or validations for procedures, methods and/or equipment will follow the FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures requirements in addition to the latent print specific requirements below.

3.3.1 Research and Development of Method Development, Validation Study, or Verification

External literature, internal research, and/or knowledge of the procedure(s), chemical(s), software, and/or equipment will be used to determine the theoretical basis, limitations, critical aspects, and the conditions under which accurate results can be obtained.

3.3.1.1 If a new or modified procedure(s), chemical(s), software, and/or equipment has been reviewed and evaluated by the appropriate experts, a verification may be more appropriate than a validation.

3.3.1.2 Prior to drafting a plan, previous research may be used to determine relevant factors to establish the developmental validation or verification of a procedure.

3.3.1.3 Relevant peer-reviewed literature, internal research, or external research used for the study will be retained or referenced within the records.

3.3.2 Method Development, Validation or Verification Plan

A method development, validation or verification plan will be written with input from the Validation Program Manager and then technically reviewed and approved by the Technical

Leader before the method development, validation or verification process begins. The plan will include the following:

- Objectives
- Scope
- Expected limiting factors
- Design of the study
- Minimum thresholds needed to determine validity

3.3.2.1 Chemicals, substrates, and other materials may be prepared before the plan is finalized, but the experiments will not occur until the plan is written, reviewed, and approved.

3.3.2.2 The plan will be created with consideration of the scope and be used to determine if the procedure meets the needs of the customer. Besides functionality, the following factors may also be used to determine the threshold(s) for development, validation or verification:

- Accuracy
- Adequacy
- Availability
- Sensitivity
- Ease of Use
- Operating Condition(s)
- Reproducibility
- Risks
- Robustness
- Safety
- Selectivity

Thresholds will also factor in current and alternative techniques, literature, the needs of the intended users, and/or study feasibility.

3.3.2.3 Any major revisions to the plan design will be reviewed and approved by the Technical Leader. Any portion of the study affected by the revision will be held until approval is obtained. The new plan will be followed after approval.

3.3.2.4 The plan will use test samples appropriate to the procedures, chemicals, software, or equipment being validated or verified.

3.3.3 Level I or Level II Study Completion

3.3.3.1 Upon completion of a study, a study report will be generated to detail the findings of the study. The study report will include the following:

- The limitations of the procedure, reported results, opinions, and interpretations.
- Conditions under which reliable results can be obtained.
- Critical aspects of the procedure that must be controlled and monitored.

- Scope and accuracy of the procedure to meet the needs of the given application.
- Associated data analysis and interpretation.
- Establishing the data required to report a result, opinion, or interpretation (if applicable).
- A statement concluding if the procedure(s), chemical(s), software, and/or equipment is valid for its intended use or if the study was discontinued.

A summary will be produced for validations per the FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures.

3.3.3.2 The appropriate Unit Chief(s) and the Technical Leader will review and approve the completed study (to include all reports and summaries) and the approvals will be recorded on the study report.

3.3.3.2.1 If the study is unsuccessful, additional research may be conducted for improvement. The updated study may follow the same threshold and factors of the original study. If the original study's metrics are not suitable, a new plan must be established, reviewed, and approved. The scope may be adjusted based on technique limitations learned from the previous study.

3.3.3.3 Level two documents will be generated and/or updated as needed based on the outcome of the verification or validation study. The document modifications or generation can occur prior to or concurrent with any required competency testing. The procedure(s), chemical(s), software, and/or equipment cannot be used in casework until the appropriate document is updated or generated.

3.3.4 Level I and Level II Records and Competency

The Validation Program Manager will compile the records, to include any plans and reports, and ensure the records are retained. All records must be sufficient to allow replication of the study by another qualified expert. Any other relevant records such as notes or logs will be retained.

3.3.4.1 Personnel in the affected units will be notified when a new or modified version of an existing procedure(s), chemical(s), software, and/or equipment has been verified or validated for use and of any required competency tests. Competency testing will be required for validations and required for verification only at the direction of the Technical Leader. Authorization to conduct the method will be retained.

3.3.4.1.1 Competency tests will assess an individual's ability to use the procedure(s), chemical(s), software, and/or equipment in a laboratory setting. Record of the completion of the test will be retained and any samples generated during the test will not be retained.

3.3.4.1.2 Competency records and additional authorization records will be maintained for each examiner/person, when applicable.

3.3.4.2 The Technical Leader will determine which personnel will be trained and how competency will be tested. Personnel involved in the validation or verification process may be signed off by the Technical Leader and appropriate Unit Chief(s), as they demonstrated competency through the study or research. Documentation of the decision and personnel approval will be retained.

3.3.5 After Implementation

Follow up will be performed on any issues that occur after implementation of the new procedure(s), chemical(s), software, and/or equipment.

4 References

FBI Laboratory Operations Manual, Practices for Developing Methods and Validating Technical Procedures. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Operations Manual, Practices for Writing Standard Operating Procedures. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

ISO/IEC 17025 - General Requirements for the Competence of Testing and Calibration Laboratories, International Organization for Standardization, Geneva, Switzerland, 2017.

Scientific Working Group of Friction Ridge Analysis, Study and Technology, Standard for the Validation and Performance Review of Friction Ridge Impression Development and Examination Techniques (Latent/Tenprint). Latest Version.

Rev. #	Issue Date	History
2	02/07/18	Minor grammar, wording and punctuation changes throughout document. Title and Section 1 modified to include expansion of document scope. Section 2, added modifications as well as equipment. Section 3, added equipment and removed Technical Leader direction. Section 3.1 through Section 3.1.4, moved from further in the document and clarified to remove blanket validation references. Section 3.2 and Section 3.2.1, moved from further in the document. Section 3.3 added. Section 3.3.1 through Section 3.3.2.4 plus Section 3.3 through Section 3.5 moved to end and renumbered. Section 3.3.3 through Section 3.3.3.2 and Section 3.3.4, summary is now a report; but summary per Lab document added. Section 3.3.5, removed last statement. Appendix A updated.
3	08/21/19	Title modified. "Acceptance" and "Internal Validation" changed to "verification" in document. Section 1, "development" added. Section 2, software added to scope. Section 3.1.1, updated to include only method development and validation. Section 3.1.2, added "or verified" and allowance for Technical Leader. Section 3.1.3, added "or verification", added software throughout section, to include examples, modified approvals, and added last sentence. Section 3.1.4, added "or verification". Section 3.2, expanded to software used by unit, added "or verified", expanded to friction ridge prints and included supporting data. Additionally, removed commercial off the shelf software and added software in general use. Section 3.2.1, updated testing requirements. Section 3.3, expanded to include method development and verification and modify expectations for use of Laboratory document. Section 3.3.1 through Section 3.5.4, expanded to include Method Development and verification. Section 3.3.3.1, updated to include verification and method development as well as better mirror the Laboratory document. Section 3.3.3.2 through Section 3.3.3.3, expanded to include method development and verification. Section 3.3.4 through Section 3.3.4.2, records and competency further clarified for validations and verifications and intent of testing. Section 3.3.5, Heading changed.

Approval

Redacted - Signatures on File

Latent Print
Technical Leader

Date: 08/02/2019

Latent Print Operations
Unit Chief

Date: 08/02/2019

Latent Print Support
Unit Chief

Date: 08/02/2019

Scientific and Biometrics
Analysis Unit Chief

Date: 08/02/2019

QA Approval

Quality Manager

Date: 08/02/2019

Appendix A: *Example Equipment Check Templates*

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Redacted - Form on File

FBI Latent Print Units Laboratory Reports, Reviews, and Retained Records

1 Purpose

This document establishes the procedures for the format, content, review, and issuance of an FBI *Laboratory Report* (7-1, 7-1 LIMS, 7-273 or 7-273 LIMS) as well as reviews and the retention of the associated records. These procedures supplement the appropriate sections of the FBI Laboratory Quality Assurance Manual and FBI Laboratory Operations Manual.

2 Scope

These procedures apply to personnel who prepare, review, or issue FBI *Laboratory Reports* and/or generate case records in the latent print discipline. For submissions specific to intelligence cases, refer to the FBI Latent Print Units Quality Assurance Manual, *Communicating with the Intelligence Community*.

3 Laboratory Report Content and Format

3.1 Report Style and Format

Terms, Methods, Limitations, and Interpretations will be combined into a single section with associated references immediately following. The section may be included in the body of the report or as an appendix. If applicable, there will be a statement in the report referring to the appendix. The Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline will be included as a reference in the report.

When a request for an examination that is conducted within the Latent Print Units is received, but the examination is not conducted, an examiner will include a detailed explanation in a paragraph immediately following the listing of evidence, the results of examinations section, or in the remarks section that describes why the requested examination(s) was not conducted.

A *Laboratory Report* (7-1, 7-1 LIMS, 7-273, or 7-273 LIMS) is an official response to a contributor request. A summary of results (Appendix A) is not part of the official report and is intended to provide a summarization of select information contained within the *Laboratory Report*. The summary will contain an explanation directing users to the complete and official report. In addition, the report will reference the summary as an enclosure.

4 Communicating Expedited Results

Employees may provide results regarding analysis, exclusion, identification, and both inconclusive decisions to a contributor prior to the completion of the technical review and issuance of a *Laboratory Report*. All prints must be appropriately verified or blind verified as described in the FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification prior to dissemination. When communicating the expedited results for results requiring verification, the employee will follow the appropriate sections in the FBI Laboratory Operations Manual, Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases and/or FBI Laboratory Operations Manual, Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records in Forensic Advantage.

5 Technical and Administrative Reviews

5.1 Technical Review

5.1.1 A Technical Reviewer must have training in conducting a technical review and have casework experience following qualification. The Technical Reviewer must not have processed evidence nor performed comparisons in the case being reviewed, with the exception of verifications; blind verifications; Analysis, Comparison, and Evaluation checks; processing checks; or Supervisor reviews.

5.1.2 With the exception of circumstances described in Section 4, all examination results must be technically reviewed prior to issuance. In addition to the requirements listed in the FBI Laboratory Operations Manual, this review will determine if:

- All requests have been addressed.
- All reported prints meeting the requirements in the FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification have been appropriately verified or blind verified and recorded.

5.2 Administrative Review

5.2.1 With the exception of circumstances described in Section 4, all reports must be administratively reviewed prior to issuance. The Administrative Reviewer will have training in conducting an administrative review. The Administrative Reviewer must not have processed the evidence nor performed comparisons in the case being reviewed, with the exception of verifications; blind verifications; Analysis, Comparison, and Evaluation checks; processing checks; or Supervisor reviews.

5.2.2 The review will determine if the administrative and examination records conform to the appropriate requirements as listed in the FBI Laboratory Quality Assurance Manual, FBI Laboratory Operations Manual, the FBI Latent Print Units Operations Manual, and the FBI Latent Print Units Quality Assurance Manual. In addition, the Administrative Reviewer will confirm the accuracy of the report content based on the supporting records.

5.2.2.1 A separate review of the classification markings may be conducted by an examiner trained in classification and will be noted in Forensic Advantage.

6 Retaining Supporting Records

Requests for examinations, supporting records (administrative and examination records), and/or *Laboratory Reports* are routinely received or generated by Latent Print Units personnel. These records, either originals or copies, will be retained in the appropriate physical storage area (e.g., FBI Laboratory file room), the MorphoBis server of the Next Generation Identification System, Sentinel, appropriate digital imaging retention system and/or Forensic Advantage. The term “annotated” in regards to images refers to Analysis, Comparison, and Evaluation notations on or associated with an image. Any other markings are not considered annotations.

6.1 Physical Records

Physical supporting records are not individually serialized and will be retained in a *Supporting Documentation Envelope (7-251)* (also known as a 1A), and retained in the appropriate physical storage area (e.g., FBI Laboratory file room). Records too large for a 1A will be placed in a 1C attachment for storage. Throughout the document, “1A” will refer to either a 1A or a 1C attachment or an electronic 1A uploaded to Sentinel.

6.1.1 Prior to issuing a Terrorist Explosive Device Analytical Center response to an official request or investigation which involved casework performed prior to accreditation, an examiner may be unable to locate portions of the case record (e.g., case notes) due to factors such as migration of files and examinations of large numbers of records. If the examiner is able to locate a copy or duplicate version of the record, the record will be added to the file with clear indication that it is a copy and the action taken noted in the case notes. If the record is unable to be recreated, the examiner will note specifically in the current record what is missing. In situations where a record item is missing, and it does not impede the requested technical examination, the examiner may still conduct examinations and issue a report. When, or if, the record(s) are found at a later date, they will be added to the case record and a notation will be placed in the record addressing their return.

6.1.2 Evidence submitted to the Terrorist Explosive Device Analytical Center may have been processed in the field, and compact disks containing images captured during the examination of item(s) could be submitted to the FBI Laboratory to supplement examinations. Depending on the time frame, many legacy cases processed by the forward-deployed Department of Defense Laboratories were submitted with disks containing images captured from the corresponding evidence. The transfer of these disks was intended to be tracked either on the chain of custody or in the Explosives Reference Tool database. The disks were retained in FBI space; however, the tracking of the disks is often unreliable, as they were often treated as part of the case documentation rather than as evidence. As these disks contain images associated with a specific incident, if the examiner wishes to use the images in casework, the examiner will first verify that the images are associated with the case in question. The disks will not be considered evidence but will be designated as an examination record when in a 1A.

6.2 Next Generation Identification System and/or Digital Imaging Records

Electronic supporting records generated within the Next Generation Identification System or an appropriate digital image retention system will be retained within those systems and are considered part of the case record. For the Next Generation Identification System, only those records contained on the MorphoBis server and the biographic search transaction history are considered part of the case record. The systems track the actions of individuals based on password protected electronic access. Records will be easily associated with a case or will have a notation in the case record providing direction to the records. Digital records retained on media (e.g., disk) will be retained in the physical 1A.

6.3 Forensic Advantage Records and Sentinel

Electronic supporting records generated within Forensic Advantage will be retained in that system. The contents of the Forensic Advantage electronic records will be uploaded to Sentinel, as appropriate.

6.4 Administrative and Examination Records

All case-related records that support or contain the results and/or conclusions are considered examination records. All other records are administrative.

Physical examination records, with the exception of images of friction ridge prints and digital media, will be numbered consecutively to account for the entirety of each record type within the case record (i.e., page __). Only the first page of the examination records must be numbered to account for the totality of the pages (i.e., page __ of __).

All physically retained administrative and/or examination records will be accounted for on the 1A. Electronic records are accounted for in Sentinel or the case record, as appropriate.

All case-related notations on the reverse side of photographs of friction ridge prints will be considered examination records and will be numbered consecutively. This will not apply to photographs which had notations prior to the requirement.

Employees may retain submitted physical intentionally recorded prints or submit the records to the Criminal Justice Information Services Division. The Communication Log must clearly note the consent of the contributor for retention, as applicable, and the notification to the individual managing the case, as appropriate. The case record will include a notation that the item is no longer evidence, and, if retained, the prints will become examination records.

6.4.1 Administrative Records

In addition to Laboratory administrative records, hardcopy or digital administrative records (original or copies) may include, as appropriate:

- a. Non-annotated images of friction ridge prints

- b. Object shots or any reproductions not used for an examination
- c. Negatives, including those containing friction ridge prints
- d. Photographic requests (e.g. Photographic Requisition (7-230), database screen printout), when retained by Latent Print Units.
- e. FIU-HEAT Latent Print Photography Checklist
- f. Notification records
- g. Digital media not containing annotated friction ridge prints
- h. Check-in notes.

6.4.2 Examination Records

In addition to Laboratory examination records, hardcopy or digital examination records (original or copies) may include, as appropriate:

- a. Case notes (to include tracked changes)
- b. Annotated images of friction ridge prints
- c. Next Generation Identification screenshots (required for annotated images but optional for information (e.g., search parameters) captured elsewhere)
- d. Photocopies of evidence when the photocopy is used for examination (e.g., intentionally recorded friction ridge prints)
- e. Records from discussions or consultations of examinations (e.g., enlargements, narrative, Consensus Panel Reports with attachments)
- f. Digital media containing annotated friction ridge prints.
- g. Intentionally recorded friction ridge records (e.g., known ten print cards) and unknown deceased records, if part of case examination.

6.5 Electronic Evidence

Electronic evidence will not be returned to the contributor. Copies of the images will be retained as appropriate and are not considered evidence. Media containing digital images of friction ridge prints submitted to the Laboratory is considered physical evidence, except as noted in Section 6.1.2.

6.6 Laboratory Report

Employees will ensure that the serial number of the report appears on the physical 1A, when appropriate, prior to the 1A being placed in the appropriate storage area (e.g., FBI Laboratory file room).

7 Records

The following records will be generated and/or retained as appropriate:

- Record of review(s).
- Retained administrative and examination records.
- Original and, as necessary, Laboratory file copy of a report.

8 References

The Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline, Department of Justice. Latest revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Operations Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Latent Print Units Quality Assurance Manual, Procedures for Communicating with the Intelligence Community. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
3	10/02/17	Minor wording, grammar, document title, abbreviations, and punctuation changes throughout document. “Unit” changed to “Units” in document. Section 1, added document. Section 2, Intelligence document referenced. Removed Section 3 through Section 3.3 and renumbered. Section 3.1, removed first paragraph, rewrote last line of second paragraph, and added last paragraph. Last paragraph of Section 3.1 separated out into Section 3.2, title added and designee removed in addition to exception added. Section 4, clarified paragraph. Section 5, changed title. Section 5.1.1, added first sentence. Section 5.1.2, deleted part of bullet one and all of bullet two and added recorded to bullet three. Removed Section 6.1.3. Section 5.2.1, added last two sentences. Section 5.2.2, generalized to appropriate documents and added report check. Deleted Section 6.2.3. Section 7 removed and remaining renumbered. Section 6.1, “delivered to” changed to “retained in” and last paragraph removed. Section 6.1.1 and Section 6.1.2 added. Section 6.4, third paragraph, clarified and last paragraphs, CJIS option added and rewrote. Section 6.4.1, added “administrative” and f through i added. Section 6.4.2, added “examination” and a and f modified and g added. Appendix A added.
4	07/25/18	Minor wording changes throughout document. Section 3.1, added “terms” and inclusion of reference. Section 3.2 removed. Clarified technical and administrative reviewer allowances. Clarified d and g and deleted h in Section 6.4.1. Clarified c, d, e and f in Section 6.4.2. Clarified Section 6.5. Clarified Section 7.

Approval

Redacted - Signatures on File

Latent Print
Technical Leader

Date: 07/19/2018

Latent Print Operations
Unit Chief

Date: 07/19/2018

Latent Print Support
Unit Chief

Date: 07/19/2018

Biometrics Analysis
Unit Chief

Date: 07/19/2018

QA Approval

Quality Manager

Date: 07/19/2018

Appendix A: Example of Summary of Results

[Classification]



**FBI LABORATORY
SUMMARY OF LATENT PRINT UNITS RESULTS**

Case ID number: [Case ID number]
Laboratory number: [Lab Number/Case Record Number]
Other number: [optional]
Examiner: [Examiner Name] at [(###) ###-####]

[Summary Content]

This is a summarization of select information contained within the Laboratory Report. For complete and official documentation of the request for friction ridge examinations, please see the attached report.

SAMPLE

[Classification]

FBI Latent Print Units Procedures for Management of Equipment, Chemicals, Supplies, and Services

1 Purpose

These procedures establish calibration, performance check, and maintenance requirements to ensure the proper functioning of equipment, to include software, used in the Latent Print Units. The procedures also address the receipt and storage of chemicals and supplies and how suppliers of products and services are evaluated.

2 Scope

These procedures apply to personnel who use and/or maintain equipment, chemicals, supplies, and services that have an effect on the validity of latent print forensic examinations.

3 Latent Print Units Equipment, Chemicals, Supplies and Services

The Latent Print Unit Chiefs will ensure that all activities associated with the Latent Print Units equipment, chemicals, supplies and services in their respective units are conducted according to the practices stated in the FBI Laboratory Quality Assurance Manual and the FBI Laboratory Operations Manual in addition to the procedures described in this document and that the proper records are retained.

3.1 Software

Software used by the Latent Print Units that meets the requirements listed below will be considered equipment and will abide by the same requirements.

- Software that may significantly and adversely affect the integrity of friction ridge print images or supporting data (e.g., digital history),
- Software that produces reportable statistical conclusions based on latent print information, or
- Software that is validated by the Latent Print Units.

Software in general use that does not fall under the conditions listed above is not considered equipment and does not fall under Laboratory or discipline requirements.

4 Equipment Calibration, Performance Check, and Maintenance Procedures

4.1 Calibration

None of the equipment used in the Latent Print Units requires calibration. While equipment needs to operate within the parameters appropriate to the type and purpose, calibration does not have a significant effect on the quality of the examinations conducted.

4.2 Performance Checks and Maintenance Procedures

All Latent Print Units equipment will function within reasonable standards according to manufacturer's specifications. All maintenance can be performed by internal personnel or by an outside vendor, as appropriate. Any Latent Print Units equipment found to be not functioning properly will be removed from service and a notification will be placed on the item. A successful performance check is required before the equipment can be placed back into service.

All equipment used for latent print processing examinations at a non-FBI laboratory controlled space must be performance checked prior to or at the time of use. A successful performance check for any non-light source equipment must be recorded in the case records at least once in each 24-hour period of use.

4.2.1 Cyanoacrylate Fuming Chambers

Each Latent Print Units mechanized cyanoacrylate fuming chamber (superglue chamber) will be serviced as needed and appropriate records will be retained.

4.2.2 Microscopes and Macroscopes

Each Latent Print Units microscope/macroscopic used to examine evidence will be serviced as needed and appropriate records will be retained.

4.2.3 Humidity Chambers and Ovens

The humidity chambers and ovens are serviced annually to ensure that they are functioning within the appropriate parameters. A record of the service will be retained.

4.2.4 Forensic Light Sources

Each Forensic Light Source is checked prior to being placed in service, either initially or after repair. A record of the check will be retained. Thereafter, Forensic Light Sources are inherently checked for performance with every use. If any forensic light source fails to operate, the equipment is taken out of service until it is repaired.

4.2.5 Digital Imaging Equipment

4.2.5.1 Performance and Maintenance

Each Latent Print Units owned digital capture device or hardcopy export device (e.g., camera, scanner, printer) will be serviced according to maintenance agreements and/or as needed. The record of service is retained. Equipment owned by external bodies will be serviced by them according their requirements.

4.2.5.2 Security and Access

The Technology Development Program Manager will ensure that access to the Latent Print Digital Imaging System is controlled. Sign-on at any workstation requires a unique user name and password. Access to all files within Digital Workplace is tracked within the program. Access to the Forensic Information Scanning Hub is controlled by the Information Technology group at the Huntsville location. Access can be coordinated through the Huntsville Laboratory Manager. Sign-on at any workstation requires a unique user name and password. Access to the Next Generation Identification System is controlled by the Criminal Justice Information Services Division.

4.2.5.3 Data Back-Up

The Latent Print Digital Imaging System server is a Redundant Array of Independent Discs providing built-in redundancy in the system. A real-time replication of the database provides protection from database failures to significantly reduce data loss and provide little or no downtime due to database issues. Additionally, a redundant database backup is configured to run on a daily basis. A check of the backup is conducted at least weekly and logged.

The Forensic Information Scanning Hub system uses mirror servers for information protection. A redundant database backup is configured to run during real time. The system is maintained by the Huntsville Information Technology group.

The Next Generation Identification System backup is controlled by the Criminal Justice Information Services Division.

4.3 Performance Checks and Maintenance Records

The Latent Print Operations Unit Chief and the Scientific and Biometrics Analysis Unit Chief will ensure all records for Latent Print Units' laboratory equipment performance checks and maintenance are retained for their respective locations. The Latent Print Support Unit Chief will ensure the routine performance checks and maintenance records for digital imaging equipment are retained.

5 Procedures for Procurement, Reception, and Storage of Chemicals

5.1 Procurement of Chemicals

A Laboratory Manager will ensure all purchase requests for all Latent Print Units chemicals are prepared according to FBI and/or Laboratory Division procurement regulations in addition to the appropriate sections of the FBI Laboratory Quality Assurance Manual.

5.2 Record of Receipt

The receipt of all purchased Latent Print Units chemicals will be recorded by the Latent Print Units personnel receiving the order. The following steps will occur:

- Chemicals are received in the Laboratory.
- Inventory is conducted to ensure all ordered chemicals were received and comply with any specifications defined in the associated technical procedure(s).
- If required, chemicals receive a barcode from appropriate Safety Manager/Specialist(s).

5.3 Storage of Chemicals

All chemicals in Latent Print Units will be stored in the appropriate storage locations. Storage conditions, as defined by the manufacturer of the chemical, will be met.

5.3.1 Commercial Latent Print Units Chemicals

5.3.1.1 Barcoded Quantico Chemicals

- All chemicals barcoded by the Safety Manager/Specialist(s) are either taken directly to Latent Print Units Laboratory space or stored in room 1354 or room 1351 until needed in Latent Print Units.
- When Latent Print Operations Unit personnel remove chemicals from Room 1354 or room 1351, a Chemical Transfer Log is completed. This log notifies Safety Manager/Specialist(s) of the new storage area for the chemical(s).
- After a chemical container is empty, Latent Print Operations Unit personnel provide the barcode(s) information from the container to Safety Manager/Specialist(s).

5.3.1.2 Barcoded Huntsville Chemicals

- Scientific and Biometric Analysis Unit personnel provide the Safety Manager/Specialist(s) with an inventory of received chemicals.
- The Safety Manager/Specialist(s) provide barcodes for the chemical containers.
- After a chemical container is empty, the Scientific and Biometric Analysis

Unit personnel provide the barcode(s) information from the container to the Safety Manager/Specialist(s).

5.4 Latent Print Units Chemical Solutions

All chemical solutions retained within the Latent Print Units will be stored according to the applicable document(s) within the FBI Latent Print Units Processing Manual and the FBI Laboratory Safety Manual. Reagents or other chemicals requiring a performance check are tested per the applicable document(s) within the FBI Latent Print Units Processing Manual. Records of the performance checks are maintained in Latent Print Units and/or in the case records, as appropriate.

5.5 Disposal

Latent Print Units chemicals, including their containers, are disposed of according to the FBI Laboratory Safety Manual.

6 Evaluation of Latent Print Units Products and Services Suppliers

All suppliers of products and services that affect Latent Print Units laboratory activities will be evaluated at least the first time the supplier is used and a record of these evaluations will be retained. The Latent Print Unit Chiefs will ensure a list of Latent Print Units approved suppliers of products and services will be maintained for their respective units. Suppliers may be re-evaluated as needed.

7 References

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Safety Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Federal Acquisition Regulation, Latest Revision.

FBI Latent Print Units Processing Manual. Various Standard Operating Procedures for Processes Used to Develop Latent Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
1	10/02/17	<p>Minor grammar, punctuation, and minor wording changes throughout. “Unit” changed to “Units” in unit name throughout document and Appendix. “Industrial Hygiene Safety Managers” changed to be generic and include specialists throughout. Huntsville Quality Assurance Program Manager added through document to Forensic Analysis Support Unit requirements. Directed responsibilities modified from absolute to “ensure” throughout document. Section 2, changed to discipline versus unit and removed type of unit personnel Section 3 through Section 3.3, removed. Section 3 added. Section 4 title added. Calibration statement added to Section 4.1. Section 4.1.1, and Section 4.1.2, removed. Section 4.2, first paragraph, allowed work to be done by internal personnel and second paragraph clarified. Section 4.2.1 and Section 4.2.2, modify check requirements. Section 4.2.3.1, modified wording tied to report and retention of report. Section 4.2.3.2 and Section 4.2.3.3, added Forensic Information Scanning Hub and Huntsville responsibility. Section 4.2.4, removed specific references to other rooms, added ovens, and changed requirement to an annual check. Section 4.2.5, removed and remaining renumbered. New Section 4.2.5, added first two sentences and first word of next to last sentence. Section 4.3, gave responsibility to Unit Chiefs to ensure done. Section 5.1, removed specific section number and designee. Section 5.2, removed LPU personnel requirement. Section 5.3, modified title and moved bullet three from Section 5.3.1.1 underneath. Section 5.3.1.1 modified for Quantico specific. Section 5.3.1.2, changed to cover Huntsville barcoded chemicals. Section 5.5, “if necessary” removed as well as reference to Processing Manual. Section 6, modified retention requirements. Removed two references in Section 7. References updated. Abbreviations addressed.</p>
2	08/21/19	<p>Minor wording changes throughout document. Scope expanded and external bodies added throughout document. Section 1, software added. Section 3.1 added. Section 4.2, “processing” added. Section 4.2.3 through Section 4.2.3.2 changed to Section 4.2.5 through Section 4.2.5.3 and Section 4.2.4 and Section 4.2.5 renumbered accordingly. Section 5.2, bullet two, added compliance requirement. Section 5.3.1.2, replace Laboratory Manager with general unit personnel. Section 6, updated to apply to all products and services. Appendix A, form removed.</p>

Approval

Redacted - Signatures on File

Latent Print
Technical Leader

Date: 08/02/2019

Latent Print Operations
Unit Chief

Date: 08/02/2019

Latent Print Support
Unit Chief

Date: 08/02/2019

Scientific and Biometrics
Analysis Unit Chief

Date: 08/02/2019

QA Approval

Quality Manager

Date: 08/02/2019

FBI Latent Print Units Procedures for the Cold Case Automated Search Initiative

1 Purpose

Approximately 20,000 cases worked in the FBI Latent Print Units prior to June 1999 were potentially not searched against an automated database, either the Integrated Automated Fingerprint Identification System or the Next Generation Identification System. A search of the prints from those cases could provide investigative leads to contributors. An initiative was approved by the FBI Laboratory Director to use a modified work process to search these prints against the Criminal Justice Information Services Division's holdings using the Next Generation Identification System. This document establishes the procedures for conducting the examinations and reporting results under this initiative.

2 Scope

These procedures apply to personnel participating in this Latent Print Unit initiative.

3 Procedures

3.1 The authorized personnel will capture and encode the suitable prints from case images into the Next Generation Identification System following the FBI Latent Print Units Operations Manual, Standard Operating Procedures for the Next Generation Identification System.

3.1.1 Due to the nature of the initiative, the potential exists that prints containing prior marked level two information may be used as they are the only images available or locating unmarked images would be extremely time consuming.

Personnel will be aware of the previous markings and will consider that knowledge when encoding the print, taking care to avoid undue biasing information.

3.2 The Case Flow Program Manager will ensure the cases are assigned to examiners.

3.3 An assigned examiner will review the case images and the encodings, ensure all appropriate prints are scanned and encoded, modify the encodings as needed, and launch the prints against the Next Generation Identification System. The encodings within the Next Generation Identification System will serve as the examiner's analysis markings.

3.3.1 Examiners will compare candidates provided by the Next Generation Identification System following the relevant sections from the FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints.

3.3.2 In situations where prior level two information is visible, the examiner is aware of the previous markings and will consider that knowledge when conducting Analysis, Comparison, and

Evaluation, taking care to avoid undue biasing information in regards to the analysis and resulting comparison of the print(s).

3.4 Exclusions or inconclusive decisions will be recorded in the Next Generation Identification System. Nothing further will be done with the print and the contributor will not be notified.

3.5 When an identification decision is reached, the result will be recorded in the Next Generation Identification System and a copy of the marked minutia will be retained in the case record.

3.5.1 All identified prints will be verified or blind verified per the FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification. Records for the verification or blind verification will be retained in the case record. No results may be reported without the successful completion of the required quality step(s).

3.5.2 The photograph file envelope or negative file envelope will be considered a part of the case record.

3.6 The Technical Leader will decide when to discontinue the project, and not all cases or prints may be searched. The determination of when the initiative will cease will be recorded in Sentinel upon project close.

3.7 Reporting Identifications to Contributors

3.7.1 A member of the Latent Print Units will use FBI resources (e.g., Sentinel, Cold Case Program Manager, Records Management Division, Headquarters) in an attempt to locate a current contributor. Once contact information is located, the contributor will be notified of the identification. A record of the notification will be retained in the case record or Sentinel. Previously reported identifications do not need to be communicated to the contributor.

3.7.1.1 It is recognized that due to the age of these cases, contributor information may not be located. Should this occur, the effort will be recorded and the information and the case comparisons will be retained. A record of an identification will be uploaded to Sentinel for preservation.

3.7.2 If the contributor desires a report and/or additional examinations, he/she will notify the Latent Print Units, who will attempt to locate the relevant case records. An incoming communication will be required from the contributor and the examiner will follow all appropriate Laboratory practices and unit procedures when answering the request.

3.7.2.1 If the case records are located, the original notification will be serialized in Sentinel under the appropriate Case ID number.

3.7.2.2 If case records are not located, the contributor may still request additional examinations and/or an official report. However, new case records will be generated to address the request and will be retained as appropriate. The original notification will be serialized in Sentinel

under the appropriate Case ID number.

3.7.3 If the contributor does not desire a report and/or additional examinations or no communication is received from the contributor, nothing further will be done in the case.

4 Records

The following records may be generated and/or retained as a result of these practices:

- Communication Log.
- Email communication.
- Examination records.
- Administrative records.

5 References

FBI Latent Print Units Operations Manual, Standard Operating Procedures for the Next Generation Identification System. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Quality Assurance Manual, Procedures for Verification and Blind Verification. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
1	07/19/2016	Section 4.1.1, modification to add allowance for time consuming cases.
2	02/07/18	Added Technical Leader. Removed Section 3 and renumbered remaining sections. Abbreviations removed and documents updated. Section 3.1, removed "(s)". Section 3.2, removed designee. Section 3.7.1, Modified responsibility and addressed previously reported identifications. Removed old Section 4.7.4.

Approval

Redacted - Form on File

Latent Print
Technical Leader

Date: 02/05/2018

Latent Print Operations
Unit Chief

Date: 02/05/2018

Latent Print Support
Unit Chief

Date: 02/05/2018

Biometrics Analysis
Unit Chief

Date: 02/05/2018

QA Approval

Quality Manager

Date: 02/05/2018

FBI Latent Print Units Procedures for Disagreements in Technical Casework

1 Purpose

In the course of conducting examinations, examiners will, on occasion, reach differing conclusions. The difference of opinion is viewed as an opportunity to generate discussion and learning among examiners within the discipline. Within casework, a resolution to such disagreements and discussion is necessary, and a process is needed to derive a reportable conclusion. This document establishes the procedures for addressing such disagreements and the actions are intended to produce a conclusion that is technically sound for dissemination.

2 Scope

These procedures apply to personnel who conduct latent print work and are involved in a technical disagreement in casework after a quality check (e.g., verification) or review (e.g., Supervisor or digital image(s)), but do not apply to consultations as defined in the FBI Latent Print Units, Standard Operating Procedures for Examining Friction Ridge Prints.

3 Procedures

3.1 The disagreement procedures will be initiated when the First Party and the Second Party differ on a conclusion after a quality check or review (e.g., verification, Supervisor review, review of digital image(s)).

3.1.1 The process will be monitored by a Supervisor and/or Technical Leader. A Program Manager/Coordinator may perform the duties of a Supervisor if approved by a Unit Chief.

3.2 Once the procedures are initiated, the applicable information will be recorded by the appropriate tracking method and/or in the *Consensus Panel Report* until these procedures are complete. All relevant information, such as case notations, narratives, and marked or unmarked images, in addition to the *Consensus Panel Report*, will be retained in the case record. The case record will detail the progression of the steps and the date(s) involved.

3.3 Throughout the disagreement process, the parties will meet together in an isolated location to prevent accidental dissemination of information concerning the disagreement.

3.4 All discussions will be limited to the parties involved. The Supervisor will only provide guidance on the disagreement process and refrain from any technical discussion of the examination or conclusion.

3.5 Initial Discussion(s)

3.5.1 Following notification of a differing opinion from a Supervisor(s), the First Party and the Second Party will meet to discuss their conclusions. The two parties will share their points of view and reasoning and may choose to use markings or other notations to visualize their opinions to one another.

3.5.2 The two parties must meet at least once but no more than two times to attempt to resolve the disagreement. Time extensions may be approved by a Supervisor or the Technical Leader and will be recorded in the case record.

3.5.3 At any time during the discussions, either party may request from a Supervisor the presence of a Facilitator, whose role will be to aid the discussion between the two examiners. Prior to participation, a Facilitator will successfully complete training on facilitating a conversation. The Facilitator will help the examiners develop the strategy that may lead to a mutual decision. For example, the Facilitator will seek to give equal speaking opportunities to both parties and prevent monopolization of the discussion by one party. He/She may assist an uncommunicative examiner by prompting conversation with questions or statements. The Facilitator may recommend that the process move to a Consensus Panel.

3.5.3.1 The Facilitator will not examine the print(s) or image(s) nor will he/she have a technical opinion of the examination. In addition, the Facilitator will report concerns such as inappropriate behavior to the appropriate Supervisor(s) or Unit Chief(s) as warranted.

3.5.3.2 The identity of the Facilitator will be recorded in the case record.

3.5.4 The two parties will reach a resolution or request a Consensus Panel within seven calendar days from the notification of the disagreement. If the disagreement is resolved, the conclusion will be recorded in the case record and all relevant information, such as case notations, narratives, and marked or unmarked images, will also be retained in the case record. If the parties cannot resolve the disagreement, the First Party is responsible for requesting a Consensus Panel by notifying a Supervisor.

3.5.5 Prior to requesting a Consensus Panel, the First Party and the Second Party are expected to have produced digital image markups of their Analysis, Comparison, and Evaluation (ACE) decisions, as applicable, using a Green-Yellow-Red-Orange marking system. A written explanation may also be included with the image to explain the markings or thought process. Previous markups may be used, provided the appropriate information is included. The marked images and written explanations of both parties, if prepared, will be provided to the Supervisor upon notification of the need for a Consensus Panel.

3.6 Consensus Packet

3.6.1 The Supervisor will prepare a Consensus Packet containing the following, as applicable:

3.6.1.1 Digital image(s) of the latent print with all examiner and case information redacted to minimize contextual bias. The Supervisor will provide both the original capture as well as the digitally processed image(s). The image(s) will be prepared and stored outside of any digital image retention system (i.e., Digital Workplace, Forensic Information Scanning Hub (FISH)).

3.6.1.2 Known records with all examiner and case information redacted to minimize contextual bias. Only known records directly related to the disagreement in question are necessary; however, all such records will be provided. Any existing records that were not used in the disagreement do not need to be provided. For example, if the disagreement involves only the right palm print of an individual, all recordings of the right palm used in the discussions will be provided, but the ten print card is not required.

3.6.1.3 The marked images and written explanations from the First Party and Second Party.

3.6.1.4 Completed applicable areas of the *Consensus Panel Report*.

3.6.2 Consensus Panel Request

The Supervisor will notify the Technical Leader of the need for a Consensus Panel. At notification, the Supervisor will give the Technical Leader the Consensus Packet. At this time, the Technical Leader will be responsible for updating the appropriate tracking method. Once notified of a request for a Consensus Panel, the Technical Leader will inform the appropriate Section Chief in writing and retain the communication.

3.7 Consensus Panel

3.7.1 Consensus Panel Members

The Consensus Panel will consist of three examiners selected by the Technical Leader from the Latent Print Operations Unit, Biometrics Analysis Unit – Latents group, and/or Latent Print Support Unit.

A Consensus Panel member must meet the following requirements:

3.7.1.1 Must have no prior knowledge of the comparison or relevant case details involved in the disagreement.

3.7.1.2 Must remain objective. A Consensus Panel member must be able to effectively analyze all information provided in an impartial manner.

3.7.2 Consensus Panel Formation

The Technical Leader will notify the members of their participation in the Consensus Panel. If a member is unable to participate, he/she will notify the Technical Leader as soon as he/she is aware of any conflict/issue that would prevent him/her from serving on the Consensus Panel.

The Technical Leader will confer with the examiner's Supervisor or Unit Chief to determine if he/she can participate as a member of the Consensus Panel.

3.7.3 Consensus Panel Meeting Preparation

3.7.3.1 Each member of the Consensus Panel will be provided with the redacted images and knowns, as applicable. The surface, item type, process used, and specific area of comparison, if known, may be provided as needed. No other information will be provided at that time.

3.7.3.2 The Technical Leader will notify the Consensus Panel members of the meeting date, time and location. Any problems with logistics will be communicated to the Technical Leader as soon as practicable.

3.7.3.3 Prior to the meeting, each member of the Consensus Panel will conduct an Analysis and, if needed, a Comparison examination on the prints in question per the FBI Laboratory Latent Print Units Standard Operating Procedures for Examining Friction Ridge Prints. He/She will use a Green, Yellow, Red, and Orange marking system to record his/her examination of the conducted analysis and/or comparison. In addition, a written explanation may be included.

3.7.3.4 The Consensus Panel members are not permitted to consult with any examiner, including each other, concerning the examination.

3.8 Consensus Panel Meeting

3.8.1 On the day and time designated by the Technical Leader, the Consensus Panel members will convene to discuss the comparison and determine the consensus conclusion(s). They may discuss and note any caveats, limitations, and concerns with the comparison. The panel will complete the relevant sections of the *Consensus Panel Report*.

3.9 Consensus Panel Recommendation(s)

3.9.1 Once the Consensus Panel has reached a consensus recommendation(s) or two hours have passed, the Technical Leader will join the meeting. The Technical Leader may give the group additional time as warranted and will note the addition in the panel report. The members will present their recommendation(s) or those factors impacting why a recommendation(s) has not been reached, to include ACE markings, caveats, limitations and concerns (e.g., NGI conclusion or specific print area concerns).

3.9.2 Upon hearing and reviewing the information provided by the Consensus Panel, the Technical Leader may provide additional data (e.g., marked images prepared by the original two Parties, knowledge that the print was from an automated search) as necessary that he/she feels may benefit the panel. The Technical Leader may also obtain additional information from any parties, as needed. The Technical Leader and the Consensus Panel will discuss what effect, if any, the information would have on the reported conclusion(s).

3.9.3 After the discussion is completed, the final Consensus Panel recommendation(s) will be determined and recorded on the *Consensus Panel Report*. If the Consensus Panel was unable to reach a consensus, they may document their recommendation(s) individually. Each member of the Consensus Panel will sign the *Consensus Panel Report* to record the approval of the recommendation(s). All records generated by the Consensus Panel members, including all markings, will be given to the Technical Leader.

3.10 Reported Conclusion(s)

3.10.1 The Technical Leader will use the recommendation(s) from the Consensus Panel, factors in the disagreement, and inherent risk to determine the reported conclusion(s) to be issued by the Latent Print Units. The First Party, Second Party, or the Technical Leader, as appropriate, will issue the reported conclusion(s) with wording referencing the use of a Consensus Panel (Appendix B). The individual issuing the reported conclusion(s) must support the conclusion(s) reached as a result of the Consensus Panel. By completing the disagreement process, the Latent Print Units are confident that the Consensus Panel resolution is technically sound and the reported result(s) represents the best decision for the case.

3.10.2 The reported conclusion(s) will not undergo any further quality checks (i.e., verification, blind verification) beyond technical and administrative review, prior to release to the contributor. Expedited result(s) may be released in accordance with the FBI Latent Print Units Quality Manual, Laboratory Reports, Reviews, and Retained Records.

3.10.3 The Technical Leader will compile all information generated during the disagreement process, to include all markings, records, and the completed *Consensus Panel Report*, to be retained in the case record.

3.11 Case Follow Up

3.11.1 The Technical Leader will review the case record to determine if the First Party and/or Second Party may require additional training or review as a result of the disagreement. The Technical Leader will refer to the FBI Laboratory Operations Manual, Practices for Addressing Nonconformity, as applicable.

3.11.2 Once the reported conclusion(s) has been determined, the Technical Leader will meet individually with the First Party and Second Party and their respective Supervisor(s) to discuss the reported conclusion(s) and any further outcomes from the disagreement process.

4 Records

The following records may be generated and/or retained as a result of these procedures:

- Disagreement resolution records and results, as appropriate.
- *Consensus Panel Report*
- Any written notifications.

5 References

FBI Laboratory Operations Manual, Practices for Addressing a Nonconformity. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Laboratory Quality Assurance Manual. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Units Operations Manual, Standard Operating Procedures for Examining Friction Ridge Prints. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

FBI Latent Print Unit Quality Manual, Laboratory Reports, Reviews, and Retained Records. Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Langenburg, G, Champod, C. “The GYRO System – A Recommended Approach to More Transparent Documentation”. *JFI*. 61(4): 373-384.

Rev. #	Issue Date	History
0	08/10/16	Original document issued.
1	12/16/16	<p>Minor grammar, wording, and punctuation modifications throughout document. Section 1, minor wording modification. Section 3.1, added “/or” and modified bullet two. Section 3.2, modified fifth bullet. Section 2 and Section 4.1, example added. Section 3.3, modified word in second bullet and added third bullet. Section 3.3, Section 3.4, and Section 4.5.3.1, added “or image(s)” to “print(s)”. Section 3.4, modified wording in second bullet. Section 4.5.2, minor word modification. Section 4.5.3, added “or” and minor word modifications. Section 4.5.3.1, removed first phrase in second sentence and added “in addition”. Section 4.5.5, Section 4.6.1 and Section 4.7.3.1, “as applicable” added. Section 4.5.5 and Section 4.7.3.3, specific reference to GYRO article removed and sentence made more generic to a GYRO markup. Section 4.7.3.2, minor wording modification. Section 4.6.1.1, “if applicable” added. Section 4.7.3.3, “if needed, a” and “conducted” added. Section 4.9.1, minor word modification and example added. Section 5, modified last reference. Appendix A, Section C, Lab number will be filled in by Technical Leader after Panel concludes and minor wording modification. Appendix B, added example.</p>
2	10/02/17	<p>Abbreviations and capitalization addressed throughout with minor wording changes. Initiative removed. Program Manager/Coordinator removed throughout and Unit Chief assignment of role added. Section 1, “natural event” removed. Section 3 through Section 3.5 removed and remaining renumbered. Section 3.1, minor wording change. Section 3.1.1 moved from Section 3.4 and updated. Section 3.4 information from Section 3.3 expanded. Section 3.5.2, moved statement to Section 3.5.4. Section 3.5.3, added training requirement. Section 3.5.4, added first sentence and minor wording change. Section 3.6.2, notification added. Section 3.7.1, removed pool requirement. Section 3.7.2, approval changed to confer. Section 3.7.3.1, added area of comparison. Section 3.9.1, added time extension allowance. Section 3.9.2, clarified additional information purpose. Section 3.9.3, removed GYRO so all markings are included and added option for multiple conclusions. Section 3.10.1, issuance individual support changed. Section 4 added. Document titles updated. Appendix A form updated.</p>

Approval

Redacted - Signatures on File

Appendix A: *Consensus Panel Report*

Redacted - Form on File

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Appendix B: *Reporting Wording Examples*

Remarks:

The identification with [NAME] on Item [NUMBER] was effected as a result of the Consensus Panel process. A panel of FBI latent print examiners independently reviewed the prints and then formulated a consensus of opinion to resolve technical disagreements between two [other] examiners initially involved in the examination.

Remarks:

An inconclusive decision on Item [NUMBER] was effected as the result of the Consensus Panel process. A panel of FBI latent print examiners independently reviewed the prints and then formulated a consensus of opinion to resolve technical disagreements between two [other] examiners initially involved in the examination.

Remarks:

The acceptance/rejection of image(s) [image name(s)] was determined as the result of the Consensus Panel process. A panel of FBI latent print examiners independently reviewed the image(s) and then formulated a consensus of opinion to resolve technical disagreements between two [other] examiners initially involved in the examination.

FBI Friction Ridge Discipline Alternate Methods of Communicating Results

1 Purpose

Alternate methods of communicating results offer a variety of options to report conclusions and will be used based on a customer's needs. These procedures will be used in lieu of relevant sections of the FBI Laboratory Quality Assurance Manual and the FBI Laboratory Operations Manual. Unless otherwise noted, requirements from other Level 1 and Level 2 documents will apply. A *Laboratory Report* (7-1, 7-1 LIMS) may be issued as warranted and will follow the appropriate procedure(s) in those cases.

2 Scope

These procedures apply to Friction Ridge Discipline personnel who use the alternate methods of communicating results named in the document. These alternate reporting methods are for casework for internal customers where the intent of the work is to generate intelligence or investigative leads only. These leads may generate additional work in a specific investigative file.

3 Alternate Methods

Acknowledgement notices are not required for evidence receipt.

All alternate methods must be technically and administratively reviewed prior to dissemination. Acceptable alternate reporting formats include notifications, summary sheets, and record emails. Examiners must follow the FBI Friction Ridge Discipline Quality Assurance Manual, Procedures for Verification and Blind Verification, with the exception of exclusion and inconclusive decisions for Unsolved Latent Match cascade examinations.

When issuing a notification, summary sheet or record email, all reporting elements required by the relevant accrediting body not captured in the alternate method will be retained in the case record or be available in the Laboratory. All items will be accounted for in the case record and all issues resolved. Summary sheets and record emails will reference the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline and include Methods, Limitations and Interpretations information. Notifications will contain this information only if they will not be followed by a summary sheet, record email, or *Laboratory Report*.

Legacy (pre-Forensic Advantage) cases may have a Forensic Advantage Laboratory number assigned for statistic-tracking purposes only. The resulting alternate reporting method will be released under the original legacy Laboratory number. The Forensic Advantage Laboratory

number must be recorded in the legacy case record, and the legacy Laboratory number must be recorded in the Forensic Advantage case to show the connection. The Forensic Advantage Laboratory number must be recorded in the legacy case record, and the legacy Laboratory number must be recorded in the Forensic Advantage case to show the connection.

3.1 Notifications

Notifications are primarily used for Terrorist Explosive Device Analytical Center cases. Notifications will contain the unit name, Terrorist Explosive Device Analytical Center or Laboratory seal, and administrative case information at the beginning of the first page, in addition to information specific to the results to be reported, such as conclusion and item(s) associated. A reference to the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline and Methods, Limitations, and Interpretations information will be required if the notification will not be followed up by a summary sheet, record email or *Laboratory Report*.

The technical and administrative reviews are recorded on a retained printout of the notification, in Forensic Advantage, or by approval in Sentinel . Technical and administrative reviews done by different individuals and approved in Sentinel require a notation included in the case record noting the role of each reviewer.. The notification is issued to the contributor and retained in the case file. Records of communication with the contributor are retained in the appropriate Communication Log.

3.2 Summary Sheet(s)

A summary sheet is a method used to communicate examination results to a customer in a simplified manner. Summary sheets can provide examination results to a wide pool of potential customers or to a specific customer. Summary sheets can address part of an incident, all of an incident, or a series of incidents based on the request or type of examination.

Format and content of a summary sheet is directed by the customer's needs. All summary sheets will have the applicable results of examinations, location of supporting records, Methods, Limitations, and Interpretations information and reference to the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline. Additionally, all summary sheets will have the unit name, Terrorist Explosive Device Analytical Center or Laboratory seal, and unique administrative case information at the beginning of the first page. All other required information will be included in the summary sheet or be available in the Laboratory.

All work performed by personnel will be acknowledged in the case record. Summary sheets will be retained in Sentinel. The preparation and uploading of a summary sheet is an administrative function and may be done by personnel who did not conduct examinations. All summary sheets and applicable supporting records will undergo a technical and administrative review prior to release.

The technical/administrative reviewer(s) acknowledges their review in Forensic Advantage or by acting as an approver in Sentinel. Technical and administrative reviews done by different individuals and approved in Sentinel require a notation included in the case record noting the role of each reviewer. For Terrorist Explosive Device Analytical Center cases, the most recent version of the summary sheet(s) will be retained in Explosives Reference Tool, and it will be clear that the data has been updated, as appropriate.

3.2.1 Amending or Supplementing Previously Issued Reports

Historically, the results of some Terrorist Explosive Device Analytical Center cases reported in a *Laboratory Report* under the Terrorist Explosive Device Analytical Center Control File were issued prior to the completion of examinations (e.g., processing had not been completed). A supplemental or amended *Laboratory Report* containing any additional results will not be produced unless requested, and no new Laboratory number will be generated for the additional examinations. Instead, a new summary sheet communicating any change in results will be uploaded to Sentinel and may be uploaded to Explosives Reference Tool as appropriate. It will be clear that the results have been updated.

3.3 Record Emails

A record email is typically used when a non-traditional or a minimal request is made (e.g., below threshold unsolved latent matches, single latent to single finger comparisons).

The request will be tracked via a Laboratory number or an internal tracking number. All case records associated with the request will be retained and easily retrievable (e.g., a notation will be placed in the case notes to indicate the location of updated records).

3.3.1 Record Email Format, Content, Review and Issuance

All requested results will be recorded in the body of the record email.

All record emails will have a statement indicating that the results contain interpretations and opinions, the location of the supporting case records, the location where the requested work was conducted, and a reference to the Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline and Methods, Limitations, and Interpretations information. All other required information will be included in the record email or be available in the Laboratory.

Upon completion of the technical and administrative review, the record email will be serialized in Sentinel. The reviews will be approved in Forensic Advantage or through approval of the record email during serialization in Sentinel. Technical and administrative reviews done by different individuals and approved in Sentinel require a notation included in the case record noting the role of each reviewer. In cases with multiple examiners, examiners who do not issue the record email will act as co-authors in Sentinel. The supporting records for the request associated with the record email will be serialized in Sentinel, either in bulk or individually.

4 Records

The following records may be generated and/or retained as a result of these procedures:

- *Activity and Communication Log* (7-245) or FA equivalent
- Examination records (as defined by Level 1 and Level 2 documents)
- Summary sheet(s)
- Notifications
- Email(s)
- Administrative records (as defined by Level 1 and Level 2 documents)

Requests addressed by alternate reporting methods are not required to generate or retain a Case Record Report.

5 References

The Department of Justice Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline, Department of Justice. Latest revision.

FBI Laboratory Quality Assurance Manual, Federal Bureau of Investigation, Laboratory Division. Latest revision.

FBI Laboratory Operations Manual, Federal Bureau of Investigation, Laboratory Division. Latest revision.

FBI Friction Ridge Discipline Quality Assurance Manual, Federal Bureau of Investigation, Laboratory Division. Latest revision.

Rev. #	Issue Date	History
1	08/09/18	Document updated to include all work for intelligence or investigative leads. Removed Appendix A and B.
2	04/17/20	Latent Print Units changed to Friction Ridge Discipline throughout document as well as other appropriate changes with similar terms. Minor wording, grammar, and punctuation changes in document. Section 1, streamlined document names, replaced “simplified” with better explanation, and removed TEDAC report format. Added fourth paragraph and removed notification limitations in Section 3. Added Sentinel options and updated requirements in Section 3.1. Updated requirements in Section 3.2. Modified allowances in Section 3.2.1. Modified usage and added different tracking numbers as well as generalized record retention in Section 3.3. Updated requirements in Section 3.3.1. Section 4 modified for clarity.

Approval

Redacted - Signatures on File

Friction Ridge Discipline
 Technical Leader _____ Date: 04/16/2020

Latent Print Operations
 Unit Chief _____ Date: 04/16/2020

Acting Latent Print Support
 Unit Chief _____ Date: 04/16/2020

Acting Scientific and
 Biometrics Analysis Unit Chief _____ Date: 04/16/2020

QA Approval

Quality Manager _____ Date: 04/16/2020

Procedures for Latent Print Photography in Casework

1 Purpose

To establish procedures for latent print photography in casework.

2 Scope

These procedures apply to photographers in the Evidence Management Unit, Operational Projects Unit, and the Latent Print Support Unit (Latent Imaging Team) who capture latent print photography in casework, to include Hazardous Evidence Analysis Team cases, and those personnel who submit requests.

3 Non-Hazardous Evidence Analysis Team Cases

3.1 All photography requests will be submitted in written format and outline specific requirements of the case and the capture request (e.g., lab number, item numbers, process used to develop print). Request examples include a screenshot from the appropriate database or the *Latent Fingerprint Section Photographic Requisition* form (7-230).

3.2 Processing and Completing a Photo Request

3.2.1 The photographer will review the request to ensure it is understood and that the appropriate equipment is on hand to photograph the prints. He/she will contact the requestor if there are any questions or inconsistencies.

3.2.2 The photographer will capture the images as specified by the request. The photographer has the discretion to capture images in the best manner possible. If the photographer conducts the work in any way other than what is stated on the request, the change will be recorded in the case record.

3.2.3 All work will be conducted per the Latent Print Units Operations Manual, Standard Operating Procedures for Digital Images. For any work conducted in a digital image retention system, the photographer's electronic signature within the program acknowledges his/her agreement with the work completed under his/her name. Work performed outside of a digital image retention system will be acknowledged in a manner suitable to the case. If the completed work cannot be retained in the digital image retention system, the photographer will provide all required images and information to the requestor on a disk(s) or other media.

3.2.3.1 Fluorescent compounds such as 1,2-Indanedione-Zinc will suffer from loss of intensity over time, resulting in a reduction of the quality of latent prints developed with these

compounds and submitted for photographic capture. As such, these developed prints will be captured as soon as practicable.

3.3 Quality Assurance Review

3.3.1 All latent print photography conducted in the FBI Laboratory and in the field will undergo a Quality Assurance review.

3.3.2 Appropriate management will determine who can conduct a Quality Assurance review. The Quality Assurance review will consist of a review of the work and records prior to distribution to the requestor, except in immediate or off-site situations, as noted in 3.3.5. A Quality Assurance reviewer cannot review his/her own work.

3.3.3 When a photographer requests a Quality Assurance review, he/she acknowledges that the photography request is complete, all relevant requirements listed in the *Quality Assurance Review Requirements* (Appendix A) have been met, and the work and records are ready for a Quality Assurance review.

3.3.4 The Quality Assurance reviewer will refer to the *Quality Assurance Review Requirements* to conduct the review.

3.3.5 In immediate or off-site situations where a Quality Assurance reviewer is not available, the Quality Assurance review will be conducted as soon as practicable. The Quality Assurance reviewer will only be responsible for information that can be checked at a later date/time (e.g., evidence may not be available and cannot be reviewed). In these instances, the requestor is responsible for checking that all requested prints are captured and that the Quality Assurance review is conducted by photography or Latent Print Unit personnel prior to issuance of the *Laboratory Report* or final notification to the contributor.

3.3.6 If any relevant requirements on the *Quality Assurance Review Requirements* are not met, the Quality Assurance reviewer must contact the photographer to resolve any discrepancies and record them. Examples include recording in Forensic Advantage, in the appropriate database, or on the *Latent Fingerprint Section Photographic Requisition*.

3.3.7 To record compliance with the requirements from the *Quality Assurance Review Requirements* and signify approval of the work, the Quality Assurance reviewer will complete the review in Forensic Advantage or will sign or initial and date an entry in the case record (e.g., database screenshot or *Latent Fingerprint Section Photographic Requisition*).

4 Hazardous Evidence Analysis Team Cases

4.1 Photographic requests for latent prints are communicated by the requestor to the photographers in the partner lab facility during the examination process.

4.2 The photographer will utilize a *Hazardous Evidence Analysis Team Fingerprint Photography Checklist* (Appendix B) prior to initial capture to ensure all camera settings and parameters are appropriate. One sheet will be completed per day, per case worked during the deployment.

4.2.1 Photographers will ensure the date and time of cameras are set to local time prior to use and record the check on the *Hazardous Evidence Analysis Team Fingerprint Photography Checklist*.

4.3 Photographers will capture images of the designated latent prints will follow the standards addressed in the Latent Print Unit Operations Manual, Standard Operating Procedures for Digital Images.

4.4 A review of the captured fingerprint images will be conducted utilizing the Hazardous Evidence Analysis Team Fingerprint Photography Checklist. The images will be reviewed by a second photographer or examiner (onsite or offsite) to ensure quality and accuracy. The results of the review will be recorded on the *Hazardous Evidence Analysis Team Fingerprint Photography Checklist* in the Post-Capture Quality Assurance section.

4.4.1 If the intention is to transmit images offsite via a network, a photograph or scan of the *Hazardous Evidence Analysis Team Fingerprint Photography Checklist* will be included with the images.

4.5 If an issue is found with the images during the review, the nature of the issue will be ascertained and noted on the *Hazardous Evidence Analysis Team Fingerprint Photography Checklist* and communicated to the photographer. The images will be re-captured as necessary and if possible, in a manner that corrects the issue. Any corrected images will then be submitted for review.

4.6 If the images are saved at the partner lab facility, the photographer will deliver them along with the *Hazardous Evidence Analysis Team Fingerprint Photography Checklist* to latent print personnel for processing and examination.

4.7 If additional processing is required after the images have been delivered, the images must be submitted per Section 3.

5 Hardware and Software

All photographers who perform latent print photography will receive training before using a new camera or imaging equipment. Records of such training will be maintained by Latent Print Support Unit management, Operational Projects Unit or Evidence Management Unit Quality Assurance personnel, as appropriate.

6 References

Latent Print Unit Operations Manual, Standard Operating Procedures for Digital Images. Latest Revision.

Rev. #	Issue Date	History
0	01/15/20	New document. Combination of updated Forensic Imaging Unit Procedures for Hazardous Evidence Analysis Team Latent Print Photography, Revision 0 and Forensic Imaging Unit and Evidence Management Unit Latent Print Photography Revision 4.

Approval

Redacted - Signatures on File

Latent Print Operations
 Unit Chief _____ Date: 01/14/2020

Latent Print Support Unit
 Chief _____ Date: 01/14/2020

Scientific and Biometrics
 Analysis Unit Chief _____ Date: 01/14/2020

Operational Projects Unit
 Chief _____ Date: 01/14/2020

Evidence Management
 Unit Chief _____ Date: 01/14/2020

QA Approval

Quality Manager _____ Date: 01/14/2020

Appendix A: *Quality Assurance Review Requirements*

- 1) Did the photographer record all capture modifications from the request?
- 2) If produced, are the disks correctly labeled (Lab #, date, identifiers, initials, and classification level)?
- 3) If produced, were the contents of the disks checked for accuracy?
- 4) Is all information recorded properly in the applicable database?
- 5) Was the resolution of the digitally processed latent print image 1000 ppi (pixels per inch) or greater and have the images been properly calibrated 1:1?
- 6) Were the digital files named with the proper identifying number?
- 7) Is the chain of custody accurate?
- 8) Has the digital history/metadata been checked to ensure it meets the FBI Laboratory Latent Print Units Operations Manual, Standard Operating Procedures for Digital Images?

Appendix B: Hazardous Evidence Analysis Team Fingerprint Photography Checklist

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