



# Department of Defense Forensic Science Lexicon

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# 1 Introduction

The Department of Defense (DoD) performs forensic science in a collaborative environment which necessitates the clear communication of all activities and their results. A critical enabler of communication is the use of a clear, internally consistent vocabulary.

## 1.1 Purpose

The goal of the Department of Defense Forensics Lexicon is to provide an operational vocabulary to address Forensics. A shared vocabulary enables a common understanding of Forensics, enhances the fidelity and the utility of operational reporting, facilitates structured data sharing, and strengthens the decision making processes across the DoD.

## 1.2 Scope

This lexicon encompasses the broad spectrum of scientific disciplines, processes, and equipment associated with performing forensic activities. Additional terms include those related to the programmatic support domains (e.g., doctrine, policy, standards, and accreditation) which enable forensic activity within the DoD.

Excluded from this lexicon are terms and definitions that describe the various types of Improvised Explosive Devices (IEDs) and the specific components of IEDs, as those have been previously defined in other well established lexicons.

## 1.3 Approach

This Department of Defense Forensics Lexicon was authored by subject matter experts from key organizations and agencies engaged in the full range of forensic activities and the personnel that provide programmatic support to those experts. It was then staffed multiple times across the Defense Forensics Enterprise in order to obtain support and consensus.

## 1.4 Revision History

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Draft	16 Jan 18	Draft incorporating comments adjudicated GO/SES level Joint Staffing.
Version 1	22 Jan 18	Signed and Published

## 2 Terms and Definitions

TERM	DEFINITION	SOURCE
<b>Accelerant</b>	Any material used to initiate or promote the spread of a fire. The most common accelerants are flammable or combustible liquids. Whether a substance is an accelerant depends not on its chemical structure but on its use.	ASTM E1732
<b>Accent</b>	The pronunciation used by a speaker (as opposed to other things like choice of words or syntax) that is characteristic of a particular area, or social group.	Speaker Identification
<b>Accompanying Drop</b>	A small blood drop produced as a by-product of drop formation.	SWGSTAIN Glossary
<b>Accountability</b>	The obligation imposed by law or lawful order or regulation on an officer or other person for keeping accurate record of property, documents, or funds.	JP 1-02
<b>Accreditation</b>	Procedure by which an independent authoritative body gives formal recognition that a body or person is competent to carry out specific tasks.	ASTM E1732 - modified
<b>Accreditation Body</b>	Authoritative body that performs accreditation.	ISO 17011
<b>Accuracy</b>	The degree of conformity of a measured quantity to its actual (true) value.	FBI DNA QAS
<b>Achievable Resolution</b>	A direct measurement of the ability of an imaging system to record detail, typically measured by its ability to maintain separation between close subject elements such as fine lines which are usually stated as 'line pairs or cycles per millimeter'. It is often determined by imaging a resolution test chart.	SWGIT/SWGDE Glossary
<b>Acoustic Forensic Analysis</b>	The expert use of acoustic, as opposed to auditory, information to compare forensic speech samples.	Speaker Identification
<b>Acoustic Signal</b>	A signal consisting of sound which conveys data.	ISO/IEC 2382-29
<b>Acquisition</b>	<ol style="list-style-type: none"> <li>(D/MM Forensics) A process by which digital evidence is duplicated, copied, or imaged.</li> <li>(DoD Procurement) The conceptualization, initiation, design, development, testing, contracting, production, deployment, Logistics Support (LS), modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in, or in support of, military missions.</li> </ol>	<ol style="list-style-type: none"> <li>NIJ Digital Guide</li> <li>DAU Glossary</li> </ol>
<b>Action</b>	<ol style="list-style-type: none"> <li>(Firearms) The working mechanism of a firearm. The combination of the receiver or frame, the breech bolt, and the other parts of the mechanism by which a firearm is loaded, fired, and unloaded.</li> <li>(Operational Process) Exploiting the results of forensic analysis may lead to additional intelligence taskings, battlefield targeting, apprehension and prosecution of suspects, helping medical personnel resolve their issues, or additional items resulting from the exploitation of forensic analysis results.</li> </ol>	<ol style="list-style-type: none"> <li>AFTE Glossary</li> <li>USMC Forensic Strategy - modified</li> </ol>

TERM	DEFINITION	SOURCE
<b>Active Data</b>	Information stored on the direct access storage media of computer systems, which is readily perceptible to the operating system and/or application software with which it was created and directly available to users without being deleted, alteration or reconstruction. Allocated, or used, space is the area of a hard disk that holds files that are recognized by the operating system. This recognition is accomplished via a file allocation table of some type. Different types of operating systems use different types of allocation tables to keep track of files.	USARAF Glossary
<b>Adenine (A)</b>	One of the four bases, or nucleotides, that make up the DNA molecule. Adenine binds only to thymine.	NRC Manual
<b>Administrative Review</b>	An evaluation of a report and supporting documentation for consistency with laboratory policies and for editorial correctness.	FBI DNA QAS
<b>Adventitious DNA</b>	Contaminating DNA that unintentionally becomes amplified along with the intentional template DNA obtained from evidence or reference samples	DNA Typing
<b>Adventitious Match</b>	An association of an evidence DNA profile to the profile of a person who is not the true donor of that profile; this situation may arise when the DNA profile contains information from a limited number of loci (e.g., from a damaged DNA sample) that are insufficient to distinguish the profiles of two different individuals	DNA Typing
<b>Affinal Method</b>	A method for computing the single-locus profile probabilities for a theoretical subpopulation by adjusting the single-locus profile probability, calculated with the product rule from the mixed population database, by the amount of heterogeneity across subpopulations. The model is appropriate even if there is no database available for a particular subpopulation, and the formula always gives more conservative probabilities than the product rule applied to the same database.	NRC Manual
<b>Agreement</b>	To be similar or having harmony of character.	SWGgun Glossary
<b>Algorithm</b>	A limited sequence of instructions or steps that tells a computer system how to solve a particular problem.	NSTC Glossary
<b>Allele</b>	In classical genetics, an allele is one of several alternative forms of a gene. A biallelic gene has two variants; others have more. Alleles are inherited separately from each parent, and for a given gene, an individual may have two different alleles (heterozygosity) or the same allele (homozygosity). In DNA analysis, the term is applied to any DNA region (even if it is not a gene) used for analysis.	NRC Manual
<b>Allelic Ladder</b>	A mixture of all the common alleles at a given locus. Periodically producing electropherograms of the allelic ladder aids in designating the alleles detected in an unknown sample. The positions of the peaks for the unknown can be compared to the positions in a ladder electropherogram produced near the time when the unknown was analyzed. Peaks that do not match up with the ladder require further analysis.	NRC Manual
<b>Alteration</b>	A modification made to an item by physical, chemical or mechanical means.	CSI Handbook - modified
<b>Altered Stain</b>	A bloodstain with characteristics that indicate a physical change has occurred.	SWGSTAIN Glossary

TERM	DEFINITION	SOURCE
<b>Alternate Light Source (ALS)</b>	Equipment used to produce visible and invisible light at various wavelengths to enhance or visualize potential items of evidence (fluids, fingerprints, clothing fibers, etc.). Sometimes referred to as a "Forensic Light Source (FLS)."	CSI Guide - modified
<b>Alternative Hypothesis</b>	A statistical hypothesis that is contrasted with the null hypothesis in a significance test.	NRC Manual
<b>Ambient Data</b>	Information on a computer or related device such as a mobile phone that is not stored in typical formats or in typical and easily accessible portions of the storage media. This can include data that has been partially overwritten or erased. Recovery of ambient data may require specialized tools and software. Also known as "residual data."	A Dictionary of Forensic Science
<b>Ambient Light</b>	Light already existing in an indoor or outdoor setting that is not caused by any illumination supplied by the photographer.	NFSTC Glossary
<b>American Board of Forensic Odontology (ABFO) Scales</b>	An L-shaped piece of plastic used in photography that is marked with circles, black and white bars, and 18-percent gray bars to assist in distortion compensation and provide exposure determination. For measurement, the plastic piece is marked in millimeters.	CSI Guide
<b>Ammunition</b>	One or more loaded cartridges consisting of a primed cartridge case, propellant, and with or without one or more projectiles. Also referred to as fixed ammunition or live ammunition (slang term).	AFTE Glossary
<b>Ammunition Lot</b>	A single production run of ammunition and is designed with a code made up of numerical and/or alphabetical digits. Both a military and commercial ammunition term.	AFTE Glossary
<b>Amplification</b>	An increase in the number of copies of a specific DNA fragment; can be in vivo or in vitro; in forensic DNA testing laboratories, this refers to the use of the Polymerase Chain Reaction (PCR) technique to produce many more copies of DNA (typically alleles) at specific genetic loci.	DNA Typing
<b>Analysis</b>	<ol style="list-style-type: none"> <li>(Forensics) The scientific examination of physical material, information, and/or data conducted by forensic personnel to produce facts. Forensic analysis may occur from the point of recognition of materials and contextual information at the site, to in-depth examination at mobile or traditional labs.</li> <li>(Intelligence) The conversion of processed information into intelligence through the integration, evaluation, analysis, and interpretation of all source data and the preparation of intelligence products in support of known or anticipated user requirements. This is also sometimes called "Analysis and Production"</li> </ol>	<ol style="list-style-type: none"> <li>ATP 3-90.15 - modified</li> <li>JP 1-02, JP 2-01</li> </ol>
<b>Analyst</b>	<ol style="list-style-type: none"> <li>(General) A designated person who conducts and/or directs the analysis of samples, interprets data, and reaches conclusions.</li> <li>(CODIS) An employee or contract employee, that has successfully completed the laboratory's training requirements for casework sample analysis, passed a competency test, and has entered into a proficiency testing program according to the FBI DNA Quality Assurance Standards. This individual conducts and/or directs the analysis of forensic samples, interprets data and reaches conclusions.</li> </ol>	<ol style="list-style-type: none"> <li>SWGDRUG Glossary - modified</li> <li>FBI DNA QAS - modified</li> </ol>

TERM	DEFINITION	SOURCE
<b>Analyte</b>	The substance, compound, or element that is the target of a given test or analysis.	A Dictionary of Forensic Science
<b>Analytical Documentation</b>	The documentation of procedures, standards, controls and instruments used, observations made, results of tests performed, charts, graphs, photos and other documentation generated which are used to support the analyst's conclusions.	FBI DNA QAS
<b>Analytical Drift</b>	The systematic or scientific variability in a method, test, or procedure where results gradually deviate from the norm or the expected range.	JCGM 200:2012 - modified
<b>Analytical Procedure</b>	An orderly step-by-step process designed to ensure operational uniformity and to minimize analytical drift.	FBI DNA QAS
<b>Analytical Threshold</b>	(DNA) The minimum height requirement at and above which detected peaks can be reliably distinguished from background noise; peaks above this threshold are generally not considered noise and are either artifacts or true alleles.	SWGDM Glossary
<b>Angle Of Impact</b>	The acute angle, relative to the plane of a target, at which a blood drop strikes the target.	SWGSTAIN Glossary
<b>ANSI/NIST-ITL Standard (American National Standards Institute/National Institute for Standards and Technology-Information Technology Laboratory)</b>	This standard defines the content, format, and units of measurement for the electronic exchange of fingerprint, palmprint, plantar, facial/mugshot, scar, mark & tattoo (SMT), iris, deoxyribonucleic acid (DNA), and other biometric sample and forensic information that may be used in the identification or verification process of a subject.	ANSI/NIST-ITL 1-2011
<b>Antemortem Data</b>	Medical records, samples, and photographs taken prior to death. These include (but are not limited to) fingerprints, dental x-rays, body tissue samples, photographs of tattoos, or other identifying marks. These "pre-death" records would be compared against records completed after death to help establish a positive identification of human remains.	JP 4-06, JP 1-02
<b>Anthropometric Analysis</b>	Explicit measurement of landmarks on the face and a comparison of these measurements between two samples.	FISWG Glossary
<b>Antibody</b>	A protein (immunoglobulin) molecule, produced by the immune system, that recognizes a particular foreign antigen and binds to it; if the antigen is on the surface of a cell, this binding leads to cell aggregation and subsequent destruction.	NRC Manual



TERM	DEFINITION	SOURCE
<b>Anti-Forensics</b>	Tools and techniques used to erase, destroy, or make data unrecoverable, or otherwise subvert a forensic process.	A Dictionary of Forensic Science - Modified
<b>Antigen</b>	A molecule (typically found in the surface of a cell) whose shape triggers the production of antibodies that will bind to the antigen.	NRC Manual
<b>Antiterrorism</b>	Defensive measures used to reduce the vulnerability of individuals and property to terrorist acts, to include rapid containment by local military and civilian forces.	JP 3-07.2, JP 1-02
<b>Aperture</b>	An adjustable opening in the camera which allows the amount of light to be controlled.	ATP 3-39.12
<b>Apocrine Gland</b>	A type of skin gland that is associated with the hair follicles.	SWGFAST Glossary
<b>Arch</b>	A fingerprint pattern in which the friction ridges enter from one side, make a rise in the center, and exit on the opposite side. The pattern will contain no true delta point.	NSTC Glossary
<b>Arch - Tented</b>	A type of fingerprint pattern that possesses either an angle, an upthrust, or two of the three basic characteristics of the loop.	SWGFAST Glossary
<b>Archive Copy</b>	A copy of data placed on media suitable for long-term storage, from which subsequent working copies can be produced.	SWGIT/SWGDE Glossary
<b>Archiving</b>	The process of storing data in a manner suitable for long term availability and retrieval.	SWGIT/SWGDE Glossary
<b>Area Of Convergence</b>	The area containing the intersections generated by lines drawn through the long axes of individual stains that indicates in two dimensions the location of the blood source.	SWGSTAIN Glossary
<b>Area Sample</b>	A probability sample in which the sampling frame is a list of geographical areas. That is, the researchers make a list of areas, choose some at random, and interview people in the selected areas. This is a cost-effective way to draw a sample of people.	NRC Manual
<b>Area Search</b>	Visual reconnaissance of limited or defined areas.	JP 3-50, JP 1-02
<b>Arming Switch</b>	A switch that prevents an explosive device from arming until an acceptable set of criteria has occurred and subsequently effects arming and allows functioning.	IED Lexicon 5th Ed - modified
<b>Armor Piercing Bullet</b>	A bullet consisting of a hardened core or wholly composed of a substance other than lead or lead alloy.	AFTE Glossary
<b>Articulation Rate</b>	A measure of how fast someone speaks, usually quantified in terms of syllables per second, exclusive of pauses.	Speaker Identification

TERM	DEFINITION	SOURCE
<b>Artifact</b>	<ol style="list-style-type: none"> <li>1. (Friction Ridges) Any distortion or alteration not in the original friction ridge impression, produced by an external agent or action.</li> <li>2. (Digital Forensics) A visual/aural aberration in an image, video, or audio recording resulting from a technical or operational limitation.</li> <li>3. (Digital Forensics) Information or data created as a result of the use of an electronic device that shows past activity.</li> <li>4. (DNA) A non-allelic product of the amplification process (e.g., stutter, non-templated nucleotide addition, or other non-specific product), an anomaly of the detection process (e.g., pull-up or spike), or a by-product of primer synthesis (e.g., “dye blob”).</li> </ol>	<ol style="list-style-type: none"> <li>1. SWGFAST Glossary</li> <li>2. SWGIT/SWGDE Glossary</li> <li>3. SWGIT/SWGDE Glossary</li> <li>4. SWGDAM Glossary</li> </ol>
<b>Aspect Ratio</b>	Ratio of width to height. This can be specific to pixels or images.	FISWG Glossary
<b>Assault Rifle</b>	A compact, select-fire, detachable box magazine-fed firearm, that utilizes a centerfire rifle cartridge and is designed primarily for military use.	AFTE Glossary
<b>Assessment</b>	<ol style="list-style-type: none"> <li>1. A continuous process that measures the overall effectiveness of employing joint force capabilities during military operations.</li> <li>2. Determination of the progress toward accomplishing a task, creating a condition, or achieving an objective.</li> <li>3. Analysis of the security, effectiveness, and potential of an existing or planned intelligence activity.</li> <li>4. Judgment of the motives, qualifications, and characteristics of present or prospective employees or "agents."</li> </ol>	JP 3-0, JP 1-02
<b>Associated Components</b>	Components that are part of an IED or improvised weapon system, the tools required to produce the components, or precursors to the manufacture of IED components to include explosives.	JP 3-15.1
<b>Association</b>	<ol style="list-style-type: none"> <li>1. (Statistics) The degree of statistical dependence between two or more events or variables. Events are said to be associated when they occur more frequently together than one would expect by chance.</li> <li>2. (Forensic Conclusion) Similarity in detail has been found between the impression and the standard(s), and a complete application of the ACE-V methodology has been applied; the degree of correspondence between the two impressions is more probable among impressions made by the same source rather than by different sources.</li> </ol>	<ol style="list-style-type: none"> <li>1. NRC Manual</li> <li>2. DFSC</li> </ol>
<b>Assumption</b>	A supposition on the current situation or a presupposition on the future course of events, either or both assumed to be true in the absence of positive proof, necessary to enable the commander in the process of planning to complete an estimate of the situation and make a decision on the course of action.	JP 5-0, JP 1-02
<b>Attribute</b>	A quality or characteristic inherent in or ascribed to a subject. For example: name, gender, serial number.	IdM Strat Plan - modified
<b>Audio Enhancement</b>	Processing of recordings for the purpose of increased intelligibility, attenuation of noise, improvement of understanding the recorded material and/or improvement of quality or ease of hearing.	SWGIT/SWGDE Glossary

TERM	DEFINITION	SOURCE
<b>Audio Forensics</b>	A sub-discipline of Digital & Multimedia Forensics, which involves the scientific examination, analysis, comparison, and/or evaluation of audio.	DoDD 5205.15E
<b>Audit</b>	Independent review and examination of records and activities to assess the adequacy of system controls and ensure compliance with established policies and operational procedures.	CNSSI 4009
<b>Audit Trail</b>	A chronological record that reconstructs and examines the sequence of activities surrounding or leading to a specific operation, procedure, or event in a security relevant transaction from inception to final result.	CNSSI 4009
<b>Authenticate</b>	To verify the identity of a user, user device, or other entity.	CNSSI 4009
<b>Authentication</b>	The process of verifying the identity or other attributes claimed by or assumed of an entity (user, process, or device), or to verify the source and integrity of data.	CNSSI 4009
<b>Authenticator</b>	A symbol or group of symbols, or a series of bits, selected or derived in a prearranged manner and usually inserted at a predetermined point within a message or transmission for the purpose of attesting to the validity of the message or transmission.	JP 3-13.3, JP 1-02
<b>Authoritative Source</b>	A source of data or information that is recognized by members of a Community of Interest (COI) to be valid or trusted because it is considered to be highly reliable or accurate or is from an official publication or reference.	DoDD 8320.02
<b>Authorization</b>	The granting or denying of access rights to a user, program, or process.	IdM Strat Plan
<b>Automated Information System</b>	An assembly of computer hardware, software, and/or firmware configured to collect, create, communicate, compute, disseminate, process, store and/or control data or information.	AtN Handbook
<b>Automatic Speech Recognition</b>	The process or technology which accepts speech as input and determines what was spoken.	ANSI/NIST-ITL 1
<b>Autosome</b>	A chromosome other than the X and Y sex chromosomes. The diploid human genome consists of 46 chromosomes: 22 pairs of autosomes and one pair of sex chromosomes (the X and Y chromosomes).	NRC Manual - modified
<b>Axis</b>	A real or an imaginary straight reference line passing through an object and about which the object turns or appears to turn. (RE: spin axis of projectile indicates rifling direction in barrel)	AFTE Glossary
<b>Backlight</b>	A light source placed behind a subject in a controlled capture that reduces background shadows.	FISWG Glossary
<b>Backlog</b>	The number of cases in a forensic science service provider's control which remain open for a period of time greater than normally allowed by their policies.	Forensics Metrics - modified
<b>Backspatter Pattern</b>	A bloodstain pattern resulting from blood drops that traveled in the opposite direction of the external force applied; associated with an entrance wound created by a projectile.	SWGSTAIN Glossary
<b>Ballistics</b>	The science of projectiles in motion. Usually divided into three parts: 1) Interior Ballistics, which studies the projectile's movement inside the firearm; 2) Exterior Ballistics, which studies the projectile's movement between the muzzle and the target; and 3) Terminal Ballistics, which studies the effect of a projectile's impact at the target. A term often confused with Forensic Firearms Identification.	AFTE Glossary

TERM	DEFINITION	SOURCE
<b>Band Shift</b>	Movement of DNA fragments in one lane of a gel at a different rate than fragments of an identical length in another lane, resulting in the same pattern “shifted” up or down relative to the comparison lane. Band shift does not necessarily occur at the same rate in all portions of the gel.	NRC Manual
<b>Bandwidth</b>	The total amount of data that can be transmitted per second (e.g., bandwidth may limit simultaneous high-speed transmission of digital images).	SWGFAST Glossary
<b>Barrel</b>	That part of a firearm through which a projectile or shot charge travels under the impetus of powder gasses, compressed air, or other like means. A barrel may be rifled or smooth.	AFTE Glossary
<b>Base Pair (bp)</b>	Two complementary nucleotides bonded together at the matching bases (A and T, or C and G) along the double helix “backbone” of the DNA molecule. The length of a DNA fragment often is measured in numbers of base pairs (1 kilobase (kb) = 1000 bp); base-pair numbers also are used to describe the location of an allele on the DNA strand.	NRC Manual
<b>Basic Input Output System (BIOS)</b>	The set of routines stored in read-only memory that enables a computer to start the operating system and to communicate with the various devices in the system such as disk drives, keyboard, monitor, printer, and communication ports.	NIJ Digital Guide
<b>Baud Rate</b>	Used interchangeably with bits per second (bps), the unit of measure used to rate the speed at which data can be transmitted via computer modem.	SWGFAST Glossary
<b>Bayes’ Rule</b>	In its simplest form, an equation involving conditional probabilities that relates a “prior probability” known or estimated before collecting certain data to a “posterior probability” that reflects the impact of the data on the prior probability. In Bayesian statistical inference, “the prior” expresses degrees of belief about various hypotheses. Data are collected according to some statistical model; at least, the model represents the investigator’s beliefs. Bayes’ rule combines the prior with the data to yield the posterior probability, which expresses the investigator’s beliefs about the parameters, given the data.	NRC Manual
<b>Bayes’ Theorem</b>	A formula that relates certain conditional probabilities. It can be used to describe the impact of new data on the probability that a hypothesis is true.	NRC Manual
<b>Behavioral Characteristic</b>	A characteristic that is learned and acquired over time rather than one based primarily on biology.	ATP 2-22.82
<b>Behavioral Identity Attribute</b>	The array of physical actions and observable emotions associated with an individual. Behavioral attributes span a range of actions and mannerisms made by an individual in reaction to their environment. They reflect an individual’s internal or external, conscious or subconscious, overt or covert, voluntary or involuntary responses. Some behavior changes with age, while some specific traits such as personality and temperament may be consistent. Past behavior is used in predictive behavioral modeling to estimate the probability of future behavior. On the individual level, this analysis identifies recurring patterns of behavior to inform decision making.	JDN Identity Activities
<b>Best Evidence Policy</b>	Laboratory policy that some items will not be examined based on the results of other testing, or due to other factors such as: manner of collection, degradation, or limitations of the science.	DFSC

TERM	DEFINITION	SOURCE
<b>Between-Observer Variability</b>	Differences that occur when two observers measure the same thing.	NRC Manual
<b>Bias</b>	The difference between the expectation of the test results and an accepted reference value. NOTE: Bias is the total systematic error as contrasted to random error. There may be one or more systematic error components contributing to the bias. A larger systematic difference from the accepted reference value is reflected by a larger bias value.	ASTM E456
<b>Bifurcation</b>	The point in a fingerprint where a friction ridge divides or splits to form two ridges.	NSTC Glossary
<b>Bin</b>	A class interval in a histogram.	NRC Manual
<b>Bin, Fixed</b>	In Variable Number of Tandem Repeat (VNTR) profiling, a bin is a range of base pairs (DNA fragment lengths). When a database is divided into fixed bins, the proportion of bands within each bin is determined and the relevant proportions are used in estimating the profile frequency.	NRC Manual
<b>Binary Explosive</b>	An explosive formed by combining two non-explosive materials (an oxidizer and a fuel).	IED Lexicon 5th Ed
<b>Binary Image</b>	An image type using only two radiometric values, e.g., black and white.	SWGFAST Glossary
<b>Binary Variable</b>	A variable that has only two possible values. Called a dummy variable when the two possible values are 0 and 1.	NRC Manual
<b>Bindle Paper</b>	Clean paper that is folded to contain trace evidence, sometimes included as part of the packaging for collecting trace evidence.	CSI Guide
<b>Binning</b>	The process of parsing or classifying data in order to accelerate and/or improve analysis.	NSTC Glossary - modified
<b>Binomial Distribution</b>	A distribution for the number of occurrences in repeated, independent “trials” where the probabilities are fixed. For example, the number of heads in 100 tosses of a coin follows a binomial distribution. When the probability is not too close to 0 or 1 and the number of trials is large, the binomial distribution has about the same shape as the normal distribution	NRC Manual
<b>Bins, Floating</b>	A bin is a range of base pairs (DNA fragment lengths). In a floating bin method of estimating a profile frequency, the bin is centered on the base-pair length of the allele in question, and the width of the bin can be defined by the laboratory’s matching rule (e.g., $\pm 5\%$ of band size).	NRC Manual
<b>Biochemistry</b>	The study of the nature of biologically important molecules in living systems, DNA replication and protein synthesis, and the quantitative and qualitative aspects of cellular metabolism.	FBI DNA QAS
<b>Biographic Data</b>	Data that describes the physical and non-physical attributes of a person and their life. For example: name, age, height, weight, address, employers, telephone number, birthplace, nationality, education level, group affiliations, and employment history.	Biometrics Glossary v6 - modified
<b>Biographic Identity Attribute</b>	Biographic attributes describe attestable facts about an individual’s life.	JDN Identity Activities
<b>Biographical Intelligence</b>	That component of intelligence that deals with individual foreign personalities of actual or potential importance.	JP 1-02

TERM	DEFINITION	SOURCE
<b>Biological Agent</b>	A microorganism (or a toxin derived from it) that causes disease in personnel, plants, or animals or causes the deterioration of materiel.	JP 3-11, JP 1-02
<b>Biological Characteristic</b>	A biometric characteristic based primarily on an anatomical or physiological characteristic, rather than a learned behavior.	ATP 2-22.82
<b>Biological Evidence</b>	Biological evidence includes any item containing blood, semen, hair, saliva, skin tissue, fingernail scrapings, bone, bodily fluids, or any other identifiable biological material collected as part of a criminal investigation.	ATP 3-39.12
<b>Biological Hazard (Biohazard)</b>	An organism, or substance derived from an organism, which poses a threat to human or animal health.	JP 3-11, JP 1-02
<b>Biological Identity Attribute</b>	Biologic attributes contain the measurable and observable physical characteristics of an individual.	JDN Identity Activities
<b>Biological Material</b>	Material that has a human or animal origin, most commonly encountered at crime scenes (e.g., blood, saliva, semen, skin cells).	CSI Guide - modified
<b>Biometric Characteristic</b>	Biological and behavioral characteristic of an individual from which distinguishing, repeatable biometric features can be extracted for the purpose of recognition. Also known as a "biometric attribute," or simply a "biometric."	ISO/IEC 2382-37 - modified
<b>Biometric Database</b>	A collection of one or more biometric data records (e.g., biometric sensor readings, templates, match results, contextual information related to the biometric subject).	NSTC Glossary
<b>Biometric Identity Intelligence Resource (BI2R)</b>	Automated database that stores biometric and associated intelligence data from DoD collection devices. Analysts use the BI2R toolset to conduct analysis and develop intelligence reports supporting DoD and national missions. The system is designed to provide the DoD, IC, and coalition communities with authoritative, high pedigree, biometrically base-lined identities, and advanced tools and technologies necessary to analyze, collaborate, produce, disseminate, and share biometric identity intelligence.	Biometrics Glossary v6
<b>Biometric Sample</b>	Data representing a biological characteristic of a person as captured by a biometric system.	ATP 2-22.85
<b>Biometric System</b>	Multiple individual components (such as sensor, matching algorithm, and result display) that combine to make a fully operational system. A biometric system is an automated system capable of: <ol style="list-style-type: none"> <li>1. Capturing a biometric sample form an end user.</li> <li>2. Extracting and processing the biometric data form that sample.</li> <li>3. Storing the extracted information in a database.</li> <li>4. Comparing the biometric data with data contained in one or more references.</li> <li>5. Deciding how well they match and indicating whether or not an identification or verification of an identity has been achieved. A biometric system may be a component of a larger system.</li> </ol>	USSOCOM CPD v2
<b>Biometrics Automated Toolset – Army (BAT-A)</b>	A multimodal, tactical, biometric system that collects, stores, matches, and shares fingerprints, iris images, and facial images.	ATP 2-22.85

TERM	DEFINITION	SOURCE
<b>Bit/Byte</b>	Smallest unit of measure in the computing world and it essentially represents either a "1" or "0". Bytes are made up of eight bits. Thus "10011101" is the binary representation of a byte. All possible combinations of these 1's and 0's in a byte can represent decimal numbers anywhere between zero and 255. The computer uses these eight-bit numbers to represent letters of the alphabet, i.e., the decimal number 65 when converted into binary math (01000001) represents the code for the capital letter "A". A byte is a series of 8 bits, also called a character.	USARAF Glossary
<b>Bitmap (BMP)</b>	A non-compressed image file format. The ".bmp" suffix is used for bitmap file names.	SWGFAST Glossary
<b>Black Powder</b>	1. (Firearms and Explosives) The earliest form of propellant, reputed to have been made by the Chinese or Hindus before the remote beginnings of history. First used for guns in the 13th century. It is a mechanical mixture of potassium or sodium nitrate ("saltpeter"), charcoal, and sulfur with the most common proportions being 75:15:10. For sporting arm use, various granulations are available. These are designated fg, ffg, fffg, and ffff, largest to smallest, respectively. 2. (Fingerprints) See "Fingerprint Powder"	1. AFTE Glossary 2. SWGFAST Glossary - modified
<b>Blacklisting</b>	The process of the system denying the provision of a service based on the user's inappropriate actions.	CNSSI 4009-modified
<b>Blank</b>	1. (Firearms) A cartridge without a projectile designed to make noise. Blanks may also be used to launch rifle grenades. 2. (Chemistry) Specimen or sample not containing the analyte.	1. AFTE Glossary 2. SWGDRUG Glossary
<b>Blasting Accessories</b>	Devices and materials used in blasting, such as, but not limited to, cap crimpers, tamping bags, blasting machines, blasting galvanometers, and detonation cord.	JP 3-15.1
<b>Blasting Agent</b>	An explosive material which meets prescribed criteria for insensitivity to initiation. Generally a non-detonator sensitive explosive that must be initiated by a booster to detonate. May be configured in cartridge form or as a mass of explosive material prepared for use on site without packaging.	IED Lexicon 5th Ed
<b>Blasting Cap</b>	A device containing a sensitive explosive intended to produce a detonation wave. Can be either electric or nonelectric (plain).	JP 3-15.1
<b>Blister Agent</b>	A chemical agent which injures the eyes and lungs, and burns or blisters the skin. Also called vesicant agent.	JP 3-11, JP 1-02
<b>Blood Agent</b>	A chemical compound, including the cyanide group, which affects bodily functions by preventing the normal utilization of oxygen by body tissues.	JP 3-11, JP 1-03
<b>Blood Clot</b>	A gelatinous mass formed by a complex mechanism involving red blood cells, fibrinogen, platelets, and other clotting factors.	SWGSTAIN Glossary
<b>Bloodstain</b>	A deposit of blood on a surface.	SWGSTAIN Glossary
<b>Bloodstain Pattern</b>	A grouping or distribution of bloodstains that indicates through regular or repetitive form, order, or arrangement the manner in which the pattern was deposited.	SWGSTAIN Glossary

TERM	DEFINITION	SOURCE
<b>Booster</b>	A high explosive element sufficiently sensitive so as to be actuated by small explosive elements and powerful enough to cause detonation of the main charge filling (initiator » booster » main charge).	AAP-06
<b>Bore</b>	The interior of a barrel forward of the chamber.	AFTE Glossary
<b>Borne</b>	In relation to improvised explosive threats, a descriptor indicating how the threat was transported or transmitted. For Example: Person-borne IED. An IED worn, carried, or housed by a person, willingly or unwillingly, in such a way that the person houses the whole IED or principal IED components or serves as the delivery or concealment means for an explosive with an initiating device.	Merriam-Webster Dictionary + ATP 3-34.20- modified
<b>Brachydactyly</b>	Abnormal shortness of fingers or toes.	SWGFAST Glossary
<b>Breech</b>	The part of a firearm at the rear of the bore into which ammunition components are inserted.	AFTE Glossary
<b>Bridge</b>	A connecting friction ridge between and at generally right angles to parallel running ridges.	SWGFAST Glossary
<b>Bubble Ring</b>	An outline within a bloodstain resulting from air in the blood.	SWGSTAIN Glossary
<b>Buccal Swab</b>	A buccal swab, also known as buccal smear, is a way to collect DNA from the cells on the inside of a person's cheek. Buccal swabs are a relatively non-invasive way to collect DNA samples for testing. Buccal means cheek or mouth. It is very common in clinical trials and in law enforcement investigations where it can include or exclude individuals as suspects.	DNA from Buccal Swabs
<b>Buffer</b>	<ol style="list-style-type: none"> <li>(D/MM Forensics) A block of memory that holds data temporarily and allows data to be read or written in larger chunks to improve a computer's performance. The buffer is used for temporary storage of data read from or waiting to be sent to a device such as a hard disk, CD-ROM, printer, or tape drive.</li> <li>(Chemistry) Aqueous solutions prepared in such a way as to stabilize the pH. Buffers are prepared by combining a weak acid with its salt. For example, a phosphate buffer can be prepared by combining phosphoric acid and sodium phosphate.</li> </ol>	<ol style="list-style-type: none"> <li>NIJ Digital Glossary</li> <li>Dictionary of Forensic Science</li> </ol>
<b>Bulb (of Fingers, Thumbs, Toes)</b>	The portion of the friction skin on the tips of fingers, thumbs, or toes in the distal phalanx, from one side of the nail to the opposite side of the nail.	SWGFAST Glossary
<b>Bulk Explosives</b>	<ol style="list-style-type: none"> <li>Manufactured explosive charges in their original packaging or that have been removed from weapons or munitions.</li> <li>(SOF) Any amount of explosive substance that is visible to the naked eye.</li> </ol>	<ol style="list-style-type: none"> <li>JP 3-15.1</li> <li>Guide for Explosives Detection - modified</li> </ol>
<b>Bullet</b>	A non-spherical projectile for use in a rifled barrel.	AFTE Glossary
<b>Bullet Trajectory</b>	The curved path of a projectile from muzzle to target. (This is approximately straight over short distances close to the muzzle.)	AFTE Glossary - modified
<b>Bullet Wipe</b>	The discolored area on the immediate periphery of a bullet hole, caused by the transfer of residues from the bearing surface of the bullet. These dark gray to black residues typically contain carbon, lead, bullet material, and possibly other constituents such as bullet lubricant and primer residues. Bullet wipe may occur at any range of fire. Also known as burnishing or leaded edge.	AFTE Glossary



TERM	DEFINITION	SOURCE
<b>Butt</b>	<ol style="list-style-type: none"> <li>1. (Handguns) The bottom part of the grip.</li> <li>2. (Long Guns) The rear or shoulder end of the stock.</li> <li>3. (Cigarettes) The remains of a cigarette after it has been smoked.</li> </ol>	1-2. AFTE Glossary 3. Oxford English Dictionary
<b>Cache</b>	<ol style="list-style-type: none"> <li>1. (Physical Evidence) A source of subsistence and supplies, typically containing items such as food, water, medical items, and/or communications equipment, packaged to prevent damage from exposure and hidden in isolated locations by such methods as burial, concealment, and/or submersion, to support isolated personnel.</li> <li>2. (Digital Evidence) A storage area where frequently accessed data may be kept for rapid access. The internet history cache contains files and graphics saved locally from web sites you have previously visited.</li> </ol>	1. JP 3-50 2. USARAF Glossary
<b>Caliber</b>	A term used to designate the specific cartridge for which a firearm is chambered. Caliber is the approximate diameter of the circle formed by the tops of the lands of a rifled barrel, typically expressed in hundredths of an inch (38 caliber) or millimeters (9mm caliber). In ammunition, caliber is a numerical term, without the decimal point, included in a cartridge name to indicate the nominal bullet diameter.	AFTE Glossary
<b>Calibration</b>	Set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material, and the corresponding values realized by standards.	SWGDRUG Glossary, FBI DNA QAS
<b>Capabilities Based Assessment</b>	The CBA is the Joint Capabilities integration and Development System analysis process that includes four phases: the functional area analysis, the functional needs analysis, the functional solution analysis and the post independent analysis. The results of the CBA are used to develop a joint capabilities document or initial capabilities document.	USSOCOM CPD v2
<b>Capillary Electrophoresis</b>	A method for separating DNA fragments (including STRs) according to their lengths. A long, narrow tube is filled with an entangled polymer or comparable sieving medium, and an electric field is applied to pull DNA fragments placed at one end of the tube through the medium.	NRC Manual
<b>Captured Enemy Documents and Media (CEDM)</b>	Any piece of recorded information previously under enemy control regardless of its form—written, printed, engraved, and photographic matter as well as recorded media and media devices—that pertains to the enemy, weather, or terrain that are under the U.S. Government’s physical control and are not publicly available.	ATP 2-91.8
<b>Captured Enemy Equipment (CEE)</b>	See Army Techniques Publication 2-91.8: Techniques for Document and Media Exploitation	ATP 2-91.8
<b>Captured Enemy Materiel (CEM)</b>	Documents, media, equipment, or materiel in the possession of enemy forces that subsequently comes into the control of friendly forces, regardless of origin, to include U.S. or multinational documents or materials once belonging to the enemy.	ATP 3-90.15 - modified
<b>Card-Scan</b>	Electronic recording of friction ridge impressions (fingers and/or palms) from fingerprint cards, palm print cards, etc. Sometimes referred to as dead-scan or flat-bed scanner.	SWGFAST Glossary
<b>Carpal Delta Area</b>	Area of the palm containing a delta formation nearest the wrist.	SWGFAST Glossary

TERM	DEFINITION	SOURCE
<b>Cartridge</b>	A single unit of ammunition consisting of the cartridge case, primer, propellant, and with or without one or more projectile(s).	AFTE Glossary
<b>Carve</b>	The extraction of a portion of data for the purpose of analysis.	SWGIT/SWGDE Glossary
<b>Carving</b>	Forensic carving, also known as data carving, is the process of extracting a collection of data from a larger data set. Data carving techniques frequently occur during a digital investigation when the unallocated file system spaces are analyzed in order to extract files. The files are "carved" from the unallocated space using file type-specific header and footer values. File system structures are not used during the process.	NIJ Digital Glossary
<b>Case</b>	1. (Forensic) A collection of all forensic material and analytical reporting from a single event. 2. (Intelligence) Record of the development of an intelligence operation, including personnel, modus operandi, and objectives.	1. Forensics Metrics 2. JP 1-02
<b>Case File</b>	The collection of documents comprising information concerning a particular investigation.	CSI Guide
<b>Case Identifiers</b>	The alphabetic and/or numeric characters assigned to identify a particular case.	CSI Guide
<b>Case Record</b>	Administrative and technical records, whether electronic or hardcopy, generated or received by a laboratory pertaining to a particular case, which may be stored in one or more locations.	ASCLD/LAB Supplemental
<b>Casework</b>	The forensic facility activities involved in the investigation of a case.	Forensics Metrics
<b>Casework CODIS Administrator</b>	An employee of the laboratory responsible for administration and security of the laboratory's CODIS at a laboratory performing DNA analysis on forensic and casework reference samples.	FBI DNA QAS
<b>Casework Time</b>	The number of full-time equivalent (FTE) hours devoted specifically to investigating cases.	Forensics Metrics
<b>Cast or Casting</b>	A technique to preserve and replicate impression evidence in soft material such as soil, tissue, or snow. Casts can be made of tire prints, shoe prints, bite marks, and toolmarks. When done properly, casting produces excellent positive replicates of the impression, but they are not exact duplicates. The cast of the surface of a tool is a negative cast. Dental stone is frequently used for impressions in soil; epoxy-like materials for toolmarks, and Snow Print Wax® for impressions in snow.	A Dictionary of Forensic Science - Modified
<b>Cast-Off Pattern</b>	A bloodstain pattern resulting from blood drops released from an object due to its motion.	SWGSTAIN Glossary
<b>Casualty</b>	Any person who is lost to the organization by having been declared dead, duty status - whereabouts unknown, missing, ill, or injured.	JP 4-02, JP 1-02
<b>Catastrophic Event</b>	Any natural or man-made incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.	JP 3-28, JP 1-02
<b>Ceiling Principle</b>	A procedure for setting a minimum DNA profile frequency proposed in 1992 by a committee of the National Academy of Sciences. One hundred persons from each of 15 to 20 genetically homogeneous populations spanning the range of racial groups in the United States are sampled. For each allele, the higher frequency among the groups sampled (or 5%, whichever is larger) is used in calculating the profile frequency.	NRC Manual

TERM	DEFINITION	SOURCE
<b>Cellular Exploitation (CELLEX)</b>	The collection, processing, translation, analysis and dissemination of collected information from mobile devices that are under US Government physical control and are not publicly available. In the Department of Defense this includes the handling of cellular and mobile devices during their collection, imaging, triage, analysis and input into a database	ATP 2-91.8 - modified
<b>Centisecond</b>	Unit for quantifying duration in acoustic phonetics: one-hundredth of a second.	Speaker Identification
<b>Central Processing Unit (CPU)</b>	The computer microprocessing chip that contains several thousand to several million transistors that perform multiple functions simultaneously.	NIJ Digital Glossary
<b>Certification</b>	Procedure by which a third party gives written assurance (a certificate) that a product, process or service conforms to specified requirements.	ISO Guide 2:2004
<b>Certified Reference Material (CRM)</b>	A reference material, one or more of whose property values have been certified by a technical procedure, accompanied by or traceable to a certificate or other documentation that has been issued by a certifying body.	SWGDRUG Glossary
<b>Certifying Body</b>	A person, organization, or entity that awards credentials to individuals meeting specific competency requirements relating to a profession, an occupation, a job or a portion of a job.	SWGDRUG Glossary - modified
<b>Cessation Cast-Off Pattern</b>	A bloodstain pattern resulting from blood drops released from an object due to its rapid deceleration.	SWGSTAIN Glossary
<b>Chain Of Custody</b>	Procedures and documents that account for the integrity and possession of a sample by tracking its handling and storage from its point of collection to its final disposition.	ASTM E1732
<b>Chamber</b>	The rear part of the barrel bore that has been formed to accept a specific cartridge or shotshell. In a revolver, the holes in the cylinder represent multiple chambers.	AFTE Glossary
<b>Character</b>	Any language symbol (for example, letter, numeral, punctuation mark, or other sign), other symbol, or ornament.	ASTM E2195
<b>Characteristic</b>	A property of items in a sample or population which, when measured, counted or otherwise observed, helps to distinguish between the items.	ASTM E456
<b>Chemical Agent</b>	A chemical substance which is intended for use in military operations to kill, seriously injure, or incapacitate mainly through its physiological effects. The term excludes riot control agents when used for law enforcement purposes, herbicides, smoke, and flames.	JP 3-11
<b>Chemical Enhancement</b>	The use of chemicals that react with specific types of evidence (e.g., blood, semen, lead, fingerprints) in order to aid in the detection and/or documentation of evidence that may be difficult to see.	CSI Guide
<b>Chemical Hazard</b>	Any chemical manufactured, used, transported, or stored that can cause death or other harm through toxic properties of those materials, including chemical agents and chemical weapons prohibited under the Chemical Weapons Convention as well as toxic industrial chemicals.	JP 3-11, JP 1-02
<b>Chemical Warfare</b>	All aspects of military operations involving the employment of lethal and incapacitating munitions/agents and the warning and protective measures associated with such offensive operations.	JP 3-11, JP 1-02

TERM	DEFINITION	SOURCE
<b>Chemical Weapon</b>	Together or separately: (a) a toxic chemical and its precursors, except when intended for a purpose not prohibited under the Chemical Weapons Convention; (b) a munition or device, specifically designed to cause death or other harm through toxic properties of those chemicals specified in (a), above, which would be released as a result of the employment of such munition or device; (c) any equipment specifically designed for use directly in connection with the employment of munitions or devices specified in (b), above.	JP 3-11, JP 1-02
<b>Chemical, Biological, Radiological, And Nuclear (CBRN) / Weapons of Mass Destruction (WMD) Forensic Support</b>	The scientific application of military resources to determine the type of chemical, biological, radiological, nuclear, explosive or other material(s) used in weapons of mass destruction. Provide Defense support to civil authorities in preventing, predicting, and detecting an attack. Support attribution of weapons of mass destruction (WMD) and CBRNE attacks, inform government action, potentially helps stop the next attack.	JP 3-40
<b>Chemical, Biological, Radiological, And Nuclear (CBRNE) Analytical &amp; Remediation Activity (CARA)</b>	Upon mission notification and requirements determination by the 20th Support Command (CBRNE) Operations Center, CARA responds with appropriate systems to identify and characterize chemical warfare agents, explosives and biological warfare agents in support of WMD elimination and remediation efforts in a forward deployed area or within the continental United States. The platforms may be employed in the full spectrum of military environments from an operating base in which host country military and law enforcement agencies have control (permissive environments) to a forward operating base in a hostile environment in which the U.S. is conducting offensive combat operations without the permission of the "host" country (non-permissive environments).	CARA
<b>Chromatography</b>	The separating of components in a mixture by differential migration.	OED - modified
<b>Chromosome</b>	A rod like structure composed of DNA, RNA, and proteins. Most normal human cells contain 46 chromosomes, 22 autosomes and a sex chromosome (X) inherited from the mother, and another 22 autosomes and one sex chromosome (either X or Y) inherited from the father. The genes are located along the chromosomes.	NRC Manual
<b>Cipher</b>	A cipher is an algorithm for performing encryption or decryption.	USARAF Glossary
<b>Circuit Board</b>	A non-conductive material with conductive lines printed or etched onto the surface which connect the components together to form a working circuit or assembly. Circuits with printed conductive material are commonly referred to as PCBs.	Merriam-Webster Dictionary - modified
<b>Class</b>	A group, set, or kind marked by one or more common attributes.	ASTM E1732
<b>Class Characteristics</b>	Measurable features of a specimen which indicate a restricted group source. They result from design factors and are determined prior to manufacture.	AFTE Glossary
<b>Classification</b>	The systematic arrangement of persons or objects into categories (groups or classes) based on shared traits or characteristics.	ASTM E1732

TERM	DEFINITION	SOURCE
<b>Close-up Photo</b>	Close-up photographs are taken to capture specific items of evidence, and can be used to show position and detail within a narrow frame. They should provide enough detail for positive identification of the evidence and to provide adequate quality and detail for forensic analysis when appropriate. Close-ups of all evidence should be accomplished before collection, measuring, and sketching take place. A ruler is used to show scale when taking close-up photographs, and they should be placed on the same plane as the evidence. Typically the target item will be photographed in a manner that fills the entire frame of the picture. When a close-up photo is taken with a camera equipped with a lens capable of a 1:1 magnification ratio, the resulting photograph is often referred to as a "macro photo."	ATP 3-39.12 - modified
<b>Codec (Compressor/Decoder)</b>	A device or program capable of encoding and decoding digital data. Codecs encode a stream or signal for transmission, storage or encryption and decode it for viewing. Codecs are necessary for playback of encoded data. Generally, codecs from DCCTV systems are proprietary.	SWGIT/SWGDE Glossary
<b>Cognitive Bias</b>	<ol style="list-style-type: none"> <li>1. A mental error caused by one's simplified information processing strategies. It does not result from any emotional or intellectual predisposition toward a certain judgment, but rather from subconscious mental procedures for processing information.</li> <li>2. A mental error that is consistent and predictable.</li> <li>3. Influences that may affect the reliability and validity of one's observations and conclusions.</li> </ol>	FISWG Glossary
<b>Cognitive Image Analysis</b>	The process used to extract visual information from an image.	SWGIT/SWGDE Glossary
<b>Collect</b>	<ol style="list-style-type: none"> <li>1. (Forensics) The process of detecting, documenting, or retaining physical or digital evidence. This often includes limited processing of specific items or areas in an effort to detect additional forensically-relevant information. This is sometimes referred to as "capture" when collecting digital evidence.</li> <li>2. (Biometrics) Capture biometric and related contextual data from a biometric subject, with or without his knowledge. Create and transmit a standardized, high quality biometric file consisting of a biometric sample and contextual data to a data source for matching.</li> <li>3. (Intelligence) In intelligence usage, the acquisition of information and the provision of this information to processing elements.</li> </ol>	<ol style="list-style-type: none"> <li>1. CSI Guide - modified</li> <li>2. Biometrics Glossary v6</li> <li>3. JP 1-02</li> </ol>
<b>Color Tests</b>	A presumptive test where a reagent or series of reagents is added to a sample and produces a color if a substance or class of substances is present.	Encyclopedia of Forensic Sciences - modified
<b>Colorimetry</b>	The quantification of the color of an object.	SWGIT/SWGDE Glossary
<b>Combined DNA Index System (CODIS)</b>	Both a program and software tool used by the FBI, distributed over three hierarchical levels – National, State and Local Index Systems – that enables state and local law enforcement crime laboratories to exchange and compare DNA profiles electronically.	FBI DNA QAS - modified

TERM	DEFINITION	SOURCE
<b>Combined Explosives eXploitation Cell (CEXC)</b>	A Naval Surface Warfare Center, EOD Technology Division deployable capability that conducts technical intelligence operations involving recovered improvised weapons systems and provides near-real-time intelligence on their construction and employment. CEXC processes support identity activities by identifying IED trends and bomb makers, providing insights into enemy tactics, and assisting in the development of defensive and offensive C-IED and other improvised weapons defeat measures.	JDN Identity Activities - modified
<b>Commercial Explosive</b>	Explosives produced and used for commercial, industrial, or recreational applications.	JP 3-15.1
<b>Comparative Examination</b>	Physical and/or chemical testing performed on two or more items for the purpose of determining any association between the items. (Example: the comparative microscopic examination of two projectiles to determine if both projectiles could have been discharged from the same barrel of a weapon). Sometimes referred to simply as "comparison."	ASCLD/LAB Supplemental
<b>Comparison Microscope</b>	An instrument that is composed of two microscopes connected by an optical bridge, which allows the viewer to observe two objects simultaneously with the same degree of magnification.	AFTE Glossary - modified
<b>Comparison Sample</b>	A generic term used to describe physical material/ evidence discovered at crime scenes that may be compared with samples from persons, tools, and physical locations. Comparison samples may be from either an unknown/questioned or a known source.	CSI Guide
<b>Comparison Score</b>	Numerical value (or set of values) resulting from a comparison.	ISO/IEC 2382-37
<b>Competence</b>	Competence is the demonstrated ability to apply knowledge and skills and, where relevant, demonstrated personal attributes.	ILAC G19
<b>Competency Test</b>	The evaluation of a person's knowledge and ability prior to performing independent work in any functional area of forensic casework.	ASCLD/LAB Supplemental
<b>Complementary Sequence</b>	The sequence of nucleotides on one strand of DNA that corresponds to the sequence on the other strand. For example, if one sequence is CTGAA, the complementary bases are GACTT.	NRC Manual
<b>Composite Profile</b>	A DNA profile generated by combining typing results from different loci obtained from multiple injections of the same amplified sample and/or multiple amplifications of the same DNA extract. When separate extracts from different locations on a given evidentiary item are combined prior to amplification, the resultant DNA profile is not considered a composite profile. Also known as a "consensus profile."	SWGDM Glossary
<b>Compressed File</b>	A file that has been reduced in size by use of an algorithm that removes or combines redundant data for ease of transfer. A compressed file is generally unreadable to most programs until the file is uncompressed.	NIJ Digital Glossary
<b>Compression</b>	The process of reducing the size of a data file.	FISWG Glossary
<b>Compression Ratio</b>	The size of a data file before compression divided by the file size after compression.	SWGIT/SWGDE Glossary

TERM	DEFINITION	SOURCE
<b>Computer Evidence</b>	Computer evidence is unique when compared with other forms of "documentary evidence." Unlike paper documentation, computer evidence is fragile, and a copy of a document stored in a computer file is identical to the original. Thus, the legal "best evidence" rules change when it comes to the processing of computer evidence.	USARAF Glossary
<b>Computer Forensics</b>	A sub-discipline of D/MM forensics that involves the scientific examination, analysis, and/or evaluation of digital and electronic materials.	DoDD 5205.15E
<b>Concept Search</b>	In forensic computing investigations, the process of searching a large collection of electronic evidence such as documents and webpages to identify ideas and concepts as opposed to isolated words or phrases. A key part of such searches is identifying the context in which words and phrases are found and using this information to extract information relevant to an investigation from the much larger collection.	A Dictionary of Forensic Science
<b>Conclusion</b>	A reasoned deduction or inference.	FISWG Glossary
<b>Condition</b>	Refers to the state of readiness of a device to arm, fire, or function at the time of discovery.	IED Lexicon 5th Ed
<b>Conditional</b>	An interpretation category that incorporates assumption(s) as to the number of contributors.	SWGDM Glossary
<b>Conditional Probability</b>	The probability that one event will occur given that another has occurred.	NRC Manual
<b>Confidence Interval</b>	An estimate, expressed as a range, for a parameter. For estimates such as averages or rates computed from large samples, a 95% confidence interval is the range from about two standard errors below to two standard errors above the estimate. Intervals obtained this way cover the true value about 95% of the time, and 95% is the confidence level or the confidence coefficient.	NRC Manual
<b>Confirmation Bias</b>	Tendency to search for data or interpret information in a manner that supports one's preconceptions.	FISWG Glossary
<b>Confirmatory Test</b>	A test which confirms that the material or substance tested for is actually present.	Encyclopedia of Forensic Sciences - modified
<b>Connected Words</b>	Words spoken carefully, but with no explicit pauses between them.	Performance of ASR
<b>Constrained Language</b>	Lexically and syntactically constrained word sequences (e.g., telephone numbers).	Performance of ASR
<b>Contact Wound</b>	A gunshot wound that results from direct contact of the barrel of the weapon and the skin. The characteristics of a contact wound can include burning or searing, stellate patterns, and large amounts of residual unburnt powder and gunshot residue.	A Dictionary of Forensic Science
<b>Contamination</b>	The undesirable introduction of substances or trace materials to exhibits at any point within the forensic science process.	ILAC G19
<b>Contextual Information</b>	Information about the event that answers who, what, where, when, and why of an event, site, fact, etc. Also known as "contextual data."	ATP 3-90.15 - modified
<b>Continuity</b>	A technical term for how fluently someone speaks.	Speaker Identification

TERM	DEFINITION	SOURCE
<b>Continuous Speech</b>	Words spoken fluently and rapidly as in conversational speech.	Performance of ASR
<b>Control Sample</b>	Material of established origin that is used to evaluate the performance of a test or comparison. Often referred to simply as "controls." See also: "positive control" and "negative control."	ASTM E1732 - modified
<b>Controlled Image</b>	An image captured in accordance with facial identification (FI) or facial recognition (FR) standards or guidelines (e.g., a driver's license photo).	FISWG Glossary
<b>Controlled Substance</b>	A drug or other substance, or immediate precursor included in Schedule I, II, III, IV, or V of the Controlled Substances Act.	JP 3-07.4, JP 1-02
<b>Convergence</b>	The tendency for two participants in a conversation to become more similar in their speech behavior to signal in-group membership. Speakers can also diverge from one another.	Speaker Identification
<b>Cookies</b>	Small text files on a computer that store information about what information a user accessed while browsing the Internet.	NIJ Digital Glossary
<b>Copy</b>	An accurate reproduction of information.	SWGIT/SWGDE Glossary
<b>Cordon and Search</b>	A technique of conducting a movement to contact that involves isolating a target area and searching suspect locations within that target area to capture or destroy possible enemy forces and contraband.	ADRP 1-02, FM 3-90-1
<b>Core</b>	The approximate center of a pattern.	SWGFAST Glossary
<b>Corrupt Data or Corrupt File</b>	A file that is damaged. Damage may have occurred inadvertently during transmission, copying, through operating system error, physical damage to the media on which the data was stored, or through other means.	USARAF Glossary
<b>Counter-Improvised Explosive Device (C-IED) Operations</b>	The organization, integration, and synchronization of capabilities that enable offensive, defensive, stability, and support operations across all phases of operations or campaigns in order to defeat improvised explosive devices as operational and strategic weapons of influence. Also called C-IED operations.	JP 3-15.1, JP 1-02
<b>Counter-Improvised Explosive Device (C-IED) Site Exploitation</b>	The site exploitation teams recognize, collect, process, preserve, or analyze information, personnel, and materiel found during the conduct of C-IED operations for follow-on use by the intelligence or warfighting functions of the staff.	AtN Handbook
<b>Countering Weapons Of Mass Destruction (CWMD)</b>	Efforts against actors of concern to curtail the conceptualization, development, possession, proliferation, use, and effects of weapons of mass destruction, related expertise, materials, technologies, and means of delivery.	JP 3-15.1



TERM	DEFINITION	SOURCE
<b>Counterintelligence and Human Intelligence Automated Reporting and Collection System (CHARCS)</b>	A combination of software modules created to monitor, evaluate, and administer intelligence oversight programs, matters relating to subversion espionage, and counter-intelligence activities.	CHARCS STRAP
<b>Counterterrorism</b>	Actions taken directly against terrorist networks and indirectly to influence and render global and regional environments inhospitable to terrorist networks.	JP 3-26
<b>Court Statement</b>	A court statement is a written report of the results and interpretations of forensic tests/examinations submitted to the court. Such reports may be in a format prescribed in legislation and may also be in electronic format. In addition, statements may be submitted to law enforcement investigators, members of the judiciary and other interested parties.	ILAC G19
<b>Covert Collection</b>	Collection of biometrics or forensics data without the knowledge of an individual. An instance in which samples are being collected at a place and/or time that is not known to the bystanders.	NSTC Glossary - modified
<b>Crease</b>	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.	SWGFAST Glossary
<b>Credential</b>	Data presented as evidence of a claimed identity of a subject.	IdM Strat Plan
<b>Crime</b>	An act committed or omitted, in violation of a public law, either forbidding or commanding it; a breach or violation of some public right or duty due to a whole community, considered as a community.	Black's Law Dictionary
<b>Crime Scene</b>	An area, object or person, external to a laboratory facility, from which evidence is identified, documented, collected, and/or interpreted.	ASCLD/LAB Supplemental
<b>Crime Scene Reconstruction</b>	The process of determining the nature of events that occurred at a scene from an evaluation of physical evidence and other relevant information.	ASCLD/LAB Supplemental
<b>Criminal</b>	A person, organization, or entity who has violated public law by act or omission, either forbidding or commanding it; or committed a breach or violation of some public right or duty due to a whole community.	Black's Law Dictionary - modified
<b>Criminalistics</b>	Branch of forensic science concerned with the examination and interpretation of physical evidence, for the purpose of aiding forensic investigation.	ASTM E1732
<b>Criterion</b>	The variable against which an examination or other selection procedure is validated.	NRC Manual
<b>Critical Equipment Or Instruments</b>	Those requiring calibration or a performance check prior to use and periodically thereafter.	FBI DNA QAS
<b>Critical Factors Analysis</b>	The methodical examination of the analysis of critical capabilities, critical requirements, specific activities, observable and measurable indicators, and critical vulnerabilities of an adversary.	AtN Handbook

TERM	DEFINITION	SOURCE
<b>Critical Findings</b>	Observations and results that have a significant impact on the conclusion reached and the interpretation and opinion provided. In addition, these observations and results cannot be repeated or checked in the absence of the exhibit or sample, and/or could be interpreted differently.	ILAC G19
<b>Critical Reagents</b>	Determined by empirical studies or routine practice to require testing on established samples before use on evidentiary or casework reference samples.	FBI DNA QAS
<b>Critical Vulnerability</b>	An aspect of a critical requirement which is deficient or vulnerable to direct or indirect attack that will create decisive or significant effects.	JP 5-0
<b>Cross-contamination</b>	The unwanted transfer of material between two or more sources of physical evidence.	CSI Guide
<b>Crush Wire</b>	Contact point(s) spanning a length of wire that function an IED when crushed.	IED Lexicon 5th Ed
<b>Curated Collection</b>	An assemblage of reference materials acquired and maintained with associated data according to explicit quality control standards.	SWGILD Glossary
<b>Custody</b>	<ol style="list-style-type: none"> <li>1. The responsibility for the control of, transfer and movement of, and access to, weapons and components. Custody also includes the maintenance of accountability for weapons and components.</li> <li>2. Temporary restraint of a person.</li> </ol>	JP 1-02
<b>Customer</b>	The customer is normally the organization and/or a person asking the forensic unit to perform all or a specific part of the forensic science process. This also includes the term ‘client’. This may be an internal customer. If work is requested via legal mandate (e.g., court order) or if the results of examination/testing are to be provided to a member of the judicial system, then the judicial system may be considered to be the customer.	ILAC G19
<b>Cytoplasm</b>	A jelly-like material (80% water) that fills the cell.	NRC Manual
<b>Cytosine (C)</b>	One of the four bases, or nucleotides, that make up the DNA double helix. Cytosine binds only to guanine.	NRC Manual
<b>Data Extraction</b>	A process that identifies and recovers information that may not be immediately apparent.	SWGIT/SWGDE Glossary
<b>Data Smear</b>	The modification of data by a running system during the data acquisition process.	SWGIT/SWGDE Glossary
<b>DC3 Cyber Forensics Laboratory (DC3 CFL)</b>	DC3 CFL is a subordinate entity of the DoD Cyber Crime Center (DC3) and provides a wide range of capabilities such as: D&MM processing and intrusion analysis, technical assistance, guidelines and standards for D&MM forensics organizations, D&MM analysis for forensic support to counterintelligence investigations, criteria for referral of media to DC3 that is subject of D&MM forensic analysis, guidance on accreditation of DoD digital forensic labs and training and certification of lab examiners, and acts as an NMEC forensics partner providing forensics processing and analysis for seized media to enable multi-disciplinary exploitation objectives.	DoDD 5505.13E

TERM	DEFINITION	SOURCE
<b>Deblurring</b>	A type of image restoration used to reverse image degradation, such as motion blur or out-of-focus blur. It is accomplished by applying algorithms based on knowledge or an estimate of the cause of the original degradation.	SWGIT/SWGDE Glossary
<b>Decide/Act</b>	The response by the operational or business process owner (either automated or human-in-the-loop) to the results of the match and/or analysis, as well as associated information relevant to the situation.	Biometrics Glossary v6 - modified
<b>Decode</b>	Convert encoded text to plain text by means of a code.	CNSSI 4009
<b>Decontamination</b>	The process of making any person, object, or area safe by absorbing, destroying, neutralizing, making harmless, or removing chemical or biological agents, or by removing radioactive material clinging to or around it.	JP 3-11
<b>Deconvolution</b>	Separation of contributors to a mixed DNA profile based on quantitative peak height information and any underlying assumptions.	SWGDM Glossary
<b>Decoy</b>	An imitation in any sense of a person, object, or phenomenon which is intended to deceive enemy surveillance devices or mislead enemy evaluation. Also called dummy.	JP 3-13.4
<b>Decrypt</b>	Generic term encompassing decode and decipher.	CNSSI 4009
<b>Deduced Profile</b>	Inference of an unknown contributor's DNA profile after taking into consideration the contribution of a known/assumed contributor's DNA profile based on quantitative peak height information in a mixed DNA profile	DNA Typing
<b>Defense Forensic Science Center (DFSC)</b>	A DoD forensic center of excellence which provides full-service forensic support (traditional, expeditionary, and reach-back) to Army and DoD entities worldwide; provides specialized forensic training and research capabilities; serves as the Executive Agent for the DoD criminal investigative DNA data basing program; technically manages the USACIDC criminalistics program; and provides forensic services to other federal departments and agencies when appropriate.	DFSC Mission - modified
<b>Defense Forensics and Biometrics Agency (DFBA)</b>	DFBA leads, consolidates and coordinates forensics and biometrics activities and operations for the Department of Defense. It acts on behalf of the Secretary of the Army to carry out assigned DoD Executive Agent responsibilities for DoD Forensics and Biometrics.	DAGO 2013-08 - modified
<b>Defense Forensics Enterprise</b>	The DoD resources, assets, and processes required to provide forensic capabilities in support of DoD operations.	DoDD 5205.15E
<b>Deficiency Of Analysis</b>	Any erroneous analytical result or interpretation, or any unapproved deviation from an established policy or procedure in an analysis.	SWGDRUG Glossary
<b>Definitive Identification</b>	The employment of multiple state-of-the-art, independent, established protocols and technologies by scientific experts in a nationally recognized laboratory to determine the unambiguous identity of a chemical, biological, radiological, and/or nuclear hazard with the highest level of confidence and degree of certainty necessary to support strategic-level decisions. Also known as "confirmatory identification."	ATP 3-11.37

TERM	DEFINITION	SOURCE
<b>Degradation</b>	The fragmenting, or breakdown, of evidence by chemical, physical, or biological means (i.e., DNA degradation when biological samples containing DNA encounter warm moist environments or excessive UV light).	DNA Typing - modified
<b>Deinterlacing</b>	Separating an interlaced frame into two discrete fields.	SWGIT/SWGDE Glossary
<b>Deleted Files</b>	Files no longer associated with a file allocation table or master file table. Deleted files are still resident on the media but are not accessible by the operating system.	NIJ Digital Glossary
<b>Deletion</b>	An instance in which a spoken word is ignored, and for which the recognizer or system provides no response (e.g., in recognizing a string of digits, if the recognizer returns one less digit than has been input).	Performance of ASR
<b>Delta</b>	That point on a ridge at or nearest to the point of divergence of two type lines, and located at or directly in front of the point of divergence.	SWGFAST Glossary
<b>Demonstrative Comparison</b>	A method of presenting the similarities and/or differences among images and/or objects without rendering an opinion regarding identification or exclusion.	SWGIT/SWGDE Glossary
<b>Denaturation</b>	The process of splitting, as by heating, two complementary strands of the DNA double helix into single strands in preparation for hybridization with biological probes.	NRC Manual
<b>Dental Stone</b>	A plaster-like material used to create casts of three-dimensional impressions such as tire and shoe prints. As it cures, the material gives off heat (an exothermic reaction) and thus is not useful on snow.	A Dictionary of Forensic Science
<b>Deoxyribonucleic Acid (DNA)</b>	The genetic constitution of an individual at defined locations (also known as loci) in the DNA; A DNA type derived from nuclear DNA typically consists of one or two alleles at several loci. The DNA type from mitochondrial DNA is described in relation to the Cambridge Reference Sequence.	FBI DNA QAS
<b>Deoxyribonucleic Acid (DNA) Analysis</b>	Deoxyribonucleic acid (DNA) is the unique genetic material present in the cells of all living organisms. DNA is collected on-site using specialized collection tools, and is analyzed off-site at a forensic laboratory. The DNA profiles produced from analyzing collected samples is compared to previously produced DNA profiles, which biologically links people to objects and events. When compared with other information and intelligence, DNA is used to identify networks and support targeting.	ATP 3-90.15
<b>Deoxyribonucleic Acid (DNA) Polymerase</b>	The enzyme that catalyzes the synthesis of double-stranded DNA	NRC Manual
<b>Deoxyribonucleic Acid (DNA) Profile</b>	A set of DNA identification characteristics resulting from DNA analysis. The digital representation of a nuclear DNA profile is used for automated biometric comparison. Also referred to as "DNA Type."	FBI DNA QAS
<b>Deoxyribonucleic Acid (DNA) Record</b>	The DNA profile and operational identifiers such as agency identifier, specimen identification number, and name of the participating laboratory and personnel associated with DNA profile analyses. Records in the database do not include DNA samples or classified information.	FBI DNA QAS - modified

TERM	DEFINITION	SOURCE
<b>Deoxyribonucleic Acid (DNA) Sample</b>	A collection of DNA molecules that can be quantified, amplified, separated, and analyzed.	Biometrics Roadmap
<b>Deoxyribonucleic Acid (DNA) Sequence</b>	The ordered list of base pairs in a duplex DNA molecule or of bases in a single strand.	NRC Manual
<b>Deoxyribonucleic Acid (DNA) Source</b>	The individual or material from which a DNA sample can be collected or extracted.	Biometrics Roadmap
<b>Department of Defense Automated Biometrics Identification System (DoD ABIS)</b>	The central, authoritative, multi-modal biometric data repository for the Department of Defense. The system operates and enhances associated search and retrieval services and interfaces with existing DoD and interagency biometrics systems. The repository interfaces with collection systems, intelligence systems and other deployed biometric repositories across the federal government.	Biometrics Glossary v6 - modified
<b>Department of Homeland Security Automated Biometric Identification System (DHS IDENT)</b>	The Automated Biometric Identification System (IDENT) is a Department of Homeland Security (DHS)-wide system for the storage and processing of biometric and limited biographic information for DHS national security, law enforcement, immigration, intelligence, and other DHS mission-related functions.	Biometrics Glossary v6
<b>Dependence</b>	Two events are dependent when the probability of one is affected by the occurrence or non-occurrence of the other.	NRC Manual
<b>Dermabrasion</b>	A technique using chemicals, wire brush, surgery or lasers which can cause either temporary or permanent loss of ridge detail.	SWGFAST Glossary
<b>Dermis</b>	The layer of skin beneath the epidermis.	SWGFAST Glossary
<b>Detection</b>	<ol style="list-style-type: none"> <li>1. In tactical operations, the perception of an object of possible military interest but unconfirmed by recognition.</li> <li>2. In surveillance, the determination and transmission by a surveillance system that an event has occurred.</li> <li>3. In arms control, the first step in the process of ascertaining the occurrence of a violation of an arms control agreement.</li> <li>4. In chemical, biological, radiological, and nuclear environments, the act of locating chemical, biological, radiological, and nuclear hazards by use of chemical, biological, radiological, and nuclear detectors or monitoring and/or survey teams.</li> </ol>	JP 3-11

TERM	DEFINITION	SOURCE
<b>Detonate</b>	To explode with sudden violence. A low explosive (e.g., black or smokeless powder) will deflagrate whereas a high explosive (e.g., TNT) will detonate violently by a sudden chemical change resulting in a brisant explosion.	AFTE Glossary
<b>Detonating Cord</b>	A waterproof, flexible fabric tube containing a high explosive designed to transmit the detonation wave.	AAP-06
<b>Developmental Validation</b>	The acquisition of test data and determination of conditions and limitations of a new or novel DNA methodology for use on forensic and/or casework reference samples.	FBI DNA QAS
<b>Deviation</b>	An alteration or departure from a documented policy or standard procedure.	CSI Handbook
<b>Dialectology</b>	The study of how language varies with geographical location.	Speaker Identification
<b>Differential Amplification</b>	The selection of one target region or locus over another during the polymerase chain reaction. Differential amplification can also arise between two alleles within a single locus if one of the alleles has a mutation within a PCR primer binding site causing this allele to be copied less efficiently because of the primer template mismatch.	FBI DNA QAS
<b>Differential Degradation</b>	A DNA typing result in which contributors to a DNA mixture are subject to different levels of degradation (e.g., due to time of deposition), thereby impacting the mixture ratios across the entire profile.	SWGDM Glossary
<b>Digit</b>	<ol style="list-style-type: none"> <li>1. A toe or finger.</li> <li>2. Any of the numerals from 0 to 9, especially when forming part of a number.</li> </ol>	SWGFAST Glossary - modified
<b>Digital and Multimedia (D/MM) Forensics</b>	<ol style="list-style-type: none"> <li>1. Digital Forensics (D/MM Forensics) - In its strictest connotation, the application of computer science and investigative procedures involving the examination of digital evidence - following proper search authority, chain of custody, validation with mathematics, use of validated tools, repeatability, reporting, and possibly expert testimony. Beyond traditional legal purposes, the same techniques, scientific rigor, and procedural precision now support the range of military operations and courses of action (e.g., computer network operations as well as CI objectives).</li> <li>2. The application of computer science and investigative procedures involving the examination of D/MM material. D/MM forensics is derived from a combination of definitions as it applies across the spectrum of computer forensics, audio forensics, image analysis, and video analysis.</li> </ol>	<ol style="list-style-type: none"> <li>1. DoDD 5505.13E</li> <li>2. DoDD 5205.15E</li> </ol>
<b>Digital Evidence</b>	Information of probative value that is stored or transmitted in binary form.	SWGIT/SWGDE Glossary
<b>Digital Zoom</b>	A digital camera function used to make the image seem more close up by cropping and enlarging a photo. Digital zoom could be misleading because it enlarges the image without adding extra details.	FISWG Glossary
<b>Digitizing</b>	The process of converting an analogue signal into a digital form that can be used by a computer.	Speaker Identification - modified

TERM	DEFINITION	SOURCE
<b>Diphthong</b>	A vowel in a single syllable that involves a change in quality from one target to another. For example: "how," or "high."	Speaker Identification - modified
<b>Direct Copy Audio/Video</b>	An accurate and complete reproduction of all data objects independent of the physical media. (The unprocessed / unenhanced copy of the video recording).	SWGIT/SWGDE Glossary
<b>Directional Angle</b>	The angle (gamma) between the long axis of a spatter stain and a defined reference line on the target.	SWGSTAIN Glossary
<b>Directionality</b>	The characteristic of a bloodstain that indicates the direction blood was moving at the time of deposition.	SWGSTAIN Glossary
<b>Discharge</b>	To cause a firearm to fire.	AFTE Glossary
<b>Discrepancy</b>	The presence of friction ridge detail in one impression that does not exist in the corresponding area of another impression (compare with dissimilarity)	DFSC
<b>Discrete Utterance Recognition</b>	The process of recognizing a word or several words spoken as a single entry.	Performance of ASR
<b>Disseminate</b>	The ability to share information, analytical products, TTPs, etc., in a timely manner across the strategic, operational, and tactical levels within the joint, interagency, intergovernmental, and multinational environment.	AtN Handbook
<b>Dissociated Ridges</b>	Disrupted, rather than continuous, ridges; an area of ridge units that did not form into friction ridges.	SWGFAST Glossary
<b>Distal</b>	Situated away from the point of attachment or origin or a central point especially of the body	Oxford English Dictionary
<b>Distance Determination</b>	The process of determining the distance from the firearm, usually the muzzle, to the target based upon patterns of gunpowder or gunshot residues deposited upon that target. Where multiple projectiles, such as shot, have been fired, the spread of those projectiles is also indicative of distance.	AFTE Glossary
<b>Distinguishable Mixture</b>	A DNA mixture in which relative peak height ratios allow deconvolution of the profiles of major/minor contributor(s).	SWGDM Glossary
<b>Distribution</b>	The dispensing or imparting of physical features.	SWGUN Glossary
<b>Divergence</b>	The separation of two friction ridges that have been running parallel or nearly parallel.	SWGFAST Glossary
<b>D-Loop</b>	A portion of the mitochondrial genome known as the "control region" or "displacement loop" instrumental in the regulation and initiation of mtDNA gene products. Two short "hypervariable" regions within the D-loop do not appear to be functional and are the sequences used in identity or kinship testing.	NRC Manual

TERM	DEFINITION	SOURCE
<b>Document</b>	Information and its supporting medium. EXAMPLE Record, specification, procedure document, drawing, report, standard. Note 1 to entry: The medium can be paper, magnetic, electronic or optical computer disc, photograph, a combination thereof. Note 2 to entry: A set of documents, for example specifications and records, is frequently called “documentation”.	ISO 9000:2015
<b>Document and Media Exploitation (DOMEX)</b>	1. The processing, translation, analysis, and dissemination of collected hard-copy documents and electronic media that are under U.S. Government physical control and are not publicly available. In the Department of Defense this includes the handling of documents and media during their collection, initial review, inventory, and input to a database. 2. The collection, processing, translation, analysis, and dissemination of collected hard-copy documents and electronic media that are under U.S. Government physical control and are not publicly available. In the Department of Defense this includes the handling of documents and media during their collection, initial review, inventory, and input to a database. DOMEX includes DOCEX, MEDEX and CELLEX.	1. DoDD 3300.03 2. ATP 2-91.8
<b>Documentation</b>	Written notes, audio/videotapes, printed forms, sketches and/or photographs that form a detailed record of the scene, evidence recovered, and actions taken during the search of a crime scene or area of interest.	CSI Guide - modified
<b>DoD Cyber Crime Center (DC3)</b>	As an entity within the Department of the Air Force, DC3 is one of the designated National Cyber Centers and is the DoD Center of Excellence for establishing DoD standards for digital and multimedia forensics organizations, develops and provides specialized cyber investigative training for DoD and non-DoD personnel, and serves as the operational focal point for the Defense Industrial Base Cybersecurity Program. The Secretary of the Air Force is the Executive Agent for DC3 and its subordinate D&MM forensics laboratory services and cyber investigative training services.	DoDD 5505.13E
<b>DoD Electronic Biometric Transmission Specification (DoD EBTS)</b>	The DoD EBTS is a transmission specification to be used between DoD systems that capture biometric data and repositories of biometric data. The DoD EBTS does not attempt to specify all data used in all biometric enabled applications, rather, it allows for the definition of application specific data elements and transactions.	Biometrics Glossary v6
<b>Dot</b>	An isolated ridge unit whose length approximates its width in size.	SWGFAST Glossary
<b>Dots Per Inch (DPI)</b>	The printing resolution of an output device. Often referred to incorrectly as PPI (pixels per inch).	SWGFAST Glossary
<b>Down Sampling</b>	The process of representing an image with a smaller number of samples, also referred to as subsampling.	SWGFAST Glossary
<b>Drip Pattern</b>	A bloodstain pattern resulting from a liquid that dripped into another liquid, at least one of which was blood.	SWGSTAIN Glossary
<b>Drip Stain</b>	A bloodstain resulting from a falling drop that formed due to gravity.	SWGSTAIN Glossary



TERM	DEFINITION	SOURCE
<b>Drip Trail</b>	A bloodstain pattern resulting from the movement of a source of drip stains between two points.	SWGSTAIN Glossary
<b>Dropout</b>	When one or more alleles present in a sample are not observed above the analytical threshold	SWGDAM Glossary
<b>Drug Interdiction</b>	A continuum of events focused on interrupting illegal drugs smuggled by air, sea, or land.	JP 3-07.4
<b>Duct</b>	A tube or canal that delivers secretions or excretions.	SWGFAST Glossary
<b>Dynamic Range</b>	1. (Imagery) The difference between the brightest highlight and darkest value that a sensor (e.g., film or CCD) can detect and record in a single image. 2. (Audio & Video) The ratio of the strongest (undistorted) signal to that of the weakest (discernible) signal in a unit or system as expressed in decibels (dB). A way of stating the maximum signal to noise ratio.	SWGIT/SWGDE Glossary
<b>Dynamic Targeting</b>	Targeting that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting.	JP 3-60
<b>Dysplasia</b>	Ridge units that did not form complete friction ridges due to a genetic cause.	SWGFAST Glossary
<b>Eccrine Glands</b>	Sweat glands that open on all surfaces of the skin.	SWGFAST Glossary
<b>Ectrodactyly</b>	Congenital absence of all or part of a digit(s).	SWGFAST Glossary
<b>Edge Characteristic</b>	A physical feature of the periphery of a bloodstain.	SWGSTAIN Glossary
<b>Edgeoscopy</b>	Study of the morphological characteristics of friction ridges; contour or shape of the edges of friction ridges.	SWGFAST Glossary
<b>Ejection</b>	The process of expelling a cartridge, cartridge case, or shotshell from a firearm.	AFTE Glossary
<b>Ejection Port</b>	An opening in the receiver or slide to allow for ejection of a cartridge, cartridge case, or shotshell.	AFTE Glossary
<b>Ejector</b>	A mechanical device of a firearm which expels a cartridge, cartridge case, or shotshell.	AFTE Glossary
<b>Elasticity</b>	The ability of skin to recover from stretching, compression, or distortion.	SWGFAST Glossary
<b>Electro-Explosive Device (EED)</b>	An explosive or pyrotechnic component that initiates an explosive, burning, electrical, or mechanical train and is activated by the application of electrical energy.	JP 3-04
<b>Electromagnetic interference</b>	An electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics/electrical equipment.	NIJ Digital Guide
<b>Electronic Exploitation</b>	Electronic exploitation specialists characterize electronic components and conduct reverse engineering of electronic devices to assess trends, produce electronic profiles, study electronic and mechanical construction, identify transmission and reception frequencies, isolate voltages and codes, and develop any countermeasures. Electronic exploitation specialists conduct electronic profiling and disseminate technical information to commanders, intelligence staffs, force protection providers, and multinational partners. This information is used to achieve tactical, operational, and strategic objectives.	ATP 3-90.15

TERM	DEFINITION	SOURCE
<b>Electropherogram</b>	The Polymerase Chain Reaction (PCR) products separated by capillary electrophoresis can be labeled with a dye that glows at a given wavelength in response to light shined on it. As the tagged fragments pass the light source, an electronic camera records the intensity of the fluorescence. Plotting the intensity as a function of time produces a series of peaks, with the shorter fragments producing peaks sooner. The intensity is measured in relative fluorescent units and is proportional to the number of glowing fragments passing by the detector. The graph of the intensity over time is an electropherogram.	NRC Manual
<b>Electrostatic Dust Lifter</b>	A device that operates by charging a plastic film, placed over the dust print, which creates electrostatic adhesions and draws the film onto the surface bearing the print. The dust particles are attracted to the film because of this charge and adhere to it.	CSI Guide
<b>Elimination Prints</b>	Exemplars of friction ridge skin detail of persons known to have had access to the item examined for latent prints.	SWGFAST Glossary
<b>Empirical</b>	1. That which is seen or observed. 2. Relying on or derived from observation.	SWGUN Glossary
<b>Empirical Knowledge</b>	Propositional knowledge obtained by experience or testimony of others.	SWGUN Glossary
<b>Enclosure</b>	A single friction ridge that bifurcates and rejoins after a short course and continues as a single friction ridge.	SWGFAST Glossary
<b>Encryption</b>	Any procedure used in cryptography to convert plain text into cipher text in order to prevent anyone but the intended recipient from reading that data.	NIJ Digital Guide
<b>Ending Ridge</b>	A single friction ridge that terminates within the friction ridge structure.	SWGFAST Glossary
<b>Endonuclease</b>	An enzyme that cleaves the phosphodiester bond within a nucleotide chain.	NRC Manual
<b>Enhancement</b>	Process to intensify, magnify or clarify an observation or result	SWGIT/SWGDE Glossary - modified
<b>Enhancements</b>	An optional, deliberately added component as opposed to a secondary hazard which modifies the effects of the improvised explosive device (IED). The IED would be effective, yet produce a different measurable result if this material were not added. The effect can be additional physical destruction, proliferation of dangerous substances (radiation, chemicals, etc.), or other results to enhance the effect of the IED.	JP 3-15.1
<b>Entire Joint Image (EJI)</b>	An exemplar image containing all four full-finger views for a single finger: one rolled; left, center, and right plain.	ANSI/NIST-ITL 1-2011
<b>Environmental Conditions</b>	Any characteristic of a laboratory facility or the surrounding area that could reasonably be expected to impact the quality of the laboratory's work product (e.g., lighting, heating, ventilation, plumbing, wiring, air quality, terrain, etc.)	ASCLD/LAB Supplemental - modified
<b>Environmental Insult</b>	Exposure of DNA to external agents such as heat, moisture, and ultraviolet radiation, or chemical or bacterial agents. Such exposure can interfere with the enzymes used in the testing process or otherwise make DNA difficult to analyze.	NRC Manual
<b>Enzyme</b>	A protein that catalyzes (speeds up or slows down) a reaction.	NRC Manual

TERM	DEFINITION	SOURCE
<b>Epidemiology</b>	Statistical study of disease or injury in human populations.	NRC Manual
<b>Epidermis</b>	The outer layer of the skin.	SWGFAST Glossary
<b>Epigenetic</b>	Heritable changes in phenotype (appearance) or gene expression caused by mechanisms other than changes in the underlying DNA sequence. Epigenetic marks are molecules attached to DNA that can determine whether genes are active and used by the cell.	NRC Manual
<b>Epithelial Cells</b>	A type of cell that lines the cavities and surfaces of the human body, including skin cells, vaginal and oral cavities.	Mosby's Medical Dictionary - modified
<b>Equipment</b>	Equipment refers to all tools, instruments, software, reagents and chemicals that are used as part of the forensic science process which need to be monitored and controlled.	ILAC G19
<b>Erased File Recovery</b>	The process for recovering deleted files.	SWGIT/SWGDE Glossary
<b>Error Rate</b>	The frequency that any error in the application of a standard results in an erroneous result/interpretation. See "Type I Error" and "Type II Error" for further information on the two types of errors.	SWGGUN Glossary - modified
<b>Estimated Net Explosive Weight (NEW)</b>	A reference to the estimated weight of the main charge derived from observations of the blast effects and crater characteristics.	IED Lexicon 5th Ed
<b>Ethidium Bromide</b>	A molecule that can intercalate into DNA double helices when the helix is under torsional stress. Used to identify the presence of DNA in a sample by its fluorescence under ultraviolet light.	NRC Manual
<b>Ethylenediaminetetraacetic Acid (EDTA)</b>	A preservative added to blood samples.	NRC Manual
<b>Event</b>	A criminal or battlefield occurrence for which forensic item collection is performed.	Forensics Metrics
<b>Event Signature Development and Device Profiling.</b>	The process of analyzing the tactical and technical identifiers of an IED incident to support force protection, targeting, prosecution, and sourcing.	JP 3-15.1
<b>Evidence</b>	<ol style="list-style-type: none"> <li>1. Facts, observations, or things used to prove or disprove, determine, demonstrate, or support the truth of an assertion.</li> <li>2. Equivalent to 'test item' as described in ISO/IEC 17025:2005. Materials, regardless of form, which is received by a laboratory for the purpose of gleaning information relevant to a criminal investigation through examination by one or more of the laboratory's testing procedures.</li> </ol>	ATP 3-90.15
<b>Evidence Identifiers</b>	Tape, labels, containers, and string tags used to identify the evidence, the person collecting the evidence, the date the evidence was gathered, basic criminal offense information, and a brief description of the pertinent evidence.	CSI Guide

TERM	DEFINITION	SOURCE
<b>Evidence Procedures</b>	Standards for receiving, processing, safeguarding, and disposing of physical evidence.	AR 195-5
<b>Examination</b>	Equivalent to a test as described in ISO/IEC 17025:2005. The process(es) utilized by the laboratory analyst to glean information from evidence in order to reach conclusions concerning the nature of and/or associations related to evidence received by the laboratory.	ASCLD/LAB Supplemental
<b>Examination Records</b>	The documentation, whether hardcopy or electronic, of procedures followed, tests conducted, standards and controls used, diagrams, printouts, photographs, observations and results of testing and examinations. Examination records constitute a part of ‘technical records’.	ASCLD/LAB Supplemental
<b>Examiner</b>	An individual who conducts and/or directs the analysis of evidence, interprets the data, and reaches conclusions.	SWGgun Glossary
<b>Exclusion</b>	A conclusion that two samples did not originate from the same source.	SWGFAST Glossary
<b>Exculpatory Evidence</b>	Evidence that shows that a criminal charge is not substantiated by the evidence.	NIJ Digital Glossary
<b>Exemplar</b>	A specimen of physical evidence of known origin, commonly used for comparison to an unknown sample.	ASTM E1732 - modified
<b>Exhibit</b>	An item or sample recovered as part of an investigation. This includes everything recovered in the forensic science process including swabs, whole objects, and debris and may include derived items like casts of footprints, finger mark lifts. Exhibits may sometimes be referred to as ‘evidence’.	ILAC G19
<b>Expedition</b>	A military operation conducted by an armed force to accomplish a specific objective in a foreign country.	JP 1-02
<b>Expeditionary Force</b>	An armed force organized to accomplish a specific objective in a foreign country.	JP 3-0
<b>Expeditionary Forensic DNA Index System (EFDIS)</b>	The Expeditionary Forensics DNA Index System or EFDIS is a DNA database housed and maintained by the Defense Forensic Science Center (DFSC). The mission of this database is to provide an UNCLASSIFIED//FOUO database for profiles developed from expeditionary settings which are not suitable/appropriate for traditional law enforcement databases.	DFSC
<b>Expeditionary Forensics</b>	Forensic activities performed by an expeditionary force.	GAO-13-447 - modified
<b>Expeditionary Forensics Exploitation Capability (EFEC)</b>	The EFEC program provides tactical and operational level forensic technical exploitation capabilities required by Marine Corps forward deployed forces. This Marine Corps Program Code provides organic Marine Corps forensic capabilities that support the tactical commander with agile, ruggedized, and scalable expeditionary forensic capabilities that are compatible and fully integrated with joint, other Service, and interagency laboratories, yet also tailored to the unique operating requirements of the maritime domain. Maritime applications include the ability to support Marine Expeditionary Units and ruggedized construction for deployment of sensitive forensic testing and analysis equipment.	MCPC

TERM	DEFINITION	SOURCE
<b>Expiration Pattern</b>	A bloodstain pattern resulting from blood forced by airflow out of the nose, mouth, or a wound.	SWGSTAIN Glossary
<b>Exploit</b>	A piece of software or data that takes advantage of a bug, glitch, or vulnerability in order to cause unintended or unanticipated behavior to occur on computer software, hardware, or something computerized.	USARAF Glossary
<b>Exploitation</b>	<ol style="list-style-type: none"> <li>1. Taking full advantage of success in military operations, following up initial gains, and making permanent the temporary effects already created.</li> <li>2. Taking full advantage of any information that has come to hand for tactical, operational, or strategic purposes.</li> <li>3. An offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth.</li> </ol>	JP 1-02, JP 2-01.3
<b>Exploitation Analysis Center (EAC)</b>	A Special Operations Forces (SOF) expeditionary capability that utilizes forensics to ascertain Forensic Enabled Intelligence (FEI).	SOCOM
<b>Explosion</b>	The sudden release of a sufficient amount of energy to create a pressure wave. The energy to produce an explosion may come from a variety of sources including nuclear energy, pressure, or chemical reaction. Pressure related explosions include a rapid change in state (i.e., liquid to gas) or the over pressurization of a container (i.e., the failure of a gas cylinder). A chemical explosion is an event in which a quantity of matter is instantaneously converted to gaseous product with the generation of high temperature and pressure.	AFTE Glossary
<b>Explosive</b>	Any substance that violently changes to a gaseous form with accompanying heat and pressure through a chemical reaction. A low explosive (e.g., smokeless powder) deflagrates relatively slowly whereas a high explosive (e.g., TNT) detonates almost instantaneously producing a shattering effect. These substance are sometimes referred to as "Explosive Compounds."	AFTE Glossary
<b>Explosive Hazard</b>	Any hazard containing an explosive component to include unexploded explosive ordnance (including land mines), booby traps (some booby traps are nonexplosive), improvised explosive devices (which are an improvised type of booby trap), captured enemy ammunition, and bulk explosives.	JP 3-15
<b>Explosive Hazard Incident</b>	The suspected or detected presence of unexploded or damaged explosive ordnance that constitutes a hazard to operations, installations, personnel, or material. Not included in this definition are the accidental arming or other conditions that develop during the manufacture of high explosive material, technical service assembly operations, or the laying of mines and demolition charges.	JP 3-15.1
<b>Explosive Materiel Exploitation</b>	The technical exploitation of explosive material focuses on presumptive, confirmatory, and unambiguous testing on-site and at technical laboratories. Explosive material exploitation includes identification of charges and precursor elements, and often involves trace analysis of explosive residue.	ATP 3-90.15
<b>Explosive Ordnance</b>	All munitions containing explosives, nuclear fission or fusion materials, and biological and chemical agents.	JP 3-34

TERM	DEFINITION	SOURCE
<b>Explosive Ordnance Disposal (EOD)</b>	The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded explosive ordnance. Also called EOD.	JP 3-34
<b>Explosive Ordnance Disposal (EOD) Unit</b>	Personnel with special training and equipment who render explosive ordnance safe, make intelligence reports on such ordnance, and supervise the safe removal thereof.	JP 3-34
<b>Explosively Formed Projectile (EFP)</b>	A submunition made up of a cylindrical case filled with explosives which is capped by a shaped metal concave disc called a liner. Upon detonation, of the explosive charge reshapes the liner into a high velocity metal slug capable of penetrating armor.	EFP Patent - modified
<b>Exposure</b>	The quantity of light allowed to act on photographic material; a product of the intensity (controlled by the lens opening) and the duration (controlled by the shutter speed) of light striking the film or sensor.	NFSTC Glossary
<b>Expression</b>	Facial aspects resulting from muscle movement or position.	FISWG Glossary
<b>Extraction</b>	<ol style="list-style-type: none"> <li>1. (Firearms) The process of removing a cartridge, cartridge case, or shotshell from the chamber of a firearm.</li> <li>2. (Digital and Multimedia) A method of exporting data from a source (e.g., copying data from EnCase preview, dumping data from a cell phone).</li> <li>3. (Biology) The first step in DNA analysis whereby the DNA deposited on the sample is separated and purified. The goal of DNA extraction is to yield purified DNA in an aqueous, or liquid, solution that can be used in other applications.</li> </ol>	<ol style="list-style-type: none"> <li>1. AFTE Glossary</li> <li>2. SWGIT/SWGDE Glossary</li> <li>3. Forensic Laboratory Handbook</li> </ol>
<b>Extractor Marks</b>	Markings created on cartridge cases by the metal-to-metal contact between the cartridge case and the extractor and ejector mechanisms in the weapon. The extractor mechanism removes a cartridge from the chamber, while the ejector throws the cartridge away once it is extracted. Revolvers do not have ejectors, but automatic and semi-automatic weapons (pistols and rifles) do, and as a result the cartridge cases used in such weapons are designed differently from ammunition used in revolvers. Also known as "ejector marks."	A Dictionary of Forensic Science - modified
<b>Eyepiece</b>	The lens or combination of lenses nearest the eye of the viewer in an optical instrument that is designed to further magnify the primary image of the objective.	AFTE Glossary
<b>Face Detection</b>	Automated determination of the locations and sizes of human faces in digital images.	FISWG Glossary
<b>Face Recognition</b>	A biometric modality that uses an image of the visible physical structure of a biometric subject's face for recognition purposes.	NSTC Glossary
<b>Facial Examination</b>	Formal systematic examination (e.g., ACE-V) of two images to determine if the same person is depicted in both.	FISWG Glossary
<b>Facial Identification</b>	The manual expert examination of the differences and similarities between two facial images or a live subject and a facial image (one-to-one) for the purpose of determining if they represent the same person.	FISWG Glossary - modified
<b>Facial Mapping</b>	<ol style="list-style-type: none"> <li>1. The process of landmarking defined anthropological points.</li> <li>2. A colloquial term often mistakenly used to describe facial comparison.</li> </ol>	FISWG Glossary

TERM	DEFINITION	SOURCE
<b>Facility</b>	A facility is any physical environment used to protect the integrity of exhibits, conduct testing, or support any other aspect of the forensic science process, for example, permanent premises, offices, tents, storage area, mobile office, mobile laboratory, vehicles of the forensic unit.	ILAC G19
<b>False Match</b>	Comparison decision of “match” for a probe and a reference that are from different sources.	ISO/IEC 2382-37
<b>False Negative</b>	A type of error that occurs when a test or analysis produces incomplete or negative results when it should have been positive and/or definitive.	A Dictionary of Forensic Science
<b>False Non-Match</b>	Comparison decision of “non-match” for a probe and a reference that are from the same source.	ISO/IEC 2382-37
<b>False Positive</b>	A type of error that occurs when a test or analysis produces a positive result or incorrect result when it should not have.	A Dictionary of Forensic Science
<b>Faraday Bag</b>	Specialty collection bags for electronic parts with lining to protect the contents from electromagnetic forces.	CSI Guide
<b>Features</b>	<ol style="list-style-type: none"> <li>1. Observable class or individual characteristics.</li> <li>2. The components of biometric templates.</li> </ol>	FISWG Glossary
<b>Fibers</b>	Tendrils of material that can be natural or synthetic; animal, vegetable, or mineral in origin. Fibers can be first classified as natural or artificial fibers. Natural fibers include those of mineral origin such as glass wool or asbestos; vegetable origin (cotton and linen) and animal origin (wool). Hair is a specialized fiber of animal origin. Human hair is included in this category. Cotton is the most common vegetable fiber and is composed of cellulose, as are all plant fibers. The artificial or synthetic fibers encompass those that are derived from natural fibers and those that are completely synthetic.	A Dictionary of Forensic Science
<b>Field</b>	An element of a video signal containing alternate horizontal lines. For interlaced video, the scanning pattern is divided into two sets of spaced lines (odd and even) that are displayed sequentially. Each set of lines is called a field, and the interlaced set of the two sets of lines is a frame.	SWGIT/SWGDE Glossary
<b>Field Confirmatory Identification</b>	The employment of technologies with increased specificity and sensitivity by technical forces in a field environment to identify chemical, biological, radiological, and/or nuclear hazard with a moderate level of confidence and degree of certainty necessary to support follow-on tactical decisions.	ATP 3-11.37
<b>Field Presumptive Identification</b>	The employment of technologies with limited specificity and sensitivity by general-purpose forces in a field environment to determine the presence of a chemical, biological, radiological, and/or nuclear hazard with a low level of confidence and degree of certainty necessary to support immediate tactical decisions	ATP 3-11.37
<b>File Attribute</b>	Properties associated with the file that is kept with the file directory listing. Such attributes include the date and time the file was last accessed, created, or modified.	USARAF Glossary
<b>File Extension</b>	A tag of three or four letters, preceded by a period, which identifies a data file's format or the application used to create the file. File extensions can streamline the process of locating data. For example, if one is looking for incriminating pictures stored on a computer, one might begin with the .gif and .jpg files.	USARAF Glossary

TERM	DEFINITION	SOURCE
<b>File Format</b>	Refers to file type based on file structure, layout, or how a particular file handles the information (sounds, words, images) contained within it. A file's format is usually indicated by the three- or four-letter file extension in the MS-DOS filename, e.g., .doc or .jpg.	NIJ Digital Glossary
<b>File Signature</b>	Information contained within a file that identifies its type, even though the file's extension may have been altered.	USARAF Glossary
<b>File Slack</b>	The data between the logical end of a file and the end of the last storage unit for that file.	SWGIT/SWGDE Glossary
<b>File structure</b>	How an application program stores the contents of a file.	NIJ Digital Guide
<b>File system</b>	The way the operating system keeps track of the files on the drive.	NIJ Digital Guide
<b>Filter</b>	A colored piece of glass or other transparent material used over the lens to emphasize, eliminate, or change the color or density of the entire scene or certain areas within a scene.	NFSTC Glossary
<b>Fingerprint</b>	An impression, either two or three dimensional, produced by contact of a finger with a substrate. A two-dimensional fingerprint would be one deposited on a flat surface while a three-dimensional print, or plastic print, would be found in material such as putty. Fingerprints are defined by the patterns of friction ridges on the fingers.	A Dictionary of Forensic Science
<b>Fingerprint Developers</b>	Materials, chemicals, or reagents used to visualize latent fingerprints so that they can be clearly imaged for searching and comparison. Developers are selected based on the substrate characteristics such as color and porosity. Examples include fingerprint powders, chemical developers such as DFO and ninhydrin, chemical fuming agents such as cyanoacrylate (Super Glue) and nanoparticles such as cadmium sulphide (CdS).	A Dictionary of Forensic Science
<b>Fingerprint Powders</b>	Powders used to visualize friction ridge detail; Can be magnetic, non-magnetic, fluorescent, bichromatic, or a variety of mono-chromatic types. Latent print powder is most commonly black, and as such, is sometimes referred to simply as "black powder."	SWGFAST Glossary - modified
<b>Firearm</b>	An assembly of a barrel and action from which a projectile(s) is propelled by products of combustion. The legal definition of a firearm may vary by jurisdiction.	AFTE Glossary
<b>Firearms And Toolmark Analysis</b>	Forensic firearms and tool mark examination applies scientific practices to the examination of firearms, ammunition components, gunshot residue, bullet trajectories, and related materiel to determine the relationship of a firearm or tool to a person or event. This process is applied to standard and improvised weapons, where the information is used to determine weapon capabilities and country of origin.	ATP 3-90.15
<b>Firearms Identification</b>	A discipline of forensic science which has as its primary concern to determine if a bullet, cartridge case, or other ammunition component was fired by a particular firearm.	AFTE Glossary



TERM	DEFINITION	SOURCE
<b>Firearms Reference Library</b>	A collection of firearms maintained by a laboratory for the following reasons: -To identify the make, model, and source of evidence firearms. -To provide exemplar firearms for various testing purposes which otherwise compromise evidence firearms. -To provide an exemplar resource for training new examiners or in developing new technology for the examination of firearms. -To provide a source of firearms parts for the repair of evidence firearms for test firing purposes. -To provide a resource for the identification of firearms parts recovered at crime scenes. -To provide a resource for the location and style of firearms serial numbers.	AFTE Glossary
<b>Fired Standards</b>	A collection and cataloging of test fired bullets, cartridge cases, and shotshells from known firearms. Also known as known standards, ammunition standards, or reference ammunition.	AFTE Glossary
<b>Firewall</b>	A firewall allows or blocks traffic into and out of a private network or a user's computer, and is the primary method for keeping a computer secure from intruders. Also used to separate a company's public Web server from its internal network and to keep internal network segments secure.	NIJ Digital Glossary
<b>Firing Pin</b>	That part of a firearm mechanism which strikes the primer or rim of a cartridge to initiate ignition in order to fire a cartridge or shotshell.	AFTE Glossary
<b>Firing Pin Impression</b>	Small marks created in the primer by the impact of the firing pin. The action of pulling the trigger of a firearm causes the firing pin to strike the primer, which consists of a tiny amount of a shock sensitive explosive. The surface of the primer struck by the firing pin is relatively soft metal, which can pick up the pattern on the surface of the firing pin. Either as a result of the original machining or through use and wear, the markings on the surface of the firing pin will become unique.	A Dictionary of Forensic Science
<b>Firing Switch</b>	The component that initiates the explosive train.	IED Lexicon 5th Ed
<b>Fixed Ammunition</b>	A cartridge or shotgun shell comprised of a case, primer, propellant powder, and projectile(s).	AFTE Glossary
<b>Flame And Obscurants</b>	Includes flame materials and obscurants providing the military application of protection, marking, and deception.	JP 3-42
<b>Flame Technique</b>	Many common materials (e.g., camphor, magnesium, masking tape, nitro-cellulose, pine tar, titanium tetrachloride) burned to produce soot for detection of friction ridge detail.	SWGFAST Glossary
<b>Flat Fingerprint</b>	Fingerprints taken in which the finger is pressed down on a flat surface but not rolled. Also known as Plain Fingerprint.	Latent Print Matching
<b>Flow Pattern</b>	A bloodstain pattern resulting from the movement of a volume of blood on a surface due to gravity or movement of the target.	SWGSTAIN Glossary
<b>Fluorescence</b>	Emission of electromagnetic energy at a lower energy than that which was absorbed. When atoms or molecules absorb electromagnetic energy of the appropriate wavelength, the energy that is absorbed can be used to promote the electrons into what is called an excited state. Fluorescence can be used to classify and identify materials of interest to the forensic scientist and can be performed using techniques called spectrofluorimetry or using fluorescence microscopes.	Dictionary of Forensic Sciences - modified
<b>Fluorescent Powders</b>	Powder intended to reveal latent prints which contain fluorescent chemicals that reveal itself under a forensic light source.	CSI Guide

TERM	DEFINITION	SOURCE
<b>Focal Length</b>	Distance from the optical center of a lens to its point of focus at the sensor/image plane when focused at infinity. Smaller focal length values provide a wider field of view; larger focal length values provide a narrower field of view.	SWGIT/SWGDE Glossary
<b>Focal Points</b>	Those areas that are enclosed within the pattern area of loops and whorls. They are also known as the core and the delta.	SWGFAST Glossary
<b>Force Protection</b>	Preventive measures taken to mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. Also called FP. See also force; force protection condition; protection.	JP 1-02, JP 3-0
<b>Forensic</b>	Relates to the use of science or technology in the investigation and establishment of facts.	Biometrics Glossary v6 - modified
<b>Forensic Biology</b>	The identification and comparison of genetic materials from biological fluids (includes categories of testing such as DNA and Serology). Screening and stain identification are considered a fundamental part of the discipline.	ASCLD/LAB Supplemental
<b>Forensic Chemistry</b>	The scientific study of the composition, structure, properties, and interactions of chemicals to establish facts.	Merriam-Webster Dictionary - modified
<b>Forensic Copy</b>	In forensic computing investigations, an exact, bit-for-bit copy of media such as a hard disk drive or CD. Because all bits are copied, even those not used for current data storage, this copy represents an exact replica of the evidentiary media.	A Dictionary of Forensic Science
<b>Forensic Document Examiner</b>	One who studies the details and elements of documents in order to identify their source or determine their authenticity.	NFSTC Glossary
<b>Forensic Exploitation Directorate (FXD)</b>	A deployable forensic capability comprised of scalable and modular forensic exploitation teams which supports forensic analysis in remote locations and also utilizes reach back to CONUS forensic capability in the DFSC.	FXD Mission - modified

TERM	DEFINITION	SOURCE
<b>Forensic Exploitation Team (FXT)/ Forensic Exploitation Laboratory (FXL)</b>	<p>The FXL supports the full spectrum of dynamic, emerging military operations and homeland defense to meet traditional, irregular, disruptive and catastrophic challenges. Multi-disciplinary forensics contribute to examining sites; identifying, tracking and targeting the enemy; locating and identifying individuals; and assisting in partner nation criminal prosecutions. The FXL is inclusive of the FXT and the FXT can provide shelter space for some non-FXD forensic disciplines.</p> <ul style="list-style-type: none"> <li>• The FXL accomplishes these tasks by the forensic exploitation of material through latent print, DNA, firearms and tool marks, explosive and drug chemistry examinations. The FXL is structured to operate across a broad range of conditions from remote, austere field sites to institutional facilities.</li> <li>• The FXL can function in permissive operational environments (OE) and serves as a focal point for forensic collaboration and the sharing of this vital information. As a producer of forensic information.</li> <li>• The FXL is fully compliant with the needs and purposes of both the law enforcement and intelligence communities. Forensics exploitation supports information collection activities as defined in Army doctrine (FM 3-55) to answer to commander’s critical information requirements (CCIRs). The forensic collection capability is an operational activity which contributes to the all-source intelligence enterprise through the complementary intelligence capabilities of forensic-enabled intelligence (FEI), biometrics-enabled intelligence (BEI), Identity Intelligence (I2), document and media exploitation (DOMEX). The outputs from forensic exploitation provide key inputs into the technical intelligence (TECHINT) disciplines, including Weapons Technical Intelligence (WTI). The information resulting from forensic exploitation also supports criminal intelligence (CRIMINT) applications and police intelligence operations.</li> <li>• Additionally, ISO accreditation of the FXT maintains parity with the standards and technology advancements in the forensic disciplines world-wide. As a result, the FXL provides attribution of people things and events, removing anonymity from the battlefield in support of targeting and force protection.</li> <li>• The FXL is organized to meet the requirements of the Joint Force Commander. Deployed labs are configured to be scalable, tailorable, and modular in design. The lab includes scientific examiners, support personnel, shelters the instrumentation and supplies necessary to perform the required tasks.</li> </ul>	DFSC
<b>Forensic Facility</b>	Any physical environment used to protect the integrity of exhibits, conduct testing, or support any other aspect of the forensic science process. For example: permanent premises, offices, tents, storage area, mobile office, mobile laboratory, vehicles of the forensic unit.	ILAC G19
<b>Forensic Functions</b>	The six forensic functions as defined by the Concept of Operation for DoD Forensics are: forensic materiel/specimen recognition, preservation, collection, analysis, storage, and sharing	DoDD 5205.15E
<b>Forensic Image</b>	A forensic image is an evidence file container created by special software that a forensic examiner uses to capture data from an original evidence source. This special evidence container or “image” can be of logical files or of a complete physical hard disk or other loose media.	USARAF Glossary
<b>Forensic Science</b>	The application of multidisciplinary scientific processes to establish facts.	DoDD 5205.15E

TERM	DEFINITION	SOURCE
<b>Forensic Science Service Provider</b>	A legal entity or a defined part of a legal entity that performs any part of the forensic science process.	ILAC G19 - modified
<b>Forensic Wipe</b>	A verifiable procedure for sanitizing a defined area of digital media by overwriting each byte with a known value.	SWGIT/SWGDE Glossary
<b>Forensically clean</b>	Digital media that are completely wiped of nonessential and residual data, scanned for viruses, and verified before use.	NIJ Digital Guide
<b>Forensics Enabled Intelligence</b>	A category of intelligence that links persons, places, and events by the scientific analysis, characterization, and exploitation of materials, samples, devices, output signals or debris. Forensic intelligence supports multiple communities, including operations, intelligence, policy makers, law enforcement, and others.	DoDD 5205.15E
<b>Forensics Information</b>	The information, data, and material used in and derived from the forensic science process.	DFE Strategy - modified
<b>Format Conversion</b>	To transfer audio and/or video information from one media type to another and/or from one recording method to another.	SWGIT/SWGDE Glossary
<b>Forward Spatter Pattern</b>	A bloodstain pattern resulting from blood drops that traveled in the same direction as the impact force.	SWGSTAIN Glossary
<b>Fracture Match</b>	The examination of two or more objects either through physical, optical, or photographic means which permits one to conclude whether the objects were either one entity or were held or bonded together in a unique arrangement. Also known as a physical match.	AFTE Glossary
<b>Fracture Pattern</b>	The spatial arrangement of each complementary edge formation created when a single object is separated into two or more fragments.	ASTM E2287
<b>Frame</b>	Lines of spatial information of a video signal. For interlaced video, a frame consists of two fields, one of odd lines and one of even lines, displayed in sequence. For progressive scan (non-interlaced) video, the frame is written through successive lines that start at the top left of the picture and finish at the bottom right.	SWGIT/SWGDE Glossary
<b>Free Space</b>	Data storage areas available for use by the computer. The area may already contain previously stored information. Also referred to as Unallocated Space.	SWGIT/SWGDE Glossary
<b>Frequency Distribution</b>	A mathematical function or table which shows how often specified values occur in a dataset	NRC Manual - modified
<b>Frequency; Relative Frequency</b>	Frequency is the number of times that something occurs; relative frequency is the number of occurrences, relative to a total. For example, if a coin is tossed 1000 times and lands heads 517 times, the frequency of heads is 517; the relative frequency is 0.517, or 51.7%.	NRC Manual
<b>Friction Ridge</b>	The ridges present on the skin of the fingers and toes, and on the palms and soles of the feet, which make contact with an incident surface under normal touch. On the fingers, the distinctive patterns formed by the friction ridges that make up the fingerprints.	Biometrics Glossary v6

TERM	DEFINITION	SOURCE
<b>Friction Ridge Detail (Morphology)</b>	An area comprised of the combination of ridge flow, ridge characteristics, and ridge structure.	SWGFAST Glossary
<b>Friction Ridge Unit</b>	Single section of friction ridge containing one pore.	SWGFAST Glossary
<b>Friendly Networks</b>	Friendly networks are networks that are sympathetic to or assisting directly or indirectly with our mission. They include the military and civil components and non-governmental organizations associated with allied coalition forces and host nation forces. They are characterized as green or blue.	AtN Handbook
<b>Frontal Pose</b>	A facial image captured from directly in front of the subject with the focal plane approximately parallel to the plane of the subject's face.	FISWG Glossary
<b>Fuel Oxidizer explosive Mixture (FOX)</b>	An explosive mixture of fuel and oxidizer that deflagrates (very rapid burning) or detonates creating a blast wave.	IED Lexicon 5th Ed
<b>Functional Analysis</b>	In network nodal analysis, functional analysis is the examination of the purposes of the network and its components.	AtN Handbook
<b>Furrows</b>	Valleys or depressions between the friction ridges.	SWGFAST Glossary
<b>Fuze</b>	A device which initiates an explosive train.	FM 1-02
<b>Gait</b>	A biometric subject's manner of walking.	NSTC Glossary
<b>Gaussian Blur</b>	A function typically used to reduce image noise and detail using a specific mathematical function known as the "Gaussian Kernel" or "bell-curve". The visual effect of this technique is a smoothing of image features as if viewing the image through a translucent filter.	SWGIT/SWGDE Glossary
<b>Gel Electrophoresis</b>	The process of sorting DNA fragments by size by applying an electric current to a gel. The different-size fragments move at different rates through the gel.	NRC Manual - modified
<b>Gene</b>	A set of nucleotide base pairs on a chromosome that contains the "instructions" for controlling some cellular function such as making an enzyme. The gene is the fundamental unit of heredity; each simple gene "codes" for a specific biological characteristic.	NRC Manual
<b>Gene Frequency</b>	The relative frequency (proportion) of an allele in a population.	NRC Manual
<b>Genetic Drift</b>	Random fluctuation in a population's allele frequencies from generation to generation.	NRC Manual
<b>Genetics</b>	The study of the patterns, processes, and mechanisms of inheritance of biological characteristics.	NRC Manual
<b>Genome</b>	The complete genetic makeup of an organism, including roughly 23,000 genes and many other DNA sequences in humans. Over three billion nucleotide base pairs comprise the haploid human genome.	NRC Manual
<b>Genotype</b>	The particular forms (alleles) of a set of genes possessed by an organism (as distinguished from phenotype, which refers to how the genotype expresses itself, as in physical appearance). In DNA analysis, the term is applied to the variations within all DNA regions (whether or not they constitute genes) that are analyzed.	NRC Manual
<b>Geotag</b>	GPS coordinates added to files as metadata.	SWGIT/SWGDE Glossary

TERM	DEFINITION	SOURCE
<b>Global Forensic Exploitation Center (GFXC)</b>	GFXC is FXD's operational surge and overflow forensic laboratory support. The Forensic Exploitation Teams (FXTs) rotate through CONUS and OCONUS support. The GFXC provides comprehensive Forensic Analysis to support all DoD organizations and overflow support to deployed labs.	DFSC
<b>Green Networks</b>	Green networks are military and government civilian host-nation forces.	AtN Handbook
<b>Grooves</b>	Depressed or cut channels in the bore of a firearm barrel to impart rotary motion to a projectile.	AFTE Glossary
<b>Guanine (G)</b>	One of the four bases, or nucleotides, that make up the DNA double helix. Guanine binds only to cytosine.	NRC Manual
<b>Guidelines</b>	Suggestions to optimize the accuracy and precision of methods. Guidelines are not mandatory, but represent a "best-case-scenario" for analysts and laboratories with the means to achieve them. Guidelines have a wider tolerance in operational parameters within which the accuracy and precision of analyses is assured.	SWGILD Glossary - modified
<b>Gunpowder</b>	A variety of powders used in firearms as a propellant charge. A term commonly used when referring to cartridge and muzzle loading propellant. Refer to the Gunshot Residue Section for various types of gunpowder.	AFTE Glossary
<b>Gunshot Residue (GSR)</b>	The total residues resulting from the discharge of a firearm. It includes both propellant and primer residues, carbonaceous material plus metallic residues from projectiles, fouling, and any lubricant associated with the bullets.	AFTE Glossary
<b>Half-Life</b>	The time required for the activity of a given radioactive species to decrease to half of its initial value due to radioactive decay.	JP 3-11
<b>Hammer</b>	A component of the firing mechanism which strikes the firing pin or primer.	AFTE Glossary
<b>Handgun</b>	A firearm designed to be held and fired with one hand.	AFTE Glossary
<b>Handheld Interagency Identity Detection Equipment (HIIDE)</b>	A portable biometric collection device that collects iris, fingerprint and facial data. It can be preloaded with a watchlist for data comparison. A peripheral device to the BAT and provides untethered biometrics verification and in some cases a collection capability. Together the BAT and HIIDE capture, transmit, store, share, retrieve, match, and display biometrics data to identify known persons of interest.	ATP 2-22.85
<b>Handwriting Identification</b>	The attempt to verify a person's handwriting by comparing a document in question to a known handwriting sample. This term is preferred over "handwriting analysis" which usually refers to those who attempt to determine the character traits of a person by examining handwriting samples.	NFSTC Glossary
<b>Haploid Number</b>	Human sex cells (egg and sperm) contain 23 chromosomes each. This is the haploid number. When a sperm cell fertilizes an egg cell, the number of chromosomes doubles to 46. This is the diploid number.	NRC Manual
<b>Haplotype</b>	A specific combination of linked alleles at several loci.	NRC Manual
<b>Hardy-Weinberg Equilibrium</b>	A condition in which the allele frequencies within a large, random, inbreeding population are unrelated to patterns of mating. In this condition, the occurrence of alleles from each parent will be independent and have a joint frequency estimated by the product rule. See independence, linkage disequilibrium.	NRC Manual
<b>Hash Value</b>	Numerical values, generated by hashing functions, used to substantiate the integrity of digital evidence and/or for inclusion /exclusion comparisons against known value sets. Also referred to as a "checksum."	SWGIT/SWGDE Glossary

TERM	DEFINITION	SOURCE
<b>Hashing</b>	The process of using a mathematical algorithm against data to produce a numeric value that is representative of that data.	NIJ Digital Guide
<b>Hashing Function</b>	An established mathematical calculation that generates a numerical value based on input data. This numerical value is referred to as the hash or hash value.	SWGIT/SWGDE Glossary
<b>Hazard</b>	A condition with the potential to cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation.	JP 3-33
<b>Hazardous Cargo</b>	Cargo that includes not only large bulk-type categories such as explosives, pyrotechnics, petroleum, oils, and lubricants, compressed gases, corrosives and batteries, but lesser quantity materials like super-tropical bleach (oxidizer), pesticides, poisons, medicines, specialized medical chemicals and medical waste that can be loaded as cargo.	JP 3-02.1
<b>Header</b>	In many disciplines of computer science, a header is a unit of information that precedes a data object. In a network transmission, a header is part of the data packet and contains transparent information about the file or the transmission. In file management, a header is a region at the beginning of each file where bookkeeping information is kept. The file header may contain the date the file was created, the date it was last updated, and the file's size. The header can be accessed only by the operating system or by specialized programs.	NIJ Digital Glossary
<b>Headstamp</b>	Numerals, letters, and symbols (or a combination thereof) stamped into the head of a cartridge case or shell to identify the manufacturer, caliber, gauge, or other additional information.	AFTE Glossary
<b>Heteroplasmy, Heteroplasy</b>	The condition in which some copies of mitochondrial DNA in the same individual have different base pairs at certain points.	NRC Manual
<b>Heterozygous</b>	Having a different allele at a given locus on each of a pair of homologous chromosomes, usually manifested as two distinct peaks for a locus in an electropherogram.	NRC Manual - modified
<b>High Explosive</b>	A chemical compound or mixture that is capable of supporting or sustaining a detonation wave. High explosives do not require confinement as they combust instantaneously producing heat, gas, a rapid expansion of matter, and a detonation/shock wave.	IED Lexicon 5th Ed
<b>Histogram</b>	A graph of a frequency distribution in which rectangles with bases on the horizontal axis are given widths equal to the class intervals and heights equal to the corresponding frequencies. In digital images, a histogram is frequently used to document the number of pixels of a given brightness value (e.g., 0-255).	FISWG Glossary
<b>Holistic Comparison</b>	The process of comparing faces by looking at the face as a whole and not the component parts in isolation.	FISWG Glossary
<b>Homeland Defense</b>	The protection of United States sovereignty, territory, domestic population, and critical infrastructure against external threats and aggression or other threats as directed by the President. Also called HD.	JP 3-27
<b>Homemade Explosive (HME)</b>	Non-standard explosive mixtures/compounds which have been formulated/synthesized from available ingredients. Most often utilized in the absence of commercial/military explosives. Also called Improvised Explosive (IE).	IED Lexicon 5th Ed

TERM	DEFINITION	SOURCE
<b>Homologous Chromosomes</b>	The 44 autosomes (non-sex chromosomes) in the normal human genome are in homologous pairs (one from each parent) that share an identical set of genes, but may have different alleles at the same loci.	NRC Manual
<b>Homozygous</b>	Having the same allele at a given locus on each of a pair of homologous chromosomes, manifested as a single peak for a locus in an electropherogram.	NRC Manual
<b>Honey Pot</b>	A trap set to detect, deflect, or in some manner counteract attempts at unauthorized use of information systems. Generally it consists of a computer, data, or a network site that appears to be part of a network, but is actually isolated, (un)protected, and monitored, and which seems to contain information or a resource of value to attackers.	JP 3-13.4
<b>Hot Spots</b>	Bright areas of light reflecting on a face that reduce visibility of features.	FISWG Glossary
<b>Hypothenar Area</b>	The friction ridge skin on the palm, below the interdigital area on the ulnar side of the palm.	SWGFAST Glossary
<b>Identifiable Striae</b>	Striations in the evidence mark which can be identified with reproduced striations in the test marks.	AFTE Glossary
<b>Identification</b>	<ol style="list-style-type: none"> <li>1. The process of determining the friendly or hostile character of an unknown detected contact.</li> <li>2. In arms control, the process of determining which nation is responsible for the detected violations of any arms control measure.</li> <li>3. In ground combat operations, discrimination between recognizable objects as being friendly or enemy, or the name that belongs to the object as a member of a class.</li> <li>4. An act or process that presents an identifier to a system so that the system can recognize a system entity (e.g., user, process, or device) and distinguish that entity from all others.</li> </ol>	<ol style="list-style-type: none"> <li>1-3. JP 3-01</li> <li>4. CNSSI 4009</li> </ol>
<b>Identification Rate</b>	The rate at which a biometric subject in a database is correctly identified.	NSTC Glossary
<b>Identifier</b>	A unique data string used as a key in the biometric system to name a biometric subject's identity and its associated attributes. An example of an identifier would be a passport number.	Biometric Verification Mode
<b>Identity</b>	A set of characteristics by which an entity (e.g., human, application, device, service or process) is recognizable and is sufficient to distinguish that entity from every other entity.	IdM Strat Plan
<b>Identity Activities</b>	A collection of functions and actions conducted to effectively recognize, characterize, or differentiates one human entity from other human entities to support decision making.	JDN Identity Activities - modified
<b>Identity Claim</b>	A statement that a biometric subject is or is not the source of a reference in a database. Claims can be positive (I am in the database), negative (I am not in the database), or specific (I am end user 123 in the database).	NSTC Glossary
<b>Identity Data</b>	The set of values corresponding to biometric, forensic, or intelligence attributes by which an entity is recognizable and that is sufficient to distinguish that entity from any other entity.	CNSSI 4009-modified
<b>Identity Intelligence (I2)</b>	The intelligence resulting from the processing of identity attributes concerning individuals, groups, networks, or populations of interest.	JP 2-0
<b>Ignitor</b>	A device designed to produce a flame or a spark to initiate an explosive train.	IED Lexicon 5th Ed



TERM	DEFINITION	SOURCE
<b>Image</b>	An accurate digital representation of all data contained on a digital storage device (e.g., hard drive, CD-ROM, flash memory, floppy disk, Zip®, Jaz®). Maintains contents and attributes, but may include metadata such as CRCs, hash value, and audit information.	NIJ Digital Guide
<b>Image Alteration Detection</b>	The evaluation of an image structure and content to determine the image in question is an accurate representation of a known image or contains evidence of manipulation, image creation, and consistency.	SWGIT/SWGDE Glossary
<b>Image Analysis</b>	A sub-discipline of Digital & Multimedia Forensics, which involves the application of image science and domain expertise to examine and interpret the content of an image and/or the image itself in legal matters.	DoDD 5205.15E
<b>Image Averaging</b>	The process of averaging similar images, such as sequential video frames, to reduce noise in stationary scenes.	SWGIT/SWGDE Glossary
<b>Image Comparison</b>	The process of comparing images of questioned objects or persons to known objects or persons or images thereof, and making an assessment of the correspondence between features in these images for rendering an opinion regarding identification or elimination.	SWGIT/SWGDE Glossary
<b>Image Content Analysis</b>	The drawing of conclusions about an image. Targets for content analysis include, but are not limited to: the subjects/objects within an image; the conditions under which, or the process by which, the image was captured or created; the physical aspects of the scene (e.g., lighting or composition); and/or the provenance of the image.	SWGIT/SWGDE Glossary
<b>Image Enhancement</b>	Any process intended to improve the visual appearance of an image or specific features within an image.	SWGIT/SWGDE Glossary
<b>Imagery</b>	A likeness or presentation of any natural or man-made feature or related object or activity, and the positional data acquired at the same time the likeness or representation was acquired, including: products produced by space-based national intelligence reconnaissance systems; and likeness and presentations produced by satellites, airborne platforms, unmanned aerial vehicles, or other similar means (except that such term does not include handheld or clandestine photography taken by or on behalf of human intelligence collection organizations).	JP 2-03
<b>Imagery Exploitation</b>	The cycle of processing, using, interpreting, mensuration and/or manipulating imagery, and any assembly or consolidation of the results for dissemination.	JP 2-03
<b>Imagery Intelligence</b>	The technical, geographic, and intelligence information derived through the interpretation or analysis of imagery and collateral materials.	JP 2-03
<b>Impact</b>	The striking of one thing against another; collision (e.g., a bullet or projectile strike on a target).	AFTE Glossary
<b>Impact Pattern</b>	A bloodstain pattern resulting from an object striking liquid blood.	SWGSTAIN Glossary

TERM	DEFINITION	SOURCE
<b>Impartiality</b>	The presence of objectivity. Note 1 to entry: Objectivity is understood to mean that conflicts of interest do not exist, or are resolved so as not to adversely influence the activities of the laboratory. Note 2 to entry: Other terms that are useful in conveying the element of impartiality are independence, freedom from conflicts of interest, freedom from bias, freedom from prejudice, neutrality, fairness, open-mindedness, even-handedness, detachment and balance	ISO/IEC 17021-1:2015, 3.2
<b>Impostor</b>	A subversive biometric capture subject who performs a biometric impostor attack.	ISO/IEC 2382-37
<b>Impression Evidence</b>	Physical evidence that results from the contact between two objects or surfaces. In general, an imprint is considered to be a flat impression (thin, as a fingerprint on glass), while an indentation also has depth such as the muddy shoe print. Examples of impression evidence include markings made on cartridge cases and bullets; bite marks; toolmarks; fabric impressions; shoe prints; tire prints; and in many cases, fingerprints.	A Dictionary of Forensic Science - modified
<b>Improvised Explosive (IE)</b>	Non-standard explosive mixtures/compounds which have been formulated/synthesized from available ingredients. Most often utilized in the absence of commercial/military explosives. Also called Homemade Explosive (HME)	IED Lexicon 5th Ed
<b>Improvised Explosive Device (IED)</b>	A device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy, incapacitate, harass, or distract. It may incorporate military stores, but is normally devised from nonmilitary components.	JP 1-02
<b>Incapacitating Agent</b>	A chemical agent, which produces temporary disabling conditions that can be physical or mental and persist for hours or days after exposure to the agent has ceased.	JP 3-11
<b>Incendiary</b>	Chemical mixtures and flammable liquids that cause fire.	JP 3-15.1
<b>Incident</b>	An occurrence, caused by either human action or natural phenomena, that requires action to prevent or minimize loss of life, or damage, loss of, or other risks to property, information, and/or natural resources.	JP 3-28
<b>Incipient Ridge</b>	A friction ridge not fully developed which may appear shorter and thinner in appearance than fully developed friction ridges (interstitial, nascent).	SWGFAST Glossary
<b>Inclusion</b>	A conclusion resulting from forensic examination which indicates that the test results from a standard sample from a known source are consistent with the test results from the unknown crime scene sample.	SWGDM Glossary - modified
<b>Inconclusive</b>	A determination that no conclusion (i.e., inclusion/exclusion) can be drawn from the comparison of a reference sample to suitable data. This could also result from statistical analyses that fail to provide sufficient support for an inclusion or exclusion.	SWGDM Glossary
<b>Indentations</b>	Latent or visible impressions in paper or other media	ASTM E2195
<b>Indented Writing</b>	Writing that is transferred by the pressure of the writing instrument (pen, pencil, and so on) to the paper or other material that is beneath it. Indented writing is often undetectable to the naked eye and as such can be overlooked by a criminal. Accordingly, indented writing is a common form of questioned document evidence.	A Dictionary of Forensic Science

TERM	DEFINITION	SOURCE
<b>Independent Test Result</b>	Result obtained in a manner not influenced by any previous results on the same or similar material.	SWGDRUG Glossary
<b>Indirect Transfer</b>	A transfer of physical evidence that is not directly from the source. For example, a person could carry fibers from the carpet in their home on their clothing and these could in turn be transferred to a car seat and then to another person. These are all indirect transfers as opposed to a direct person-to-person transfer.	A Dictionary of Forensic Science
<b>Indistinguishable Mixture</b>	A DNA mixture in which relative peak height ratios are insufficient to attribute alleles to individual contributor(s).	SWGDM Glossary
<b>Individual Characteristics</b>	Characteristics allowing one to differentiate between individuals having the same class characteristics.	FISWG Glossary - modified
<b>Individual Protective Equipment</b>	In chemical, biological, radiological, or nuclear operations, the personal clothing and equipment required to protect an individual from chemical, biological, and radiological hazards and some nuclear hazards. Also called IPE.	JP 3-11
<b>Individualization</b>	A conclusion resulting from forensic examination which indicates that there is sufficient quality and quantity of detail in agreement between two samples as to determine they originated from the same source.	FISWG Glossary - modified
<b>Infrared</b>	The part of the invisible spectrum of light that is contiguous to the red end of the visible light spectrum. The infrared spectrum of light comprises electromagnetic radiation of wavelengths from approximately 800 nm to 1mm.	AFTE Glossary
<b>Infrared Photography</b>	A photographic process of recording images by using light from the infrared (IR) spectrum only, generally 700 to 900 nanometers.	CSI Guide
<b>Infrared Spectroscopy</b>	The study (or measurement) of infrared light with matter. It is used to identify functional groups in chemicals which may provide for chemical identification.	AFTE Glossary - modified
<b>Inherent Luminescence</b>	Luminescence resulting from selected wavelength illumination without chemical treatment.	SWGFAST Glossary
<b>Initial Radiation</b>	The radiation, essentially neutrons and gamma rays, resulting from a nuclear burst and emitted from the fireball within one minute after burst.	JP 3-11
<b>Initiator</b>	An initiator is a device that starts a detonation or deflagration. Usually, the initiator is an electric or nonelectric blasting cap; however, enemies have demonstrated the ability to make improvised initiators. Examples of nonelectric initiators include flame or spark initiators, friction-initiated devices, stab initiators, chemical initiators, and percussion initiators.	ATP 3-90.37
<b>Insect Stain</b>	A bloodstain resulting from insect activity.	SWGSTAIN Glossary
<b>Insurgency</b>	The organized use of subversion and violence to seize, nullify, or challenge political control of a region. Insurgency can also refer to the group itself.	JP 3-24
<b>Insurgent</b>	A person who uses subversion and/or violence to seize, nullify, or challenge the political control of a region.	JP 3-24 - modified

TERM	DEFINITION	SOURCE
<b>Integrity Verification</b>	The process of confirming that the data presented is complete and unaltered since time of acquisition.	SWGIT/SWGDE Glossary
<b>Intelligence and Information Warfare Directorate (I2WD)</b>	The Intelligence and Information Warfare Directorate is the Army's center for research and development of advanced cyber operations, electronic warfare, signals intelligence technologies, radar, and intelligence analysis, exploitation, and dissemination capabilities. The I2WD researches, develops and evaluates intelligence, surveillance and reconnaissance, electronic warfare and cyber technologies to provide effective, proactive situational awareness, and tracking, targeting and survivability solutions that transition into operational, relevant capabilities for the Soldier. From initial concept through fielding, I2WD spans the lifecycle of these systems and provides engineering and management support to Program Executive Offices. I2WD leverages in-house expertise and technologies to provide state-of-the-art systems and solutions for quick reaction capabilities necessary to address urgent, operational needs for the Army. The I2WD operates Defense Department and industry-unique laboratories and testing facilities to test and evaluate developmental systems in a controlled, realistic environment.	I2WD
<b>Interdigital</b>	Palmar area below the fingers and above the thenar and hypothenar areas.	SWGFAST Glossary
<b>Interlaboratory Comparison</b>	Organization, performance and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions.	ISO/IEC 17043:2010
<b>Intermediate Storage</b>	Any media or device on which data is temporarily stored for transfer to permanent or archival storage.	SWGIT/SWGDE Glossary
<b>Internal Validation</b>	The accumulation of test data within the laboratory to demonstrate that established methods and procedures perform as expected in the laboratory.	FBI DNA QAS
<b>Interoperability</b>	The condition achieved among communications-electronics systems or items of communications-electronics equipment when information or services can be exchanged directly and satisfactorily between them and/or their users. (JP 1-02. SOURCE: JP 6-0)	JP 1-02, JP 6-0
<b>Interpolation</b>	A method of image processing whereby one pixel, block, or frame is displayed or stored based on the differences between the previous and subsequent pixel, block, or frame of information. [Taken from the Encyclopedia of Photography 3rd Edition] This is often done to increase the apparent clarity of an image. When used to decrease image size, interpolation is generally referred to as down sampling.	SWGIT/SWGDE Glossary - modified
<b>Intervening Ridges</b>	The number of friction ridges between two characteristics.	SWGFAST Glossary
<b>Intimate Sample</b>	A biological sample from an evidence item that is obtained directly from an individual's body; it is not unexpected to detect that individual's allele(s) in the DNA typing results.	SWGDM Glossary
<b>Investigative Area</b>	A section of a forensics unit that deals with a specific type of analytic processes and items. Examples include Drugs, Fingerprints, Explosives, and Firearms.	Forensics Metrics
<b>Investigator</b>	A person, however named, trained to perform scene of crime examinations and/or investigations. Other names used for this function are, for example, Scene of Crime Officer, Crime Scene Investigator, Scene of Crime investigator and Scene of Crime Examiner.	ASCLD/LAB Supplemental

TERM	DEFINITION	SOURCE
<b>Ionizing Radiation</b>	Particulate (alpha, beta, and neutron) and electromagnetic (X-ray and gamma) radiation of sufficient energy to displace electrons from atoms, producing ions.	JP 3-11
<b>Iris Recognition</b>	A biometric modality that uses an image of the physical structure of a biometric subject's iris for recognition purposes.	NSTC Glossary
<b>Isolated Words</b>	Words spoken with pauses (typically with duration in excess of 200 ms) before and after each words.	Performance of ASR
<b>Item</b>	A physical object, which possibly contains forensic information present at the scene of an event. A single item may be used in analysis of several investigative areas.	Forensics Metrics
<b>Kernel</b>	An individual particle of any of the various forms of smokeless powder or the various granulations of black powder. Also known as a granule.	AFTE Glossary
<b>Key</b>	A numerical value derived from the ridge count of the first loop beginning with the right thumb exclusive of the little fingers.	SWGFAST Glossary
<b>Keystroke Dynamics</b>	A potential biometric modality that uses the cadence of a biometric subject's typing pattern for recognition.	NSTC Glossary
<b>Kilobase (Kb)</b>	A measure of DNA length (1000 bases).	NRC Manual
<b>Known</b>	In the context of evidence, the material for which the character under investigation (e.g. individual identity, geographic source) is unquestioned. This serves as the basis for comparison to questioned material for the purpose of individual matching.	SWGWILD Glossary
<b>Known Or Suspected Terrorist</b>	An individual known or appropriately suspected to be or have been engaged in conduct constituting, in preparation for, in aid of, or related to terrorism.	JDN Identity Activities
<b>Laboratory</b>	The entity providing the forensic analysis, including the staff and the physical facility.	SWGWILD Glossary - modified
<b>Laboratory Information Management System</b>	A computer system used to register samples and record and process results of analyses. Uses may be extended to cover all aspects of laboratory management, including operation of the quality system and the issuing of reports.	Complying with ISO 17025
<b>Laboratory Support Personnel</b>	Employees or contract employees who perform laboratory duties exclusive of analytical techniques on forensic or database samples.	FBI DNA QAS
<b>Land</b>	The raised portion between the grooves in a rifled barrel.	AFTE Glossary
<b>LASER</b>	Light Amplification by Stimulated Emission of Radiation. A device that produces a coherent wavelength(s) of light.	SWGFAST Glossary
<b>Latent Print</b>	Transferred impression of friction ridge detail not readily visible; generic term used for questioned friction ridge detail.	SWGFAST Glossary

TERM	DEFINITION	SOURCE
<b>Latent Print Examination</b>	Latent print examination compares unknown biometric attributes to reference data maintained in authoritative repositories. The sophistication of latent print processing increases from its capture at an exploitation site through advanced technical exploitation. Unknown prints are compared to known prints by certified fingerprint and biometric experts or by automated databases.	ATP 3-90.15
<b>Latent Sample</b>	A biometric residue that is dormant, inactive, or non-evident but can be captured, measured and stored.	Biometrics Glossary v6
<b>Legacy Data</b>	Important electronic information created by software and/or hardware that is outmoded or obsolete.	USARAF Glossary
<b>Legacy System</b>	Software and/or hardware that has been rendered outmoded or obsolete. A legacy system is often retained despite being decommissioned “in case” its information is needed in the future.	USARAF Glossary
<b>Level 1-3 Detail (Latent Prints)</b>	<ol style="list-style-type: none"> <li>1. (Level 1) Friction ridge flow and general morphological information.</li> <li>2. (Level 2) Individual friction ridge paths and friction ridge events (e.g., bifurcations, ending ridges, and dots).</li> <li>3. (Level 3) Friction ridge dimensional attributes (e.g., width, edge shapes, and pores).</li> </ol>	SWGFAST Glossary
<b>Levels Of Conclusion</b>	A verbal or numeric scale that indicates the level of confidence regarding identification or exclusion of a subject.	FISWG Glossary
<b>Lift</b>	Both the process of recovering a latent fingerprint from a surface, and the adhesive and other medium on which recovered friction ridge detail is preserved.	SWGFAST Glossary - modified
<b>Lights Out</b>	An automated conclusion based upon threshold scores with no human involvement.	FISWG Glossary
<b>Likelihood Ratio (LR)</b>	The ratio of two probabilities of the same event under different and mutually exclusive hypotheses; typically the numerator contains the prosecution’s hypothesis and the denominator the defense’s hypothesis.	SWGDAM Glossary
<b>Limit Of Detection</b>	Limit of detection (LoD) is the smallest measured content from which it is possible to deduce the presence of the analyte with reasonable statistical certainty. Also known as the "detection limit."	SWGDRUG Glossary
<b>Limit Of Quantitation</b>	The limit of quantitation (LoQ) is the lowest concentration of analyte that can be determined with an acceptable level of precision and trueness.	SWGDRUG Glossary
<b>Linearity</b>	Defines the ability of the method to obtain test results proportional to the concentration of analyte.	SWGDRUG Glossary
<b>Linkage</b>	The inheritance together of two or more genes on the same chromosome	NRC Manual
<b>Linkage Equilibrium</b>	A condition in which the occurrence of alleles at different loci is independent.	NRC Manual
<b>Liquid Explosive</b>	An explosive material in a liquid state. Examples include nitric acid esters (e.g., nitroglycerin, nitroglycol) and EDGN.	AAP-06
<b>Live Imaging</b>	Creating a forensic image of a hard drive while the system is still running. This generally produces a logical image of the drive.	USARAF Glossary
<b>Live Memory</b>	Information stored in a computer's short-term memory, including random access memory (RAM) that can be lost if the computer is turned off restarted.	NIJ Digital Glossary

TERM	DEFINITION	SOURCE
<b>Load</b>	1. The combination and quantity of components used to assemble a cartridge or shotshell. 2. The act of putting ammunition into a firearm magazine or chamber.	AFTE Glossary
<b>Locus (pl: Loci)</b>	A location in the genome, that is, a position on a chromosome where a gene or other structure begins.	NRC Manual
<b>Log File</b>	A record of actions, events, and related data.	SWGIT/SWGDE Glossary
<b>Logical Copy</b>	An accurate reproduction of information contained within a logical volume (e.g. mounted volume, logical drive assignment, etc.).	USARAF Glossary
<b>Logical Drive</b>	A drive named by a DOS drive specifier, such as C: or D:. A single physical drive can act as several logical drives, each with its own specifier.	USARAF Glossary
<b>Loop</b>	A fingerprint pattern in which the friction ridges enter from either side, curve sharply and pass out near the same side they entered. This pattern will contain one core and one delta.	NSTC Glossary
<b>Loop - Radial</b>	A type of pattern in which one or more ridges enter upon either side, recurve, touch or pass an imaginary line between delta and core and pass out, or tend to pass out, on the same side the ridges entered. The flow of the pattern runs in the direction of the radius bone of the forearm (toward the thumb).	SWGFAST Glossary
<b>Loop - Ulnar</b>	A type of pattern in which one or more ridges enter upon either side, recurve, touch or pass an imaginary line between delta and core and pass out, or tend to pass out, on the same side the ridges entered. The flow of the pattern runs in the direction of the ulna bone of the forearm (toward the little finger).	SWGFAST Glossary
<b>Lossless Compression</b>	File size reduction process in which no data is lost and all data can be retrieved in its original form (e.g., TIF with LZW compression).	FISWG Glossary
<b>Lossy Compression</b>	File size reduction process in which data is lost and cannot be retrieved in its original form (e.g., high-compression JPEG).	FISWG Glossary
<b>Low Explosive</b>	A chemical compound or mixture that is designed to deflagrate (rapid burn) and generally require confinement to explode.	JP 3-15.1
<b>Luminescence</b>	Emission of light by energy from non-thermal sources (i.e., chemical, biochemical, electrical), including both fluorescence and phosphorescence.	SWGFAST Glossary
<b>MAC (Media Access Control) address</b>	A unique identifying number built (or “burned”) into a network interface card by the manufacturer.	NIJ Digital Guide
<b>Machine Gun</b>	A firearm design that feeds rifle cartridges, fires, extracts and ejects cartridge cases as long as the trigger is fully depressed and there are cartridges in the feed system. Actuation of the mechanism may be from an internal power source such as gas pressure or recoil, or external power source, such as electricity. Also called fully automatic or full auto.	AFTE Glossary
<b>Macroductyly</b>	Congenitally abnormal largeness of fingers or toes.	SWGFAST Glossary

TERM	DEFINITION	SOURCE
<b>Magazine</b>	1. A secure storage place for gunpowder, ammunition, or explosives. 2. A container for cartridges which has a spring and follower to feed those cartridges into the chamber of a firearm. The magazine may be detachable or an integral part of the firearm.	AFTE Glossary
<b>Main Charge</b>	A main charge comprises the bulk explosive (explosive filler) component of an IED.	ATP 3-90.37
<b>Main Charge</b>	The explosive charge which is provided to accomplish the end result in a munition or improvised device. Examples for end results are: bursting a casing to provide blast and fragmentation; splitting a canister to dispense sub-munitions; or producing other effects for which it may be designed.	IED Lexicon 5th Ed
<b>Major</b>	A value derived from the pattern types of the thumbs.	SWGFAST Glossary
<b>Major Case Prints</b>	A systematic recording of all of the friction ridge detail appearing on the palmar sides of the hands. This includes the extreme sides of the palms, and joints, tips and sides of the fingers. Also known as “complete friction ridge exemplars.”	SWGFAST Glossary - modified
<b>Major Contributor(s)</b>	An individual(s) who can account for the predominance of the DNA in a mixed profile.	SWGDM Glossary
<b>Malfunction</b>	The failure of a firearm to function properly. Malfunctions can be caused by the firearm, ammunition, and/or human factors.	AFTE Glossary
<b>Masked Allele</b>	An allele of the minor contributor that may not be readily distinguishable from the alleles of the major contributor or an artifact.	SWGDM Glossary
<b>Match</b>	The process of accurately identifying or verifying the identity of an individual by comparing a standard biometric file to an existing source of standardized biometric data, and of either a one-to-one (verification) or one-to-many (identification) search.	USSOCOM CPD v2
<b>Materiel And Personnel Exploitation</b>	The systematic collection and processing of information and dissemination of intelligence obtained as a result of tactical questioning, interrogation and the extraction of data from recovered materiel.	AJP 3.15
<b>Mean</b>	Also, the average; the expected value of a random variable. The mean gives a way to find the center of a batch of numbers: Add the numbers and divide by how many there are. Weights may be employed, as in “weighted mean” or “weighted average.”	NRC Manual
<b>Measurand</b>	Quantity intended to be measured.	JCGM 200:2012
<b>Measurement Scale</b>	An object showing standard units of length (e.g., ruler) used in photographic documentation of an item of evidence.	CSI Guide
<b>Measurement Uncertainty (MU)</b>	Non-negative parameter characterizing the dispersion of the quantity values being attributed to a measurand, based on the information used.	JCGM 200:2012
<b>Measuring Equipment</b>	Measuring instrument, software, measurement standard, reference material or auxiliary apparatus or combination thereof necessary to realize a measurement process	ISO 9000:2005, 3.10.4



TERM	DEFINITION	SOURCE
<b>Mechanical Exploitation</b>	Mechanical exploitation focuses on the mechanical components of materiel such as mechanical switches and relays, and other similar items. Mechanical exploitation is accomplished in conjunction with electronic and explosive materiel, and other types of technical exploitation.	ATP 3-90.15
<b>Media</b>	Physical devices or writing surfaces including but not limited to magnetic tapes, optical disks, magnetic disks, LSI memory chips, printouts (but not including display media) onto which information is recorded, stored, or printed within an information system.	CNSSI 4009
<b>Media Exploitation (MEDEX)</b>	The collection, processing, translation, analysis and dissemination of collected electronic media that is under US Government physical control and is not publicly available. In the Department of Defense this includes the handling of media during the collection, imaging, triage, analysis and input into a database	ATP 2-91.8 - modified
<b>Medial</b>	At or near the center.	SWGFAST Glossary
<b>Median</b>	The median, like the mean, is a way to find the center of a batch of numbers. The median is the 50th percentile. Half the numbers are larger, and half are smaller.	NRC Manual
<b>Medical Examiner</b>	A person trained in medicine who is approved by a government authority to investigate deaths and injuries, especially those not occurring under natural circumstances.	Merriam-Webster Dictionary - modified
<b>Memory Smear</b>	The modification of data by a running system during the memory acquisition process.	SWGIT/SWGDE Glossary
<b>Metadata</b>	Data, frequently embedded within a file, that describes a file or directory, which can include the locations where the content is stored, dates and times, application specific information, and permissions.	SWGIT/SWGDE Glossary
<b>Metal Etching</b>	Technique utilizing acidic solutions or vapors in the development of friction ridge detail on select metal surfaces.	SWGFAST Glossary
<b>Method</b>	Detailed, defined procedure for performing an analysis.	SWGDRUG Glossary
<b>Metrological Traceability</b>	Property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.	JCGM 200:2012
<b>Microfractology</b>	The microscopic study and comparison of fracture surfaces. Light or scanning electron microscopes are often used.	AFTE Glossary
<b>Micrometer</b>	An instrument for making precise measurements that has a spindle moved by a finely threaded screw. It may be used in conjunction with a comparison microscope.	AFTE Glossary
<b>Microscope</b>	An optical instrument consisting of a combination of lenses which allows the operator to view a magnified image of a small object(s).	AFTE Glossary
<b>Microscopic Comparison</b>	A general term for the comparison of two or more items under a microscope.	AFTE Glossary

TERM	DEFINITION	SOURCE
<b>Microscopic Marks</b>	Striae, patterns of minute lines or grooves, or impressions in an object which are generally smaller than the unaided eye can distinguish. In firearm and toolmark identification, these marks are characteristic of the object which produced them and are the basis for identification.	AFTE Glossary
<b>Mid-range Photo</b>	Mid-range photographs show the relationships of specific items of evidence to each other and to the scene proper. They provide more detail than overall photographs but do not typically provide enough detail for positive identification of a specific piece of evidence. They should be photographed from normal viewing height, the same perspective any person in the room or at the scene would have when walking through them. They can also document the absence of items such as a dust-free area on an otherwise dusty surface where a television or computer may have been removed.	ATP 3-39.12 - modified
<b>Military Explosive</b>	Explosives manufactured for military use.	JP 3-15.1
<b>Mimic</b>	The presentation of a biometric sample in an attempt to fraudulently impersonate someone other than the biometric subject.	NSTC Glossary
<b>Minor Contributor(s)</b>	Individual(s) who can account for the lesser portion of the DNA in a mixed profile.	SWGDM Glossary
<b>Minutia(e)</b>	Friction ridge characteristics which occur at points where a single friction ridge deviates from an uninterrupted flow. Deviation may take the form of ending, bifurcation, or a more complicated "composite" type.	ISO/IEC 19794-2
<b>Misfire</b>	A failure of the priming mixture to be initiated after the primer has been struck an adequate blow by a firing pin, or the failure of the initiated primer to ignite the powder.	AFTE Glossary
<b>Missed Association</b>	The failure to make an association when, in fact, both impressions have corresponding detail.	DFSC
<b>Mist Pattern</b>	A bloodstain pattern resulting from blood reduced to a spray of micro-drops as a result of the force applied.	SWGSTAIN Glossary
<b>Mitochondria</b>	A structure (organelle) within nucleated (eukaryotic) cells that is the site of the energy-producing reactions within the cell. Mitochondria contain their own DNA (often abbreviated as mtDNA), which is inherited only from mother to child.	NRC Manual
<b>Mixture</b>	Matter consisting of two or more components in varying proportions that retain their own properties. In forensic biology, this refers to a DNA typing result originating from two or more individuals.	SWGDM Glossary - modified
<b>Mixture Ratio</b>	The relative proportion of the DNA contributions of multiple individuals to a mixed DNA typing result, as determined by the use of quantitative peak height information; when expressed as a percentage it is termed a mixture proportion.	SWGDM Glossary
<b>Mobile Device</b>	A portable device that has an embedded system architecture, processing capability, on-board memory, and may have telephony capabilities (e.g., cell phones, tablets, and smartphones).	SWGIT/SWGDE Glossary
<b>Modality</b>	A type or class of biometric sample originating from a biometric subject. For example: face recognition, fingerprint recognition, iris recognition, DNA, etc.	Biometrics JCD

TERM	DEFINITION	SOURCE
<b>Molecular Biology</b>	The study of the theories, methods, and techniques used in the study and analysis of gene structure, organization, and function.	FBI DNA QAS
<b>Molecular Weight</b>	The weight in grams of 1 mole (approximately $6.02 \times 10^{23}$ molecules) of a pure, molecular substance.	NRC Manual
<b>Monomorphic</b>	A gene or DNA characteristic that is almost always found in only one form in a population.	NRC Manual
<b>Morpheme</b>	A unit of linguistic analysis used in describing the structure of words: the smallest meaningful unit in a language. For example, the word dogs consists of two morphemes: {dog} and {plural}.	Speaker Identification
<b>Morphological Analysis</b>	The direct comparison of class and individual facial characteristics without explicit measurement.	FISWG Glossary
<b>Mottled Skin</b>	Skin where ridge detail is present, but is dissociated due to trauma or genetic causes, and which lacks any continuous pattern flow.	SWGFAST Glossary - modified
<b>Multimedia Evidence</b>	Analog or digital media, including, but not limited to, film, tape, magnetic and optical media, and/or the information contained therein.	SWGIT/SWGDE Glossary
<b>Multi-Modal</b>	Multiple in at least 2 out of 3 constituents of a mode in a single biometric system.	ISO/IEC 2382-37
<b>Multiplex System</b>	A test providing for simultaneous amplification of multiple loci that is either prepared commercially or by a laboratory.	FBI DNA QAS
<b>Munition</b>	A complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological, or chemical material for use in military operations, including demolitions. Certain suitably modified munitions can be used for training, ceremonial, or nonoperational purposes. Also called ammunition.	JP 3-11
<b>Mutation</b>	The process that produces a gene or chromosome set differing from the type already in the population; the gene or chromosome set that results from such a process.	NRC Manual
<b>Muzzle</b>	The end of a firearm barrel from which the projectile emerges.	AFTE Glossary
<b>National DNA Index System (NDIS)</b>	One component of CODIS and the national and highest level index containing the DNA records contributed from participating federal, state and local laboratories.	FBI DNA QAS - modified
<b>National integrated Ballistic Information Network (NIBIN)</b>	A national database of digital images of spent bullets and cartridge cases that were found at crime scenes or test-fired from confiscated weapons. The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) manages the system and provides the equipment to crime labs around the country.	NIBIN
<b>National Media Exploitation Center (NMEC)</b>	NMEC is a Director of National Intelligence (ODNI) Center composed of DIA, CIA, FBI, NSA, DC3, DHS, and NGA. NMEC ensures prompt and responsive DOMEK support to meet the needs of intelligence, defense, homeland security, law enforcement, and other U.S. Government consumers, to include provision of timely and accurate collection, processing, exploitation and dissemination consistent with the protection of intelligence sources and methods.	ICD 302

TERM	DEFINITION	SOURCE
<b>National Software Reference Library (NSRL)</b>	The National Software Reference Library (NSRL) is designed to collect software from various sources and incorporate file profiles computed from this software into a Reference Data Set (RDS) of information. The RDS can be used by law enforcement, government, and industry organizations to review files on a computer by matching file profiles in the RDS. This will help alleviate much of the effort involved in determining which files are important as evidence on computers or file systems that have been seized as part of criminal investigations. The RDS is a collection of digital signatures of known, traceable software applications. There are application hash values in the hash set which may be considered malicious, i.e. steganography tools and hacking scripts. There are no hash values of illicit data, i.e. child abuse images.	NSRL NIST
<b>Native File Format</b>	The original form of a file. A file created with one application can often be read by others, but a file's native format remains the format it was given by the application that created it. In most cases the specific attributes of a file (for example, fonts in a document) can only be changed when it is opened with the program that created it.	SWGIT/SWGDE Glossary
<b>Negative Amplification Control</b>	Used to detect DNA contamination of the amplification reagents. This control consists of only amplification reagents without the addition of template DNA.	FBI DNA QAS
<b>Negative Control</b>	A sample purposely designed to produce a negative result with a given test. For example, in toxicology testing the negative control is blood, urine, or serum that contains none of the targeted analyte (drug). Also known as a "blank."	A Dictionary of Forensic Science - modified
<b>Network</b>	A group of computers connected to one another to share information and resources.	NIJ Digital Guide
<b>Next Generation Identification (NGI)</b>	The FBI's Criminal Justice Information Services (CJIS) Division multi-modal biometric database which replaced the Integrated Automated Fingerprint Identification System (IAFIS).	Biometrics Glossary v6 - modified
<b>Noise</b>	Background signal detected by a data collection instrument. The sum of the non-essential elements that are introduced in the process of obtaining, storing, moving, transferring and analyzing a signal.	SWGDM Glossary
<b>Non-Conforming Examination And Testing</b>	Non-conforming examination and testing refers to any aspect of the forensic unit's work, including, scene examination, laboratory examination, sampling, testing, results or expert witness testimony that do not conform to the forensic unit's policies, procedures or the agreed requirements of the customer. Examples are using equipment that is out of specification, misidentifying a drug or incorrectly interpreting a blood pattern.	ILAC G19
<b>Non-Match</b>	Comparison decision that the probe and a reference are from different sources.	ISO/IEC 2382-37 - modified
<b>Non-Porous</b>	Non-absorbent.	SWGFAST Glossary
<b>Normal Distribution</b>	Also, Gaussian distribution. When the normal distribution has mean equal to 0 and standard error equal to 1, it is said to be "standard normal." The density can be rescaled to have any desired mean and standard error, resulting in the famous "bell-shaped curves" of statistical theory.	NRC Manual

TERM	DEFINITION	SOURCE
<b>Notes</b>	Equivalent to Technical Records in ISO 17025, notes are original observations, derived data, calculations and test reports recorded at the time they are made and are identifiable to the specific task. They must contain sufficient information to establish an audit trail and to support conclusions such that in the absence of the examiner, another competent examiner or supervisor could evaluate what was done and interpret the data.	ISO 17025 - modified
<b>Nucleotide</b>	A unit of DNA consisting of a base (A, C, G, or T) and attached to a phosphate and a sugar group; the basic building block of nucleic acids.	NRC Manual
<b>Nucleus</b>	The membrane-covered portion of a eukaryotic cell containing most of the DNA and found within the cytoplasm.	NRC Manual
<b>Null Hypothesis</b>	A hypothesis that there is no difference between two groups from which samples are drawn.	NRC Manual
<b>Obligate Allele</b>	an allele in a mixed DNA typing result that is (a) foreign to an assumed contributor, or (b) based on quantitative peak height information, determined to be shared with the assumed contributor.	SWGDM Glossary
<b>Oblique Angle</b>	Any angle other than perpendicular or parallel.	AFTE Glossary
<b>Oblique Lighting</b>	Illumination from a light source that is at a low angle of incidence, or even parallel, to the surface of the item.	ASTM E2195
<b>Obliteration</b>	1. (Questioned Documents) The erasure or other type of removal of writing or printing. Obliteration can be achieved by erasing and overwriting, crossing out or scribbling over, by cutting or scraping the paper surface away, by using erasing substances such as a 'whiteout' compound or correction ribbons on typewriters, and finally by chemical means such as using a bleaching agent to chemically remove the writing from the paper. 2. (Firearms and Toolmarks) The purposeful removal of stamped, engraved, or machined serial numbers on evidence such as stolen property or guns.	A Dictionary of Forensic Science
<b>Occlusion</b>	The obscurrence of features (i.e., features blocked by sunglasses or objects in the environment, such as a tree).	FISWG Glossary
<b>Odds</b>	The probability that an event will occur divided by the probability that it will not. For example, if the chance of rain tomorrow is 2/3, then the odds on rain are (2/3)/(1/3) = 2/1, or 2 to 1; the odds against rain are 1 to 2.	NRC Manual
<b>Oligonucleotide</b>	A synthetic polymer made up of fewer than 100 nucleotides; used as a primer or a probe in PCR.	NRC Manual
<b>Ordnance</b>	Explosives, chemicals, pyrotechnics, and similar stores, e.g., bombs, guns and ammunition, flares, smoke, or napalm.	JP 3-15
<b>Ordnance Handling</b>	Applies to those individuals who engage in the breakout, lifting, or repositioning of ordnance or explosive devices in order to facilitate storage or stowage, assembly or disassembly, loading or downloading, or transporting.	JP 3-04

TERM	DEFINITION	SOURCE
<b>Orienting</b>	The aligning of two bullets, which were fired from the same barrel, on the comparison microscope so that the land and groove impressions on those bullets which were produced by the same lands and grooves in the barrel are opposite each other. The term can also refer to the alignment of cartridge cases or other toolmark-bearing surfaces, so that directionality of marks made by the same tool are consistent on both stage of the comparison microscope. Sometimes called phasing or indexing.	AFTE Glossary
<b>Original evidence</b>	Physical items and the data objects that are associated with those items at the time of seizure.	NIJ Digital Guide
<b>Orthodactyly</b>	Fingers and toes cannot be flexed.	SWGFAST Glossary
<b>Outlier</b>	An observation that is far removed from the bulk of the data. Outliers may indicate faulty measurements and they may exert undue influence on summary statistics, such as the mean or the correlation coefficient.	NRC Manual
<b>Outsole</b>	The portion of footwear that is in direct contact with the ground.	CSI Guide
<b>Overall Photo</b>	Overall photographs are taken to capture the entire crime scene. They are not intended to document specific evidence, although evidence may appear in the photograph. Overall photographs provide documentation of the overall scene and its relationship to the surrounding area and specific landmarks such as street signs, intersections, and other buildings. They can also document an approximate time of day and general weather conditions at the time the scene was processed. Overall photographs should be taken from multiple directions or vantage points to ensure that the entire scene is captured. They should be taken at eye level unless deliberately duplicating a subject, witness, or victim's viewpoint. Placement of evidence markers will aid the viewer in understanding the spatial relationship of evidence in the scene. The number of overall photographs is based on the specifics of the scene.	ATP 3-39.12 - modified
<b>Overflow Capability</b>	The ability to perform forensic exploitation at a secondary forensic facility, in order to expediently perform exploitation on casework accrued due to an unforeseen increase in demand.	DFSC
<b>Oxidizer</b>	A substance that gives up oxygen easily or removes hydrogen from another compound in a chemical reaction.	Hazardous Chemicals Handbook
<b>Palm (Palmar Area)</b>	The friction ridge skin area on the side and underside of the hand.	SWGFAST Glossary
<b>Palm Print</b>	An exemplar or latent friction ridge image from the palm (side and underside) of the hand.	Data Format for EFRFs
<b>Palm Print Recognition</b>	A biometric modality that uses the physical structure of a biometric subject's palm print for recognition purposes.	NSTC Glossary
<b>Papillae</b>	Peg-like structures of the dermis.	SWGFAST Glossary
<b>Papillary Ridges</b>	Orderly rows of eccrine glands positioned along the path of the friction ridge.	SWGFAST Glossary
<b>Parallel Circuit</b>	Multiple batteries or other power sources which have their positive terminals connected to one another and their negative terminals connected to one another which results in an increase in the available current.	IED Lexicon 5th Ed

TERM	DEFINITION	SOURCE
<b>Parent Stain</b>	A bloodstain from which a satellite stain originated.	SWGSTAIN Glossary
<b>Partial Profile</b>	A DNA profile for which typing results are not obtained at all tested loci due, for example, to DNA degradation, inhibition of amplification, and/or low-quantity template.	SWGDAM Glossary
<b>Password protected</b>	Many software programs include the ability to protect a file using a password. One type of password protection is sometimes called “access denial.” If this feature is used, the data will be present on the disk in the normal manner, but the software program will not open or display the file without the user entering the password. In many cases, forensic examiners are able to bypass this feature.	NIJ Digital Guide
<b>Patent Print</b>	Friction ridge impression of unknown origin, visible without development.	SWGFAST Glossary
<b>Paternity Index</b>	A number (technically, a likelihood ratio) that indicates the support that the paternity test results lend to the hypothesis that the alleged father is the biological father as opposed to the hypothesis that another man selected at random is the biological father. Assuming that the observed phenotypes correctly represent the phenotypes of the mother, child, and alleged father tested, the number can be computed as the ratio of the probability of the phenotypes under the first hypothesis to the probability under the second hypothesis. Large values indicate substantial support for the hypothesis of paternity; values near zero indicate substantial support for the hypothesis that someone other than the alleged father is the biological father; and values near unity indicate that the results do not help in determining which hypothesis is correct.	NRC Manual
<b>Pattern Area (Classification)</b>	In the distal phalange of the fingers, the configuration of friction ridges that are utilized in classification.	SWGFAST Glossary
<b>Pattern Formations</b>	Friction ridge skin arrangements formed as early as the third month of gestation.	SWGFAST Glossary
<b>Pattern Recognition</b>	The cognitive discernment between similar or dissimilar configurations.	SWGFAST Glossary
<b>Peak Height Ratio (PHR)</b>	The relative ratio of two alleles at a given locus, as determined by dividing the peak height of an allele with a lower relative fluorescence unit (RFU) value by the peak height of an allele with a higher RFU value, and then multiplying this value by 100 to express the PHR as a percentage; used as an indication of which alleles may be heterozygous pairs and also in mixture deconvolution.	SWGDAM Glossary
<b>Peer Review (Syn: Technical Review)</b>	Evaluation of the reports, examinations, notes, data and/or conclusions by others competent in the same field to verify there is an appropriate and sufficient basis for the conclusions.	FBI DNA QAS - modified
<b>Pellet</b>	1. The common name for the spherical projectiles loaded into shotshells. Also known as shot. 2. A nonspherical projectile used in some air rifles and air pistols.	AFTE Glossary
<b>Pentadactyly</b>	The occurrence of five fingers or toes on a hand or foot.	SWGFAST Glossary
<b>Performance Check</b>	A quality assurance measure to assess the functionality of laboratory instruments and equipment that affect the accuracy and/or validity of forensic sample analysis.	Guidelines for Bio Evidence
<b>Perimeter Stain</b>	An altered stain that consists of the peripheral characteristics of the original stain.	SWGSTAIN Glossary

TERM	DEFINITION	SOURCE
<b>Person of Interest (POI)</b>	An individual for whom information needs or discovery objectives exist.	ODNI I2 CONOPS
<b>Person of Interest Packets</b>	Person of interest packets provide I2 analytic support to foreign personnel vetting missions. These packets provide tailored summaries of significant derogatory information on individual persons of interest, combining biometric, cell phone exploitation, and counterintelligence screening information in an easily briefed format on foreign/host nation personnel working with forward deployed military and/or USG personnel. Person of interest packets are typically completed within two hours of receipt of submitted identity data.	JDN Identity Activities
<b>Personal Protective Equipment (PPE)</b>	The protective clothing and equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that can be encountered at a hazardous materials incident. Additionally, PPE protects the purity of the forensic material by controlling environmental factors, contamination and loss.	JP 3-11 - modified
<b>Personnel Recovery</b>	The sum of military, diplomatic, and civil efforts to prepare for and execute the recovery and reintegration of isolated personnel.	JP 1-02, JP 3-50
<b>Perspective</b>	Camera to subject geometry, including both camera to subject distance and orientation of the camera relative to the subject.	FISWG Glossary
<b>Perspective Distortion</b>	Warping or transformation introduced of an object's appearance in an image introduced by insufficient subject to camera distance (e.g., larger nose or smaller ears). Photographs made from a distance of less than two meters tend to introduce noticeable perspective distortion.	FISWG Glossary
<b>pH</b>	A measure of the acidity or alkalinity of a solution	NRC Manual - modified
<b>Phalange (Phalanx)</b>	A finger or toe, with proximal, medial and distal segments. Any bones in the fingers or toes.	SWGFAST Glossary
<b>Pharmaceutical Identifier</b>	Physical characteristics of tablets, capsules or packaging indicating the identity, manufacturer, or quantity of substances present.	SWGDRUG Glossary
<b>Pharmacy Fold (Druggist's Fold)</b>	A folding pattern used on paper that encloses small amounts of physical evidence such as a powder, hairs, or fibers.	A Dictionary of Forensic Science
<b>Phenotype</b>	A trait, such as eye color or blood group, resulting from a genotype	NRC Manual
<b>Phonation type</b>	The way the vocal cords vibrate, giving rise to auditorily different qualities, e.g. creaky voice, or breathy voice.	Speaker Identification
<b>Phoneme</b>	A unit of linguistic analysis: the name for a contrastive sound in a language. For example, bat and pat begin with two different phonemes.	Speaker Identification
<b>Phonemics</b>	The study of how speech sounds function contrastively, to distinguish words in a given language. Phonemics is an important conceptual framework for the comparison of forensic speech samples.	Speaker Identification
<b>Phonetics</b>	The study of all aspects of speech, but especially how speech sounds are made, their acoustic properties, and how the acoustic properties of speech sounds are perceived as speech by listeners. Phonetic expertise is an important prerequisite for forensic phonetics.	Speaker Identification



TERM	DEFINITION	SOURCE
<b>Photo Placard</b>	A labelled plastic marker used to identify evidence in site photos. Typically these are yellow with large lettering; some include scaling.	A Dictionary of Forensic Science
<b>Photo-Anthropometry</b>	The application of anthropometric analysis to images.	FISWG Glossary
<b>Photographic Comparison</b>	An assessment of the correspondence between features in images and known objects or images for the purpose of rendering an expert opinion regarding identification, elimination, or a qualified conclusion (as opposed to a demonstrative exhibit).	FISWG Glossary
<b>Physical Match</b>	The examination of two or more objects through physical, optical, or photographic means, where the examiner determines whether the objects were either one entity or were once held or bonded together in a unique arrangement.	AFTE Glossary
<b>Pistol</b>	A handgun in which the chamber is integral with the barrel.	AFTE Glossary
<b>Pitch</b>	The rotation in degrees about the (horizontal) x-axis. Frontal poses have a pitch angle of 0 degrees. Positive angles represent faces looking down (a counter-clockwise rotation around the x-axis).	ISO/IEC 19794-5
<b>Pitch</b>	<p>1. (Voice Recognition) An important auditory property of speech. Pitch functions primarily to signal linguistic categories of intonation tone and stress, but overall pitch and pitch range can be used to characterize an individual's voice.</p> <p>2. (Photography and Face Recognition) The rotation in degrees about the (horizontal) x-axis. Frontal poses have a pitch angle of 0 degrees. Positive angles represent faces looking down (a counter-clockwise rotation around the x-axis).</p>	<p>1. Speaker Identification</p> <p>2. ISO/IEC 19794-5</p>
<b>Pixel</b>	Short for picture element. The fundamental element of a digital image.	SWGFAST Glossary
<b>Pixels Per Inch (PPI)</b>	The spatial resolution of a digital image. Often referred to incorrectly as DPI (dots per inch).	SWGFAST Glossary
<b>Plantar</b>	Having to do with the friction ridge skin on the feet (soles and toes).	Data Format for EFRFs
<b>Platen</b>	The surface on which the fingers, toes, palms, or soles of the feet are placed during optical image capture. Platens are also used by other types of electronic fingerprint devices (i.e. capacitive, optical, electro-optical, etc.).	International Association for Biometrics (IAFB)
<b>Point Of Impact</b>	The point at which a projectile hits a target.	AFTE Glossary
<b>Pointer</b>	A pointer is an index in the directory of a disk (or other storage medium) that identifies the space on the disc in which an electronic document or piece of electronic data resides, thereby preventing that space from being overwritten by other data. In most cases, when an electronic document is “deleted”, the pointer is deleted, which allows the document to be overwritten, but the document is not actually erased.	USARAF Glossary
<b>Polydactyly</b>	A hand or foot having more than the normal number of fingers or toes.	SWGFAST Glossary

TERM	DEFINITION	SOURCE
<b>Polymerase Chain Reaction (PCR)</b>	An enzymatic process by which a specific region of DNA is replicated during repetitive cycles which consist of the following: (1) denaturation of the template; (2) annealing of primers to complementary sequences at an empirically determined temperature; and (3) extension of the bound primers by a DNA polymerase.	FBI DNA QAS
<b>Polymerization</b>	Chaining together many simple molecules to form a more complex molecule with different physical properties.	SWGFAST Glossary
<b>Polymorphism</b>	The presence of several forms of a gene or DNA characteristic in a population.	NRC Manual
<b>Pool</b>	A bloodstain resulting from an accumulation of liquid blood on a surface.	SWGSTAIN Glossary
<b>Population</b>	All the units of interest to the researcher.	NRC Manual
<b>Population Genetics</b>	The study of the genetic composition of groups of individuals.	NRC Manual
<b>Population Structure</b>	When a population is divided into subgroups that do not mix freely, that population is said to have structure. Significant structure can lead to allele frequencies being different in the subpopulations.	NRC Manual
<b>Pores</b>	Small openings on friction ridges through which body fluids are released.	SWGFAST Glossary
<b>Poroscopy</b>	A study of the size, shape and arrangement of pores.	SWGFAST Glossary
<b>Porous</b>	A substance that has tiny openings that absorbs liquids and gases or allows them to pass through (e.g., furniture fabric, canvas, wood, wall board).	CSI Guide
<b>Port</b>	An interface by which a computer communicates with another device or system. Personal computers have various types of ports. Internally, there are several ports for connecting disk drives, display screens, and keyboards. Externally, personal computers have ports for connecting modems, printers, mice, and other peripheral devices.	NIJ Digital Glossary
<b>Pose</b>	The orientation of the face with respect to the camera, consisting of pitch, roll, and yaw. Common poses are frontal and profile.	FISWG Glossary
<b>Positive Amplification Control</b>	An analytical control sample that is used to determine if the PCR performed properly. This control consists of the amplification reagents and a known DNA sample.	FBI DNA QAS
<b>Positive Biometric Claim</b>	Assertion that a biometric capture subject is the source of specified or unspecified biometric reference(s) in a biometric reference database NOTE Specified means there is a non-biometric input, such as a PIN, name or ID number, pointing to particular biometric reference(s). Unspecified means there is no such non-biometric input provided.	ISO/IEC 2382-37
<b>Positive Control</b>	A sample known to produce positive results with a given test. For example, in toxicology testing the positive control is blood, urine, or serum that contains a known amount the targeted analyte (drug).	A Dictionary of Forensic Science - modified

TERM	DEFINITION	SOURCE
<b>Power Source</b>	A device that either stores or releases electrical or mechanical energy. The key elements of information about a power source are its type/source, number of batteries and their configuration (series or parallel), its voltage (if electrical) and how it is connected to close an IED switch.	JP 3-15.1
<b>Precision</b>	The degree of mutual agreement among a series of individual measurements, values, and/or results.	FBI DNA QAS
<b>Preferential Amplification</b>	The unequal sampling of the two alleles present in a heterozygous locus primarily due to stochastic (random) fluctuation arising when only a few DNA molecules are used to initiate the polymerase chain reaction.	FBI DNA QAS
<b>Preservation Order</b>	A document ordering a person or company to preserve potential evidence. The authority for preservation letters to ISPs is in 18 USC 2703(f).	NIJ Digital Guide
<b>Preserve</b>	To protect materials and data from loss, alteration, or the deterioration or destruction of information due to environmental effects or the recovery and collection activities.	ASTM E1188
<b>Presumptive Test</b>	A test which does not provide definitive identification; rather, it provides information useful for directing further analysis. Since most of these tests involve addition of a chemical reagent and looking for a color change, these tests are sometimes referred to as ‘color tests’. Colors are created as a result of a reaction that forms either a dye or a pigment.	A Dictionary of Forensic Science
<b>Primary</b>	A numerical formula derived from the presence of any whorl pattern as they appear on the fingers.	SWGFAST Glossary
<b>Primary Device</b>	The most tactically significant IED within an incident. The primary may not be the first IED encountered.	JP 3-15.1
<b>Primer</b>	1. (Firearms) The ignition component of a cartridge. 2. (DNA) An oligonucleotide that attaches to one end of a DNA fragment and provides a point for more complementary nucleotides to attach and replicate the DNA strand.	1. AFTE Glossary 2. NRC Manual
<b>Probabilistic Model</b>	Statistical analysis tool that estimates, on the basis of past (historical) data, the probability of an event occurring again.	FISWG Glossary
<b>Probability</b>	Chance, on a scale from 0 to 1. Impossibility is represented by 0, certainty by 1. Equivalently, chances may be quoted in percent; 100% corresponds to 1, 5% corresponds to .05, and so forth.	NRC Manual
<b>Probability Of Exclusion (PE)</b>	The percentage of the population that can be excluded as potential contributors to a DNA mixture at a given locus; also referred to as the Random Man Not Excluded.	SWGDM Glossary
<b>Probability Of Inclusion (PI)</b>	The percentage of the population that can be included as potential contributors to a DNA mixture at a given locus; also referred to as the Random Man Not Excluded.	SWGDM Glossary
<b>Probe</b>	1. (Biometric Comparison) The sample that is submitted for comparison against one or more references. 2. (DNA) A short segment of DNA used to detect certain alleles. The probe hybridizes, or matches up, to a specific complementary sequence. Probes allow visualization of the hybridized DNA, either by a radioactive tag (usually used for RFLP analysis) or a biochemical tag (usually used for PCR-based analyses).	1. NSTC Glossary 2. NRC Manual
<b>Procedure</b>	An established practice to be followed in performing a specified task or under specific circumstances.	Guidelines for Bio Evidence
<b>Processing</b>	A system of operations designed to convert raw data into useful information.	JP 2-0

TERM	DEFINITION	SOURCE
<b>Processor</b>	The logic circuitry that responds to and processes the basic instructions that drive a computer. The term processor has generally replaced the term central processing unit (CPU). The processor in a personal computer or that is embedded in small devices is often called a microprocessor.	NIJ Digital Glossary
<b>Product Rule</b>	When alleles occur independently at each locus (Hardy-Weinberg equilibrium) and across loci (linkage equilibrium), the proportion of the population with a given genotype is the product of the proportion of each allele at each locus, times factors of two for heterozygous loci.	NRC Manual
<b>Proficiency Test</b>	A quality assurance measure used to evaluate the performance of a given forensic process against pre-established criteria. Proficiency tests may be classified as: (1) An internal proficiency test, which is produced by the agency undergoing the test. (2) An external proficiency test, which may be open or blind, is a test obtained from an approved proficiency test provider.	ISO/IEC 17043:2010 - modified
<b>Program of Record</b>	Program as recorded in the current Future Years Defense Program (FYDP) or as updated from the last FYDP by approved program documentation. May also refer to a program having successfully achieved formal program initiation, normally Milestone B.	DAU Glossary
<b>Projected Pattern</b>	A bloodstain pattern resulting from the ejection of a volume of blood under pressure.	SWGSTAIN Glossary
<b>Projectile</b>	An object propelled by external force and continuing in motion by its own inertia (e.g., a bullet propelled from a firearm by the force of rapidly burning gases or other means).	AFTE Glossary
<b>Projectile Trajectory Analysis</b>	The method for determining the path of a high-speed object through space (e.g., a bullet emanating from a firearm).	CSI Guide
<b>Propellant</b>	An explosive material that normally functions by burning to produce a controlled release of gasses used for propulsion purposes.	JP 3-15.1
<b>Proper Seal</b>	A seal that prevents loss, cross-transfer, or contamination while ensuring that attempted entry into the container is detectable. A proper seal may include heat seal, tape seal, or a lock with the initials or other identification of the person creating the seal being placed on the seal or across the seal onto the container if possible. A container is 'properly sealed' only if its contents cannot readily escape and only if entering the container results in obvious damage/alteration to the container or its seal.	ASCLD/LAB Supplemental
<b>Protein</b>	A class of biologically important molecules made up of a linear string of building blocks called amino acids. The order in which these components are arranged is encoded in the DNA sequence of the gene that expresses the protein.	NRC Manual
<b>Proximal</b>	Situated at the closest point of attachment; direction toward the body.	SWGFAST Glossary
<b>P-Value</b>	Result from a statistical test. The probability of getting, just by chance, a test statistic as large as or larger than the observed value. Large p-values are consistent with the null hypothesis; small p-values undermine the null hypothesis. However, p does not give the probability that the null hypothesis is true. If p is smaller than 5%, the result is statistically significant. If p is smaller than 1%, the result is highly significant. The p-value is also called the observed significance level.	NRC Manual

TERM	DEFINITION	SOURCE
<b>Quality</b>	Degree to which a set of inherent characteristics fulfills requirements	ISO 9000:2015
<b>Quality Assurance (QA)</b>	The planned and systematic activities implemented within the quality system which are focused on providing confidence that quality requirements will be fulfilled.	ISO 9000:2015 - modified
<b>Quality Audit</b>	A systematic and independent examination and evaluation of a laboratory's operations.	NRC Manual
<b>Quality Control</b>	Activities performed to monitor the quality of results obtained from the forensic science process and to ensure that they satisfy specified criteria.	ASCLD/LAB Supplemental - modified
<b>Quality Manual</b>	Document stating the general quality policies, procedures and practices of an organization.	SWGDRUG Glossary
<b>Quality System</b>	The organizational structure, responsibilities, procedures, processes and resources for implementing quality management.	FBI DNA QAS
<b>Quantitative PCR</b>	A method of determining the concentration of DNA in a sample by use of the polymerase chain reaction.	FBI DNA QAS
<b>Quarantine</b>	The status of any item or material isolated while pending a decision on its use.	NIJ Digital Glossary
<b>Questioned</b>	Associated with the matter under investigation about which there is some question, including, but not limited to, whether the questioned and known items have a common origin.	ASTM E1732
<b>Questioned Documents (QD)</b>	The forensic specialty dealing with suspicious, questioned, or damaged documents, be they handwritten, typed, printed, faxed, copied, or computer-generated. The analysis of questioned documents includes the analysis of papers, inks (or other marking material), and the devices or processes used to generate the document. QD analysis also includes handwriting analysis, which is also approached as a type of pattern recognition. The analysis of inks, dyes and papers is conducted using instruments such as a Video Spectral Comparator (VSC) in which samples are illuminated with particular wavelengths of light while the reflected and emitted light is examined through a filter. QD also includes the analysis of currency and credit cards, both of which are the targets of counterfeiters.	A Dictionary of Forensic Science - modified
<b>Questioned Voice Signal</b>	A voice signal from an individual who is unknown and has not yet been linked to any previously encountered individual. Note 1 to entry: The task of speaker identification is to link a questioned voice signal to a known voice signal through determination of a common speaker.	ANSI/NIST-ITL 1
<b>Radiometric Resolution</b>	The number of intensity levels (such as the number of shades of gray or color values) in a digital image.	SWGFAST Glossary
<b>Random</b>	1. Having no specific pattern. 2. Produced by chance or unplanned in nature.	SWGUN Glossary
<b>Random Access Memory (RAM)</b>	Computer memory that stores data and can be accessed by the processor without accessing the preceding bytes, enabling random access to the data in memory.	NIJ Digital Glossary

TERM	DEFINITION	SOURCE
<b>Random Access Memory (RAM) Dump</b>	The process of exporting the RAM of a running computer system for further forensic analysis.	USARAF Glossary
<b>Random Match</b>	A match in the DNA profiles of two samples of DNA, where one is drawn at random from the population.	NRC Manual
<b>Random Match Probability (RMP)</b>	The probability of randomly selecting an unrelated individual from the population who could be a potential contributor to an evidentiary profile.	SWGDM Glossary
<b>Range</b>	The difference between the biggest and the smallest values in a batch of numbers.	NRC Manual
<b>Rapid Acquisition</b>	A streamlined and tightly integrated iterative approach, acting upon validated urgent or emergent capability requirements, to: conduct analysis and evaluate alternatives and identify preferred solutions; develop and approve acquisition documents; contract using all available statutory and regulatory authorities and waivers and deviations of such, appropriate to the situation; identify and minimize technical development, integration, and manufacturing risks; and rapidly produce and deliver required capabilities.	CJCSI 3170.01I
<b>Rapid DNA Analysis</b>	The fully automated (hands free) process of developing a STR profile from a sample. The “swab in – profile out” process consists of automated extraction, amplification, separation, detection, and allele calling without human intervention.	FAQ Rapid DNA
<b>Reachback</b>	The process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed.	JP 1-02, JP 3-30
<b>Recognition</b>	<ol style="list-style-type: none"> <li>1. (Biometrics) A generic term used in the description of biometric systems (e.g. face recognition or iris recognition) relating to their fundamental function. The term 'recognition' does not inherently imply the verification, closed-set identification or open-set identification (watchlist).</li> <li>2. (Forensics) Locating and distinguishing materials having potential forensic value; it involves using special methods and advanced training to detect items of value.</li> </ol>	<ol style="list-style-type: none"> <li>1. NSTC Glossary</li> <li>2. ATP 3-90.15</li> </ol>
<b>Reconstruction</b>	The determination of the sequence of two or more events in a particular incident utilizing information derived from the physical evidence.	AFTE Glossary
<b>Reconstructive Evidence</b>	Evidence which allows investigators to gain an understanding of the actions that took place at the scene; a broken window, a blood spatter pattern, bullet paths and shoe prints.	A Dictionary of Forensic Science - modified
<b>Record</b>	A data file which contains a biometric template, contextual information, or other information about the individual of interest (e.g., name, access permission).	USSOCOM CPD v2 - modified
<b>Record Custodian</b>	A records custodian is an individual responsible for the physical storage and protection of records throughout their retention period. In the context of electronic records, custodianship may not be a direct part of the records managements function in all organizations.	USARAF Glossary
<b>Redaction</b>	Over-writing of segments of a voice signal for the purpose of masking speech content in a way that does not disrupt the time record of the original recording.	ANSI/NIST-ITL 1

TERM	DEFINITION	SOURCE
<b>Reference</b>	<p>1. (Function) The process of querying various repositories of associated information on individuals for analysis purposes.</p> <p>2. (Materials) Material or substance one or more of whose property values are sufficiently homogeneous and well established to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials.</p> <p>3. (Data) The biometric data stored for an individual for use in future recognition. A reference can be one or more templates, models or raw images.</p>	<p>1. Biometrics Glossary v6</p> <p>2. ISO GUIDE 30</p> <p>3. USSOCOM CPD v2</p>
<b>Reference Ageing</b>	The changes in error rates with respect to a fixed reference caused by time-related changes in the biometric characteristic, its presentation, the sensor and other components of the biometric technology.	ISO/IEC 2382-37
<b>Reference Collection</b>	Reference collection is a collection of stable materials, substances, objects or artefacts of known properties or origin that may be used in the determination of the properties or origins of unknown items.	ILAC G19
<b>Reference Points</b>	In the examination and comparison of latent prints, a point or points selected on one that serve as a reference point. The locations of other features are characterized relative to the reference point. Reference points are also used in site documentation.	A Dictionary of Forensic Science
<b>Reference Population</b>	The population to which the perpetrator of a crime is thought to belong.	NRC Manual
<b>Reflected Ultraviolet Imaging System (RUVIS)</b>	A physical evidence examination and enhancement technique which uses UV light to visualize friction ridge detail. UV light strikes the surface of the evidence, scattering the light in all directions. Light that is reflected directly back into the image intensifier and bandpass filters is collected, producing an image where the evidence and background material appears dark, and friction ridge detail appears lighter and brighter.	SWGFAST Glossary - modified
<b>Registration</b>	<p>1. Enrollment of an identity in an application using a biometric system.</p> <p>2. The process by which two facial images are sized and aligned with each other for direct comparison.</p>	FISWG Glossary
<b>Registry</b>	A central hierarchical database used in Microsoft Windows used to store information necessary to configure the system for one or more users, applications and hardware devices. The Registry contains information that Windows continually references during operation, such as profiles for each user, the applications installed on the computer and the types of documents that each can create, property sheet settings for folders and applications icons, what hardware exists on the system, and the ports that are being used, and more.	USARAF Glossary
<b>Regression Model</b>	A regression model attempts to combine the values of certain variables (the independent or explanatory variables) in order to get expected values for another variable (the dependent variable).	NRC Manual
<b>Relative Frequency</b>	A measure of how often a given characteristic occurs in a given population.	FISWG Glossary - modified
<b>Relative Position</b>	Proximity of characteristics to each other.	SWGFAST Glossary
<b>Reliability</b>	The extent to which an experiment, test or measuring procedure yields the same the same results on repeated trials.	SWGFAST Glossary
<b>Removable media</b>	Items (e.g., floppy disks, CDs, DVDs, cartridges, tape) that store data and can be easily removed.	NIJ Digital Guide

TERM	DEFINITION	SOURCE
<b>Render Safe Procedures</b>	The portion of the explosive ordnance disposal procedures involving the application of special explosive ordnance disposal methods and tools to provide for the interruption of functions or separation of essential components of unexploded explosive ordnance to prevent an unacceptable detonation.	JP 3-15.1
<b>Repeatability</b>	Closeness of the agreement between the results of successive measurements of the same measurand carried out under the same conditions of measurement.	SWGDRUG Glossary
<b>Report (Syn: Record)</b>	document stating results achieved or providing evidence of activities performed Note 1 to entry: Records can be used, for example, to formalize traceability and to provide evidence of verification, preventive action and corrective action. Note 2 to entry: Generally records need not be under revision control.	SOURCE: ISO 9000:2015
<b>Representative Sample</b>	Statistically, a sample that is similar to the population from which it was drawn. When a sample is representative, it can be used to make inferences about the population. Analytically, it is a sample that is a portion of the original material selected in such a way that is possible to relate the analytical results obtained from it to the properties of the original material.	SWGDRUG Glossary
<b>Reproducibility</b>	The ability to obtain the same result when the test or experiment is repeated.	FBI DNA QAS
<b>Residual Data</b>	Residual data includes information found on available media space, including data within files that has functionally been deleted in that it is not visible using the application with which the file was created, without use of undelete or special data recovery techniques.	USARAF Glossary
<b>Residues</b>	Any amount of substance that is a remainder of something that was once present.	Merriam-Webster Dictionary - modified
<b>Resolution</b>	1. (Photography) The density of collected points in a digital image, photo, copy, or printout in dots per inch (dpi) or megapixels. 2. (Chemistry) A measurement of the degree of separation that is achieved in a chromatographic separation such as in gas chromatography (GC).	A Dictionary of Forensic Science
<b>Resolving Power</b>	The ability of an optical system to render two closely spaced points as distinct. The resolving power of a lens is usually measured by its ability to distinguish parallel lines of equal width equidistantly spaced by an amount equal to the width of each line and is stated in terms of lines per millimeter of the image.	AFTE Glossary
<b>Response Time</b>	The time used by a biometric or forensic system to return a decision on identification or verification of a sample.	International Association for Biometrics (iAfb) - modified
<b>Restricted</b>	Referring to a statistical approach conditioned on the number of contributors and with consideration of quantitative peak height information and inference of contributor mixture ratios; used to limit the genotypic combinations of possible contributors.	SWGDM Glossary



TERM	DEFINITION	SOURCE
<b>Restriction Enzyme</b>	Protein that cuts double-stranded DNA at specific base-pair sequences (different enzymes recognize different sequences).	NRC Manual
<b>Review</b>	An evaluation of documentation to check for consistency, accuracy, and completeness.	FBI DNA QAS
<b>Revolver</b>	A firearm, usually a handgun, with a cylinder having several chambers so arranged as to rotate around an axis. The firearm is discharged successively by the same firing mechanism.	AFTE Glossary
<b>Ribonucleic Acid (RNA).</b>	A single-stranded molecule “transcribed” from DNA. “Coding” RNA acts as a template for building proteins according the sequences in the coding DNA from which it is transcribed. Other RNA transcripts can be a sensor for detecting signals that affect gene expression, a switch for turning genes off or on, or they may be functionless.	NRC Manual
<b>Ricochet</b>	The continued flight of a rebounded projectile and/or major projectile fragments after a low angle impact with a surface or object.	AFTE Glossary
<b>Ridge Aplasia</b>	Congenital absence of friction ridge skin.	SWGFAST Glossary
<b>Ridge Characteristics</b>	Detailed features of the friction ridge patterns found on the hands and feet. Collectively, these details are referred to as minutiae. Their characteristics, number, direction, location, and location relative to each other are used in latent fingerprint analysis and comparison. Also known as "ridge detail."	A Dictionary of Forensic Science
<b>Ridge Count</b>	The number of ridge features found in a designated area of a latent fingerprint. This term is most often used in conjunction with automated fingerprint identification systems (AFIS).	A Dictionary of Forensic Science
<b>Ridge Ending</b>	A minutiae point at the ending of a friction ridge.	NSTC Glossary
<b>Ridge Flow</b>	The direction of one or more friction ridges.	SWGFAST Glossary
<b>Ridge Hypoplasia</b>	Underdeveloped ridges associated with an excess of creases.	SWGFAST Glossary
<b>Ridge Path</b>	The directional flow of a single friction ridge.	SWGFAST Glossary
<b>Rifle</b>	A firearm with a rifled bore designed to be fired from the shoulder.	AFTE Glossary
<b>Rifling</b>	Helical grooves cut or impressed into the bore of a firearm barrel to impart rotary motion to a projectile when fired.	AFTE Glossary
<b>Rim</b>	The flanged portion of the head of a rimfire cartridge, certain types of centerfire rifle and revolver cartridges, and shotshells. The flanged portion is usually larger in diameter than the cartridge or shotshell body diameter and provides a projecting lip for the extractor to engage. In a rimfire cartridge, the rim provides a cavity into which the priming mixture is placed.	AFTE Glossary
<b>Robustness</b>	The robustness of an analytical procedure is a measure of its capacity to remain unaffected by small, but deliberate variations in method parameters and provides an indication of its reliability during normal usage.	SWGDRUG Glossary
<b>Roll</b>	The rotation in degrees about the z-axis (the horizontal axis from front to back). Frontal poses have a roll angle of zero degrees. Positive angles represent faces tilted toward their right shoulder (counter-clockwise rotation around the z-axis). A roll angle of zero degrees denotes that the left and right eye centers have identical Y coordinates.	ISO/IEC 19794-5
<b>Rolled Fingerprint</b>	An image that includes fingerprint data from nail to nail, obtained by “rolling” the finger across a sensor.	NSTC Glossary

TERM	DEFINITION	SOURCE
<b>Round</b>	A military term for a cartridge.	AFTE Glossary
<b>R-Squared (R<sup>2</sup>).</b>	Measures how well a regression equation fits the data. R-squared varies between 0 (no fit) and 1 (perfect fit). R-squared does not measure the extent to which underlying assumptions are justified.	NRC Manual
<b>Rubbing Technique</b>	Powdering technique that can develop friction ridge detail when substrates are rubbed with gloves or cotton dipped in powder, usually after surfaces are cyanoacrylate fumed.	SWGFAST Glossary
<b>Ruhemann's Purple</b>	Colored compound that is the product of the reaction between amino acids and ninhydrin.	SWGFAST Glossary
<b>Safety Mechanism</b>	A device on a firearm intended to help provide protection against accidental discharge under normal usage when properly engaged. Such a mechanism is considered “on” when the position of the safety device is set in a manner to provide protection against accidental discharge under normal usage. Such a mechanism is considered “off” when it is set to allow the firearm to be discharged by a normal pull of the trigger. A manual safety is one that must be manually engaged and subsequently disengaged to permit normal firing. An automatic safety is one that goes to the “on” position when the action of the gun is opened. A passive safety is in place (or “on”) until the trigger is pulled. An example would be the transfer bar system in some revolvers.	AFTE Glossary
<b>Sample</b>	A portion of the whole material to be tested. Statistically, it is a set of data obtained from a population.	SWGDRUG Glossary
<b>Sampling</b>	Sampling is a defined process whereby a part of a substance, material or product is taken to provide for testing of a representative sample of the whole. The process should be based on statistically valid techniques, where possible.	ILAC G19
<b>Satellite Stain</b>	A smaller bloodstain that originated during the formation of the parent stain as a result of blood impacting a surface.	SWGSTAIN Glossary
<b>Saturation Stain</b>	A bloodstain resulting from the accumulation of liquid blood in an absorbent material.	SWGSTAIN Glossary
<b>Scar</b>	A mark remaining after the healing of a wound.	SWGFAST Glossary
<b>Scientific And Technical Intelligence</b>	The product resulting from the collection, evaluation, analysis, and interpretation of foreign scientific and technical information that covers: a. foreign developments in basic and applied research and in applied engineering techniques; and b. scientific and technical characteristics, capabilities, and limitations of all foreign military systems, weapons, weapon systems, and materiel; the research and development related thereto; and the production methods employed for their manufacture. Also called S&TI. See also intelligence; research; scientific intelligence; technical intelligence. (JP 2-01)	JP 1-02
<b>Search</b>	1. (Forensics) A systematic reconnaissance of a defined area, so that all parts of the area have passed within visibility. 2. (Biometrics) The act of comparing a probe against a gallery.	1. JP 1-02 2. FISWG Glossary
<b>Search Result Set</b>	The candidate list returned from a search.	FISWG Glossary

TERM	DEFINITION	SOURCE
<b>Sebaceous Gland</b>	An oil-secreting gland generally associated with a hair follicle.	SWGFAST Glossary
<b>Secondary Device</b>	Additional IED (s) used to attack individuals or vehicles after the initial event.	AJP 3-15
<b>Secondary Projectile</b>	Any object which, due to the energy imparted by the primary projectile(s), becomes a missile. Examples include buttons, glass chips, splinters of wood, or bone.	AFTE Glossary
<b>Secure Electronic Enrollment Kit (SEEK)</b>	A portable biometric collection device that collects flat and rolled fingerprints, iris and facial images. The captured data conforms to DoD EBTS standards, enrolls data into AFIS database and compares it against watchlists. Includes 3G communication support with wireless networking capability for remote access to databases such as DoD ABIS.	ATP 2-22.85
<b>Segmentation</b>	The process of parsing the biometric signal of interest from the entire acquired data system. For example, finding individual finger images from a slap impression.	NSTC Glossary
<b>Selection Bias</b>	Systematic error due to nonrandom selection of subjects for study.	NRC Manual
<b>Selectivity</b>	Extent to which a method can determine particular analyte(s) in a mixture without interference from the other components in the mixture. A method that is perfectly selective for an analyte or group of analytes is said to be specific.	SWGDRUG Glossary
<b>Sensitive Site</b>	A sensitive site is a geographically limited area with special diplomatic, informational, military, or economic sensitivity to the United States. Examples of sensitive sites include war crimes sites, critical hostile government facilities, areas suspected of containing persons of high rank in a hostile government, document storage areas for enemy classified files, or research and production facilities involving breakthrough technologies.	ATP 3-90.15
<b>Sensitive Site Exploitation Team</b>	A sensitive site exploitation team is a tailored organization responsible for entering a captured sensitive site to exploit its contents and neutralize or remove any threats posed by material found inside. Normally organized around joint and interagency experts, these teams include specially trained, equipped, and qualified individuals and elements.	ATP 3-90.15
<b>Sensitivity</b>	The proportion of true positives identified by a forensic science process. Also called the true positive rate of a test.	Statistics Notes
<b>Sensor</b>	Hardware found on a biometric device that converts biometric input into a digital signal and conveys this information to the processing device.	NSTC Glossary
<b>Sensor</b>	A switch used to detect change in heat, light, movement, vibration, electromagnetic frequency, sound or magnetic field.	IED Lexicon 5th Ed
<b>Sequencing</b>	Determining the order of base pairs in a segment of DNA.	NRC Manual
<b>Sequential Processing</b>	Use of a series of development techniques in a specific order to maximize development of friction ridge detail.	SWGFAST Glossary
<b>Serial Number</b>	A number applied to a firearm for identification purposes.	AFTE Glossary
<b>Series Circuit</b>	Multiple batteries or other power sources which have one positive terminal connected to the negative terminal of the next power source which results in an increase in the available voltage.	IED Lexicon 5th Ed

TERM	DEFINITION	SOURCE
<b>Serology</b>	A category of testing within the Biology Discipline, which is concerned with the identification of biological materials.	ASCLD/LAB Supplemental
<b>Serum Stain</b>	The stain resulting from the liquid portion of blood (serum) that separates during coagulation.	SWGSTAIN Glossary
<b>Server</b>	A computer that provides some service for other computers connected to it via a network.	NIJ Digital Glossary
<b>Shaped Charge</b>	A main charge configuration incorporating explosives shaped so as to concentrate explosive force utilizing the Munroe Effect in a particular direction in order to cut or penetrate.	IED Lexicon 5th Ed
<b>Share</b>	The capability and/or process to transmit or distribute biometric samples, contextual data, associated information, or the results of forensic analyses within the DoD and between DoD and other national, international, and non-governmental organizations (NGOs) as appropriate.	Biometrics JCD - modified
<b>Shock Tube Detonator</b>	A thin, plastic tube of extruded polymer with a layer of powdered high explosive deposited on its interior surface that propagates a detonation wave to the blasting cap.	JP 3-15.1
<b>Short Tandem Repeats (STRs)</b>	Multiple copies of an identical (or similar) DNA sequence arranged in direct succession where the repeat sequence unit is 2 to 6 bp in length; because STRs generally occur in the 'junk' DNA outside of the constraints of genes, the number of repeat units can vary between individuals in an accordion-like fashion.	DNA Typing
<b>Shot</b>	Generally, spherical pellets used in loading shotshells or cartridges. Shot can be found in many compositions such as lead, steel, bismuth, tungsten-polymer, tin, zinc, etc.	AFTE Glossary
<b>Shot Size</b>	A numerical or letter(s) designation indicating the average diameter of a pellet.	AFTE Glossary
<b>Shotgun</b>	A long gun designed to shoot from the shoulder, typically having a smooth bore and designed to fire shotshells.	AFTE Glossary
<b>Silencer</b>	A colloquial term used to describe a device attached to the barrel of a firearm designed to reduce the noise of discharge. Such a device is more accurately identified as a sound suppressor.	AFTE Glossary
<b>Similarity Score</b>	A value returned by a biometric algorithm that indicates the degree of similarity or correlation between a biometric sample and a reference.	NSTC Glossary
<b>Single Nucleotide Polymorphism (SNP)</b>	A substitution, insertion, or deletion of a single base pair at a given point in the genome.	NRC Manual
<b>Single-Source Profile</b>	DNA typing results determined to originate from one individual based on peak height ratio assessments and the number of alleles at given loci.	SWGDM Glossary
<b>Single-Use Equipment</b>	Items that will be used only once to collect evidence, such as biological samples, then discarded to minimize contamination (e.g., tweezers, scalpel blades, droppers). Sometimes referred to as "consumables."	CSI Guide - modified
<b>Site</b>	a location designated by a commander as potentially having materiel pertinent for collection and for the positive identification of persons	ATP 3-90.15

TERM	DEFINITION	SOURCE
<b>Site Exploitation</b>	Site exploitation is a series of activities to recognize, collect, process, preserve, and analyze information, personnel, and/or materiel found during the conduct of operations in order to protect the force and produce an advantage within the operational variables to support tactical, operational, and strategic objectives.	ATP 3-90.15
<b>Site Integrity</b>	The degree to which a designated site has been protected and preserved in the state that it was when the incident occurred. Steps taken to preserve the integrity of a site include establishing a perimeter and limiting access. Because the integrity of the site degrades naturally over time, processing is undertaken as quickly as is feasible and appropriate to the conditions.	A Dictionary of Forensic Science - modified
<b>Site Mapping</b>	The process of documenting a scene with a hand-drawn or computer generated map showing the overall layout, perimeter, and key structures or features that define the designated site. Reference points and directionality are documented to help locate features and evidence. Mapping is part of "site documentation."	A Dictionary of Forensic Science - modified
<b>Site Perimeter</b>	The line (either drawn, marked, or defined) that demarcates a designated site from the surroundings. All areas within the perimeter should be searched and processed for evidence. The definition of the perimeter may change as the site is processed and more information becomes available.	A Dictionary of Forensic Science - modified
<b>Situational Information</b>	The who, what, when, where, how, why, etc. associated with a collection event and permanently recorded as an integral component of contextual data.	Biometrics Glossary v6
<b>Situational Understanding</b>	The product of applying analysis and judgment to relevant information to determine the relationship among the operational and mission variables to facilitate decision making.	ADRP 1-02, ADP 5-0
<b>Slap Fingerprint</b>	Fingerprints taken by simultaneously pressing the four fingers of one hand onto a scanner or a fingerprint card. Slaps are known as four finger simultaneous plain impressions.	NSTC Glossary
<b>Source</b>	<ol style="list-style-type: none"> <li>1. A person, thing, or activity from which information or evidence is obtained.</li> <li>2. In clandestine activities, a person (agent), normally a foreign national, in the employ of an intelligence activity for intelligence purposes.</li> <li>3. In interrogation activities, any person who furnishes information, either with or without the knowledge that the information is being used for intelligence purposes.</li> </ol>	JP 2-01 - modified
<b>Source Attribution</b>	A declaration which identifies an individual as the source of the DNA that produced an evidentiary single source or deduced contributor profile; this statement is based on a statistical estimate that meets or exceeds a laboratory defined threshold.	SWGDM Glossary
<b>Sourcing</b>	The process of determining the origination point (such as a production facility or person, a geographic location, or a specific country of origin) for IED components.	IED Lexicon 5th Ed
<b>Spatial Density</b>	A measure of the number of pixels in a digital image, e.g., pixels per inch.	SWGFAST Glossary
<b>Spatter Stain</b>	A bloodstain resulting from a blood drop dispersed through the air due to an external force applied to a source of liquid blood.	SWGSTAIN Glossary
<b>Speaker</b>	A vocalizing human, whether or not the vocalizations contain speech.	ANSI/NIST-ITL 1
<b>Speaker Identification</b>	A form of speaker recognition which compares a voice sample with a set of voice signatures corresponding to different persons to determine the one who has spoken.	ISO 2382-29

TERM	DEFINITION	SOURCE
<b>Speaker Recognition</b>	A biometric modality that uses a biometric subject's speech, a feature influenced by both the physical structure of a biometric subject's vocal tract and the behavioral characteristics of the biometric subject, for recognition purposes. Sometimes referred to as 'voice recognition.' 'Speaker Recognition' is not the same as 'Speech recognition' which recognizes the words being said and is not a biometric technology.	NSTC Glossary
<b>Specificity</b>	The proportion of true negatives identified by a forensic science process. Also called the true negative rate of a test.	Statistics Notes
<b>Speech</b>	Audible vocalizations made with the intent of communicating information through linguistic content. Nonsensical vocalizations with linguistic content will be considered as speech (including singing and chanting). Speech can be made by humans, by machine synthesizers, or by other means.	ANSI/NIST-ITL 1
<b>Splash Pattern</b>	A bloodstain pattern resulting from a volume of liquid blood that falls or spills onto a surface.	SWGSTAIN Glossary
<b>Spoofing</b>	In a biometric system, the process by which an imposter intentionally attempts to be recognized as another person or intentionally attempts to be missed as an existing identity in the gallery.	FISWG Glossary
<b>Spur</b>	A bifurcation with one short ridge branching off a longer ridge.	SWGFAST Glossary
<b>Standard</b>	<ol style="list-style-type: none"> <li>1. Material of established origin with certified properties.</li> <li>2. A documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics to ensure that materials, products, processes, and services are fit for their purpose. To be effective, the standards should be definable, measurable, achievable, and verifiable.</li> </ol>	<ol style="list-style-type: none"> <li>1. ASTM E1732</li> <li>2. FM 3-34.210</li> </ol>
<b>Standard Operating Procedure (SOP)</b>	Written documentation maintained by the laboratory including laboratory policies, procedures and protocols or methods for specific forensic procedures. SOPs are controlled documents with a mechanism for ensuring SOPs are implemented in the laboratory, content is current and authorized with previous or invalid versions being archived for reference.	SWGWILD Glossary
<b>Steganography</b>	A means of writing hidden messages, such as, only the intended recipient knows of its existence.	USARAF Glossary
<b>Stochastic Effects</b>	The observation of intra-locus peak imbalance and/or allele drop-out resulting from random, disproportionate amplification of alleles in low-quantity template samples.	SWGDM Glossary
<b>Stochastic Threshold</b>	The peak height value below which it is reasonable to assume that, at a given locus, allelic dropout of a sister allele in a heterozygous pair may have occurred.	SWGDM Glossary
<b>Stock Solution</b>	Concentrated solution diluted to prepare a working solution.	SWGFAST Glossary
<b>Stress</b>	Prominence of one syllable in a word used to signal linguistic information, like the difference between implant (noun) and implant (verb) in English.	Speaker Identification
<b>Stutter</b>	A minor peak typically observed one repeat unit smaller than a primary STR allele resulting from strand slippage during amplification.	SWGDM Glossary

TERM	DEFINITION	SOURCE
<b>Subclass Characteristics</b>	Features that may be produced during manufacture that are consistent among items fabricated by the same tool in the same approximate state of wear. These features are not determined prior to manufacture and are more restrictive than class characteristics.	AFTE Glossary
<b>Submission</b>	The process whereby a subject provides a biometric sample to a biometric system.	NSTC Glossary
<b>Submunition</b>	Any munition that, to perform its task, separates from a parent munition. Submunitions are classified as bomblets, grenades, or mines.	IED Lexicon 5th Ed
<b>Sub-Secondary</b>	An alpha expression derived from the index, middle and ring fingers of both hands.	SWGFAST Glossary
<b>Substrate</b>	Surface or material upon which a substance is deposited.	SWGFAST Glossary - modified
<b>Sufficient Recurve</b>	The space between the shoulders of a loop, free of any appendages that abut upon the recurve at a right angle on the outside.	SWGFAST Glossary
<b>Suitable (Sufficient)</b>	The determination that a sample has an adequate amount of quality or quantity, for a specified characteristic, in order to continue with analysis, comparison, or testing.	SWGFAST - modified
<b>Superimposition</b>	The use of a registered overlay as an aid to comparison.	FISWG Glossary
<b>Support To Prosecution</b>	The process of associating related people, places, devices, or equipment to an individual for evidentiary purposes in a recognized court of law.	JP 3-15.1
<b>Surge Capability</b>	The ability to provide additional personnel and/or equipment to perform forensic exploitation in a forward deployed environment, in response to unforeseen demand or in anticipation of future demand.	DFSC
<b>Swipe Pattern</b>	A bloodstain pattern resulting from the transfer of blood from a blood-bearing surface onto another surface, with characteristics that indicate relative motion between the two surfaces.	SWGSTAIN Glossary
<b>Switch</b>	A device for making, breaking, or changing a connection in an IED. A single switch can have multiple functions (e.g., arming and firing).	JP 3-15.1
<b>Symphalangy</b>	End to end fusion of the phalanges of the fingers or toes.	SWGFAST Glossary
<b>Syndactyly</b>	Refers to webbed fingers. Side-to-side fusion of digits.	SWGFAST Glossary
<b>System</b>	A functionally, physically, and/or behaviorally related group of regularly interacting or interdependent elements; that group of elements forming a unified whole.	JP 3-0
<b>Tactical Edge</b>	The platforms, sites, and personnel (U. S. military, allied, coalition partners, first responders) operating at lethal risk in a battle space or crisis environment characterized by: 1. A dependence on information systems and connectivity for survival and mission success. 2. High threats to the operational readiness of both information systems and connectivity. 3. Users are fully engaged, highly stressed, and dependent on the availability, integrity, and transparency of their information systems.	CNSSI 4009
<b>Technical Categorization</b>	A description of an IED using a hierarchical construct to identify its key components. The components identified in this categorization are the elements from which technical and forensic information is recovered and exploited.	IED Lexicon 5th Ed

TERM	DEFINITION	SOURCE
<b>Technical Intelligence</b>	Intelligence derived from the collection, processing, analysis, and exploitation of data and information pertaining to foreign equipment and materiel for the purposes of preventing technological surprise, assessing foreign scientific and technical capabilities, and developing countermeasures designed to neutralize an adversary's technological advantages. Also called TECHINT. See also exploitation; intelligence. (JP 2-0)	JP 1-02
<b>Technical Review</b>	An evaluation of reports, notes, data, and other documents to ensure there is an appropriate and sufficient basis for the scientific conclusions.	FBI DNA QAS
<b>Technical Reviewer</b>	An employee or contract employee who is a current or previously qualified analyst in the methodology being reviewed that performs a technical review of, and is not an author of, the applicable report or its contents.	FBI DNA QAS
<b>Technician</b>	An employee or contract employee who performs analytical techniques on forensic samples under the supervision of a qualified analyst. Technicians do not interpret data, reach conclusions on typing results, or prepare final reports.	FBI DNA QAS
<b>Techniques</b>	Non-prescriptive ways or methods used to perform missions, functions, or tasks.	CJCSM 5120.01
<b>Template</b>	A digital representation of an individual's distinct characteristics, representing information extracted from a biometric sample. Templates are used during biometric authentication as the basis for comparison.	USSOCOM CPD v2
<b>Tenprint (Latent Prints)</b>	<ol style="list-style-type: none"> <li>1. A generic reference to examinations performed on intentionally recorded friction ridge impressions, usually ten fingers.</li> <li>2. A controlled recording of available fingers of an individual using black ink, electronic imaging, photography, or other medium on a contrasting background.</li> </ol>	SWGFAST Glossary
<b>Terrorism</b>	The unlawful use of violence or threat of violence, often motivated by religious, political, or other ideological beliefs to instill fear and coerce governments or societies in pursuit of goals that are usually political.	JP 3-07.2
<b>Terrorist</b>	A person who unlawfully uses violence or threats of violence to instill fear and coerce governments or societies.	JP 3-07.2 - modified
<b>Terrorist Explosives Device Analytical Center (TEDAC)</b>	An interagency organization led by the Federal Bureau of Investigation (FBI) that is committed to establishing a global response to global terrorist bombings in the form of "a single federal program responsible for the worldwide collection, complete forensic and technical analysis and timely dissemination of intelligence regarding terrorist bombs. TEDAC provides Scientific and technical exploitation of IEDs, Actionable intelligence, and centralized repository for IED related material.	TEDAC
<b>Test Mark</b>	A striated or impressed toolmark produced by the suspect tool which is to be used in making a comparison with the evidence mark.	AFTE Glossary
<b>Thenar Area</b>	The large cushion of the palm located at the base of the thumb.	SWGFAST Glossary
<b>Third Party Imagery</b>	Images utilized in FR or FI that were not captured by the agency performing the comparison (e.g., family snapshots of a missing person).	FISWG Glossary
<b>Threshold (N)</b>	Numerical value (or set of values) at which a decision boundary exists	ISO/IEC 2382-37
<b>Thymine (T)</b>	One of the four bases, or nucleotides, that make up the DNA double helix. Thymine binds only to adenine.	NRC Manual



TERM	DEFINITION	SOURCE
<b>Tissue (Skin Cells)</b>	Tissue evidence includes skin cells deposited on an object and can be processed to develop a DNA profile of the donor. It may be latent or visible to the naked eye. Tissue evidence includes fingernail fragments and scrapings. This type of evidence can be found in many places including on a vehicle, tape or ligatures, eyeglasses, earrings, and guns or knives. Skin cells can be collected by swabbing both live and dead bodies to collect skin cells that may have been transferred from a suspect to a victim, especially in violent assaults.	ATP 3-39.12
<b>Tool</b>	An object used to gain mechanical advantage. Also thought of as the harder of two objects which, when brought into contact with each other, results in the softer object being marked by the harder object.	AFTE Glossary
<b>Toolmark Identification</b>	Toolmark identification is a discipline of forensic science which has as its primary concern to determine if a toolmark was produced by a particular tool.	AFTE Glossary
<b>Toolmark, Impressed</b>	Contour variations on the surface of an object caused by a combination of force and motion where the motion of the tool is approximately perpendicular to the plane being marked. The class characteristics (shape) can indicate the type of tool used to produce the mark. These marks may contain class, subclass, and/or individual characteristics of the tool producing the marks. Also known as compression marks.	AFTE Glossary
<b>Toolmark, Striated</b>	Contour variations, generally microscopic, on the surface of an object caused by a combination of force and motion where the motion of the tool is approximately parallel to the plane being marked. Friction marks, abrasion marks, and scratch marks are terms commonly used when referring to striated marks. These marks may contain class, subclass, and/or individual characteristics of the tool producing the marks.	AFTE Glossary
<b>Toxic Industrial Biological (TIB)</b>	Any biological material manufactured, used, transported, or stored by industrial, medical, or commercial processes which could pose an infectious or toxic threat.	JP 3-11
<b>Toxic Industrial Chemical (TIC)</b>	A chemical developed or manufactured for use in industrial operations or research by industry, government, or academia. For example: pesticides, petrochemicals, fertilizers, corrosives, poisons, etc. These chemicals are not primarily manufactured for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for human use. Hydrogen cyanide, cyanogen chloride, phosgene, and chloropicrin are industrial chemicals that can also be military chemical agents.	JP 3-11
<b>Toxic Industrial Material (TIM)</b>	A generic term for toxic or radioactive substances in solid, liquid, aerosolized, or gaseous form that may be used, or stored for use, for industrial, commercial, medical, military, or domestic purposes. Toxic industrial material may be chemical, biological, or radioactive and described as toxic industrial chemical, toxic industrial biological, or toxic industrial radiological.	JP 3-11
<b>Toxic Industrial Radiological (TIR)</b>	Any radiological material manufactured, used, transported, or stored by industrial, medical, or commercial processes. For example: spent fuel rods, medical sources, etc.	JP 3-11
<b>Toxicology</b>	Analysis of biological samples for the presence of drugs and other potentially toxic materials.	ASCLD/LAB Supplemental
<b>Trace Evidence</b>	Physical evidence of a microscopic or submicroscopic size which, due to its small size, is deposited on or transferred to one or more objects without being manifestly apparent at the time of transfer or deposition.	AFTE Glossary

TERM	DEFINITION	SOURCE
<b>Traceability</b>	1. (Items/Records) Ability to trace the history, application or location of that which is under consideration 2. (Measurement) Property of a result of a measurement whereby it can be related to appropriate standards, generally International or National standards, through an unbroken chain of comparisons.	1. ISO 9000:2015 2. FBI DNA QAS
<b>Trailing Edge</b>	The trailing edge of a bullet fired from a gun with a right twist is the left edge of the land impression, or the right edge of the groove impression. The trailing edge of a bullet fired from a gun with left twist is the right edge of the land impression or the left edge of the groove impression. Also known as following edge when used in conjunction with the term leading edge.	AFTE Glossary
<b>Transfer Stain</b>	A bloodstain resulting from contact between a blood-bearing surface and another surface.	SWGSTAIN Glossary
<b>Transient Evidence</b>	Evidence which by its very nature or the conditions at the scene will lose its evidentiary value if not preserved and protected (e.g., blood in the rain).	CSI Guide
<b>Triage</b>	1. (Explosives) The procedures which ensure that all material is rendered safe before it is forensically exploited. 2. (Case Management) Prioritization of forensic activities on the basis of where funds and other resources can be best used, results are most needed, or where analysis is most likely to achieve success. Examples include: deciding which materials might hold forensic and/or exploitation value, and prioritizing which lab section(s) should receive materials.	1. ATP 3-90.15 - modified 2. Merriam-Webster Dictionary - modified
<b>Trifurcation</b>	The point at which one friction ridge divides into three friction ridges.	SWGFAST Glossary
<b>Trigger</b>	That part of a firearm mechanism that is moved manually to cause the firearm to discharge.	AFTE Glossary
<b>Twist</b>	The direction of turn of the rifling helix, such as left hand or right hand twist.	AFTE Glossary
<b>Type I Error</b>	An error that occurs in a statistical test when a true claim is (incorrectly) rejected. For example, John Claims to be John but the system incorrectly denies his claim.	NSTC Glossary
<b>Type II Error</b>	An error that occurs in a statistical test when a false claim is (incorrectly) not rejected. For example, Frank Claims to be John but the system verifies the claim.	NSTC Glossary
<b>Type Lines</b>	The two innermost ridges associated with a delta that are parallel, diverge, and surround or tend to surround the pattern area.	SWGFAST Glossary
<b>U.S. Army Criminal Investigation Laboratory (USACIL)</b>	The only full service forensic laboratory in the DoD which provides forensic laboratory services to DOD investigative agencies and other Federal law enforcement agencies.	History of USACIL
<b>Ultraviolet</b>	Wavelengths of light shorter than that of the visible spectrum, between 10 and 400 nm.	SWGFAST Glossary
<b>Uncertainty</b>	An indication of the variability associated with a measured value that takes into account two major components of error: (1) bias; and (2) the random error attributed to the imprecision of the measurement process.	ASTM E456

TERM	DEFINITION	SOURCE
<b>Uncontrolled Image</b>	An image not captured in accordance with FI/FR standards or guidelines (e.g., a surveillance image).	FISWG Glossary
<b>Uncooperative User</b>	An individual who actively tries to deny the capture of his/her biometric data.	USSOCOM CPD v2
<b>Underlying Scientific Principle</b>	A rule concerning a natural phenomenon or function that is a part of the basis used to proceed to more detailed scientific functions.	FBI DNA QAS
<b>Unknown/Questioned Sample</b>	Evidence of unknown origin; these samples could be found at a designated site, transferred to an offender during commission of a crime, or recovered from more than one designated site.	NFSTC Glossary
<b>Unmanned Aircraft Systems (UAS)</b>	That system whose components include the necessary equipment, network, and personnel to control an unmanned aircraft.	JP 3-30
<b>Validation</b>	<p>A process by which a procedure is evaluated to determine its efficacy and reliability for forensic casework analysis and includes the following:</p> <ol style="list-style-type: none"> <li>1. Developmental validation is the acquisition of test data and determination of conditions and limitations of a new or novel methodology for use on forensic samples.</li> <li>2. Internal validation is an accumulation of test data within the laboratory to demonstrate that established methods and procedures perform as expected in the laboratory.</li> </ol>	Guidelines for Bio Evidence
<b>Valley</b>	The area surrounding a friction ridge that does not make contact with an incident surface under normal touch; the area between two friction ridges.	ANSI INCITS 378-2004
<b>Variable Number Tandem Repeat (VNTR)</b>	In DNA, a locus that has a base pair sequence that repeats a variable number of times. Thus, variation within a population is not generated by what bases are found, but how often a given sequence is repeated.	A Dictionary of Forensic Science
<b>Vascular Pattern Recognition</b>	Automated recognition technology where the skin of the back of the hand or the finger is penetrated by near-infrared rays generated from a bank of light emitting diodes (LEDs). The reflected rays produce an image on the sensor which reveals the vascular pattern.	NSTC Glossary
<b>Verification</b>	<ol style="list-style-type: none"> <li>1. (Biometrics) The one-to-one process of matching a biometric subject's biometric sample against his stored biometric file. Also known as Authentication.</li> <li>2. (Forensics) A review and independent analysis of an examiner's conclusion by another qualified examiner.</li> <li>3. (Digital Evidence) The process of confirming the accuracy of an item to its original. In the context of hardware and software systems, formal verification is the act of proving or disproving the correctness of a system with respect to a certain formal specification or property, using formal methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Biometrics Glossary v6</li> <li>2. FISWG Glossary - modified</li> <li>3. USARAF Glossary</li> </ol>
<b>Verification Attempt</b>	Biometric claim and capture attempt(s) that together provide the inputs for comparison(s).	ISO/IEC 2382-37
<b>Verification Rate</b>	A statistic used to measure biometric performance when operating in the verification task. The rate at which legitimate biometric subjects are correctly verified.	NSTC Glossary
<b>Vet/Vetting</b>	The process of determining an individual's allegiance, background or suitability for credentialing.	USSOCOM CPD v2

TERM	DEFINITION	SOURCE
<b>Video Analysis</b>	A sub-discipline of Digital & Multimedia Forensics, which involves the scientific examination, comparison, and/or evaluation of video in legal matters.	DoDD 5205.15E
<b>Visit, Board, Search and Seizure (VBSS)</b>	The conduct of maritime interception operations on nautical vessel. Forensics and biometrics are used to determine immediate threats to operations or preserve evidence for future exploitation.	JP 3-32
<b>Void</b>	An absence of blood in an otherwise continuous bloodstain or bloodstain pattern.	SWGSTAIN Glossary
<b>Volar Pads</b>	Palmar and plantar fetal tissue growth that affects friction ridge skin development and patterns.	SWGFAST Glossary
<b>Volatile</b>	Any substance that is readily vaporizable at a relatively low temperature; they evaporate quickly and easily.	Merriam-Webster Dictionary - modified
<b>Watch List</b>	A list of entities who have specified characteristics of interest to a Commander, unit or organization.	USSOCOM CPD v2 - modified
<b>Weapons Technical Intelligence (WTI)</b>	Intelligence derived from the processes and capabilities that collect, exploit and analyze asymmetric threat weapons systems to enable material sourcing, support to prosecution, force protection, signature characterization and targeting of threat networks.	IED Lexicon 5th Ed
<b>Whorl</b>	A fingerprint pattern in which the ridges are circular or nearly circular. The pattern will contain 2 or more deltas. There are four types: Plain, accidental, central pocket loop, and double loop.	Biometrics Glossary v6
<b>Whorl - Accidental</b>	A fingerprint pattern consisting of two different types of patterns, with the exception of the plain arch, with two or more deltas; or a pattern which possesses some of the requirements for two or more different types; or a pattern which conforms to none of the definitions.	SWGFAST Glossary
<b>Whorl - Central Pocket Loop</b>	A type of fingerprint pattern which has two deltas and at least one ridge which makes, or tends to make, one complete circuit, which may be spiral, oval, circular, or any variant of a circle. An imaginary line drawn between the two deltas must not touch or cross any recurving ridges within the inner pattern area.	SWGFAST Glossary
<b>Whorl - Double Loop</b>	A type of fingerprint pattern that consists of two separate loop formations with two separate and distinct sets of shoulders and two deltas.	SWGFAST Glossary
<b>Whorl - Plain</b>	A type of fingerprint pattern which consists of one or more ridges which make, or tend to make, a complete circuit, with two deltas, between which, when an imaginary line is drawn, at least one recurving ridge within the inner pattern area is cut or touched.	SWGFAST Glossary
<b>Wipe Pattern</b>	An altered bloodstain pattern resulting from an object moving through a preexisting wet bloodstain.	SWGSTAIN Glossary
<b>Working Solution</b>	Solution at the proper dilution for processing.	SWGFAST Glossary
<b>Write Protection</b>	Software or hardware that prevents data from being written to a storage device. Write protection ensures that digital evidence is not modified after it is seized.	NIJ Digital Glossary

TERM	DEFINITION	SOURCE
<b>Yaw</b>	The rotation in degrees about the y-axis (vertical axis). Frontal poses have a yaw angle of zero degrees. Positive angles represent faces looking to their left (a counter-clockwise rotation around the y-axis).	ISO 19794-5

### 3 Bibliography

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