FM 19-20

LAW ENFORCEMENT
Investigations

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HEADQUARTERS DEPARTMENT OF THE ARMY

Field Manual
No. 19-20

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DEPARTMENT OF THE ARMY
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LAW ENFORCEMENT INVESTIGATIONS

Preface

This field manual is a guide for military police investigators (M PI) and US Army Criminal Investigation Command (USACIDC) special agents operating at all levels of tactical and garrison environments. Department of the Army civilian investigators and commanders and staff officers who supervise military investigators will also find it useful. This manual discusses the investigative process. It discusses the offenses investigators are called upon to investigate. It tells investigators how to apply the technical skills and techniques that will result in a successful inquiry. And it suggests approaches likely to bring each investigation to a favorable conclusion. Special terms used in the manual are explained in the Glossary.

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Unless otherwise stated, whenever the masculine or feminine gender is used both men and women are included.

*This publication supersedes FM 19-20, 29 April 1977.

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PART ONE

CONDUCTING SYSTEMATIC INQUIRIES

CHAPTER 1

The Investigator's Purview

Military law enforcement investigations are official inquiries into crimes involving the military community. As a military investigator you will conduct systematic and impartial investigations to uncover the truth. You will seek to determine if a crime has been committed and to discover evidence of who has committed it. You will find, protect, collect, and preserve evidence discovered at the crime scene or elsewhere. You will document your findings and your actions with careful records. You will ensure evidence is accounted for by a complete chain of custody to allow it to be admissible in court. You will conduct interviews and interrogations in a manner that ensures depositions, statements, admissions, and confessions can be accepted in court. And as a professional fact-finder you will maintain unquestionable integrity in the course of undertaking your investigations. Your charter is to impartially find, examine, and make available evidence that will clear the innocent and allow prosecution of the guilty.

To successfully conduct your inquiries you must know the technical and legal requirements for a successful investigation. You must understand the general rules of evidence. You must know how to submit evidence for examination by laboratory specialists at a US Army criminal investigations laboratory (USACIL). You must understand the provisions and restrictions of the Manual for Courts-Martial, United States 1984 (Revised Edition) (MCM) and the Uniform Code of Military Justice (UCMJ). When there is any question of jurisdiction, authority, or legality of action or evidence, you must seek the counsel of the staff judge advocate (SJA). And you must be able to render constructive testimony in court.

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KNOWING LEGAL CONSIDERATIONS

All military personnel are subject to the provisions of the UCMJ. The UCMJ, as established by Congress, provides one basic code of military justice and law for all services. The code authorizes the President of the United States to set rules of evidence; pretrial, trial, and post-trial procedures; and maximum punishments for violations of the UCMJ. Under this authority, the President has issued the MCM.

THE MANUAL FOR COURTS-MARTIAL

The MCM is a primary source document for matters relating to military justice. It is an Executive Order implementing the provisions of the UCMJ. It establishes the military law of evidence. The MCM is divided into four parts: a table of contents; the body, which is divided into points; the appendixes; and the index.

The body of the manual is divided into five parts. Part I, Preamble, is a brief discussion of military jurisdiction and the nature of military law. Part II, Rules for Courts-Martial, outlines the steps which must be taken to hold a proper military court-martial. It covers matters ranging from military jurisdiction to post-trial appeals. It discusses both the rights of the accused and the obligations of the government. Part III, Military Rules of Evidence, is mainly for the use of trial lawyers in the courtroom. But certain provisions of the rules impact heavily on your everyday activities as an investigator. In particular, Section III of Part III discusses the rules and related matters concerning self-incrimination, search and seizure, and eyewitness identification. Part IV, Punitive Articles, contains a thorough discussion of crimes punishable by the military. Each punitive article is discussed and illustrated separately. Part IV is particularly important to you, because it offers a guide for your investigation, showing what facts are important and need to be determined. The discussion gives the text of the article, lists the elements of the offense, explains the offense and gives examples, lists any lesser included offenses, tells the maximum punishment, and gives a sample specification. Part V, Nonjudicial Punishment, deals with the rules of nonjudicial punishment under Article 15, UCMJ.

The two most important appendixes in the MCM are Appendixes 1 and 2. Appendix 1 contains the Constitution of the United States, which sets the bounds within which the federal government must operate. Appendix 2 contains the UCMJ. Because the UCMJ creates the law, while the MCM implements and defines the law, if the MCM conflicts with the UCMJ, as interpreted by the Court of Military Appeals, the code must be followed. Federal rules of evidence, as developed in federal courts, are used to assist in the interpretation of the manual when military law is silent on the question.

PARTICIPANTS IN A CRIME

The primary participants in a crime are the "principals." The UCMJ discusses principals in detail. The person who directly commits an offense is, obviously, a principal. So, too, is an aider and abettor of a crime.

The aider and abettor shares the criminal intent of the perpetrator. Being present at the scene of a crime or failing to prevent a crime does not make someone an aider and abettor. But someone who counsels, commands, induces, or procures another to commit a crime is an aider and abettor. An aider and abettor is a principal even if he is not present at the scene of the crime and even if the person he solicits to commit the crime does so by a means other than that which was planned.

An aider and abettor, if his intent or state of mind is more culpable than that of the perpetrator, may be guilty of an offense of greater seriousness than the perpetrator. And the reverse is true also. If, when a homicide is committed, the actual perpetrator acts in the heat of sudden passion caused by adequate provocation, he may be guilty of manslaughter. But the aider and abettor who hands a weapon to the perpetrator during this encounter with shouts of encouragement for him to kill the victim may be guilty of murder. On the other hand, two persons may agree to commit robbery by snatching purses in a particular place. If one acts as a lookout and the other, without knowledge of the lookout, seizes a victim and rapes her after taking her purse, the perpetrator will be guilty of rape and robbery, but the aider and abettor will be guilty only of the robbery.

An investigation of any given crime may also reveal the criminal liability of an accessory after the fact. A person who is an accessory after the fact is someone who, knowing that an offense under the UCMJ has been committed, receives, comforts, or assists the offender to prevent his apprehension, trial, or punishment. An accessory after the fact is also someone who, knowing that a crime has been committed, helps conceal the crime. But mere knowledge that a crime has been committed does not make someone an accessory after the fact. The person must have had a legal duty to report it. Or he or she must have committed some overt act designed to prevent the punishment of the criminal. Conviction of the perpetrator of the offense to which the accused is allegedly an accessory after the fact is not a prerequisite to the trial of the accessory.

LEGAL PROTECTION OF JUVENILES

Most job contact with juveniles occurs when you investigate minor offenses like disturbing the peace. Sometimes contact is made when juveniles are seen committing acts that could be harmful to people or property. Usually, you stop the misconduct and, when needed, refer the incident to their parents. Your investigation into the causes of the misconduct and your collection of background data is limited to essential information. But you may extend your investigation to include the conduct of the child's military sponsors if that conduct is dangerous or harmful to the child.

Investigative steps for the gathering of evidence in juvenile offenses are the same as those used in cases involving adult suspects. But you must ensure that the juvenile is processed in accordance with Title 18, US Code, Chapters 401 and 403. And you must ensure the child is protected from unwarranted treatment.

If you must detain juveniles, remember that detaining juvenile suspects in confinement facilties, detention cells, or hospital prisoner wards is strictly forbidden. Juveniles may be temporarily detained in the offices of the post commander or provost marshal (PM), but check with SJA to ensure the proper conditions exist. Unless a juvenile is taken into custody for serious offenses, you may not take fingerprints or photographs of them without written consent of a judge. Contact SJA to ensure you have the proper judicial authority. You may not release names or pictures of juvenile offenders to the public.

All records of juvenile offenders must be secured and released only on a need-to-know basis. During juvenile proceedings, the data on the juvenile and the offense may only be given to the court, the juvenile's counsel, and others having a need to know. These others may be courts or agencies preparing presentence reports for other courts, or they may be police agencies requesting the information for an investigation of a crime. Records may also be released to a treatment facility to which a juvenile has been committed by the court if the director submits an inquiry in writing. And sometimes records may be released to an agency considering the subject for a position involving law enforcement work or affecting national security.

Records should give detailed listings of regulations the juveniles have violated. And they should include the disposition made by civilian authorities. But permanent records of nonessential minor incidents or situations resolved in conference with parents or juvenile are not made. If a juvenile is found innocent, all records of the offense, including fingerprints, must be destroyed, sealed by the court, or disposed of in accordance with local directives.

GENERAL RULES OF EVIDENCE

As a military law enforcement investigator you must develop skills and techniques to recognize, collect, evaluate, process, and preserve evidence. Evidence is the source from which a court-martial or jury must form its conclusions as to the guilt or innocence of an accused. Evidence is the means by which any alleged matter of fact is proved or disproved. It includes all matters, except comment or argument, legally submitted to a court to enable it to decide a question before it.

As a military investigator you conduct your inquiries to find evidence and make it available for presentation in court. But something more than a mere collection of evidence is required of a successful investigation. The evidence you obtain must be admissible in court.

Thus a basic knowledge of the rules governing admission and rejection of evidence is fundamental to your investigation. It is needed to conduct inquiries and to prepare cases that will present to the court enough admissible and reliable information upon which to base a proper decision. Only evidence that satisfies the rules of admissibility is admitted. Evidence from a search or a seizure is not admissible in a court-martial or in a federal judicial proceeding if it was obtained as a result of an unlawful search of the accused's property. This is called the Exclusionary Rule. Furthermore, evidence that is derived from an exploitation of an illegal act also may be inadmissible under what is known as the Fruit of the Poisoned Tree doctrine.

To be admissible, evidence must be relevant. Relevancy requires that the particular item of evidence have some tendency to prove or disprove a fact to be decided at the trial. All relevant evidence is admissible at trial unless some rule of law forbids its consideration by the court.

Rules of evidence are concerned with the admission of facts and pertinent materials and not with their "weight." The weight accorded a particular item of evidence is a question for the court-martial or jury to determine. The weight of evidence is its relative importance among differing items of evidence in a case. For example, an alibi being established by a defendant accused of murder would have more weight as evidence if a physician testifies he was attending the defendant in his home at the time of the alleged offense than if the defendant's mother testifies he was at home in bed at that time. The testimony of both is admissible, but it is apparent that greater weight would be given to that of an impartial witness than to testimony from a mother favoring her son.

PARTICIPATING IN THE CRIMINAL INFORMATION PROCESS

The success of your investigation can depend on your local application of information that investigators, world-wide, gather and process about crimes committed by individuals or organized crime groups. This criminal information helps you identify criminals and be aware of criminal activity and violations of criminal law. It also helps you prevent crime by allowing you to assess crime problems and trends.

The US Army uses criminal information to reveal criminal activities affecting the US Army. Only data which is needed is collected. Data solely about political activities is not collected. DA policy, stated in AR 380-13, forbids collection and retention of data on non-DOD personnel except for data about crimes that DOD has responsibility to investigate or prosecute.

Criminal information is more than just data documented in ongoing investigations. It is any information observed or obtained by investigators which may be of value to you when added to the information you possess. The process by which you and other investigators change the raw data from untried, undeveloped information into a useful form for investigative needs is called the criminal information process. It is an ongoing cycle of planning, collecting, evaluating, collating, analyzing, reporting, disseminating, and reevaluating. The process, undertaken continuously both at local levels and at higher HQ, ensures that a broad sprectrum of information is available to aid you. The information that is gathered is processed and disseminated to all levels.

GATHERING INFORMATION

At command level, the Operations Directorate, USACIDC, supervises the US Army's criminal information effort. It sets information priorities for world-wide collection. And it disseminates processed criminal information to the local levels. USACIDC sets guides for two types of information: essential elements of criminal information (EECIs) and other criminal information requirements (OCIRs). OCIRs are data that may be useful to you, but you often do not need right away. EECIs, on the other hand, are critical items of data on criminal activities and crime areas to be collected at all levels. When EECI data are correlated and disseminated to local units, you can use that information to reach conclusions and make decisions.

At unit level, USACIDC offices and certain Military Police (MP) elements supervise the planning and collection of criminal information. The criminal information coordinators in local units plan and collect information on criminal functions within command boundaries and forward it on request or on their own initiative. They also set local priorities within the overall program. They keep in touch with information and law enforcement agencies.

At investigator level, you plan and collect data for input to the criminal information system. Collecting information is a continual duty of *all* investigators, not just those assigned directly to a criminal information section. You, the individual investigator, are

the key to a successful collection effort. You are usually the person in direct contact with local human sources of information. During your daily activities you look for EECIs and OCIRs. You do this continuously and aggressively. Although priority is placed on EECI needs, you must not overlook other useful criminal information.

You sift, sort, review, and analyze data with the help of the local criminal information coordinator. You develop sources of information. You gather information from both overt and covert sources. Your overt sources may be citizens, workers in private and government agencies, members of police agencies, and unit commanders. Postal workers, news media, phone books, and public records are good overt sources of information, too. Your covert sources include criminal elements willing to be sources and surveillant and undercover investigators. Your development of sources of information is limited only by your imagination.

Criminal information must be accurate and relevant. Usually the investigator who collects the details is most able to assess the reliability of his or her source. That investigator can determine reliability by recalling past experience with that source, as well as comparing the data with that gathered from other overt or covert sources. But even when you question the reliability of a source or accuracy of the information you collect, do not, disregard it as useless. Report it. You may not see the immediate need for an item of information. But this does not mean that item is not of value.

Higher USACIDC levels, having wider sources of criminal information than lower levels, may assess the accuracy and usefulness of an item of data by comparing it with a variety of other known data and circumstances. When seemingly useless bits of information are fitted together, the many separate bits may, like jigsaw puzzle pieces, form a recognizable picture. Thus, you should coordinate the information you collect on *every* new case with the criminal information center.

To bring together collected data to decide its importance and relation to other information, your data must be collated and analyzed. It must be combined with other related data and then analyzed to allow sound theories and judgments to be derived. The analysis of the criminal information can be done at the same time as collation. The same data may be analyzed many times and by a variety of methods. The methods of statistical, systems, computer, or operational research analysis may be used. However an analysis is done at any level of command, it is done to see if a pattern can be shown and to see if more data is needed. An analysis also serves as a tool to reevaluate collection plans.

After data has been collected, collated, and analyzed, it must he reported. Because of the sensitive nature of some of the data being reported, the information is usually reported on CID Form 97 (Criminal Information Report). Tailor your reports to the needs of the main user. Give positive information. Prepare them objectively. But be sure to tell what conclusions you have drawn from the data. After the reported information is further analyzed at higher levels, criminal information is disseminated back to local levels. The information is disseminated to reach the principal user—the local investigator—you.

Reevaluation is the final stage of the criminal information process. It is a review at all levels of the potential use and benefit of the collected information. Reevaluation serves to show where changes need to be made. It ensures that the information to be gathered reflects the needs and goals of local investigative units and of such units in general. It ensures the information reflects current targets of interest, as areas of concern vary over time. And it ensures the information is obtainable from contacts and sources of information that are available.

USING AND PROVIDING INFORMATION

To be useful, information must be available and easily retrievable. Only if you can get to the information can you see if any exists that will aid you in an ongoing investigation.

Three files are required by regulation to be maintained at each local USACIDC office.

These are the name index card file, the *modus operandi* (MO) file, and the offense file. The name index card file contains information cross-indexed by subjects, victims, witnesses and organizations. The modus operandi file contains information on distinct manners of operation cross-indexed by subjects and cases. And the offense file contains information indexed by the type of' crime committed.

But a unit's investigative file system is not limited to these. Other useful files may include information indexed by unit, location, nicknames, stolen property, or type of vehicles. Criminal information may be indexed by any topic that will meet the investigative needs of a given office.

When an investigation is initiated, you should check the criminal information files for information regarding offenders, victims, witnesses, modus operandi, similar offenses, and perhaps even locale. And while working on the case, you must remain aware of the value of continuing to cross-check leads or other aspects of the case against the available criminal information. When an investigation is complete and you draft your report of' investigation, make a last review of criminal information. This action will ensure the thoroughness of your report. And it will allow information gained in your investigation to be checked against any unsolved cases and, perhaps, aid in solving them.

When acting on a request for information you must coordinate with your local Freedom of Information Act officer. The right to obtain information and the right to refuse to release information are limited by regulation and by the Privacy Act and the Freedom of Information Act. AR 340-17 requires that a DA Form 4410-R (Disclosure Accounting Record) be prepared and kept for release of personal data outside DOD. AR 340-17 gives guidance on USACIDC and MP law enforcement information systems. It exempts some law enforcement investigative files from the need to be disclosed. These files include source files and investigative working files.

As a participant in the criminal information process you must understand and comply with legal and regulatory restrictions on collecting, maintaining, and releasing information.

CONDUCTING AN INVESTIGATION

Conducting a successful investigation, like being successful in any endeavor, is often the result of having a wide range of knowledge and using common sense in its application. There are certain actions that apply to all investigations. You follow these intelligent and logical steps to ensure your investigation is conducted systematically and impartially. And there are certain actions that, over time, have proven useful for specific investigations. It is a wise investigator who understands and applies the knowledge, skills, and techniques learned for a particular investigation wherever they are most useful in any investigation. This means that to conduct a successful larceny investigation you do more than just follow the investigative process and the guidelines for investigating larcenies. Knowing and using a technique usually used for investigating a robbery may be just what is needed to help solve your larceny case.

Your success on any case is always a function of your intellect and experience. You must develop a hypothesis that serves as the framework for the case. Your hypothesis is based on your survey of the crime scene. It is simply a set of reasoned assumptions of how the crime was committed and the general sequence of acts that were involved.

You reassess your hypothesis as new facts and leads are uncovered. You must overcome a natural tendency to make contradicting information fit your set of existing assumptions. For example, if there is substantial evidence that a murder was committed at the place where the body was found, it is tempting to ignore a fact or a lead that does not fit that assumption. And often the lack of some item or event is just as important as its presence. As you obtain new information, you must be willing to modify or change altogether your initial ideas about

how a crime was committed. Only through constant reassessment can the full value of your experience be realized.

GATHERING EVIDENCE

Generally, the art of an investigation lies in gathering and evaluating information and evidence, both testimonial and physical. Testimonial evidence like sworn statements of eyewitness accounts and admissions of guilt is obtained through communication with people. Physical evidence like identified weapons and fingerprints is obtained by searching crime scenes, tracing leads, and developing technical data.

You must always be evidence conscious. The scene of any crime is itself evidence. And so is the testimony of trained investigators about observations and findings at a crime scene. Both physical and testimonial evidence are vital to the successful prosecution of a case.

Testimonial Evidence

Obtaining testimonial evidence requires skillful interpersonal communication with human sources of information, particularly with the persons directly involved in a case. Questioning victims, witnesses, complainants, suspects, and sources is the investigative method most often used to obtain testimonial evidence. It is also the method used to obtain background information that will give meaning to the physical evidence you collect. The solution to many crimes has been the direct result of leads and testimonial evidence developed through interviews and interrogations.

You must become skilled in interpersonal communications to elicit useful information. You must know how and when to ask the "right" questions. Your attitude and method of questioning, as much as the questions you ask, can elicit the leading information and testimonial evidence you seek.

You will question victims and witnesses to gain information that will help to show the facts of the crime. You will question them to gather information on what they saw, or know, or did in regard to an offense. You will check information you have received from one person against information you receive from another. You will question your sources for information material to the case in hand. By your questions you will try to obtain observations and develop descriptions which will identify suspects. And you will question suspects to remove suspicion from the innocent and to give the guilty an opportunity to confess.

You will record the information you obtain from interviews and interrogations. From this information you will develop statements that, when sworn to under oath and signed by the swearer, may become documents admissible in court as evidence.

Physical Evidence

Collecting and evaluating physical evidence is an important technical part of your investigation. Physical evidence is one of your most valuable investigative assets. It produces leads for you to pursue to help bring the investigation to a conclusion. And physical evidence can help establish the guilt or innocence of an accused person in a court of law. For example, as a general rule, a person cannot be convicted on the basis of an uncorroborated confession. There must be independent evidence, either direct or circumstantial, that raises an inference of the truth of the essential facts admitted in the accused's statements. Physical evidence can be that necessary independent evidence. And, while the rule requiring independent corroborating evidence does not apply to a confession made by an accused to the court during his trial, nor to statements made before or at the time the act was being committed, having physical evidence to substantiate such a confession or admission of guilt would certainly be desirable.

You must be aware of all manner of physical evidence, be it visible evidence or trace evidence. And you must be aware of how evidence can be useful to you.

Tool mark evidence may link a person who uses a given tool with the crime scene. It may show if a tool or weapon found at a crime scene made a mark that pertains to the crime. This knowledge is of value to you, whether or not the owner or possessor of the tool is known. It may eliminate the need of tracing a tool which has no connection with the crime.

It may help show if a door or window was forced open from the inside or the outside. It allows comparison of a tool mark from a crime scene with a tool mark found on the property of a suspect. It may also help narrow the search for a given tool or weapon.

Suspects sometimes can be identified through a trace of laundry marks. During crimes of violence parts of clothing with laundry marks may be torn from the suspect. Disguises like uniforms, overalls, or coveralls may be worn during holdups and thrown away after the crime. Fugitives, in their haste to depart, may leave behind old clothing. And sometimes unknown victims are identified by laundry marks.

Soils, rocks, and minerals may yield valuable circumstantial evidence. One of the main uses of soils and rocks as evidence is for sample comparisons. Samples from a crime scene can be compared with samples from a suspect's clothing or other possessions to see if the suspect could have been at the crime scene.

To achieve the maximum benefit from physical evidence, you must be not only skilled in its collection, but careful in your handling of it to preserve it for laboratory examination and/or for presentation in court. You must retain the item's evidential integrity by *keeping the item as nearly as possible in its original condition.* You must help maintain a chain of custody—a chronological, written record of who has had control of the item from the time it is acquired as evidence until it ceases to have value as evidence and is released or destroyed—to assure accountability. And you must ensure any item sent to a US Army criminal investigation laboratory for analysis is transmitted in a manner maintaining its value as evidence. *Your responsibility for items of evidence under your control ends only with the final disposition of the item.*

The investigator who first receives, recovers, or discovers physical evidence must be able to identify such evidence positively at a later date as being the specific article or item obtained in connection with a specific investigation. To be able to do this, you must mark and tag evidence promptly at the time you obtain it.

If you can, place your initials directly on the evidence. See Part Three of text. If the evidence cannot be marked, all identifying data should be noted on the container in which the evidence is placed. Record all details of the marking of evidence in your notes. Your photographs, sketches, and notes of the crime scene must show the exact places from which evidence was removed. This care is imperative to ensure the chain of custody of evidence is kept unbroken.

Remember, one of your main purposes as an investigator is to ensure that the evidence you obtain is admissible in court. Thus, you must ensure that you seize, collect, and accept receipt of evidence in a legal manner. You must be able to identify each piece of evidence weeks, months, or even years after it was collected. You must be able to describe the crime scene and where each piece of evidence was located at the scene. You must be able to explain any change in the evidence that has occurred since it was collected. And you must be able to prove that the evidence remained in proper custody from the time it was collected until it is presented in court.

EVALUATING EVIDENCE

Frequently, the successful outcome of a case depends on your accurate evaluation of the evidence. Your evaluation of evidence begins with the first information you receive about the occurrence of a crime. You evaluate evidence in light of the circumstances and conditions you find at the crime scene and the information you obtain by questioning persons connected with the event. You evaluate each piece of evidence, individually and collectively, in relation to all other evidence. If doubt exists about the evidence value of an item, then it is secured and processed as evidence. Later evaluation can determine the worth of such evidence to the investigation.

After evaluating evidence and statements of expected testimony gathered during your preliminary investigation, decide what facts are still required to establish the elements of proof of the offense being investigated. Coordinate with other agencies and commands to gain the information or documents you need to support the investigation. Make sure administrative

action is started early to secure help from, and refer undeveloped leads to, others. Take early action to give them time to comply with your requests.

While awaiting replies or action, exploit every available local source of information. Make careful use of selected sources and seek out reliable persons who possess information material to the case. Check with the criminal information office or the joint police information team. Often the information you need can be obtained from a central location. Also contact the US Army Crime Records Center (USACRC) to see if suspects have a past record or if victims have ever been victims of another crime. If new information is found, make sure it is widely disseminated.

Evaluate your evidence, again, in light of all the information you now have. Support your evaluation with common sense and sound judgment enhanced by your past experience. You may want to discuss your evaluation of the evidence with supervisors, other investigators, technicians, the SJA, or other experts in a given field.

Continue this evaluation process until the investigation is concluded. When an investigation is complete, you must prepare a final report to document your findings. Your report must reflect the who, what, where, when, why, and how of the offense. Your final report must be a thorough, timely, and *objective* evaluation of your findings.

RENDERING COURTROOM TESTIMONY

The final result in bringing a successful investigation to a close is often your testimony in the courtroom. Prepare yourself for this event with great care. Be sure you have your facts in order.

When preparing for trial, you should coordinate with the trial counsel so there are no surprises in court. You should develop a close working liaison with the trial counsel. Spend enough time with the trial counsel so that you are aware of what questions you will be asked. It is also important for the prosecutor to know what responses can be expected from you. Be professional in every way. Do not conceal information from the court. The accused has the right to a fair trial regardless of your opinion.

ACTIONS TO TAKE BEFORE TESTIFYING

- Review your investigative actions and coordinate with the prosecutor before attending the hearing, board, or court of law.
- Review all statements for clarity.
- Review all waivers, affidavits, and search warrants for investigative and legal sufficiency.
- Review times, dates, and places of primary importance to the investigation.
- Review your investigative notes on the case; prepare miscellaneous notes for use as quick reference material. But never try to memorize your notes.
- Coordinate with the evidence custodian; physically review all evidence acquired in the investigation.
- Verify that the evidence is properly marked for identification.
- Review the chain of custody.
- Coordinate with the prosecutor on specific items of evidence required for the court, board, or hearing.
- Refresh your memory by visiting the scene of the crime.

Since senior officers and non-commissioned officers serve as court members, good personal appearance goes far in establishing the effectiveness of a witness. On the witness stand you should present an appearance marked by cleanliness, neatness, and concern for the details of appearance. You should refrain from distracting mannerisms or actions. They detract from your testimony. Avoid the use of police jargon or technical language so the judge or court members are not confused.

If an objection is raised by an opposing counsel, stop your testimony until the court rules on the objection. Never blurt out answers to a question objected to by counsel.

When answering questions, do so in a polite, courteous manner. When a question is not understood, ask that it be repeated. If you do not know the answer to a question, respond with, "I do not know." *Never volunteer any inform ation while testifying that was not called for in the question.*

You should be aware that during the often rigorous cross-examination process the defense counsel will use a variety of questioning techniques to establish possible inconsistencies or prejudice. Remain calm during cross-examination and avoid arguing with opposing counsel.

After testifying, *do not discuss your testimony with anyone.* Until you are permanently excused by a military judge or person of the court, you should remain in the courthouse area.

CHAPTER 2

Surveillance, Undercover, and Task Force Operations

As you develop special skills as an investigator you may be called on to work as part of an expert investigative unit. For example, you could work as part of an economic crimes team, specializing in investigations of that particular kind of crime. Or you could work as part of a team developed for a specific operation like a surveillance or undercover operation. You could even be called on to contribute your skills and experience to an investigative task force.

Surveillances and undercover operations are undertaken to learn about a suspect's activities and relationships. In these operations investigators attempt to watch suspects or associate with them without their becoming aware of police interest. For the operations to be successful, the investigators conducting them must be trained and experienced. And sometimes they must have special skills. They may even take on entirely different identities. There may be total, and in some cases dangerous, involvement of the investigators. Because of this, surveillances and undercover operations are used only if there is no other way that will work as well to get needed information.

Like surveillances and undercover operations, task force operations often require the participation of investigators who have special skills or experience. Investigators who have become expert on the subjects of fraud or drugs, for example, may be assigned to a task force needing such expertise. Task forces are usually formed for a specific mission. Task forces are often formed to undertake long-term investigations, those covering a wide geographical area, or those requiring a diversity of investigative skills.

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SURVEILLANCE OPERATIONS

Police surveillance is the systematic observation of persons, places, or things to get information. Surveillant make notes of actions they see performed by subjects under surveillance. If there is more than one surveillant, the notes can be compared for accuracy. Normally, surveillance deals with persons. Places and things are watched if they relate to people or missions. Surveillance can provide information about a person's activities. It can show where persons under surveillance go. Or it can show where criminal activity takes place. It can verify the reliability of a source's information.

Surveillance can also be used to protect a very important person (VIP) who needs, but refuses, security measures.

Most surveillance is covert, but overt efforts are sometimes used. An overt surveillance is used when it is useful to let the subject know he or she is being observed. For instance, a nervous subject, made aware that he is being followed, may become anxious and contact his superiors while being observed.

TYPES OF SURVEILLANCE

There are two general types of surveillance: mobile and fixed. A mobile surveillance is commonly known as tailing or shadowing. A mobile surveillance can be conducted by foot or vehicle. Or it can be a combination of the two. The choice depends on the subject's movements. A fixed surveillance is known as a stakeout. A stakeout is used when the subject is stationary or when all the important information can be learned at one place. But even for a stakeout, a surveillant may remain mobile, moving from one vantage point to another. He or she may want to move around for closer observation of the area or the subject. If there is more than one exit, a surveillant may have to move about quite a bit just to keep the exits watched.

METHODS OF SURVEILLANCE

There are three basic surveillance methods: loose, close, and a combination of the two. A loose surveillance can be used to spot check a subject. And it can be used to compile long-term information on a subject. A loose surveillance is broken if the suspect seems to suspect he is being observed. A close surveillance requires continued alertness on the part of the surveillant. If the subject is lost. a close surveillance must be continued under an alternate plan. For some cases, a combination of methods works best. Surveillant may need to move from a loose to a close surveillance because of an act or a contact by the subject. Or if a place, such as a known gambling den, is under a close surveillance, a loose surveillance may be run at the same time on some of the persons who frequent the place.

PLANS

A surveillance must be planned. The plan need not follow a formal outline or even be in writing. However the plan is organized, each surveillant learns every step of the operation. The plan may state general concepts of operations and duties. It may coordinate actions. The actions of two or more surveillant must always be coordinated. It may include alternate courses of action. Planning alternatives lets surveillant adapt smoothly to changing situations.

The plan may include a cover story for each person, communications needs, and equipment to be used. If cover stories are to be used, they must be supported by the attire and equipment of the surveillant. Communications must be coordinated to ensure the success of an operation. Radio contact is needed with vehicle surveillance. And it is often useful for other forms of surveillance. Signals must be arranged to relay messages for a foot surveillance. Telephone contact may also be arranged, especially if there is a need to protect a surveillant's actions.

The plan may include a list of equipment. Equipment lists are tailored to the needs of each operation. They can be basic, including just radios, weapons, and vehicles. Or they can be quite technical, including surveillance, target acquisition, and night observation (STANO) devices.

SURVEILLANCE METHODS		
LOOSE	**CLOSE**	**COMBINED**
Subject watched now and then; needed information can be gained by monitoring one facet of subject's activities	Subject watched constantly; needed information must be gleaned by monitoring more than one facet of subject's activities	Loose and close surveillance running concurrently on separate subjects or in sequence on one subject to gain more information

If surveillants cannot watch from a fixed base, they may need disguised vans or trucks to use as observation posts. These needs must be in the plan. Surveillant may pose as salesmen, junk collectors, telephone repairmen, or even newspaper venders. They may pretend to have any occupation that will not attract undue attention. But to do so, they need the right equipment or supplies.

The plan for a stakeout, for example, would provide for a full recon of the base of operations—whether store, apartment, house, automobile, or truck. The plan would list binoculars, electronic aids, cameras, sound recording devices, or other items that should be on hand. It would set the method for communicating with headquarters. And it would include provisions for relieving the surveillant.

QUALIFICATIONS

Surveillant are chosen for their skill, experience, and resourcefulness. They must be adept at observation and description. Surveillant must have patience. Otherwise, they will become nervous or discouraged. They should learn as much about the investigation as they can, so they can correctly interpret the actions of the subject. They must know the elements of proof of various crimes to know when the subject has committed an offense warranting apprehension. They should not be too quick to apprehend offenders. They should keep the subject under surveillance until the crime is completed, unless it would cause bodily harm to the victim. Continuing the surveillance, even after all elements of a crime have been committed, also can be rewarding.

Usually, surveillant are of average height and weight and devoid of unique physical features. Sometimes surveillant are chosen for ethnic or language qualifications. The type of surveillance and the area where it will take place determine the choice of surveillant.

PREPARATIONS

If you are selected for a surveillance, get all the background you can on the subject. If he is not known to you, have him pointed out to let you make your own observation. Learn the subject's habits. Learn his contacts, friends, and places he frequents. Try to get a picture or an accurate, detailed description of the subject and his automobile.

If the subject of your surveillance is a place, locate entrances, exits, and vantage points. You may find more surveillant are needed. And check the character of the neighborhood. You will learn where to watch from and how to dress to blend in with the environment.

Make sure your attire is like that worn by others in the area. That way, if the subject sees you, you will not draw attention. On a military base you might wear an appropriate uniform. But avoid wearing unauthorized rank or insignia. It could bring unwanted attention from an innocent third party.

Concern with your appearance should not stop with clothes. Do not wear rings or other jewelry that denote status or club membership. If you usually wear a distinctive ring, replace it with another to hide the mark on your finger. If your coat or pocket bulges, it may reveal that you are carrying a weapon. And be careful your habits do not reveal that you are a law enforcement officer.

If you use a cover story, make sure it fits your dress, speech, and mannerisms. Be resourceful when your cover story must be used. If confronted by the subject, do not offer information. The subject may try to check the information and, perhaps, expose you.

Technical surveillance devices can be highly useful to you. These devices range from tape recorders and hidden microphones to small devices that can be hidden in a subject's clothing to transmit to a receiver. The devices let you know approximately where the subject is at all times. But be sure to get SJA advice before you use any type of electronic surveillance equipment.

PRECAUTIONS

Surveillants face two risks that can destroy weeks or months of preparation. One is the risk of being discovered. The other is the risk of losing the subject at a critical time. Even the most experienced investigator can be "burned" or lose a subject. However, certain precautions can help make your surveillance a success.

You should avoid direct eye contact with the subject. This will keep the subject from recalling your face should eye-to-eye contact be needed later. Sometimes looking away from the subject can make him suspicious. When that happens, focus on a point beyond the subject. This gives the impression of eye contact without actually having it.

Sudden or unnatural movements can call attention to you. Many times a subject will test to see if he is being observed. He may quickly change his course or enter a public vehicle or building. You must react quickly, but naturally, to these movements. It may be better to lose sight of a subject for a moment than to arouse his suspicion that he is being followed.

Hotels, theaters, restaurants, elevators, and public transportation can pose special problems for you. Carry enough money (and change) to pay for bus or cab fare, meals, or phone calls. You may have to move close to a subject when he or she enters a hotel or a theater. Enter restaurants behind a subject. Sit where you can see the subject easily. Order a meal which will be ready quickly, or the subject may leave before you are served. Be sure your meal can be eaten easily and hastily.

If a subject uses an elevator, do not press a floor button. Or choose the one for the top floor. That way you can exit behind the subject. If a subject enters a railroad station or bus depot ticket line, try to get close enough to learn his destination. Perhaps you can overhear his conversation with a clerk.

If a subject throws anything away, try to retrieve it. Obtain second sheets from pads the subject has used. But do not pick up an item if doing so could expose you.

If he enters a telephone booth, enter the next booth. Listen to his conversation. The subject may be pretending to call just to see if someone is following. If you enter a booth next to the subject, do not pretend to make a call. Deposit the required coins and dial a number. Then simulate your conversation.

You will have a tendency to believe you have been burned if the subject glances your way several times. You must overcome this. Normally, someone who thinks he is being observed will show his belief by taking actions to harass or lose you.

TECHNIQUES

There are many surveillance techniques. One technique of loose surveillance that has been shown to be quite useful, when you have time and the subject uses a set routine, is progressive surveillance. The subject is watched in one phase of his daily routine or for some length of time on one day. The cutoff point is recorded. The next day the surveillance is picked up at the previous day's cutoff. This process is repeated until the subject's actions have been thoroughly covered and noted. As you gain experience, you will use this and other techniques, and learn how to adapt, combine, and apply them.

The type of surveillance, the degree of risk, and the number of persons assigned to a job determine what technique to use. A one-man surveillance carries danger to the surveillant. The subject, his convoy, decoy, or associates may try to neutralize or physically eliminate the surveillant. It is always wise to have a second person ready to protect and to aid the main surveillant. Certain basic techniques can be used on foot and, with modification, in vehicles. These one-, two-, and three-man techniques allow surveillant to switch from foot surveillance to vehicle surveillance and vice versa. No one on foot walks everywhere. No one with a vehicle rides to every destination. The two types of surveillance must often be combined.

Foot Surveillance

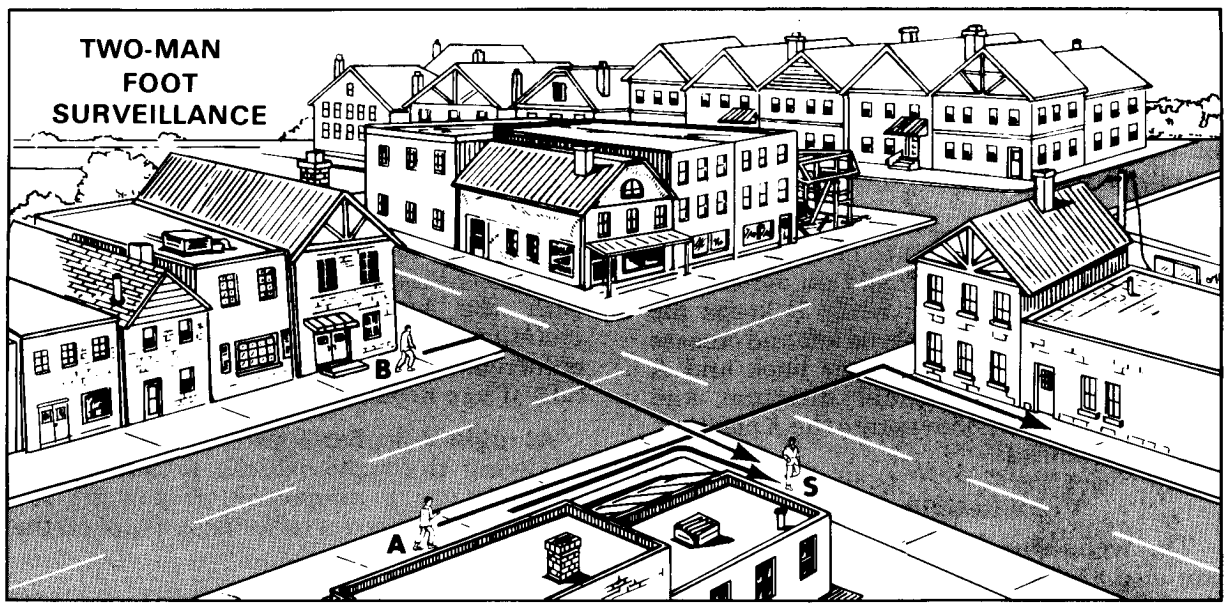
If a **one-man foot surveillance** must be used, be cautious when you are on the same side of the street as the subject. Stay to the rear and vary your distance from the subject. Set your distance according to physical conditions like size of crowds and number of exits.

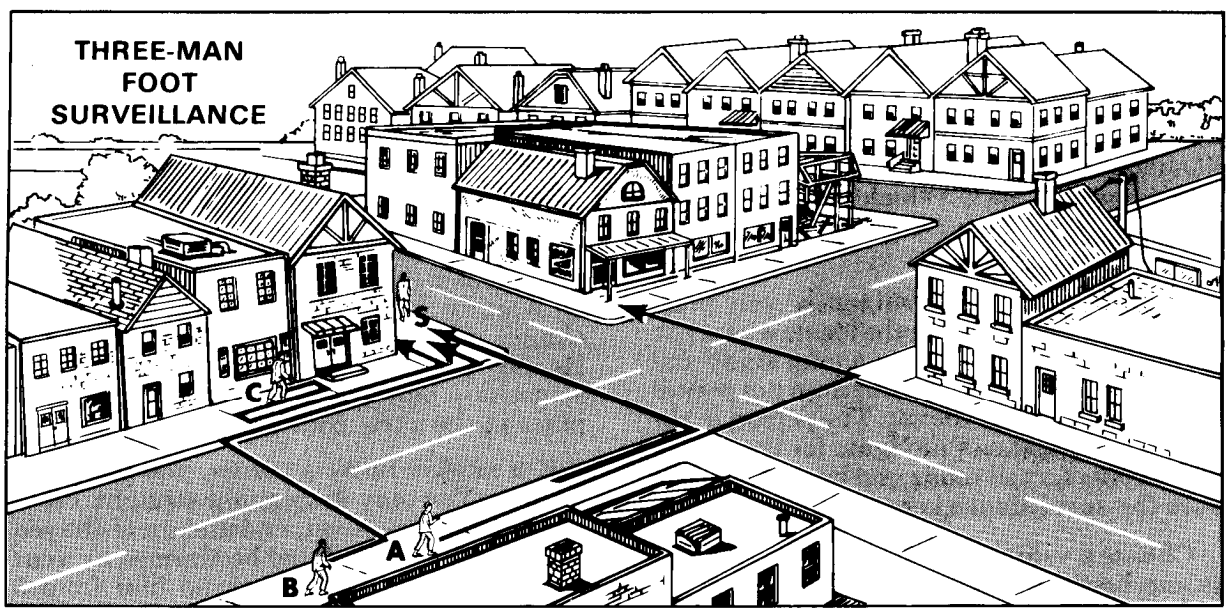
If the subject turns a corner, continue across the street, keeping the subject in view. Then, operating from across the street, you can fall in behind or move to the front or side of the subject. Decide which position will give you the best view. When the subject turns a corner, you may want to be abreast of him to see if he makes a contact or enters a building.

For a **two-man foot surveillance,** use the "AB" technique. The person right behind the subject has the A position. The other surveillant has the B position. When using the AB technique, A follows the subject and B follows A. B may be on the same side of the street as A. Or he may be on the opposite side of the street.

When both A and B are on the same side of the street, and the subject turns a corner to the right, A continues across the street. Then he signals B what action to take. The subject's actions may require B to take the A position, and A to take the B position. Signals between A and B should attract as little attention as possible.

When B is across the street and the subject turns the corner to the right—away from B—B crosses and takes the A position. This step should be prearranged so no signals will be needed. If the subject turns the corner to the left and crosses toward B, B drops back to avoid contact. B then waits for a signal from A before making the next move.





For a **three-man foot surveillance,** the "ABC" technique offers ease. And it is consistent with reasonable manpower resources. Use this technique for close foot surveillance unless you lack the manpower. The main advantage of the ABC technique is that it lets you cover the subject from two sides. As in the AB technique, A follows the subject and B follows A. C normally stays across the street and just to the rear of the subject.

The ABC technique allows several choices when the subject turns the corner. Assume A and B are behind the subject and C is across the street when the subject turns the corner away from C. A could keep going straight and B would take the A position. C would move across to the B position. A would stay across the street, moving as C had done before.

Another approach would be for C to move into the A position. A would go across and take up the C position, while B keeps his own. What if the subject turns left and crosses the street toward C? C drops back and A continues in the original direction and becomes C. Then B moves into the A position, and C becomes B.

Vehicle Surveillance

The techniques used for foot surveillance are also used for a vehicle surveillance. But applying these techniques to a vehicle surveillance must be done with care. Traffic congestion and traffic laws make actions more difficult. They also increase the risk of discovery. Two or more vehicle surveillant, like two or more foot surveillant, raise the likelihood of success. When possible, have two people in each vehicle. Teams within vehicles increase coverage and allow flexibility.

For all vehicle surveillances, you must familiarize yourself with the locale where you will operate. If you can, do a map study and make a ground recon. If time does not permit this, carry maps in the car. The person in the passenger's seat can navigate for the driver. Have coins for toll roads and bridges to make sure the surveillance is not hindered.

Choose a vehicle for surveillance duty that is mechanically sound. It should suit the locale where it will be used. It should have a radio, especially if two or more vehicles will be used. The radio allows contact between teams. You can also use it to call for help, if help is needed.

Your vehicle should not have official markings. Use a license plate of the county or state where the surveillance will take place. If possible, change your vehicle if the operation is of long duration. Consider using a rental car. Funds for rental cars may be requested in accordance with AR 195-4.

To decrease the risk of detection by the subject, disconnect the dome light of the car. This will keep the light from showing when the door is open. Operate the radio's microphone as covertly as you can. You can wire one of the headlights and the license plate light to be turned on or off separately from inside the vehicle. This changes the traffic pattern seen by the subject. But if traffic conditions are heavy, do not tamper with the headlights. Be sure to clear violations of traffic laws with local law enforcement agencies. Get the advice of the SJA if you need it.

At night it is often hard to be sure you are following the right vehicle. It helps if the subject's car is distinctive. If you get the chance, put a piece of reflectorized tape on the rear of the subject's car.

For a **one-vehicle surveillance,** you must remain close enough to the subject to see his actions. But you must be far enough away to escape detection. When the subject's car stops, one team member follows on foot. The subject will not expect to be followed by a person on foot if he suspects a vehicle is being used. Meanwhile the driver can look for a parking place where he can watch the suspect's vehicle. When the vehicle is parked, he can sit on the passenger side and appear to be waiting for the driver. This lessens the chance of attracting the subject's attention. He may change to the back seat. Or he may sometimes move the car to another parking place in the same zone of the subject.

If a subject turns a corner, you have two choices. You may keep going straight, cross the intersecting street, and make a U-shaped turn. The subject will not be alarmed by a car turning into the street behind him from a

direction opposite to the way he was going before he made his turn. Or you may go straight, cross the intersecting street, and then go around the block. The subject will not be wary of a car coming from the front.

For a **two-vehicle surveillance,** the technique is similar to the AB foot surveillance. Two cars can tail the subject on the same street. Or one car can be on the same street and the other car travel abreast on a parallel street. The surveillant vehicles can also alternate the A position. This lessens the chance of raising the subject's suspicions.

To do any of these maneuvers, keep radio contact between the surveillant vehicles. The team in the car right behind the subject's vehicle is always the control, giving instructions to the other cars.

UNDERCOVER OPERATIONS

An undercover operation is sometimes used to gain police information when other efforts have proved impractical or have failed. An investigator goes undercover when he leaves his official identity and takes on a role to gain needed information. He associates with a person or persons or becomes part of a group believed to have the needed information. He must have the support of information obtained by other means. The nature, habits, interests, and routines of a subject must be studied. If an organization is the target, the purpose of the group and the names of members must be known. The best means to penetrate the group must be found.

Before setting up the operation, the data or result the undercover agent seeks must be specified. The importance of the operation must be clear. And the degree of risk to the investigator must be assessed. Undercover operations are dangerous. They should be used only when absolutely necessary.

Before an undercover operation can begin, it is coordinated with installation, activity, or area headquarters. Investigators do not go undercover in a command without the provost marshal's or US ACIDC commander's knowledge. The advice of the SJA is obtained for heavy undercover operations. If the operation is to be in a civil area, it is coordinated with civil authorities. Coordination with local police is routine in all cases involving the civilian community.

Coordination, however, should make as few people as possible aware of the operation. Only those persons whose consent is needed and those who can distinctly add to the investigation should know about it.

PLANS

An undercover operation must be carefully planned. Information useful to the undercover person must be assembled. Equipment must be available. A backup system must be planned. A way to communicate must be set up. Normally, the undercover person does not work alone or independent of other investigators. At least a one-man surveillance should be planned to protect the undercover person. Means must be arranged for the undercover person to signal his anticipated moves, contacts, and actions to the surveillant. That way the surveillant can get help, if it is needed, to protect the life of the undercover person.

The plan must include steps for the undercover person to take if he is arrested or detained. And an identity for him must be built. The process of building a false identity, or cover, will vary with the nature of the case. In some cases an adequate false identity may be gained just by changing rank insignia and name. But in other cases an elaborate identity must be planned and built with false documents, records, and references.

QUALIFICATIONS

Experience has shown the value of undercover work to gain information. But it also has shown that not everyone can adapt to this work. Undercover investigators must be able to adjust their personalities to the roles they play. And they need a highly-developed skill of recall. It is often too risky to take notes on what occurs. Instead, they must commit facts to memory and record them at a later, more opportune, time.

To be selected for undercover assignments, investigators must be well trained and

experienced. They must be well versed in the elements of proof. They must have the self--confidence to take them through hard and uncertain situations. They must be able to make quick, sound decisions. They must be resourceful enough to work for extended periods of time without guidance. And if they must pretend to belong to a profession or occupation, they must be skilled in that field. often an investigator must gain a subject's confidence by developing a friendship through a mutual interest like work, sports, or music. Or an undercover person may claim to be an expert in a field in which the suspect has an interest, hoping the suspect will seek him out. The investigator must then, in fact, be very knowledgeable in that area.

PREPARATIONS

If you are selected for an undercover assignment, you must help build the cover story to protect your true identity. Cover stories are seldom, if ever, wholly fictitious. Try to have the story conform to your actual history. But slant it in ways that will gain the confidence of the subject. Set your background in a city with which you are familiar. But do not use a locale that is the home city of the subject. Arrange to have key persons in the cover history support your statements in case the subject calls to check on you.

Study the mannerisms, gestures, and speech of those you will deal with. Look into small details like tastes in food and music. Using a member of the opposite sex to help you look like part of a couple is effective at times.

PRECAUTIONS

Your clothing and personal items must fit your role in quality, price, age, fit, and degree of' cleanliness. Your clothing should have laundry marks to go with your story. Belts should have no stretch marks caused by a holster. Wallet, watch, rings, tokens, suitcases, stamps, miscellaneous papers, brands of tobacco, matches, letters, sums of money, and all personal items also should support your role. Documents or identity cards should show wear. The lab can age documents for you. You should be able to explain naturally and logically how each item came into your possession. Pretended handicaps are dangerous. Because they are hard to keep up for any length of time, they may expose your true identity. And carry a weapon only if it fits your background story.

During covert operations you often must be introduced to a subject by a source. Before meeting the subject, establish your cover story with the source. Allow the source to do most of the early talking with the subject. Do not try to engage the subject in conversation that would need much use of your cover story. For example, in drug operations subjects usually are not interested in purchaser's backgrounds. When undercover agents talk a lot about themselves, they only cast doubt in the mind of the subjects. Most dealers tend to believe that buyers will not bring unreliable persons to them.

You must have a simple and practical way to communicate with headquarters. Arrange signals with the person who is keeping you under surveillance. Or have a logical pretext for a call from a public telephone. This is normally the safest means of contact. Use written messages only if you must. Write with great care. If you must write your messages, set up a letter drop. You can also use reliable intermediates as go-betweens.

The fact that an undercover operation has been coordinated with civilian police does not preclude the chance of your being arrested. If you are arrested by civil authorities and you have no other guide, use your best judgment. If you know the name of the official who was briefed on the operation, refuse to make a statement except to that person. If there is any reason why you should not reveal your identity to the local civil police, refuse to make a statement except to a federal officer (US marshal or FBI agent). When brought before a federal officer, disclose your identity and request to speak with the federal officer in charge of the local office.

While undercover you must *beware of any actions on your part that could be criticized by the courts as going too far* toward facilitating the commission of a crime. The defense of entrapment, if upheld by the court, can negate the results of the entire undercover operation. When acting as an undercover agent you must render as little active assistance to your "associates" as circumstances will permit.

TASK FORCE OPERATIONS

Task forces may team as few as two investigators or as many as several dozen representatives of' investigative, audit, inspection, or other agencies. A large task force may be formed to investigate an organized criminal element's large scale diversion of property from a major logistical activity. It may investigate multiple homicides committed by an unknown person over an extended period of time. Or it may be formed to investigate a major drug operation involving the wholesale distribution of narcotics across a large geographical area. On the other hand, a small task force, formed as a management tool to enhance the effective use of resources, may be used to conduct a raid or a surveillance operation. Whatever the case in question, a task force is formed only after a complete anlysis of the benefit of its use is made. Before forming a task force, the extent of the investigation must be evaluated to decide if a task force is needed. Then, if the decision is made to form a task force, the scope and needs of the investigation must be carefully considered. It must be decided:

- Who should take part.
- How many people are needed.
- What special skills are required.
- Who has primary jurisdiction.
- Who will head the team.
- What criteria will he used to select team members.
- What coordination must be made.
- What reporting means will be used.
- Who will provide legal guidance.
- What are the logistical requirements.
- Who is the spokesperson for any disclosures/briefings.
- Who is to provide administrative support.
- How long should the effort continue, if this is possible to know.

Careful planning is imperative. The plan must allow room for flexibility, but ensure direction is given to the effort from the start. It must make clear who and what the targets are and what elements of proof must be met. A task force investigation undertaken with minimal coordination can result in a disjointed, confused, and burdensome effort that loses sight of the original goal.

TEAM REQUIREMENTS

Team members are chosen for their skill and experience as befits the scope of the operation. Their age, family, race, financial status, training, background, skill or experience should support some investigative need or role that must be played. For example, an auditor or someone with a certain computer background may be needed. Or the nature of the operation may require the services of a doctor, a mechanic, a pharmacist, an engineer, or an electrician.

In addition to specific skills, each member must be able to be a "team player." A task force operation, in which many members must work as a cohesive unit, creates stress. This is especially true if the operation is of long duration. The members of the unit must be supportive of one another and possess a strong desire for the team to succeed.

The team chief must have a good understanding of the particular operation's activity. If the team is large and its members have a variety of technical skills, the team chief may be chosen more for his leadership qualities and ability to get the job done than for his technical proficiency. He manages team personnel, coordinating and directing their efforts to avoid wasted time and repetitious efforts. As information is developed, he redirects team assets. The team chief serves as the information clearing house and point of contact for all agents on the team. He is the focal point for coordinating on-the-scene crime lab support. He notifies or coordinates with local, federal, or host-nation law enforcement agencies. He seeks legal guidance from the staff judge advocate, as needed. He also coordinates with the provost marshal for crime scene security personnel or search teams.

COORDINATION WITH OTHER AGENCIES

Effective coordination made before, or close to the start, of a task force operation may help avoid many problems that could arise. The operation must be coordinated

with persons who need to be informed because of the nature of their position. This could be the installation commander or even the mayor of a local community. It must be coordinated with those whose help may be needed in the course of the investigative process. Early coordination helps avoid communication problems later. Lastly, but most obvious, the operation must be coordinated with those whose involvement may be needed from the outset. This includes the legal counsel and other law enforcement agencies. The question of jurisdiction, if it arises, must be dealt with immediately. The source of legal counsel may vary. Guidance usually comes from the supporting local SJA office. But in some cases legal counsel from a higher headquarters, like a major Army command or from the Assistant United States Attorney (AUSA), is sought. (As federal agents, USACIDC investigators can confer directly with the AUSA.) Some rare cases may even require decisions or recommendations by The Judge Advocate General or Army General Counsel.

If the investigation is a multi-agency effort, coordination may be needed to allow members to release their work for inclusion in the report. Auditors, for example, often must have supervisory approval for the release of their workpapers or the result of their audit. But this approval is usually a formality; audit agencies in the federal government are commonly supportive of investigative efforts. The agency responsible for the investigation normally sets the reporting format, distribution, and procedures required.

LOGISTICAL AND ADMINISTRATIVE REQUIREMENTS

Transportation, billeting, communication, and special equipment needs can become difficult to handle if the task force is large. It may be best to assign to one person the duties of coordinating logistical support. Most common items are available through the parent organization. But sometimes items must be obtained through supply channels or borrowed from other activities or agencies. In some cases, items must be rented, leased, or purchased. If this occurs, contingency funds must be available to support this requirement. Photographic, video, and audio equipment and tape recorders must have film or tapes to be useful. A video camera is useless for surveillance if the team runs out of video tapes and does not have a ready source. If large quantities of film are to be exposed, arrangements must be made to have the film developed. Someone must be tasked to determine how fast the film must be returned and who is to handle it.

If recording devices are used for team members to dictate their investigative notes and reports, the designated word processing personnel must have the capacity to handle the increased work load. The needs of a task force could place the work of a local word processing section far behind in just a few days of operation. Routine operations cannot be caused to come to a standstill. This may require obtaining administrative support from more than one office.

DISCLOSURES AND BRIEFINGS

It is often best to insulate the task force from as many outside inquiries and briefings as possible. The organization responsible for the task force must receive frequent and timely reports from the team chief. But time spent giving many progress rundowns can detract from the effectiveness of the unit. Except for actual requirements, formal written reports should be kept to a minimum. A verbal briefing or a few short paragraphs may be all that is needed.

The best time for the team chief to brief higher headquarters or other outside agency is at the end of the mission. When he does, he may require the presence of one or more team members who have the background to answer technical questions in specialty areas.

PART TWO

OBTAINING AND RECORDING INFORMATION AND TESTIMONIAL EVIDENCE

CHAPTER 3

Notes, Photographs, and Sketches

Notes, photographs, and sketches are made of the crime scene and of the actions taken during the crime scene search and throughout the investigation. They are an essential part of the investigative process. They help you accurately recall events and identify evidence in court. They serve as valuable references of details uncovered during the search. And they form a detailed record attesting to the thoroughness of the process. Sketches. photographs, and notes made during an investigation become Department of the Army property; they are not kept or used as personal property.

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NOTES

Notes are your most personal and readily available record of the crime scene and of your investigative process. No rule exists concerning the detail the notes should reflect. Your objective should always be to make notes that will be fully meaningful months after the event. Remember that a note that is clear to you a short time after it is written may be unintelligible later. Do not expect to rely on your memory of associated events to give single word notes their full meaning.

Note making should begin with your assignment to the case and continue through the completion of the investigation. Supplement your notes with photographs, sketches, and scale drawings. Record your notes in the order that you receive information, take actions, and make observations. The sequence of your notes should be logical and systematic.

Your notes aid in the accurate recall of events for testimony in court and they furnish raw material for your written report on the case. Your formal written report may not need the level of detail or items of information that are needed for your testimony. The details you record in your notes should anticipate both the needs of the written report and the questions you may be called on to answer for attorneys or members of a court.

The type of notebook you use, which may seem to be a minor point, can be important. Unless a separate notebook is to be used for each case, a looseleaf notebook is better than a bound notebook. Your notebook may be examined in court. If notes from several cases are included in the same book, there is a chance of unauthorized disclosure of information on matters not being dealt with in the case being heard. If a looseleaf notebook is used, the pages on other cases can be removed. Unauthorized disclosure of facts related to other cases is thereby avoided.

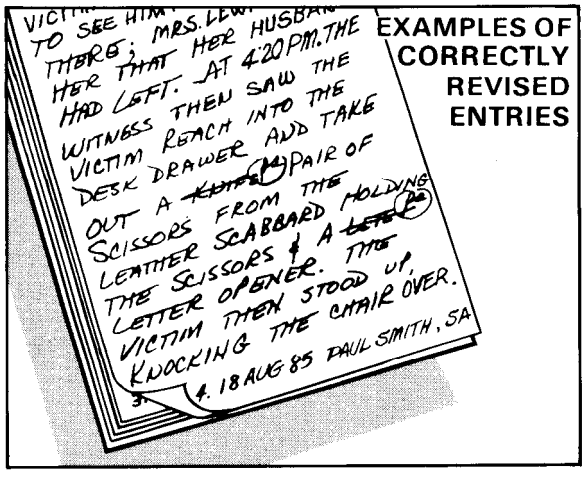
In major cases with a lot of physical material and a large crime scene, you may want to use a portable tape recorder. By taping your observations and findings, you can include more details in your notes. In all cases, the tapes should be transcribed into a written record that you may carry into court.

Keep your notes in a safe place with the local office case file. Even after a criminal has been convicted and sent to prison there is always a chance that an appeal or other civil action will require your appearance in court again.

Print your notes if your handwriting is not easy to read. Use blue or black ink that will not smudge easily. Number each page of notes and identify it with your name, your title or rank, the case number (when known), and the current date. Also record the times when an action is taken, when information is received, and when an event is observed. *Do not edit or erase your notes.* If you make a mistake, line out the entry, initial it, and then write the correct information.

Your notes should include a detailed description of the scene and any item you think pertinent to the case. Your description should be as complete as you can make it. See Chapter 4 for discussion of how to develop descriptions.

Record the exact location, giving measurements and triangulation of evidence, where the item was found. See Locating Evidence on Sketches later in this chapter. Cite the relative distances separating various items. State the techniques used to collect the evidence and to record identifying marks placed on the item or the package in which the evidence was placed. Be sure to tell what techniques were used to provide crime scene security and to search the scene. And include any actions you take that may have a bearing on the evidence you obtain or significantly affect the investigation.



PHOTOGRAPHS

A picture may or may not be worth a thousand words. But it is certain that photography is a valuable aid in criminal investigations. Useful photographs can be made without great expertise.

Crime scene and evidence photographs are simply the photographs made to supplement notes and sketches or to clarify a point relative to a case. They are also made to identify personnel and to form a permanent record of fragile or perishable evidence. Time is an essential factor. *Objects must not be moved* or examined with thoroughness *until they have been photographed* from all necessary angles. There are situations in which the object of interest undergoes significant change with the passage of time. Thus, photographic equipment must be kept in a constant state of readiness.

Photographs are admissible in court if you can testify that they accurately depict the area observed. The accuracy of a photograph relates to the degree it represents the appearance of the subject matter as to form; tone; color, if applicable; and scale. A lens that will accurately record objects and areas in focus may not correctly portray distances between objects nor show objects out of focal range in their proper perspective. In such situations your crime scene sketch and your notes will play strong supporting roles.

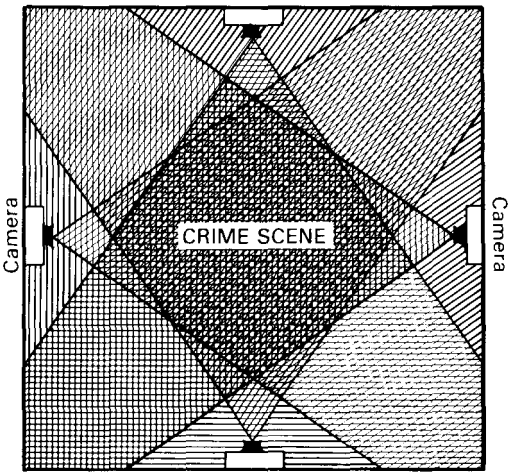
Providing a photograph's negative is usually enough proof to refute an allegation that a photograph has been altered. However, if enlarged photographs are made for presentation in court, a contact print without borders should also be made. Because scale, distances, and perspective are important in interpreting photographs taken at crime scenes, include a ruler or other scale measure in such a photograph when you can. As some courts may not allow even this minor modification to the scene, you also should take an identical photograph without the scale indicator.

A photograph, to be high-quality evidence, must depict the scene, persons, and objects precisely as they were found. Photography is an exclusive action in the crime scene search. No people may be working within the scene at the time it is photographed. And extraneous objects, like police and investigative equipment, are excluded from the photos.

Record the technical data for each photograph in your notes. Each photograph must be precisely identified. This data becomes part of the permanent record of the case. A good way to do this is to create a photo log. Assign each photo a number. Tell what each photo depicts. Cite the time the photo was taken, the type of photo, and the distance to the focal point. Tell what camera was used and at what height it was held. Give the position of the camera or angle of the camera shot. Say what lens was used, if flash was used or film reloaded, and describe any photo overlays. In addition to recording identifying data in your notes, you must do so on a photography sketch.

All camera positions and distances to the focus point must be recorded on the crime scene photograph, sketch. You can do this by measuring from a point on the ground directly below the camera lens to an immovable object used as the focus point for the picture. In making crime scene photographs, it is best to keep the camera at about eye level. *If an explosive was used at a crime scene and there is residue of the explosive present, do not use a flash attachment.* Use a tripod or raise or lower the camera height to get the object to be photographed in proper focus. Take overlapping photographs of interior scenes intended to depict an area as a whole, moving in one direction around the room or area.

CAMERA POSITIONS FOR OVERLAPPING PHOTOGRAPHS



This overhead view shows how photos will overlap.

SAMPLE PHOTO LOG

SA TIM C. WINKLER — Report Number 063-85-4807 — Date 25 NOVEMBER 1985

TIME 0904 Began taking crime scene photographs and drawing rough sketch to depict camera positions and distances. All photographs taken at eye level height (5' 6") unless otherwise indicated. All interior and exterior photographs are taken with the following equipment:

TYPE CAMERA CANON AE-1 — BODY NUMBER 603113

LENS FOCAL LENGTH AND LENS SERIAL NUMBER 50mm 1:1.4 10492

TYPE OF FILM EKTACHROME — NUMBER OF EXPOSURES 36

ASA 400 — FILTRATION CANON HAZE

F/STOP SEE REMARKS — SHUTTER SPEED SEE REMARKS

FLASH ATTACHMENT NA — FLASH SERIAL NUMBER NA

EXPLANATION OF TERMS USED IN REMARKS COLUMN: Camera held in horizontal format, unless otherwise noted. DA-Photograph taken from directly above the object; V-Camera held in vertical format; N-Normal lens; M-Macro lens; WA-Wide angle lens.

TIME	PHOTO	TYPE PHOTO	DEPICTING	DISTANCE	REMARKS
0910	# 1	OUTSIDE ESTABLISHMENT	DISTANCE TO BUILDING # 3252-A FROM WALKWAY	14' 7"	N, 1/500 SEC, F/11
0913	# 2	OUTSIDE ENTRANCE	OPEN DOOR TO APARTMENT 126-A	6' 9"	V, N, 1/500 SEC, F/8
0918	# 3	EVIDENCE	PISTOL ON THE FLOOR IN THE DOORWAY	2' 6"	DA, N, 1/250 SEC, F/5.6

The most important element in investigative photography is maintaining perspective. Photographs must reproduce, with the same impression of relative position and size of visible objects, the scene as it would appear to someone standing in the photographer's shoes. Any significant distortion in the perspective will reduce, or destroy altogether, the photo's evidence value. The best way to maintain natural perspective is to aim the camera so a 90-degree angle is formed by opposing walls. If outdoors, use fixed objects like trees to maintain perspective.

The chain of custody of investigative photographs is maintained in the case file. When you send film by mail to a commercial processor, use registered mail with a return receipt. Keep registered mail receipts and copies of work orders for film processing in the case file.

PHOTOGRAPHING SCENES AND OBJECTS FOR EVIDENCE

The most important rule in crime scene photography is to photograph all evidence or possible evidence before anything is moved or touched. This rule applies to general scenario shots and to closeups of specific items of evidence.

Fingerprints that can be seen without the aid of dusting powder should be photographed up close before dusting. There is always the danger of the print being damaged during the dusting process.

Photographs should be taken of **impressions** of which a cast will be made. Hold the camera directly above the ground and the flash close to the impression at an angle. Use flash at all times. Oblique light will reveal more details. Take the closeup with a ruler near the print, so the proper scale can be determined. Make at least four photographs of each impression. Take a picture from every side, using light from each different direction. This reduces the chance of details being missed in a photograph because of shadows cast by a light sources from only one direction. Make sure the date, case number if known, your name, exhibit number if known, type of film used, and camera setting shows in the photo. It should be written on paper and placed next to the impression.

Photographs of **tool marks** must show the marks and enough of the surface on which the marks are located to identify them positively. Show the mark as it actually appears and in its overall relationship to other objects at the scene. Include an ordinary ruler, along with data identifying the location, situation, and case, in each picture to provide the lab examiner a scale of measurement.

When photographing **burglary, house-breaking, and larceny scenes,** you will want to pay particular attention to the interior and exterior of the building and to damaged areas. Note particularly any damage around the points of entry and exit used by the criminal. Take closeups of damaged containers like safes, wall lockers, or jewel boxes that were the target of the offense. Take both closeup and perspective photos of tool marks. The latter will allow you to note the position of marks with respect to the general scene. And fingerprints and footprints, of particular value in these cases, should be photographed before they are lifted or preserved.

When photographing **an arson scene,** complete coverage of the damage is important. Perhaps of even greater importance are photos of objects or areas suspected to have been the point where the fire began. Make closeup photographs of all such objects or areas.

If the fire is in progress, seek out various angles from which to take photographs. But try to keep out of smoke-filled areas. Your first photographs should be of the entire structure. Use color film to show the color of the smoke, flames and vapors. Take a series of photographs at intervals of several minutes to show the intensity and direction of the fire. Then photograph any spectators. The perpetrator may be present, watching the results of his or her efforts.

When the fire is extinguished, photograph the entire exterior of the structure. Then photograph all affected interior areas and any evidence found. Photograph in detail suspected points of the fire's origin and areas

showing an "alligator" burn pattern. You cannot rely on your exposure meter when trying to photograph charred wood. Instead, use a two- or three-stop overexposure.

Accident scenes should be photographed as soon as possible after the event. Except when photographing vehicles, set your lenses at normal focal length. This will prevent distortion in the relative width of roads, distances between points, and the like. If special lenses are used, note that fact in your record of the search and give a description of the lenses used.

Photograph the overall scene of the accident from both approaches to the point of impact. Capture the exact positions of vehicles, injured and deceased persons, and objects directly connected to the accident. If possible, take photographs of skid marks before the vehicle is moved. Then take photos of the marks after the vehicle is moved. Photograph all points of impact, all marks of impact, and all damage to real property. Be sure you record any pavement obstructions and defects in the roadways. Make closeup photographs of damage to each vehicle. Make at least two for each vehicle. The first should show the front and one side. The second closeup should show the rear and other side of the same vehicle. And, of course, you will want photos of tire tracks, glass, and other associated debris.

Usually, **death scene** photography must be more extensive than that of other crime scenes. This is due to the severity of the offense. Photograph the approaches to the scene and the surrounding areas (the yard of a building in which a death occurs, general area surrounding an outdoor crime scene). Take closeup photographs of the entrance and exit to the scene or of the route most likely to have been used if the entrance and exit are not obvious.

Make general scenario shots showing the location of the body and its position in relation to the room or area in which it was found. And give 360-degree coverage of the room or scene with overlap points clearly identified in the photographs. All evidence must be photographed-shots establishing the evidence in relation to the scene, shots of evidence closeup, and shots of evidence closeup with a ruler to show perspective and size. After the body is moved and each item of evidence is removed, photograph the area underneath them if there is any mark, stain, additional evidence, or other apparent change. Photograph any "plastic" and contaminated prints before you try to collect them. And photograph developed latent prints prior to lifting. Include shots of areas where prints are discovered if the areas were not included in other photographs. Photograph bloodstains, including their locations, with color film if you can. Black and white pictures should also be taken.

PHOTOGRAPHING HUMANS FOR EVIDENCE

Photographs should be taken of victims or suspects of crimes like assault, aggravated assault, or sex offenses that involve bodily harm. Photographs should be taken of any wound, injuries, stains, or other trace evidence that may be on the person or the person's clothing. *Written permission* should be obtained from living persons before photographing them. If photographs of a body area that is normally clothed are required, a witness should be present. If the victim or the suspect is a minor, the *written consent* of the parent or guardian is needed. The photography must be done with the consenting person present.

Photographs of parts of the body that usually are not visible when a person is clothed are taken *only* under the direct supervision of the examining physician. It is the physician's testimony that the photographs are intended to illustrate. Thus, it is unusual if this type of photograph is taken at the crime scene.

The evidence value of a photograph of a deceased person is reduced if you include views that could later be alleged to be deliberately inflammatory. The unneeded exposure of sexual organs is a case in point.

Take at least two full-length photographs of the body at 90-degree angles to each other. Hold the camera as high as possible, pointing downward toward the body. Include at least one closeup photograph of the head and shoulders of the victim. Position the camera for this shot directly above the head and

shoulders of the body. Take as many closeups of the body as needed to show wounds and injuries. When photographing a body that is lying in a horizontal position, hold the camera directly over the victim's head and shoulders. Do this at a height of no less than 5 feet. Closeup photographs of injured parts of the body are most effective in color. But black and white pictures should also be taken.

The presence ofwounds, blood, or other discolorations on the corpse may affect identification. Using a lens filter to create more lifelike tones may aid identification.

Photographs of the body should also be taken during the autopsy. Cooperate with the pathologist to obtain these. Your photos should include full-length views before and after undressing and/or washing. Photograph identifying marks and closeups of all wounds with and without a measuring device. Both color and black and white photos should be taken.

SKETCHES

Properly prepared sketches may be used to question people, to prepare a report of investigation, and to present information in court. Sketches also are valuable sources of information for trial and defense counsels. Sketches are often introduced in court as evidence. They are used to acquaint the court with crime scenes and to help witnesses orient themselves as they testify.

Sketches complement notes and photographs made during a crime scene search. A sketch communicates information the way a photo does, but has the advantage of being able to have unneeded and distracting detail left out. Sketches concentrate attention on the most essential elements of the crime scene and their relationships. There are two kinds of crime-scene sketches: rough and smooth. A rough sketch is the kind you draw while at the crime scene. The purpose of a rough sketch is to portray information accurately, not necessarily artistically. You do not need to be artistic to draw a good rough sketch. A rough sketch is usually not drawn to scale. But it must show accurate distances, dimensions, and relative proportions. In order to eliminate excessive detail in a sketch, you may have to draw more than one. For example, one sketch may be devoted to the position of the victim's body and one or two of the more critical evidence items. Other sketches might show the lay of evidence items with respect to the point of entry or to other critical points. *Do not make changes in your sketches after you leave the scene.*

A smooth sketch is a more finished version of a rough sketch, using the information provided in the rough sketch. A smooth sketch need not be drawn by the same person who draws the rough sketch. But whoever draws the rough sketch must verify the accuracy of the smooth sketch. In fact, it is best if a smooth sketch is made by an experienced draftsman. (The engineer officer may be able to provide a qualified person for this task.) The name of the person who drew the smooth sketch is shown in the report and on the sketch. A copy of the smooth sketch is attached to each copy of the investigation report. Smooth sketches are often drawn to scale from information in the rough sketch. By making a scaled drawing, the numbers showing distances can be left out. If the smooth sketch is not drawn to scale, these distances must be shown.

MAKING A ROUGH SKETCH

Any kind of paper may be used for a rough sketch. However, bond or graph paper is best. It can be placed on a clipboard large enough to form a smooth area for drawing. To prepare a rough sketch you need:

- A soft lead pencil.
- A 100-foot steel tape.
- A straightedge ruler.
- Several thumbtacks to hold one end of the steel tape down when you are working alone.
- A magnetic compass.

You may add as many items to this list of basics as you like.

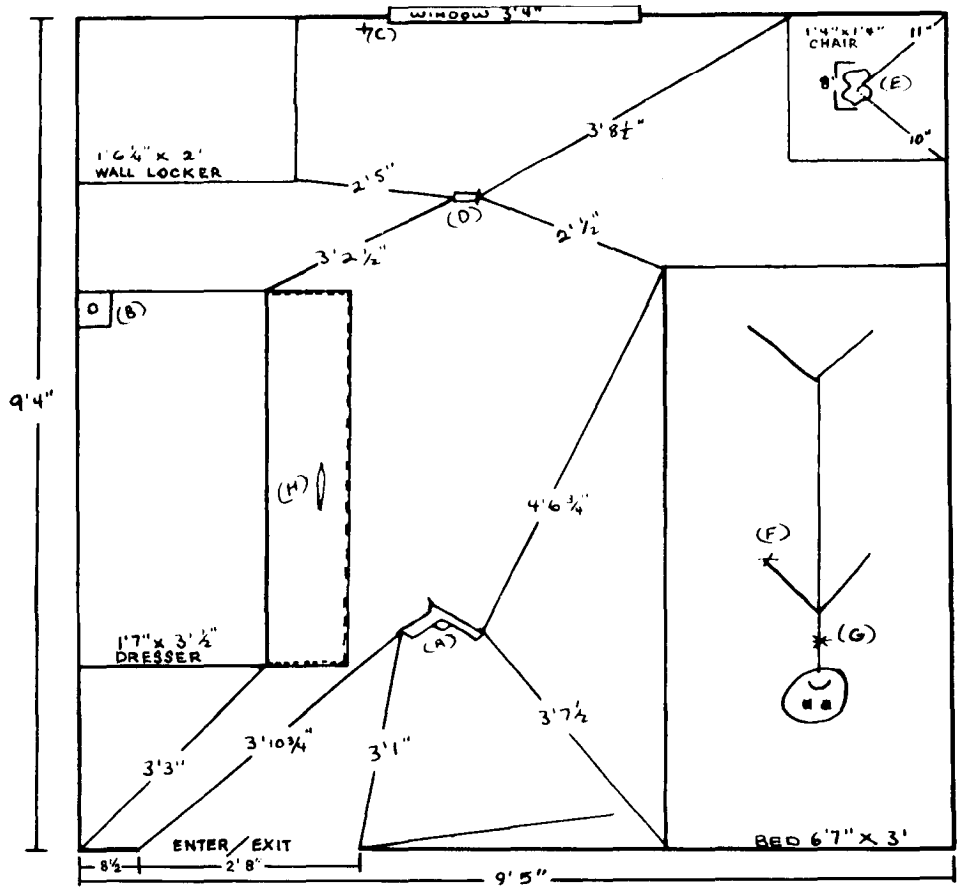
Several items of information are considered essential in a crime scene sketch. But do not restrict your sketch to these items alone. The major constraint on detail in

sketching is that the result must be completely intelligible to a viewer without a detailed study. If you include too much detail, the major advantage of a sketch over a photograph is lost.

Each sketch should include the critical features of the crime scene and the major, discernible items of physical evidence. Evidence sketches must show *accurate* measurements of the crime scene. They also show the location of evidence established by use of the triangulation method. A photo sketch must show camera positions and distances to focus points.

Each sketch should have a caption to identify the illustration. For instance, a caption might read: "Rough sketch showing camera positions and distances." Each sketch must have a legend. The legend explains the symbols, numbers, and letters used to identify objects on the sketch. Use standard military symbols where practical.

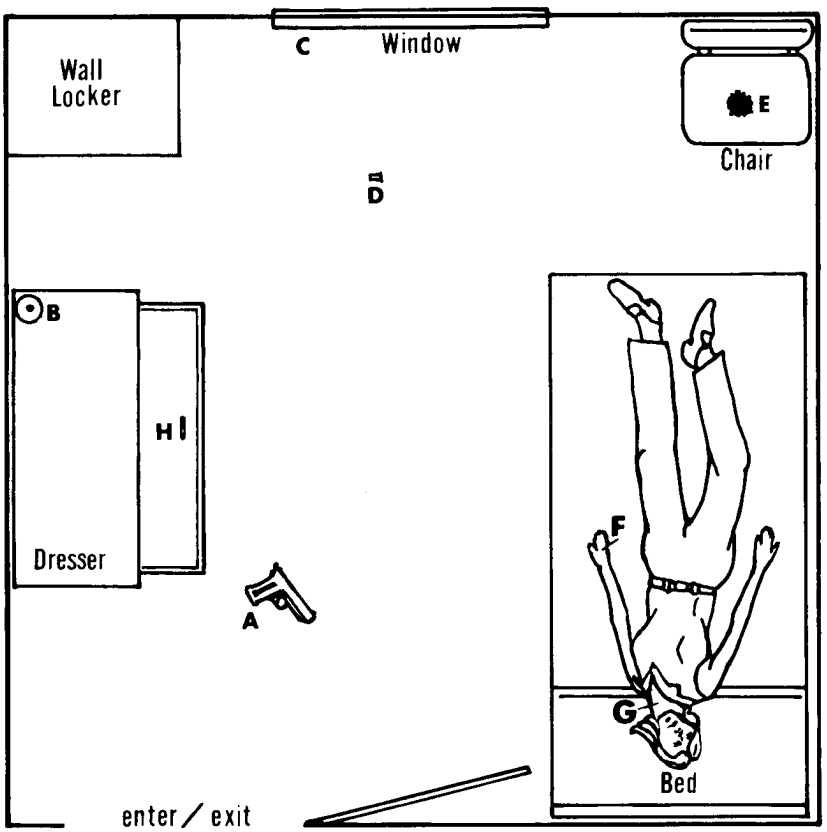
ROUGH SKETCH SHOWING EVIDENCE MEASUREMENTS AND TRIANGULATION



Your sketch must also show the compass direction north. You will need to include a scale designation for scaled drawings only. If no scale is used, write "not drawn to scale." And each sketch must have a sketch title block containing the following entries:

- Incident report number: MP Report, USACIDC sequence number, or Report of Investigation (ROI) number.
- Alleged offense.
- Name and rank or title of the victim.
- Scene portrayed—citing room number, building number, and type of building, (PX, commissary, house, troop billets).
- Location—citing complete name of installation, city, state, and zip code.
- Time and date sketch was started.
- Name and rank or title of person who drew the sketch.
- Name and rank or title of person who verified the sketch.

FINISHED SKETCH DRAWN TO SCALE



LEGEND SCALE: 15/32=1FOOT

A. Pistol
B. Bottle
C. Letters "BR"
D. Shell casing
E. Red stain
F. Fibers
G. Gun shot wound
H. Cigarette inside opened drawer

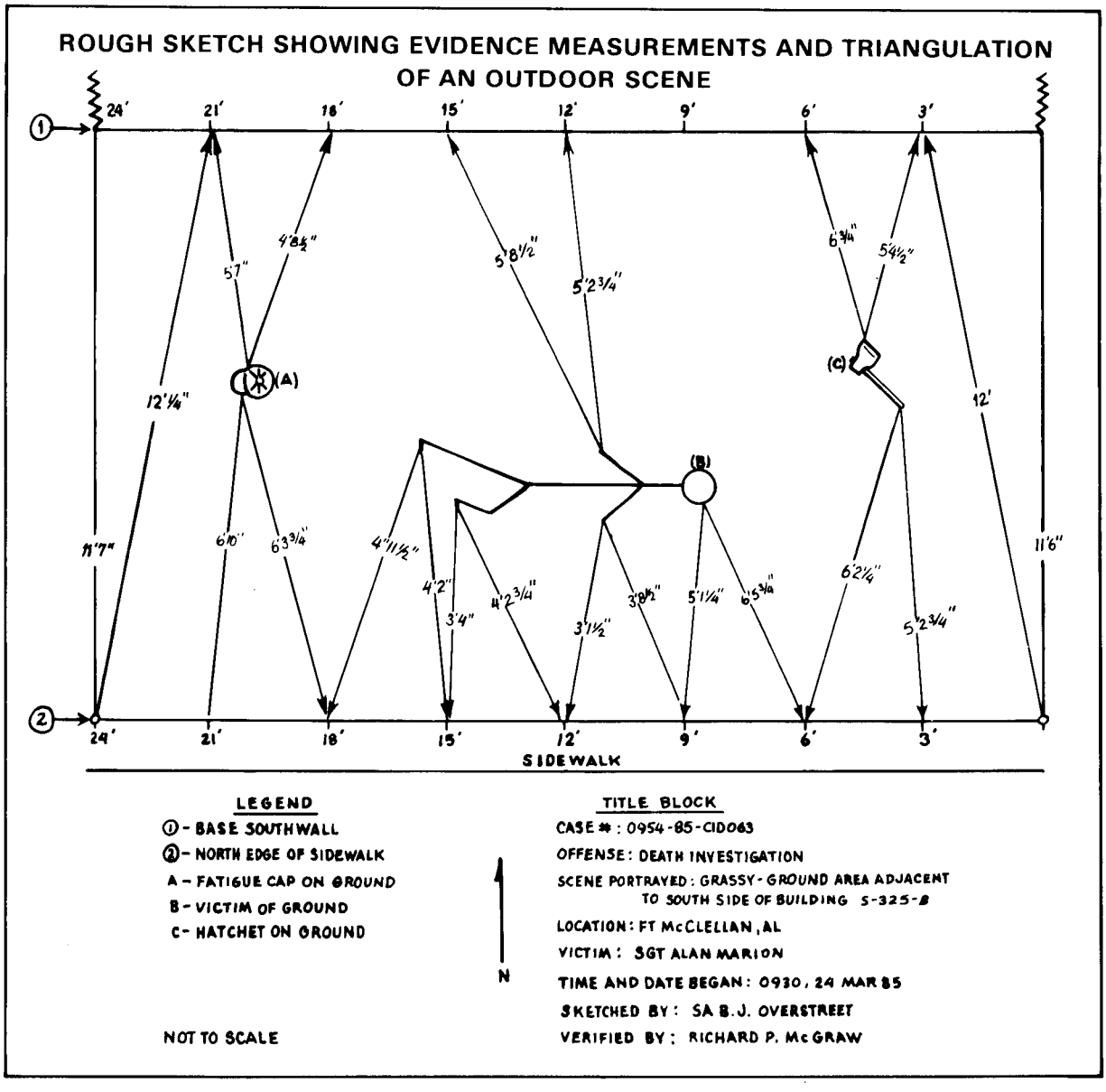
N

TITLE BLOCK

Case # 063-85-4809
Offense: Death Investigation
Scene portrayed: Room #7
Bldg S-3251-B, Troop Billets
Location: Ft McClellan, AL
Victim: SP4 Faye M. Miller
Time & Date Began: 1000 12 Jan 85
Sketched by: SA Tim C. Winkler
Verified by: SGT Betty C. Goodwin

Measurements shown on the sketch must be as accurate as possible. Steel tapes are the best means of taking accurate measurements. A measurement error on a sketch can introduce doubt as to the competence of an entire crime scene search.

Measurements should be made and recorded uniformly. If one aspect of a sketch is accurate, such as the dimensions of a field in which a body was found, and the position of an object within the field is only roughly estimated, the distortion thus introduced renders the sketch relatively useless. It is important that the coordinate distances of an item in the sketch be measured in the same manner. For example, one coordinate leg of the victim should not be paced and the other measured with a tape measure. It is also a mistake to pace off a distance and then show it on the sketch in terms of feet and inches. This implies a far greater degree of accuracy than the measurement technique could possibly produce. If the point arose in court, such imprecision could greatly detract from the value of the sketch.



LOCATING EVIDENCE ON SKETCHES

Various sketch methods may be used to locate evidence and other important items at the scene. The simplest form of a sketch is a two-dimensional presentation of a scene as viewed directly from above. Evidence is located on this type of sketch by triangulation. Triangulation is used for indoor and outdoor sketches having fixed reference points. Objects are located by creating a triangle of measurements from a single, specific, identifiable point on an object to two fixed points, all on the same plane, at the scene. If movable items are to be used as reference points, they must first be "fixed" themselves. Do not triangulate evidence to evidence. Do not triangulate under or through evidence. Do not take a line of measurement through space. Measure your line along a solid surface like a floor, wall, or table top. In the interest of clarity, keep the angle of triangulation measurements between 45 and 90 degrees on the sketches.

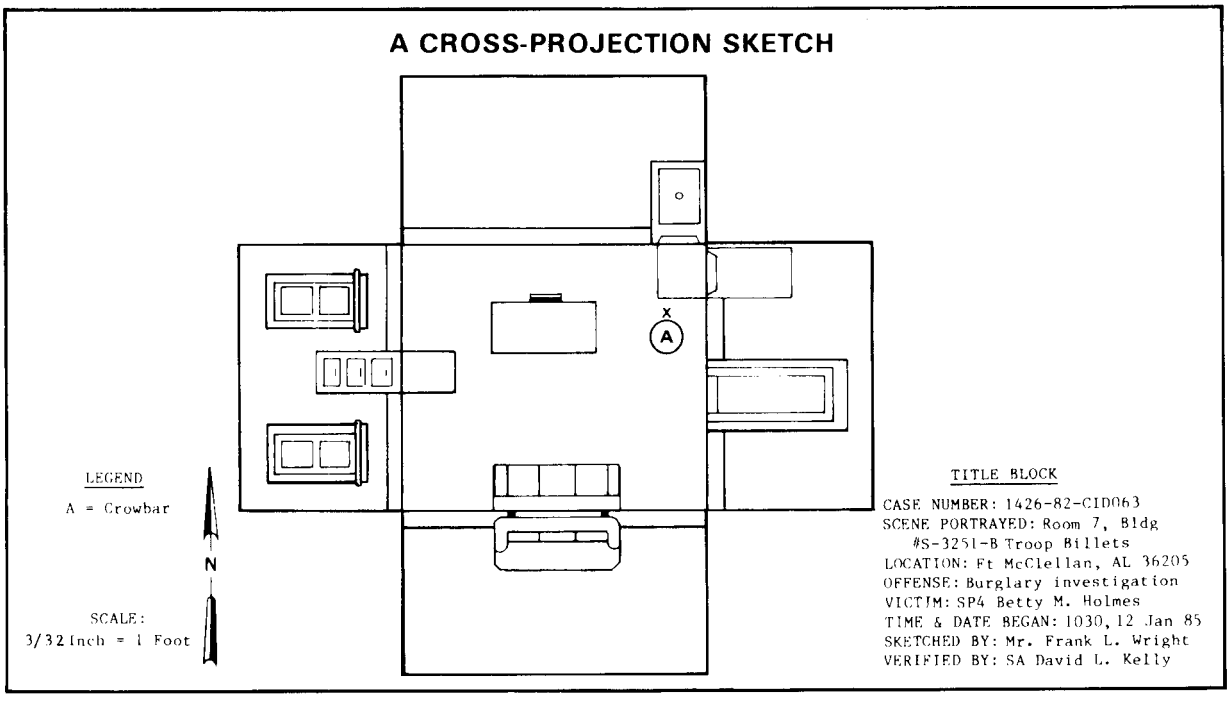
Regular shape items are fixed by creating two separate triangles of measurements. Each originates at opposite points on the object and ends at two fixed points, on the same plane, at the scene. This is commonly known as the 2-V method of triangulation.

Pliable objects are fixed by creating a single triangle of measurements from the center of mass of the object to two fixed points, on the same plane, at the scene. You also measure the longest and widest dimensions of the object.

Inhabited outdoor areas usually have easily defined, fixed reference points such as buildings, edges of roads, and sidewalks. When these are present, the triangulation method can be used to establish the location of objects. But uninhabited or remote areas may not have easily defined, fixed points within close range. In such cases, objects will have to be located by using the intersection-resection method taught in map reading. See FM 21-26 for a more complete discussion of intersection-resection method.

Cross-projection is used to add another dimension to sketches. The added dimension is useful when items or locations of interest are on or in wall surfaces in an enclosed space. The walls, windows, and doors in a cross- projection sketch are drawn as though the walls had been folded out flat on the floor. The required measurements and triangulation of evidence are then entered on the sketch. A cross-projection drawing may be used as a scaled drawing.

A CROSS-PROJECTION SKETCH



CHAPTER 4

Observations, Descriptions, and Identifications

Careful observations and detailed descriptions are investigative tools. Observations help you build descriptions of persons, objects, places, and events so that who or what was seen may later be identified. Observations also help you find or identify persons, objects, and places from descriptions built by others.

Descriptions help you relate to others what you have seen. Descriptions may be either written or oral. They include signs, gestures, sketches, and other means to convey information about what was seen by an observer.

CONTENTS

Most people are not trained or experienced in remembering and evaluating what they see. Thus the observations and descriptions of witnesses may not be as detailed nor as objective as those made by trained observers like investigators. Trained observers know that their observations can be affected by lack of sleep, or by illness, or by other outside influences. And they make allow antes for outside influences when they interpret what they see.

Environmental factors like weather and light can influence what people see. The presence of unrelated, distracting circumstances can influence what people see by focusing their attention in a particular direction. For example, a spectator watching an exciting play on a football field may fail to note the actions of a person sitting next to him. And the passing of time between when an event is seen and when it is recalled can cause the observer to forget or confuse details of the event, thus influencing his description of what he saw. Where an observer is at the time he sees an event influences what he sees. It is unlikely that more than one or two people will view an event from exactly the same place. Thus, a difference in location may account for a difference in observation. Someone observing an event from a great distance may be able to give a good overall description of what took place. But he might not be able to see and give the details that someone seeing the same event at close range could give. On the other hand, the closer person may be unsure of the overall picture.

Psychological, physiological, and experiential factors influence what people see and how they retain the information. People tend to evaluate and interpret what they observe by their past experiences with like incidents. They tend to compare the size of an object, for instance, with the size of another object with which they are familiar. A very short or very tall person may fail to judge another's height correctly. Someone 6 feet tall may seem "very tall" to an observer only 4 feet 10 inches tall. The same 6-footer would appear to be "normal height" to a person 5 feet 10 inches tall.

Common sounds, odors, tastes, and other perceptions are usually understood by an observer. But a lifelong urban resident of a big city might not be able to accurately describe a farm scene. Nor could a native of a tropical island be expected to describe a high-speed car accident in minute detail. Stimuli which cannot be easily compared to a past experience are often mistakenly interpreted in terms of familiar things. And, too, a wrong interpretation of a past experience may influence the perception of a present experience.

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Interests also affect perception. For instance, many young American boys can quickly recognize and identify the make and model of a car. On the other hand, they may fail to perceive details of the driver, license number, or make and condition of the tires. Special interest training may increase someone's power of observation. But it also may limit the focus of attention, causing the loss of other details. Specialists often have acute perception within their own field but fail to be observant in other fields. An artist may take special note of color, form, and proportion but fail to discern or properly interpret sounds or odors. Conversely, a mechanic may quickly note the sound of a motor or an indication of the state of repair of a car but fail to clearly discern the appearance and actions of the driver.

A person's power to accurately observe and interpret things can be affected by pain, hunger, fatigue, or an unnatural position of his body. Discomfort may cause an observer to fail to correctly interpret things he would normally comprehend. The senses of taste and smell are often distorted by physical ills and external stimuli. These senses are generally the least reliable basis for interpretation. The presence of a strong taste *or* odor may completely hide the presence of other tastes or odors.

Emotions like fear, anger, or worry and mental sets like prejudice or irrational thinking patterns may impair perception. For example, a victim of a robbery may have been in great fear of the weapon used by the criminal. He or she may only be able to recall the size of the bore of the weapon and not be able to describe the offender. Such a person might be expected to exaggerate the size of the bore. Or an observer may so dislike another person that he only views the actions of that person and nothing else. Sometimes an observer may have great prejudice against a class or race of people. For example, a person who dislikes police may unwittingly permit this prejudice to affect his view of the actions of a night watchman or a security guard. How he interprets what he sees may be wrong, even if his senses recorded a true report of what occurred.

Good observation requires the skillful use of the five senses to give meaning to what is going on around the observer. The senses of sight and hearing are used most often, but the senses of smell, taste, and touch are also important to observations and descriptions. The ability to observe improves with practice. Events or spoken words that may mean little when seen or heard by an untrained observer may be very meaningful to the trained investigator.

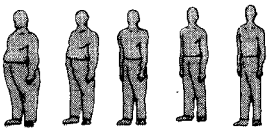
OBSERVATIONS AND DESCRIPTIONS BY INVESTIGATORS

For investigators a *systematic* approach to observation and description is a must. So is the use of photographs, sketches, notes, and other recording methods. They help you remember what you observe, and they improve the accuracy of your description. Generally, accuracy is most assured if you follow a set pattern. The pattern used most often for observations starts with general features and moves to specific features. For example, when observing to develop a description of a person, you look first at the general features like sex, height, and race. Then you check exact features like color of hair and eyes, unusual scars, or behaviors. Last, you note changeable characteristics like clothing and hair style.

However, when observing persons to try to match them to a description, you may change or reverse your pattern of observation. This is most likely if the person you are looking for has some very noticeable feature. For example, if you are looking for a man with a limp, the first feature you would look for would be the limp. You would then look at general features and go on to note specific features. But even reversed, you are still following a pattern, still using a systematic approach.

PERSONS

When observing and describing persons, first note a person's general features. General features include sex, skin color, height, build and posture, weight, age, and complexion. Then, observe and describe the person's specific features. Your pattern of observation and description of the specific characteristics of a person normally begins with the head and progresses downward.

NOTABLE GENERAL CHARACTERISTICS OF PERSONS						
SEX	SKIN COLOR	HEIGHT	BUILD and POSTURE	WEIGHT	AGE	COMPLEXION
Male Female	White Black Red Yellow Other Unknown	Exact or Esti-mated in 2-inch incre-ments	Large, average, small Obese, very stout, stocky, medium,slim Straight (erect) medium, stooped Angular, muscular rounded Bust (for females) flat, medium, heavy 	Exact or Esti-mated in 10-pound incre-ments	Exact or Esti-mated in 5-year incre-ments	Pale, fair, dark, ruddy, sallow, sickly pale, florid (for whites) Light brown, dark brown, dark olive (for blacks) Clear, pimpled, blotched, freckled, pockmarked Make-up — none, light, heavy

Begin by describing the size and shape of the head. Then move to the profile. Mentally divide it into three parts. Describe each third in separate detail and in relation to the whole. (The profile, unless it has a peculiarity, is not as useful as the shape of the face for identifying people.) Then describe the hair. Give both natural and artificial color of the hair if it has been altered. Describe its texture, density, appearance and style. You may use current descriptive terms for hair styles. Wigs, toupees, and hairpieces should be described carefully and in detail. You can often tell if someone is wearing a hairpiece by its difference in texture, color, density, or type from the hair elsewhere on the head. False hair will often be too nearly perfect. And the edges of a hairpiece are often evident under close scrutiny.

When describing the face, give the shape and details of the forehead, eyebrows, eyes, nose, mouth, lips, teeth, chin, and ears. Look closely at the nose. Has it been broken? Does it twist to the right or left? Is it turned up, pendulous, hairy, or deep-pored? Note the color of the eyebrows, eyes, and lips. If makeup is used to modify or enhance the complexion, include this information. When describing females, indicate both natural and artificial contours if you can. Be alert for the use of lipstick to alter or accent the natural appearance of the lips. Note equipment like glasses and hearing aids. Contact lenses may be hard to see. Watery eyes and excessive blinking sometimes are a hint of contact lenses. Make careful note of special types of eyeglasses like monocles, pince-nez, and bifocals. Do the same for special types of hearing aids.

Go on to describe the rest of the person in this same way, moving always downward. When describing the length of the arms in relation to the rest of the body, keep in mind that an average arm length places the heel of the hand about half-way between the hips and the knees when the arm is hanging naturally. Note oddities or deformities of the hands and fingers in detail. Missing or crooked fingers, for instance, are hard to disguise. They make good first checks of suspects. The same is true for marks and scars. Describe birthmarks, moles, warts, tattoos, and scars by size, color, location, and shape. Be as detailed as you can.

The tone and manner of a person's speech can be an important part of a description. Habitual tone should be noted as low, medium, or loud; soft or gruff; or by other descriptive qualities. State the manner of speaking as cultured, vulgar, clipped, fluent, or using broken English. Identify accents when possible. If the person is not speaking English, try to recognize the language he is using. Note oddities of, or handicaps to, speech: a stutter, a nasal twang, a pronounced drawl, or a mute condition.

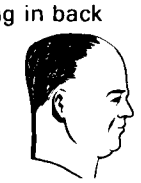
Since a person may change his clothing, its descriptive value is limited. But look for dress habits like neatness, carelessness, and style preference. These do not change as readily. Clothing worn by a person at the time of an offense, however, or when the person was last seen. should be described in detail. List this by type: military, civilian, mixed military and civilian, and color. And give the condition of the clothes: clean, soiled, torn, ragged, greasy, or bloodstained.

Be sure to include remarks about personal appearance. Use terms like neat or untidy; well-groomed or unkempt; refined or rough.

A person's odd mannerisms or traits may form the main or key part of a description. Be alert for feminine traits in a man and masculine traits in a woman. Watch how the person walks, moves, or talks. Does the person show signs of nervousness or indecision? Look for subconscious mannerisms. Is the person often seen scratching the nose, running a hand through the hair, pulling on an ear, hitching up the pants, jingling keys, or flipping coins? Look for facial tics, muscular twitches, or excessive gesturing with the hands. And note any pieces of jewelry being worn.

NOTABLE SPECIFIC CHARACTERISTICS OF PERSONS

HEAD	FACE	HAIR	FOREHEAD	EYEBROWS
Size — large, medium, small Shape — long, short, broad, narrow, round, flat in back, flat on top, eggshaped, high in crown, bulging in back	Round square oval broad long	Color — blond, brown, red, auburn, black, gray, streaked gray, white; light or dark; natural or artificial Density — thick, thin, medium, sparse Hairline — low, medium, receding, receding over temples Baldness — complete, whole top of head, occipital, frontal, receding, or combined Type — straight, wavy, curly, kinky Texture — fine, medium, coarse Appearance — neat, bushy, unkempt, oily, dry Style — long, medium, short; parted on left, on right, not parted; page-boy, corn row Wig or toupee	Shape — high, medium, low Slope — receding, medium, vertical, prominent, bulging Width — wide, medium, narrow Wrinkles or age lines — none, light, deep, horizontal, curved up or down, vertical	Color — and if same or different from hair color Shape — slanted up, down, horizontal from center of face straight, arched, separated, connected plucked penciled Texture — heavy medium, thin Hair length — long


Flat In Back


Flat On Top


Egg-Shaped


Bulging In Back


Round


Square

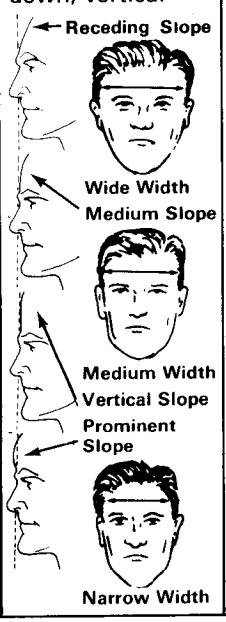

Oval


Broad


Long


Frontal Balding


Wavy Course




Thin Line


Arched


Straight Connected


Heavy,Long Hair

NOTABLE SPECIFIC CHARACTERISTICS OF PERSONS

EYES

Shape — sunken, medium, bulging

Spacing — wide, medium, narrow

Color

Crossed, watery, red

Eyelids — normal, drooping, puffy, red

Eyelashes — color; length — long, medium, short; shape - straight; curled, drooping

Makeup — none, light, dark, irregular; color, type, extent

Glasses — style; color of frames and lenses, how attached to the face; type — monocle, pince-nez, bifocals


Narrow


Close Together


Puffy Eyelids


Bulging, Wide Spaced


Glasses

NOSE

Length — short, medium, long

Width — thin, medium, thick

Projection — long, medium, short

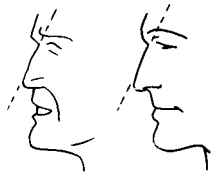
Shape of base — turned up, horizontal, turned down

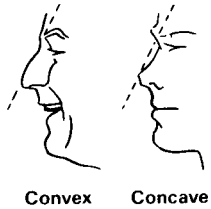
Juncture w/forehead — flat, small, medium, large

Line — concave, straight, convex (hooked), Roman, aquiline

Nostrils — medium, wide, narrow; large or small; high or low; elongated or flaring

Oddities — broken, twisted left or right, turned up, pendulous, hairy deep-pored


Aquiline Roman


Convex Concave

MOUTH

Size — small, medium large

Expression — stern, sad, pleasant, smiling

Oddities — twitching, habitually open


Small

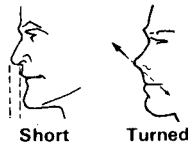

Medium


Large


Narrow


Medium


Wide


Short Turned Up

LIPS

Shape — thin, medium, thick (frontal); long, medium, short (profile)

Color

Position — normal; protruding lower, upper, both

Appearance — smooth, chapped, puffy, loose, compressed, retracted over teeth, moist, dry

Oddities like hairlip


Thin


Medium


Thick


Upper Protruding


Lower Protruding


Distance between upper lip and nose

MOUSTACHE AND BEARD

Color — and if same or different from hair color

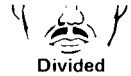
Style

Shape

Grooming


Straight


Curved


Divided


Handlebar


Mandarin


Rounded


Double Pointed


Squared


Van Dyke


Henery VIII


Side Whiskers

NOTABLE SPECIFIC CHARACTERISTICS OF PERSONS

TEETH

Color — very white, normal, stained, gold

Size — small, medium, large

Shape — receding, normal, protruding, even, pointed

Condition — broken, decayed, false, missing, w/gaps

CHIN

Shape — receding, jutting (profile) short, medium, long (frontal)

Size — small, large, pointed, square, dimpled, cleft, double

CHEEKS

Shape — full, bony, angular, fleshy, sunken, flat

Placement — high (prominent), medium, receding

Make up — heavy, light, color, placement

EARS

Size — small, medium, large

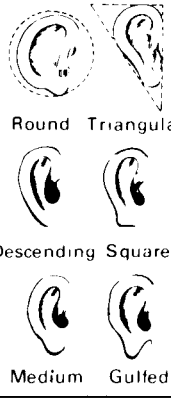
Shape — oval, round, triangular, rectangular

Lobes — descending, square, medium, gulfed

Separation from head — close, normal, protruding

Setting — low, normal, high (the corner of the eye is usually in line w/upper third of the ear)

Hearing aid — color; which ear; located behind or inside ear, w/cord, w/o cord



NECK

Size — short, long

Shape — straight, curved, thick, thin

Adam's apple — large (prominent), medium, small

CHEST

Front view — broad, medium, narrow

Profile — deep, flat, medium

TRUNK

long, medium, or short in relation to body size

WAIST

small, medium, large

ABDOMEN

flat, medium, protruding

SHOULDERS

Size — large, medium, small; narrow, medium, broad

Shape — square, round, level, one side lower (frontal); straight stooped, slumped, humped (profile)

ARMS

Length — long, medium, short

Musculature — slight, medium, heavy

HANDS

Size — small, medium, or large in relation to body size

Oddities

FINGERS

Length — long, medium, short

Shape thin, medium, thick (stubby)

Deformities — missing fingers, disfigured nails

BACK

Rear view — straight or curved

Profile — straight, curved, humped, bowed

HIPS

Front view — broad, medium, narrow

Profile — small, medium, large

LEGS

Length — long, medium, or short in relation to rest of body (average legs plus hips equal about half the body length)

Shape — straight, bowed, knock-kneed

Musculature — slight, medium, heavy

FEET

Size — small, medium, or large, in relation to rest of body

Deformities — pigeon-toed, flat-footed, club-footed

OBJECTS

The pattern of observation you use to describe objects is like the pattern you use to describe people. You go from the general to the specific. And you use this same pattern when trying to find objects to match a description already built.

Start with general features that clearly define the broad category of the object. This prevents its being confused with objects of other classes. Note its tvpe, size, and color. Look for other general features that are easy to discern and that may help give quick, sure recognition. Then go on to describe the object's specific features that set it off from all other like items. Does the car have a sun roof? Is the radio or typewriter portable? Next, look for damage or alterations. Last, look for serial numbers or other identifying marks or labels.

Your observation and description should follow a general flow. Move from top to bottom, or from front to rear, or from left to right. Distinguishing marks, scratches, alterations, damaged parts, worn areas, signs of repair, faded paint, serial numbers, identifying markings, and missing parts should be noted in detail. For example, when observing and describing a typewriter, begin with the brand name. Then go on to list it as "nonportable, model 17, 11-inch carriage, light gray with ivory keys and black lettering, serial number J17-123456." Include remarks like "Letter H key is bent and strikes below the line. Numeral 5 key is bent and sticks in the forward position. When struck, it must be returned manually to the rear position." Whatever the object, you follow the same procedure.

DESCRIPTION OF A MAN'S SUIT

Brand XXXX; dark blue; wool worsted; coat size 42 regular; half-lined with dark blue silk; coat lapels of wide width; single-breasted with three black buttons; four small black buttons on each sleeve; small tear in lining on right outside coat pocket; trousers size 33-inch waist, 34-inch length; unlined; not pleated; cuffs, 1 1/2 inches wide; and cleaner's mark JHO stamped in black on the inside of the waistband.

EVENTS

If you are present when an unlawful event occurs, you must observe it systematically and quickly. Take in the important factors of time, place, persons, objects, and actions involved, as well as the immediate results of the event. These factors are involved in the essential questions of who, what, when, where, and why. But in most cases you arrive at the scene of an incident after the crime has occurred. Hence, you seldom see an event as it takes place. Your observation of connected actions after an event, however, may give major clues to what did take place.

Small but important actions or events often provide an important lead for an investigation. Remarks, states of excitement, gestures, looks of concern, and unlikely claims of lack of knowledge can all be clues. You may get leads from such things as the way a fire burned, the presence of certain fumes or odors, the sound of a voice, or the warmth of a body. Such deduction may aid in reconstructing an event's cause, start, or progress. You must recognize related acts or conditions and understand them correctly.

Your description of an event must be as complete as circumstances allow. It should contain the facts of time, place, order of action, objects and persons involved, and what happened because of these factors. To get a thorough and logical description of an event, think about it in terms of your observations. Consider statements made by witnesses and suspects. And evaluate the physical evidence from the crime scene. Support your description of an event with sketches and photographs if they are needed.

PLACES

To show the exact scene of an incident or crime, you may have to make detailed observations of places and locales. Your purpose may be to connect the place to an incident. Or it may be to connect the place to information given by a witness.

Your descriptions should cite the elements you observe. Your goal is to give a concise and easily understood word picture of the scene. Sketches and photographs, when appropriate, will add to your word description. Your pattern of observation will depend on whether you are looking at an outdoor scene or an indoor scene.

When observing and describing outdoor scenes, go from the general to the specific. Look for natural or man-made landmarks. Note the general scene and its relation to roadways, railways, and/or shore lines. Use them to pinpoint the general site. Pinpoint the exact site in relation to fixed or semifixed features. Use features like buildings, bridges, or power line poles. View outstanding objects or features within the scene. Check details of the scene and items of high interest. Some outdoor sites may not have such landmarks. Then you must mentally assign boundaries to the area. Use boundaries that are neither too far apart or too close together. A common sense approach is a must.

DESCRIPTION OF AN OUTDOOR SCENE

The incident took place in Anniston, AL, near the intersection of Quintard and First Streets. The exact location was the east sidewalk of First Street, 10 feet due north of a fire hydrant. The hydrant is on the east side of First Street about 20 feet north of the corner (curb) of Quintard and First Streets.

Observing and describing an indoor scene is easier. Indoor scenes have obvious and definite boundaries like walls, hallways, and basements. But because an indoor area often contains many objects, it is very important to use a methodical pattern of observation.

First, note the location of the place to be observed. Say if it is at the front or rear of the building and at what floor level. Then check the distances to stairways, entries, elevators, or the like. Next, get the room number or other designation. Observe details near entries to the area that is the specific point of concern. Note objects located within the area. Last, get the exact location as it relates to other objects of concern.

DESCRIPTION OF AN INDOOR SCENE

The incident took place in Room 204 of the Union Hotel, at 1052 Moore Avenue, Anniston, AL. Room 204 is on the second floor of the hotel, directly above the Moore Avenue entrance. The room is reached by the elevator to the left, or the stairway to the right, of the Moore Avenue entrance.

The door to Room 204 is wood, covered with red leather-like material. The room number is printed on it in 2-inch black letters. Inside, and to the immediate left of the entrance, is a dark upright piano. On the piano stands a large white vase and two single brass candlesticks with red candles. Against the left wall, facing the center of the room, is a dark blue standard-size sofa. On the sofa are two red and one white triangular pillows. At each end of the sofa is a dark brown end table with glass top. Each end table supports a 3-foot high brass table lamp with light blue shade. The lamp on the table nearest the door is overturned and rests partly on the sofa arm. An empty drinking glass is on the opposite end table.

In the wall opposite the entrance are two double-sash casement windows. The windows are furnished with dark red brocade drapes closely drawn. Between the windows is a movable serving bar. The front of the bar is covered with red leather-like material. On the left end of the bar stands an empty water pitcher and two empty drinking glasses. Near the center of the bar is one drinking glass containing about 1 1/2-inches of light brown liquid. On the right end of the bar is an empty glass bowl about 3-inches deep and 10-inches in diameter. Under the bar is a square wooden wastebasket containing three empty bottles and many glass fragments. Next to the wastebasket is a wooden case containing nine empty assorted soft drink bottles. Six bar stools are in front of the bar. The stools have round seats covered with red leather-like material. Each has three black metal legs fastened to the floor with screws. The entire wall behind the bar and between the two windows is mirrored. At either end of the mirror are three glass shelves on which rest numerous inverted drinking glasses. Beneath the mirror is a glass-topped wooden shelf 10-inches wide. This shelf contains seven open and four sealed bottles of what appears to be intoxicants.

On the wall to the right of the entrance, 3 feet from the opposite wall, is a door leading to a bathroom. Eight feet along this wall from the bathroom door is a door connecting with Room 206. This door is locked at the time of observation. Between these two doors is a dark brown table with a wooden top about 2 feet by 2 feet in size. There is one dining-room chair upholstered with maroon leather-like material at the table.

Three tables of this same type are in the center of the room. Two upholstered dining chairs are at each. On each of these center tables, and on the table on the right side of the room, are two plates with partially eaten food servings.

At a point 10 feet from the entrance and 7 feet from the table near the right wall is an overturned dining chair. Its right front leg is broken but still attached to the chair. The chair leg is stained with a substance that appears to be blood.

In the center of the ceiling is a black brass, three-light chandelier. The floor of the room is completely covered by tan carpeting.

OBSERVATIONS AND DESCRIPTIONS BY WITNESSES

Observations, descriptions, and identifications made by witnesses can be highly useful to you as an investigator. Some persons may be able to give a concise and fact-filled account of what they have seen. But, in most cases, you must use skillful and patient questioning to help a witness to recall details of persons, objects, places, and events. Your questions will evoke the details which help give meaning to his observation.

It is important that you talk with witnesses as soon as possible after they have made their observations. Do this before they have time to talk to others or to change their observations, consciously or unconsciously, to fit a pattern of other things they may have seen or heard. Imaginative persons often use conjecture to fill in the gaps in their knowledge of an incident. This is particularly true if they later learn that the incident is important in an investigation. It is also important for you to evaluate a witness's information and compare it with all related data before you use it to investigate further. And you must be aware of, and make allowance for, the many factors that may influence a person's understanding and retention of the details he relates. You also need to keep in mind how conflicts can occur in statements made by different witnesses.

When obtaining a description from a witness, learn, if you can, of any influences affecting their understanding of what they saw. Find out if there are influences that might cause them to give false answers. Some witnesses may purposely withhold information so they will not become involved.

Most investigations call for quick action. Thus you must often proceed without full background data. This may make it hard to know what influences someone. But you can take steps to help tell the extent of these influences. You can develop the use of a pattern of recall to help get a clear word picture. It will improve your technique of getting descriptions of observations from others. You can talk to witnesses briefly before questioning them. This will put them at ease and help get them to talk freely. You may discover enough about them to know what may affect their interpretation of what they have seen. And you can ask the witnesses to repeat their descriptions. This may reveal discrepancies made on purpose or by incomplete observation. Ask about these flaws in an attempt to get a better description. Your questions may even lead a witness to admit he distorted the truth. A witness who lies or hides information often makes unconscious slips that you will note.

IDENTIFICATION

Having a witness or victim identify a person, a place, an object, or an event is the way you relate that factor to an incident. You must conduct identification efforts in a way that precludes errors or injustice. Before an identification is begun, make sure the witness has made as complete a description as he can. This will help avoid false identifications and reduce the chance for error. Let the witness identify a person or an object from among a *group* of like persons or objects. Showing a witness one weapon or one person to identify may confuse him. He may give a mistaken identification because the weapon or person was shown to him by you. To identify a place, have the witness describe its general location in relation to known landmarks. Next, have him describe it in detail. Then he should be asked to take you to the scene.

COMPOSITES

Composite photographs or sketches are often used to help identify persons. Composites are developed from separate photographs or sketches of foreheads, eyes, noses, mouths, chins, or other facial features. The witness selects the example which most nearly looks like the particular facial feature of the person to be identified. But do not show a witness a photo lineup before having him help develop a composite. It may influence his memory of the subject.

COMPOSITE PHOTOS MADE WITH A COMMERCIAL KIT

Commercially manufactured kits can be used to make composite drawings or photos from verbal descriptions. The drawing from such a kit can resemble a person so closely it removes others from suspicion. And the kit model that uses true photos of facial features, hairstyles, eyeglasses, hats, and the like produces realistic photo-like composites.

If photographs or sketches of separate features are not available, many photographs of different persons or objects may be used. Have the witness pick out the features which most closely look like the person or object to be drawn. Or have an artist sketch a likeness of persons or objects from descriptions given by one or more witnesses. Even this kind of drawing or portrait may be useful to an investigation.

LINEUPS

Another way to identify suspects or objects is to use a lineup. A lineup can reduce mistakes and eliminate false identification of persons and objects. And it can avoid leading or misleading a witness.

A lineup must meet legal requirements. There are rules for picking people for the lineup, their actions before and during the lineup, and control of the witnesses\victim. Tell the witnesses or victim of the rules that you must enforce.

For a lineup to be legal, it must meet the test for fundamental fairness. That means it cannot be impermissibly suggestive. *It must be composed of similar subjects having similar characteristics.* Anything which would hint that one of the participants is "the one" would be a defect in that lineup.

The location of a lineup is up to you. But it should be held in an area that is away from public view to keep from drawing unwanted attention or disturbance. If you are having a lineup of people, you need enough room for about six people to stand side by side. There is no specific number of participants you are required to have in a lineup. But having six or more persons, photographs, or objects is a number that works well for all three kinds of lineups. You may hold a lineup of objects at the site of an offense or in some other suitable place. Pick a place where one is likely to find such items. This may mean putting a car in a parking lot with other cars or putting a coat in a closet with other coats.

A lineup having only one participant is called a "showup." Due to the inherent suggestiveness of a showup, it is always closely scrutinized. Showups are generally considered poor practice. A showup, to be legal, should be done within a short time after the commission of a crime. If you must conduct a showup, it is preferable to do it at the scene.

Make sure the lighting is bright enough to let viewers see the lineup without any problems. When you conduct a lineup of people, arrange the lighting so that the suspect cannot see the viewers.

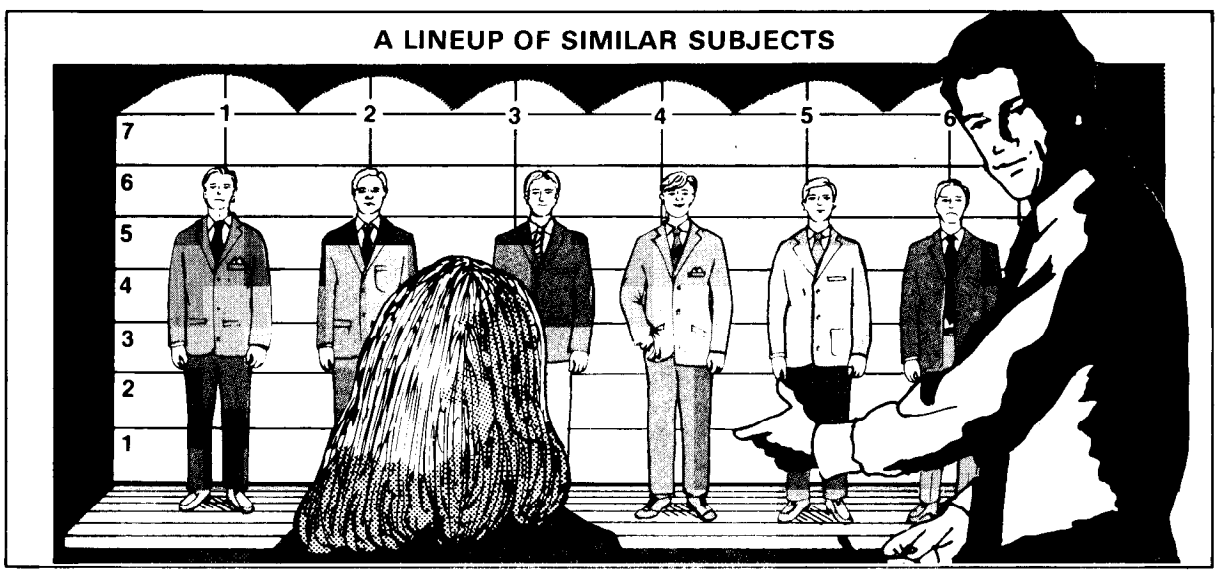
Do not let a witness see the suspect before the actual lineup. Tell witnesses exactly how the lineup will be controlled. Do this before they view it. *Do not tell witnesses that the suspect is in the lineup.* Do nothing to cause anyone to think he must make a statement about the lineup. You will, however, note any statement made during the lineup. If you plan to question a witness during the lineup, have the questions written out. *Do not let witnesses talk to each other.* One may have an unfavorable influence on another.

Pick people to fill the lineup who are of the same general physical description as the suspect. If a suspect wears glasses or has a beard, so should the rest of the lineup. And everyone should be wearing the same type of clothes. The clothing should be like that described by witnesses. But remove or cover any unique uniforms, insignia, crests, ribbons, or name tags. If the perpetrator was wearing a hat, all people in the lineup should be wearing hats.

Give each person in the lineup a numbered card. Record by name and number each person's position in the lineup. Photograph the lineup to verify the location of each person in it. You may ask the lineup personnel to change direction. Simply tell them what direction you want them to face.

A suspect or accused is entitled to counsel at a lineup only when charges have been preferred or pretrial restraint under Rules for Courts-Martial (RCM) 304, MCM, has been imposed. When a lawyer is present, he may suggest how to conduct the lineup. However, he may not interfere with the actual conduct of the lineup. The suspect has no right to counsel at a photographic lineup, nor need the suspect be informed of, or present at, the lineup.

When you select pictures for a photographic lineup, make sure the persons in the pictures are reasonably alike in appearance. You may use identification cards for the lineup if the name on the card is not visible. Provide the witnesses with three or more viewings, varying the layout of the photographs each time. Photograph each layout. Identify the individual photos in the lineup and their positions in the layout. Record the results of each layout.



You must ensure that your photographic lineup cannot be condemned for having included suggestive procedures. Improper use of photos can cause witnesses to err in their identification. In no way should any suspect's photograph be emphasized. Do not imply to a witness that other evidence indicates that one of the persons pictured committed the crime. Do not show a witness a picture of one person who generally resembles the person he saw. Save all of the photos used in a lineup. If the witness's identification of the suspect is contested, the photos will be needed in court.

CHAPTER 5

Interviews and Interrogations

Interviews and interrogations are an investigator's means of obtaining information from or about persons connected with an incident.

You interview persons you believe willing to give information about a case. In an interview you help people give you, in their own manner and words, their account of the matter you are looking into. After they give their account, you review it with them to he clear on key points. Or you ask questions to have them clearly explain matters not covered before, depending on the elements of the offense under investigation.

You only interrogate persons you suspect of having committed or helped commit an offense, or persons you believe to be withholding information about an offense. In an interrogation you rigorously question persons unwilling to give you the information you are seeking. You avoid interrogating anyone who can be successfully interviewed.

CONTENTS

OBTAINING INFORMATION

You may have to question a number of people involved in your case to get the information you need. You may need to question people who know the victim, the suspect, or a witness. They can help you understand the reasons and actions of those involved in the incident you are investigating. These interviews, often conducted in the office, home, or place of business of the person you are interviewing, rarely result in an interrogation.

You may find that some persons you question are only "distracters." They have no real connection with the crime, but they seek to present information. They may be publicity seekers who say they witnessed the crime. Or they may be emotionally disturbed persons claiming involvement in the crime. Despite the distraction these people create, you should not ignore them. You must make every effort to handle these persons in such a manner that neither your investigation nor the reputation of the Armed Forces suffers. Listen to their stories. Check what they say in relation to the known facts. Then take the necessary action.

Most often, however, you acquire the detailed information you need for your case by careful and extensive questioning of the persons directly involved. It is when questioning victims, witnesses, suspects, complainants, and accusers that you must be most aware of the distinction between interviews and interrogations. You must know when, how, and with whom to use each particular method of questioning.

VICTIMS

Victims are interviewed to develop the facts of an incident. You may question them in the hospital, in the home of the victim, or anywhere that you think is helpful to the interview.

Always begin your interview by showing concern for the victim's injuries and losses. Assure the victim that you will do your best in his behalf. The truthful victim, feeling he has help at hand, will do his best to recall details that will be useful to you. The lying victim, put off guard, will be more likely to make mistakes in his story that you can detect. When interviewing the victim of a crime of violence, you must keep in mind his or her emotional state. A highly emotional state can cause victims to give a wrong account of the incident. A follow-up interview, when the person is calmer, is recommended.

Sometimes victims are too eager to please. They try to cooperate by making up things or twisting the facts. You may need to interview an over-cooperative victim several times to get accurate information.

Sometimes you must interrogate a victim. Victims are not always cooperative. They do not always tell the truth. They may fear that someone will try to get back at them for what they are telling you. Or they may be in shock or have a poor memory. Sometimes they do not want to get involved with the police for fear friends or relatives may find out they have been part of an incident.

WITNESSES

Witnesses are questioned, *one at a time,* to obtain facts about the incident you are investigating. A witness is anyone other than a suspect who has information about the incident. A witness may be the victim or the person making the complaint. Or he may be the accuser who first notified the police of an incident. A witness may be someone who saw the crime being committed. He may be someone who can tell you about the actions and location of the accused at the time the crime was being committed. He may be someone who knows facts or has heard the accused say something that would tend to give you reason to believe that person committed the crime you are investigating. Or he may be a scientific specialist who can examine physical evidence and who can relate in court impartial information about it.

Usually, you interview witnesses. But if you realize that a witness is not giving you truthful information or is, on purpose, keeping valuable facts from you, you may interrogate them. You must seek witnesses when they do not willingly come forward to tell you what they know about the matter you are investigating. While interviewing a witness it may become evident that he is actually a suspect. If this happens, *you must stop the interview and read him his rights.* Then you continue your questioning as an interrogation.

Sometimes a person with no real facts about an incident may try to give you information about, or claim to be a witness to, an incident. This can happen when there have been difficulties in the past between a suspect and a supposed witness. If a person's motive is not clear to you, gain all possible background information to learn the reason for the statements. The testimony of a grudge-bearing witness may prove worthless if it is limited to information available from press accounts or public knowledge. Your familiarity with the details of the incident can let you see mistakes in the story of such a person.

SUSPECTS

Suspects are interrogated to learn if they have committed an offense or to obtain a confession of guilt. Suspects are persons who could have committed the offense you are investigating. They are persons who may have motive, means, and opportunity to do so. Sometimes suspects are known offenders whose guilt is fairly certain because of evidence on hand. Sometimes they are persons whose guilt is possible but uncertain because of lack of essential facts or evidence.

COMPLAINANTS AND ACCUSERS

During an investigation a person may report or accuse another person of an offense. You usually interview a complainant or an accuser. But if you suspect him of lying, distorting the facts, or withholding important information, you interrogate him. He may have provoked the accused. Or he may be trying to lead suspicion away from himself.

A false accuser may make an allegation that later is shown to be groundless. Sometimes such a charge continues until a trial is conducted. A false charge is, at times, a blown-up version of an actual crime of a lesser nature. Or it may be the sincere, but mistaken, belief of the victim.

All of your skill is needed in an interview with an accuser to separate a truthful accusation from an unfounded one. You must use great tact. If you slight a person who wants to give information, or if you make him feel that his reporting of the matter is foolish, you may close off a good source of information.

SETTING TIME AND PLACE

Most often you interview or interrogate a person as soon as possible after the incident has occurred. At best, memory is short. And a person who is questioned soon after the event has less time to make up a story reducing his responsibility for the incident. Cooperating witnesses are most often questioned at the earliest time you can be thorough and unrushed. At times, like when you are responding to an accident, preliminary questioning is done at the scene. This questioning is followed by more detailed questioning as soon as possible. But sometimes, you may decide to delay questioning. If a person is surprised and caught in the act of committing a crime, his involvement in the offense is well established by his being caught. You can tell him that you will question him later. And if you have identified a suspect through investigation but you do not want him to know this, you may decide to delay questioning. You can choose to delay an interrogation until other investigative leads are complete, including knowing the background of the suspect. This allows you the greatest possible psychological advantage in the interrogation.

When questioning a person of the opposite sex, you should, for your own protection, *have a witness present.* If possible, this witness should be of the same sex as the person you are questioning. He or she should be at least within hearing range. Or you may choose to use a two-way mirror and a microphone. Let the person being questioned know about the microphone. See AR 600-3 for further information on questioning members of the opposite sex.

Where you undertake questioning will vary. Willing witnesses, except those who are talked to at the scene, are interviewed where they feel most comfortable. This may be their home or office. Or if the witness would feel comfortable in a police setting or it would not cause undue hardship, you may use your office.

With suspects or hostile witnesses, you will want to ask your questions in a place where you enjoy the psychological advantage. This is usually in a well-equipped interrogation room. The interrogation room should be plainly but comfortably furnished. It should be cleared of items that could distract the attention of the subject. This includes a telephone. The room should not remind the suspect that he is in police custody or jail. It should have a table large enough to write on but too small for the suspect to "hide" behind. And it should have comfortable chairs. It may have soundproof tile to reduce outside noise from entering the room. When possible, temperature in the room should be controlled at a comfortable level. This can preclude the possibility of later defense counsel claims that a confession was "sweated" or "frozen" from the accused. Recording devices, two-way mirrors, and other installed equipment should look as much a part of the normal furnishings as possible. Paper, statement forms, the MCM, an ash tray, and other needs should be in place before the interrogation begins. *Weapons, or articles that might be used as weapons, must be left outside the interrogation room.* The door should have a "Do Not Disturb" sign.

PREPARING FOR INTERVIEWS AND INTERROGATIONS

Prepare yourself thoroughly before conducting an interview or interrogation. If time is short, at least make a mental review of what you know of the case or have the MP who arrived first at the crime scene give you a quick briefing. When time permits, make more formal preparations. Your preparation, when possible, should include three elements. You should know the case. You should know the background of the person you are to interview. And you should have an estimate of the information you are seeking.

Fix in your mind all that is known of the who, what, when, where, how, and why of the case. Note details, especially those that have not become public knowledge. *Know the elements of proof that pertain to the exact offense under investigation* before you conduct an interview or interrogation. Knowing those laws will help you sort the information you receive. It will also help you detect incriminating points in the statements you take.

If you can, acquire some background knowledge of the person to be questioned before you begin. If you cannot do this, try to learn background information from the person himself early in the questioning. Knowing the background of the person you will be talking to helps you choose the form of questioning that will gain you the most valuable information. It also lets you test his truthfulness and impress him with the thoroughness of your investigation. Background facts of value include age, place of birth, nationality, and race. If the person is military, learn his present or former rank. If the person is civilian, learn his status in the community. Learn the subject's educational level and present or former duty. Check his habits, his associates and friends, and how and where he spends his free time. Check for records of courts-martial, civilian court convictions, or detention records. If the subject has previously committed an offense, learn its nature. Also check records in the local PM office and USACIDC files.

Determine in advance, if you can, the information you want to obtain. Plan a *systematic* questioning session. For example, prepare points to be covered during the interview. Design your questions to require more than a "yes" or "no" reply. You may not get the detailed information that you need unless you ask your questions carefully and systematically. Carefully planned questioning helps the subject to remember. It also helps him give you the best possible descriptions of persons, places, things, and events.

Before you interrogate a subject, mentally reconstruct the crime using statements of witnesses and information from physical evidence in the case. Then you can anticipate some of the factor fiction you may get from a subject during the interrogation. And you can change your questioning techniques if a method proves unsuccessful.

SELECTING AN APPROACH

Human quirks of behavior or personality can affect your success in getting a person to talk. They may bear on the accuracy or truthfulness of what you are told. You must evaluate each person you talk to and the information he or she gives you. You must try to understand a person's reasons for his behavior, his fears, and his thinking. You must think about factors of his personality that may influence what he sees, what he remembers, what he likes or dislikes, and what he is willing to talk about. Use the insight you gain about a person to obtain useful information.

Sometimes you cannot obtain the information you need because of a personality conflict between you and the person you are talking to. If the person being interviewed does not like you, use all the techniques you know to overcome any anger he feels toward you. If this fails, withdraw from the interview. Let someone else talk with him. He may be more responsive with a new investigator.

INDIRECT APPROACH

The indirect approach is exploratory in nature. The indirect approach is usually used

with persons who are willing and able to give you the information you want. You simply ask them to tell their story in their own way. You are mainly a listener. You ask questions only when you need to clarify points of information you are being given. And you avoid asking leading questions that suggest an answer. The indirect approach is used most often for interviews.

Sometimes the indirect approach is used for interrogations. If a suspect's guilt is uncertain or doubtful, indirect questioning is used to gain a detailed account of the suspect's activities before, during, and after the time the offense took place. Facts that are definitely known to you and that suggest the suspect's guilt are used to formulate questions that will test his reactions and show if he is inclined to lie. If evidence is lacking or is weak, you must proceed cautiously to place a suspect in the position where he is forced to distort or alter facts that are definitely known to you. Then you ask the suspect to explain the discrepancies or distortions of fact. You may, at times, want to imply that you have more information than you do. Do this by making statements or asking questions that lead a suspect to believe that you already know the answers. When you become more certain of the suspect's guilt, you may wish to switch to a direct approach.

DIRECT APPROACH

In the direct approach, you ask specific questions. Leading questions are sometimes needed, but try to avoid them if the person is unstable.

The direct approach to questioning is used for interviews when a subject, for some reason, is not willing nor ready to provide information. Some persons will claim they have no knowledge of an incident because they want to avoid being questioned or perhaps having to go to court. Some may believe a minor offense they have committed will be brought to light if they become involved with the police. Or they may believe that what occurred is not their business. Some may fear that others will find out they have been involved in a criminal matter. Or they may fear that if they talk it will bring harm to them, their family, or their property. Using the direct approach in an interview of persons who do not wish to talk to you can help you get the information you need.

Use the direct approach for interrogations when you question a suspect whose guilt is fairly certain. Your intent is to learn why the suspect did what he did. Behave in an accusatory manner. Assume an air of confidence, stressing the evidence or testimony that indicates the guilt of the suspect. Display a complete belief in the suspect's guilt.

RECORDING INTERVIEWS AND INTERROGATIONS

You must make a record of your interviews and interrogations for future reference. You can do this by using an electric recording device or by taking notes.

If you want to use an electric recorder, *you must get permission* from the person you are questioning. It is best to get the permission in writing. If you interview a person who refuses to give you this permission, ask the SJA for advice. Keep your recordings with their transcripts. And be sure to maintain a complete chain of custody for both, so they may later be used in legal proceedings.

Avoid taking notes in an interview until the subject has told his story at least once and you have gone over what has been said. Sometimes, however, you may want to jot down addresses or telephone numbers. Or you may need to note detailed descriptions of persons or stolen items. But if the subject shows concern about your note taking, wait and take your notes after the questioning is complete. Some people become upset when they see that you are taking notes of what they are saying.

Normally you do not take notes until the latter part of an interrogation. An interrogation requires such concentration that the diversion of notetaking would almost certainly disrupt your rhythm of questions or your train of thought.

Notes taken toward the end of an interview or interrogation can often be used as a rough draft of a written statement the subject agrees to furnish.

CONDUCTING INTERVIEWS

You must always be concerned with the well being of those you interview. *Treat victims and witnesses with dignity and consideration.* Inform them of the services available to them from the victim and witness liaison at SJA. Provide them with copies of all statements they make. And keep in mind that your attitude and actions often determine the outcome of an interview.

Introduce yourself courteously. *Show your credentials* to make sure that the person is aware of your identity. If you are interviewing a person at his or her home, stand several feet from the door until the person is sure of your identity and invites you in. Make sure of the identity of the person you are interviewing. If your introduction is hasty, the person may think his presence is of little importance. He may feel the information he gives you is of little value. The few minutes spent on making a good introduction will not be wasted. It gives you time to look at the person in light of the approach you have selected. It gives the subject time to overcome any nervousness he may feel and time to be better able to answer your questions.

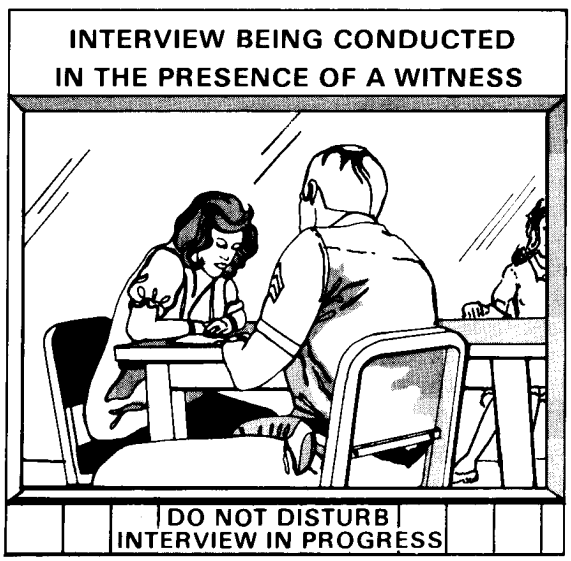
When the introduction is finished, make a general statement about the case without giving away the facts that you know. Be friendly and businesslike in your actions to get the subject in a talkative mood. If you are talking to a civilian, avoid using military language that may confuse him. Obtain all the identifying data that you may need during the investigation. Guide the conversation toward what the person knows about the case. Be sure that you do not promise or hint that you will not repeat what you have been told.

Using photographs and sketches can insure that you and the interviewee have a mutual understanding of the event. This will help you gain complete coverage of the matter you are discussing. Sketches can be especially valuable when you are questioning large numbers of people present when more than one crime was committed. Each person you question can locate his own position on the outline sketches. He can then relate what he saw with known times and distances. Take care to mark for identification such photographs and sketches for use in court.

Permit the interviewee to tell his complete story without unnecessary interruptions. Remember to phrase your questions to elicit a free flow of talk rather than brief "yes" or "no" answers. If the information you receive is different from what you know to be fact, go over it again until the discrepancies are resolved. If something is said that leads you to believe that an interviewee's status has changed to that of a suspect in regard to this offense or any other you are investigating, stop the interview and advise him of his legal rights. See the section on Preparing DA Form 3881 later in this chapter.

As you finish the interview, show your thanks for the subject's cooperation. Do this for those persons who become cooperative during an interview, as well as for those who are cooperative from the beginning.

As you bring an interview to a close you may get additional information. A reluctant suspect or witness may drop his guard after you have finished your questioning and put away your notebook. Sometimes a person who has held back important facts during an interview may mention them immediately afterwards. Careful handling of an interviewee during the closing moments may elicit the facts you were not able to get earlier.



CONDUCTING INTERROGATIONS

Interrogation goes beyond express questioning. Interrogation is any formal or informal questioning of a person in which an incriminating response either is sought or is a reasonable consequence of such questioning. When a person testifies, makes a statement, or performs a verbal act that implicates him as being a perpetrator of criminal activity, he incriminates himself. Thus any words or actions on the part of the police that they should know is reasonably likely to elicit such an incriminating response requires a rights warning and waiver.

No law enforcement officer may require or request a suspect or accused to answer any questions or perform any verbal act which may tend to incriminate him without having first informed him of the nature of the suspected offense, *warned him of his rights against self-incrimination and his right to have counsel present, and obtained from him a waiver of his rights.* Any evidence gained in violation of this requirement is not admissible in court.

In many military courts confessions have been ruled inadmissible due to the accuseds' ability to convince the court that their rights were not fully understood and therefore could not be rightfully waived as required by the Miranda and Tempia decisions. The defense counsel argued that the same wording was not used each time, leaving doubt as to the exact warning of rights given.

To prevent statements or evidence obtained from suspects or accuseds from being held inadmissible in court, the required warning and waiver procedures prescribed by law must be followed closely.

When you intend to question a suspect and *you know or reasonably should know* that legal counsel either has been appointed for, or retained by, the suspect for that offense, notify the counsel of the intended interrogation. Allow him or her a reasonable time in which to attend before starting the interrogation.

Schedule the interrogation so no other activities interrupt it or cut it short. Because an interrogation is time-consuming and never hurried, no time limit is placed on it. But it must not be continued for so long that it could suggest duress. You must be able to show a court that you were considerate of a suspect's need for food, water, personal hygiene, and rest.

It is advisable to conduct an interrogation in an interrogation room where you can have certain advantages. It affords you privacy during the questioning. A typist is usually available. You will have access to a witness to guard against charges of abuse, duress, or coercion. He or she can observe the manner in which statements, admissions, and confessions are obtained. You can control the physical environment. And you can make fairly certain that the interrogation will not be interrupted.

Normally there should not be more than two investigators present in a room during an interrogation. Interrogating a suspect in the presence of many law enforcement people has been held by the courts to be too much pressure on a suspect. But having a second investigator present as a partner is very useful. If the suspect is of the opposite sex, your partner, especially if the person is of the same sex as the suspect, is protection against false charges of investigator misconduct. Your partner can also serve as a witness. He can verify that you informed the subject of his rights. He can observe the suspect taking an oath or signing a document when sworn statements are taken. And if needed, he can take over for you. During an interrogation you may find you are not able to obtain factual information or a confession. Perhaps you are becoming fatigued. Or perhaps the suspect persists in his lying or denials and you lose control of the interrogation. Your partner can continue the interrogation and use techniques not previously used by you.

At the beginning of an interrogation, introduce yourself and your partner. Make sure the suspect is aware of your identities as law enforcement officers. Before asking any incriminating questions, advise the suspect of his rights. If the suspect chooses to waive his rights, a signed waiver is obtained and witnessed by you and your partner.

During an interrogation by either investigator, patience and perseverance are

the key elements. If you and the suspect are of the same sex, you may have your partner/witness leave the room if you feel that there will be certain advantages of a "one-on-one" talk with the person. You can call him or her back to observe the oath or the signing of any statements that are made. Plan your techniques with care, so they will not be obvious to the suspect. Sometimes you must be quite subtle. For example, if, in a case of a larceny of high-value items, you show more interest in the recovery of the property than in the actual role played by the suspect, your results are better. And you must always be careful you do not jeopardize the success of further interrogative effort by letting the suspect know just how much or how-little information is known.

A first offender or a person who has committed an offense in the heat of passion, anger, or jealousy is often responsive to a sympathetic and understanding attitude. Treat the suspect as a rational person who, under the stress of circumstances or extreme provocation, has committed an act alien to his true nature. Strive in every way to gain his confidence. Minimize the moral implications of the crime. Do not discuss or allude to the punitive implications of the crime. Be confident and stress the evidence. Point out his signs of nervous tension as evidence of his guilt. Repeatedly urge him to tell the truth. But avoid words with sinister meanings or connotations. *Help the suspect save face.* If you rationalize his motive for committing the criminal act, it may make talking about the crime easier for the suspect. Try to develop a complete and detailed account of the crime from the moment it was conceived until it was committed.

On the other hand, **the habitual criminal** feels no sense of wrongdoing in having committed a crime. He must be convinced by you that his guilt can be easily shown. Try showing him that his guilt is already established by testimony or other evidence. Point out to him the futility of denying his guilt. Confront him at every turn with evidence to refute his alibis. Show him that his guilt cannot be defended by lies.

Properly handled, an interrogation may elicit an admission or confession of guilt. An admission of guilt is a self-incriminating statement which does not amount to a complete acknowledgement of guilt, even if made for exculpation. A confession is a complete acknowledgement of guilt of all elements of an offense. *Any use of coercion, unlawful influence, or unlawful inducement renders a self-incriminatory statement or action unvoluntary.* It will make the statement or action inadmissible in court under the 5th Amendment.

If, for any reason, it is determined that a confession or admission of an accused is "tainted," it may still be possible for you to obtain the same evidence. Start from scratch with the person. Administer a new full rights warning and add that the previous statement is inadmissible and cannot be used against the accused or suspect. It is recommended that a different investigator take the second statement if you caused the "taint" by your own actions. Unless the chain of events is clearly broken, the court will regard the second statement as being influenced or coerced by the first statement and therefore inadmissible on the same grounds. If, however, you clearly sever the causal connection, the second statement will be admissible.

The Miranda and Tempia decisions do not prohibit interrogation "tactics" or techniques on the part of law enforcement personnel. The rule is simply that the strategies cannot be of such a nature that they are likely to produce an untrue admission of guilt, produce an involuntary statement, or amount to a deprivation of due process. Trickery or deceit must never be used in explaining to an accused or suspect his rights or obtaining a waiver of those rights. And no matter how clear and complete the process of information, advice, warning, and waiver, it can be completely nullified by your later conduct if you cause the suspect or accused to be misled as to his rights or as to the use that may be made of his testimony. However, after a voluntary, knowing, and intelligent waiver is obtained, using interrogation tactics to obtain a statement will not make the statement inadmissible unless the tactics are coercive in and of themselves. In short, the tactic used must not be such that it would tend to elicit an untrue statement from an innocent person.

QUESTIONING JUVENILES

Certain precautions must be observed when you question juveniles. To get a complete and accurate story, you must avoid alienating the youth. If you use abusive language, threats, or harshness you cause only one result. You make your job harder. Do not use condemning terms like juvenile delinquent, thief, and liar. Avoid having a "get-tough" attitude or losing your temper. You are not a prosecutor. Avoid coercive practices or any acts which might push an innocent, but frightened or emotionally troubled, child to confess.

Gain the youths' confidence by letting them take care of their immediate needs. To get the interview started, set up a bond of mutual interest or experience. Treat them with consideration and be friendly. Many youths feel that the world and, especially, adults are against them. In getting personal information, tell why the information is needed. Mix your data with theirs to keep the interview going and to check on the truthfulness of the juveniles' answers. Never let the youths turn the table and ask you questions. You may want to keep the youths guessing about how much you know by not saying too much during interviews. They must be told, however, what they are suspected of having done. An interview or interrogation of a youth by an investigator of the opposite sex must be done *only in the presence of a witness.* When possible, the witness should be of the same sex as the suspect.

Consider questioning a youth in his home. And always consider having cooperative parents present during questioning. You may give parents an idea of what questions will be asked and let them ask their own questions at a given time. But they must be told that they are not to interrupt your questioning.

Avoid contacting juveniles at school if you can. But if you cannot avoid this, you must observe certain precautions. Contact the school principal first and explain your purpose. Do not contact the student's teacher or the student first. Ask if there is a room in which you may question the student. Never enter the classroom to question or apprehend a student. Do not contact students at school during hours when a number of other students may see you with the subject. Remove a child from school only as a last resort. If a student is to be apprehended, you must explain this to the school officials and get their permission to take the child from the school. Make sure the child's parents have been notified if the student must be removed from school.

If you must conduct an interview while the juvenile is in public view, be cautious. This is especially true when there are other juveniles present. The subject must be allowed to save face with the group. If you act officious, you may embarrass or anger the youth. This can ruin your chances for a successful interview. Speak quietly to keep from drawing attention to yourself and your subject. Act casually, as if you knew the subject personally.

OBTAINING WRITTEN STATEMENTS

Written statements are permanent records of the pretrial testimony of accused persons, suspects, victims, complainants, and witnesses. They may be used in courts as evidence attesting to what was told investigators. They also are used to refresh the memory of the persons making the statements.

You record testimony of an accused, a suspect, a witness, a complainant, or a victim on DA Form 2823 (Sworn Statement). The written statement that must accompany the sworn statement of suspects and accuseds is recorded on DA Form 3881 (Rights Warning Procedure/Waiver Certificate).

PREPARING DA FORM 2823

To permit written statements to be admissible in court they must be carefully, and completely, prepared. You begin with the heading of each DA Form 2823. List the place where the statement is made. Give the date and time it was signed. Give the name, the grade or rank, and the organization or

address of the maker of the statement. The time may be entered by you or the interviewee. In either case, have it initialed by the interviewee.

You may record the body of the statement in a narrative or question and answer format or in a combination of the two. In the narrative format the subject relates his information in his own words in the first person. This format is ideal if he can express himself concisely. Otherwise, to get pertinent information, you can help the interviewee prepare the statement. The narrative format is used more often with a complainant or witness than with a victim or suspect. In the question and answer format, you can limit what is recorded to that which is pertinent. But this method is time-consuming. And it may suppress information that might have been volunteered if the narrative format were used. A combined format produces the best results. You allow the subject to express himself. Then you elicit any information he has omitted. This method is used most often with a victim or a suspect. Whatever the format, you must make sure the statement contains all the information you need to firmly prove or disprove the allegation.

The content of the body is extremely important. It must present the truth of the case under investigation. *It must answer the who, what, where, when, why, and how of the crime.* All elements of proof for that crime must be present. It must cite the times and dates of specific acts and the methods used to complete the crime. It must identify suspects, accomplices, witnesses, and persons knowing of the crime. It must account for stolen property and instruments used in the crime. It must tie the evidence to the victim and/or to the suspect. The subject must be given a chance to express anything he wishes that is related to the crime. And you must keep asking "Do you have anything you wish to add concerning the matter under investigation?" until you receive the answer "No." After the last word of the body of the statement, write End of Statement to close it out.

If the statement will not fit on the front and back of one DA Form 2823, you can use continuation pages. If you do, begin the statement on the front of DA Form 2823. Line out the reverse side with one diagonal line drawn from corner to corner. Do not include the lined-out side of the form in the page count, It does not need to be initialed. Use white bond paper for your continuation pages. Each page must have a heading giving the same information as the heading of DA Form 2823 and bearing the word "continued." The bottom of each continuation page must show the initials of the person making the statement. It must also cite the page number in relation to total pages of the statement. Conclude the statement on the back of a second DA Form 2823 on which you will also obtain the affidavit.

The affidavit is the last section of the DA Form 2823. It states that the information was given voluntarily and that mistakes on the statement have been corrected. It shows that the number of pages in the statement have been verified.

If a mistake is made and noticed while the statement is being typed, make slash marks over each letter and leave a space for the subject's initials. This way, the wrong word can still be seen, and it will not cause any doubt when and if the statement is introduced into court. If a mistake is found after the statement is completed, line the word out, write the correction above the mistake, and then have it initialed by the subject. *Do not use correction tape or "white-out" to correct errors.*

Administer the oath to the subject by stating, "Do you swear or affirm that the information given by you in this statement is true and correct to the best of your knowledge, so help you God." If the subject objects to the use of the word God, delete it from the oath. After the interviewee answers the oath in the affirmative, have him initial the statement at the bottom of each page. Then you and he sign the statement in the presence of a witness. Have the witness sign also. The affidavit page is included in the page count of the statement, as it is an integral part of the statement.

SAMPLE DA FORM 2823

SWORN STATEMENT

A COMPLAINANT'S SWORN STATEMENT, RECORDED ON DA FORM 2823 (FRONT)

SWORN STATEMENT

For use of this form, see AR 190-45; the proponent agency is Office of The Deputy Chief of Staff for Personnel.

LOCATION	DATE	TIME	FILE NUMBER
Fort McClellan, AL	19 Nov XX	0100	MPR# 03142-XX
	SOCIAL SECURITY NUMBER.		GRADE/STATUS
TOLTON, Sharon (NMN)	430-20-3472		SSG

ORGANIZATION OR ADDRESS

Co D, 8th Engr Bn, 3d Inf Div, Fort McClellan, AL 36205

I, Sharon TOLTON, WANT TO MAKE THE FOLLOWING STATEMENT UNDER OATH:

On 6 August 19XX, I purchased a "JOHNSON" citizen's band (CB) radio from Lenlock Radio Sales, located in Lenlock Shopping Center, Anniston, AL, and had it mounted underneath the dash in my privately owned 1984 Ford. At the same time, I purchased a "clip-on" type antenna for the radio and had Lenlock Radio Sales connect the radio and antenna with a cable which they ran underneath the metal strip on the floorboard just inside the left front door of my car. This way I could disconnect my antenna whenever I wanted, and place it inside the car until I was ready to use it again. I knew a lot of CBs were being stolen and I thought maybe if an antenna wasn't visible when I left the car parked somewhere, no one would know I had a CB radio. About 1700, 18 November 19XX, I got off duty and after changing into civilian clothing, I drove over to the main NCO Club here at Ft McClellan. I pulled my car into the parking slot just to the left of the slot reserved for the Club Manager. This would be on the west side of the Club; however, I'm not sure of the building number. I got out of the car, disconnected the "clip-on" CB antenna, and placed it on the front seat of the car. I know my CB radio was in the car at that time, because I had just turned it off a few minutes before. I'm positive I secured all the doors to my vehicle. I had three or four beers in the Club, and after watching some TV decided to return to my BEQ. It was about 2200, 18 November 19XX, when I departed the Club alone and walked directly to my car. Upon approaching the car, I noticed the left front window had been broken. There was glass lying on the ground and some on the front seat and floorboard of the car. I noticed the left front door was also slightly ajar. At that time I opened the left front door and looked inside. I saw that my CB radio and antenna were missing. It looked as if someone had cut the cable which connected the antenna to the radio, because a piece of the cable was still in the car. I went back inside the NCO Club and telephoned SGT WALKER, the Military Police Desk Sergeant. About 10 minutes later, approximately 2220, the MPs got there. Shortly after that an Investigator arrived, and after processing the scene, transported me here to make a statement.

Q: Were you alone when you went to the NCO Club on 18 Nov XX?

A: Yes, I was alone all evening with the exception of talking to a few casual acquaintances at the Club.

Q: Did you touch or disturb anything outside or inside your car when you arrived at the scene and discovered the incident?

A: The only thing I touched was the door when I opened it and looked inside. I may have stepped on some of the broken glass, but I didn't touch anything else.

Q: Describe the radio that was stolen from your vehicle on 18 Nov XX.

A: It's a "JOHNSON" citizen's band (CB), 40-channel selector, combination on-off and volume knob on the left front, channel selector knob to the right front, black in color with chrome trim, model #AS354IK, serial #17189, approximately 12" x 4" x 12" deep, and weighs about 5 or 6 pounds. The name "JOHNSON" is scrip-written across the front of the radio. The radio is in perfect condition and is not marked in any way

EXHIBIT	INITIALS OF PERSON MAKING STATEMENT	PAGE 1 OF 2 PAGES

ADDITIONAL PAGES MUST CONTAIN THE HEADING "STATEMENT OF__TAKEN AT__DATED__CONTINUED." THE BOTTOM OF EACH ADDITIONAL PAGE MUST BEAR THE INITIALS OF THE PERSON MAKING THE STATEMENT AND BE INITIALED AS "PAGE__OF__PAGES." WHEN ADDITIONAL PAGES ARE UTILIZED, THE BACK OF PAGE 1 WILL BE LINED OUT, AND THE STATEMENT WILL BE CONCLUDED ON THE REVERSE SIDE OF ANOTHER COPY OF THIS FORM.

DA FORM 1 JUL 72 2823 SUPERSEDES DA FORM 2823, 1 JAN 68, WHICH WILL BE USED.

A COMPLAINANT'S SWORN STATEMENT, RECORDED ON DA FORM 2823 (BACK)

STATEMENT (Continued) STATEMENT OF: SSG Sharon TOLTON, 430-20-3472 TAKEN AT: Ft McClellan, AL DATED 19 NOV XX CONTINUED.

for personal identification. I don't have the sales receipt, but as I said earlier I purchased it on 6 August 19XX, at Lenlock Radio Sales and paid $129.00 for it. The "clip-on" antenna was $17.95 extra.

Q: Describe the antenna.

A: It's just a regular metal-type antenna, chrome color, about 18" long. At the base of the antenna is a clip which you press and connect to the chrome trim that runs along the top outside edge of your car.

Q: Describe the vehicle your CB was stolen from.

A: I have a 1984 Ford LTD, 4-door sedan, brown in color with a darker brown vinyl roof, AL 19XX Lic #BBT-207, Ft McClellan post decal E-121.

Q: Describe the piece of antenna cable that was left at the scene.

A: Just a regular coaxial type cable, black in color. About a foot of the cable was left at both ends of the metal strip on the floorboard. It looked as if the antenna end had been cut, and the end nearest the radio disconnected by unplugging it.

Q: Was there anything else taken from your vehicle?

A: No.

Q: Did you notice anyone or anything unusual when you parked your vehicle in the NCO Club parking lot on 18 Nov XX?

A: No. There were some cars parked in the vicinity but I didn't notice anything unusual or pay that much attention to them.

Q: How many people entered or left the Club while you were there?

A: There were at least 70 people in the Club, but I didn't know any of them.

Q: Did you notice anyone or anything unusual when you discovered your vehicle broken into and your CB missing?

A: No, I didn't. Again, there were cars around, but nothing unusual. I didn't see any people in the vicinity.

Q: Is the area where your car was parked lighted?

A: There are some lights around, but it's not really too well lit.

Q: How many persons knew you had a CB radio in your car?

A: Quite a few. I gave a lot of people rides and use the radio a lot.

Q: Do you suspect anyone in particular?

A: No, I have no idea who might have taken it.

Q: Is there anything you wish to add concerning the matter under investigation?

A: No.///END OF STATEMENT///

AFFIDAVIT

I, Sharon TOLTON HAVE READ OR HAVE HAD READ TO ME THIS STATEMENT WHICH BEGINS ON PAGE 1 AND ENDS ON PAGE 2. I FULLY UNDERSTAND THE CONTENTS OF THE ENTIRE STATEMENT MADE BY ME. THE STATEMENT IS TRUE. I HAVE INITIALED ALL CORRECTIONS AND HAVE INITIALED THE BOTTOM OF EACH PAGE CONTAINING THE STATEMENT. I HAVE MADE THIS STATEMENT FREELY WITHOUT HOPE OF BENEFIT OR REWARD, WITHOUT THREAT OF PUNISHMENT, AND WITHOUT COERCION, UNLAWFUL INFLUENCE, OR UNLAWFUL INDUCEMENT.

WITNESSES:

JOHN R. RODGERS John R. Rodgers
11th MP Co, Ft McClellan, AL 36205

ORGANIZATION OR ADDRESS

ORGANIZATION OR ADDRESS

Sharon Tolton
(Signature of Person Making Statement)

Subscribed and sworn to before me, a person authorized by law to administer oaths, this 19th day of November, 19 XX at Fort McClellan, Alabama

Clifford W. Ball
(Signature of Person Administering Oath)

CLIFFORD W. BALL
(Typed Name of Person Administering Oath)

Article 136(b)(4), UCMJ
(Authority To Administer Oaths)

INITIALS OF PERSON MAKING STATEMENT ST.

PAGE 2 OF 2 PAGES

AN INVESTIGATOR'S SWORN STATEMENT, RECORDED ON DA FORM 2823 (FRONT)

SWORN STATEMENT

For use of this form, see AR 190-45; the proponent agency is Office of The Deputy Chief of Staff for Personnel.

LOCATION	DATE	TIME	FILE NUMBER
Fort McClellan, AL	1 Aug XX	0800	MPR# 00001-XX
	SOCIAL SECURITY NUMBER.		GRADE/STATUS
MacKINLAY, Douglas Stuart	508-64-0439		SSG

ORGANIZATION OR ADDRESS
111th MP Co, Ft McClellan, AL 36205

I, Douglas Stuart MacKINLAY, WANT TO MAKE THE FOLLOWING STATEMENT UNDER OATH:

INVESTIGATOR'S STATEMENT

This statement is intended to clarify and/or elaborate on certain aspects of this investigation not elsewhere covered by statements and/or documents.

At 1300, 12 Jul XX, a crime scene search was conducted of Room #5, 1st floor, Bldg 3253, Co B, School Bn, USAMPS, Ft McClellan, AL (FMA), for the purpose of obtaining evidence regarding the theft of personal property. This room is occupied by SP4 John E. DENNY, 721-87-3641, Co B, School Bn, USAMPS, FMA. The search revealed one silver colored knife blade, 2 1/2 inches long and 1 inch wide, bearing the inscription "Original Buck Knife", which was lying on the floor directly below the front right hand corner of the footlocker stand located at the front of the bed within the room and a silver-gray colored "D-Ring" portion of a hasp locking device lying on the floor approximately 2 inches in front of the left hand corner of the same footlocker; both of which contained a number of scratches and gouges. Examination of the footlocker within the room revealed a silver gray colored long portion of a hasp locking device affixed to the front of the footlocker which also contained a number of scratches, gouges, 4 apparent screw holes and a space where a "D-Ring" portion of a hasp locking device had apparently been affixed. Also the area surrounding the hasp location on the footlocker contained a number of scratches and gouges. Further examination of the scene revealed a white colored piece of cloth material hanging from the right hand side of the doorway as the room is entered. The scratches and gouges contained on the long portion of the hasp device, "D-Ring" portion of the hasp, the footlocker and the knife blade indicate that some type of force was utilized to gain entry into the footlocker and the knife blade could possibly be the instrument that was utilized to gain entry. Dusting for latent fingerprints in all of the pertinent areas within the room disclosed one fingerprint on the top side of the front of the footlocker directly above the area where the hasp is located. The remainder of the dusting procedure failed to disclose any additional latent fingerprints. A set of photographs were exposed, and sketches were made of the crime scene. All items of evidence, the footlocker, the "D-Ring", the knife blade, the white colored cloth, and the one latent fingerprint were collected as possible evidence and marked for identification.

At 1630, 12 Jul XX, DENNY made a written statement concerning the events surrounding the theft of his property. DENNY identified crime scene photos after making a sketch of the crime scene as he saw it. The photographs that DENNY viewed were crime scene photographs which depicted the crime scene. DENNY stated the photographs accurately depicted the crime scene as he first discovered it. Fingerprints were obtained from DENNY.

EXHIBIT	INITIALS OF PERSON MAKING STATEMENT	PAGE 1 OF 3 PAGES
	DSM	

ADDITIONAL PAGES MUST CONTAIN THE HEADING "STATEMENT OF__TAKEN AT__DATED__CONTINUED." THE BOTTOM OF EACH ADDITIONAL PAGE MUST BEAR THE INITIALS OF THE PERSON MAKING THE STATEMENT AND BE INITIALED AS "PAGE__OF__PAGES." WHEN ADDITIONAL PAGES ARE UTILIZED, THE BACK OF PAGE 1 WILL BE LINED OUT, AND THE STATEMENT WILL BE CONCLUDED ON THE REVERSE SIDE OF ANOTHER COPY OF THIS FORM.

DA FORM 1 JUL 72 2823 SUPERSEDES DA FORM 2823, 1 JAN 68, WHICH WILL BE USED.

PREPARING DA FORM 3881

You must fill out a DA Form 3881 *each time* an accused or suspected person is questioned. You can carry this form to have the waiver and rights readily available for field use. In the absence of this form, graphic training aid (GTA) 19-6-5 How to Inform Suspect / Accused Persons of their Rights, can be used as a field-expedient measure. The statement of rights on the GTA and a verbal agreement by the subject will suffice until the rights form is at hand.

Initiation of DA Form 3881 begins when you state your official position and that the person being interviewed is now suspected or accused of a particular offense. You can state this in your own words, as long as the subject understands.

It is best to fill out the administrative data on the form first. The heading of the form should be the same as that of the accompanying DA Form 2823. The time and date is that of the hour and day the certificate is signed. The subject should enter the time and initial it.

Make two entries within the rights section. The first states your identification and the office you represent. For example, it may state "Provost Marshal's Office as a Military Police Investigator." Or it may state "Criminal Investigation Command as a Special Agent." The second cites the offense of which the person is suspected at the time of questioning. Use phrases like "Larceny of a wallet from Mr. X." "Larceny of a set of automobile hubcaps," "Larceny," or "Writing bad checks." It is not needed or desired that you enter the UCMJ article. Enter the most serious offense that may logically follow from the incident under inquiry at the time of questioning. For example, "Advisement for attempted "murder" may be more proper than "Aggravated assault" in a case where an assault rendered great bodily harm. You may want to consult the local SJA on the proper offense to cite.

Read the rest of the rights warning, *word for word*, from the certificate form. Reading the form word for word ensures uniformity and completeness in the reading of the rights. It leaves little doubt as to the voluntariness of any statements.

After the warning is given, *ask the suspect if he understands his rights and will be able to freely, knowingly, and intelligently waive them.* If he does understand his rights, then specifically ask him, "Do you understand your rights?" If the suspect says "No," ask him what is not understood. If necessary, repeat the appropriate rights advisement. If the suspect says "Yes," ask him, "Do you want a lawyer at this time?" If the suspect says that he does, stop the questioning until he has a lawyer. If the suspect says that he does not, ask him, "At this time, are you willing to discuss the offense under investigation and make a statement without talking to a lawyer and without having a lawyer present with you." If the suspect says he is not willing, stop the interview. Have him read and sign the non-waiver section and mark the form to show that he either desires a lawyer or declines to be questioned. If the suspect says he is willing, have him read the waiver section. If the suspect is willing to sign the waiver, have him sign on the proper line in the presence of a witness. Then you and the witness sign. If the suspect refuses to sign or initial the form, he cannot be compelled to do so.

Sometimes a suspect refuses to provide information for the form. He may decline to sign the certificate, initial the time, or even give his true name. Some may refuse to sign, but they may be willing to make verbal statements. In these instances, follow the instructions on the back of the form. If a suspect is willing to discuss the matter under investigation, but he wants to have a lawyer present, modify the form to show this. Then ask him to initial the changes. Remember to record all information about the reading of the rights and the responses of the suspected person.

SAMPLE DA FORM 3881
RIGHTS WARNING PROCEDURE/
WAIVER CERTIFICATE

A SUSPECT'S AGREEMENT TO WAIVE RIGHTS, RECORDED ON DA FORM 3881

RIGHTS WARNING PROCEDURE/WAIVER CERTIFICATE
For use of this form, see AR 190-30; the proponent agency is DCSPER.

DATA REQUIRED BY THE PRIVACY ACT

AUTHORITY:	Title 10, United States Code, Section 3012(g).
PRINCIPAL PURPOSE:	To provide commanders and law enforcement officials with means by which information may be accurately identified.
ROUTINE USES:	Your Social Security Number is used as an additional/alternate means of identification to facilitate filing and retrieval.
DISCLOSURE:	Disclosure of your Social Security Number is voluntary.

LOCATION	DATE	TIME	FILE NO.
Ft McClellan, AL	5 DEC XX	1305 JKS	XX-CID063-13421

NAME (Last · First · MI)	ORGANIZATION OR ADDRESS
SHUMATE, James K.	Co C, 51st Engr Bn
SOCIAL SECURITY NO. 141-09-6789 / GRADE/STATUS SFC	Ft McClellan, AL 36205

SECTION A - RIGHTS WAIVER/NON-WAIVER CERTIFICATE

RIGHTS

The investigator whose name appears below told me that he/she is with the United States Army Criminal Investigations Command as a Special Agent and wanted to question me about the following offense(s) of which I am suspected/~~accused~~: JKS Aggravated Arson///

Before he/she asked me any questions about the offense(s), however, he/she made it clear to me that I have the following rights:

1. I do not have to answer any questions or say anything.
2. Anything I say or do can be used as evidence against me in a criminal trial.
3. *(For personnel subject to the UCMJ)* I have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with me during questioning. This lawyer can be a civilian lawyer I arrange for at no expense to the Government or a military lawyer detailed for me at no expense to me, or both.

   - or -

   (For civilians not subject to the UCMJ) I have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with me during questioning. However, I understand that I must make my own arrangements to obtain a lawyer and this will be at no expense to the Government. I further understand that if I cannot afford a lawyer and want one, arrangements will be made to obtain a lawyer for me in accordance with the law.
4. If I am now willing to discuss the offense(s) under investigation, with or without a lawyer present, I have a right to stop answering questions at any time, or speak privately with a lawyer before answering further, even if I sign the waiver below.

COMMENT *(Continue on reverse side)*
I, JAMES K. SHUMATE, understand my legal rights, and willing to discuss the offense under investigation in the presence of my lawyer.

WAIVER

I understand my rights as stated above. I am now willing to discuss the offense(s) under investigation and make a statement without talking to a lawyer first and without having a lawyer present with me.

WITNESSES *(If available)*	SIGNATURE OF INTERVIEWEE
1. NAME *(Type or Print)* RAYMOND CUNNINGHAM Raymond Cunningham	James K. Shumate
ORGANIZATION OR ADDRESS AND PHONE Ft McClellan FO, Third Region, USACIDC Ft McClellan, AL 36205 (238-5583)	SIGNATURE OF INVESTIGATOR Paul E. Coffey
2. NAME *(Type or Print)* PETER J. KLINE Peter J. Kline	TYPED NAME OF INVESTIGATOR PAUL E. COFFEY
ORGANIZATION OR ADDRESS AND PHONE SJA, Ft McClellan, AL 36205 (238-3222)	ORGANIZATION OF INVESTIGATOR Ft McClellan FO, Third Region, USACIDC Ft McClellan, AL 36205

NON-WAIVER

I do not want to give up my rights:

☐ I want a lawyer. ☐ I do not want to be questioned or say anything.

SIGNATURE OF INTERVIEWEE

ATTACH THIS WAIVER CERTIFICATE TO ANY SWORN STATEMENT (DA FORM 2823) SUBSEQUENTLY EXECUTED BY THE SUBJECT SUSPECT/ACCUSED.

DA FORM NOV 84 3881 EDITION OF MAY 81 IS OBSOLETE.

A SUSPECT'S REFUSAL TO WAIVE RIGHTS, RECORDED ON DA FORM 3881

RIGHTS WARNING PROCEDURE/WAIVER CERTIFICATE
For use of this form, see AR 190-30; the proponent agency is DCSPER.

DATA REQUIRED BY THE PRIVACY ACT

AUTHORITY: Title 10, United States Code, Section 3012(g).
PRINCIPAL PURPOSE: To provide commanders and law enforcement officials with means by which information may be accurately identified.
ROUTINE USES: Your Social Security Number is used as an additional/alternate means of identification to facilitate filing and retrieval.
DISCLOSURE: Disclosure of your Social Security Number is voluntary.

LOCATION	DATE	TIME	FILE NO.
Ft McClellan, AL	3 DEC XX	0820 RET	XX-CID063-14321

NAME (Last - First - MI)	ORGANIZATION OR ADDRESS
SIMPSON, James W. Jr.	HHC 1st BN 22d Inf 171st Inf Bde (Mech) Ft McClellan, AL 36205

SOCIAL SECURITY NO.	GRADE/STATUS
180-24-9023	CPT

SECTION A - RIGHTS WAIVER/NON-WAIVER CERTIFICATE

RIGHTS

The investigator whose name appears below told me that he/she is with the United States Army Criminal Investigations Command as a Special Agent and wanted to question me about the following offense(s) of which I am suspected/accused: Rape, Robbery and Illegal Possession of a Weapon///

Before he/she asked me any questions about the offense(s), however, he/she made it clear to me that I have the following rights:

1. I do not have to answer any questions or say anything.
2. Anything I say or do can be used as evidence against me in a criminal trial.
3. *(For personnel subject to the UCMJ)* I have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with me during questioning. This lawyer can be a civilian lawyer I arrange for at no expense to the Government or a military lawyer detailed for me at no expense to me, or both.

- *or* -

(For civilians not subject to the UCMJ) I have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with me during questioning. However, I understand that I must make my own arrangements to obtain a lawyer and this will be at no expense to the Government. I further understand that if I cannot afford a lawyer and want one, arrangements will be made to obtain a lawyer for me in accordance with the law.

4. If I am now willing to discuss the offense(s) under investigation, with or without a lawyer present, I have a right to stop answering questions at any time, or speak privately with a lawyer before answering further, even if I sign the waiver below.

COMMENT *(Continue on reverse side)*
CPT SIMPSON stated that he understood his rights, does not want a lawyer, wants to discuss the offense(s) under investigation, but refuses to sign the waiver certificate.

WAIVER

I understand my rights as stated above. I am now willing to discuss the offense(s) under investigation and make a statement without talking to a lawyer first and without having a lawyer present with me.

WITNESSES *(If available)*	SIGNATURE OF INTERVIEWEE
1. NAME *(Type or Print)* MARCEL VANDERHOEVAN Marcel VanDerhoevan	
ORGANIZATION OR ADDRESS AND PHONE Ft McClellan FO, Third Region, USACIDC Ft McClellan, AL 36205 (238-5583)	SIGNATURE OF INVESTIGATOR Rese E. Farrish
2. NAME *(Type or Print)*	TYPED NAME OF INVESTIGATOR RESE E. FARRISH
ORGANIZATION OR ADDRESS AND PHONE	ORGANIZATION OF INVESTIGATOR Ft McClellan FO, Third Region, USACIDC Ft McClellan, AL 36205

NON-WAIVER

I do not want to give up my rights:

☐ I want a lawyer. ☐ I do not want to be questioned or say anything.

SIGNATURE OF INTERVIEWEE

ATTACH THIS WAIVER CERTIFICATE TO ANY SWORN STATEMENT (DA FORM 2823) SUBSEQUENTLY EXECUTED BY THE SUBJECT SUSPECT/ACCUSED.

DA FORM NOV 84 3881 EDITION OF MAY 81 IS OBSOLETE.

AN INVESTIGATOR'S AID TO ISSUING RIGHTS WARNING, RECORDED ON BACK OF DA FORM 3881

SECTION B - RIGHTS WARNING PROCEDURE

THE WARNING

1. WARNING - Inform the suspect/accused of:
   a. Your official position.
   b. Nature of offense(s).
   c. The fact that he/she is a suspect/accused.
2. RIGHTS - Advise the suspect/accused of his/her rights as follows:

   "Before I ask you any questions, you must understand your rights."

   a. **"You do not have to answer my questions or say anything."**

   b. **"Anything you say or do can be used as evidence against you in a criminal trial."**

   c. *(For personnel subject to the UCMJ)* **"You have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with you during questioning. This lawyer can be a civilian you arrange for at no expense to the Government or a military lawyer detailed for you at no expense to you, or both."**

   - *or* -

   (For civilians not subject to the UCMJ) **"You have the right to talk privately to a lawyer before, during, and after questioning and to have a lawyer present with you during questioning. However, you must make your own arrangements to obtain a lawyer and this will be at no expense to the Government. If you cannot afford a lawyer and want one, arrangements will be made to obtain a lawyer for you in accordance with the law."**

   d. **"If you are now willing to discuss the offense(s) under investigation, with or without a lawyer present, you have a right to stop answering questions at any time, or speak privately with a lawyer before answering further, even if you sign a waiver certificate."**

Make certain the suspect/accused fully understands his/her rights.

THE WAIVER

"Do you understand your rights?"
(If the suspect/accused says "no," determine what is not understood, and if necessary repeat the appropriate rights advisement. If the suspect/accused says "yes," ask the following question.)

"Do you want a lawyer at this time?"
(If the suspect/accused says "yes," stop the questioning until he/she has a lawyer. If the suspect/accused says "no," ask him/her the following question.)

"At this time, are you willing to discuss the offense(s) under investigation and make a statement without talking to a lawyer and without having a lawyer present with you?"
(If the suspect/accused says "no," stop the interview and have him/her read and sign the non-waiver section of the waiver certificate on the other side of this form. If the suspect says "yes," have him/her read and sign the waiver section of the waiver certificate on the other side of this form.)

SPECIAL INSTRUCTIONS

WHEN SUSPECT/ACCUSED REFUSES TO SIGN WAIVER CERTIFICATE: If the suspect/accused orally waives his/her rights but refuses to sign the waiver certificate, you may proceed with the questioning. Make notations on the waiver certificate to the effect that he/she has stated that he/she understands his/her rights, does not want a lawyer, wants to discuss the offense(s) under investigation, and refuses to sign the waiver certificate.

IF WAIVER CERTIFICATE CANNOT BE COMPLETED IMMEDIATELY: In all cases the waiver certificate must be completed as soon as possible. Every effort should be made to complete the waiver certificate before any questioning begins. If the waiver certificate cannot be completed at once, as in the case of street interrogation, completion may be temporarily postponed. Notes should be kept on the circumstances.

PRIOR INCRIMINATING STATEMENTS:

(1) If the suspect/accused has made spontaneous incriminating statements before being properly advised of his/her rights, he/she should be told that such statements do not obligate him/her to answer further questions.

(2) If the suspect/accused was questioned as such either without being advised of his/her rights or some question exists as to the propriety of the first statement, the accused must be so advised. The office of the serving Staff Judge Advocate should be contacted for assistance in drafting the proper rights advisal.

NOTE: If (1) or (2) apply, the fact that the suspect/accused was advised accordingly should be noted in the comment section on the waiver certificate and initialed by the suspect/accused.

COMMENT *(Continued)*

SAMPLE

Reverse of DA Form 3881

U.S. G.P.O. 1985-461-033/27046

USING INTERPRETERS

You may have to question persons who do not speak English. Although it is best if you can speak their language, usually you must use an interpreter.

Do not try an interrogation alone unless you are *fluent* in the foreign language. You have to be certain of your skill to phrase intelligent questions and to clearly understand the answers. If you have any doubt as to the fluency of your language skill, use a qualified interpreter. If you have some knowledge of the foreign language, you can check the accuracy, loyalty, and obedience of your interpreter.

It is best if the interpreter is a member of the US armed forces or is a US citizen. If this is not possible, a qualified local inhabitant can be used.

Interpreters should be intelligent. They should be able to quickly learn the habits, methods, and ways of different investigators. They should be educated in their use of their own language and in English. Social and educational levels are often discernible by speech habits or peculiarities. They must be able to express themselves clearly and intelligibly to all persons whom you are likely to question. They must be honest and free from criminal tendencies. If they are native to the area, they should be free from unfavorable notoriety among the local populace. Good reputation and standing in the community prevents their being intimidated by persons of higher rank and standing. And they must be willing to accept a subordinate role in the actual questioning of persons. That is, they must permit the investigator to ask the questions and to receive and evaluate the answers.

CONTROLLING THE INTERPRETER

You are responsible for the investigation and for any interview or interrogation. You, therefore, must remain in complete control throughout the questioning. Make certain the interpreter does the job correctly and does not usurp your prerogatives. It is you who must ask the questions, receive the answers, and evaluate the information and the person who gives you the information. Use the interpreter only to overcome the language barrier.

Some specific things are to be avoided. Do not allow an interpreter to ask questions of his own. Make it clear that he must never paraphrase your questions or the subject's answers. Do not allow him to intimidate or berate a subject. He must not engage in any behavior that will lower the prestige of the investigators or adversely affect the investigation. The interpreter must never hold back information given by the subject. It may adversely affect the interpreter or someone known to him. You, in turn, never bully, criticize, or admonish your interpreter in the presence of the subject. Criticism is made in private to avoid lowering the prestige of the interpreter and thereby impairing his effectiveness.

QUESTIONING THROUGH AN INTERPRETER

Prepare in advance the questions you plan to ask. Make your questions clear, brief, and of the type that will bring brief, factual answers. Tell the interpreter to make his translation of long statements at regular and convenient pauses during the subject's utterances. The interruptions must come at the end of complete thoughts. This may be hard if the subject is allowed to give extensive narrative versions of his information. Therefore, try to avoid questions that take long explanations and invite digressions. Give the questions in writing to the interpreter so he may prepare himself before the interview. He may need to research specialized vocabulary.

Have the interpreter stand or sit to the side and slightly forward of you. This way he can converse with you and the subject by merely turning his head. Do not allow him to move about or to do anything to distract the subject's attention from you.

Address the subject directly, looking him in the eye to hold his attention. Ask your questions slowly and clearly in concise and unambiguous English. Do not use slang or expressions unique to a region. It may confuse the interpreter. Do not tell the interpreter to ask the subject a question. For example, do not say to the interpreter

"Ask him if he knows John Doe." Instead, put the question directly to the subject in English, "Do you know John Doe?" The interpreter translates your questions into the language of the subject. He does this promptly in a clear and well-modulated voice. He reproduces the tone and emphasis used by you.

The subject answers your questions in his native language. The interpreter repeats the subject's answer in English, giving as literal a translation as he can. Insist that the interpreter translate the subject's answer directly. Do not permit the interpreter to reply, "He says he does." You should get the answer through the interpreter as though it were answered in English by the subject, "Yes, I know him."

If you want the subject's use of a word explained, ask the interpreter at a later time. If you need a fact clarified by the subject, ask the subject additional questions. Hold digressions to the absolute minimum. If the subject and interpreter begin an extensive conversation or argument, put an immediate stop to it.

You may want to make verbatim notes of the answers as they are given by the subject. If so, the interpreter must speak slowly and distinctly. You may use a stenographer or a recording device. If the stenographer speaks both languages, he should record all the statements made in both languages. This gives a means of cross-checking the accuracy and fidelity of the translation. If you have an electronic recording device on hand, use it, when you can, for subject interviews. Use it as needed in other instances. It affords a permanent record of the questioning in both languages.

EVALUATING INFORMATION

After you have conducted an interview or interrogation you must evaluate the information you have gained. Compare it with information gained from other interviews and interrogations. Compare it with your observations at the scene of the crime or incident, the physical evidence collected in the case, and any other information you may have received.

Be wary of using the emotional state of the subject to evaluate the reliability of information. Some people can lie without showing any nervousness or outward signs of lying. Others, who are being truthful, may show nervousness when they talk to anyone in authority or become involved in any way with police.

In your evaluation, strive to get a clear picture of your case as it has progressed to this point. Facts that conflict with information you have gathered from other sources must be resolved through further interviews or by some other means.

REQUESTING A POLYGRAPH EXAMINATION

The results of a polygraph examination may prove useful. The polygraph, however, is only an aid to your investigation. Your investigation must be thorough and complete. You must gather evidence to prove or disprove a criminal act. You cannot rely on a chance that an examinee may make a statement against himself during a polygraph. You must have interviewed the subject. You must need more information to go on with the investigation. And you must have reasonable cause to believe the subject has knowledge of or was involved in the matter under investigation.

A polygraph examination can tell you if a person's reactions, as they are recorded, indicate truthfulness. This knowledge can verify a statement or testimony. When the test indicates that a person has been truthful, their investigative leads can be presumed fact.

The polygraph instrument cannot actually detect truth or deception. But it can produce a chart record of the bodily changes which take place when a person means to deceive. These physical changes are caused by a person's emotional response to the test questions. If a person agrees to a polygraph examination after being told his legal rights, his rights are not violated. And a legally obtained statement, admission, or confession still may be entered into evidence. The result of a

polygraph test does not alter this fact. The success of a polygraph examination depends upon the professional abilities of the examiner.

Your office must request and obtain permission to run a polygraph examination. Your request must meet the requirements of AR 195-6. The alleged offense must be punishable under the UCMJ or the US Code by death or by confinement for a term of 1 year or more. The examinee must be subject to the UCMJ. Or the offense under investigation must be against the UCMJ, committed on a military post, and for a military purpose. If requested by the civil police, the examiner may test a 'soldier accused of an offense against both the civil law and the UCMJ. The person may stand trial in civil court if a military investigation is also being conducted, and the requirements in AR 195-6 have been met.

Normally, the polygraph examiner will be given a polygraph authorization to go along with the polygraph case, when the examination is conducted. Polygraph examinations are only approved when your investigation is as complete as possible. You may not request a mass screening of possible suspects (entire companies, platoons, or large groups). This goes against DA policy in that all investigative procedures have not been applied. When a request to run a polygraph examination is part of an undeveloped lead, attach copies of DA Forms 2801 (Polygraph Examination Statement of Counsel), 2802 (Polygraph Examination Report), and 2805 (Polygraph Examination Authorization) as exhibits to the information report.

You must never assume that your investigation is complete after the polygraph examination. Information developed through the use of the polygraph normally leads to additional facts or evidence which must be taken care of prior to the completion of the investigation.

INVESTIGATOR RESPONSIBILITIES

You should brief the examiner on minute details. The examiner must have detailed, verified facts. General facts, theories, and suspicions are not enough. Tell the examiner of items and exact amounts of money that were stolen. Relate the exact time the offense happened. Tell him of any peculiar happenings or strange or obscene acts committed at the scene. Advise him of what is not known about the suspect's actions or movements. Tell him of any connections among suspects, victims, and witnesses. This is especially helpful if they have denied such a connection. Tell him the exact type of weapon or tool used in a crime. Provide him with the results of lab examinations. Provide background information about the suspect or subject. And be sure to inform him of anything not publicly known about the offense, especially those things only the victim or the offender would know. The examiner may be able to use specialized tests if he knows this information.

You must be available during the examination to help the examiner at once, should something come up that the examiner did not know about. Do not interrogate an examinee just before the polygraph examination. Do not use a polygraph instrument as a prop during interrogation. And never tell an examinee that his guilt or innocence will be decided by the polygraph examination. *The polygraph technique should never be described as fool-proof.*

POLYGRAPH EXAMINER RESPONSIBILITIES AND CONTROLS

US Army polygraph examiners are certified under the requirements in AR 195-6. They conduct polygraph examinations under the direct supervision of a certified examiner. The polygraph examiner is responsible for conducting an examination properly under the current regulations. The examiner has the final say on whether or not someone is tested. He ensures the examination is given under properly controlled conditions to accomplish the desired objective.

Regulations prohibit the examiner from running an examination on persons who fit certain descriptions. The person cannot be mentally or physically tired. He or she must be able to respond physically to mental stimuli. The person cannot be overly emotional or intoxicated. He cannot be under the influence of marihuana, any depressant or stimulant, or have an addiction to

narcotics. Any of these conditions can change the physical response. The person cannot have a history of a mental disorder. Psychosis, severe neurosis, and, sometimes, pathological behavior patterns can make a subject not suitable for testing. The person cannot have physical disabilities or defects. The subject may have to experience a great deal of physical discomfort. And children who do not know the difference between right or wrong are not suitable subjects for a polygraph test.

TEST RESULTS

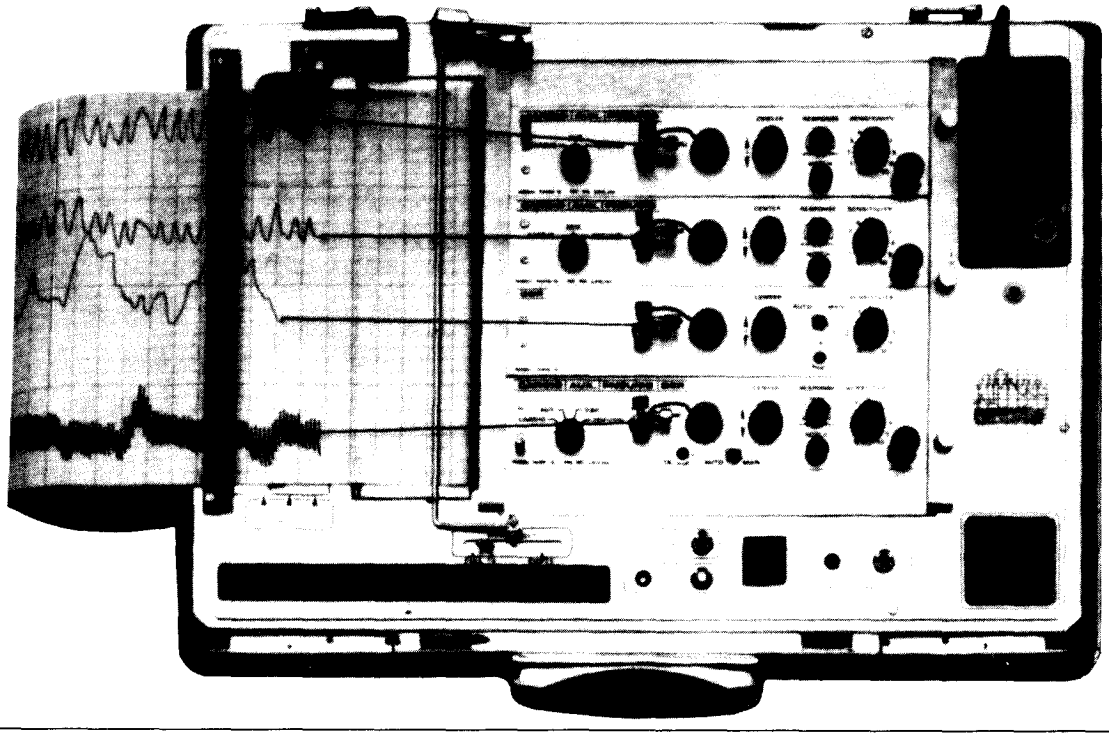
The examiner can determine by studying the questions asked and the chart record if the person was emotionally disturbed, truthful, or deceptive. Every effort is made to resolve an inconclusive test. An immediate retest by the same examiner is not a repeat test. Accurate interpretation of the test chart depends on the training, experience, and the skill of the examiner. When the examiner has completed the test, he may give one of four opinions. These are "deception," "no deception, " "inconclusive," or "no opinion."

REVIEW PROCESS

Each polygraph test is carefully supervised by the person who has command, operational control, or staff supervision over the polygraph examiner. The staff supervisory person reviews the record of the polygraph test to see if he should request a repeat test. The examiner determines if further investigation is needed.

Command and operational control of polygraph examiners is the responsibility of the region polygraph coordinators. The Commander, USACIDC, is responsible for the supervision and review of the quality of polygraph examinations done by USACIDC polygraph examiners. USACIDC technical reviewers may furnish appropriate guidance. Or they may recommend through command channels to polygraph examiners that consideration be given repeat polygraph examinations. After review by quality control personnel, a copy of DA Form 2802 will be sent through the authorizing representative to the requesting agency for inclusion in the final report of investigation.

POLYGRAPH INSTRUMENT



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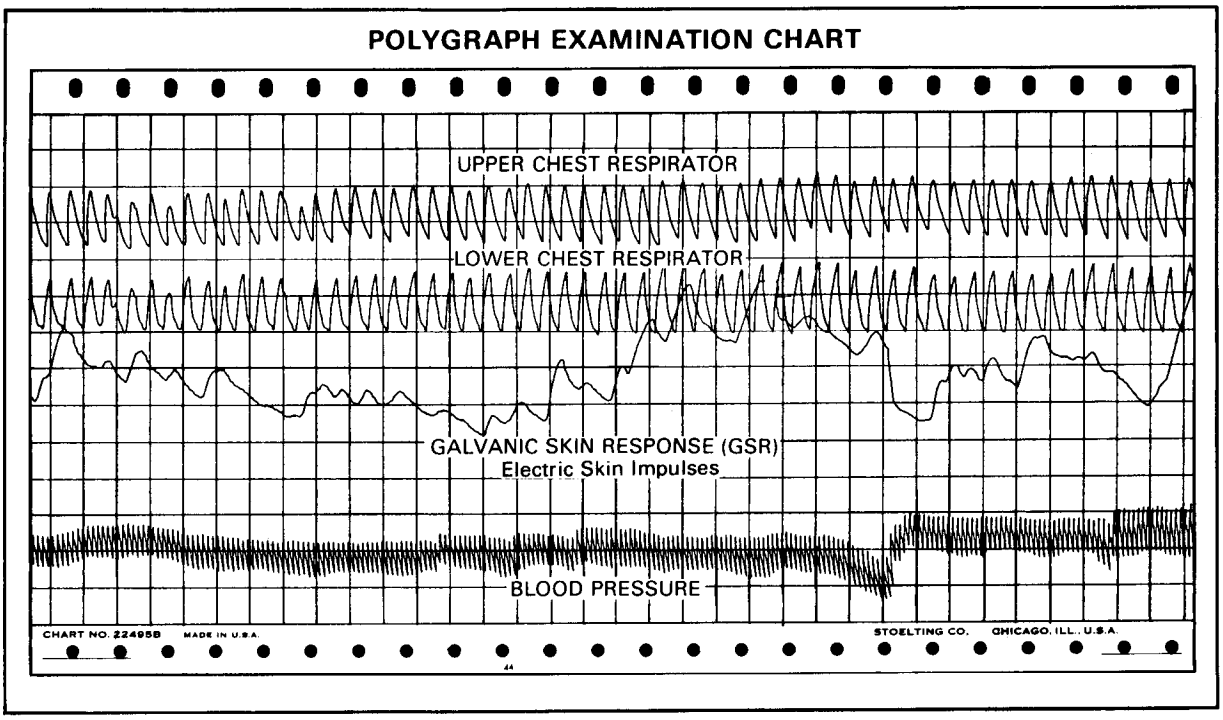
Within three working days after the test is done examiners will forward the polygraph charts, along with the original copy of DA Forms 2801, 2802, and 2805 by certified mail to the Director, USACRC. These copies will be kept in the files at the center.

The results of polygraph examinations are strictly controlled. The results of a polygraph examination and any references or statements of a person's refusal to submit to an examination are not put into the investigative summary or the USACIDC ROI.



CHAPTER 6

Sources

In investigative terms, people who are willing to provide information are called "sources." Sources may be persons who provide you with specific information of value for a particular case. Sources may be persons who provide you with background information useful to you for a number of cases. Or they may be persons who provide you with "street" information on a regular basis. Whoever your sources are, if they provide usable information they can be important investigative assets.

CONTENTS

SELECTION OF SOURCES

The most important consideration in selecting sources may be reliability. You must evaluate both the source and his information to arrive at the facts. Source information must be tested for consistency by being checked against data from other sources. To test a source's reliability, ask the person being evaluated data known only to you. This lets you assign a tentative degree of reliability to each source.

Many members of the military community may be able to give information of value to an investigation. When seeking sources, consider unit mail clerks, medical personnel, and club or mess employees. Also consider engineer maintenance, newspaper delivery, post telephone, and unit custodial personnel. A skillful investigator can develop a sense of gratitude in a potential source. In return for providing some ethical assistance, the source may show his thanks by giving information. Sometimes simple concern for the source's welfare may create a sense of gratitude.

When considering someone for selection, review the prospective source,s mental and physical health, age, education, and personality traits. Check experience, work record, financial status, and presence or lack of criminal background. Failing to look at the whole person can waste time and money.

MOTIVES OF SOURCES

A source's motivation is a key factor in determining his reliability. You should attempt to find out what motive a person has for informing. A source gives information for any number of reasons.

Fear of reprisals, punishment, or bodily harm may motivate a person to inform. A suspect under charges may become a source because he is looking for sympathy, less severe punishment, or whatever he thinks might be of help to himself. To this end he may be willing to give a full or partial account of his crime or that of others. Or he may be willing to give direct evidence against other offenders or show how such evidence might be found.

Do not suppose a suspect does not have the information when it is not given. Nor should you suppose that he is not willing to give it. A suspect must be made to feel that the information will be welcome. He must also believe that you will do what you can to protect his identity as a source.

A source's fear is not always just a fear of the law or its consequences. Sometimes a source is a criminal in fear of his associates.

In his opinion, they may have a more drastic form of punishment than military law. He may be a frightened man who sees the law as the lesser of two evils.

Sometimes a criminal source wants to gain an unusual advantage for himself. He may inform on others engaged in like criminal activity to reduce his competition. Or he may give trivial information in the hope that your reaction will disclose how much the police know about his actions. Or he may inform to give false or misleading information to divert suspicion from his own actions.

A petty offender may want to magnify his own importance. He may give bits of information on the criminal activities of more noted offenders. When he gets the total interest of an investigator with a meaty story, his ego feels satisfied. Ego-motivated sources often like to babble. You must be willing to listen to all a source has to say. If not, you run the risk of ignoring what might be very valuable information.

A source may be overwhelmed with a desire for revenge. A member of a criminal group may think that he has been discriminated against by other group members, that he did not get the treatment his talents entitle him. He may retaliate by giving information on his cronies to the authorities. And a desire for revenge may arise from factors other than criminal activities. Jealousy and quarrels over lovers can cause close friends to become bitter enemies.

Some sources give information only for financial gain. They want to sell what they know for the highest price. Their information is generally good, but it can backfire if they sell to a higher bidder. And sometimes they may purposely mislead you to sabotage your efforts.

Although it is rare, sometimes a source comes to authorities because he wants to admit wrongdoing. He may want to make repayment or to break with a criminal group. When this type of source is properly managed, he can become an excellent continuing source of police information.

For whatever reason sources volunteer information, they should never be cut short. Give them the chance to tell their story, and make sure it is checked out. There is always that one chance that the information will be the missing link in an important case.

MANAGEMENT OF SOURCES

A source program must be expertly handled to ensure the integrity of the police unit and the safety of the source. The program must be developed and operated to get maximum use of the source for the benefit of the entire agency. The program must be strongly supervised. And it must be based on legal and ethical practices. The public tends to believe that police allow and protect the criminal acts of a source in return for his services. But a source's status is never viewed as a license for present or future misconduct. It is illegal for any investigator or agency to set up a protective alliance with those who have complicity in a criminal act.

You must take special care to protect the reputation of sources, yourself, and your investigative unit. Your job is to gather information. You must avoid any behavior which could lead to false claims of misconduct. Security is a must in using a person to get information. It is unwise to even mention that a person is a source for another investigator. And if juvenile sources are used, special handling is required to ensure their safety and welfare. Investigators must ensure juvenile sources are not taken advantage of or abused.

PROTECTION OF SOURCE IDENTITIES

The names of confidential sources are privileged information. They cannot be released without the express approval of the Department of the Army. However, the Court of Military Appeals has held that the protection of a source's identity is limited to situations in which his identity is not crucial to a defendant's case. For example, when the

identity of a source is needed to establish the defense of entrapment, such identity must be divulged by the government if it wishes to continue the prosecution. Rather than divulge the source of the information and possibly subject this informer to retaliatory measures, the government may choose to dismiss the prosecution.

Identities of sources are kept in a master file. This file must be kept completely secure to ensure identities remain confidential. Only the investigator, unit commander, operations officer, or appointed source control officer (and an alternate) should have access to this central file. This access is on a need-to-know basis. *A source's name should never appear outside the master file.* He should be assigned a code name or number. This number should appear in all internal reports where reference to him is made.

The master tile should contain all the information known about each source. It should include his or her occupation, associates, income, and criminal record. Data on attitudes toward assisting police, known mannerisms, and suggested times and places for contact are also useful. The file is a record of all transactions with the source. It includes a list of cases worked on; method of payment, if any; and an up-to-date rating of the source's reliability. A constant effort must be made to keep the file current. This helps ensure that a valuable source is not lost to the investigative unit. A cross-reference file is useful, but it must be kept with the same degree of security as the master file.

A source locator file, available to all investigators, can be kept if it helps operations and does not merely create work. Use of a locator file can show if a source is available in a certain area of concern. The source is listed in a locator file only by code name or number under the primary handler's name. The file is indexed by classifications like associates, connections, operations, and areas operated in. When an investigator wants to use a source listed in the file he submits a request to that source's handler for contact arrangements. This way, a source's knowledge can be used without compromising his identity.

CONTROL OF SOURCES

A control investigator (the handler) and one alternate should be assigned to each source. Ideally, the handler should be the person who first develops the source. All contacts with the source should be made by this investigator. This is true, even if that investigator has no other role in the case. The alternate handler can go with the handler to the meetings to get to know the source. Then the alternate can make future contact, if the regular handler is not available.

It is best to have only the handler call on the source. This avoids repeated demands on the source's time. It also helps avoid personality conflicts. Having the handler make all of the contacts will keep relations on an even keel. He or she will gain more cooperation that way.

When contacting a source, take care to avoid revealing the status of the source. You may want to set up business or other cover activities. Always give a source a cover story in case he is seen with you. The cover story should be simple and acceptable to any casual observer.

Meetings should be held at a place other than the handler's office. Meeting places should be selected by the handler, not the source. The handler should vary the locations and times to fit his own and the source's normal routine. Vary the meeting places and times to keep from creating a recognizable pattern.

Sometimes reaching a source directly is not desired. An unlisted telephone in the investigations office is useful for this. When answering the phone, simply say "Hello." Do not repeat the number. Do not say, "Investigator Jones speaking." Guarded or unguarded letter drops or mail service may also be used to contact the source. But take care that the source's identity is not revealed in any communications. Also, avoid identifying any investigative unit in correspondence with the source.

TREATMENT OF SOURCES

Dealing with sources is a delicate matter. Because sources differ in motivation, your handling of them will differ accordingly. But all sources must be accorded uniformly reasonable treatment. When you become a handler you may work with unsavory persons. Yet your behavior and your speech must not reveal your belief that this is true.

To maintain rapport, keep appointments even though the source may not appear. Do not become anxious; be patient with him. Investigate all leads. The fact that a previous tip was of no value is not cause for automatically discounting other tips. Be noncommittal about the value of the information received. Consider all information valuable until proven otherwise. Show appreciation no matter what its value. Encourage and compliment the source. But do not allow encouragement to be interpreted by the source as a permit to take charge of any phase of the investigation. Some sources will try this, intentionally or not. And keep what you know to yourself. Revealing information may set up the chance for a double-cross.

Make no promises you cannot keep. And keep all promises you make. You must be just. If you are not, you will lose the source's trust and then the source itself. Do not promise the source that he will not go on trial for certain crimes. You can, however, make good a promise to tell the trial counsel of his cooperation in aiding the investigation.

TESTIMONY OF SOURCES

Normally, a source should not be required to appear in court. If it is believed that his testimony will be needed, there should be a prior agreement about the appearance. Sources are competent witnesses and evidence secured by them is admissible before court-martial. If the source has done more than just provide a lead, he may be a material witness. Thus, his testimony might be of value to the defense. If the source took part in the crime, his testimony might be needed for a fair determination of the case. This is also true if the source assisted in planning the crime or was involved in some overt act covered by the crime. If the source helped in the actual investigation and went with the investigators to the crime scene, he may be important to the defense. Help with surveillance, seeing the crime, or presence when the defendant was arrested, all fall into the same class.

The Jencks Act provides that when a government witness testifies on direct examination, any pertinent statement or report that he has made that is in the possession of the government must be made available to the defense. This provision applies to sources. Therefore, if a source gives a statement to the government that is transcribed and later he testifies to matters contained in the statement, the defense is entitled to examine the statement and to question the source on its content.

Source testimony is frequently impeached. This does not make the source incompetent as a witness. But it may affect the court's opinion of the credibility to be attached to his testimony. Evidence of payment for information may imply a desire to create favor with the government by stating the information in the manner most favorable to the government. Payment to the source should be arranged in a manner to reduce the possibility of such inferences. Evidence of a source's prior convictions of certain offenses is admissible for impeachment purposes as tending to diminish credibility.

SOURCE-BASED SEARCHES

The legal requirement for a search authorization based on third party (source) or hearsay information is the "totality of the circumstances" test. Simply put, given all the circumstances set forth in the affidavit, there must be a fair likelihood that contraband or

evidence of a crime will be found in a certain place. Among the factors which can comprise this totality are the credibility of the source and the basis of the source's knowledge. The source's credibility may be supported by—

- His having given reliable information in the past.
- His making a declaration against his own penal interest.
- His being a good citizen/soldier coming forward.
- His being accountable for false statements.

The basis of the source's knowledge may be supported by his having heard, seen, or smelled something, for instance, as opposed to his merely concluding or passing on rumors.

Corroboration of some facts may, because of their uniqueness or quantity, overcome an otherwise lacking reliability. And verification of detail may infer an unstated basis of knowledge where the detail is of a kind not commonly known.

The totality test is one of practicality and common sense. It does not contain a rigid demand that a specific combination of factors be met. It permits a balancing of the relative weights of many factors. Unusual past reliability in certain areas of criminal activity may negate the requirement for thoroughly setting forth the third party's basis of knowledge. Likewise, explicit and detailed description with substantial verification of some facts can both overcome a lack of past proven reliability and imply a basis of knowledge.

ENTRAPMENT

Sometimes information presented by a source about the commission of an offense may cause you to believe the offender would commit the same offense, or one similar to it, if he or she but had another opportunity. In facilitating such an opportunity, you and your source, if he or she is acting as a government agent, can be the cause of the government's losing its case against the offender. You, as an investigator, are a government agent. *If your source is working for you in his dealing with the offender he, too, is an agent of the government.* Because the government is bound by the actions of its agents, you must avoid setting up circumstances allowing the defense of entrapment.

The defense of entrapment exists when the criminal design or suggestion to commit the offense originated in the government and the accused had no predisposition to commit the offense. The "government" includes agents of the government and persons cooperating with them. The principal element of entrapment is an accused's lack of predisposition to commit the offense.

IMMUNITY FROM TRIAL

In a few cases, to ensure a successful prosecution, a participant is offered immunity from trial by court-martial in exchange for his cooperation, information, and testimony. This immunity may be a "transactional" immunity. Or it may be a more limited "testimonial" immunity. A grant of immunity, by denying . the participant the right to assert his privilege against self-incrimination, makes his testimony available to the government.

Only an officer with the authority to convene a general court-martial can grant immunity. A grant from a lesser authority does not bar trial by a general court-martial. But evidence procured by that promise of immunity may be inadmissible at the trial. The specific wording of a grant of immunity may determine whether a participant is competent to testify or not. *If a grant of immunity is contemplated, the local SJA must be consulted.*

Grants of immunity are used with caution. While they are normally conditioned upon full and free disclosure as a witness, the means of enforcing such conditions are frequently not adequate. The witness may give confusing, contradictory, or false

testimony. Or he may suffer "lapses of memory" while testifying. Or he may be impeached by reason of his relationship to the offense charged and by reason of the favor shown him by the government. However, in appropriate cases, grants of immunity can be of great value to the government.

PART THREE

OBTAINING AND RECORDING PHYSICAL EVIDENCE

CHAPTER 7

Fingerprints

Fingerprint evidence is the most positive investigative means of identifying people. Every fingerprint is unique. Fingerprints form on a person before birth and remain unchanged until the body decomposes after death. Fingerprint impressions often look alike. But when they are examined closely, their differences can prove the prints to have been made by different fingers. And the opposite may be true. Prints from the same finger may look different because the pressure used to make them differed. Or they may look different because the curve of the surface differed. Yet examination by a qualified examiner can prove the prints to have been made by the same finger.

Positive identification or elimination of fingerprints can only be made by trained and qualified fingerprint examiners. Examiners identify prints by making the qualitative and quantitative comparisons of one friction ridge print with another. They compare the separate ridge characteristics and their relationship one to another. They can do this from impressions of any area of friction skin.

CONTENTS

FINDING AND PROCESSING LATENT PRINTS

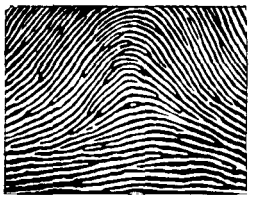
"Latent" prints are chance or unintentional prints found on items of evidence or at a crime scene. Some prints can be plainly seen. They are made by a finger coated with a foreign substance like blood, grease, or dirt. Some prints are "plastic impressions" imprinted in pliable substances like butter, candles, putty, and semidry paint. Other prints, invisible or barely visible to the eye, are made by the natural body secretions of the hands and fingers.

The visibility of latent prints depends on the physical condition of the person who left the print, on the surface of the object, and on the angle of reflection of the light by which they are viewed. The visibility of prints also depends on the time that has passed since they were placed, the amount of heat to which they have been exposed, and other factors. The amount of time they stay on an object is affected by atmospheric conditions, air currents, and humidity. But even when the object has been exposed to adverse conditions, it may be possible to obtain prints.

Attempts to obtain prints should be made in *all* cases. Smudges lacking ridge features may have foreign substances like grease or blood on them. Although not serviceable as latent prints, they may provide other trace evidence.

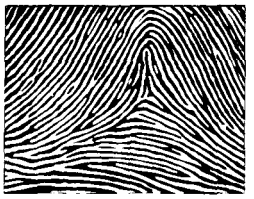
Photographing prints found at crime scenes can safeguard fingerprint evidence. Taking photographs before attempting to preserve prints can offset damage which can sometimes occur in the preservation process. The photographs are also useful in the preparation and presentation of fingerprint evidence. After photographing fingerprints found at a crime scene, an enlargement can be made at the crime lab. Enlargements can be very useful in studying a print and comparing it with other prints.

FINGERPRINT PATTERNS AND CLASSIFICATIONS



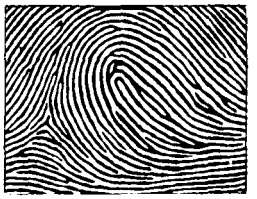
PLAIN ARCHES

In plain arches the ridges enter on one side of the impression and flow or tend to flow out the other side with a rise or wave in the center.



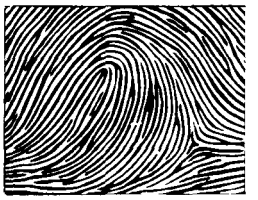
TENTED ARCHES

Tented arches are similar to plain arches with the exception that the ridges in the center form a definite angle; or one or more ridges at the center form an upthrust; or they approach the loop type, possessing two of the basic characteristics of the loop but lacking in the third.



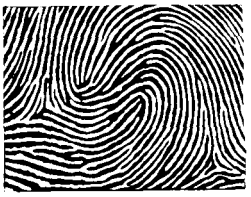
ULNAR LOOPS

Ulnar loops are those types of patterns in which the loops flow in the direction of the little fingers.



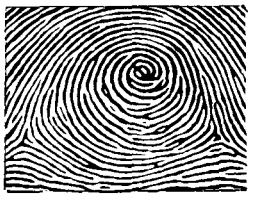
RADIAL LOOPS

Radial loops are those types of patterns in which the loops flow toward the thumbs.



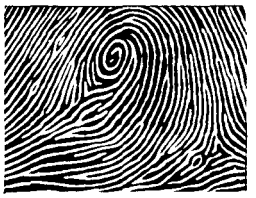
DOUBLE LOOP

The double loop consists of two separate loop formations, with two separate and distinct sets of shoulders and two deltas.



PLAIN WHORL

A plain whorl has two deltas and at least one ridge making a complete circuit, which may be spiral, oval, or any variant of the circle. An imaginary line drawn between the two deltas must touch or cross at least one of the recurving ridges within the pattern area.



CENTRAL POCKET WHORL

The central pocket whorl consists of one or more recurving ridges, or an obstruction at right angles to the inner line of flow, with two deltas between which an imaginary line would cut or touch no recurving ridge within the pattern area. The inner line of flow of a central pocket loop is determined by drawing an imaginary line between the inner delta and the center of the innermost recurve or looping ridge.

ACCIDENTAL WHORL

The accidental whorl is a pattern with two or more deltas, and a combination of two or more different types of patterns exclusive of the plain arch. This classification also includes those exceedingly unusual patterns which may not be placed by definition into any other classes.

PRESERVING PRINTS

Prints made visible by a foreign substance on the fingers often need only be lifted with print lifting tape. Or if the prints are on a small object, the whole object may beheld as evidence. But latent prints made by just the normal secretions of the skin often have to be processed in a special way before they can be seen and preserved. The most common means is by powdering or chemical treatment. Prints needing dusting powder to develop should be photographed before lifting. Prints found in dust should be photographed and then lifted. They should not be powdered, as this will destroy them.

POWDERING

Fingerprint powders are supplied in field kits in several colors, but black and white are used the most. Choose the powder that best contrasts with the background. These commercial powders have been developed over many years. They are dependable and of the right composition.

Some fingerprint equipment includes fluorescent powders to develop latent prints on multicolored surfaces. These powders are not often found in issued kits. They require a source of ultraviolet light. Long-wave ultraviolet light should be used, as short-wave ultraviolet light is harmful to the eyes and skin. And you must wear protective goggles and clothing. The choice of powder depends on whether the latent print is developed for photographing or lifting. As latent prints are normally lifted, the use of ultraviolet powders is rare.

To preserve a print with powder, first check for a test print in the area selected. Lightly brush it with powder to see if any unseen latent print is actually present. Then the surface can be wiped clean and the test print made and processed.

Fingerprint powder can be applied with fiberglass, camel hair, and feather brushes. A magnetic wand is used with magnetic powder. A large piece of cotton can be used for developing latent prints over a large area.

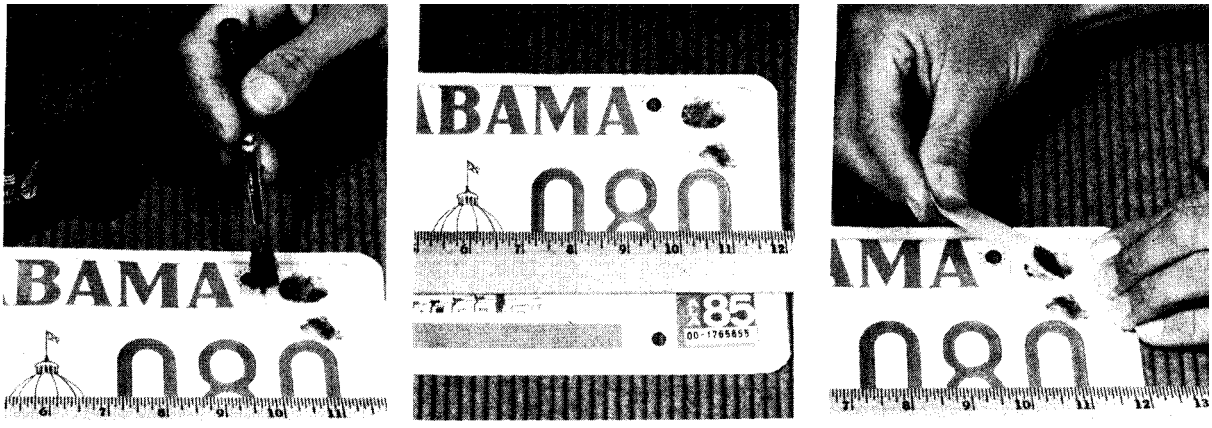
Pour some of the powder out of the container onto a sheet of paper. Just touch the tips of the brush to the powder. Then shake off the excess powder. The key to proper print development is to use a small amount of powder and a delicate touch. Using a smooth stroke, guide the brush over the suspected area or over the barely visible print. Get enough ridge detail to see the direction of flow of the ridges. The brushing, if continued, should follow the ridge flow. When the ridge detail is complete, photograph it. After the photograph you may use more powder to make the print more visible. Then photograph it again. Protect the print with lifting tape before sending it to the lab.

Sometimes the powder sticks to the object on which the print is found. If brushing will not remove the excess powder, make two lifts. The first lift will remove the excess powder. The second will preserve the fingerprint for identification needs. A latent print may be enhanced after the first lift by added processing with brush and powder.

If you are in the field without proper powders, you can use soot as a field expedient. Pass nonflammable objects through the smoke of a burning piece of pine wood or a wad of masking tape. A black, even deposit of soot will form on the object. Careful brushing will often yield latent prints.

LIFTING

The most common means used to lift latent prints are rubber lifters and transparent lifting tapes. Rubber lifters are better than transparent lifting tape for taking prints from curved or uneven surfaces. Transparent lifting tape has the advantage of presenting the lifted fingerprints in the correct position; the print is reversed on the rubber tape. Both tapes and lifters are available through General Services Administration supply sources. Ordinary transparent tapes used in homes and offices is not really suitable for lifting fingerprints. However, these tapes may be used as a field expedient. Other lifting materials are also available. White and black opaque lifting tapes are applied like rubber lifters. Hinged lifters with transparent tape and white and black backings are used like lifting tape.



Dust with powder: photograph with a ruler; apply transparent tape, making sure air bubbles do not form; then lift.

Rubber lifters store well and come in both black and white for use with different colored powders. They are well suited to use on surfaces like doorknobs. Use a lifter large enough to cover the print and leave lots of room. Remove the plastic cover of a rubber lifter with care in one steady movement. Any pause will result in a line being left on the lifter. In most cases, powder on a print will not stick to the line, thus ruining the print. Place the adhesive side of the lifter to the powdered print. Press it down evenly, then peel the lifter from the surface on one smooth, even motion. Place the plastic cover of the lifter over the lifted print to protect it.

Using the transparent lifting tape available in dispensers speeds up the lifting process. Prints on transparent lifting tape should be mounted on material of a color that contrasts with that of the lifting powder.

When lifting a print with either manner, use care to halt air bubbles forming under the lifter. Keep a quarter twist on the tape with one hand while rolling it flat with the other to help prevent air bubbles.

CHEMICAL PROCESSING

All chemical processing of fingerprints is done at the laboratory. Lab technicians are trained to use many chemical mixtures to process the evidence. And they are trained to use the techniques required by federal regulations for the handling of dangerous, toxic chemicals.

Latent prints on paper products should be developed with chemicals. Paper acts as a blotter, absorbing skin secretions when touched. Thus, the latent prints will not rub off paper as they rub off a nonporous surface. The amount of contact and pressure by the fingers are the two variables that affect these latents the most. To develop the prints, the paper is exposed to chemicals that react with the skin secretions of the print residue. The chemical processes depend on the presence of mineral or organic matter in perspiration. Perspiration composition differs from person to person and from time to time in the same person. This difference accounts for the uncertain and frequently spotty development of these processes.

OBTAINING PRINTS OF LIVING PERSONS

Fingerprints impressions taken directly from a person's fingers for the purpose of identification must be uniformly clear and visible. It is not hard to take good, clear fingerprints. A good fingerprint impression is dark gray in color and free of smudges. All that is needed to obtain good prints is practice.

Have the subject sign the fingerprint card. It is not needed nor desired that you advise persons of their legal rights just to take their fingerprints. Have the subject wash his hands to remove any dirt particles. Make sure that the fingers are free of lint from the towels used to dry the hands. Gather your equipment together and ready it for printing.

In addition to fingerprint cards, you will need—

- A fingerprint card holder.
- Ink (printer's ink or any special fingerprint ink).
- A rubber ink roller.
- Plate glass (approximately 12" x 6" x l", fixed to a base).

Place a small dab of ink on the plate glass and roll until a thin, even film covers the surface. It helps to place a white card under the glass to check the ink's thickness while rolling it out and while inking fingers. Secure the fingerprint card in the holding device, and the equipment is ready to use.

The steps for inking fingers and the steps for making impressions on the card are the same. Each finger is rolled through the ink on the glass and then that finger impression is rolled on the fingerprint card. All rollings should be made in single movements. Do not roll back and forth. The pressure should be just enough to apply an even coat of ink on the finger and a clear image on the card.

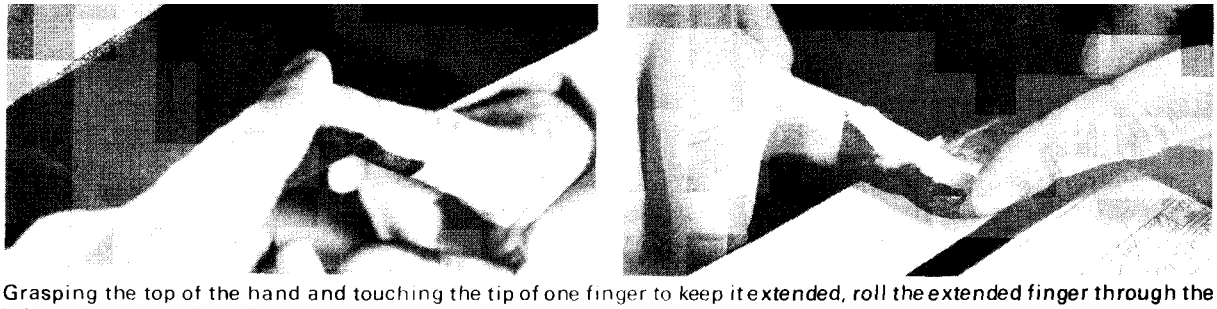
After the procedure is complete, fill in the data on the fingerprint card. Sign the card or paper for identification. *This signature is important in legal proceedings.*

ROLLED IMPRESSIONS

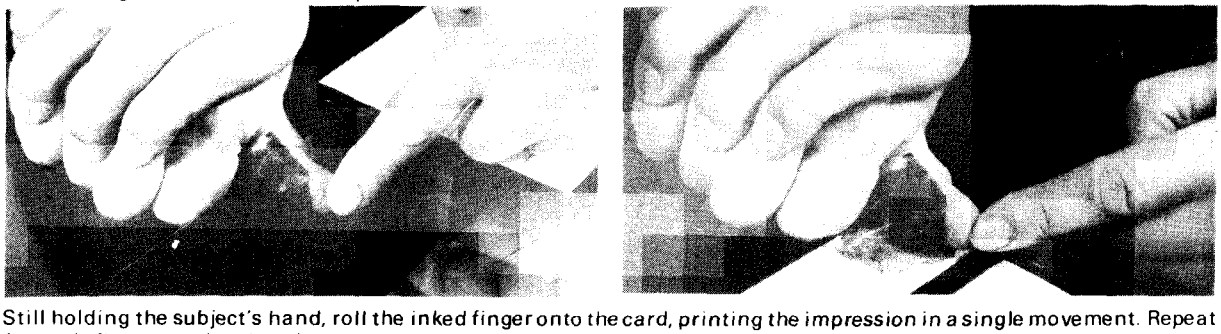
Rolled impressions are made to show the entire friction surface of the finger or thumb, from the tip to one-fourth inch below the first joint. They are made by rolling the finger or thumb from nail edge to nail edge. This surface gives all the needed ridge characteristics for correct classification. (Classification is the means by which a set of fingerprints may be filed and then retrieved in the future.)

There is a specific means of rolling the subject's fingers or thumbs in the ink and on the fingerprint card to give a good impression. You roll the fingers or thumbs from "awkward to comfortable." To see what is meant, hold your hands in front of you with the backs of your hands together. Now roll them around so that the palms are together and thumbs are up. You will see that the right hand moved clockwise and the left hand counterclockwise. This is the direction the fingers on each hand should be moved. Thumbs are moved in the opposite direction of the fingers.

When you take prints, grasp the top of the subject's hand to make sure that the finger to be printed is extended. The roll is a single movement and with only enough pressure to



Grasping the top of the hand and touching the tip of one finger to keep it extended, roll the extended finger through the ink, making sure the ink reaches past the first knuckle.



Still holding the subject's hand, roll the inked finger onto the card, printing the impression in a single movement. Repeat for each finger on that hand.

give a clear print. Tell the subject to look away from the fingerprint card and to try not to "help" the roll. This will reduce smudging and give a clean impression.

PLAIN IMPRESSIONS

Plain impressions verify the order of the rolled impressions and show characteristics that are sometimes distorted in rolled prints. Plain impressions are made on the card by just pressing the four inked fingers on the card at a slight angle. They should show from the tips to one-fourth inch below the first joint. Thumbs are then printed by inking and pressing them on the block next to the plain finger impressions.

Have the subject hold his finger s straight and stiff. The h-and should be level with the wrist. Grasp the wrist with one hand and press the fingers onto the cards with the other hand. Then allow the subject to clean the ink from his fingers.

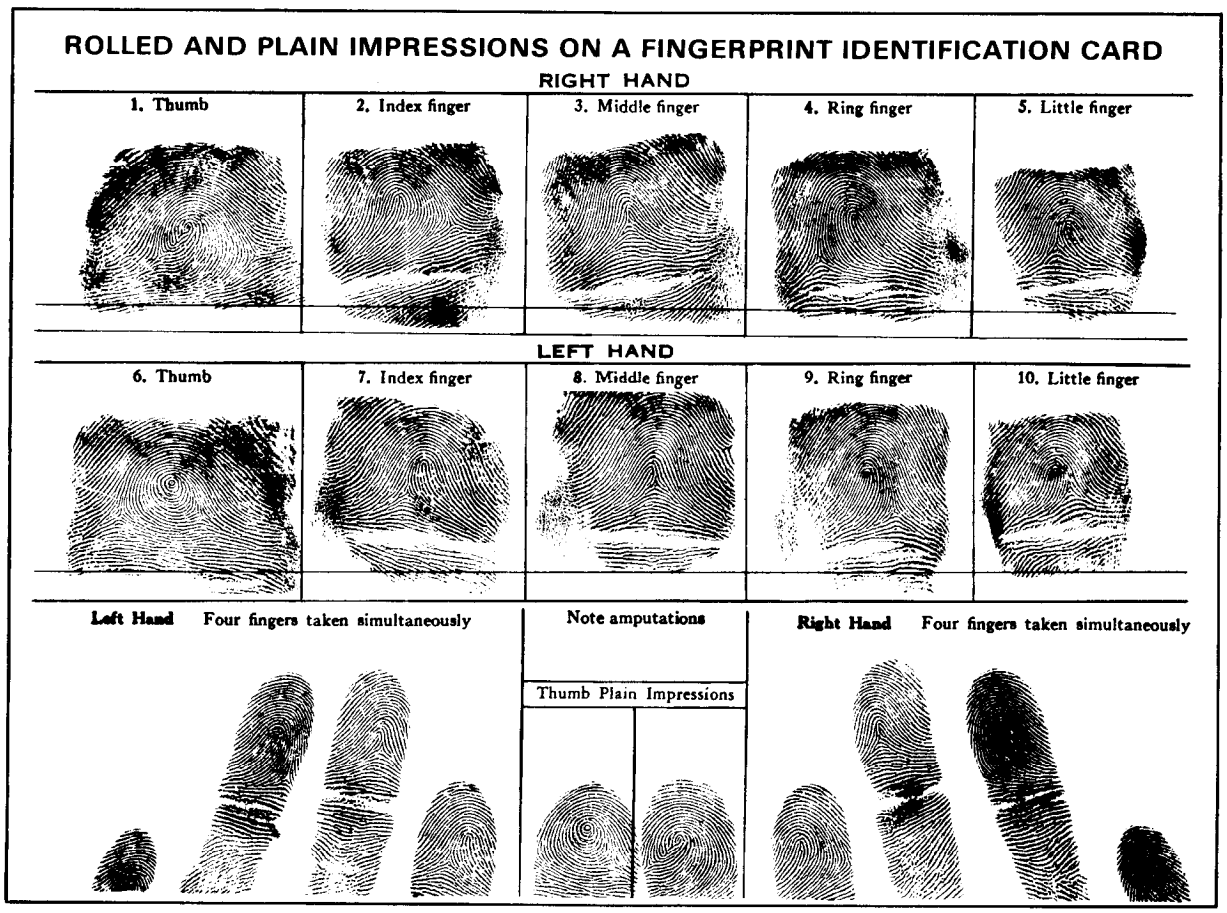
PALM PRINTS

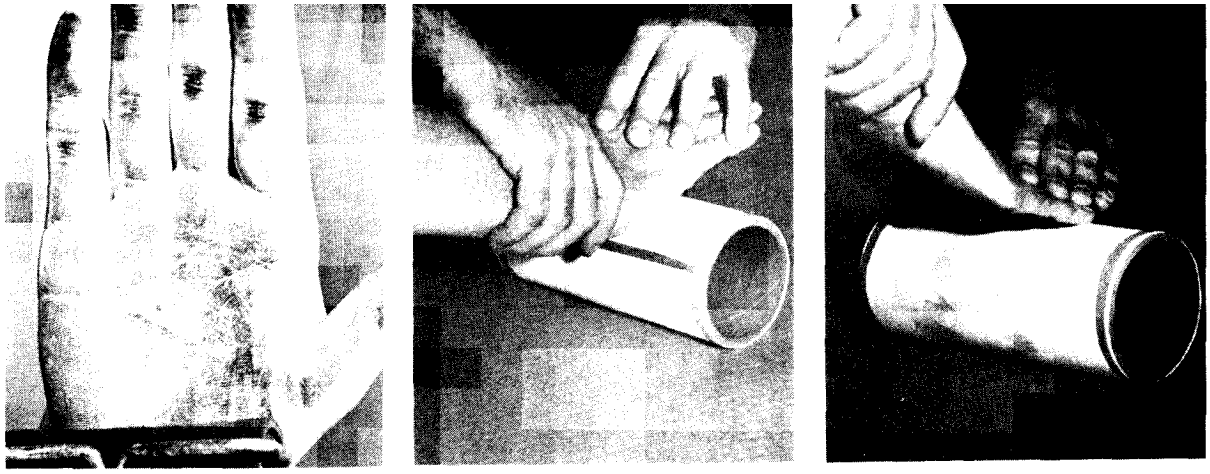
You may need to obtain palm prints from a subject at times. This is because the whole hand makes a distinctive impression. These prints are sometimes found on evidence or at a crime scene. The biggest problem with making palm prints is that often the hollow part of the palm is not properly printed.

The best way to record palm prints is to have the printing paper wrapped around a tubular object. Place the heel or base of the subject's palm on the tubular object and roll the print in a pulling motion from the heel of the hand to the fingertips.

MAJOR CASE PRINTS

Major case prints are a complete set of prints. They include the record prints of inked finger, palm, and sole impressions taken for identification needs. And, in addition, they include edges of the hand,





Ink the hand; place the heel of the hand on the paper-wrapped tube; and roll, pulling the hand across the tube from heel to fingertips.

fingertips, and the entire finger. In effect, prints are made of all parts of the hand to include the tips, palm, sides of the fingers, and sides of the palm. Sometimes prints of the feet are also included. Major case prints often help in forgery cases. The print of the side of the hand leaves an impression like that of a hand in the writing position.

PROBLEM PRINTS

Excessive perspiration may cause inked impressions of many persons to blur. Wipe each finger with a cloth and then quickly ink and roll it on the fingerprint card. Follow this process with each finger. You may also wipe the fingers with alcohol or other drying agent. Some people have dry, rough hands from their work. Rubbing the tips of the fingers with oil or creams can often make them soft enough for clear, unsmudged prints. If the ridges are fine and small and the skin is soft, holding ice against the fingers sometimes helps.

If the hands and fingers are deformed, normal printing steps cannot be followed. Apply the ink directly to the fingers with a spatula or small roller. Then rotate a square piece of paper around the finger. When an acceptable print has been made, the square is taped to the proper box of the fingerprint card.

If there is an extra finger (usually a "little" finger or a thumb), the innermost five are printed as usual on the card. The extra digit is then printed on the reverse of the card. Print webbed fingers as well as you can in the rolled and plain impressions. And if a finger or a fingertip is amputated, note that fact in the proper box. (Example: "AMP" 1st joint, FEB 1943 or "TIP AMP.")

OBTAINING PRINTS OF DECEASED PERSONS

Major case prints are always obtained of deceased persons connected with an investigation. The prints are used to identify or eliminate latent print evidence and to identify the deceased. When the body is in an Army mortuary in the graves registration system, graves registration can provide the major case prints.

Printing deceased persons may be done before rigor mortis has set in, after rigor mortis, or after decomposition has begun. The means used to take the prints depends on the conditions of the fingers and your ingenuity. The process of inking the fingers and rotating a square paper on the finger might be used. This works best with the recently dead or after rigor mortis is gone. When rigor mortis is present you may have to straighten the fingers. This can be accomplished by pressing down on the middle joint of the finger. You might dust the fingers and palms with fingerprint powder and lift the prints with tape or rubber lifters.

This often works well to obtain difficult record prints. Be sure to mark each lift.

The hardest prints to obtain are those from a body which has begun to decompose. It may require techniques beyond your expertise, especially when the hands are badly charred or decomposed. In such cases, the hands or fingers should be sent to the laboratory for identification by laboratory personnel. But never send a portion of the body to the lab without first contacting the lab for guidance.

When needed, and with SJA advice, the hands or fingers may be amputated by a surgeon. Before amputation takes place, contact your USACIL to learn the best method of processing body parts. Put each body part in a separate bottle and be sure that each bottle is properly identified.

CHAPTER 8

Casts and Molds

Knowing how to make casts and molds can help you protect evidence. The impression of a footprint at a crime scene might be evidence linking a suspect to that scene. But to learn if an imprint is evidence, it must be examined and compared with other evidence. And to be useful evidence, it must be able to be retained for submission, if needed, in court. Impressions of most footprints, tire prints, and the like are fragile. Their evidence value can be destroyed by time, the elements, or the process of being collected. They must be preserved in their original state to be useful. This is done by making casts and molds.

Casts and molds of imprints can be used for field comparisons. And, more importantly, they can be sent to the crime lab to be examined. Lab specialists will look for signs of class marks and individual marks that may have been on the item making the imprint. Class marks are marks or lettering made by a manufacturing process.

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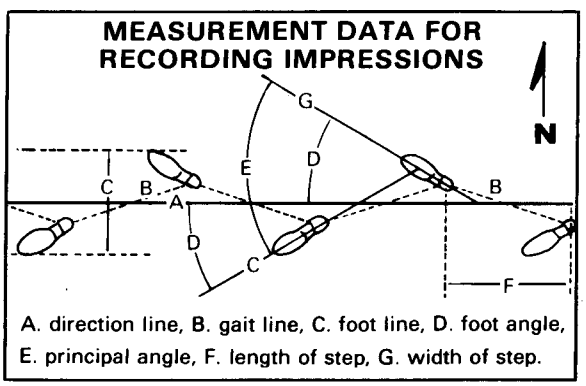
Individual marks are marks unique to an item. They are made by the cuts, tears, and uneven wear of daily use. It is the presence of these marks that will allow the examiner to make a positive or negative identification.

RECORDING IMPRESSIONS

STEP 1 The first step in recording an imprint is to protect it from destruction. This may mean covering it with an object like a trash can lid or cardboard box if it is small. In a large area, this may mean roping off the area and having guards posted. The imprint must also be protected from on-the-scene comparisons. *Comparisons must be done only by the lab.* For example, when a suspect's shoe is found before a cast is made of the imprint, it is human to want to compare them. But if anyone places the shoe in the print, he may contaminate the print. This could make an identification invalid in court.

STEP 2 After protecting the imprint, it must be photographed. First, make an area photograph. This places the print in relation to other objects. Then, take a closeup of the print. All prints should be photographed with a ruler in place before developing or lifting the print.

STEP 3 Make sure the location of the imprint is shown in the crime scene sketch. Measurements, too, should be included. And show details like trademarks, nail holes, cuts, and scars in the sketch. Then make sure the measurements and other data are in your notes. Now you are ready to make a cast of the impression.



A. direction line, B. gait line, C. foot line, D. foot angle, E. principal angle, F. length of step, G. width of step.

PREPARING IMPRESSIONS

To obtain a good cast it is often necessary to prepare the imprint. If a print is found outdoors, check to see if any particles have blown into it. These should be removed carefully. Use a syringe to blow away dust that has gathered. Use a pair of tweezers or a pocket knife to take out small stones. A syringe also can be used to withdraw water from the imprint. Or water can be drained by cutting a small channel at one side of the print. Be careful to not destroy parts of the print.

Make a practice cast of your own shoe print before trying to make the evidence cast. Check it to see if the soil is cohesive enough to have made a good print. In sandy and loamy soils the particles may lack cohesion, making the print fragile. If so, the print should be strengthened to support the weight of the casting material. This will keep fine detail from being destroyed. You can strengthen the print by spraying it with a plastic spray or lacquer. Hair spray and paint spray also may be used. Spraying directly on the print may damage details. Instead, direct the spray against cardboard *or* other material. This will cause a fine mist to settle gently into the print. Let dry, then spray again. The number of coats you will need can be determined by examining the test print. Three to ten coats in sandy soil is often enough. When the strengthening spray has dried, spray a mist of light oil or silicone on the print. The oil will make it easier to remove the cast.

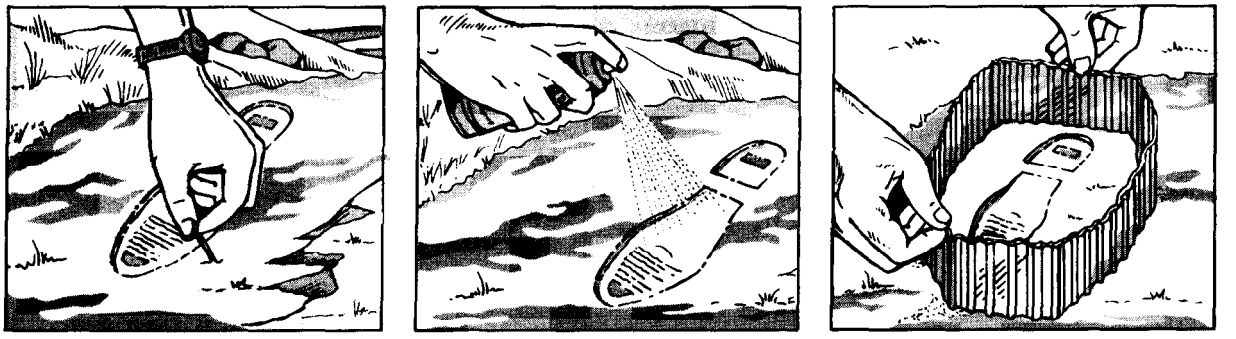
Sprays are used to make a print solid; they are not always needed in the process. If a print is in solid, earthy material, strengthening preparation is not necessary. Likewise, if a print is found indoors in dust, no preparation may be required. Instead, use the method for preparing fingerprint impressions.

When you are ready to cast, place a retaining wall around the print. This confines the casting mixture. And it allows the cast to be built to the desired thickness. The wall may be made of earth or other material. Old venetian blind slats make good retaining walls. If you make a permanent wall, one you can reuse, give it a coat of oil. This will let it be removed from the cast with ease.

CHOOSING YOUR MATERIAL

Dental stone takes good impressions of foot and tire prints. Plaster of paris and dental compound also can be used. These materials are most useful for imprints in dirt, mud, sand, or snow that do not show fine detail. When microscopic detail is needed, something other than these must be used. Liquid sulphur gives very fine details. But it is not as readily available as dental stone or dental compound. Dental stone and dental compound are available through supply channels or post health facilities.

Latex rubber can be used to reproduce faint prints on linoleum and fingerprints developed with powder. However, the prints on the latex have been known to fade. Silicone rubber can be used to cast



Remove loose debris; spray to stabilize loose dirt, then surround with a form to confine and build up the mixture.

fingerprints found in putty and caulking around window panes. Silicone rubber is more expensive than plaster or compound. But casts can be made more quickly with silicone. Water or heat is not needed. The casts are flexible, which keeps them from breaking during handling or shipping. And the silicone freezes at very low temperature, which makes it useful in casting prints in the snow. Epoxy casting resin may be used to make a "positive" from the silicone rubber impression.

CASTING WITH PLASTER, DENTAL STONE, OR DENTAL COMPOUND

When casting in plaster, dental stone, or dental compound, it is best to use a thin mixture in the print at first. This helps to record the finest detail. Follow this with a thicker mixture. But if the first mixture is too thin, it may wash away details. Testing will show the right proportions.

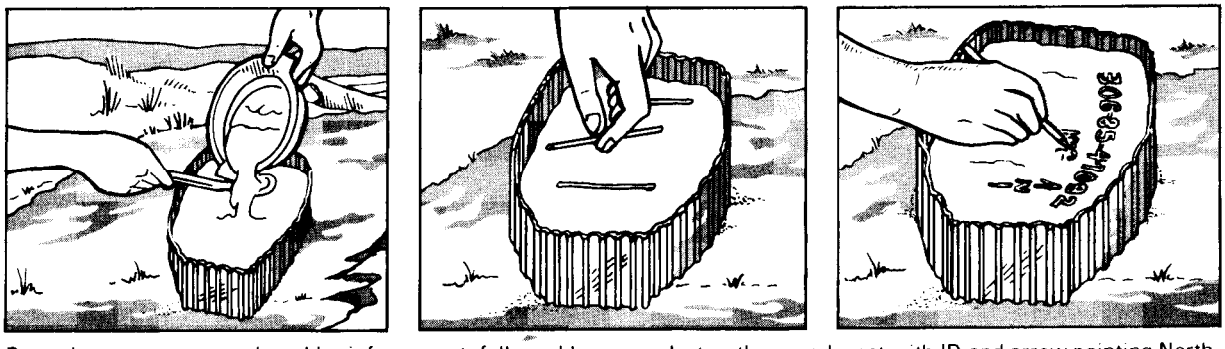
A thin mixture records more detail than a thick mixture. But it also needs a longer time to set. The mixture will set faster if salt is added to the water. One-half teaspoon of salt should be added to each pint of water. The more salt, the faster the setting. Sugar added to the water will slow the setting. One part of borax to ten parts of water will slow the setting from 15 to 30 minutes. It also makes the cast harder and clearer. These substances should be added to the water before the plaster or dental compound is added.

Two ways to prepare the mixture may be used. Both ways require you to sift the powder into water. Never add the water to the powder. One way is to sift the powder slowly into the water while stirring. The second way is to sift the powder around the edges of a water-filled container. Powder is added until it begins to rise to the surface. When cracks appear, no more powder should be added. Mix by stirring under the top to a thick, creamy consistency. Remove any lumps.

Pour the mixture into the print. Pour it from a low level. Break the force of the falling mixture by using a spatula or your hand. Pour the mixture into the print at a place where there is little detail.

After one-half to three-fourths inches of mixture has been poured, add reinforcing material. Sticks or wire are good to use. But care must be taken to keep the ends from sticking through the bottom of the cast. Soak twigs or wood in water before use. Dry twigs or wood will soak up water from the cast, making it fragile. Lay the twigs, sticks, or pieces of wire at random in the cast. Do not lay them parallel. If they are laid in only one direction, the cast may fracture between the pieces. Or you can use wire mesh to prevent this problem. After the reinforcement is put into the cast, more mixture can be added until the desired thickness of the cast is reached. When using dental stone, no reinforcing material is needed. And casts need be only one to two inches thick. Dental stone is three to four times as strong as plaster. The addition of reinforcing material could cause the stone to crack.

The mixture hardens about 25 minutes after preparation. While setting, it becomes warm. When it starts to cool, the cast is hard enough to remove for processing. Care must be taken in its removal. The cast is still fragile, even when it is reinforced. Allow the cast to dry 36 to 48 hours before sending it to the lab.



Pour plaster over a spatula; add reinforcement, followed by more plaster; then mark cast with ID and arrow pointing North.

Casting Under Water

It may be necessary to cast a footprint or tire print that is under too much water to drain or to remove. A section of stovepipe may be used to direct the dry powder to the print. This prevents waste of the powder. The powder should be sifted into the print through the stovepipe. This can even be used in deep water. Salt may be added to the mixture to speed the setting time. Three to four parts salt to ten to twelve parts dry mixture is a good mix.

Casting in Snow

Because dental stone, plaster of paris, and dental compound give off heat as they harden, their mixtures, when casting in snow, have a tendency to melt the snow. This can destroy the print or damage the print's details. Thus the temperature, depth, sticking quality of the snow, and the condition of the ground surface must be carefully considered. You should make test casts in the snow away from the print. This will help you decide how to proceed.

The print may be strengthened with plastic spray. Then, a thin layer of talcum powder can be put in the print with a syringe. The talcum acts as insulation against the heat. The print should be sprayed again. Several coats of spray may be necessary to fix the print. Use a retaining wall to keep the mixture from spreading to areas which are not insulated.

CASTING WITH SILICONE

Silicone can be used for foot and tire prints, dust prints, tool marks, casting of parts of the human body, and fingerprints. Silicone rubber is not recommended for surfaces with natural patterns like leather or fabric. The detail of the print is hidden by the detail of the natural surface.

Silicone rubber is a fast setting rubber. It sets up in a firm rubbery mass. The catalyst that causes it to set comes in a small tube with the package. The catalyst should be totally mixed with the liquid rubber just before using. Stir and pour the mix smoothly to avoid air bubbles that may cover details in the cast.

Setting time of the rubber can be changed by adding more or less catalyst. About one-half teaspoon of catalyst to a pound of the rubber is usually needed. Instructions are sent with the material. When catalyzed, the rubber will remain workable for about 5 minutes at 77° Fahrenheit. Lower temperatures lengthen setting time. A setting time of 5 to 10 minutes for prints in dust is recommended.

CASTING WITH LIQUID SULPHUR

When casting with liquid sulphur, add one part iron filings to eight parts melted sulphur. Let the mixture cool. When you use liquid sulphur, the retaining wall must have a light coat of oil. The object bearing the impression should be lightly oiled, too. While the sulphur is still liquid, pour it over the object to be cast. The sulphur can be blown into the smallest of indentations.

Sulphur is useful for casting in snow. You can take it to the scene in a thermos bottle. The liquid sulphur crystallizes on contact and gives excellent detail.

CASTING DIFFICULT IMPRESSIONS

Some impressions present special problems for casting. Tool marks can be changed or destroyed in attempting to make casts of them. And tire imprints require more extensive casts than other imprints.

TOOL MARKS

Avoid making casts of tool marks when possible. Original tool mark evidence is more useful for scientific examination. It is less subject to attack in court than casts. And often you are not able to make casts or photographs that show enough evidence. This makes identification hard at the lab.

When you must make a cast of a tool mark, use the material best suited for the shape and type of mark to be reproduced. Flat tool marks like hammer, chisel, and pry marks may be reproduced with a variety of materials. Tool marks in wood, where undercuts are present, will have to be reproduced with a flexible material.

Do not try casting or molding a tool mark until you have practiced on a similar wooden or metallic surface of no value. Take enough care and time to get a usable reproduction. Keep the surface bearing the tool mark as original evidence until you have an accurate reproduction. Then clear its release with proper legal authorities.

An imprint found on wood or on a metallic surface may be cast with modeling clay or plasticize. These materials do not take any special preparation before use. They are not likely to damage a tool mark if the first casting try does not work. A reproduction of the tool mark itself may be made from this cast using plaster or dental stone or compound. Usually, you need not reproduce a mark on a wood surface because the original evidence can be easily removed and retained.

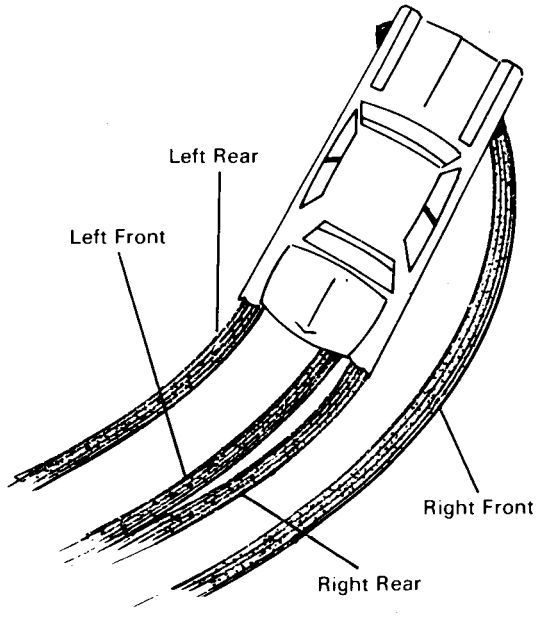
TIRE IMPRESSIONS

Casts should be made of the entire circumference of the tire involved. The circumference of a tire is usually between 5 and 8 feet. The likelihood of matching a track with a certain tire increases with the length of the cast made.

Casts should be made of each track found. Testimony that the combination of the designs taken from a set of four tire impressions found at the crime scene corresponds to the designs and the wheel positions of the four tires on the suspect's automobile is of obvious value.

Suspect tires should be sent to the lab with the casts. Leave the rims on the tires and keep them inflated. The lab may need to make test prints with the tires. Each cast and tire sent should be identified as to the wheel position. Sketches, photographs, and other notes should also identify wheel position.

IDENTIFYING TIRE IMPRESSIONS



Look for the point where tracks separate for a vehicle turn.

COMPLETING THE CAST

Whatever your material, after you have made the cast and before it is set, you must mark it for identification. The data can be scratched into the surface of the cast. Any instrument may be used. The minimum data should be the case number, date, and your initials. An arrow showing north will help locate the exact placement of the cast in relation to other evidence.

Sometimes several casts are made at the same location. These casts should be numbered consecutively. The number and place of each cast should be entered in your notebook. You may want to take casts of several shoe and tire prints found at the scene. This can help the lab specialists with their examinations. One print made by a shoe can give details not found in a second print made by the same shoe.

After you have removed the cast from the print you may gently remove excess dirt by hand. Do not use a brush or water under pressure. It may damage details. If you collect parts of the soil in the area near the print for testing with soil on the shoes or clothing of a suspect, do not wash the cast. The clinging soil will provide the lab with samples of the soil directly under the shoes of the suspect when he made his imprint. It may aid the examiners in comparing the soils.

PACKAGING

Casts must be carefully packaged to send to the lab. A cast is fragile evidence. It is easily abraded. It must be handled carefully. The cast should be wrapped in soft paper or cotton. This may keep fine identification points from being destroyed. It should then be wrapped in strong wrapping paper and placed in a box. Cushion the cast on all sides with shock absorbing material. Wax and modeling clay casts are not as fragile as other casts. But they can be deformed by pressure. These casts must be protected from pressure as well as abrasive action.

MOLDING

Sometimes you may need copies of a cast. Having a cast can help in your search for the item that made the original print. To obtain copies of a cast you make a mold from the original cast. Once a mold is made of the cast, as many copies as needed can be made.

The way you make a mold is almost the same way you make a cast. Pour your mixture into a container. A rubber photochemical tray makes a good container. Give the cast a thin coat of light oil. Without the oil it may be impossible to remove the mold from the cast. Place the cast in the molding mixture. When the mixture is set, remove the cast. This leaves a mold that may be used for making other casts. The inside of the mold must be coated with oil before each duplicate cast is made.

CHAPTER 9

Firearms and Ammunition

Solving a crime that involves firearms often depends on the scientific examination of evidence by a qualified examiner at the criminal investigation laboratory. Laboratory examination may show that a projectile or an expended cartridge case was fired from or in a specific weapon. Testing the mechanical condition of a weapon may show that an accidental discharge was possible. Other tests may show the presence or absence of gunpowder residues in the barrel of a weapon. A fired bullet or cartridge case may show the caliber and type of weapon that fired it. It may also tell the manufacturer of the ammunition. Tests may show the distance between the muzzle of the weapon and the point of contact. They may also show the point of entrance and/or exit of a projectile in clothing, wood, glass or metal.

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Investigators do not perform firearms identification tests in the field. The USACIL firearms examiners do the identification tests at the lab, and give test results to the investigator in the field. They also give expert testimony in court when needed. But while expert testimony may be given only by such a qualified lab examiner, the solving of a crime involving firearms may depend on how you, the investigator, collect and preserve firearm evidence.

RECOVERING AND PRESERVING EVIDENCE

Any item that may need the services of a firearms examiner must be handled with care to make sure it is not altered or damaged. For instance, you must try to have medical personnel cut around bullet holes to leave them intact when removing clothing from shooting victims. And you must also make sure the items do not become contaminated. Be especially careful when clothing and like items are involved. Air dry bloodstained and semen-stained clothes before packaging.

You may find it hard to recover fired bullets at a crime scene. Never probe for, or try to extract, a bullet with other than rubber or heavily taped tools. It is often best to take a small section of the wall, ceiling, or the like with the bullet still in it. By forwarding it intact to the laboratory you prevent damage to the bullet.

You may have a case where you feel that a weapon should be processed for latent prints. The parts of weapons having a slight oily film are not ideal for the development of latent impressions. However, it is possible to get usable impressions. Firearms evidence to be sent to the lab to learn when the weapon was last fired or for powder residue should not be processed for prints before the lab examines it. Latent print techniques may hinder the examinations of the firearms examiner. At the lab, the fingerprint and firearms examiners will coordinate their efforts.

MARKING EVIDENCE

Evidence must be marked so it may be readily identified later. Firearms known to be of evidence value are marked immediately. But those seized or impounded to decide their value are not to be marked, scratched, or defaced in any way. These items are marked only after it is decided that the firearm has value as evidence. Use common sense in marking antique weapons and highly engraved weapons: Protect their value.

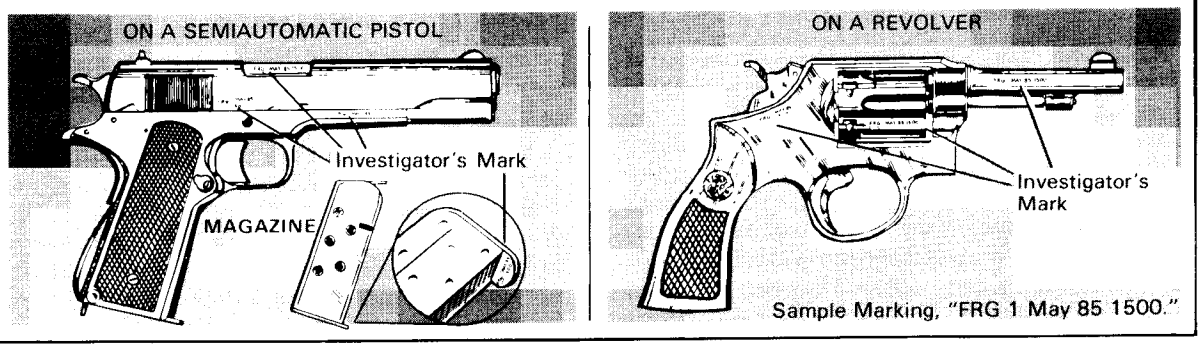
Place your initials and the time and date of recovery on each item of evidence so you can positively identify it at a later date. When several like items are found, add an identifying number on each item. No two items of evidence in the same case should bear the same identifying numbers. All identifying marks and a description of items to which they are affixed should be put in your notes. The identifying number has no bearing on the numbers of the exhibits in the report of investigation.

Marking tools may be used for inscribing identifying markings on firearms evidence. Diamond point or Carborundum pencils are ideal. Dental picks make excellent marking devices when the curved tip is cut off and the point made needle-sharp. These can be obtained at dental clinics and dentist's offices from time to time.

Firearms are most often marked on the right side of the frame. Mark all parts of the firearm that can be removed and that leave imprints on either the bullet or cartridge case. For example, you would mark a conventional .45 caliber semiautomatic pistol in three places. You would mark the barrel, which marks the bullet; the slide, which contains the extractor and firing pin; and the receiver, which includes the ejector which marks the cartridge case. All parts of a weapon should be marked alike. Put your mark where the marking can be seen but will not interfere with existing markings or stampings on the weapon. Mark the magazine on the base toe and submit it with the suspect weapon.

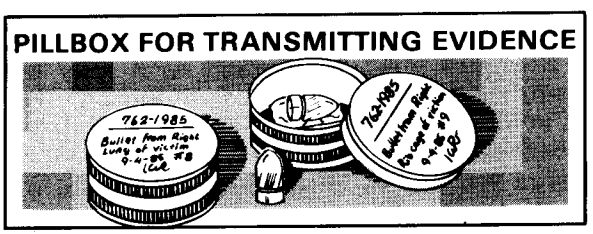
Because some revolvers have interchangeable cylinders, revolvers are marked on both cylinder and barrel. Some revolvers have a removable side plate. Mark them on the side of the frame that cannot be removed. Mark weapons having removable bolts—semiautomatic and automatic weapons, as well as bolt-action weapons—on the bolt, barrel, and frame. If the barrel of a weapon cannot be removed without tools, you do not need to mark it. But marking the barrel, even under these circumstances, adds certainty.

INVESTIGATOR'S MARKINGS ON FIREARMS EVIDENCE



A fired bullet submitted as an exhibit may be jacketed or lead. Do not place any markings on the bullet. Identification marks may cause the loss of trace evidence or evidence marks. Rinse the bullet if it is not to undergo serology testing or examination for other trace evidence. Ridding the bullet of body fluids or other contaminants will help the firearms examiner. Rinse with care, making sure you do not rub the item. Place bullets in suitable containers. Pillboxes, plastic vials, and the like that have cotton packing material are fine. Seal the container with paper packaging tape or the equivalent; do not use cellophane or masking tape. Mark the container so markings are on both tape and package. Record the time and date of sealing, your initials or signature, and the USACIDC sequence number or MP report number. Deformed bullets and jacket fragments must also be placed in a container and marked as described above.

PILLBOX FOR TRANSMITTING EVIDENCE



Do not mark cartridge cases. Treat them the same way you treat bullets, then place them in a container. Do not mark shotgun shell cases, wads, or shot columns either. Shot pellets (birdshot, buckshot, other) known to be from one source can be placed together in a container. Seal container and mark it for identification.

TRANSMITTING EVIDENCE

Unload firearms to be examined at the USACIL before preparing them for shipment. If a firearm cannot be unloaded, contact the USACIL for advice and shipping instructions. Firearms may be shipped by US mail as allowed by postal laws and regulations. Live ammunition, propellant powders, primers, or explosives may not be sent through US civil or military mails. Such items are shipped by freight or transported by courier.

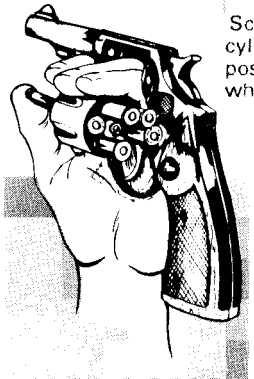
Wrap firearms in a clean protective covering. This prevents dust, lint, and other foreign matter from filtering into the mechanism. Pack in suitable shipping containers. When the evidence is to be examined for fingerprints, use special packaging procedures. If you have a question about how to pack or ship evidence, contact the USACIL.

Do not clean firearms before shipping them to the lab. But if there is a lot of moisture in the weapon barrel, remove as much of it as you can to stop rust from forming. Use a single dry patch. Record this fact in your notes and on the lab request. A collection of rust makes it hard for the lab examiner to conduct a comparison test. In a special case, when firearms must be cleaned, consult the USACIL. And be sure to send the cleaning patch to the lab when you send the weapon.

All ammunition found in the possession of a suspect or at the scene of a crime is seized and held as evidence. The laboratory may have enough ammunition of a like type to use for test needs. Contact the lab firearms division to learn if they have the right ammunition. If not, arrange for ammunition picked as evidence to be sent to the lab with the weapon.

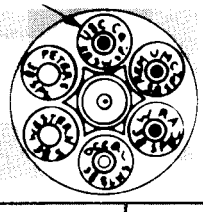
When revolvers having loaded cartridges or fired cases are obtained, make a diagram of the rear face of each cylinder. Show the position of the loaded cartridges or the fired cases with respect to one another and to the firing pin. Scratch an arrow on each side or rear face of the cylinder lying under the firing pin when the revolver was found. Do this on the revolver, itself, and also on the diagram. Your diagram, complete with legend, lets the lab examiner relate the fired cartridges to the chamber of the cylinder in which they were fired.

NOTATION OF THE POSITION OF THE CARTRIDGES IN A RECOVERED REVOLVER

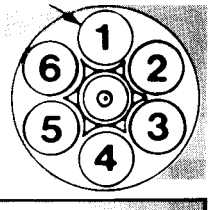


FACING REAR OF CYLINDER

Scratch arrow on rear face of cylinder to show the chamber positioned under the hammer when weapon was recovered.



Draw diagram; label chamber under the hammer "1"; number remaining chambers clockwise.



Investigator's Mark	Chamber Position	Condition	Maker
CW/1	#1	Fired	U.S. Cartridge Co.
CW/2	#2	Fired	Remington Arms Co.
CW/3	#3	Fired	Winchester Repeating Arms Co.
CW/4	#4	Misfire	Dominion Cartridge Co.
CW/5	#5	Loaded	Western Cartridge Co.
CW/6	#6	Loaded	Peters Cartridge Co.

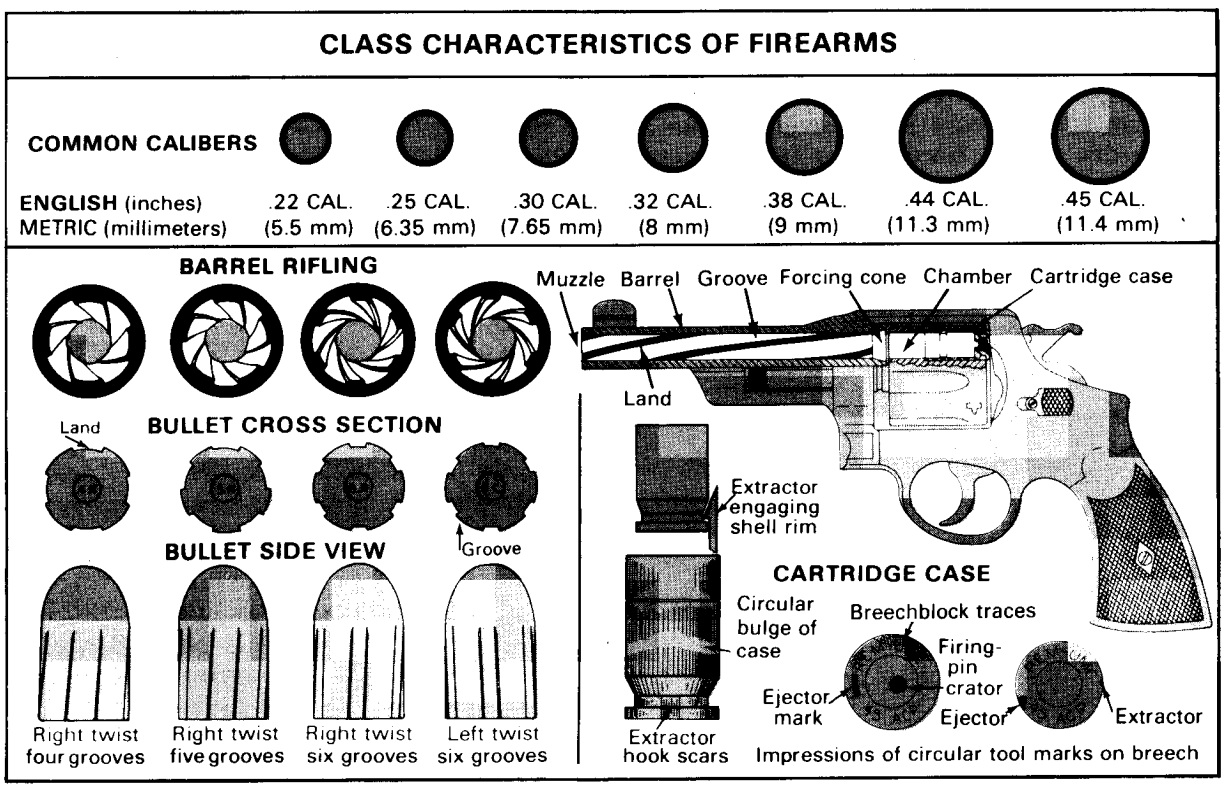
Pack clothing items being sent to the firearms division for proximity tests so the area around the entrance hole in the garment does not become contaminated. Do this by sandwiching between sheets of cardboard or brown paper the part of the garment containing the gunshot residues.

TESTING AT THE LAB

Testing by lab examiners can provide you with information you are not able to determine by field examination. For instance, in gunshot wounds, powder residues may be deposited either on skin or clothing. Only pathologists or other qualified medical persons may give an expert opinion on gunshot wounds in flesh and on their powder pattern. And only lab examiners can give you an expert opinion on powder residue in clothing. By firing a suspect weapon, using ammunition of the type that left the residue, they can make tests to learn the approximate distance from muzzle to point of contact. These proximity tests are based on the dispersion of the gunpowder residues. They are, of course, subject to limitations. A scaled photo of the wound may be helpful to a firearms examiner examining the clothing worn by the victim. Normally, with a muzzle to target distance in excess of 2 ½ feet, no discernible gunpowder residue pattern will be present. But particles may be present even at a distance beyond 8 feet.

Sometimes a firearm has had a serial number or other die-stamped lettering removed. Showing ownership or otherwise identifying the item may depend on discerning the serial number. *This is a job for the lab.* Do not try to do it on your own.

Often the lab can examine a fired bullet or even a cartridge case alone to learn facts of the class characteristics of the firearm involved. The lab can tell you the caliber and type of firearm (pistol, revolver, rifle) from which the bullet was fired. The number and width of lands and grooves in the rifling and the direction of twist may also be provided.



TEST FIRING

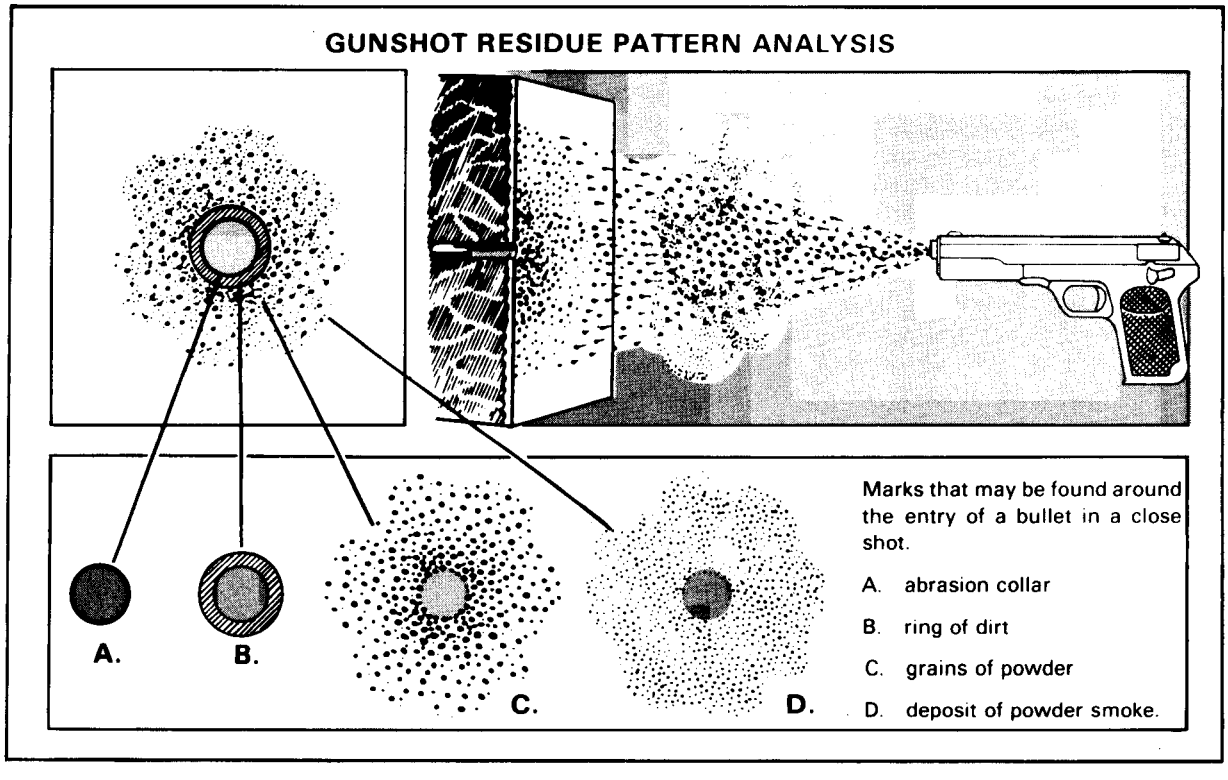
If a firearm is sent to the lab with fired bullets, cartridge cases, or both, tests can be done to see if the ammunition was fired from that weapon. If the class characteristics of the spent ammunition is consistent with that fired from a weapon like the exhibit weapon, test firing will be done. Then the test bullets and cartridge cases will be microscopically compared with the exhibit items. If many firearms are suspect weapons in a case, it may not be wise to ship all the weapons. In such cases, contact the supporting lab for advice.

All firearms uncovered during the investigation of homicides, suicides, assaults, and robberies should be submitted for function testing. Often the value of learning if a firearm will function and if it functions safely is overlooked. It may be that a firearm could not have discharged accidentally as stated by a suspect. Or a particular firearm may not be capable of firing at all.

GUNSHOT RESIDUE ANALYSIS

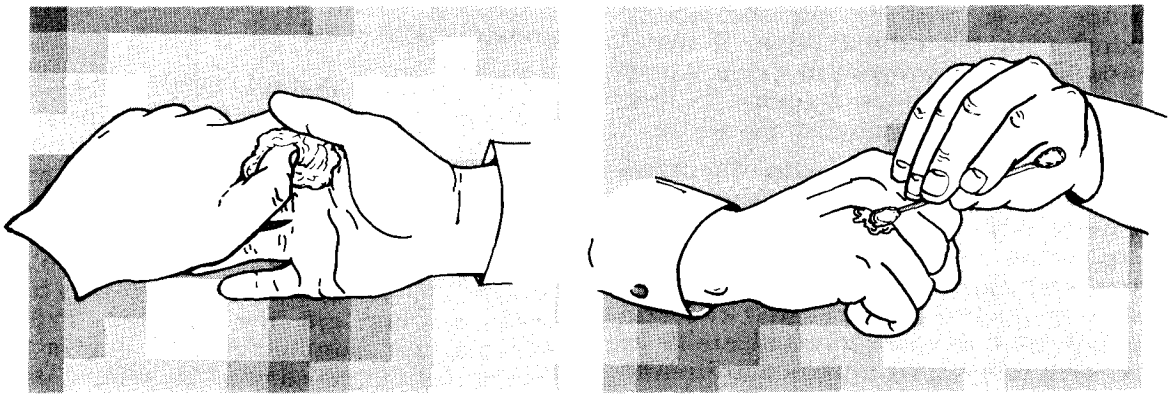
There are two types of gunshot residue tests done at the lab. One, discussed earlier in this chapter, is done to 'search for and identify unburnt powder particles and measure muzzle-to-target distances using the residue patterns left on the target. The other is done to detect primer residue to tell if a subject has handled or fired a weapon. This is from the test commonly known as the "gunshot residue test." Examiners at Trace Branch, USACIL-Continental United States (CONUS), do all of USACIDC's gunshot primer residue tests.

The primer residue test checks for antimony and barium, two metallic elements often found in primer mixtures. The primer mixture, detonated by the firing pin, is what ignites the gunpowder in the cartridge. The nature of this residue is such that, at present, only swabbings are tested. Gloves or other articles of clothing that the subject may have been wearing are not checked. Primer mixtures are manufactured by only a few companies. They cannot be related to a specific brand or type of ammunition. The lab cannot tell from the residue test what brand of ammunition was used. Likewise, the test does not show which weapon was used by a subject or which was used to fire certain ammunition.



The primer residue collection kits issued by USACIDC have all of the items needed to swab the subject's hands. They give the proper analytical controls as well. The process picks up the residue for protection in a vial. In this way the samples can be sent safely to the lab. Presently, there are two brands of kits. They differ only slightly, and either is suitable. Each kit has a set of instructions.

PRIMER RESIDUE COLLECTION



A check for primer residue can be made by swabbing a suspect's hands and sending the collected material to the lab for analysis.

CHAPTER 10

Glass Fractures and Fragments

Glass fractures or fragments are often of value as evidence or leads in an investigation. Fractured glass found at a scene may show the direction from which a bullet entered a pane of glass. And it may show the angle from which the bullet was fired. Fractured glass may show the direction from which a blow was struck. Windowpanes broken outward, away from the inside of a room, may reveal the direction, force, and limits of an explosion. Window panes broken inward, toward the inside of a room, may suggest the means of an intruder's entry. And sometimes glass fragments bear chemical traces of inflammable agents.

Glass fragments also may yield clues to help identify suspects. If an intruder breaks a window, fragments of glass may stick to his clothing. They may fall into a trouser cuff. Or they may adhere to the soles and the sewn edges of his shoes. If glass is broken in a fleeing-the-scene vehicle accident, fragments of glass may be found stuck to or in the tires of a suspect's vehicle. Such fragments can be collected, analyzed, and compared to glass found on the scene.

Glass is normally a fused mixture of silica and two or more alkaline materials. The silica is often a natural sand. The alkaline materials are often soda, lime, or potash. The mixture also may have other elements and metals. These may be from impurities, or added for color, strength, heat-resistance, or other purposes. Glass is made by melting its elements in a crucible at very high temperature. The molten mass is then either rolled, blown, or molded into desired sizes and shapes. Later it may be polished, ground, or cut for useful or decorative puroses. Or like mirrors and safety glass, it may be combined with other materials for special purposes. Different amounts of ingredients used in batches of molten glass yield variations. These variations, when found and proven by the lab, may be of value as evidence.

The main determining factor of the evidence value of glass lies in the existence or lack of a physical fit between a questioned sample and a standard. This fit can make it possible to tell if the two fragments came from the same source. The physical properties of glass may also show the way in which a piece of glass was broken. Glass bends and stretches before breaking. It seldom breaks squarely across. Usually it leaves convex/concave edges or stress lines on the fractured edges. These breaks yield both radial and concentric fractures.

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DETERMINING POINT OF IMPACT AND DIRECTION OF FORCE

Broken glass shows two kinds of fractures: primary, first-made fractures, and secondary, subsequent fractures. Primary fractures are radial. They look like the spokes of a wheel as they radiate outward from the point of impact. Secondary fractures are concentric. They form a series of broken circles, or arcs, around the point of impact.

Radial fractures show up on the surface opposite to the one where the fracturing blow or pressure was applied. These fractures tend to lengthen after awhile because of internal stresses set up by the initial shock. The original radial fracture looks like a wavy line. Extensions to the original fracture run in a straight line. Temperature changes cause extensions to take place more quickly.

Concentric fractures are made by a force working in the opposite direction from that which made the radial fractures. The glass bends, then stretches and breaks on the same side as the first blow. Concentric fractures extend from one radial fracture to another.

WINDOW GLASS

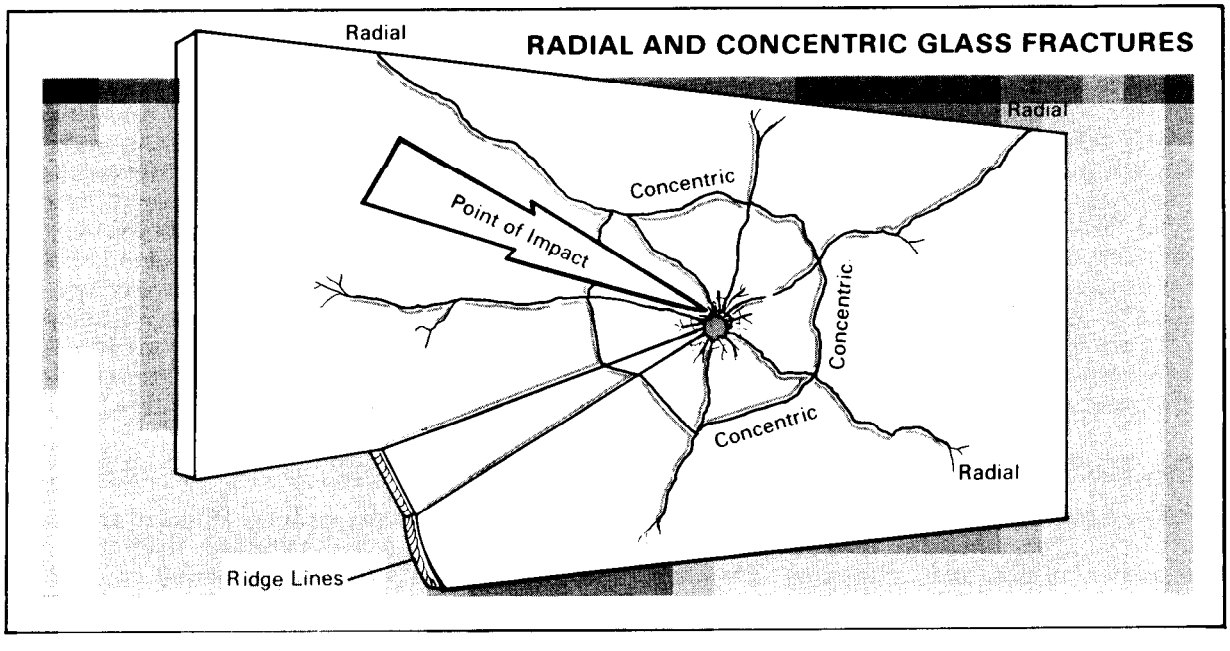
Edges of broken pieces of window glass bear a number of curved lines, called ridge lines. These ridge lines are almost parallel to one side of the glass and perpendicular (at right angles) to the other. Ridge lines are often visible to the naked eye. If they are hard to see, the glass can be turned at angles to the light so the reflection will show the lines. Ridge lines show the increase in stress setup in the glass until it breaks.

In radial fractures, the ridge lines are always perpendicular to the side opposite the impact. (The use of ridge lines to determine point of impact in concentric fractures is not reliable.) Radial fractures follow the 4-R Rule. **Ridge** lines on **Radial** fractures are at **Right** angles to the **Rear** (side opposite the impact). This rule is valid only from point of impact to the first concentric fracture and valid only to the first bend in the glass. You must find the point of impact to be able to find the direction of force.

The direction of a blow is rarely found by checking a single piece of broken glass. If you must show the way a pane of glass broke, you need enough pieces to find which are the radial edges. Finding the outside and inside of the glass may be helped by examining the glass surface. The amount of dirt, putty marks, and other clues may help you mentally place the pane in its original form.

WINDSHIELD GLASS

Determining the point of impact and direction of force is more difficult in windshield glass. Windshield, or safety glass, is made with a transparent binding agent like vinyl plastic sandwiched between two sheets of plain glass. The binding agent halts the shattering of the glass when it is struck. Due to the structure of safety glass, cracking is often incomplete. Neither the radial nor the concentric cracks go all the way through from one side to the other. If concentric cracks and no radial cracks are on one side this is the side



of impact. If only radial and no concentric cracks are found on one side, this is the side away from the impact. The cracked side may be found by sliding a fingernail or sharp-pointed instrument along the glass surface across the apparent cracks.

A lab expert can also test for the side of impact based on the property of safety glass. Safety will bend, and remain bent, instead of shattering when struck. The bending will cleave in a concave surface on the impact side and a convex surface on the other.

COLLECTING AND HANDLING

Glass and glass fragments are collected much like other types of evidence. Differences are due to the nature of the glass itself and to the information you are seeking. *Glass and glass fragments must be photographed and located on your crime scene sketch before they are touched or moved.* Their obvious or suspected relation to the case must be noted. When you collect fragments, avoid smudging prints or disturbing dust, dirt, bloodstains, or other foreign matter which may be on the glass. These may provide leads or be evidence in themselves. Wear rubber or fabric gloves. Use rubber-tipped tweezers or something like them to handle small fragments. This will keep the glass from being scratched. Metal tweezers with adhesive tape over the inner surface of the points work well.

Pick up the glass by the edges and avoid the flat surface as much as you can. Collect as many fragments as you can to make reassembly as complete as possible. Collect and preserve particles too small to match or reconstruct. The lab can analyze these for their physical properties.

Sometimes, when glass is broken out of a window or door, pieces remain in the frame. Remove the frame and keep it intact, if you can. This will help in the reassembly of the broken pieces. If this cannot be done, the pieces left in the frame should be carefully marked. Show both inside and outside surfaces. Take them out to avoid further damage to the glass or disturbing anything thereon. If the frame is not removed, samples of the wood, paint, putty and any other materials should be taken from it.

MARKING

Mark glass fragments with a diamond point or Carborundum pencil. A piece of properly marked adhesive tape or a grease pencil will also work. Include your initials, the date, and the time. *Place marks where there is no deposit of value as evidence.* Place marks on the side which was up (or inside if taken from a window frame or door) when found. This helps in the reassembly of fragments and in the reconstruction of the incident. Include a sequence number which, when keyed with your notes, photographs, and sketches, will identify where the fragments were found. Place fragments too small for markings in containers. Mark both the container and lid.

PRESERVING

Wrap glass or glass fragments in soft paper, cotton, or like material so they don't break. Do this in a way to avoid damage to prints or other substance to be sent to the lab or saved as evidence. Put the wrapped glass in containers and fasten the containers so that the glass will not shift. Wrappings and containers should be marked "Fragile." Evidence which you decide should be examined by the lab must be packed carefully. Friction, shifting, or contact with other items can destroy or contaminate the evidence.

Submit all pieces and fragments pertaining to an incident at the same time. Identify each piece of evidence clearly on separately wrapped items.

EVALUATING

Glass fragments and fractures are evaluated like other items of evidence. You consider their value alone and also in relation to all other evidence. Your evaluation begins as evidence is collected, and it continues until the case is closed.

Early in your evaluation, consider the need for scientific lab analysis. Glass is not destroyed or appreciably altered in lab work except in spectrographic examination of small fragments. Thus, the evidence pieces can be used later to compare with suspect pieces, if they are needed. If lab examination is needed, *request it as soon as you can*. Speed may be essential to halt the loss of odors or residue.

Early submission for lab analysis may help your case. For example, the lab specialists may, if enough glass from a vehicle is found, learn the vehicle's make, model, and year. They may also eliminate the possibility that the glass came from a suspect vehicle, thus thinning the field. But sometimes you may want to delay sending some items to the lab. Keeping pieces of a broken headlight lets you match it to remaining pieces found on a suspect's vehicle. This can be confirmed later by lab analysis.

RECONSTRUCTING FRACTURED GLASS

Only the lab can truly reconstruct a piece of fractured glass. But you may want to put pieces of glass in relation to one another to get a better look at the fractures. How you do this will depend on the size and shape of the object. Do not do this on a permanent basis. Pieces or fragments are *not* sent to the lab in a reconstructed form. Damage may occur in handling or transit.

You must take care not to rub the fractured edges against each other. You may cause more flaking or fracturing and destroy parts of the ridge line marking. One way to avoid this is to keep the edges at least a pencil point's width apart. When as many pieces as possible are in place, the outlines may then be traced on the paper. Make notes on the paper to fit your markings on the pieces for future reference and use. If you need a more permanent reconstruction later, the pieces may be fixed to a base of plywood or heavy cardboard with plastic tape or glue.

To reconstruct a curved or irregular-shaped piece, like a bottle or jar, is more difficult. You must find out both the size and the shape of the object. Some pieces (such as automobile headlight lenses) may have patterns cast or cut into them. These you can compare and match more easily then you can smooth glass surfaces. In many cases, the pattern may be matched independently of the fractured edges. But the exact matching of edges is still the most conclusive evidence of common source.

Prepare by first finding out the circumference and the curvature of the spherical surface. If you have enough pieces, or if class marks can be found, you may show the object as to make, type, size, and so forth. This will permit getting a duplicate, and the problem is made easy.

Lab specialists can reconstruct curved glass by forming a cast the size and shape of the inside surface. They use linseed oil putty or a like material that will keep its elasticity. If the lens can be identified, a plaster cast may be made from a duplicate, The fractured pieces can be mounted on it, and held in place by plastic tape. Pieces and fragments, properly marked, can then be matched by their edges and pattern markings, placed on the cast, and pressed in just enough to hold them in place.

If lab specialists do not have enough pieces to identify the object or show the circumference and spherical surface, they take a piece with enough arcs to make rough measurements to allow forming a putty cast. They can use a spherometer or a Geneva gage to tell both curvature and circumference. They also may get close measurements by geometrical projection. Using the arcs of the circumference and sphere of the found fragments, they trace the arc of a fragment on a piece of paper. Then they use standard geometrical construction to approximate the diameter. The circumference can then be projected.

Keep in mind that these are only rough approximations. Lenses are made not only in round, but also in oval and other shapes. And spherical surfaces are not always completely regular in contour.

EXAMINING FRACTURES IN THE FIELD

In the field you must be able to distinguish fractures caused by heat from those caused by blunt force. And you must be able to distinguish both of these kinds of fractures from that created by high-speed impact like that of a bullet.

BULLET HOLE FRACTURES

Checking glass for bullet holes may provide useful knowledge. It may be possible to determine the direction from which a bullet was fired. Sometimes the sequence of a series of bullet holes can be learned. And sometimes the type of ammunition used and the distance from which the bullet was fired may also be learned.

The direction from which a single bullet enters a piece of glass, whether window, plate, or safety, is often seen with ease. A bullet makes a somewhat *clean-cut* hole in the side of entrance. As it penetrates, it pushes glass fragments ahead of it. This causes a saucer-shaped or coning depression on the exit side, with a greater diameter than the entrance hole. Determining direction becomes more difficult when several bullets enter safety glass closely together. The last bullets enter a glass surface which already has a number of cracks. As a result, small pieces are knocked out around the holes on both sides. However, broken edges on the entrance side are almost perpendicular to the surface of the glass. On the exit side these edges are at an angle to the surface.

Sometimes it is important to know which of two or more bullet holes in a pane of glass was made first. You may be able to determine this from the fractures. When a fracture traveling across glass meets a fracture that is already present, the newer fracture will be stopped. If fractures from one bullet hole are stopped by those of another, you may conclude that the blocking fracture was made first.

The angle from which a bullet enters a piece of glass may be found by the amount of chipping at the exit crater. If a bullet strikes glass straight-on, chipping around the exit hole will be fairly even. If a bullet enters from the right of the glass, very little chipping will be found on the right side of the exit hole. Instead, there will be a lot of chipping around the left side of the exit hole. And the entrance hole will show straight and short radial fractures on the right, while one or two long radial fractures should appear on the left. If a bullet enters from the left of the glass, these fractures will be reversed.

To learn the angle from which a bullet was fired, the bullet hole should be compared with test shots fired from varied known angles. The test shots should be fired through the same type of glass and under the same conditions with the same type weapon and ammunition as the original bullet hole.

Ammunition type can sometimes be learned from the size and features of the bullet hole. Bullet holes in safety glass offer more evidence than those in window glass, because safety glass fragments do not fall. When a bullet goes through a pane of glass in a sidewise fashion, it is often hard to show the caliber of the bullet. The lab can sometimes estimate the caliber and type of weapon used. Coordinate with the lab to learn the best way to submit your evidence for this test.

Determining the distance from which a bullet was fired depends on knowledge of the ammunition used. A high speed projectile fired from afar may yield a fracture like one from a slower projectile fired at closer range. If a bullet has been fired from a long distance, most of its velocity is spent before it reaches the pane of glass. It will break the pane in much the same way as will a stone. A shot at close range with a weapon with great muzzle blast will give like results. The blast itself breaks the glass but may leave powder residue and cause a crystallizing (frosting) of the glass.

BLUNT OBJECT FRACTURES

Glass fractures caused by a blunt object will show a pattern of fractures like, but not as regular as, the pattern from a bullet. This difference is mainly due to the impacting force being dispersed over a greater area.

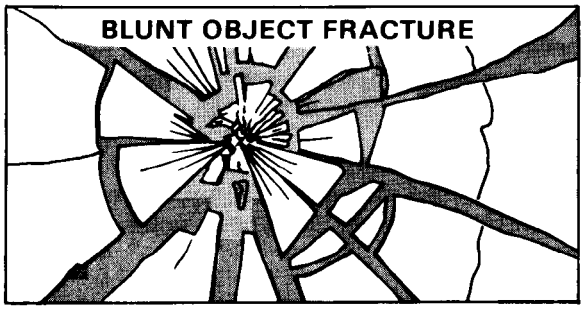
It may be harder to tell the side from which the impact came. But you can still tell by the ridge lines on the edges of the radial fractures.

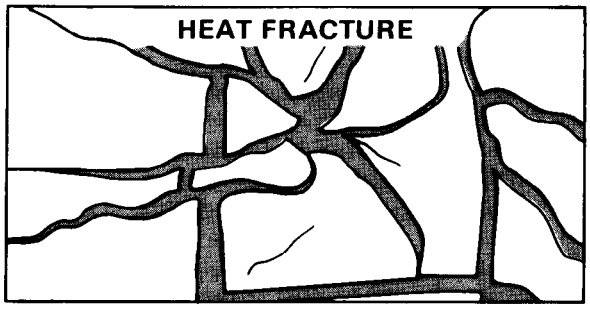
First, partly reconstruct the object to find the radial and concentric fractures. Then look at the radial fracture lines. The ridge lines on the side opposite the impact will be well-developed and distinctly individual. The ridge lines on the front, or impact side, will be much less so. They tend to run together here and lose their individuality. The 4-R Rule still applies. Because glass bends away from the side of impact, the first (radial) fracture occurs on the rear side after the limit of elasticity has been reached. This causes the distinct ridge lines on the stretching (rear) edge of the radial fractures. At the same time, some grinding action takes place on the front side. This causes some chipping and flaking of the edge and partial obliteration of the ridge lines.

HEAT FRACTURES

Recognizing heat fractures in glass can help you eliminate areas of concern in your investigation. Fractures due to heat are *wave-shaped.* They do not show a regular pattern of radial and concentric lines like fractures caused by impact. Heat fractures also show little, if any, curve patterns (stress lines) along the edges. Expansion of the glass (stretching action) occurs first on the side exposed to the heat. Glass splinters will often fall toward that side. Reconstruction of a glass object fractured by heat will show the wave-shaped fracture pattern.

If the ridge lines are smooth, or almost so, and no point of impact is found, and you have considered other factors like the circumstances under which the fragments were found and their location, you may conclude that the fracture was due to excessive heat.





EXAMINING FRAGMENTS AND FRACTURES IN THE LAB

Glass fragments and fractures may yield important leads when examined by trained technicians. The lab can analyze glass fragments and fractures by a variety of means. A scientific examination of glass particles may show matching physical and chemical features. This could prove whether the particles did or did not come from the same piece of glass. It can show if minute particles that look like glass are actually glass. Examination of fractured glass may tell not only the type of glass, but the manufacturer. The manufacturer's name or logo may be imprinted or molded in the glass. Examination may show the direction of a blow and the direction and angle of impact. It may also show the sequence of holes.

Glass on vehicles often bears traces of the paint used on the vehicle body. Such traces can be of value, especially in cases of fleeing-the-scene accidents, because they may show the color of the vehicle. While these traces may be plainly visible to you, better results can be obtained by USACIL. Examine glass in such cases with great care. You do not want to disturb *any* specks, flakes, chips of paint, or other foreign matter on the glass. And be sure to make specific reference to them in your request for lab examination.

CHAPTER 11

Trace Evidence

Trace evidence is evidence which must be examined, and attested to, by laboratory examiners to be admissible in court. Items that are likely to contain trace evidence are collected by investigators at the crime scene and elsewhere, and shipped to USACIL to be tested by specialists. Lab examiners there determine if the trace matrials have evidence value for the case. They furnish this information back to the investigator to use as leads. The evidence's admissibility in court depends on the examiner's expert testimony. But the usefulness of the evidence in developing suspects and concluding investigations depends on the investigator's ability to recognize, collect, and preserve the evidence for examination.

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Trace evidence at a crime scene can be as obvious as bloodstains or as inconspicuous as dust particles. Trace evidence is easily overlooked, often mishandled, and all too often discarded as useless.

Trace evidence may be left at a crime scene by the offender or may be carried away by him. He may leave tool marks, bloodstains, hairs, fibers, soil, and similar traces. He may carry away bloodstains, hair or fibers, glass fragments, soil, safe insulation. Similar traces may cling to his person, clothing, or equipment.

Be alert to the effect of poor handling of trace evidence. It may negate the value of evidence which would otherwise be admissible in court. For example, a suspect may be returned to the scene of a crime before the scene is completely processed. He could later claim that the hairs or other trace materials found there were left during the return visit. Thoughtless mixing of trace evidence found at different parts of the crime scene can make the evidence worthless, too. Always observe the cardinal rule for handling evidence, particularly trace evidence: Avoid contamination.

Realize that in rare instances, the lab cannot give an opinion about certain evidence. This is usually due to a lack of enough material. Negative findings can be avoided if you follow the guidelines for the amount of a specific item of evidence to collect. Contact USACIL for guidance in specific cases.

TOOL MARKS

A tool mark is an impression, cut, scratch, gouge, or abrasion made by a tool in contact with an object. A tool may make a negative impression, an abrasion or friction mark, or a combination of the two.

A negative impression is made when a tool is pressed against or into a receptive surface. The mark made by a crowbar used to pry open a door or a window is a negative impression. An abrasion or friction mark is

made when a tool cuts into or slides across a surface. This type of mark may be made by a pair of pliers, a bolt cutter, knife, ax, or saw, or it may be made by a drill, a plane, or a die in manufacturing. A combination mark is made, for example, when a crowbar is forced into the space between a door and its facing and pressure is then applied to the handle of the tool to force the door open. The forced insertion of the crowbar makes an abrasion or friction mark. The levering action produces a negative impression. The visible result is a combination of the two.

No two tools are alike in every detail. Thus, they will not leave identical impressions. Tools may have obvious differences in size, width, thickness, or shape. They also have minute differences that are only seen when the tools are examined under a microscope. These minute differences can be caused by manufacturing, grinding and finishing, uneven wear, and unusual use or misuse. They also may be caused by accidents, sharpening, and alterations or modifications made by users of the tools. From these minute differences, it may be possible to identify the tool that made a given impression.

When you discover a tool mark, *photograph it as soon as possible.* It should always be photographed before it is moved, disturbed, or altered in any way. Photographs provide a permanent record of the evidence in its original state and location. They match original evidence with any casts or molds that may be made. They also satisfy the legal need for records of original evidence.

Visually examine the tool mark to note its gross appearance. This can tell you what type of tool or shape of tool to look for. The gross appearance of a tool impression may not be complete or well-defined. For example, a hammer impression on a steel safe may not include the edges of the hammerhead. Thus, the shape of the head cannot be shown. When this occurs, all suspect tools that could have made the mark must be sent to the lab to be examined.

The surface bearing an impression of a tool mark may have been painted. If so, a careful check may show that flakes of paint have been removed. The flakes may be sticking to the tool that made the impression, thus eliminating many suspect tools. The pattern formed by the removal of the flakes of paint may also be of value. Matching the pattern of paint on the tool with that on the impression may be proof that the tool made the impression. If a tool is found with paint like that of the painted surface and the flake patterns look alike, you should photograph the paint pattern formation. Some of the paint flakes might be loosened and accidentally fall from the tool while it is in transit to the lab.

Never fit a tool into a tool mark to see if it could have made the impression. This may prevent the admittance in court of any evidence on the tool and its marks or the paint on the tool and the object bearing the tool mark.

Lab examination of tool marks is based on the same principles and techniques used for fingerprint and firearm identification. Tools leave unique characteristic traces that cannot he reproduced exactly by any other tool. In the lab, test marks are made with suspect tools on materials like those on which tool marks are present. The test marks are then compared with the suspect tool marks under a comparison microscope.

Often the lab will find that the suspect tool made the tool mark in question. Such findings, however, are not always possible. Sometimes the material on which the tool marks are found does not record minor tool imperfections. These imperfections are needed for positive identification of the evidence mark. In such cases, the examination may yield other valuable information that can be used as a lead for further investigation.

An examination of tool marks without a suspect tool can also be of value. A series of burglaries may be linked by comparing the tool marks found at each scene. A match of the lengthwise markings on two pieces of wire may show both were manufactured at the same time, having been drawn through the same die during production. A suspect's possession of a piece of wire that matches a piece found at a crime scene would show the possession was more than accidental. Wood shavings from a drill, plane, or other tool able

to produce wood chips may be matched with the tool producing them.

Each piece of evidence to be sent to the lab must be marked for identification and wrapped separately. Evidence samples should not share the same package unless all danger of mixing has been removed. Tool mark evidence should be wrapped and packaged so that the tool mark and the tool will not be damaged and trace particles will not be lost.

Original evidence is less subject to attack in court than reproductions. You are often not able to make photographs and casts that show the evidence well enough for identification purposes at the lab. Some authorities recommend that casting or other means of taking impressions of a tool mark be used only as a last resort. A casting is never as good as an original impression. This is especially true of tool marks made in soft materials like wood, putty, and paint. Many of the casting media most suited to these materials will not reproduce the fine details needed for identification. Scratches in paint from minute irregularities in the edge of a tool cannot be reproduced by an impression or a cast. Make a cast or a mold from a tool mark only when you have a good reason for not removing the original evidence.

Decide if the original evidence bearing the tool mark should be removed to send to the lab. This is a judgment call. Sending original evidence to the lab is highly desired. But wholesale removal of property or parts of valuable structures is neither desired nor needed. Base your decision on the importance of the case and the value of the tool mark compared with other evidence at hand. Consider the distance of the crime scene from the lab. Check to see if the tool-marked object belongs to the US government or is civilian property.

If the evidence is civilian property, you must contact the owner to make arrangements to return, replace, or pay for items removed. Be sure competent witnesses are present during removal of the evidence. This prevents later claims against the US government. It also verifies the original condition of the evidence.

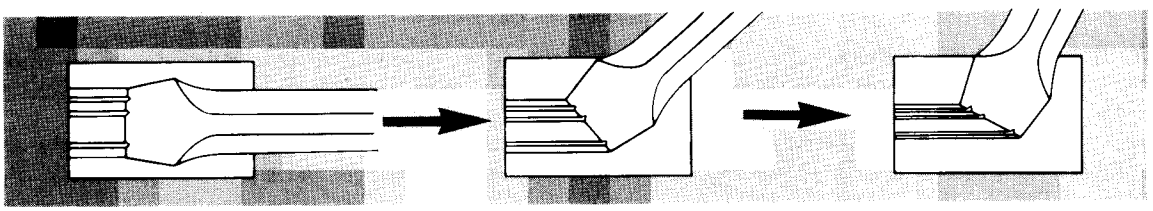
If a tool mark can be removed to send to the lab, remove a piece of the object large enough to keep the tool mark from splintering, bending, twisting, or abrading. And if you remove the marked part of a door, window sash, window sill, or door sill, get that portion of the window or door frame adjacent to the marked area. Also obtain any window latch, door latch, bolt, hasp, or lock that has been cut, broken, or forced for entry. Any tools found at the crime scene must also be sent to the lab with the tool marks.

Clearly mark each item of evidence with the case number, your initials, and the date and time of removal. Also mark the evidence to show the inside, outside, top, and bottom surfaces, and the area bearing the tool mark.

If the surface bearing the tool mark is painted, send samples of the paint to the lab. Even though no paint can be seen on the tool, enough particles may be present for analysis and comparison at the lab. Since some tools also are painted, there may be paint from the tool on the tool mark surface. This can also be compared for possible common origin.

You may know the angle at which the tool was held when it made the mark. If you do, all information that you can provide on the various angles formed by the tool when it was used will greatly help the examiner.

THE EFFECT OF TOOL ANGLE ON A TOOL MARK



The angle of a tool in relation to its direction of movement affects the resulting mark.

A tool mark may be on metal and cannot be removed. Samples of the metal should be taken and sent to the lab. Particles of metal may adhere to the tool in addition to the paint. The metal particles can be analyzed and identified by the lab examiner.

If cut pieces of wire are to be sent, clearly mark the suspect end of the wire. When cutting the wire to send to the lab, do not cut it with the suspect tool. Matching the cut ends of wire can help identify related items. For instance, if a stolen automobile radio cannot be positively identified by the owner, matching a radio wire to the wire attached to a car can show it to be originally from that vehicle.

SERIAL NUMBERS

Serial numbers are placed on many manufactured objects to distinguish one item or model from another. Serial numbers may consist of numerals, letters, symbols, or combinations of the three. Serial numbers are often the only way to show ownership. Items with serial numbers can often be traced from the manufacturer to the wholesaler, and on to the jobber, the retailer, and, finally, the purchaser.

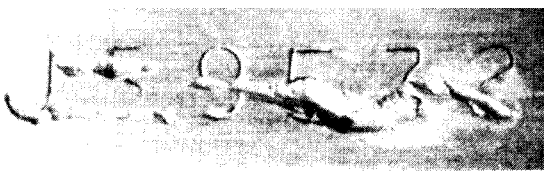
Owners of items lacking manufacturer's serial numbers often place their own marks or serial numbers on the items. This helps identify the item should it be stolen.

Serial numbers or private marks may be stamped, molded, etched, or engraved. Some items, such as automobiles, weapons, and watches, bear serial numbers on several parts. If you find an object from which the serial number seems to have been removed, search the object for other numbers. Such numbers are often found in hard-to-find places.

The military services buy in large quantities. Often they do not initially record individual serial numbers. Shipments are accounted for by lot numbers and shipping and receiving documents. Sometimes other means are used to speed the movement of supplies. Often the manufacturer of a serially numbered item can give the lot number. It may also have data of other recorded items bought by the military services. As the bulk shipment is broken down for issue to units, the serial numbers are often used for records and identification. Lot numbers or shipping document numbers often narrow the search to the unit of ownership.

There is no easy way to know if a serial number that has been removed can be restored. And there is no method that you can use in the field to find this out. But the lab can determine whether a serial number can be restored or not. *All items* that seem to have had the serial numbers removed should be sent to the lab.

Neither the material from which an item is made nor the method used to affix the serial number automatically preclude restoration. Serial numbers have been restored under the most adverse conditions. Conversely, restoration attempts have failed when conditions seemed most favorable.



Example of serial number restored by the lab.

JEWELERS' MARKS

While jewelers' marks are not serial numbers, their use in tracing stolen property can be of value. When an item is given to a jeweler for repair, it is common practice for the jeweler to place a small, identifying mark in a hard-to-see place on the item. This mark is often inscribed with a very fine engraving tool. The mark is engraved under magnification. Therefore, the mark is often visible only when viewed under equal magnification.

Jewelers in the same locale often know each other's markings. When you find a mark, try to locate the jeweler who inscribed it. The jeweler may be able to identify the person who brought the item to the jewelry shop.

LAUNDRY AND DRY CLEANING MARKS

Laundry marks are used to identify the owner of an item of clothing. When you find laundry marks, process the garment for visible trace evidence like hairs, fibers, paint chips, and glass fragments. Then, search for laundry marks using strong cross lighting. The garment should then be sent to the crime lab for further examination. Include any information about discovered markings and how they were discovered. This information will aid the lab examiner in his examination and prevent duplication of effort. Using light sources of varying wavelengths, the lab examiner may find markings that otherwise would be invisible.

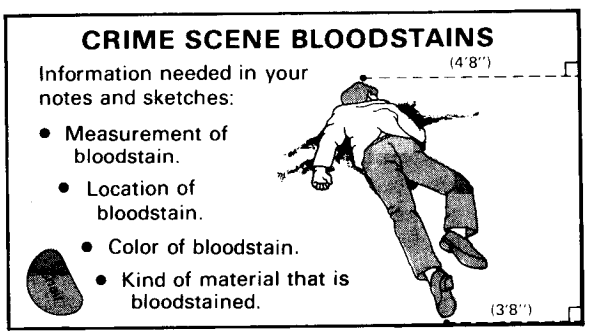
Once a laundry mark is found, be prepared to spend long hours going through the records of the laundry or drycleaner. Neither quartermaster laundries nor civilian laundries and drycleaners have people on hand to search records. In cases involving quartermaster laundry marks, it is often best to first check post locator records for a possible identification of the suspect. Compare all names starting with the initial letter of the laundry mark. Then compare the serial numbers. You may also have to check the records of other posts in the area. The machine records unit serving on Army area or a major overseas command may also be able to provide rosters for search purposes.

Civilian laundries and drycleaners must often make their marks a matter of record with local police departments. Seek help from local police to identify a laundry or cleaning establishment when commercial markings are found. If such records are not kept, you will have to check all local laundry and drycleaning businesses. If local searches are unsuccessful, a request to the FBI may prove useful. The FBI keeps a complete file of all invisible laundry marking systems. If their files do not have information on the mark in question, they may be able to furnish information of value in further investigations.

BLOODSTAINS

In crimes of violence, bloodstained evidence, if properly handled, is very valuable. Sometimes the evidence is in the form of fresh or clotted blood. More often, it is in the form of fresh or dried bloodstains. Blood clots and bloodstains require careful examination. No blood clot or bloodstain is so characteristic in appearance that you can definitely tell its origin.

The body has a defense mechanism against excessive bleeding. As soon as bleeding starts in any great quantity, the blood pressure automatically drops. Consequently, the rate of bleeding slows. Upon death, blood pressure falls to zero and bleeding ceases. The only exception is a large wound located where drainage due to gravity will occur. This drainage is a mixture of blood cells, serum, and often, other materials. It is generally quite dark in color, and may collect in great quantity. The amount of blood around a body may be important. A lot of blood seemingly coming from a small wound would indicate that the victim survived the attack for a fair length of time.



Blood, as it dries, darkens in color until, when completely dried, it turns reddish-brown or dark brown. An old, dried blood clot may become so dark that it is almost black. Blood may fall on porous material, like cotton, wool, blotting paper, porous brick, or soft wood. Should this happen, the original color may be changed by its being absorbed into the porous material. And mold, putrefaction, or chemical changes may cause bloodstains to appear to be black, green, or blue to grayish-white instead of the usual reddish-brown. The color of the blood should be noted.

A bloodstain on a dark background may be hard to see. A flashlight may help you see the bloodstain. Under artificial light, a dried bloodstain on a dull background may appear as a glossy or flat varnish. Indoors, with limited light, dried bloodstains on a dark surface may be made more visible by shining a flashlight beam parallel to the floor.

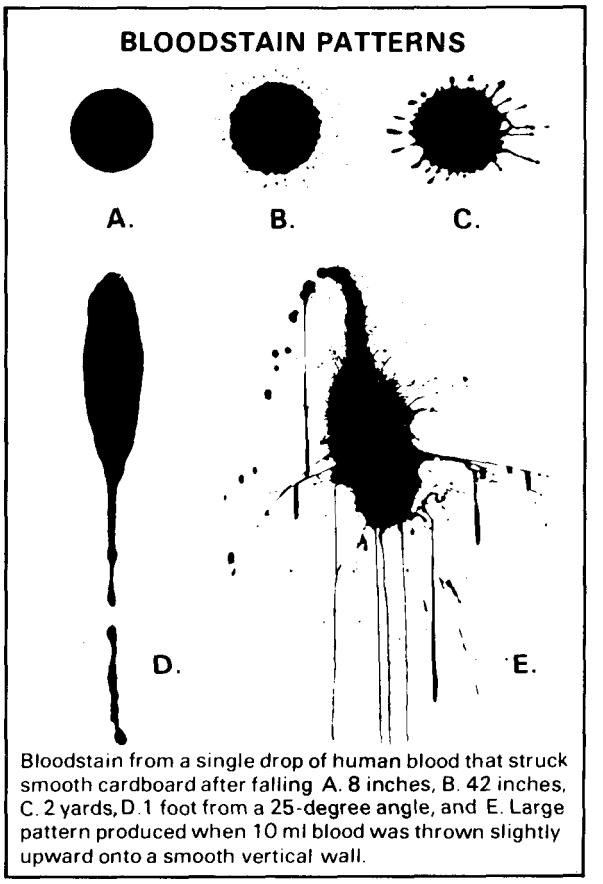
SHAPE, PERSISTENCY, AND AGE

The shape of bloodstains may yield important information about the circumstances of a crime. In many cases the height from which a drop of blood fell may be told by the appearance of the bloodstain. The hydrodynamics of bloodstains and splashes help in the reconstruction of crimes. The surface on which blood falls influences its shape, as does the height from which it drops. On a smooth surface, if the height of the fall is short (6 to 12 inches), the bloodstains may appear as circular disks. If the height is from 12 to 60 inches, the edges of the bloodstain may be jagged. This jaggedness increases as the height increases. The greater the height, the more jagged the edges. If a drop falls from an even greater height (2 or 3 yards), it may splash on impact and form many small bloodstains. These are often concentrated around a large central bloodstain, giving a sunburst appearance.

Drops of blood which strike a surface at an angle may bounce or splash. This leaves a large, main, teardrop-shaped blot with a series of smaller blots trailing off in the direction of fall. The pattern is similar in appearance to an exclamation point. Often the larger splash is made first and the smaller ones afterwards.

Do not make hasty conclusions about the direction of travel of a person from the appearance of bloodstains. The material on which blood falls may change the original shape of a drop as it strikes. Bodily movement can cause blood to fall in a direction opposite to that in which the person is traveling. The shape of a bloodstain also depends on the blood's viscosity at the time it drops and the composition of the material it hits.

Sometimes, blood may be identified on skin or a garment that has been washed, if the washing is not thorough. If a garment has been washed with soap and water, residual bloodstain traces often cannot be identified as blood. But washing of the hands may fail to remove all traces of blood. Look for blood traces under fingernails and around cuticles.



Bloodstain from a single drop of human blood that struck smooth cardboard after falling A. 8 inches, B. 42 inches, C. 2 yards, D. 1 foot from a 25-degree angle, and E. Large pattern produced when 10 ml blood was thrown slightly upward onto a smooth vertical wall.

There is no way to judge the age of a bloodstain with any degree of certainty. Clotting time can be altered by many factors. Blood usually clots in 10 to 20 minutes. Examination of the clot may help you determine how much time has elapsed since the stain was made. Clotting is more rapid on a rough surface than on a smooth one. Oily substances may increase the clotting time. They can also alter the appearance of the blood. Even the peculiarities of someone's blood may affect the clotting time. A single drop of blood that falls on a dry surface often dries in about an hour at room temperature. Blood that has collected in a pool dries slowly. The drying time depends on the size and depth of the pool. Temperature and humidity also affect the drying time.

Microscopic examination may disclose the origin of the blood. Mucus or hairs from the nostrils may be found in blood from the nose. Semen and genital hairs may be found in blood from a rape. Certain cells from the vagina may be in blood from menstruation. However, the absence of these elements or particles does not necessarily disprove that the blood originated in the part of the body from which it was believed to have come.

PROCESSING PROCEDURES

The value of the information gained through the examination of bloodstain evidence depends mainly on your use of proper methods in collecting, identifying, preserving, and shipping the evidence to the crime lab.

Damp articles to be checked for trace evidence should not be packed or sent to the crime lab until they have thoroughly dried. Garments from the victim and suspect should not be dried in the same room. A covering for the garments can be used to reduce any disturbance. Bloodstains must be allowed to dry naturally. *Heat or fans should not be used.* If heat is applied to a bloodstain, physical changes take place within the bloodstain. A fan may blow foreign material onto the bloodstain. And the airstream from a fan may remove hairs, fibers, or other microscopic particles that may have a bearing on the case.

Use clean wrapping paper to pack bloodstained articles. Wrap each bloodstained article separately before it is boxed for shipment to the lab. Wrapping prevents stains or other microscopic evidence from being transferred from one article to another.

When a bloodstain is on clothing, the entire garment, whenever possible, should be sent to the lab to ensure a complete analysis. When a bloodstain is on a large object, such as a rug or a drape, the bloodstained portion may have to be removed. Included some of the unstained material from near the bloodstain for use as a control sample. *In all cases*, send as much of the dried stain as possible. A photo of the item detailing the stained area should accompany the sample.

When the bloodstains are on fixed objects or objects too bulky to be sent easily, other means should be used. The part of the object bearing the stain should be removed and sent to the lab, if at all possible. Stains may be on objects which cannot be cut, such as concrete floors or metal safes. Objects such as these are scraped and the crusty portion of the stain placed on a clean piece of paper. The paper is then folded and placed in a proper container. The remainder of the stain is taken up on a swab dampened with distilled water. Rub the swab on the stain, let the swab dry, and place it in a container. For control testing, an unstained area near the bloodstain should be swabbed, dried, placed in another container, and sent to the lab.

If the bloodstain is on a porous material like wood or earth, send the bloodstain and a portion of the material the bloodstain is on. Thus, proper control tests can be made. Place the material in a clean pillbox or similar container. Then label the container with identifying data and seal it to prevent leakage.

LIQUID SAMPLES

Sometimes, you must get liquid blood samples to send to the lab with other evidence. Blood samples should be drawn by a medical officer or a trained medical technician. Medical personnel may take samples of body fluids like blood and urine from soldiers without their consent when authorized to do so by a search warrant or search authorization. Fluid samples may be taken from nonconsenting soldiers without a warrant or authorization if there is clear evidence that a delay could destroy the evidence. The samples should be taken at a medical facility where proper precautions can be taken to prevent contamination of the samples. Medical facilities have sterile containers available for sending samples to the lab.

The amount of liquid blood needed for lab examination is about 5 cubic centimeters or one-sixth of an ounce. Two tubes of blood should be sent: one with an anticoagulant, the other without. Do not add any preservatives to whole blood. They interfere with the blood tests. If there is a delay in sending drawn blood to the lab, use refrigeration. But the sample must not be frozen.

Send blood samples to the lab by the fastest means to keep them from deteriorating. The quickest means is usually registered mail or a courier traveling by air. Do not package a liquid blood sample with other specimens. If the container breaks or leaks, it could contaminate other evidence in the package. Liquid samples should be shipped in properly labeled, sterile, tightly sealed glass containers. They must be packed to prevent breakage.

LAB EXAMINATION

Preliminary lab examinations of an alleged bloodstain use chemical tests to tell if the stain is a bloodstain. If the results are negative, the stain cannot be blood. If the results are positive, further examination and testing are required. The chemical tests may not be conclusive. Other substances, common chemical compounds, and certain body discharges may also give positive results. The lab's inability to provide information on bloodstain evidence is often due to unsuitable samples. Unsuitable samples are caused by late shipment or contamination of the evidence.

If testing shows that the stain is a bloodstain, it must be learned if the blood is human. The evidence value of a bloodstain may be seriously impaired unless the stain is shown conclusively to be human blood. A suspect may claim that the stain is blood from an animal that the suspect has handled in some way.

The preferred test for human blood is the precipitin test. The test is a complicated lab process. It requires an adequate blood sample. For this reason, you should send as much of a bloodstain as you can to the lab. The minimum amount needed for this test cannot be stated because reactions vary according to the condition of the sample. The lab approach to the problem will depend on the size and condition of the bloodstain. The nature of the object bearing the bloodstain also affects the test.

If the blood is determined to be human, it can be tested to determine its blood grouping. The blood of every human being belongs to one of four blood groups: O, A, B, or AB. Blood grouping is based on the presence or absence in the blood of group-specific substances, either singly or in combination. The blood group is not changed by time or disease.

Approximate Percentages of A-B-O Blood Factors in General Population

Group O . . . 44%	Group B . . . 10%
Group A . . . 42%	Group AB . . . 4%

Grouping dried bloodstains is more difficult than grouping liquid blood. The age of the bloodstain or the degree of exposure to direct sunlight, extreme temperatures, and other natural conditions may yield changes that reduce the possibility of successful grouping. In the case of a putrefied or embalmed corpse, grouping tests may be done on the tissues.

For blood group testing, the lab needs more than a small spot of blood. If specimen quantity is limited, the grouping tests may have to be eliminated entirely. Testing is then limited to chemical and, precipitin tests. Larger samples improve the chance of getting the most information from lab tests. A fairly heavy bloodstain measuring ½ inch by ¼ inch is usually enough for a conclusive grouping test. Samples less than this size must not be arbitrarily discarded as being insufficient. Testing may also show blood group subgroupings, Rhesus factor, MN grouping, polymorphic proteins, and the presence of some diseases.

OTHER BODY FLUIDS

In eighty percent of the population other body fluids contain the same substances needed for blood grouping. Eighty percent of the population are secretors. A secretor is someone whose body fluids, as well as blood, can be grouped. A nonsecretor's blood may be grouped, but other body fluids cannot be grouped.

In secretors, the same factors that make it possible to tell one blood from another are present in the cells of all organs of the body and most body fluids. The concentration of grouping factors in saliva and semen secretions are quite high. Conversely, the concentration in tears, urine, and perspiration are very low.

In some people, semen can be typed when the group-specific factors of the blood are carried in the fluid. Some isoenzyme typing can also be conducted on semen. Saliva usually provides a reliable typing. The typing of urine and other body fluids is subject to many more variables. Therefore, typing of these fluids is less reliable.

If there is not a large enough sample of blood to determine grouping, sometimes other body fluids may be used. In criminal cases, body fluids often appear as stains on clothing, bedding, upholstery, or like objects. In examining a body-fluid stain, the techniques and methods of identification are the same as for bloodstains. However, identifying body-fluid stains can be harder, depending on the substance that made the stain, the stain's age, and the presence of interfering factors. When handling evidence on which stains may have been caused by body fluids, take the same precautions used in handling and shipping bloodstains.

SALIVA

The possibility of utilizing the dried remains of body fluids other than blood should never be overlooked. Accurate groupings have been made from saliva found on a cigarette butt. Saliva is the most suitable material for distinguishing secretors from nonsecretors. It is easy to get, and, if the person is a secretor, the high concentration of group specific substances can be easily noted. If group-specific substances are present in the saliva of a person, they are often present in almost all other body fluids.

A known saliva sample should be taken from suspects and victims to see if they are the secretors, and if so, what their blood types are. Do this by having each person chew on a separate piece of thin gauze about 2 inches square for about five minutes at the back of the mouth. Allow the gauze to air-dry completely. Then place it in a sterile container and send it to the laboratory.

If the gauze is not dried, bacteria will destroy the blood group substances. This may lead to an incorrect result in later testing. Blood samples should also be obtained and submitted.

Like bloodstains, the identification of a body fluid stain may be negative or inconclusive. However, remember that valuable leads may come from the expert examination of a body fluid stain. If a dried saliva stain having group substances is found, it could not have come from someone whose saliva does not have these substances. If the dried stain is free of these substances, the saliva may come from a person who is a nonsecretor. Also, the specimen of saliva may be free of the grouping substances due to contamination or deterioration. When this is the case, a definite opinion is not possible.

SEMEN

In case of rape or sexual assault, it may be alleged that the attacker had an emission. If so, the identification of the semen is of paramount importance. Semen is a colorless, sticky fluid produced in the male reproductive organs. It is often found in the form of stains on clothing, bedding, or like articles.

Fresh, undried semen has a characteristic odor. Semen contains thousands of minute organisms, known as spermatozoa, which die as the semen dries. Spermatozoa keep their shape indefinitely if they are not destroyed by handling. In its dried state, semen appears as a grayish-white, sometimes yellowish, stain. It gives a starchy stiffness to the part of the fabric that has been stained. Suspected fluid or stains may be identified as semen by the lab even if the attacker has had a vasectomy. Specific tests for semen involve identification of the spermatozoa and chemical testing of the stain.

Items believed to bear seminal stains should be handled with care at all times. It is imperative that stained items be packed and shipped in such away that there is no friction against the stains. Package each piece of evidence separately. Secure the stained items to avoid friction. Never roll or fold a stained area. Stains must be allowed to dry.

Inspection of evidence under ultraviolet light sometimes helps find the location of semen stains. Semen stains have fluorescent qualities. Laundering almost always removes traces of seminal stains, but you should check for them in any event.

HAIRS AND FIBERS

The value of hairs and fibers as evidence in criminal cases has been clearly recognized. Hairs and fibers are seldom conclusive evidence. But in conjunction with other details, they have proven to be important and essential aids to investigators. You must capitalize on the importance of this type of evidence during the initial phase of the investigation.

The origin and texture of hairs and fibers found at a crime scene or on the body, clothing, or headgear of a suspect or a victim may be highly important as evidence. This is especially true in homicides and sex crimes. Hairs may be pulled out during the crime and left at the scene or on the victim. Hair and fiber transfer may take place during any physical contact between a suspect and a victim. Hair may fall out under conditions that a suspect is not aware of and cannot guard against. Properly handled, hair and fibers may yield excellent investigative leads and add to the evidence facts being assembled.

HAIRS

Structurally, a hair is composed of the tip end, cuticle, cortex, medulla, and bulb or root. Each of these parts provides the lab examiner with definite information.

During examination, the lab usually will first see if the hair samples are animal or human. If the hairs are from an animal, a general determination of the species may be made to see if the hair comes from a cat. a dog, a horse, a cow, or other animal.

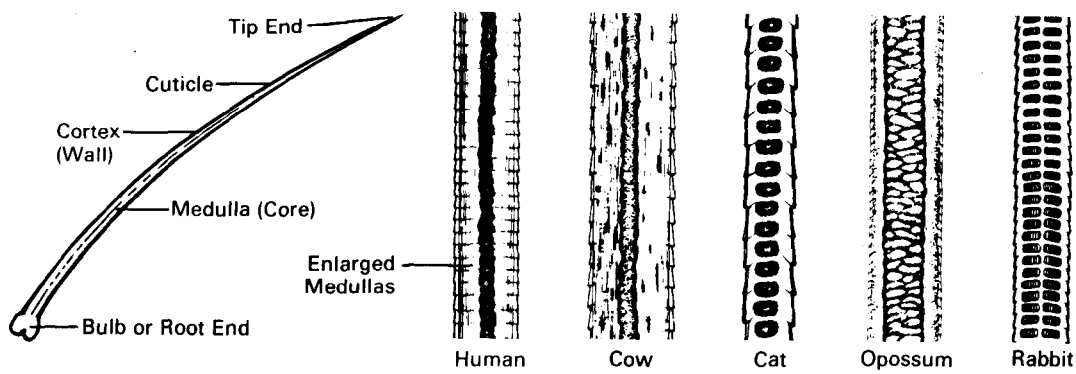
In the case of human hairs, lab determinations may yield several findings. They may show the race of a person. They may show where on the body the hair originated, such as the head, face, chest, armpit, limb, or pubic area. The findings may show if the hair was removed naturally or forcibly. They may show if the hair was bleached, dyed, or waved. They may also show if the hair was cut with a dull or a sharp instrument, the recency of cutting, and if it has been crushed or burned. They may also show if blood grouping and sex can be estimated or determined.

Lab comparisons of hair generally will result in one of three conclusions. The hairs are dissimilar and did not come from the same individuals. The hairs match in terms of microscopic characteristics and blood groupings and came from the same person or another person whose hair has the same microspopic characteristics. Or the comparisons may show that no conclusion can be reached concerning the hair's origin.

FIBERS

Most fibers are classed as mineral (glass asbestos), vegetable (cotton, linen, hemp, jute), synthetic (rayon, nylon, acrylic, polyester) or animal (wool, silk, furs). Classifications vary greatly by color and type of processing, by yarn and thread composition, and by end use. Fabrics, tapes, ropes, and like end products may lend themselves to fiber examination and instrumental analysis.

STRUCTURE AND COMPARISON OF HAIRS (MEDULLAS)



Contact between two pieces of fabric seldom can be made without an interchange of fiber material. If contact occurs, the victim's and suspect's clothing may exchange fibers. Common sources for fiber transfers may show a link between a victim or a suspect and a certain place. These sources include carpets and rugs, shoes and other footwear, and upholstered items, such as sofas, chairs, and automobile seats. In burglary cases, contacts of clothing with objects should be considered during examination of the crime scene and the suspect's clothing for fiber evidence. Points of entry, such as windows, and means of access to roofs, ladders, or drain pipes may yield valuable fiber traces.

Fibers can be identified by type, color, and matching characteristics based on microscopic and instrumental analyses. Fiber matches are seldom, if ever, positive evidence. They require substantiation with other corroborative evidence.

Fabric composed of knitted or woven yarns are grossly examined in terms of color, composition, and construction. Questioned fabrics may be found to be like known fabrics.

Tape examination often involves matching the ends of pieces of tape used at the scene of a crime with the end of the tape on a roll found in the possession of a suspect. Cordage, in the form of rope and string, is examined for composition, color, diameter, and construction. The known is compared with the unknown. Sometimes, ends can be matched, or the manufacturer can be learned.

PROCESSING PROCEDURES

Hair and fiber evidence is very susceptible to cross contamination. Be sure that evidence gathered from a suspect and a victim is not intermingled. Evidence must be individually collected; marked; and kept separated during packing for shipment. Detailed examination for hair and fibers should be left to the lab.

When collecting known samples from the victim or suspect, gather a large quantity. Twenty hairs or fabric strands are considered the minimum sample, Only a doctor should collect sample hairs from the body of a victim or a subject. These samples should be obtained from any of the parts of the body that could be involved in the crime. Hair combings and representative samples of pulled hairs should be submitted.

Place hair and fibers on a clean piece of paper, then fold the paper into a packet, and put it into a clean container.

When transparent adhesive tape is used to collect the hairs and fibers, place the tape, adhesive side down, on the inside of a document protector from which the paper insert has been removed or on the inside of a plastic bag. Seal the document protector or plastic bag in another container. Under no circumstances should you affix the tape to an index card or other paper. Envelopes, sealable around all edges, and plastic or kapok bags should be used as containers for hairs and fibers.

FINGERNAIL SCRAPINGS

Fingernail scrapings should be exploited to the fullest advantage. The cause of abrasions and scratches found on many parts of the body are often from fingernails. The face, neck, arms, thighs, and genitals are the places commonly attacked. These should be given a careful medical examination. The form, extent, and location of abrasions will depend on the circumstances in each case.

A victim's resistance to a sexual assault often results in gouges caused by the assailant's or the victim's fingernails. Minute particles of fibers, skin, blood, hair, and cosmetics found under the fingernails may help link the suspect and the victim.

Examination of the fingernails of an unidentified corpse may show that person's occupation. Fingernails that are trimmed, but not regularly manicured, and that bear scratches may indicate some manual labor. Fingernails that are beveled, brittle, growing tight at the corners, rounded at the ends, and regularly manicured may indicate a lack of manual labor. Fingernail scrapings may also show that a person has handled narcotics, marihuana, or poison.

The residue under a suspect's fingernails may have traces of substances from the crime scene or from the victim's body or clothing. Scrapings should be taken from all of a suspect's fingers, preferably before the suspect can bathe or clean his nails. Scrapings should be kept separate and placed in appropriate containers.

In taking fingernail scrapings from a suspect or a victim, do not use a knife, a file, or any other hard, sharp instrument. It may cause bleeding and contaminate the nail scrapings. The best item to use is the blunt end of a flat, wooden toothpick. Use a different toothpick for each finger. As you take the scrapings from each finger, place the toothpick and the scraping on a clean piece of paper. Then fold the paper and place it in a proper container. Each container should be marked to show the finger from which the scraping was taken. The packed scrapings are then sent to the lab for examination.

SOILS, ROCKS, AND MINERALS

Soil, rock, and mineral evidence may be left at a crime scene several ways. A suspect may leave small amounts of rock, soil, or mineral evidence that he or she has carried therefrom some other place. The suspect may pick up particles at the crime scene, Or the suspect may both pick up and leave particles of evidence.

When a building is broken into, the perpetrators may damage or breakthrough a variety of building materials. Building materials include plaster, plasterboard, insulation, sheeting, cinder block, mortar, and brick. Composition, texture, and color combined with the likelihood of transfer to the person or clothing of the suspect make the collection and examination of these mineral materials a must.

The penetration of a safe's walls may cause its insulation to be broken. Dust from the insulation may be scattered about the scene, and the suspect may get it on his or her clothing. Close examination of the scene may also show well-defined footprints in the dust. The substances used to insulate or fireproof safes vary from manufacturer to manufacturer. The exact composition of each is a trade secret. The lab has data on the types used by major manufacturers, and can compare and study evidence samples.

Dust in a building may get on the shoes *or* clothing of anyone burglarizing or illegally entering the building. The dust may contain substances in proportions and combinations that will let lab chemists show that the dust could have come from a certain place. For example, house dust may contain lint from clothing, bedding, drapes, and upholstery. Dust may contain wood fibers from the floor and furniture. It may contain paint and plaster particles. Dust may also contain human and animal hairs and skin cells, soot, plant wastes, and residues from floor waxes and cleaning compounds.

Dust or grime from a vehicle repair shop is likely to contain metal particles. The grime can include dust from road surfaces, rubber and paint particles, and lint and fibers from vehicle upholstery and seat covers. Traces of lubricants, fuels, battery acids, and antifreeze compounds may also be present.

Besides linking a suspect to the crime scene, soil, rock, and mineral particles may yield clues as to a suspect's occupation or former whereabouts. The particles may show whether a suspect walked or rode to a crime scene. For example, in a hit-and-run accident, the offending driver or vehicle may both pick up and leave soil and rock evidence. The collision may dislodge mud, dirt, and other debris from the undercarriage of the hit-and-run vehicle.

Dislodged particles may be present on the road, on another vehicle, or on a victim's body and clothing. Also, the offending driver may get out to check the damage, to disengage the vehicle, or to make minor adjustments so he or she can flee the scene. In the process, the offending driver may pick up mud or other debris on his or her person or vehicle.

Soils and rocks vary in different locales throughout the world. Differences may be found within small local areas. The differences between two types of soil, such as sand and clay, are easily recognized.

Detailed differences and similarities between samples of similar soils or similar rocks can be found only by the lab chemists.

Take samples of rocks and soils from the crime scene to use as standards for comparison with like substances that may be found on suspects. For serious offenses, even if there is no suspect, you should still take comparison samples. Each soil sample should be at least one-half cup, if possible. In taking a sample, it is seldom necessary to go deeper than one-half to three-fourths of an inch. However, if a footprint, tire track, or other indentation penetrates into the subsoil, you may have to take a sample of both the topsoil and the subsoil.

If soil and rock evidence is found on a suspect's shoes, take a comparison sample from the portion of a footprint at the crime scene that corresponds to the part of the shoe on which the evidence was found. Comparison samples are taken from footprints, tire tracks, or other evidentiary indentations only after a plaster cast has been made. A competent witness should be present when comparison samples are removed, packaged, and marked.

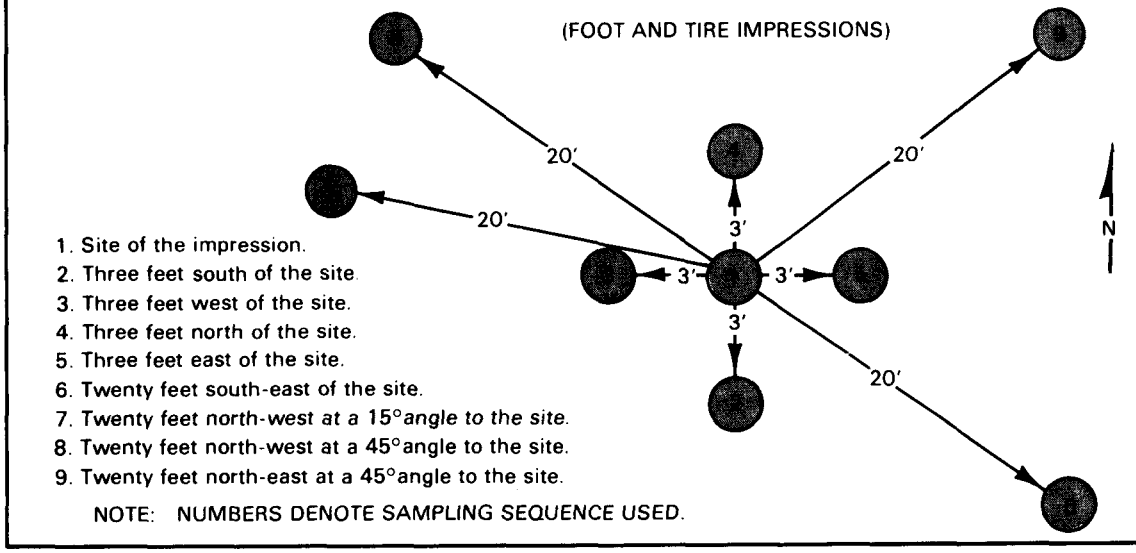
Comparison samples should be taken at various distances from a given starting point. The starting point may be a footprint, a tire track, or a place where the suspect would be likely to pick up soil on his clothing, shoes, vehicle, or tools. Taking samples at varying distances makes sure the samples are representative of the area's soil characteristics. Record on your sketch and in your notes where the samples were taken. Send a copy of the sketch to lab with the samples. Use careful handling to prevent mixing of samples. This ensures the evidence's value at a later time.

At the scene of a hit-and-run accident, take samples of the soil where the hit-and-run vehicle ran off the road. Check the road surface carefully for mud flakes that may have been dislodged from the hit-and-run vehicle. If other vehicles are involved, take comparison samples from the under-carriages of each vehicle.

If you find a vehicle that you suspect of being the hit-and-run vehicle, get soil and dust samples from its tires, undercarriage, brake pedals, and floor mats. Send the samples to the lab for analysis and comparison with other evidence and samples from the case.

Comparison samples from road surfaces and shoulders and from vehicles involved should be between two tablespoonfuls and one-half cup of soil or dust from each place sampled. All evidence gathered from the road should be sent to the lab.

INVESTIGATOR'S SKETCH SHOWING COLLECTION POINTS OF SOIL SAMPLES



In your sketch of the crime scene and your notes, show the points where soil and rock evidence and comparison samples were taken. The sketch should show both compass directions and measured distances.

When collecting and packaging evidence and samples, do not mix evidence items with each other or with comparison samples.

New or unused medical pillboxes and small cardboard containers with tight fitting covers (like those used for packaging ice cream), sealed tightly with cellophane or other adhesive tape, are good for packaging dry soil samples. If the soil samples are wet, let them dry naturally in a dust-free room. Do not dry soil samples with artificial heat. Do not remove soil from items like garments unless absolutely necessary. Doing so can destroy any layering that may be present.

Promptly pack soil and rock evidence or samples that might contain petroleum products or other volatile materials into mason-type jars with tight fitting metal lids with rubber rings or heat-seal them in kapok bags. Close jar lids tightly and seal the edges. New, unlined metal paint cans can also be used. Mark each container for identification. The containers are then packed in a large sturdy container for shipment to the lab. Use excelsior, cotton, or crumpled paper to fill any vacant spaces in the package. This provides added protection for the samples.

Given enough samples that are correctly collected and identified, lab personnel can learn many things. Lab tests can show if two samples of rock or soil could have come from the same place. They cannot be more positive than this because it is possible, though not likely, that samples from two different places may be identical. Lab tests may also be able to show that two specimens of soil and rock could not have come from the same place.

The lab cannot specifically show where a sample of a particular substance came from just on the basis of known geological patterns. Lab analysis, however, may yield the exact contents of a sample. This information may, in turn, lead you to look for local areas, with corresponding characteristics, that have the same general type of soil or rock as shown by the lab's analysis.

PART FOUR

PROCESSING CRIME SCENES AND INVESTIGATING OFFENSES

CHAPTER 12

Crime Scenes

CONTENTS

Processing a crime scene incorporates several separate activities: helping victims; safeguarding the scene; recording the scene in notes, sketches, and photographs; searching the scene for evidence; and processing, collecting, and preserving the evidence that is found. Although in theory these activities are done in the order just mentioned, in fact they often need to be done in an on-going, overlapping, almost simultaneous undertaking. For example, safeguarding the scene from undue change is always one of the first acts to be taken on arrival at a crime scene. But it is also an on-going activity during the search of the scene and the processing of evidence. And the search of the scene may unearth fragile items of evidence that must be processed and collected as they are found, rather than after the preliminary search is completed. And finding evidence in an unexpected location may alter the area designated as the crime scene, expanding and adjusting the area to be searched and safeguarded.

There is no exact set of rules for defining the boundaries of a crime scene. The best physical evidence is found most often at or near the site of the most critical action that was taken by the criminal against the property or the victim. For example, the most likely place to find vital physical evidence at a death scene is near the body, rather than at some distance away. Likewise, the site of forced entry into a building, or the area near a cracked safe, often has the greatest chance for yielding evidence. On the other hand, valuable evidence may be discarded or mistakenly left by the criminal some distance from the immediate crime scene. Therefore, it is very likely that the dimensions of a crime scene will be larger than just the area nearest the event.

The first MP to arrive at the crime scene have the critical task of securing the crime scene. They will protect the crime scene to preserve its physical aspects so that it can be examined in detail by crime scene investigators and/or lab examiners. They will prevent unauthorized intrusions and protect the scene from change until an investigator arrives. They will prevent unneeded movement of physical evidence, which can render the evidence useless. They will rope off entrances and exits and routes possibly used by the suspect. They will post guards to control spectators near zones that seem likely to yield physical evidence. If it is needed, they will reroute traffic. And the y will cover fragile evidence and areas that could be affected by rain, snow, wind, smoke, or direct sun rays.

They will be aware of the need to cooperate with investigators, lab examiners, and other specialists who may have to search and process the scene later. The arriving investigator can expect whoever secures the scene to make all of his or her information immediately available. For example, if an item was touched or moved to protect it from the weather, that fact will be made known.

Knowing that details are important, the MP who arrive and secure the scene can be expected to provide their observations on any changes.

PRESERVING THE SCENE

The success of a case depends heavily on initial actions and observations taken by the first investigator to arrive at the crime scene. Although the actions taken to find and preserve physical evidence will vary from case to case, certain procedures apply to all cases.

As you approach the scene your actions should be calm and deliberate. Always expect the worst. It is better to take too many precautions at the crime scene than it is to take too few. Keep an open mind about the crime. Reaching conclusions too soon may lead to carelessness and false moves, which may be disastrous. Errors in safeguarding and inspecting the crime scene can never be corrected.

If there are injured persons at the crime scene, *aid them first.* If enough MP are on hand, the steps needed to protect the crime scene should begin as you give aid to the injured or examine the dead.

You must prevent unneeded walking about. Take precautions to prevent walking in areas that are likely to bear the impressions of footprints or tire tracks. Use caution and avoid places where possible clues may be found. Avoid touching doors, doorknobs, light switches, floors, and windows. Avoid using the telephone or smoking at the scene. Do not use the toilet, turn on the water, or use towels at the crime scene. The criminal may have used the bathroom. He may have used towels to wipe bloodstains from himself or his weapons. Or there may be blood caught in the sink or commode trap.

If you are an MP investigating a crime that will require the services of a USACIDC special agent, *you must protect the scene until help arrives.* Do not move any items or disturb the bodies of deceased persons. Usually, you cover a body only after it has been fully processed for evidence. If you cover it too soon, you could change or destroy valuable trace evidence. Do not touch items or surfaces that are likely to yield latent fingerprints. Do not allow any item to be removed from the scene without specific permission from the crime scene investigator or the crime lab examiner who is in charge of the case. Restrictions must not be lifted until the person in charge has specifically released the crime scene or, at least, until the search is done.

In extreme cases, you may need to move things that could be evidence from areas where they might be destroyed or drastically affected by the elements or other unavoidable circumstances. However, moving evidence before it has been fully examined and processed should be avoided if possible. If you move evidence prematurely, its original position should be recorded in your notes. Take closeup photographs if you can.

Helping victims, apprehending suspects, detaining witnesses, and requesting needed assistance are integral parts of the actions taken by the first MP or investigator on the scene. You must ensure that victims and witnesses are treated with dignity and consideration. Be sure to tell them of services available to them from the victim and witness liaison at SJA. Provide them with other assistance indicated by circumstances and allowed by AR 27-10. See AR 190-30 for specific guidance.

Keep suspects and witnesses separated if possible. Tell witnesses not to discuss the events. If witnesses talk to each other, they may distort each other's impressions. They may come to think they saw things that they really did not see or that never took place. And you should not discuss the crime with witnesses and bystanders. Your doing so could jeopardize the case. But listen attentively and unobtrusively. By being alert you can often pick up information of vital importance to the case.

Do not discuss the crime with the news media. Never give information to reporters. Informing the news media is the duty of the public affairs officer. Your stated reason for declining to give information should be that

you do not want to show favoritism. Referring to standing orders that prohibit you from talking to reporters may be seen as misguided zeal or an unwillingness to cooperate. In dealing with reporters, be firm but not curt nor nonchalant, even when the reporters are persistent. Remember, reporters often give valuable help in the investigation of major crimes. Press passes should be disregarded when you are protecting a crime scene.

You may need to setup a briefing area for commanders or other officials who arrive at the scene. The briefing area should be close enough to the scene to give the officials an overall view of it while they are being briefed on the circumstances of the crime. The officials should be asked to refrain from examining or disturbing objects or aspects of the scene. They should be reminded that the integrity of the scene must be maintained until the investigation is completed.

As soon as time permits, make note of certain details. Note the time when the crime was committed, the time when the MP were first called, and the time when the MP arrived on the scene. You should also note weather conditions like sky conditions and the presence of rain, snow, fog, and wind. Note the humidity factor, visible air pollution, the temperature both inside and outside, whether the ground is wet or dry, and any other conditions that may aid the investigation.

Other details that should be noted include the following:

- **Doors–** Were they open, closed, or locked? On which side was the key?
- **Windows–** Were they open or closed? Were the latches closed?
- **Lights–** Were they on or off? Which lights were on?
- **Blinds–** Were they open or closed?
- **Odors–** Was there a smell of cigar, cigarette, or marihuana smoke; alcoholic beverages; gas; powder; explosives; perfume; oil; or any other distinct odor?

SEARCHING THE SCENE

Think of the crime scene as highly dynamic. It is undergoing change. It is fragile; the evidence value of items at the scene can easily be lost. A crime scene search of a victim's normal environment should be made by investigators who have had no prior contact with the suspect or his environment. A crime scene search of a suspect's normal environment should be made by investigators who have had no prior contact with the victim or his environment. If the crime scene is outside the suspect's or the victim's normal environment, the search should be made by investigators who have had no contact with the victim, the suspect, or either of their environments.

Usually, there is only one chance to search a scene properly. Making a good preliminary survey of the layout helps to use that chance to your best advantage. First, take into account all the information and opinions that have been accumulated by persons preceding you on the scene. Pay attention to the apparent physical focal point or points of the crime scene in this information exchange. Ask for the perceptions of other investigators as to what items and material have potential evidence value.

Preferably without entering the more critical areas of the scene, you should make a preliminary examination, noting the items, conditions, and locations that seem to have the greatest importance to the case. Your key actions at this stage of the search are to *observe* and *record.* The position of items in relation to each other and to a victim, if any, can be as important to the case as the items themselves. Note where everything is located. It is useful to photograph the scene at this time.

Obtain statements from witnesses, including background information on victims. Witnesses' descriptions of things that they observed should be amplified, when possible, by photographs. Be sure the camera is positioned to take photographs from the witnesses' perspective. You should note lighting conditions and any measurements that may tend to support or disprove the witnesses' statements.

If the search is to be lengthy, set aside an area, close by but outside the critical area, to use as a collection point for trash generated in the search. Equipment not in immediate use should be placed in this area. MP and other official personnel may also use the area to take breaks and/or smoke. Using such an area reduces the chance of contaminating the scene.

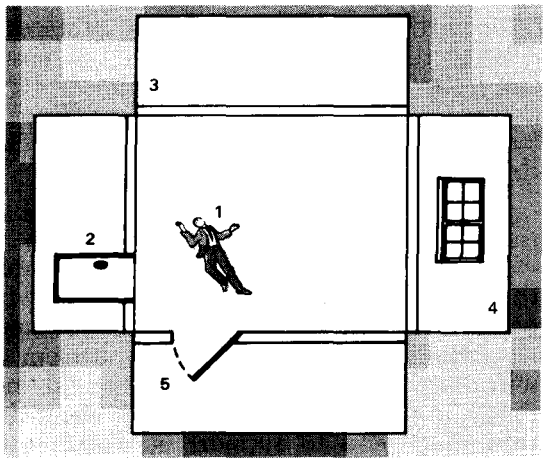
By the end of the initial survey of the scene, you will have noted the obvious items of evidence to be collected. Decide in what order you will process and collect them. If the scene is very large or if more than one person will be searching, you must decide what should be searched for and how the tasks and the area are to be divided. If your search must extend beyond the immediate crime scene, people needed to make the search may be secured from an MP or other unit.

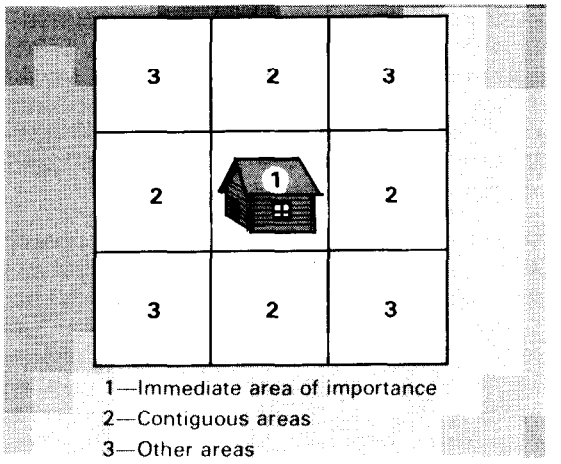
Searchers must be briefed thoroughly. Give them a full description of the evidence being sought. Tell them how the evidence may have been hidden or discarded. Tell them what to do when they find a piece of evidence. Tell them, emphatically, that when they find an item thought to be the one being sought or one like it, they must take three actions. *First,* they must refrain from touching or moving the item. *Second,* they must immediately tell the person in charge of the search. And *third,* they must protect the area until an investigator arrives.

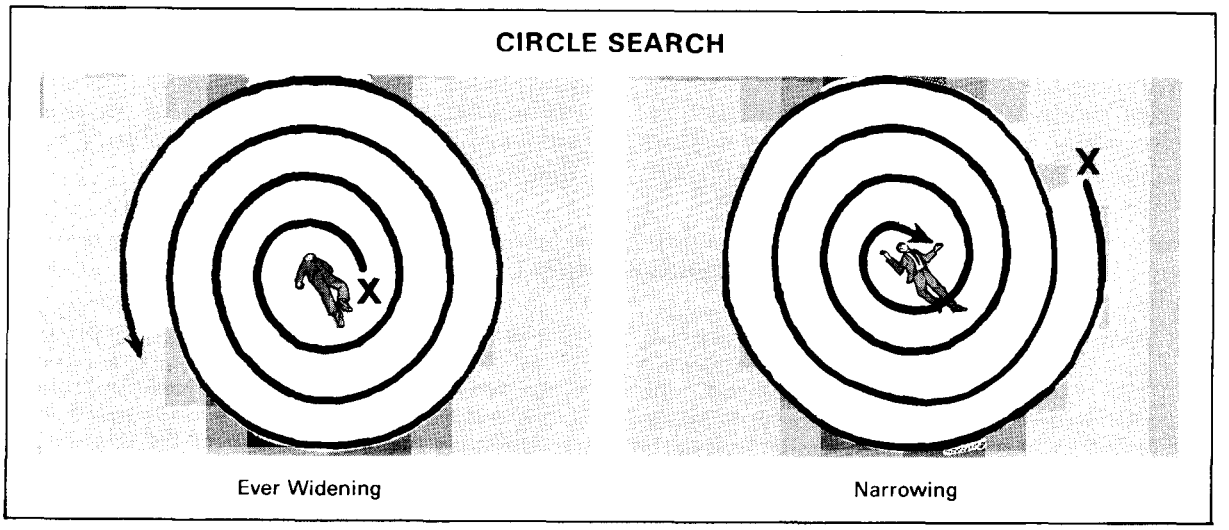
A competent search of a crime scene demands close attention to detail. Items and materials that may seem unimportant at first may later prove to be critical to the case. For this reason, you must begin the search of a crime scene with determination and alertness.

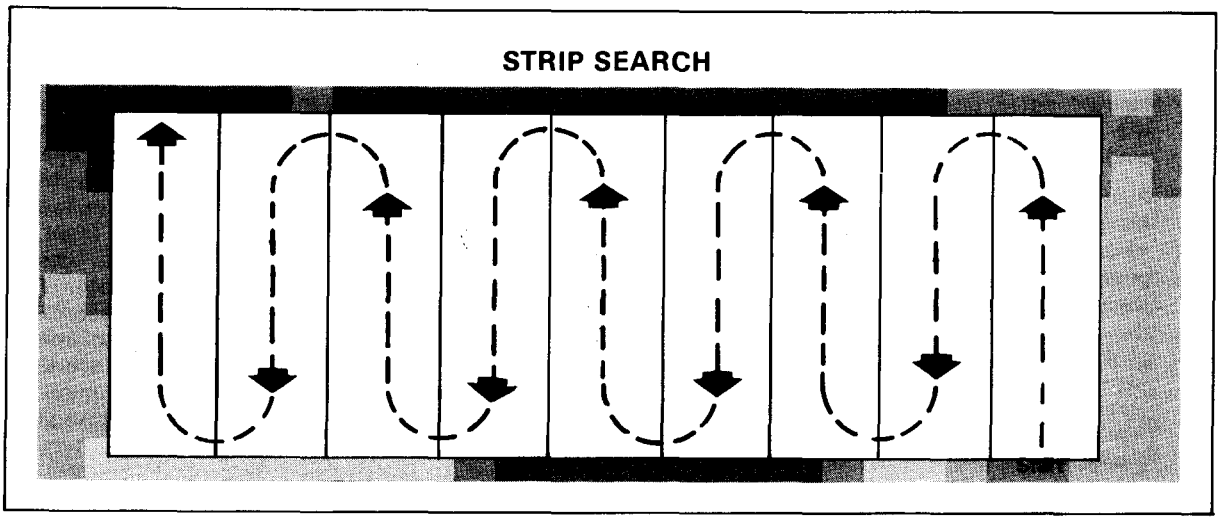
A successful crime scene search produces a comprehensive and nondestructive accumulation of all available physical evidence within a reasonable period of time. It should minimize movement and avoid unneeded disturbance. You can search a scene using one or more of four methods: the circle search, the strip search, the grid search, and the zone, or sector, search. Your choice of method is determined by the intent of the search and by the area to be covered. In rooms, buildings, and small outdoor areas, a systematic circle search is often used. In large outdoor areas a strip search, followed by a grid search, is more useful. After mentally dividing the area into strips about 4 feet wide, the searcher begins atone corner of the main area and moves back and forth from one side to the other, each trip being made within one strip. The grid search covers an area in the same way, but the searcher moves from end to end. Both indoor and outdoor areas may be searched using the zone "or sector method.

ZONE, OR SECTOR, SEARCHES






CIRCLE SEARCH
X
X
Ever Widening
Narrowing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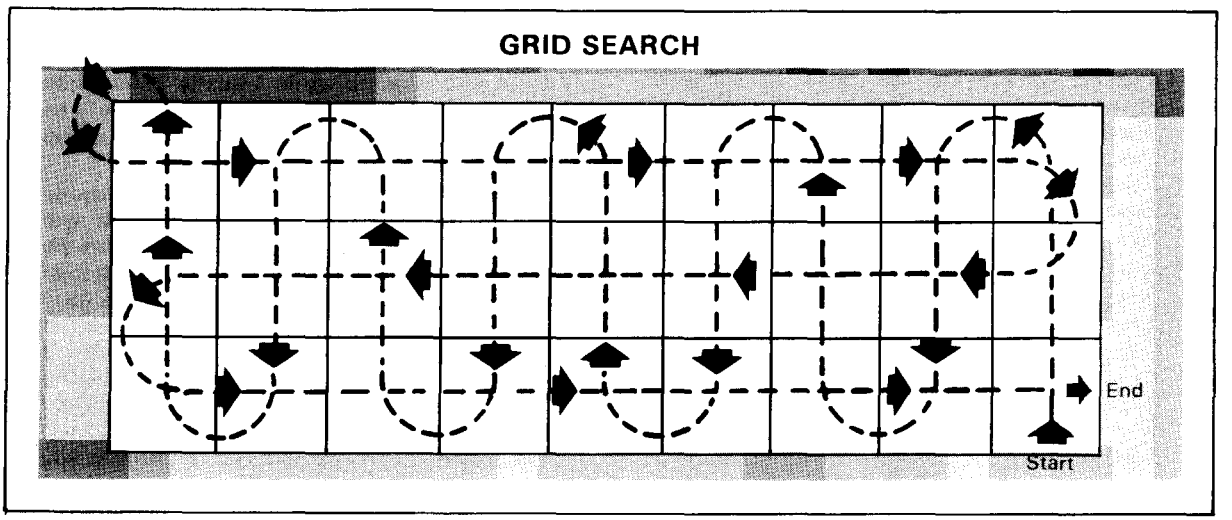

GRID SEARCH
End
Start

PROCESSING AND COLLECTING THE EVIDENCE

Although the circumstances of a case must always guide your actions in processing a crime scene, experience has shown that systematizing the search for, and the collection of, evidence is helpful in preventing errors. For specific guidance on collecting particular kinds of physical evidence refer to the chapters in Part Two of this manual.

GENERAL RULES PROCESSING AND COLLECTING THE EVIDENCE

1. Give first priority to fragile evidence that can be altered by time or the elements. Collecting evidence at a crime scene is usually done after the search has been completed, the photographs have been taken, and the rough sketches have been drawn. But under certain conditions it may be best to collect fragile items of evidence as they are found. Some forms of evidence can be destroyed by the elements or be contaminated, despite protective measures.
2. Next, collect items that could impede the search of scene — but only after they have been located, noted, photographed, and depicted on the sketch. The essential factor is that the evidence be carefully and properly collected.
3. Place your initials and the date and time of discovery on each piece of evidence, so you can identify it at a later date. Do this as soon as possible after you discover the evidence. Place the information where it is least likely to affect the appearance, monetary value, use, and evidence value of the item. Evidence that cannot be marked must be placed in a proper, clean container; sealed; and identified by marks on the container. Make notes, to include a description, in your notebook at the time the evidence is marked. For specific guidance on sealing evidence, see AR 195-5.
4. Examine, photograph, sketch, record, and collect major evidence in the order that is most logical, considering the need to conserve movement. Do not move any item until it has been examined for trace evidence. Make casts and lift latent prints from items that must be moved. Or at least develop, photograph, and cover prints with tape before an item is moved, see AR 195-5.
5. You may have to damage, partially destroy, or otherwise decrease the effectiveness of an article to collect important evidence. Such actions are based on the needs of the individual case. You may have to cut the upholstery on a piece of furniture to get an area stained with blood. You might need to cut out a section of a wall to collect fingerprints or other evidence that cannot be collected by other means. A door or a window may need to be removed from a building to process it at a lab or to hold it as evidence. When a door or a window is removed or when a building or a room is made insecure by evidence collection actions, make sure that measures are taken to protect the interior's contents.
6. When death is involved, process the evidence between the point of entry to the scene and the body. Next, make a detailed search of the deceased. After the search, remove the body. Then continue processing evidence.
7. After processing the major, obvious, evidence, search for and collect trace evidence. After the trace evidence has been processed, the scene should be dusted for latent prints. If latent prints are found, they should be photographed and collected. After the latent prints are lifted, explore the scene for trace evidence that was not observed during the visual search. Pieces of evidence found during the exploratory search should be noted, photographed, sketched, and collected. Then critical areas of the scene should be vacuumed. When vacuuming, surface areas should be segmented. Package the sweepings from each area separately. Record the location of their point of recovery.
8. Make elimination prints of investigators and all other persons who may have had access to the crime scene. Elimination prints allow the lab to eliminate the prints of all persons who had legal access to the scene. Usually, elimination fingerprints and physical evidence standards are collected after you complete the above actions.
9. When collecting evidence at the crime scene for lab analysis, the amounts needed will depend on the nature of the evidence and the tests to be conducted. For proper evaluation of stains by lab technicians, submit control samples in addition to the collected stains. For example, a stain on soil or porous surfaces is collected by dipping or gouging beneath the stain. Also, unstained portions are collected and identified as control samples. Preserve the integrity of control samples as carefully as you do the integrity of evidence.

As you begin your efforts to process evidence, remember that the evidence value of materials at the scene is not always easy to tell in the early stages of an investigation. If you have *any doubt* about whether or not to collect and preserve an item that only might be evidence, do so. Collect and preserve glass fragments, for example, even if you are unsure they will be useful. If you do not, the broken glass is likely to be discarded as trash.

Use care with doors, windows, and other openings with hinged or sliding doors or covers. They must not be opened, closed, or handled in any way that would destroy or mar minute tool marks or fingerprints. In handling a firearm, take care not to cause the loss of possible latent prints unless certain they will not be material to the case. In most cases, weapons may be picked up by the grips. The checkering precludes getting usable prints from this area. Or you may use a piece of wire or like material placed through the trigger guard or lanyard ring. Do not use a handkerchief or like material or insert any object into the bore to pick up the weapon.

It is logical to start the search of a crime scene for fingerprint evidence at the point of entry. Check all possible points of entry to see if futile tries may have been made there. A strong oblique light is a great aid in finding latent fingerprints.

Check walls. When a person picks up a heavy object close to a wall, he may place his hand on the wall as a brace. Look on counter tops and other flat surfaces where persons may lean, as well as looking on objects they may move. And check the undersides of heavy objects like tables, chairs, and other furniture. It is natural for finger contact to take place when lifting or moving them.

When a latent print is found, first –*always first*– photograph it. Only after a print has been photographed should you try other means to preserve the print. Always include a ruler in photographs of fingerprint evidence. Photographic techniques such as using reflected light at various angles, filters, and different types of film may be needed to make a photograph of value. And back-lighting through a pane of glass has been successful with even the faintest of latent prints.

Note exactly where, when, by whom, and on what objects latent prints are found. Mark even partial prints for orientation if you can. From a print's location you may be able to tell which hand made the fingerprint. If you find two or three prints, it is often possible to tell which fingers made them.

When searching indoors for footprints, first darken the room. Then use a flashlight to search floors, window sills, and furniture. Oblique lighting often makes it possible to see prints that cannot be seen with ordinary or direct light. Footprints on carpets can be photographed. Good results have been gotten by using a high contrast film and a high contrast paper for the print. Prints made by dirt sticking to shoes can be lifted by using large sheets of fingerprint lifting tape. Or silicone rubber casts could also be made.

If a firearm was discharged, pellets or bullets may be lodged in ceilings, walls, furniture or flooring. When taking a bullet from its resting place, you must use care not to mutilate any identifiable features. Record exact details as to location and condition of the bullet, type material it pierced, and depth of penetration. Note irregularities of size and shape, and approximate angle of impact. Also note any other information which may help the laboratory examiner. Note in your crime scene sketch the point at which each discharge bullet or fired cartridge case was found. See Chapter 19 for more information on firearms evidence and shootings.

Tool marks are preserved even if no tools are found at the crime scene. The tools that made the marks may be found later. Check every door, window, and other opening that may have been used as a means of entry or exit. Tool marks are likely to be discovered at these points, especially if forcible entry or exit has been made. Pay close attention to broken, forced, or cut locks, latches, and bolts, and the area around them. Also examine safes, cabinets, desks, chairs, tables, or ladders for marks. Search the entire scene and beyond for the tool that may have been used.

The hardest evidence to locate at the crime scene is hairs and fibers. The search must be thorough, detailed, and exacting. Obvious locations to search include headgear and clothing. Pay special attention to linings,

pockets, and cuffs. Another place to search is the victim's body, especially in sex crimes. Check underneath the fingernails. Also check any upholstered surface at the crime scene.

Soils, rocks, and other minerals may be found on a suspect's body, shoes, clothing, or vehicle. They may be found on tools used in a crime, on a victim, or elsewhere at the crime scene.

Keep these and other sources of trace evidence in mind. Be diligent in your search for them at the scene, on the suspect, or on equipment he has used. Note stains, spots, and pools of liquid within the scene and treat them as evidence. Fluid samples may be collected with a clean medicine dropper and refrigerated. See Chapter 11. And remember to avoid contamination of evidence.

VICTIMS

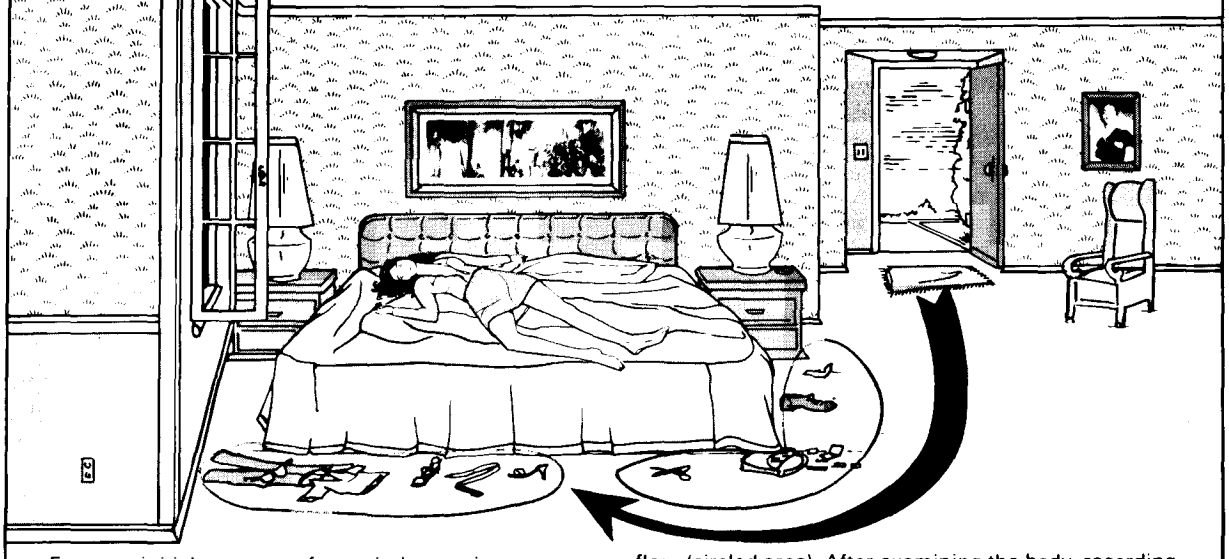
Your collecting of evidence from an injured victim at a crime scene will be very limited. Usually, you only make a quick observation of the victim's dress, general condition, and the nature of the victim's wounds or injuries. In some cases even this much cannot be done before seeking medical care.

The investigator who goes to the hospital to interview the victim should collect, or make arrangements to collect, items of physical evidence and certain evidence standards that may be needed in the case. For example, when it is apparent there was physical contact between a suspect and a victim, the victim's clothing should be recovered. Wrap each item separately and mark it.

If a victim reports having slapped at or clutched a suspect, fingernail scrapings should be collected. If a victim's injuries result in bleeding, get a sample of the victim's blood for typing by the crime lab. Get a sample even if the pathologist will run extensive blood tests. If blood is involved, the crime lab will want to run its own tests.

The nature and the exact location of any of a victim's wounds or injuries should be learned from the examining physician. Make arrangements to photograph bruises suffered by the victim. Photographs of bruises should be taken as soon as possible, because bruised areas tend to change appearance rapidly.

INITIAL SURVEY OF AN INDOOR CRIME SCENE



For an initial survey of an indoor crime scene, concentrate on the focal point of the crime and the obvious items of interest in relation to each other and the victim, if there is one. For example, in a death scene the body is, of course, the focal point. You would make a quick survey from the doorway and move to the bed by a route (arrow) that would avoid the items lying on the floor (circled area). After examining the body, recording the obvious signs of death, and having the body pronounced dead by a medical doctor, the first area you would process would be the one containing the items on the floor. That area not only contains items with obvious evidence potential, it is critical to free movement about the scene.

In the case of a deceased victim, your search for evidence at the scene will be detailed. (See Chapter 19 for a detailed discussion of specific death investigations.) Before a body is moved — *even slightly* — its position and everything concerning its discovery must be photographed and recorded in detail. First photograph the body to show its position in relation to the scene. Note the position of the limbs in reference to the body. Then, take close-up photos to show details of wounds or injuries and of the positions of apparent evidence items with respect to the body. Then take measurements and draw your sketches. After these details have been recorded, a thorough search of the body may begin.

Examine the body for minute items of evidence like hair and fibers, paint, or glass chips. Your most important action is to ensure that the position of the evidence on the body is recorded precisely. The quality of trace evidence is often determined as much by where it was found as by what it is. Thus, glass slivers found in the seam of the left shoe should be recorded in such a way that all details are shown.

To be thorough, start the search at the top of the head. Proceed down one side of the body to the foot and the soles of the shoe. Next, repeat the process on the other side. Try to spot hairs clinging to the clothing or attached to the fingernails. To see hair or fibers you may need to view the silhouette of the body against a light.

It is rarely wise to take elimination fingerprints of a dead victim at the crime scene. Nor should you scrape the corpse's fingernails in the field. Weather conditions and the likelihood that rigor mortis will have occurred pose too many problems. Such tasks are better done at the morgue. To protect the victim's hands from contamination, place clean paper bags over them and tie or fasten them securely at the wrist. Avoid using plastic bags. They cause condensation, which can destroy evidence.

After searching the body and removing it from the crime scene, it should be placed in a clean, disposable body bag for shipment to the morgue. This makes sure physical evidence is not lost. It also prevents cross-contamination of the evidence on the body during shipment. After the body is removed, ensure that the area under the body is photographed and examined in detail immediately after the body is moved. An investigator should accompany the body to the morgue.

The search of the body is continued at the morgue. This is usually done by the pathologist doing the autopsy. (See Chapter 19 for detailed discussion of death investigations and autopsies.) Because the pathologist should have someone present who is aware of all the details of the crime and the crime scene, you also should be present. You should stay during the autopsy. The pathologist or medical examiner is in charge of the body and related evidence until the examinations are done, and the body is released for further disposition. Therefore, you must key your own examinations and actions to the pathologist's or medical examiner's policies until the body is released.

Make notes of the cause of death, depth and general nature of the wounds, and other contributing factors as described by the doctor. Also note the pathologist's estimate of the time of death. Arrange to get a copy of the death certificate.

Before a deceased victim is undressed, the clothing and hands should again be examined for trace materials. Because the lighting is usually better at the morgue, quite often material that was missed in the field will be found during this search. When the body is undressed, try to see that garments are not cut for removal if this is at all possible. If a cut must be made, bloody or stained areas and points of obvious damage must be left as they are. Entry and exit points of bullets or weapons must be preserved.

Garments should not be shaken out. If a garment is wet or bloodsoaked, it should be laid out flat to dry naturally in a ventilated space at room temperature. It may be wrapped in clean paper, as long as a wet area does not come in contact with any other surface of the garment. Wrap each item of clothing separately. Never put damp garments in a plastic bag; rapid biological change will almost always result.

Once the victim is undressed, the body is again examined. All marks or wounds are recorded. Take close-up photographs of wounds and injuries. Include a ruler in the picture to show the scale. Head and pubic hair samples are collected if the nature of the case requires. Place these in a clean piece of tissue paper, fold carefully, and seal in a clean envelope, marked with all needed data.

If rape is suspected, vaginal smears should be obtained by the pathologist to be sent to the crime lab (see Chapter 18). The swabs used for the smears should also be sent to the lab. If possible, use the standard investigator's rape kit. Comply with the instructions contained in the kit.

Inked elimination finger and palm prints of the deceased victim are also taken at the morgue. If the hands are to be swabbed for firearm residue, do this before the victim is fingerprinted. If the body was found without shoes, make inked prints of the feet.

Any slugs or other objects recovered during the autopsy will be marked by the pathologist and released to you for packaging and shipment to the crime lab.

SUSPECTS

When you collect evidence from a suspect, take custody, as soon as possible, of the clothing the suspect was wearing when he or she was arrested.

If much time has passed since the crime took place, taking custody of the shoes may be all that is needed. If the suspect's clothing at the time of arrest is thought to be the same as that worn when the crime took place, send all of it to the lab for examination. Handle each clothing item, including shoes, with care and wrap it separately.

After collecting a suspect's clothing, collect other evidence for forwarding to the crime lab. These include samples of the suspect's blood and hair, fingernail scrapings, firearm residue, and a full set of fingerprints and palm prints. If prints or impressions of bare feet were found at the crime scene, take a set of inked footprints from the suspect.

OUTDOOR SCENES

When collecting evidence from an outdoor crime scene, give attention to the route searchers will take to the focal point of the crime. Almost all the evidence that will be recovered will be found on the ground. Thus, it can be easily overlooked or walked on. The searchers' approach should follow a route that seems least likely to have been used by the criminal.

The nature of an outdoor site influences the types of materials that you collect. For example, because there are far fewer smooth surfaces in outdoor crime scenes, fingerprints are found less often than in indoor scenes. This does not, however, preclude discovering prints on man-made objects like weapons, cans, bottles, or other items. And locations where evidence is found in outdoor crime scenes is often harder to record, because there are fewer reference points outdoors.

Carefully examine the vegetation in the area for damage. It may be possible to tell the path taken by the suspect. And it will also help you reconstruct the events leading up to the crime. Tree limbs or woody vines with tool marks should be carefully noted and collected.

Broken limbs or twigs around or leading to the focal point of the crime should be checked closely for fibers or fragments of clothing. Look for paint chips and other trace evidence items that may have been deposited by the passage of the suspect or his vehicle. Examine the area around the base of any tree or bush that appears to have been altered by the passage of an object. If blood or semen is suspected to be mixed with soil, samples of the soil should be collected, processed, packaged, and marked.

Make careful search for tire and shoe impressions. Those found should be photographed and processed. If you can tell the position on the vehicle or the tire that made the impression, put that fact in your notes. Collect soil samples from the immediate area of foot or tire impressions. Place each sample in a separate clean container. Record each sample's exact location and the date and time of collection in your notes. Mark the same information on the container and add your initials.

In outdoor death cases, *the area directly under the body should be given the most attention.* It is here that important physical

evidence is most likely found. Although the wind may blow away pieces of trace evidence originally on or around the body, evidence that is under the body will usually be trapped and protected from the weather. But be sure to search the area close to the body for materials that could have been transferred to the suspect during the commission of the crime. Collect samples of the soil and other remaining materials to be sent to the crime lab to be examined in detail. The vegetation itself is of little importance, but the microscopic materials that it may carry could be valuable evidence.

INITIAL SURVEY OF AN OUTDOOR SCENE

For an initial survey of an outdoor crime scene, note the focal point of the crime and scan for tire tracks or footprints showing the path of the criminal. Where the tire tracks or footprints become visible, stop your approach and survey the scene. Pay special note to weather conditions and the presence of animals and insects. Then approach the body, avoiding the route of the criminal.

VEHICLES

A search for evidence in or on a vehicle is planned and carried out with the same care as that of indoor or outdoor crime scenes. The nature of the case dictates how detailed the search must be. In hit-and-run cases, you must examine the outside and the undercarriage of the vehicle with great care. In cases of death or burglary, all areas of the vehicle should be given equal consideration. Any stain observed in the search of the interior or exterior of the vehicle should be photographed and its exact location recorded. The traces of the stain should then be recovered and forwarded to the crime lab for examination.

The exterior of the vehicle should be searched first. The search is done systematically around the vehicle. Give the grill area and hood particular attention. Look for broken or damaged areas and cloth imprints in the dust or road grime on the vehicle's finish. Check for the presence of hair or fibers clinging to any part of the vehicle. Look for missing parts, and so on. Record, photograph, sketch, and collect any such items or conditions as they are found. Use care to avoid destroying latent prints.

After the initial search, check the exterior of the vehicle for fingerprints. Using the procedure described above, carefully check the top of the vehicle, the deck lid, the areas around the door handles, and the window glass. Photograph, lift, and process each fingerprint as it is developed.

The area under the hood usually yields less physical evidence than any other part of a vehicle. However, carefully check for concealed tools, weapons, and drugs. Your search should include the area around the inside of the grill, the area around the radiator, and any containers attached to the fenders inside the motor compartment.

If you suspect that the vehicle has been involved in a hit-and-run, examine the undercarriage for fibers, trace evidence, hair, blood, and human tissue. Collect standards of grease, road grime, and paint from the underside of the vehicle.

If damage is noted on the exterior of the vehicle, take paint sample standards from each damaged area. Place them in separate containers and seal them. Remove pieces of broken metal, glass shards from a broken headlight, or other broken items and pack them for shipment to the crime lab.

Only after the exterior search is complete is the interior search begun. Following the general search procedure, examine, record, collect, and package the large evidence items. Take photographs as needed.

The driver and passenger areas must be vacuumed before a search is made for prints. This reduces the chance that hair and fibers already present in the vehicle, and any from yourself, will be mixed with the material recovered. Care must be taken, when making these sweeps, to ensure that latent prints are not destroyed.

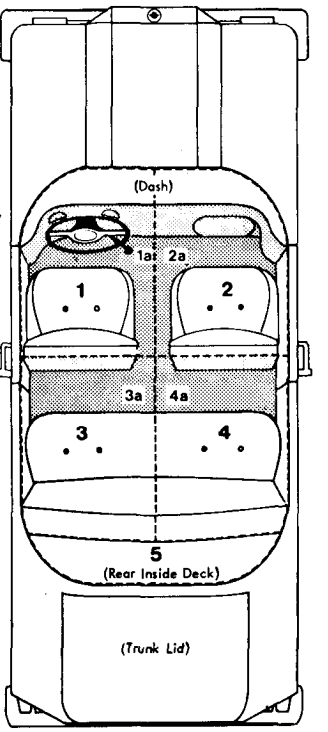
The interior of the vehicle is generally divided into five major areas for the purpose of the sweep. These areas are the left front, the right front, the left rear, the right rear, and the rear deck behind the back seat. The first four of these areas are subdivided to distinguish the floor areas from the seats and the surface of the instrument panel. Using special filter attachment on the vacuum, take sweepings from each of these areas. Place the material recovered from each area in a separate container. Each container of sweepings must be clearly marked to show from what part of the vehicle they were recovered. Also include any other usual identifying data. In the front driver and passenger areas, sweep the seats and the top of the dash in front of the seats. If you are sweeping the right front area, the seat and back cushions, the interior of the right door, and the right half of the instrument panel are swept. In the back passenger area, the relevant back part of the front seat and the interior rear door (or side panel) are swept. However, do not sweep the interior back deck or package ledge until after the interior search for fingerprints has been made. Then sweep the four floor areas.

After sweeping the interior and searching for prints, search for items of evidence hidden in the interior. Such evidence may include drugs, weapons, and loot from the crime. If possible, work in pairs. Two investigators covering the same area reduces the chance of overlooking items of evidence.

A search of the trunk follows the same general steps discussed above. The obvious evidence items are recorded and collected first. The trunk area is then swept and examined for prints. Finally, the search for hidden items is made.

SEGMENTING A VEHICLE INTERIOR FOR SEARCH

SEARCH EACH OF THE NUMBERED AREAS SEPARATELY AND PACKAGE SWEEPINGS FROM EACH AREA SEPARATELY.



CRIME SCENE PROCESSING STEPS

STEP 1 RESPOND TO NOTIFICATION.

Record the time, date, and how the incident was reported to you and the military police.

Note the time, date, and location of the incident.

Obtain full identification, addresses, and telephone numbers of persons related to the incident.

Learn the WHO, WHAT, WHERE, WHEN, WHY, and HOW of the incident.

STEP 2 TAKE INITIAL ACTIONS ON ARRIVAL AT THE SCENE.

Verify the scene as the one reported.

Record weather conditions, unusual odors, and the full identification (ID) and status of person(s) at the scene.

Set up scene security or note how it is established.

Call for more investigative or security help if needed.

Decide the search and processing method to be used.

STEP 3 SCAN THE SCENE.

View the central theme items and their general location.

Check for injured persons, noting any information and actions pertaining to them. SAVING HUMAN LIFE TAKES PRIORITY OVER EVERY OTHER CONSIDERATION OR ACTION.

Spot fragile evidence requiring immediate attention to avoid loss.

STEP 4 CHECK SEEMINGLY DEAD VICTIMS FOR SIGNS OF LIFE.

Check for evidence of pulse or respiration.

See if the skin is cold and clammy to the touch

Check victim's response to finger pressure on the eyes.

Look for wounds on the body.

Mentally note any visible signs of exit wounds for later follow up when looking for evidence.

Note the extent of bleeding, color of blood, and signs of drying.

Note signs of livor mortis and/or rigor mortis and their location on body.

If there is ANY sign that a victim may be alive, give first aid and take action to evacuate the victim to the nearest medical facility, then describe your actions in your notes.

STEP 5 RESPOND TO THE ARRIVAL OF THE DOCTOR.

Obtain the full ID, unit, and telephone number of attending doctor.

Get the name and location of the medical facility where the victim is to be taken.

STEP 6 RECORD THE ACTIONS OF THE DOCTOR.

Note the time at which the doctor pronounces a victim dead.

Obtain his opinion of the cause and means of death.

Get a copy of the death certificate.

Learn the time, date, and location of the autopsy.

Obtain the full ID of driver and ambulance and note if he is standing by or on call.

Ensure the body is not covered until you are ready to release it. Premature covering of a body can destroy or alter valuable evidence.

STEP 7 BEGIN DRAWING ROUGH CAMERA SKETCH TO DEPICT CAMERA POSITIONS AND DISTANCES.

Record all identifying data, giving the what, when, and how of the photographic efforts.

Depict the camera positions, photo number, and distance to the focal point on the camera sketch.

Record the required elements of a rough camera sketch, citing pertinent items of evidence, and providing caption, legend, compass direction north, scale, and title block.

STEP 8 RECORD OVERALL OBSERVATIONS, ACTIONS, AND DESCRIPTIONS IN YOUR NOTES.

Describe the crime scene, including the room's—

- Floor, walls, and ceiling.
- Entrance/Exit way and door.
- Windows and screens.
- Light fixtures and outlets.
- Natural lighting conditions.
- Appliances and/or utilities.
- Ashtrays, trash cans, and other containers and their visible contents.
- Furniture and any visible damage.
- Visible personal items of clothing and equipment.

Describe all evidence by common name and general location.

Using the recommended 7-step method of description, cite—

- Quantity.
- Item.
- Color.
- Type of construction.
- Approximate size.
- Identifying features.
- Condition.

Note the absence of evidence or information that, based on the complaint, could be expected to be present (negative evidence).

CRIME SCENE PROCESSING STEPS (CONTINUED)

STEP 9 BEGIN DRAWING ROUGH EVIDENCE SKETCH SHOWING PLACEMENT OF EVIDENCE AND CITING MEASUREMENTS AND TRIANGULATION OF EVIDENCE.

Measure, accurately, the room, walls, entrance/exit way, door, window, and furniture.

Using the appropriate means, "fix" both regularly-shaped items and pliable items of evidence.

Record the measurements and triangulations of evidence in your notes and on your evidence sketch. Height measurements are not required on sketches.

STEP 10 MAKE A FIRST RE-CHECK OF THE SCENE.

Search for visual evidence, recording your results.

Process, by describing and recording, any evidence you discover in the search or take actions you may have overlooked earlier concerning evidence.

STEP 11 BEGIN COLLECTING AND PRESERVING EVIDENCE.

Check each item for trace evidence.

Note any marks and/or features not mentioned in your general description in your notes.

Mark each item with your initials, date, and time, for identification and record in your notes where on the item you placed the marks.

Place evidence that cannot be marked in a suitable container, seal the container, and mark the container with your initials or signature and the date and time.

Record each item of evidence on an evidence custody document (DA Form 4137).

Tag each item of evidence with an evidence tag (DA Form 4002).

STEP 12 READY THE BODY FOR RELEASE.

Check under the victim (and around and under the bed, if victim is in bed) for visible and trace evidence. Check again for signs of exit wounds to help in your search for projectiles.

Secure paper bags over the victim's hands and feet.

Wrap the victim in bed linen and place in a clean body bag.

Release the victim to the ambulance driver.

Record the full ID of the investigator accompanying the body to the morgue and any special instructions given him.

Take photo of surface where body was lying and enter data on sketches and notes.

If new evidence is found, describe, photograph, sketch, triangulate if need be, and collect each item.

STEP 13 MAKE YOUR SECOND RE-CHECK.

Search for latent prints and trace evidence.

Dust for prints, describing how and where you dust and the results.

Then conduct an exploratory search of furniture drawers, lockers, containers, and the like, noting the results.

Process and collect any newly discovered evidence as you have done evidence found earlier.

STEP 14 MAKE YOUR THIRD RE-CHECK.

Re-check the scene, recording the results.

Continue your re-checks until the results are negative.

STEP 15 CHECK BEYOND THE SCENE.

Conduct a thorough search beyond the scene, recording the results.

If evidence is found, expand scene security to include new area.

If additional security is needed, set it up, describe how it is to be maintained, and record any special instructions.

If evidence is found, process and collect the evidence as you have done evidence discovered earlier.

Take outside photographs.

- Include outside "establishment" photos of street signs, building numbers, and the like to identify geographical location of scene.
- Make a 360 degree series of photos showing all sides of building or vehicle.

Record the photographs on the photo log in your investigative notes.

STEP 16 RELEASE OR SECURE THE CRIME SCENE.

If the scene is to be released, obtain the full ID of the person to whom you will release it.

If the scene is not to be released, describe how security of the scene is to be maintained and record any specific instructions.

PRESERVING THE EVIDENCE

It is your responsibility to make sure that every precaution is taken to preserve evidence in its original state until its final disposition. The main scientific requirements for handling and preserving evidence are that the evidence be protected from change. Organic materials will always undergo some change. Inorganic materials may undergo change from the weather or other unavoidable actions. You should take every precaution to prevent or to minimize change. *Handle the evidence as little as possible.* Rubber gloves may be used. Use only clean containers to store and ship evidence. Clean containers reduce the chance for chemical and bacterial contamination of a sample. Use containers that prevent spillage, evaporation, and seepage. Take care not to accidentally scratch, bend, or unnecessarily touch evidence. Watch for cross-exchange, such as placing a suspect tool that will be examined for paint in contact with painted surfaces at the crime scene. If you touch a piece of evidence and leave your fingerprints on it, show this fact in your notes. Also, if lab personnel are to examine the evidence, be sure to inform them that your fingerprints are on it.

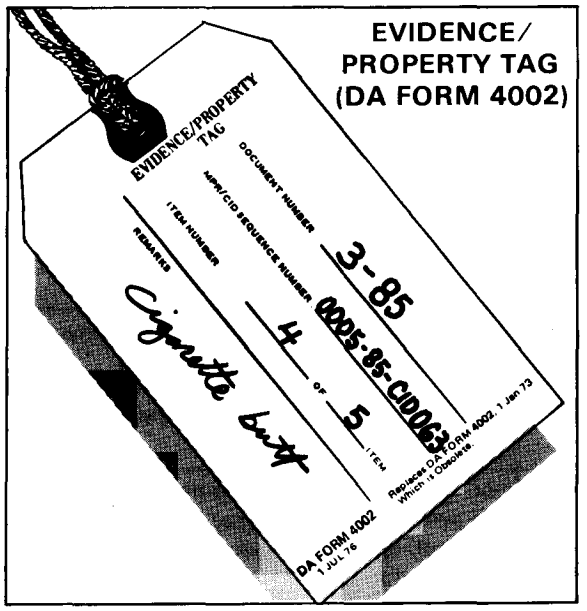
RECOMMENDED METHODS FOR HANDLING SPECIFIC ITEMS OF EVIDENCE

ITEM	METHOD
Handguns	Use your fingers on knurled grips. Do not touch smooth grips or smooth metal parts. Use the tip of the grips. Do not touch the magazine base of pistols. Place in a box, bracing the weapon at at front and rear.
Paper money, documents, paper	Use tweezers. Do not place tweezers over any obvious smudge. Place each item in a clean envelope or bag.
Broken glass	Use your fingers on the edges of larger pieces. Do not touch flat surfaces. Use tweezers on pieces too small for your fingers. Do not grasp at point of any obvious smudges. Wrap pieces individually in clean tissue, place in a box, and stabilize to prevent rubbing, shifting, or breakage.
Dried stains on smooth surfaces of furniture	Collect portion of furniture bearing surfaces of furniture stain in original pattern, if possible; otherwise, scrape with pocket knife or putty knife, removing as little of the finished surface as possible.
Bottles, jars, drinking glasses	Insert two or more fingers into large mouth vessels. Place the index fingers on the top and bottom of small mouth vessels. Do not contaminate or spill any substances in the vessel that may have evidence value.
Bullets	Use your fingers or use tweezers with taped ends. Avoid damage to rifling marks on the circumference. Place in a pillbox.
Cartridge cases	Pick up at the open end with tweezers. Avoid scratching. Place in a pillbox.
Dried stains on a floor	Collect portion of floor bearing stain in original pattern, if possible; otherwise, remove by gouging deeper than the stain with putty knife, wood chisel, or other necessary tool. Place in pillbox or larger similar container.

Preservation of evidence includes preserving the security of the evidence. It also includes preserving its *chain of custody*. Each person in the chain is responsible for the care, safekeeping, and preservation of the evidence under his control. Persons in a chain of custody are identified on the DA Form 4137 (Evidence/Property Custody Document), which is initiated when the evidence is acquired. This form, known as the custody document, is a multipurpose form. It is a receipt for acquiring evidence. It is a record of the chain of custody of evidence and authority for final disposition. And it cites the final disposition and/or witnessing of destruction of the evidence.

Evidence is stored in a key-type field safe or other high security container for temporary storage of evidence during other than normal duty hours. The evidence custodian is responsible for the evidence when you or other competent authority involved in the investigation, like a trial counsel, are not using it.

Evidence that you obtain must be tagged before it is submitted to the evidence custodian. Tagging should be done at the crime scene when the evidence is collected, at the place where it is received, or as soon as possible thereafter. Attach DA Form 4002 (Evidence/ Property Tag) or its equivalent to each piece of evidence to identify and control it. When pieces of evidence are grouped together, like tools in a tool box, and listed as one item on DA Form 4137, only one tag is used. When heat seal bags are used, the tags provided with the bags are used.



PREPARING DA FORM 4137

You must record each item of evidence that you acquire on a DA Form 4137. Prepare an original and three copies. Entries should be typed or printed legibly in ink. When evidence is received from a person, give the last copy to him or her as a receipt. When evidence is found, rather than received from a person, give the last copy to the responsible officer at the scene. The original and the first two copies go to the evidence custodian. He keeps the original and first copy for his records. The second copy is returned to you for inclusion in the case file.

Complete the administrative section of the custody document, stating clearly how the evidence was obtained. In the Description of Articles section, describe each item of evidence, accurately and in detail. Cite the model, serial number, condition, and any unusual marks or scratches. Enter the quantity of an item that is hard to measure or subject to change, like glass fragments or crushed tablets, using terms like "Approximately 50," or "Undetermined," or "Unknown."

INFORMATION NEEDED TO DESCRIBE A BASEBALL ON DA FORM 4137

Number	1
Quantity	1
Name	Baseball
Size	Approximately 2 1/2 inches in diameter
Make or brand	Wilson
Color	White and red in color
Construction	Leather-like
Condition	Scuffed
Identifying marks (serial numbers)	
Initials, date, time, and location where marked	PGP, 2 Jan 85, 0900 under brand name Wilson
Brief annotation where obtained	Right top desk drawer

EVIDENTIAL CHAIN OF CUSTODY, RECORDED ON DA FORM 4137 (FRONT)

EVIDENCE/PROPERTY CUSTODY DOCUMENT

For use of this form see AR 190-45 and AR 195-5; the proponent agency is US Army Criminal Investigation Command

MPR/CID SEQUENCE NUMBER: 0005-85-CID063

CRD REPORT/CID ROI NUMBER: 0005-85-CID063-46846

RECEIVING ACTIVITY	LOCATION	
Fort McClellan FO, Third Region, USACIDC	Fort McClellan, AL 36205-5000	
NAME, GRADE AND TITLE OF PERSON FROM WHOM RECEIVED ☐ OWNER ☒ OTHER Crime Scene	ADDRESS (Include Zip Code) N/A	
LOCATION FROM WHERE OBTAINED	REASON OBTAINED	TIME/DATE OBTAINED
3673-B Church Road (Living Room) Fort McClellan, AL 36205	Evidence	0900 to 1130 2 Jan 85

ITEM NO.	QUANTITY	DESCRIPTION OF ARTICLES (Include model, serial number, condition and unusual marks or scratches)
1	1	Baseball, approximately 2½" in diameter, brand name Wilson, white and red in color, leather like construction, scuffed, marked under the brand name Wilson, PGP, 2 Jan 85, 0900. (Right top desk drawer)
2	1	Drinking glass, about 4 inches in height, clear in color, glass construction; marked on bottom of glass PGP, 2 Jan 85, 0904. (Right middle desk drawer)
3	1	Bottle labeled Jim Beam, quart size, about 10 inches in height, no visible contents, clear in color, glass construction, marked on bottom of bottle, PGP, 2 Jan 85, 0905. (On top of coffee table)
4	1	Cigarette butt, about one inch long, white in color, partially burnt and flattened condition, labeled Kent, placed in vial, both vial and seal marked PGP, 2 Jan 85, 0915 0005-85-CID063. (In ash tray on coffee table)
5	1	Bag, about four by five inches, brown paper construction, approximately half full, containing suspected marihuana, marked on bag and seal PGP, 2 Jan 85, 1130 005-85-CID063. (Left top dresser drawer)
XXXX	XXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXLAST ITEMXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

CHAIN OF CUSTODY

ITEM NO.	DATE	RELEASED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUSTODY
1 thru 5	2 Jan 85	SIGNATURE: NA NAME, GRADE OR TITLE: NA	SIGNATURE: Peter G. Paul NAME, GRADE OR TITLE: Peter G. PAUL, SA	Evaluation as Evidence
1 thru 5	2 Jan 85	SIGNATURE: Peter G. Paul NAME, GRADE OR TITLE: Peter G. PAUL, SA	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	Rel to Evidence Custodian "SCRCNI"
4 and 5	3 Jan 85	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	SIGNATURE: Reg Mail NAME, GRADE OR TITLE: # 1234	Fwd to USACIL-CONUS for exam
4 and 5	6 Jan 85	SIGNATURE: Reg Mail NAME, GRADE OR TITLE: # 1234	SIGNATURE: Ralph E Davis NAME, GRADE OR TITLE: Ralph E. DAVIS, CW3	Rec'd at lab for exam
4 and 5	20 Jan 85	SIGNATURE: Ralph E Davis NAME, GRADE OR TITLE: Ralph E. DAVIS, CW3	SIGNATURE: Reg Mail NAME, GRADE OR TITLE: # 5678	Ret to Submitter

DA FORM 4137, 1 JUL 76 — Replaces DA FORM 4137, 1 Aug 74 and DA FORM 4137-R Privacy Act Statement 26 Sep 75 Which are Obsolete

LOCATION Bin 5 DOCUMENT NUMBER 7-85

EVIDENTIAL CHAIN OF CUSTODY, RECORDED ON DA FORM 4137 (BACK)

CHAIN OF CUSTODY *(Continued)*

ITEM NO	DATE	RELEASED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUSTODY
4 and 5	24 Jan 85	SIGNATURE: Reg Mail NAME, GRADE OR TITLE: # 5678	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	Rec'd by Evidence Custodian
1 thru 5	14 Feb 85	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	SIGNATURE: Peter J. Paul NAME, GRADE OR TITLE: Peter J. KANE, MAJ, JAGC	Rel to TC for Court
1 thru 5	15 Feb 85	SIGNATURE: Peter J. Paul NAME, GRADE OR TITLE: Peter J. KANE, JAGC	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	Ret to Evidence Custodian
1 and 2	8 Mar 85	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	SIGNATURE: Paul J. Kelley NAME, GRADE OR TITLE: Paul J. KELLEY, CW3, USA	Ret to owner Final Disposition
3 4 5	8 Mar 85	SIGNATURE: Roger R. List NAME, GRADE OR TITLE: Roger R. LIST, SA	SIGNATURE: Item 4,5 BURNED/Item 3 CRUSHED NAME, GRADE OR TITLE: DESTROYED	Final Disposition
		SIGNATURE NAME, GRADE OR TITLE	SIGNATURE NAME, GRADE OR TITLE	
		SIGNATURE NAME, GRADE OR TITLE	SIGNATURE NAME, GRADE OR TITLE	
		SIGNATURE NAME, GRADE OR TITLE	SIGNATURE NAME, GRADE OR TITLE	

FINAL DISPOSAL ACTION

RELEASE TO OWNER OR OTHER *(Name/Unit)* Item 1 and 2, CW3 Paul J. KELLEY, Co B, HQ Comd, Ft McClellan

DESTROY Items 3, 4, and 5

OTHER *(Specify)*

FINAL DISPOSAL AUTHORITY

ITEM(S) 1 thru 5 ON THIS DOCUMENT, PERTAINING TO THE INVESTIGATION INVOLVING PFC John S. DOE *(Grade)*

Co A, 1st Bn, 5th Tng Bde, Ft McClellan, AL *(Name)* *(Organization)* XX (IS) (ARE) NO LONGER REQUIRED AS EVIDENCE AND MAY BE DISPOSED OF AS INDICATED ABOVE. *(If article(s) must be retained, do not sign, but explain in separate correspondence.)*

Hugh H. JOYCE, CPT, JAGC *(Typed/Printed Name, Grade, Title)* Hugh H. Joyce *(Signature)* 7 Mar 85 *(Date)*

WITNESS TO DESTRUCTION OF EVIDENCE

THE ARTICLE(S) LISTED AT ITEM NUMBER(S) 3, 4, and 5 XXXX (WERE) DESTROYED BY THE EVIDENCE CUSTODIAN, IN MY PRESENCE, ON THE DATE INDICATED ABOVE

SA Hubert L. HARRISON, Ft McClellan Field Office *(Typed/Printed Name, Organization)* Hubert L. Harrison *(Signature)*

The Chain of Custody section provides information about the release and receipt of evidence. From initial acquisition of evidence to its final disposition, every change in custody must be recorded in this section. The first entry under the Released By column is the signature, name, and grade or title of the person from whom the property was taken. If the person refuses or is unable to sign, enter his name on the form and write "Refused" or "Unable to sign" in the signature block. If the evidence was found at the scene or if the owner cannot be determined, write NA in the signature block.

Under Purpose of Change of Custody column write "Evaluation of Evidence." Or, if you are also the evidence custodian, write "Received by Evidence Custodian." If the evidence you are listing is nonfungible evidence sealed in a container, note this information in this block as "Sealed in a (state the type of container here). " And whenever custody of sealed fungible evidence changes, note in this column "Sealed container received, contents not inventoried." This may be abbreviated as "SCRCNI."

If and when any change of custody occurs, it is the responsibility of the person in control of the evidence at that time to ensure that entries of the change are made on the original DA Form 4137 and all appropriate copies. The importance of keeping *accurate* and *complete* custody documents cannot be overemphasized.

WRAPPING, PACKING, AND TRANSMITTING EVIDENCE TO THE LAB

When evidence is to be sent to the lab you must ensure its security and chain of custody are not violated. A package wrapped for shipment to the laboratory should contain evidence from only *one* investigation. *Each item* of evidence within the shipping container *should be in its own separate package*. Violation of this procedure can result in contamination of evidence and problems in the chain of custody.

Complete DA Form 3655 (Crime Lab Examination Request) in an original and two copies. Instructions for completing this form are outlined in Chapter 2 of AR 195-5. Keep one copy of the form in the investigative case file. The original and the other copy of the form will go with the evidence to the laboratory. Your photographs and sketches are often very useful to the lab examiners, particularly in violent crimes. Consider including copies of them when you send evidence to the laboratory.

Pack each item in a way that will minimize friction and prevent the item from shifting, breaking, leaking, or contacting other evidence. Pack in cotton or soft paper items that are particularly susceptible to being broken, marred, or damaged.

Wrap each item of evidence separately. Label each item to correspond with its entry on DA Form 3655 and pack it securely in a shipping box. Documentary evidence may be placed in an envelope. Seal the box or envelope containing the evidence with tape or glue. Place your initials or signature across the sealed flap of the envelope or across the paper tape used to seal the box. Cover your initials or signature with transparent tape.

Place the original and one copy of DA Form 3655 and the original of DA Form 4137, obtained from the evidence custodian, in an envelope. Seal it, and address it to the laboratory with an attention line to the specific division (document, fingerprint, firearm). Tape this sealed envelope securely to the box or envelope containing the evidence. Then wrap the box in heavy paper or seal the envelope inside another envelope.

Label packages containing items of evidence that require careful or selective handling while in transit "Corrosive," "Fragile," "Keep Away From Fire," or "Keep Cool," as appropriate. And keep in mind that evidence needing refrigeration can be damaged or destroyed if left unattended in a post office over a weekend.

The way you transmit evidence to the crime labs depends on the type of evidence and the urgency of need for the results. Evidence may be hand carried to the lab or sent by first class, registered mail. It may also be transported by government carrier. Federal laws prohibit transmitting certain types of merchandise through postal channels. If there is any question on mailing, consult the nearest postmaster.

EVIDENCE EXAMINATION REQUEST, RECORDED ON DA FORM 3655 (FRONT)

CRIME LAB EXAMINATION REQUEST
For use of this form, see AR 195-5; the proponent agency is the United States Army Criminal Investigation Command.

LAB USE ONLY
REFERRAL NUMBER

TO: *(Include Zip Code)*
PO Drawer L
Fort Gillem
Forest Park, GA 30051-1386

ATTN: In order:
Fingerprint Division
Firearms Division
Documents Division

FROM: *(Include Zip Code)*
Commander
Ft McClellan Field Office
Third Region, USACIDC
Ft McClellan, AL 36205-5000

RECEIVED	RETURNED
☐ REGIS MAIL	☐ REGIS MAIL
☐ RY EXP	☐ RY EXP
☐ HAND	☐ HAND
DATE	DATE
RECEIVED BY	

EVIDENCE RECEIPT

RECEIVED	INITIATED

1. CONTRIBUTOR CASE NUMBER	2. INVESTIGATOR'S NAME	3. AUTOVON AND PHONE NUMBER
78-CID023-01346	SA Josh M. Billings	865-3330

4. SUSPECT(S) *(Last, first and middle name(s))*
SMITH, Joseph Calvin

5. VICTIM(S) *(Last, first and middle name(s))*
TACKETT, John E.

6. TYPE OF OFFENSE	7. ONE COPY OF EVIDENCE RECEIPT INCLOSED WITH EVIDENCE	8. OTHER EVIDENCE PREVIOUSLY SUBMITTED ON THIS CASE
Burglary Larceny	☒ YES ☐ NO	☐ YES ☒ NO

9. IF "YES" IN ITEM 8, LIST OTHER SUSPECT(S), DATE SUBMITTED, UNIT CASE AND LABORATORY REFERRAL NUMBER(S)
N/A

10. EVIDENCE SUBMITTED

a. EXHIBIT	b. DESCRIPTION OF EXHIBIT
1	.32 cal pistol, SN 11149. (Item 1, 7-85)
2	piece of cloth, blue in color, torn. (Item 3, 7-85)
3	Three black fingerprint lifters containing latent prints. (Item 4, 7-85)
4	Plaster cast. (Item 5, 7-85)
5	Piece of paper, containing writing. (Item 1, 8-85)
6	Handwriting exemplars prepared by SMITH. (Item 1, 10-85)
7	DA Form 2-1, containing the signature of Joseph C. SMITH. (Item 1, 11-85)
8	DD Form 93, containing the signature of Joseph C. SMITH. (Item 2, 11-85)
9	DD Form 369, containing the signature of Joseph C. SMITH. (Item 3, 11-85)
10	DA Form 1695, containing the signature of Joseph C. SMITH. (Item 4, 11-85)
11	VA Form 29-8285, containing the signature of Joseph C. SMITH. (Item 5,11-85)
12	VA Form 29-8286, containing the signature of Joseph C. SMITH. (Item 6,11-85)
13	Fingerprints and palm prints of SMITH. (Item 1, 12-85)
14	Shirt, blue in color with a hole in the shirt. (Item 1, 13-85)
15	Shoe, left, brown in color. (Item 2, 13-85)

DA FORM 1 AUG 74 3655 REPLACES DA FORM 3655-R, 1 NOV 70, WHICH IS OBSOLETE.

EVIDENCE EXAMINATION REQUEST, RECORDED ON DA FORM 3655 (BACK)

10. EVIDENCE SUBMITTED *(Continued)*	
a. EXHIBIT	b. DESCRIPTION OF EXHIBIT
	Sample

11. EXAMINATION(S) REQUESTED *(Briefly furnish any information or instructions that might assist the laboratory in examining, evaluating or returning evidence and/or report.)*

Determine if Exhibit 1 contains latent fingerprints and if it is in proper working order. If identifiable prints are discovered on Exhibit 1, determine if they match Exhibit 13, and also if the latents of Exhibit 3 match Exhibit 13. Determine if Exhibit 2 came from Exhibit 14. Determine if SMITH, who originated the signatures on Exhibits 6, 7, 8, 9, 10, 11 and 12 executed Exhibit 5. Determine if Exhibit 15 made the impression in Exhibit 4.

Determine if Exhibit 1 is operable and in good working order. Has Exhibit 1 been fired since last cleaned? Determine if Exhibit 1 has been involved in any outstanding criminal incidents. Perform any other tests you deem necessary.

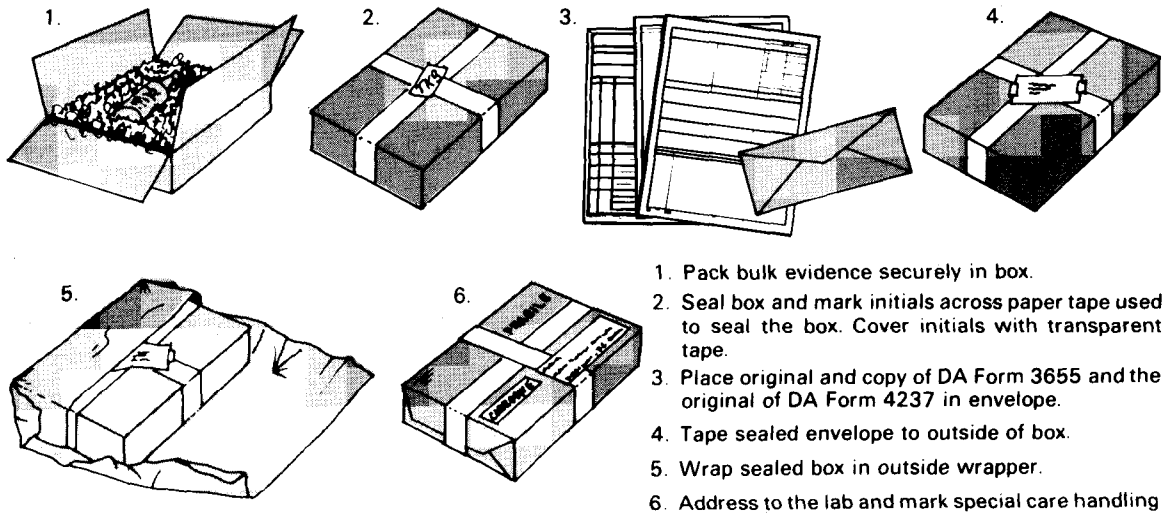
BRIEF DESCRIPTION OF INCIDENT:

Investigation disclosed that on 24 Sept 85, SMITH, using an undetermined object, broke a window in the rear of TACKETT's quarters, entered and removed a Panasonic AM/FM Amplifier, Akai Tape Deck, and Dual turn-table. Exhibit 1 was discovered on the floor near the stereo cabinet. Exhibit 5 was found on the kitchen table in TACKETT's quarters. Exhibit 2 and 4 obtained during crime scene processing.

Evidence above has not been examined by another expert in the same scientific field.

TYPED/PRINTED NAME OF REQUESTOR	SIGNATURE	DATE
JOSH M. BILLINGS	Josh M. Billings	25 Sep 85

WRAPPING AND PACKAGING EVIDENCE TO BE SENT TO THE LAB



1. Pack bulk evidence securely in box.
2. Seal box and mark initials across paper tape used to seal the box. Cover initials with transparent tape.
3. Place original and copy of DA Form 3655 and the original of DA Form 4237 in envelope.
4. Tape sealed envelope to outside of box.
5. Wrap sealed box in outside wrapper.
6. Address to the lab and mark special care handling instructions on the package.

Chemicals, gases, unexploded bombs, detonators, fuses, blasting caps, and other explosive or inflammable materials cannot be sent by mail. Transmittal of these items of evidence must conform to the provisions of AR 55-355, interstate commerce regulations, and appropriate State and municipal ordinances. Before these items are forwarded, you must notify the laboratory that the shipment is planned and the lab must acknowledge receipt of notification. In your notification give details of how the materials are packed. This will reduce the danger involved in unpacking these items at the laboratory. For more information see Appendix.

CHAPTER 13

Drugs

Investigations involving drugs may be specifically or peripherally drug-related. The use, possession, sale, distribution, delivery, compounding, or manufacture of narcotics, marihuana, or other dangerous drugs violates the UCMJ. Introducing such drugs onto government property is also a violation. Suspicion that military personnel are committing these acts warrants investigation specifically for drug offenses. Investigation of any offense may become peripherally drug-related when suspects, victims, witnesses, or the criminal act itself becomes connected with the possibility of drug abuse or trafficking.

The Comprehensive Drug Abuse Prevention and Control Act of 1970 (Public Law 91-513) is the legal foundation for the US Government's enforcement of laws pertaining to drugs and drug abuse. Title II, Section 202 (b), Public Law 91-513, commonly referred to as the Controlled Substances Act, identifies those substances legally defined as narcotics: opium and opiates, both derivative and synthetic, and cocaine. It places every drug available in our country in one of five control "schedules." The drugs are grouped by their potential for abuse, with Schedule I drugs having the greatest potential and Schedule V the least.

Schedule I and II drugs are subjected to a variety of controls like separate records, manufacturing quotas, distribution restrictions, security requirements, reports to the Drug Enforcement Administration (DEA), and criminal penalties for trafficking. Controls for Schedule III, IV, and V drugs, which have progressively lower potentials for abuse, are reduced as the potential for abuse lessens from one schedule to another.

CONTENTS

Very often the prevention, investigation, and control of drug abuse depends on an investigator's early recognition or proof of the condition. So it is important that you be able to recognize the outward signs of drug use and misuse. You must understand and recognize the differences in use and effect of the drugs most commonly abused. And you must become familiar with the forms in which these drugs can be administered.

DRUG FORMS

Drugs are made in a wide variety of preparations. The form of preparation is determined by the physical characteristics of the drug, the purpose for which it is intended, and the method by which it is to be administered. Some drugs are prepared in more than one form, and may, therefore, be administered in several ways.

CRITERIA FOR SCHEDULES I THROUGH V OF CONTROLLED SUBSTANCES ACT					
Factors and Examples	**SCHEDULES**				
	I	**II**	**III**	**IV**	**V**
Potential for abuse	High	High	Moderate compared to drugs in I and II	Low compared to drugs in III	Low compared to drugs in IV
Legal for use in medical treatment in US	No	Yes, or yes w/severe restrictions	Yes	Yes	Yes
Safe for use under medical supervision	No	Abuse may lead to severe dependence	Abuse may lead to low to moderate physical dependence or high psycho-logical dependence	Abuse may lead to limited dependence compared to drugs in III	Abuse may lead to limited dependence compared to drugs in IV

SOLIDS

Drugs are prepared in solid form as powders, capsules, tablets, suppositories, or ointments. In powder form, a drug is used in its loose, ground-up form. In capsule form, a drug powder is placed in a gelatin container. In tablet form, a drug powder is a molded or compressed mass often bound together by inert ingredients. Tablet shape varies considerably from one tablet to another. In suppository form, the drug is molded for insertion into the rectum, vagina, or uretha when a person is unable to absorb a drug through the gastrointestinal tract. Suppositories melt and dissolve at body temperature. In ointment form, a drug is suspended in lard, vaseline, lanoline, or other solid or semi-solid base. Ointments are intended for external application.

FLUIDS

Drugs are prepared in fluid form as extracts, spirits, elixirs, tinctures, emulsions, suspensions, syrups, liniments, and lotions. For oral and external use, fluids are packaged in bottles. Fluids for injections are packed in sterile vials or ampules.

Extracts are alcoholic or hydro-alcoholic solutions of the active constituents of vegetable drugs. They are usually prepared so that each milliliter of the tincture preparation contains the extract from one gram of crude drug. A spirit is an alcoholic solution of a volatile substance as opposed to an elixir, which is a solution containing alcohol, sugar, and flavoring substance into which one or more drugs may be dissolved. A tincture is an alcoholic or hydro-alcoholic solution or extraction of a drug. An emulsion is a mixture of two liquids, usually oil and water, one of which is dispersed as droplets into the other. Most emulsions are labeled "shake well" on the container. A suspension is a liquid preparation containing undissolved material. Again, a shake-well label is generally applied to the container. A syrup is a highly concentrated sugarless solution containing a flavoring agent into which a drug may be incorporated. A liniment is a solution of drugs in a soapy, oily, or alcoholic base intended for external application. A lotion is an aqueous preparation usually containing suspended insoluble matter to be applied externally.

INHALANTS

Most drugs prepared as inhalants are anesthetics. But not all inhalants are drugs. Inhalants are volatile chemicals that turn into a gaseous form at normal room temperatures. When inhaled they can intoxicate. Abused volatile substances may be anesthetics, solvents, or aerosols. The earliest inhalants to be abused were the anesthetics. In the early 1800's nitrous oxide,

ether, and chloroform were used as intoxicants before their medical use in surgery and dentistry followed. Today's "sniffers" consume a vast array of complex chemical compounds. Most abused inhalants are commercial products that are generally safe when used for their intended purpose.

Solvents like paint and lacquer thinners, nail polish remover, shoe polish, and lighter fluid are often abused. Aerosol products like spray paints and nonstick coating substances also are abused. So are shoe shine compounds, deodorants, hairsprays, some typing correction fluids, and recently marketed amyl nitrate products labeled "Rush," "Locker Room," and "XTC."

Most inhalants that are abused have a consciousness-altering pattern similar to that of general anesthetics. Effects begin with a feeling of excitement, followed by a loss of inhibitory controls, and end in a feeling of depression. With controlled doses, experiences ranging from mild intoxication to total unconsciousness can be induced. Intoxication is immediate. It may last from 5 to 45 minutes after sniffing. This is followed by drowsiness that may last for several hours. Recovery may be accompanied by headache and nausea. And memory of the period of intoxication may be partly or totally lost. Toxic effects commonly experienced by sniffers are loss of memory, inability to concentrate, confusion, and/or unsteady gait. The toxic effects of most inhalants are generally believed to be transient in nature. But some substances present serious health hazards and may even be fatal.

FACTORS AFFECTING DRUG ACTION

Many factors affect the action of a drug. The major factors affecting drug action are the properties of the drug itself and the physical and psychological properties of the user. The size of a dose, the potency of a drug form, the interval between doses, and the reaction of a drug to the presence of other drugs in the user's body all affect a drug's action. So does the size and condition of the user's body, the length of time the user has been taking the drug, and the user's temperament.

Drug dose is prescribed by weight; a specified number of grams or milligrams are calculated per pound or kilogram of body weight. The usual adult dosage of medicine, as listed in standard references, is based on an adult weight of 150 pounds. But heavy, burly persons may need larger doses than weak or emaciated persons. And the very young and very old need smaller doses.

Drug action can be affected by race, because enzymes systems, body chemistry, and stature often vary. Temperament also affects drug action. Highstrung, nervous, always-busy persons require smaller amounts of stimulants. On the other hand, they may require more depressants than nervous, dull, or apathetic persons. People who work outdoors or are engaged in strenuous activity usually require larger doses of drugs than those engaged in sedentary or indoor work. And people in extreme pain need more analgesic and sedative drugs than those suffering from only mild pain.

The potency of a drug and the form in which it is taken can affect its action. One form of the drug may be more powerful or faster or longer acting than another. Generally, drugs given by injection are used in smaller quantities than those given rectally. And drugs taken rectally are used in greater quantities than those taken orally. Some drugs taken orally are absorbed more rapidly before a meal by an empty stomach than they would be if they were taken immediately after a meal.

The presence of other drugs in the user's body can affect the action of a drug. Some drug combinations are simply additive. That is, the action of a subsequently used drug is simply added to that of the first. For example, the anti-nausea action of a second drug would be added to the pain-killing action of the first drug. Some drug combinations are synergistic. These combinations produce effects greater than the sum of their individual actions. That is, the action of a subsequent drug enhances the action of the

first drug, as well as perhaps including additive actions. Some drug combinations are antagonistic. The action of a subsequent drug decreases the action of the first drug. And many drugs produce several different physiological responses at the same time. For example, antihistamines, used for their anti-allergic effect, also may produce drowsiness.

Some drugs are accumulative. They can be absorbed and stored in body tissues for an appreciable length of time. If a person's body is unable to detoxify and excrete a drug as rapidly as it is being absorbed, accumulation occurs. Pronounced effects of poisoning can follow. Accumulative drugs need to be taken in progressively smaller doses to ensure the drug is expended from the body. On the other hand, there are drugs for which a body tolerance can be developed. These drugs become less effective after long use. A person who has used such a drug for a long time needs a larger dose to obtain the same effect he formerly received with a smaller dose. And sometimes as tolerance is built for one drug, it can cause a tolerance to be developed to another drug. Alcoholics, barbiturate users, and narcotic addicts, for example, develop a cross-tolerance to sedatives and anesthetics.

SIGNS OF CHRONIC DRUG ABUSE*

BEHAVIORAL

Admitting to the use of drugs; staring off into space; hiding or concealing drugs; isolating oneself regularly to inject or ingest a substance; exhibiting chronic drowsiness, sluggishness, and scratching of body; exhibiting withdrawal symptoms after 12 to 24 hours isolation.

Possessing hypodermic equipment, unless for legitimate medical cause like a diabetic's need for regular injections of insulin; possessing "cooking" paraphernalia, such as a spoon with the handle bent backward, metal bottle caps and glass vials covered with a blackened ash; possessing other drug use equipment, unless as part of a collection.

Resorting of formerly reliable persons to criminal activities bringing in money like prostitution, forgery, theft, robbery; inattention to dress and personal hygiene; association with known drug users.

PHYSICAL

Exhibiting wide fluctuations or maximum constriction of pupils like that occurring immediately after an injection.

Having fresh needle marks covered with minute scabs or crusts and/or black or blue needle marks resembling tattoos on arms, legs, feet, or elsewhere.

Having elongated scars over veins, especially on forearms, insteps, or lower legs, without a legitimate medical explanation.

Having boil-like abcesses over veins or near where veins are close to the surface.

Eminating the chemical odor that sometimes occurs from the constant use of barbiturates and amphetamines.

*You must be alert to symptoms of drug abuse, but you must also realize that the drug problem is so complex that even experts sometimes have difficulty making accurate diagnoses. Having sniffles or runny eyes, or hallucinating, or exhibiting odd behavior may not be connected in any way with drug use. It is always wise to seek professional advice and help from physicians and experts like those in agencies specializing in drug problems.

DEPRESSANTS

Depressants are substances that retard or slow the actions of the central nervous system. *All narcotic drugs except cocaine are depressants.* The depressants have legitimate medical application throughout the world. Depressants are used as anesthetics in pre- and post-operative sedation. They are used as analgesics to raise the threshold of pain. They are widely used as anti-convulsants to treat certain forms of epilepsy to allow people suffering from these disorders to lead normal, unrestricted lives. Depressants are commonly used as hypnotics, or sedatives to alter states of consciousness and ultimately produce sleep. Closely related to their use as sedatives is their use as tranquilizers. As tranquilizers they relieve anxiety, relax muscles, and calm without sleep or drowsiness, and are often used to treat high blood pressure.

While there are legitimate medical applications for the depressants, "on the street" abusers use them for other purposes. Drug abusers inject some depressants for the "rush," a sudden, intensely pleasurable, warm or drowsy feeling experienced immediately after the injection. The rush is obtained only by injection. It is not experienced following oral ingestion. Drug abusers also use depressants to sooth the "jangled nerves" brought on by their use of stimulants. They use them to quell the anxiety of flashbacks caused by some of the hallucinogens. They also use them to ease withdrawal from heroin. And depressants are the most commonly used chemical means of committing suicide.

Perhaps the easiest way to recognize symptoms of depressant abuse is to remember that alcohol also depresses the central nervous system. A person abusing depressants will commonly display all symptoms of alcohol intoxication except the odor. The abuse of depressants can create a physiological dependence, a psychological dependence, and/or a tolerance. The abrupt halt or reduction of high dosages can induce a withdrawal syndrome recognized as a more serious medical emergency than that of other drugs of abuse. The addictive liability of the analgesic depressants is extremely high.

A particularly dangerous characteristic of depressants is that *the lethal dose of a depressant remains constant even as tolerance develops.* To offset this tolerance, abusers increase the dosage to feel the same effect. Thus, while they are extending their intake, they are narrowing the range between the dose that intoxicates and the dose that kills. It is important to remember that the lethal dose of a depressant remains constant and does not change.

The classic example of synergism, the effect of one drug enhancing the effects of another drug, occurs when alcohol mixes with another depressant of the central nervous system. Occasionally a person will die in his sleep and his blood will be found to contain amounts of alcohol and another depressant. Separately the amounts would not have been great enough to cause death. But combined, the sublethal doses of the two drugs results in death. This happens often to drinkers who keep sleeping capsules on hand to quell insomnia from drinking large amounts of alcohol.

SYMPTOMS OF DEPRESSANT ABUSE

MODERATE	HEAVY
Behavior like that of alcohol intoxication; staggering, stumbling, or apparent drunkenness without odor or use of alcohol; disorientation, general lack or interest in activity, quick temper, quarrelsome disposition, slurred speech, poor coordination, drowsiness, impaired memory and judgment, unrealized loss of motor control, problems with perception, stupor, dilated pupils.	All the symptoms of moderate use plus coma accompanied by cold and clammy skin, a weak and rapid pulse, and slow or rapid but shallow respiration. Death follows if reduced respiration and blood pressure are not treated medically. If awake and coherent, may be so confused that overdose may occur from not remembering the amount ingested earlier.

SYMPTOMS OF DEPRESSANT WITHDRAWAL

NARCOTIC DEPRESSANTS	OTHER DEPRESSANTS
Appearing shortly before time for next dose; watery eyes, runny nose, yawning, sneezing and heavy perspiration and sometimes loss of appetite, tremors, cold and clammy skin. Appearing in 24-36 hours: deep breathing, insomnia, restlessness, fever, increased blood pressure. Appearing in 48-72 hours: weakness; depression; continued nausea and vomiting, often with stomach cramps and diarrhea; chills alternating with excessive sweating; pain in bones and muscles of back and extremities; muscle spasms and kicking. Victim may become suicidal.	Appearing within 24 hours and peaking between 2d and 8th day, depending on whether the drug is short or long acting: anxiety, agitation, loss of appetite, nausea and vomiting, increased heartrate, excessive sweating, fainting, abdominal cramps, muscle spasms, insomnia.

OPIUM AND OPIATES

Opium and opiates are depressants of the central nervous system, although in some instances they act biphysically in that they initially stimulate and then they depress the system. The use of opium and opiates creates physiological as well as psychological dependence and tolerance.

Opium is the milky latex fluid that oozes from cuts in the unripened seed pod of the opium poppy. As the fluid is exposed to air, its color turns from white to a very light tan, then to a darker brown, and finally to black. When air dried, the fluid becomes opium gum.

The opium poppy, the only source for opium, grows almost anywhere in the world. But in less desirable conditions its alkaloid content is reduced. The poppy, cultivated in the Mediterranean region at least as early as 300 BC, has since been grown in countries around the world. It has been widely cultivated in the Golden Triangle of Southeast Asia where Burma, Thailand and Laos share mutual borders. And it has been grown and harvested in the Golden Crescent of Southwest Asia where lie Iran, Pakistan, and Afghanistan. It is also widely grown in Mexico, Turkey, India, and Yugoslavia. The poppy grows to a height of 2 to 5 feet. Its flowers vary in color from pure white to pinkish red or a very bright scarlet. An annual plant, it must be reseeded after every life cycle.

Opium contains a number of different alkaloids. But only one family of alkaloids, the phemanthrene alkaloids, can be converted to narcotic substances. It is this highly addictive family of alkaloids and their derivatives that are controlled by national and international law. From this family comes morphine, thebaine, and codeine.

The morphine alkaloid is converted to other opiates like dacetylmorphine (Heroin) and dihydromorphinone (Diluadid). The addictive liability to these substances is extremely high. The most characteristic physiological response to heroin abuse is pupillary constriction and severe constipation. It should be remembered that heroin and other opiates were discovered and marketed by the medical community and were, at the time, thought to be safe, nonaddictive substitutes for morphine and opium.

Thebaine can be converted to narcotic drugs like oxycodone (Percodan) and oxymorpone (Numorphan). Oxycodone and oxymorpone are most commonly prescribed as analgesics. They are very effective in raising the threshold of pain. Also in this family, derived from thebaine, is etorphine (M-99). Etorphine is not for human consumption. Rather, it is used as an immobilizing agent for exotic animals. Etorphine is considered to be several thousand times more potent than morphine.

More than 90 percent of the morphine which is produced in our country is converted into codeine. Codeine has become a drug of choice among physicians throughout the world because it is considered to be an ideal cough suppressant as well as an analgesic. Physicians find its low addictive liability desirable because it does not constitute a substantial public health hazard. Codeine is the most widely prescribed narcotic in our country. There are literally hundreds of products available by prescription and "over the counter" that contain codeine.

TRANQUILIZERS

Tranquilizers are depressants intended to medically reduce anxiety or mental disturbance. Tranquilizers are divided into two groups: major and minor tranquilizers. The major tranquilizers are the drugs commonly used to treat people suffering from various types of major mental disorders. Examples of major tranquilizers are chlorpromazine (Thorazine), promazine (Sparine), and resperine (Serpasil). These drugs are not commonly abused. They do not create physiological dependence. It is not uncommon, however, for investigators to encounter people under the effects of the major tranquilizers at major medical centers.

The minor tranquilizers are not as potent as the major tranquilizers. But they can cause physiological dependency with long-term use. The minor tranquilizers are mainly used to lessen anxiety associated with neurosis, transient situational disorders, and psychosomatic illnesses. They produce their anti-anxiety and sedative effects without

usually affecting other mental or physical functioning. They may produce drowsiness and impair motor functions at higher dosages in persons sensitive to their effects. Common minor tranquilizers are meprobamate, mebutamate, and the benzodiazepines. The benzodiazepines are more toxic than meprobamate or mebutamate. They are commonly used to treat adverse hallucinogenic drug abuse cases. The benzodiazepines include chlordiazepoxide (Librium), diazepam (Valium), clonazepam (Clonopin), clorazepate (Tranxene), flurazepam (Dalmane), oxadepam (Serax), and prazepam (Berstan). Librium and Valium are thought to be the most widely abused prescription drugs in our country. They have a fairly low speed of onset but a very long duration of action. This makes them particularly acceptable to abuse.

BARBITURATES

Barbiturates are depressants derived from barbituric acid. They are commonly divided into groups based on the onset and duration of their action. Long-acting barbiturates have an onset of action of 30 to 60 minutes and a duration of action of 6 to 8 hours. Examples of long-acting barbiturates are barbital (Veronal), phenobarbital (Lumina), methylphenobarbital (Membaral). Their slow onset of action discourages their use for episodic intoxication or abuse. The intermediate-acting barbiturates have an onset of action of 15 to 30 minutes and a duration of action of 4 to 6 hours. Examples of intermediate-acting barbiturates are amobarbital (Amytal), butabarbital (Butisal), and secobarbital with amobarbital (Tuinal). The short-acting barbiturates have an onset of action of 10 to 15 minutes and have a duration of action of 2 to 4 hours. Examples of short-acting barbiturates are secobarbital (Seconal) and pentobarbital (Nembutal). The ultra-short-acting barbiturates have an onset of action of 0 to 45 seconds and a duration of action 15 minutes to 3 hours. These are barbiturates used as anesthetics. Their effects are generally felt within one minute of intravenous administration. Examples of ultra short-acting barbiturates are thiopenthal sodium (Pentothal), hexobarbital (Evipal), and methohexital (Brevital). The intermediate- and short-acting barbiturates are the categories most commonly abused. The rapid onset and brief duration of action practically precludes the use of ultra-short-acting barbiturates in the street environment.

CHLORAL HYDRATE

Chloral hydrate, first synthesized in 1862, soon replaced alcohol, opium, and cannabis preparations for inducing sleep and sedation. Its popularity declined after the introduction of the barbiturates. Although still used by older adults, chloral hydrate is not often encountered in the street environment. It is normally marketed in the form of syrups and soft gelatin capsules. Chloral hydrate has a penetrating, slightly acrid odor, as well as a bitter caustic taste. Its speed of onset and duration of action are quite similar to that of the long-acting barbiturates. When chloral hydrate is abused, it is usually by being mixed with alcohol. The effect of what is commonly known as a Mickey-Finn produces rapid unconsciousness. Brand names of chloral hydrate are Noctec and Somnos.

METHAQUALONE

Methaqualone, first produced in 1950, is a synthetic nonbarbituric sedative depressant. It gained street popularity and wide abuse because it was mistakenly thought to be safe and nonaddictive and to have aphrodisiac qualities. The notion that methaqualone enhances sexual performance and improves sexual desire is one of its most attractive points in the street environment. In fact, users tend only to be more relaxed, friendly, receptive, and uninhibited. Although users feel increased sexual desire, the drug actually lowers the ability to perform sexually or physically. Large doses of methaqualone (or any of the depressants), especially when ingested with alcohol, are likely to send the user into a stupor, making sex almost impossible. Brand name examples of methaqualone are Parest, Optimal, and Somnafac. Quaalude, a brand name formerly on the market, has been replaced by Mequin. In Europe, methaqualone is often sold as Mandrax, which contains methaqualone and an antihistamine, diphenhydramine.

GLUTETHIMIDE

Glutethimide was introduced in 1954 as a safe, nonaddictive nonbarbituric depressant. Initially reported to have advantages over the barbiturates, experience has shown this to be untrue. It is quite similar to secobarbital in its duration of action as well as its sedative hypnotic effects. Glutethimide is a particularly powerful drug. It is commonly used in many successful suicides. Because its effects are of long duration, it is exceptionally difficult to reverse an overdose. And glutethimide has another particularly dangerous feature. The drug may be stored in the body for an extended period of time. Thus, a person may recover from one use of the drug only to have later complications arise as the stored drug is released into the system. Glutethimide is most commonly sold in the US under the brand name of Doriden.

STIMULANTS

Stimulants are substances which speed up the action of the central nervous system. Stimulants can be found in natural as well as man-made products. The most common natural stimulants are epinephrine and caffeine. Epinephrine is chemically related to adrenalin. Caffeine is found in coffee, tea, chocolate, soft drinks, and many of the over-the-counter medications, including aspirin. Other natural stimulants are nicotine, found in all tobacco products; ephedrine, found in a variety of plant life; and cocaine, a natural alkoloid of the coca bush. The most common synthetic stimulants are the amphetamines. The amphetamines are drugs having a similar chemical formula. The group includes amphetamine (Benzedrine), dextroamphetamine, and methamphetamine (Methedrine and Dioxyn). The amphetamines are so closely related chemically that they can only be told apart by laboratory examination. Other nonamphetamine synthetic stimulants are methylphenidate (Ritalin) and phenmetrazine (Preludin).

Stimulants, like depressants, have legitimate medical use. Stimulants are most commonly used for treatment of narcolepsy (uncontrollable desire to sleep), hyperkinetic syndrome (overactive children), and for short-term treatment of obesity.

Persons under the influence of stimulants exhibit an increased state of bodily activity. Intravenous injection greatly intensifies the drugs' effects. The abuse of stimulants does

SYMPTOMS OF STIMULANT ABUSE

MODERATE DOSE

Excessive activity, irritability, nervousness, argumentativeness, dizziness, excessive sweating, excitability, talkativeness, trembling hands, dry mouth, vomiting, overreaction to normal stimuli, flushed skin, headache, tremors, euphoria, dilated pupils, increased blood pressure or pulse rates, and ability to go long periods without eating or sleeping.

SUBSTANTIAL DOSE

All the symptoms of moderate dose plus abdominal cramps, urinary frequency, violent or unpredictable behavior, chest pain, palpitations, high fever, convulsions, and, in extreme cases, cardiovascular collapse.

EXTENDED USE

Acne resembling measles, pricking of face, repetitive grinding of teeth, distinctive odor to cough.

Extended Use of Methamphetamines

All of the symptoms of extended stimulant use plus dry, lifeless hair; preoccupation with own thought processes; paranoia.

Additional Effects Specific to Cocaine

Irregular heartbeat, a numbing of the nose and pallet, or rhinitis or runny nose, and anxiety. Chronic use can result in restlessness, irritability, apathy, extended episodes of sleep, toxic psychosis, hallucinations, convulsions, and in severe cases, coma and perhaps death.

not create a physiological dependency. But their use results in psychological dependence and, usually, tolerance.

COCAINE

Cocaine is a derivative of the coca bush. In 1970 the Comprehensive Drug Abuse Prevention Control Act defined all derivatives of the coca bush as narcotics. Unlike other narcotics, which are depressants of the central nervous system, cocaine is a powerful stimulant. The coca bush is native to the areas of the eastern slopes of the Andes Mountains which run the entire length of South America, particularly on the eastern slopes of the Andes Mountains. The bush has been grown in other areas of the world, such as Indonesia, India, and portions of Africa. But it is most notably grown in South America.

The chewing of coca leaves dates back to at least the sixth century AD when it was used by the Chavin civilization in the coastal area of what is today Peru and Bolivia. Numerous legends and myths have existed about the chewing of coca leaves. But it was not until the Incas began using it that it gained any status. Used at first only by the Inca priests and nobility, it later was permitted to be used by the masses for religious rituals and magic rites. Even today, the leaves of the coca bush are very much a part of the fabric of certain cultures and societies in South America.

Legitimate secular use of the drug did not begin until the nineteenth century when the alkaloids found in coca leaves were first isolated. This resulted in its use in a wide variety of products such as ointments, nose powders, throat lozenges, suppositories, sprays, wines, cigarettes, and other concoctions. These products were marketed as cures for alcoholism, asthma, colds, exzema, veneral disease, and broken bones. And it was used as a flavoring agent in Coca Cola until 1903.

Cocaine is made by two separate consecutive processes. First the alkaloids are extracted from the leaves of the coca bush. This produces the substance known as cocaine base. About 90 to 95 percent pure, it is highly soluble in organic solvents and almost insoluble in water. Then the cocaine base is converted to cocaine hydrochloride, its salt form. After conversion, it is highly soluble in water as well as most organic solvents.

The cocaine hydrochloride found in the street environment contains not only cocaine but also diluents and adulterates. Diluents are added only to increase volume. The most used diluent is sugar. It is very similar to the physical characteristics of cocaine. And sometimes baking soda is found in cocaine marketed *in* the US. Adulterates are active materials added to increase the impression of the cocaine's purity, because some diluted cocaine lacks the stimulant qualities of true cocaine hydrochloride. All of the adulterates have the appearance, taste, and local anesthetic effect of cocaine. Common adulterates found in cocaine marketed in the US are Procaine (Novocaine), Lidocaine (Xylocaine), Tetracaine (Prontocaine), and Benzocaine (Ethyl Aminobenzoate). Other adulterates are caffeine and amphetamines. The street process referred to as free basing is an attempt by drug abusers to remove diluents and adulterates from cocaine.

Cocaine can be taken orally, but this use is not typical in the United States. The oral route produces a mild stimulating effect and does not justify the high price of cocaine. The preferred method in the US is snorting. This allows the drug to be absorbed through the mucous membranes of the nasal septum. The duration of onset is generally within 10 minutes. The duration of action is about 30 to 45 minutes in most cases. It is not uncommon, however, to find cocaine being applied by a drug abuser to gums, eyes, sexual organs, and rectum, as well as being blown on the mucosal tissue of the throat. The injection of cocaine is seen more and more often, as it is by this route that an intense rush is experienced. Then the effects are felt almost instantly, and the duration of action in most cases is three to five minutes. Cocaine, when injected, is highly toxic. It puts the total dose into the blood stream within just several minutes. A toxic dose of cocaine by injection is generally 1.3 grams per 75 kilograms of body weight. The effects of cocaine by injection bear little resemblance to those seen with other routes of administration.

Cocaine use produces no tolerance, but the psychological desire for the drug abuser to reach a higher plateau of stimulation will cause people to ingest large amounts. There is also a significant sociological aspect to the use of cocaine. It is attaining an unofficial respectability in much the same manner that cannabis did during the 1960's. Erroneously, cocaine is being regarded and accepted by a wide spectrum of our society as a relatively safe stimulant to be used casually. This is not true.

AMPHETAMINES

The synthetic stimulants most often used beyond their prescribed purposes or beyond initial experimentation are the amphetamines. Three levels of use are commonly encountered in the street environment. Intermittent low-dose use is encountered in people who occasionally ingest 5 to 10 milligrams of amphetamines. They may do this to fend off the fatigue of an unpleasant task for which they need prolonged wakefulness. They may use it to help recover from a hangover. Or they may use it just to realize the stimulant effect of the drug. This level of abuser seldom is interested in amphetamine use as a life-style.

Sustained low-dose use is encountered in people who take amphetamines three to four times a day for stimulation and euphoria. At this level of abuse, users may develop a strong psychological dependence on the drug. They may believe that they cannot live without amphetamines. If they cease their daily use, they can develop significant psychological depression. And because of their stimulant use, these abusers often suffer from insomnia. They begin taking depressants, generally with alcohol, in an effort to overcome their insomnia. Thus they set up an "upper-downer" cycle of abuse which increases the likelihood of their taking overdose.

Intravenous high-dose use is the most dangerous level of amphetamine abuse. These abusers prefer intravenous injection of methamphetamines. Their main motivation is to encounter the very severe "flash" or "rush," obtained from injecting that drug. At this level of abuse, the user's only goal in life is to secure increased quantities of the drug for later use.

HALLUCINOGENS

Hallucinogens are substances that excite the central nervous system and alter mood. They usually create a euphoric mood, but sometimes they create a severely depressed mood. They also distort the user's perception of reality, producing sensory illusions that make it difficult for the user to distinguish between fact and fantasy. Over time, the drug user's perception of reality lessens, and his ability to discriminate between fact and fantasy becomes increasingly difficult.

Hallucinogens occur naturally in certain plants and fungi. They also are synthesized. The natural occurring hallucinogens include cannabis and its derivatives, psilocybin, from psilocybin mushrooms, mescaline from peyote cactus, and derivatives of morning glory seeds. Synthetic hallucinogens include lysergic acid diethylomide (LSD), substances developed for medical use, and synthetic versions of the hallucinogens found in nature. A number of synthetic hallucinogens are amphetamine-based. These drugs are known as psychotomimetic because their effect mimics the reality distortion of psychotic illnesses. Psychotomimetic differ from one another in their onset of action, duration of. action, potency, and their capacity to modify mood with or without producing hallucinations. Small doses of the psychotomimetic, between 2 to 3 milligrams, generally produce effects similar to the amphetamines. Larger doses, more than 20 milligrams, produce convulsions in most people.

The symptoms realized under the effects of hallucinogens are nonspecific and vary greatly from person to person. Hallucinogens do not create a physiological dependence, but they do create a psychological dependence. Their consumption or ingestion also creates a tolerance. The tolerance is built very rapidly within the body but also dissipates rapidly.

SYMPTOMS OF HALLUCINOGENIC USE

Rapid heartbeat; elevated blood pressure; headaches; pupillary dilation in some cases; profuse sweating and trembling of hands; dizziness; hot and cold flashes; nausea and vomiting; tremors and nervous twitch; hyperactive reflexes; loss of appetite; insomnia; possible changes in sense of sight, hearing, touch, smell, and time; widely varying behavior and mood from quiet, trance-like state to terror.

Repeated or chronic use may cause more severe effects, including impaired memory, mental confusion, and difficulty with abstract thinking.

LYSERGIC ACID DIETHYLOMIDE

Lysergic acid diethylomide in its pure form is an odorless, colorless, liquid hallucinogen. It must be placed on some type of carrier to be sold on the street. It is not uncommon for LSD to be placed on sugar cubes; pieces of candy, paper, or material; cartoon figures; and water soluable tattoos. When placed on pieces of blotter, it is known as blotter acid; when placed on pieces of gelatin, it is commonly referred to as window panes.

The lowest dosage needed to evoke an LSD experience in human beings is 24 micrograms. The average dosage is generally considered to be between 100 micrograms and 250 micrograms. The maximum dosage for human beings is said to be unknown. No deaths have been recorded as a direct result of an overdose of LSD. But this does not include deaths resulting from the bizarre behavior associated with the ingestion of the drug. Materials suspected to contain LSD should not be touched by hand. LSD can be quickly absorbed through the skin.

The effect of the drug is heavily influenced by the physical setting in which the drug is taken and by the user's mental set—his psychological makeup combined with his expectations of what the drug will do for him. The LSD experience occurs in three phases. The first phase lasts about 45 minutes for an average doe age. The effects of the drug come and go at first in a sneak preview of what the rest of the experience will be. The second phase is the trip; this generally lasts from six to eight hours on an average dose. This is when the full effects of the drug are felt. The final phase, when the effects of the drug are worn off, is a reaction generally lasting about 60 hours during which the user is depressed, physiologically and psychologically, but can generally function normally.

An unusual side effect of LSD is its phenomenon known as a flashback, the recurrence of a trip without additional ingestion of the drug. A flashback occurs without warning. And it can occur at any time. Flashbacks generally last as long as the original trip, but can be longer or shorter, even as short as 30 seconds. A one-time use of LSD can invoke an infinite number of flashbacks. But repeated use of LSD does not guarantee a flashback. A flashback can be a bad trip or a good trip. It does not reflect the experience of any previous trip.

PHENCYCLIDINE

Phencyclidine (PCP), developed in the 1950's, is now mostly manufactured as a veterinary anesthetic under the trade name Semylan. Since 1967, it has also been produced in clandestine laboratories, frequently in dangerously contaminated forms. The prevailing pattern of street-level abuse is by oral ingestion of tablets or capsules containing the drug in powder form, both alone and in conjunction with other drugs, and by smoking the drug after it has been sprinkled on parsley, marihuana, or some form of tobacco. It is sometimes sold to unsuspecting consumers as LSD, mescaline, or other hallucinogen. Reported experiences under the influence of phencyclidine are mainly nondescript or unpleasant. In low doses, the experience usually proceeds in three successive stages: changes in body image, sometimes accompanied by feelings of depersonalization; perceptual distortions, infrequently evidenced as visual or auditory hallucinations; and feelings of apathy or estrangement. The experience often includes drowsiness, inability to verbalize, and feelings of emptiness or nothingness. Reports

of difficulty in thinking, poor concentration, and preoccupation with death are common. Many users have reacted to its use with an acute psychotic episode. Common signs of use include flushing and profuse sweating. Analgesia, involuntary eye movements, muscular incoordination, double vision, dizziness, nausea, and vomiting may also be present.

The use of PCP can lead to psychological dependence, as well as tolerance. The degree of physiological dependency it creates is not known.

DIMETHYLTRYPTAMINE, DIETHLTRYPTAMINE, AND BUFOTENINE

Dimethyltryptamine (DMT) is a short-acting hallucinogen found in the seeds of a plant native to the West Indies and parts of South America. The seeds, ground into a powder, are used as a snuff, primarily in religious rituals. The state of mind the powder produces allegedly enables local natives to communicate more effectively with their gods. DMT synthesized in a laboratory is inhaled or smoked after being mixed with tobacco, marihuana, or other vegetable substances. The average street dose of DMT, between 60 and 150 milligrams, produces sensations similar to LSD for 40 to 60 minutes. Because of its rapid onset and short duration of action, this drug is commonly known as the business man's special or the lunch-hour trip.

Diethyltryptamine (DET), a fast-acting synthetic analog of DMT, is generally encountered in liquid or powder form. It produces sensations after ingestion similar to those of DMT and LSD. The average street dose of DET, between 50 and 60 milligrams, lasts two to three hours. One of the effects of use of DET is the possibility of rupturing small blood vessels in the brain.

Bufotenine is a hallucinogen chemically related to DMT. Although a natural derivative of certain toads, and also of a South American and West Indian shrub, it can be synthesized in a laboratory. It is commonly used as a snuff or inhalant in much the same way DMT is used. The symptoms of bufotenine are not unlike those caused by other hallucinogens. This hallucinogen is easily encountered in the street environment.

PEYOTE AND MESCALINE

The peyote cactus and its primary active alkaloid, mescaline, have been long and widely used by native Americans in what is now the southwestern part of the United States and the northern part of Central America. Used mostly for religious rituals and rites, the peyote was believed by the natives to enhance their communication with their gods and gain acceptability. Today, members of the Native American Church of North America still use the peyote cactus in their religious rituals and rites. Their religious use of the drug is exempt from portions of the Comprehensive Drug Abuse Prevention and Control Act of 1970. But church members remain prohibited from trafficking or distributing the peyote cactus.

The underside of the peyote cactus produces "buttons" that resemble common mushrooms. The fleshy parts of the buttons are ground into a fine powder for ingestion, A dose between 350 and 500 milligrams of this intensely bitter powder produces illusions and hallucinations lasting 5 to 12 hours. It may also produce anxiety, slowed thinking, incoordination, general muscular weakness, diminished sensitivity to pain, and extraordinary visual hallucinations. Peyote's active alkaloid, mescaline, can be synthesized in a laboratory. In doses of 50 to 60 milligrams the synthetic drug produces sensations for 5 to 12 hours after consumption. Chronic users of peyote or mescaline may develop a tolerance to some of its effects.

CANNABIS

Cannabis Sativa, a hemp plant that grows wild throughout most of the tropic and temperate zones of the world, has been used as a drug for centuries. The plant has long been cultivated for the tough fiber of its stem; its seed, which is used in oil as an ingredient of paint; and its leaves and young flowering

tops, which contain its biologically active substances. These substances are cannabinoids. There are over 60 cannabinoids manufactured within the cannabis plant. But one is responsible for most of the plant's characteristic psychoactive' effects. This cannabinoid is tetrahydrocannabinol (THC). Currently, scientists are studying the cannabinoids in an attempt to develop therapeutic agents for medical use. Two of the most active areas of this research are in the use of cannabinoids to control the nausea of vomiting caused by chemotherapeutic agents used in the treatment of cancer and to decrease intraocular pressure in the treatment of glaucoma, a disease of the eye. None of the synthetic cannabinoids have so far been detected in the drugs of street traffic.

Cannabis products on the street are usually smoked in the form of loosely rolled cigarettes. They may be used alone or combined with other substances. Cannabis products may be ingested; but they are reported to be about three times more potent when smoked.

The most common types of cannabis products found in the US are marihuana, hashish, and hashish oil. The term marihuana refers, in this country, to the cannabis plant itself and to any part or extract of it that produces systemic or psychic changes in the human being. The plant's leaves and flowering tops, which make up the tobacco-like dried marihuana, vary in potency. The concentration of THC depends on the source of the plant and the cultivation methods used. Cannabis plants growing wild in the US are considered inferior because they have a low concentration of THC. A recent innovation in cannabis cultivation, in which the natural course of the plant is altered to prevent seed from forming, results in a product higher in THC content.

Hashish, the drug-rich secretions of the cannabis plant, is collected, dried, and compressed into many forms. It may be formed into small balls, or cakes, or large cookie-like sheets known as soles. The THC content of hashish in the US ranges from trace amounts to as high as 10 percent. But the usual THC content is about 1.8 to 2.4 percent.

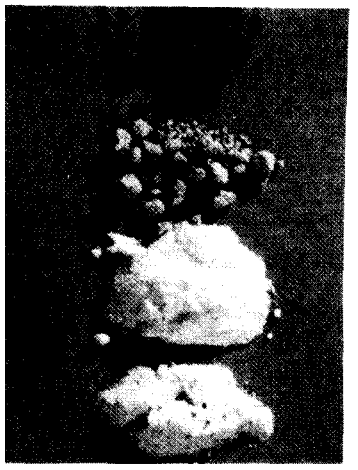
Hashish oil, an extraction derived from cannabis plant materials, generally contains a higher THC content than other forms of cannabis. A drop or two of this oil on a cigarette is equal in psychoactive effect to the consumption of one marihuana cigarette.

The effects of cannabis, felt within minutes, usually peak in 10 to 30 minutes and may linger two to three hours. The drug's effects depend on the experience and the expectations of the user and the strength of the drug itself. Low doses tend to induce restlessness and an increased sense of well-being. followed by a dreamy state of relaxation and hunger, especially for sweets. Changes in sensory perception, enhancing sight, smell, touch, taste, and hearing, may be accompanied by subtle alterations in thought formation and expression. Larger doses intensify these reactions. The user may experience shifting sensory imagery; rapidly fluctuating emotions; an altered sense of self-identity; and impaired memory and dulled attention, despite an illusion of heighted alertness. This state of intoxication, unless accompanied by dilated pupils and bloodshot eyes, may not be noticeable to an observer. High doses may result in distorted images, a loss of personal identity, fantasies and hallucinations, and, at very high doses, toxic psychosis.

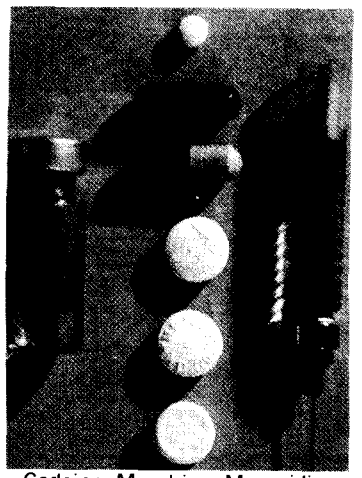
Although marihuana is classed as a hallucinogen, it acts as a depressant on the central nervous system. The symptoms exhibited by someone under the influence of marihuana are like those displayed by someone under the influence of alcohol without the accompanying odor characteristic of that drug. Marihuana does not create a true physiological dependence, but a psychological dependence and tolerance does develop.

EXAMPLES OF DEPRESSANTS, STIMULANTS AND HALLOCINOGENS

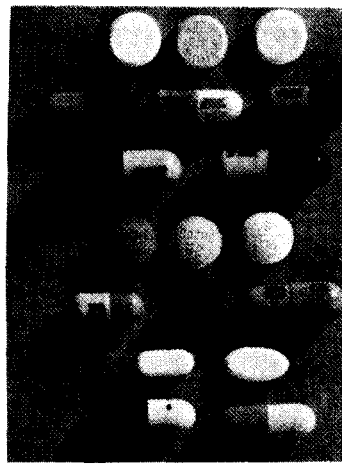
NARCOTICS AND OTHER DEPRESSANTS



Heroin



Codeine, Morphine, Meperidine

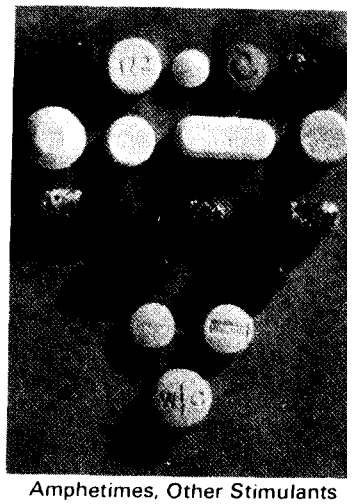


Barbiturates

STIMULANTS

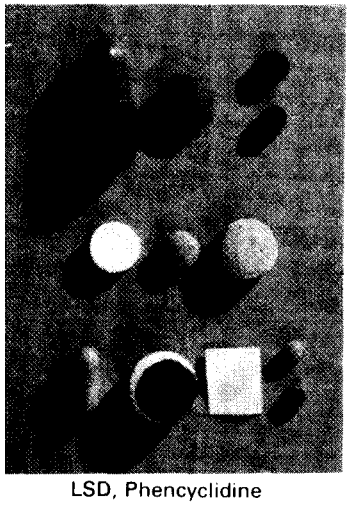
Cocaine

Coca plant

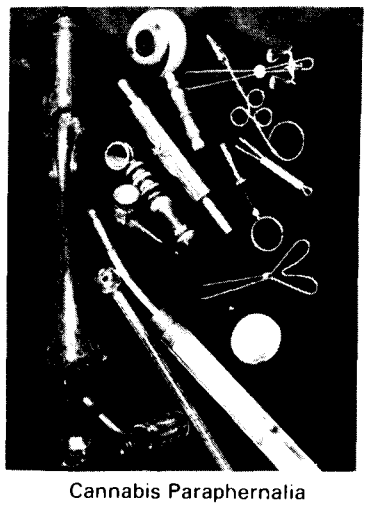


Amphetimes, Other Stimulants

CANNABIS AND OTHER HALLUCINOGENS



LSD, Phencyclidine



Cannabis Paraphernalia

Marihuana, Hashish

CONTROLLED SUBSTANCES: USES AND EFFECTS

		DRUGS	SCHED-ULE	TRADE OR OTHER NAMES	MEDICAL USES	PHYSICAL DEPENDENCE	PSYCHOLOGICAL DEPENDENCE	TOLERANCE	DURATION OF EFFECTS	USUAL METHODS OF ADMINISTRATION	POSSIBLE EFFECTS	OVERDOSE EFFECTS	WITHDRAWAL SYNDROME
DEPRESSANTS	NARCOTIC	OPIUM	II, III, V	Dover's Powder, Paregoric,	Analgesic, antidiarrheal	High	High	Yes	3-6 (IN HOURS)	Oral, smoked	Euphoria, drowsiness, respiratory depression, constricted pupils nausea	Slow and shallow breathing, clammy skin, convulsions coma, possible death	Watery eyes, runny nose, yawning, loss of appetite, irritability, tremors, panic, chills and sweating, cramps, nausea
		MORPHINE	II, III	Morphine, Pectoral Syrup	Analgesic, antitussive	High	High	Yes	3-6	Oral, injected, smoked			
		CODEINE	II, III, V	Codeine, Empirin Compound with Codeine, Robitussin A-C	Analgesic, antitussive	Moderate	Moderate	Yes	3-6	Oral, injected			
		HEROIN	I	Diacetylmorphine, Horse, Smack	Under investigation	High	High	Yes	3-6	Injected, sniffed, smoked			
		HYDROMORPHONE	II	Dilaudid	Analgesic	High	High	Yes	3-6	Oral, injected			
		MEPERIDINE (PETHIDINE)	II	Demerol, Pethadol	Analgesic	High	High	Yes	3-6	Oral, injected			
		METHADONE		Dolophine, Methadone, Methadose	Analgesic, heroin substitute	High	High	Yes	12-24	Oral, injected			
		OTHER NARCOTICS	I, II, III, IV, V	LAAM, Leritine, Levo-Dromoran, Percodan, Tussionex, Fentanyl, Darvon *, Talwin *, Lomotil	Analgesic, antidiarrheal, antitussive	High-Low	High-Low	Yes	Variable	Oral, injected			
		CHLORAL HYDRATE	IV	Noctec, Somnos	Hypnotic	Moderate	Moderate	Possible	5-8	Oral	Slurred speech, disorientation, drunken behavior without ordor of alcohol	Shallow respiration, cold and clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, delirium convulsions, possible death
		BARBITURATES	II, III, IV	Amobarbital, Phenobarbital, Butisol, Phenoxbarbital, Secobarbital, Tuinal	Anesthetic, anticonvulsant, sedative, hypnotic	High-Moderate	High-Moderate	Yes	1-16	Oral, injected			
		GLUTETHIMIDE	III	Doriden	Sedative, hypnotic	High	High	Yes	4-8	Oral, injected			
		METHAQUALONE	I	Optimil, Parest, Quaalude, Somnatac, Sopor	Sedative, hyptonic	High	High	Yes	4-8	Oral, injected			
		BENZODIAZEPINES	IV	Ativan, Azene, Clonopin, Dalmane, Diazepam, Librium, Serax, Tranxene, Valium, Verstran	Anti-anxiety, anticonvulsant, sedative, hypnotic	Low	Low	Yes	4-8	Oral, injected			
		OTHER DEPRESSANTS	III, IV	Equanil, Miltown, Noludar Placidyl, Valmid	Anti-anxiety, sedative, hypnotic	Moderate	Moderate	Yes	4-8	Oral, injected			
STIMULANTS	NARCOTIC	COCAINE †	II	Coke, Flake, Snow	Local anesthetic	Possible	High	Possible	1-2	Sniffed, injected	Increased alertness, excitation, euphoria, increased pulse rate and blood pressure, insomnia, loss of appetite	Agitation, increase in body temperature, hallucinations, convulsions, possible death	Apathy, long periods of sleep irritability depresion, disorientation
		AMPHETAMINES	II	Biphetamine, Delcobese, Desoxyn, Dexedrine, Mediatric	Hyperkinesis, narcolepsy, weight control	Possible	High	Yes	2-4	Oral, injected			
		PHENMETRAZINE	II	Preludin	Hyperkinesis, narcolepsy, weight control	Possible	High	Yes	2-4				
		METHYLPHENIDATE	II	Ritalin	Hyperkinesis, narcolepsy, weight control	Possible	High	Yes	2-4	Oral, injected			
		OTHER STIMULANTS	III, IV	Adipex, Bacarate, Cylert, Didrex, Ionamin, Plegine, Pre-Sate, Sanorex, Tenuate, Tepanil, Voranil	Hyperkinesis, narcolepsy, weight control	Possible	High	Yes	2-4	Oral			
HALLUCINOGENS		LSD	I	Acid, Microdot	None	None	Degree unknown	Yes	8-12	Oral	Illusions and hallucinations, poor perception of time and distance	Longer, more intense "trip" episodes, psychosis, possible death	Withdrawal syndrome not reported
		MESCALINE AND PEYOTE	I	Mesc, Buttons, Catcus	None	None	Degree unknown	Yes	8-12	Oral, injected			
		AMPHETAMINE VARIANTS	I	2,5-DMA, PMA, STP, MDA, MMDA, TMA, DOM, DOB	None	Unknown	Degree unknown	Yes	Up to days	Oral, injected			
		PHENCYCLIDINE	II	PCP, Angel Dust, Hog	Veterinary anesthetic	Degree unknown	High	Yes	Variable	Smoked, oral, injected			
		PHENCYCLIDINE ANALOGS	I	PCE, PCPy, TCP	None	Degree unknown	Degree unknown	Yes	Variable	Smoked, oral, injected			
		OTHER HALLUCINOGENS	I	Butotenine, Ibogaine, DMT, DET, Psilocybin, Psilocyn	None	None	Degree unknown	Possible	Variable	Oral, injected, smoked, sniffed			
	CANNABIS	MARIHUANA	I	Pot, Acapulco Gold, Grass, Reefer, Sinsemilla, Thai Sticks	Under investigation	Degree unknown	Moderate	Yes	2-4	Smoked, oral	Euphoria, relaxed inhibitions increased appetite, disoriented behavior	Fatigue, paranoia possible psychosis	Insomnia, hyperactivity, and decreased appetite occasionally reported
		TETRAHYDRO-CANNABINOL	I	THC	Under investigation	Degree unknown	Moderate	Yes	2-4	Smoked, oral			
		HASHISH	I	Hash	None	Degree unknown	Moderate	Yes	2-4	Smoked, oral			
		HASHISH OIL	I	Hash Oil	None	Degree unknown	Moderate	Yes	2-4	Smoked, oral			

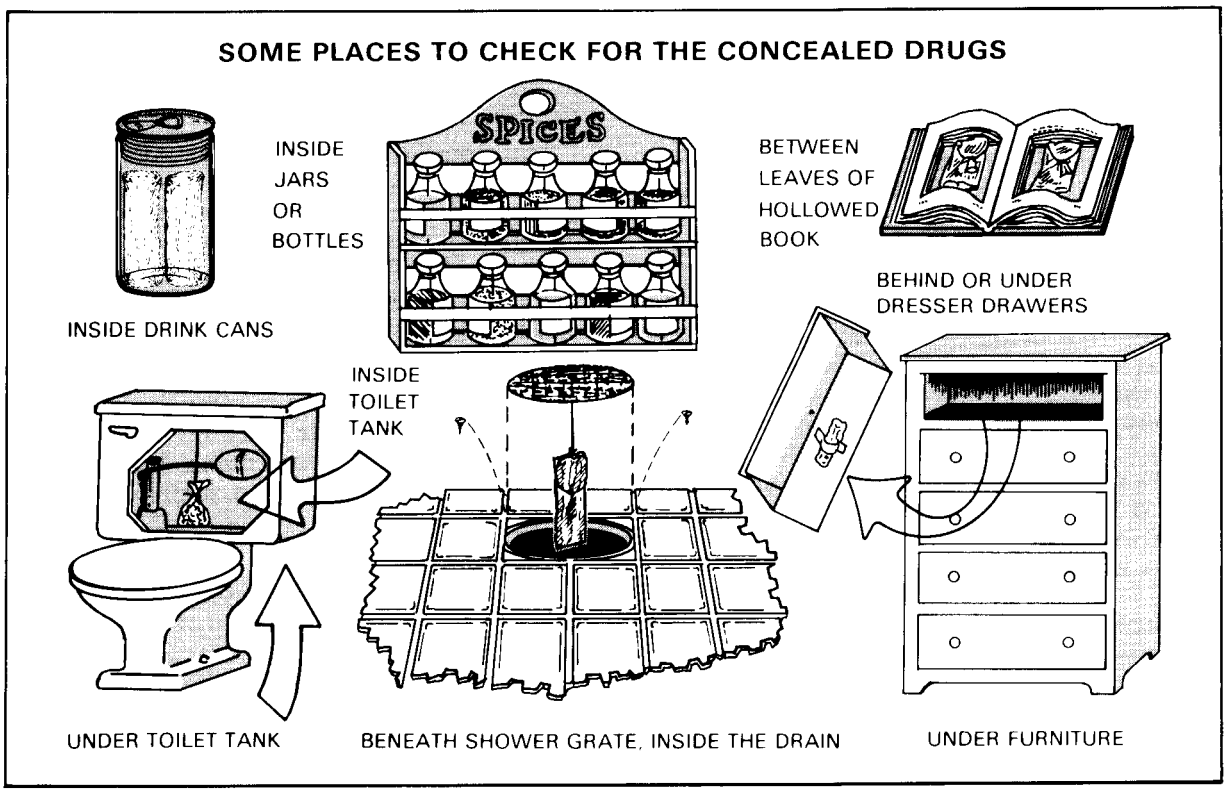
*NOT DESIGNATED A NARCOTIC UNDER CSA †DESIGNATED A NARCOTIC UNDER CSA

CONCEALMENT OF DRUGS

If, in the course of processing a crime scene, you conclude that the crime may be drug-related, you must attempt to locate the cache of drugs or drug paraphernalia. Great imagination is often used by an abuser in the concealment of his material. The only commonality of choice is that abusers choose as hiding places those they believe investigators will ignore because of their unlikeliness or will not investigate because of their difficulty of access. One trick used to hide drugs is to place the drug in a bag and suspend the bag out a window which has been left closed. When the unwary investigator opens the window, the bag is released to fall to the ground, taking the evidence with it. The abuser retrieves the illegal material merely by holding the string as he opens the window.

Drug-related material has been concealed in cereal boxes, cans of baby powder, diapers on or off infants, mattresses, upholstered furniture, false ceilings, floors, walls, decorations attached to walls or ceilings, hollowed-out books, telephone instruments, typewriters, umbrellas, hollow stair steps and shoe heels, wigs, face cream and other cosmetic jars, apparently full soft drink cans, and numerous other places.

Check plumbing of all kinds and types. Never fail to inspect the toilet bowl and sink for drugs taped to their bottom or under surfaces. Look underneath any free-standing bathtub and, especially, under the overhang of an old-fashioned bathroom sink. Removable showerheads and medicine bottles and liquid containers that appear to be sealed also should be scrutinized. Check bottles of prescription medicine to see if the contents conform to the label. Partly filled capsules are usually a sign of drug substitution. In bathrooms there is commonly an access door leading to the controls of various plumbing fixtures. This should be inspected for signs of tampering since there is usually a large space available for storage. In general, paying special attention to the fixtures of the bathroom is rewarding.



When you examine upholstered furniture, look for signs of removal of the upholstery tacks or opening of seams. And turn furniture over to check the springs and webbing. When inspecting furniture with drawers, be sure to remove the drawer completely and inspect the sides and the bottom, as well as the inside of furniture after the drawer is removed.

Inspect electronic entertainment devices like record players, stereo equipment, or television sets for signs of tampering. Screws that have been removed often show scratches on their slots and on the material near the screws. Check light fixtures, lamps and stands, washing machines and dryers, toasters, electric mixers, ovens and stoves, heaters, and air conditioners as well as other appliances. And check filing cabinets, business machines, cameras, and photographic equipment. They are often used to store drugs and drug paraphernalia.

Hiding places are limited only by the imagination and ingenuity of the drug abuser. The abuser who simply uses a cigarette package in which to carry drug-related material is singularly lacking in imagination. One can almost suspect he is anxious to be caught.

At times you may want to submit live plant materials to the lab for examination. Do not put living plants in airtight plastic containers. The moisture they exude accumulates and makes examination difficult. Growing plants should be dried before shipment. Or else wrap them in porous paper, and notify the laboratory before you ship them.

ILLICIT MANUFACTURING OF DRUGS

The illicit manufacturing of drugs occurs in clandestine laboratories. These labs may be set up to extract, convert, synthesize, or process drugs. Extraction laboratories change raw plant material into a finished drug product by the use of chemical solvents. An extraction lab, for instance, would change cannabis to hashish; hashish to hashish oil; or opium to morphine. Conversion laboratories process a raw or unrefined drug product into a finished, refined drug by changing the chemical structure of the drug. A conversion lab could change morphine to heroin or cocaine base to

laboratories combine raw materials in the proportions required to produce a finished drug through chemical reaction. A synthesis lab may produce PCP, LSD, or mescaline sulfate. Processing laboratories, using machines or forms, turn a final drug product into a dosage unit. A processing lab, for instance, turns a drug powder into a drug tablet by use of a compressing machine.

Clandestine laboratories vary in the expertise and sophistication of the process and in the education and intent of the operator. Depending on the drug produced, little or no chemistry training is required. Generally speaking, the manufacture of PCP requires no chemical training, while that of LSD requires some training due to the complexity of the chemistry involved. This does not preclude someone being self-taught. A self-taught clandestine chemist may be efficient enough to handle the reactions involved in the manufacture of any specific drug.

The small-time operator usually has no chemistry background or training. His process is crude and unsophisticated, generating a small yield and a low-purity product. The finished product is sold in the local area. The operator is often a drug abuser. And his lab usually can be detected by its chemical odors.

The educated operator often has a chemistry background. He may be a student or professor of chemistry using his position within a school to obtain precursor chemicals or using the school's laboratory to produce drugs.

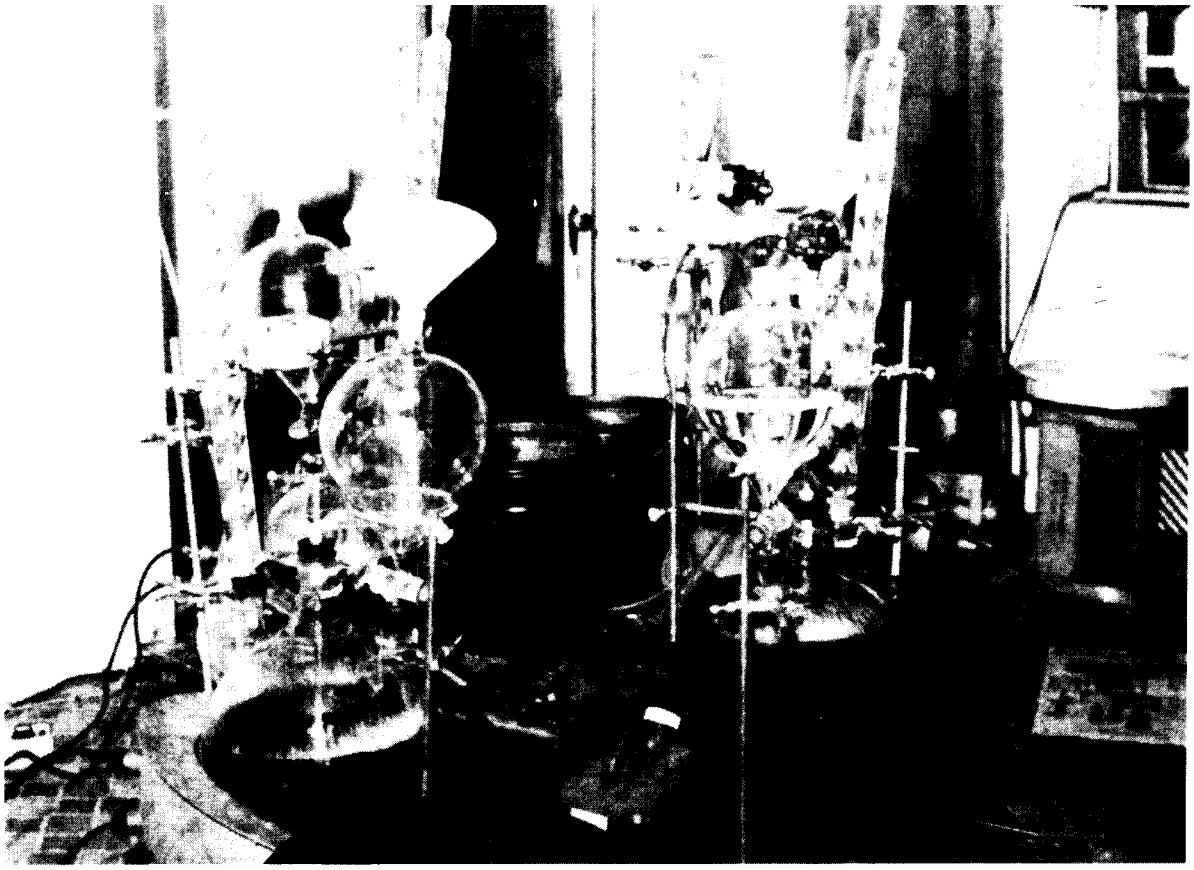
The large-scale laboratory operator is usually a member of a group of conspirators producing drugs solely for profit. The operation is sophisticated, the work is done by expert chemists, and the final product is high in purity. There may be several laboratories functioning at one time.

Manufacturing and distribution often cover a several-state area. The drug product is usually sold some distance away from the manufacturing area.

When investigating a suspected clandestine laboratory operation, consider the basic needs of the operation. The lab must have privacy in which to conceal its illegal activity. But utilities must be available. As operations are generally conducted at odd hours, it must be located where foot and vehicular traffic will not draw attention to it. The lab must have space to conceal chemical orders when they arrive. And it must be able to conceal machinery noise, if a tableting press is being run.

The investigation of a suspected clandestine lab may result in a raid of the laboratory. A laboratory raid is a highly dangerous situation. Not only is there the prospect of armed suspects choosing to resist apprehension, but there is the possibility of them using hazardous chemicals as weapons against the raiding investigators. Incidents have been reported of suspects purposely booby-trapping laboratories to kill officers during a raid.

You must be aware of the hazards that chemicals can impose. Solvents like ether, acetone, and alcohol are explosive and highly flammable. Acids can cause chemical burns on contact with the skin. Bases can also be caustic. Accidental ingestion of some chemicals causes poisoning. Some chemicals, in contact with water, cause fires or explosions. Accidental absorption of chemicals through the mucus membranes of the eyes, nose, or mouth can be hazardous. Because even minute quantities of some of these chemicals can be highly dangerous, members of a raiding party must refrain from drinking, eating, or smoking in a laboratory after a raid.



A clandestine laboratory used for the manufacture of amphetamines.

Before raiding a clandestine laboratory, certain precautions must be observed. A chemist should be included in the raiding party. He will be responsible for shutting off the operation, dismantling the laboratory, and telling the search party which chemicals are dangerous. And the search party should wear protective equipment like safety glasses, rubber gloves, and rubber vests. Careful briefing of the raiding party is imperative.

When executing a raid on a clandestine laboratory, the first action to take upon gaining entry is to secure all suspects present at the site. Once this is done, the operation should be shut down by the chemist accompanying the raiding party. Only the chemist should dismantle the in-process reaction, turn off electrical equipment, close the valves on gas burners, or turn off running water. Do not remove items discovered in an ice bath unless directed to do so by the chemist. Ventilate the laboratory as quickly as possible. As an additional precaution, do not turn off or on any light switches. A spark from a switch may ignite lingering fumes. Then the entire facility should be photographed, as is, for documentary evidence. Avoid using flashbulbs when taking photographs. The electronic flash may cause an explosion.

The next step is to carefully and slowly dismantle the operation, and conduct a thorough search and inventory of every item at the scene. Process all glassware for latent fingerprints. Seize papers, notes, production records, and other materials as documentary evidence. Seize equipment, documents, precursor chemicals, immediate chemicals, or substances in various stages of production, as well as finished products. Do not seize dangerous solvents, acids, and other chemicals. These should be destroyed by the local fire department, bomb squad, or other appropriate agency after a photographic record is made.

CHAPTER 14

Larceny

Larceny is one of the most common crimes that is investigated in a military community. The crime of larceny can range from one barracks theft by a soldier who needs money to safecracking by professional thieves. Larcenies make up a large part of a military investigator's work load. They are often hard to investigate, because they are not always discovered or reported soon after they occur. And often the victim is not able to accurately describe the items that have been taken. In spite of these problems, military investigators have had great success in solving larcenies.

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Under the UCMJ the crime of larceny includes common law larceny, fraud, and embezzlement. Each of these forms of larceny have in common a wrongful acquisition of, or assumption or exercise of dominion over, the property of another. Each contains the element of intent of the accused to permanently deprive the owner of the property. See Part IV, paragraph 46, MCM.

Shoplifting and pilferage, for example, are common law larcenies. Fraud (False Pretenses) includes all the elements of larceny. But it also requires the property to be obtained by a designed misrepresentation of an existing fact or condition on which the victim relied. Embezzlement is also an act of larceny. But an embezzler lawfully receives the property of another through his position of trust and then, intentionally and unlawfully, keeps it. For example, if a bank teller gets money to pay customers, but keeps part of the money and alters records to cover up the loss, that teller is committing embezzlement.

To prove a larceny has been committed, you must show that the accused wrongfully took, obtained, or withheld from the possession of the true owner, or of any other person, the item in question. Generally, moving the property or having dominion over it with the intent to deprive the owner of the item without his consent meets this element of proof. Receiving, buying, or concealing stolen property or being an accessory after the fact are not included, however. It must also be shown that the property belonged to a known owner. And it must be shown that the accused took, obtained, or withheld the property either from the true owner or from someone who had greater right to possession than the accused. It must be shown that the property is of some value. The value of stolen property, other than items procured or issued from US government sources and listed by value in an official publication, is generally determined by its legitimate market value. It must be shown that the intent of the act was to permanently deprive or defraud another person of the use and benefit of the property. Or it must be shown that the intent was to permanently take the property for one's own use or the use of a person other than the true owner. These intents are collectively called an *intent to steal.* The existence of an intent to steal must, in most cases, be inferred or implied from the circumstances.

The lesser crime of wrongful appropriation has the same elements of proof as those for larceny, but there is a difference in intent. Here the intent is to temporarily, rather than to permanently, deprive the owner of the property.

INVESTIGATIVE PROCEDURES

Before you go to the scene of a larceny, get all the facts you can. These may come from the complainant or the person receiving the complaint. Use the facts to make a preliminary plan. Check to see that you have the equipment you will need to process the crime scene.

When approaching the crime scene, be alert for persons leaving or loitering in the vicinity. The offender may still be in the area. On arriving at the scene, question the victim to get a detailed description of the stolen property. Try to obtain the description when and where there can be no "coaching" or chance to see the property. It helps if the owner or witnesses can point out peculiarities, modifications, or adjustments. This includes evidence of minor damage, and signs of unusual or abnormal wear, use, or abuse. If the stolen property is insured, get the amounts, policy numbers, names and addresses of insuring companies, and beneficiaries of the policy or policies. An insurance company may have obtained a detailed description of the property from the victim at the time the item was insured. Ask about serial numbers, make and type or model, size and color, damages, repair work, and personal marks such as initials and alterations. Ask from where the articles were stolen. Record the exact location and avoid generalizations. Learn if there were other valuables present that were not stolen.

Learn names and addresses of possible witnesses and persons who had access to the stolen property. Get a description of situations, conditions, incidents, or statements that may tend to cast suspicion on any persons. Ask what means, if any, were used to secure the stolen property. Ask about trace materials placed by the owner on items that are targets for theft. In repeated thefts, such as mess or barracks thefts, materials or objects may be marked to positively identify them at a later date. Think about the presence on stolen items of identifiable contaminants or materials from the scene of the offense.

If there is any doubt that the victim actually owned the alleged stolen property, do two things. First, learn the names and addresses of persons who can verify ownership or possession of the items. Second, find out who can testify that prior to the offense the property was located as specified by the victim. Consider polygraph examination of the victim if the theft may not have occurred as alleged by the victim. False larceny complaints are often made to mask the negligent loss of borrowed personal or government property. They are also made to support false claims against the government.

Ask about the nature and location of documents that could help establish ownership, possession, and value of the stolen property. These documents could help identify the property when it is recovered. Check the list of personally owned, serial-numbered items kept in the unit orderly room.

The type of items taken may give a lead to the offender. If only toys were taken, the offender may be a child or a person who has children. To help identify the offender, consider if soldiers could keep or use the stolen amount of those articles in a barracks, a vehicle, or an off-post quarters. Consider how the stolen items could be changed, altered, or disguised to permit their resale, reregistration, or open use. Consider what materials, equipment, or facilities it would take to disguise the stolen articles.

Use every appropriate means to get a definitive description of the property, to locate it, and to associate the suspect with the offense. See if there are any photographs or sketches of items similar to the stolen items. Photographs could include items in the background or foreground of the place of the theft. Check on serial numbers, laundry and drycleaning marks, jewelers' marks, and monograms or other personalized markings. Learn of manufacturers' data, labels, and peculiarities of manufacture or design.

Make every effort to locate possible witnesses. Question them and have them verify, by document or statement, the victim's ownership or possession of the stolen property. Also ask them to verify the property's location before the theft. Inquire about the presence at the crime scene of anyone acting in a suspicious manner. If you know of persons who have committed or

been involved in a larceny, ask if they were present at the crime. This can be of value if the stolen property is of the same type as items taken in other cases with known suspects. Ask if a motor vehicle was present at or near the crime scene. If so, get a description of it. The vehicle may have been used by the offender, and learning who owns it may lead you to him. Often, though, an offender steals a vehicle to use at the crime scene and then transfers to another vehicle after leaving the scene.

Notify other law enforcement agencies. Give them a description of the stolen property and MO of the crime. Have the MP station enter the identifying data for serial numbered items in their National Crime Information Center (NCIC) computer terminal. This will allow other police agencies to trace the item back to you should they recover it during one of their investigative efforts. Check the local MO files. Make inquiries concerning any unusual activities at or near the crime scene. Check with informants for any relevant information. Check possible and likely places of disposition of stolen property. Check pawn shops, secondhand stores, known fences, locker facilities, and express offices. If stolen items are found in such places, try to get information about the person who left the items. Ask for a description and names, addresses, phone numbers, and the like.

Coordinate with the SJA office. A larceny complaint may be falsified to submit a claim against the government. The local SJA claims office should be queried to learn if a claim has been submitted. See if the details of the claim fit the information gained through investigation.

EVALUATING EVIDENCE

Evidence gained through questioning persons or by other means must be thoroughly checked. Be aware that a *confession does not negate the need for evidence.* The elements of the confession must be supported by evidence. Investigative evidence, properly handled and evaluated, may place a suspect at the crime scene. This may be done by showing that the suspect or his vehicle was seen at the scene by a witness or the victim. The person may have left fingerprints, palm prints, or footprints. Or the vehicle may have left identifiable tire tracks. Other ways to place the offender at the scene include matching soil or rock particles from the suspect's clothing or vehicle to particles fitting the type of soil or rock at the crime scene. And property, tools, or other materials at the scene may be traced to the offender.

Evidence may help find stolen items in the possession of a suspect or in a place under his control. But finding the item or evidence of the item in the possession or control of a suspect is not, by itself, enough to convict him of a theft. You must be able to show that the suspect knowingly, illegally deprived another of the possession of the item. In some cases, possession may be shown by finding proof that the property was present at an earlier time.

Evidence may show that a suspect profited by the offense or came into money in a way related to certain facts of the offense. This can be of value if the person cannot show how he got the funds or credits in a legitimate way. Such information may give leads to the identification of offenders or receivers for stolen goods.

DEVELOPING SUSPECTS

Look for persons who had motive, means, and opportunity. The motive may be more than the desire to possess the stolen property. Spite, vandalism, or a special reason to deprive someone else of property may be factors. Sometimes stolen items suggest a false motive rather than the real one. An offender who fails to find items he was looking for may take other items he finds while searching the scene.

When fairly certain of the motive, try to find persons who most likely had such a motive and investigate their activities. Consider persons having easy access to the property. Persons with access to, or custody of, government property should be investigated when repeat offenses take place at the same location. Thorough checks into their backgrounds may show them to have motives. A check with local welfare agencies may show persons who recently sought aid in personal or family financial problems.

Consider those persons who recently repaid loans to the agency. Persons whose financial status gives a motive for crime may become suspects. But take care not to cast suspicion on persons simply because they have had a hardship. There must be related factors to lead to suspicion. And check on strangers or loiterers at the scene about the time the offense occurred. Offenders often masquerade as highly inquisitive or solicitous persons. Think about persons who have large gambling losses or excessive spending habits. And don't forget drug abusers.

If you feel it is needed, a suspect may be placed under surveillance. A surveillance may yield evidence incriminating the suspect or suggesting someone else as the real offender. If circumstances warrant, the premises of a suspect or suspects may be searched. Authority must be obtained prior to conducting the search. Only that property specified by law can be seized. If stolen property is found on the premises of a suspect, it may be prima facie evidence that he is related to the offense. This may involve a need to support or confirm the suspect's original statement as to his whereabouts when the offense took place.

Items that have been the target of larcenies may also be placed under surveillance to detect further larcenies. You may want to mark items subject to larceny to help make a positive identification of them when they are found in the possession of a suspect. This is useful for the investigation of barracks thefts. It is also useful for thefts of stock items by employees of post exchanges, commissaries, or storage facilities. Although currency is not often marked, serial numbers may be recorded to help in later identification of certain notes. Invisible powders to contaminate the skin or clothing of offenders may be used on property, including money. These powders are also useful at points of entry to containers or storage premises. Some bulk items like gasoline, oil, and lubricants may be treated for identification by adding harmless ingredients. These can be detected when these items are recovered from suspects. With the help and advice of the crime lab, proper substances may be prepared. Commercially prepared additives or marking materials may be obtained from police supply manufacturers. Containers of edible items that do not lend themselves to treatment with additives may be marked.

Making a study of security measures and supply and accounting methods at places where offenses take place may help. Finding weaknesses in security or accounting procedures may give leads to the offender. They may help show the means used to commit and conceal the offenses and the means to remove, transport, and dispose of stolen items. The help of Army Audit Agency personnel or other financial experts should be requested to investigate accounting matters beyond your abilities.

Check money conversion activities. Overseas, attempts may be made to convert the proceeds from thefts of military payment certificates or foreign currency to US dollars or postal money orders. Liaison with offices where such transactions are made may show persons who have converted or transmitted funds in large amounts. It may also help find those who possessed local currency in unusual amounts. Such a check also may give the names or accounts in other countries to whom the offender is sending funds. This information in itself does not show theft, but it may give other leads when it is related to a suspect. Remember, however, that the persons involved may have a proper basis for possessing, converting and transmitting the sums in question. Your unwise handling of such information could damage the reputation of innocent persons. And it could also cause you to lose valuable sources of information.

FRAUDS AGAINST SOLDIERS

Frauds against military personnel are many and varied. These larcenous acts cause more than just monetary losses to the government and individuals. Left unchecked, these acts can destroy the morale of a command. The effects of these acts require that law enforcement personnel and commanders concentrate on prevention as

well as investigation. You may be called on to investigate these types of frauds only in overseas areas. But when conducting crime surveys in CONUS, be aware of and look for these activities. Investigative authority may not be the responsibility of the military. However, unscrupulous dealers may be brought to the attention of the Armed Forces Disciplinary Control Board for action. Some of these frauds include:

- False and unrealistic guarantees advertised by unethical merchants and salesmen.
- Sale of vehicles with a mechanical condition or appearance other than that represented or that carry hidden costs disguised as credit charges or handling fees.
- High interest rates, credit reference fees, insurance expenses, and other hidden charges disguised as legitimate costs by loan sharks, confidence artists, criminal gamblers, carnival hucksters, and swindlers who pose as legitimate businessmen but use unscrupulous means to prey upon unsuspecting soldiers.
- Fraudulent offers of feminine companionship to set a soldier up for assault, robbery, blackmail, or other serious offenses.

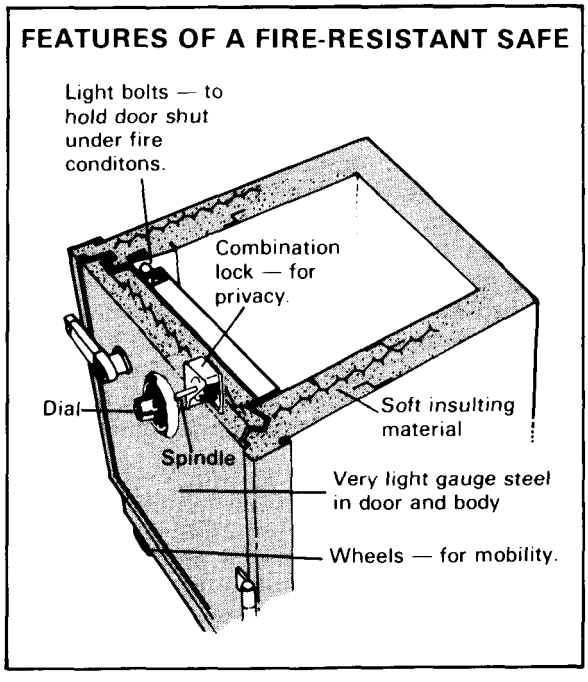
To help prevent frauds, personnel living in barracks should keep a list of the serial numbers of all their serial-numbered possessions. A copy should be turned into the orderly room. A program of marking valuable items permanently with an electrical inscriber should be used by unit commanders. This greatly aids investigations and, in the long run, acts as a deterrent to potential thieves. Certain serial-numbered items like weapons, vehicles, and electronic equipment should be entered in the NCIC computer.

LARCENIES INVOLVING SAFES

In the military, the unlawful entering of a safe in a place other than a residence is a larcenous act. If a safe is involved in a larceny case, begin by determining the method used to open the safe.

The rip or peel method is mainly used on fire-resistant safes made of lightweight metal. A hole is drilled in one corner of the safe and a crowbar is used to peel back the door or rip open the side. The punch method is used to remove the safe's dial to expose the spindle. Then the spindle is punched inward using a center punch and mallet. The chopping method is used to knock the bottom of a safe in. It is a crude method, using an axe, chisel, sledge hammer, or like tool to obtain entry. In the sawing method, a high-speed power saw with a diamond or Carborundum blade is used to saw a corner hole in the safe. The burn or torch method, using an oxyacetylene cutting torch, is used to burn a hand-sized hole in the side of a safe. It may also be used to burn around the edge of the door to sever the bolts. The use of a thermal burning bar or thermite grenade is a variation of this method. In the explosive method, dynamite or plastic explosives are used to blow a hole in the lock or blow open the door around the seams. Sometimes, if the safe is movable, the carry-away method is used. The criminal simply hauls away the safe and opens it later using one of the other methods.

FEATURES OF A FIRE-RESISTANT SAFE



The combination or manipulation method is rarely used. There are very few people skilled enough to open a safe by manipulating its combination. It takes an intimate knowledge of safe-locking devices and a highly developed ability to coordinate the senses of feel, hearing, and sight. If it appears that this method was used, your investigation is likely to show that the safe was left open or not secured properly. Or the combination may have been written on, in, or beneath the desk drawers near it.

After you have determined the method of entry, forward any samples of explosive residue and safe dust to the crime lab for comparison purposes. If you can, send the safe to the lab to be examined, too. If not, photograph and make casts or molds of tool marks to send to the lab. Lab examiners can check for explosive residue or safe dust. If a suspect is picked up soon after the offense, be sure to send the suspect's clothing to the lab to have it examined.

Often, the "breaking" of a safe takes skills unique to certain persons. Question known safecrackers and check their alibis thoroughly. Investigation of the crime scene may lead to these persons as suspects in the case at hand. If civilian suspects are involved, help in interrogating known suspects may be gained from civilian police. Activities of organized groups of safecrackers are monitored by civilian police. Criminal information on known professional thieves is vital to solving safe-cracking cases. Such professionals may be helped by apprentices. Also, younger men hoping to reach professional status may try jobs a professional might not. Compare the MO used by known persons to the techniques used in a given case. This can greatly aid you in your investigation.

LARCENIES OF MOTOR VEHICLES

Vehicle larcenies are not as common to Army posts as they are to the civilian community. They occur often enough, however, to warrant separate discussion. Vehicles may be stolen for joy rides or to be later stripped for parts. Sometimes vehicles are stolen to sell the vehicle for profit, but this is mostly done by professionals.

Many vehicle larcenies are wrongful appropriation under the UCMJ, since the intent is to temporarily deprive. These larcenies include theft for convenience and joy riding. For example, a soldier may wrongfully appropriate a jeep for transportation. These incidents are not done by professionals. Requiring personnel on post to remove their keys and to lock their parked, unattended vehicles can help prevent many such larcenies. This requirement can be enforced by military police patrols.

When you are investigating a vehicle theft, get a full description of the vehicle, including motor and body numbers. Get the time and date of the theft and the place where the vehicle was located when it was stolen. If the vehicle was personally owned, make certain the POV was not repossessed by a finance company. If the stolen vehicle belongs to the government, notify the FBI. The FBI has primary jurisdiction in thefts of government property.

Learn who had access to the place where the vehicle was located at the time of the theft. Check to see if persons having access were involved in the theft. Find out if any missing personnel could have had a motive to steal the vehicle. All missing personnel should be checked to see if any one of them could have been involved in the theft. Contact municipal, county, and state law enforcement agencies for help in locating the vehicle and the offender. And provide information to these agencies and to the NCIC. Have MP look for discrepancies concerning license plates, like dirty places on clean cars or the reverse.

Consult the National Automobile Theft Bureau's Passenger Vehicle Identification Manual. It will help you check vehicle identification numbers against a specific vehicle. The manual lists automobile manufacturers and gives their system of assigning vehicle identification numbers to their products.

LARCENIES OF COMMERCIAL GOODS

The larceny of merchandise or goods from a commercial activity is shoplifting. It is also known as "boosting." The FBI's Annual Uniform Crime Report indicates that the average value of goods taken by a shoplifter is $25. Nationally, business losses range in the millions each year. To offset these losses, businesses increase the price on goods and the general public pays for these crimes.

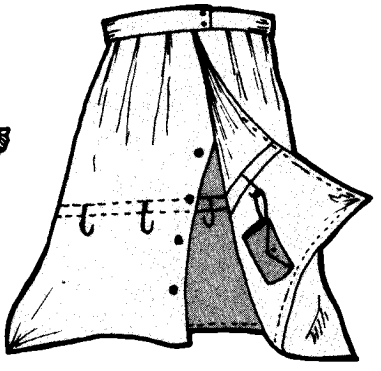
Shoplifting is often the main vocation of professional shoplifters. Their motive is monetary. Professionals may work alone or in groups of two or three. Their targets are clothing, furs, jewelry, and other items that have a high resale value. Drug addicts also steal items having a high resale value to support their habit.

Casual offenders steal for several reasons. They may steal for personal need or opportunity or from their inability to resist temptation. Housewives and persons on meager incomes may steal clothing, food, and other small items. Often their children are used as decoys to distract an employee's attention. Sometimes a child may be used to carry the stolen goods. Youths often shoplift for the thrill or adventure involved. They steal nice-to-have items. Sometimes, having been given money by a parent to run errands, they steal the items for which they were sent so they can pocket the cash. When caught, they are usually sorry and ashamed, and they stop shoplifting. Some rare shoplifters are compulsive thiefs. They suffer from an irresistible desire to steal for the sake of stealing. The items they steal often have a hidden meaning to the person. But compulsive shoplifters as a group make up less than one percent of the total number of shoplifters.

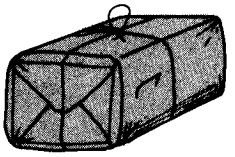
Shoplifters commonly use shopping bags, and altered clothes, to carry away items. They also use a means known as crotch carrying, and at times, outright openness. Shoplifters use fitting rooms and rest rooms to hide goods on their person or change prices on items they intend to steal. Shoplifters' clothes like heavy coats, baggy trousers, and loose-fitting skirts are often fitted with a series of hooks on which to hang items. Some shoplifters use booster boxes, packages that have sides that open. The inside of the box is hollow. The box is placed on a display counter while the shoplifter pretends to look over merchandise. Stolen items are slipped into the box; the side is closed; and the person leaves the store. Crotch carriers simply place

SOME COMMON SHOPLIFTING METHODS

Shoplifters commonly use altered clothes—tiers of pockets in coats or loose

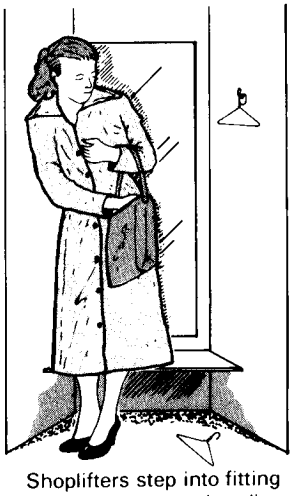


fitting skirts with hooks sewed to the inside linings can be used to hide merchandise.



Booster boxes

Hollow packages, having one end hinged to open to accept stolen items, are carried.



Shoplifters step into fitting rooms to hide merchandise in pocketbooks, or elsewhere on their person.

items between their legs to steal them. This method is very common in supermarkets and grocery stores. Meat, cigarettes, and records are often stolen in this manner.

CHAPTER 15

Burglary, Housebreaking, and Unlawful Entry

Burglary, housebreaking, and unlawful entry are offenses that all involve entry onto or into property without permission or authorization. But the offenses differ in method of entry, time of entry, type of structure entered, and the intent of the intruder making the entry.

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Burglary is a crime of stealth. It takes place under the cover of darkness. It is most often combined with theft, but it may involve more violent crimes like murder, rape, or arson. Persons subject to the UCMJ who, with intent to commit an offense punishable under Articles 118 through 128, (except Article 123a, bad checks), break and enter in the night time the dwelling houses of another, are guilty of burglary.

The break-in may be by physical force or by trickery like that of pretending to be a telephone inspector. Entering through a hole in a wall or an open door is not a "breaking" under the law. But if a partly open door or window is opened wider to permit entry, it is a breaking. And, of course, entering by removing or opening any part of a dwelling, like a screen, a window pane, or a door meets the requirement of breaking.

As soon as any part of the body is inserted into the dwelling, the requirement of "entry" is met. Inserting an object, like a pole, into the dwelling to extract property also qualifies as entry. The breaking and entering must be done to a dwelling belonging to another. This includes outhouses within a cluster of buildings used as a residence. It also includes separate dwellings within the same apartment or building.

The breaking and entering must occur between sunset and sunrise when there is not enough light to discern a person's face. And it must be done with the intent to commit an act of murder, manslaughter, rape, sodomy, carnal knowledge, larceny, wrongful appropriation, robbery, forgery, arson, extortion, maiming, or assault. The offense does not have to be committed or even attempted. It is the *intent* to commit the act that is the basis of the proof of burglary.

Housebreaking is like burglary in that the intruder enters a structure unlawfully with the intent to commit a criminal offense within the structure. But the offense which the housebreaker intends to commit need not be covered under Articles 118 through 128, UCMJ. It need only be the intent to commit some criminal offense. Any act or omission punishable by a court-martial, except one that is a purely military offense, is a criminal offense. And the accused's intent must be alleged and proved to support a conviction of this offense. Housebreaking differs from burglary in that the place entered does not have to be a dwelling. Nor is it required that the place be occupied or that there be a breaking. And entry may occur in daylight as well as in darkness.

Unlawful entry upon lands or structures without force but by means of fraud or other willful wrong is closely related to housebreaking. But unlike housebreaking, the intent to commit an offense within the place entered is not needed for this offense. The basis of proof for this offense is that the entry was unlawful and that the conduct of the accused was prejudicial to good order and discipline.

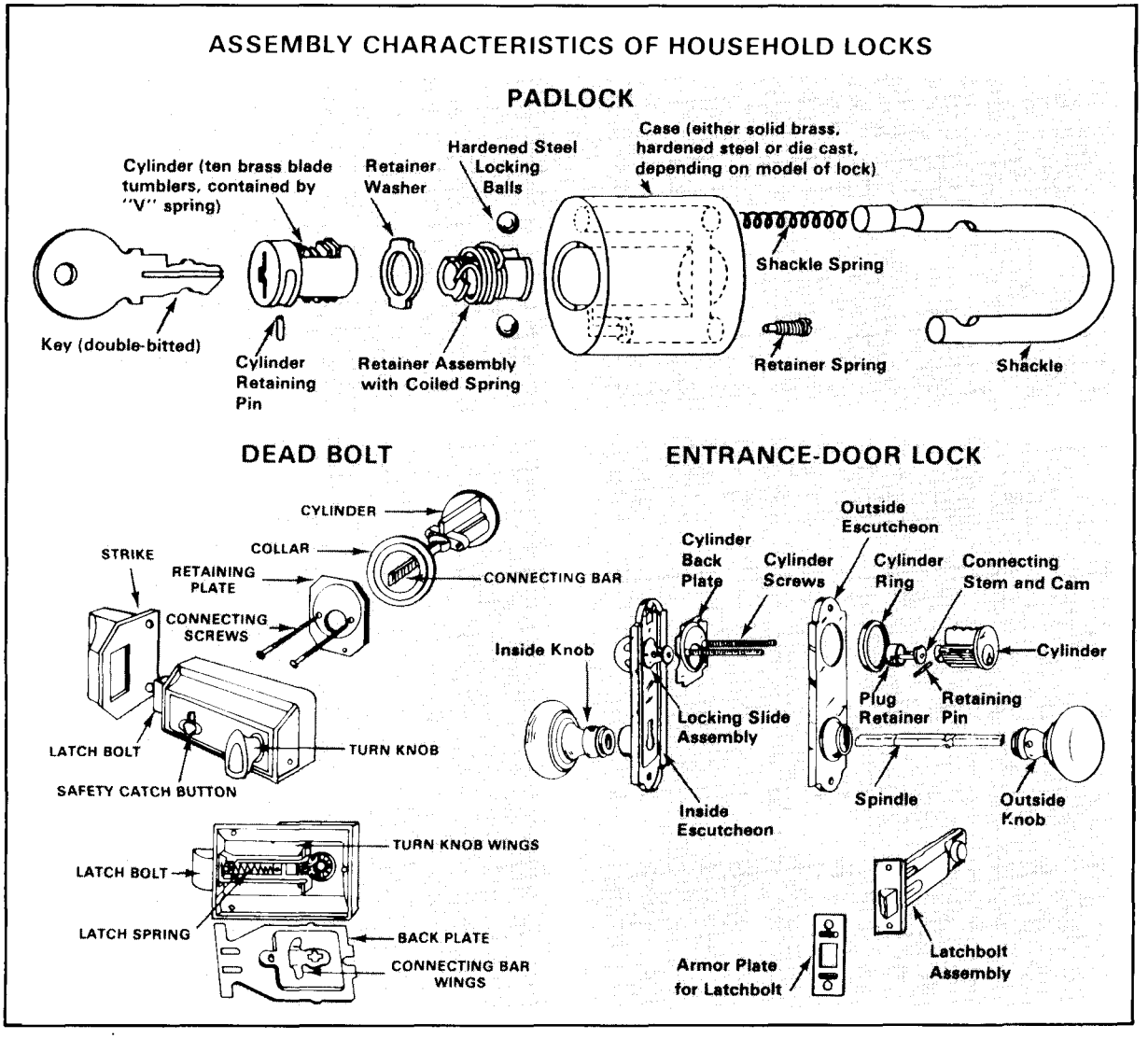
When investigating a burglary or housebreaking you must be ready to cope with any of several other crimes. Most often, you are faced with a crime of theft or larceny. Thus the investigative techniques for larceny often apply to burglary. Your goal will be to identify and apprehend the offenders and recover as much stolen property as you can.

RESPONDING TO THE SCENE

When you arrive at the scene, note and record the location and description of the structure or area entered. Find out where the owners or occupants were at the time of the crime. Learn when the owners or occupants left and if all the doors and windows were secured. Try to learn the time the offender entered the structure or area. Try to learn the number of persons thought to have approached the crime scene.

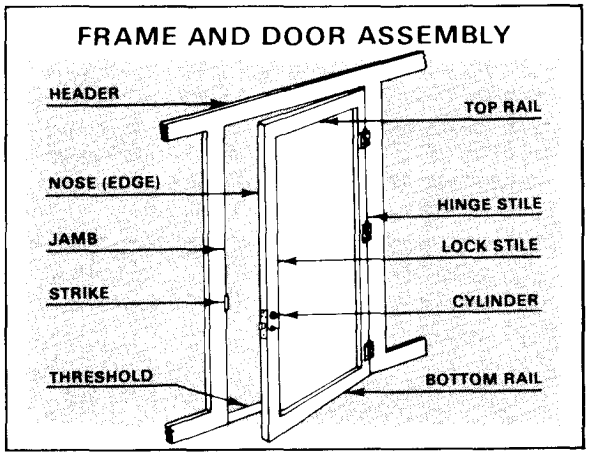
Seek evidence as to how the offender arrived at the crime scene. Footprints or tire tracks may show the route or means of entrance to the place of the real property. Study the tire tracks to learn the type and number of vehicles, the direction of travel, and the places parked. Look for materials that may have been dropped, like gas, mud, oil, or water. Check also for those that might have been picked up, like soil or rock. Make casts of tire tracks and footprints found at the crime scene and send them to the lab. Once a suspect vehicle has been found, you can send the tires to the crime lab to be compared with the casts made at the scene.

To learn where and how the entry was made, search the property for broken or unlocked doors, windows, skylights, or gates.



See if locks or fasteners were forced. Check for holes sawed or hacked through walls, floors, partitions, or roofs. Lab examination of wood, glass, or metal evidence found at the scene may show the direction of the breaking force. You may also learn the kind of instrument used.

Check the size and shape of openings. See if they are large enough for an offender to get in and large enough to permit removal of the stolen property. Note the height of the openings from the ground or from where the offender stood. Try to tell if entry was made bodily or by reaching through a window with an armor an instrument. See if it seems likely someone inside the building could or must have helped in the crime by passing items to the offender. How much help would be needed to remove the stolen items? How many persons would it take to handle the equipment?



Try to tell what equipment, such as ropes, ladders, or digging tools, were used in the breaking and entering. Collect toolmarks that show a forced entry in original form if you can. If you must remove a door or cut away part of a building, post a guard for security until repairs are made. When you cannot collect original toolmarks, make casts or molds of them. Toolmarks should be photographed and measured and the area dusted for prints before casting a mold or removing a damaged section. Tire tracks and footprints, too, should be photographed before casts are made.

Look carefully to see if any evidence was destroyed. Offenders often wipe off fingerprints, wear gloves, deface toolmarks, or try to obscure footprints and tire tracks. Try to tell if evidence was damaged by the offender, the victim, or the witnesses before MP arrived. Note what was damaged by accident and what was damaged on purpose. If the area contains records, check to see if they are in order. The offender may have tried to falsify, destroy, or misplace them.

Detecting the method and route of exit and flight may give leads to the offender. Learn if the offender used an existing escape route or broke out. Consider if more than one trip was made to remove stolen items.

RECONSTRUCTING THE OFFENSE

Often you can simulate an offender's search of the scene. This simulation may show if the offender was familiar with the place. And note the manner of his search. It may be a feature of a familiar MO.

Look for fingerprints and other evidence at points where the offender searched. This may reveal important information. A careful study may suggest how much time the offender spent on the premises. You may learn how skilled the person is or how secure he felt. If it appears that the offender went directly to the stolen object, it could suggest he had advance information. How did he get such information? Was the offender's search systematic, thorough, selective, or haphazard? The manner of search may show it to be the work of a professional or an amateur. Were objects replaced after being examined? Did the offender close doors and drawers? Such actions may show a choice of articles and motive. They may also hint at the offender's presence of mind and consciousness of detection. Consider what the offender did to deter detection while searching the scene. Were shades or blinds drawn? Was the inside door locked? Check for evidence of planned alternate escape routes.

It is possible that the victim is actually the offender. Sometimes crimes are staged to try to collect insurance or make a claim against

the government. Consider if another offense, like arson, was committed to hide the original crime. And keep in mind that the crime scene or evidence may have been deliberately arranged to mislead or to draw suspicion from the offender.

INFORMATION USEFUL FOR INVESTIGATING A BURGLARY OR A HOUSEBREAKING

- Is the entered structure a residence, store, office building, warehouse, garage, or other type of structure?
- Where were the owners or occupants at the time of the crime?
- When did they leave? Were all doors and windows secured?
- Where were the keys? Did other burglaries and housebreakings occur in the same area? Was the same modus operandi used?
- Have there been any recent visitors to the premises? What about tradesmen and utilities inspectors?
- Was the crime committed by someone inside or outside the premises? Were the premises occupied at the time? Was entry gained by force? If an outside job, how did the criminal enter?
- Was entry effected by picking a lock, by taking wax impressions, or by using skeleton keys or other burglar tools?
- Does the completed list of property that was stolen include a detailed description with identifying data?
- Where, when, and how was any property recovered? Did the owner identify it?
- Did the thief limit himself to one kind of property, or take other valuable items?
- Did the criminal conduct a systematic search? Did the search indicate a knowledge of the area? Were alarm wires cut?
- Have pawnshops and secondhand shops been checked for loot? Have express offices been checked for evidence of recent shipments?
- Did the thief do anything besides search and steal? Did he eat, did he smoke, did he commit a nuisance? Were any cigarette butts or matches found? What brand were they?
- Were any tools recovered at the scene? Were any tools recovered from the person of the suspect or his dwelling?
- Has any person been seen loitering about the premises? Did anyone observe the criminal leaving the premises? Were any clues observed in or around the premises?

CHAPTER 16

Assault

There are two general classifications of assault: simple and aggravated. A simple assault occurs when a person offers or attempts bodily harm to another person by means of unlawful violence or force. The violence or force must be unlawful. But the attempt or offer does not have to be carried out. If the attempt or offer is carried out, the criminal act is labeled battery. Because an attempt to act must precede the carrying out of an act, proof of battery supports a charge of assault. See, generally, Part IV, paragraph 54, MCM.

An assault made with a dangerous weapon or object likely to produce death or grievous bodily harm is an aggravated assault. Almost any object may bethought capable of causing the injury. Courts have held that bottles, beer glasses, rocks, and pieces of pipe, to name a few, may be used in a way likely to cause death or grievous bodily harm. On the other hand, an unloaded pistol used as a firearm and not as a bludgeon, is not considered a dangerous weapon. It has no force likely to cause grievous bodily harm. This is true whether the assailant knows it is unloaded or not.

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And assault made to deliberately inflict grievous bodily harm is an aggravated assault. If the intended grievous harm occurs, the assault is classed as aggravated whether or not a weapon is present. Grievous bodily harm does not include minor injuries, like a black eye or a bloody nose. But it does include fractured or dislocated bones, deep cuts, torn members of the body, and seriously damaged internal organs.

Many times it is hard to tell the difference between aggravated assault and simple assault. Consult your local SJA to be sure.

Sometimes assaults occur when the assailant's intent is to commit murder, voluntary manslaughter, rape, robbery, arson, burglary, housebreaking, or the like. Assaults occurring with an intent to commit a crime other than the assault are rarely investigated as assaults. They are usually processed as part of the investigation of the greater, intended crime.

SUBSTANTIATING AND INVESTIGATING

When an assault is reported, your first effort is to learn if the offense did occur. Do this by questioning the victim, the attending doctor, and any witnesses. If the act did occur, then begin investigating the offense.

Question the victim at least twice. A victim may recall more information as he or she has time to reflect. In your later interview with the victim, go over information from prior questioning. This also allows you to double check the victim's story. A victim may have a reason to keep back the truth. For instance, a man assaulted by the husband of a woman with whom he has become involved may deny knowing why he was assaulted.

Initial questioning should not be lengthy. Lengthy questioning delays the search of the crime scene. But if the medical officer believes the victim may die, try to get as much information as you can, as soon as possible. This should be done only with medical approval. When you can, use a tape recorder to record statements or declarations of the dying.

During the initial questioning, ask the victim's permission to take photos to record visible injuries. Use color film. Take another set of photos about three days later to show the full extent of the injuries. If the assailant used a weapon, ask the victim to describe it.

The victim may also be able to describe the assailant. The victim may know the assailant and may even suspect the assailant's motive.

If a victim does not know why he or she was assaulted, the assailant may have made a mistake. Or perhaps the victim interrupted some unlawful act in progress.

SEARCHING THE SCENE

After questioning the victim, search the crime scene. Your search may provide leads for further questioning.

If the victim is not in need of quick medical treatment, you can search while the victim is still on the scene. If the victim is not present during the search, you may want to go to the scene with him after the initial search has been made. Ask the victim to "talk you through the incident." Have him or her describe the action and show you where it took place. This may give you a better understanding of how the assault happened. And it could lead to additional evidence.

After the initial facts are assembled, you may want to talk with the medical officer who treated the victim. Try to learn the estimated age of the injuries. You may also be able to learn the approximate time the injury occurred. The medical officer can tell you if the injuries could have occurred in the way the victim described. The nature of an injury may prevent a victim from giving a true account of what happened. Sometimes a victim is incapacitated by alcohol, drugs, or physical problems. Any of these may affect a victim's ability to recall what happened. The medical officer also may be able to help identify the type of weapon that could have caused the injuries.

QUESTIONING WITNESSES AND SUSPECTS

After searching the crime scene, locate and question witnesses to the assault as soon as you can. Ask about unusual activity in the area. Question persons living, working, or in the vicinity of the scene. Ask about persons seen or believed to have been in the area.

Sometimes witnesses to an assault are reluctant to answer questions. They may fear the assailant. Or the assailant may be a friend.

When you are ready to interrogate a suspect, base your questions on information you develop during the investigation. Did the person have a motive and a chance to commit the assault? Discovering someone with the motive and the chance to commit the assault may lead you to the assailant. Was the suspect in the vicinity of the scene? Did the suspect have access to the type of weapon used in the assault? Can any evidence found at the scene be tied to the suspect? Finally, are the suspect's alibis supported?

If questioning fails to identify the assailant, check the victim's background, associates, and activities. Check police and personnel records to see if the victim has been involved in previous incidents. Question relatives, members of his military unit, neighbors, and associates. You may find that the victim has a motive for holding back information. This can be used as a basis for further questioning of the victim, suspect, and witnesses.

CHAPTER 17

Robbery

Robbery is a serious offense that may be carried out by a wide range of means. In robbery, an item of value is deliberately taken from a victim or from his presence. It is taken against the victim's will by force or violence or by instilling fear. The victim's fear can be of immediate or future injury to himself, his property, or the person or property of a family member or anyone in the victim's company at the time of the robbery.

Normally, robberies are reported fairly soon after they happen. And law enforcement response is quick. The likelihood of locating the offender of a robbery is directly related to the length of time it takes to begin the investigation.

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The types of robbery investigated most often by military investigators are muggings and planned robberies of post facilities. The principles and techniques used to investigate these robberies also apply to resident, vehicle, bank, and other robberies that are encountered less often. The elements of proof for the offense of robbery remain the same, regardless of the type of robbery being investigated.

ELEMENTS OF A ROBBERY

There are three basic elements of robbery. *First,* there must have been a larceny. All of the elements of larceny must be present. (See Chapter 14.) *Second,* the item truly must have been taken from the alleged victim or from his presence. And *third,* the item must have been taken against the victim's will by actual or threatened force or violence. It is robbery if the threat of force is enough to cause the victim to fear that the force will be used—and so keeps him from resisting. Holding a victim at gunpoint is sufficient threat to show robbery. For example, someone enters a house and points a gun at the owner. The owner, afraid of the gun, tells the hiding place of his valuables. Tying the owner up, the intruder goes into the next room where the valuables are hidden. When he takes them, he has committed robbery.

The offense of robbery combines the offenses of assault (discussed in Chapter 16) and larceny. Thus, if the elements of proof do not support a charge of robbery, they may support a charge for either lessser offense. If there is not enough evidence to show the requisite force or engendered fear, a charge of larceny may be shown. Or if evidence fails to support a charge of larceny and the element of force is present, a charge of assault may be shown.

More than one robbery may occur at one time. If a group of people are threatened and property is taken from each person, it is more than one offense. There are as many robberies committed as there are victims. Each instance of taking is considered a separate offense. However, when several people are threatened and property is taken from only one victim, there is only one robbery along with several assaults.

Sometimes, an alleged victim may not have been robbed. He or she may have reported robbery to claim money from the government. Also, a victim may not have been robbed of money. The victim may have been robbed of drugs. In which case, the victim would be open to a charge of false swearing or false complaint.

MUGGINGS

To solve muggings it helps to remember that a mugger is often the least professional of all robbers; he uses strong-arm tactics. An inexperienced mugger's actions may be based only on a need for money and a sudden chance to victimize a lone person.

And because he is inexperienced, he is likely to commit a careless error. Careful crime scene processing and follow-up can help you reveal it.

An experienced mugger plans his actions. He may enlist the aid of helpers. He selects his target and location for his attack. He chooses for a victim someone who has or is believed to have a large sum of money. He picks a location that is free of witnesses and that will give him the advantage of surprise. But an experienced mugger also often sets a pattern or uses the same method of operation. His use of the same MO can lead you to him.

When you arrive at the scene of a mugging, follow the basic steps in crime scene processing. Be concerned with an area larger than the immediate scene. You may find evidence left by the robber while he waited for the victim or as he fled the scene. Contact people in nearby facilities to find out if they saw anyone in the area whose actions could be suspect.

Question the victim with care to get a description of the robber. Ask about the robber's voice, mannerisms, and clothing. Muggers, however, are often hard to identify. Many robberies, especially muggings, are done after dark or under conditions making the robber's features hard to see. Even when the robber directly confronts his victim, the victim's emotional state is often such that he or she is not able to give a good description.

Find out the type of approach the mugger used. Get a description of the items taken from the victim and of their value. Ask what the victim's actions were just before the robbery. Ask in which direction the robber went when he left the scene. And ask if he left on foot or by vehicle.

Interview the victim of a robbery more than once. At a later interview the victim may remember details he or she could not recall right after the crime becasue of stress. Even if the victim recalls only a few details about th attacker, it will help.

One of the best ways to identify a suspect is to piece together a composite description supplied by several different victims. If the composite can be made in enough detail, you can prepare and distribute CID Form 88 (Wanted Poster). Consider giving local and resident federal agencies copies of the poster. On occasion you may want to use the post newspaper and local newspapers and TV stations as other means of publicizing the poster.

As you develop leads to the robbery, check known or suspected drug addicts. Addicts are often so desperate for money to support their habit that they commit muggings. An addict may also be careless about how he exchanges the stolen item for cash. He may pawn it or sell it to someone else.

Check pawn shops periodically for items known to have been taken in robberies. If automobiles have been involved, run a computer check of like-type vehicles. Have victims of robberies view the photographic identification file of the local USACIDC office. If possible, use local police department files as well.

In the absence of physical evidence, a study of the mugger's MO is of great value. One MO that experienced muggers may use is the yoking technique. In this technique, two or three muggers are involved. If there are three muggers, the largest of the group subdues the victim. He does this from behind, using a stranglehold on the victim's neck. The second mugger usually holds the victim's arms, while the third searches his pockets and removes the valuables. If only two muggers are involved, the smaller of the two muggers searches the victim's pockets and controls the victim's hands at the same time.

Because robbery is a recidivist crime, the techniques and mannerisms of the suspects are clues to their identities. Look for use of the same or like locations. Perhaps there is a pattern of using parking lots or parade grounds, or stairwells. See what weapons are used, if any. Check the method of approach or number of muggers. Learn what the mugger says as his opening statement to the victim. If any conversation was held with the victim or among the accomplices, learn what was said. Ask about peculiarities of accent or pronunciation of certain words. Note the violence used against the victim. Specifically, note how and where an injury may have been inflicted.

ROBBERIES OF MONEY-HANDLING FACILITIES

The best way to solve a robbery of a post facility is to seal the area off quickly and catch the subject before he or she can flee the scene and dispose of the stolen property. It helps that post military police stations have an alarm system that can be triggered at money handling facilities like banks, commissaries, or post exchanges. MP, responding in a preplanned manner, can block avenues of escape.

Serious crimes on military bases often come under the jurisdiction of federal law enforcement agencies. In some cases, bank robberies, car thefts, and thefts of US property are investigated by the FBI. Federal agencies outside the military that have sole or concurrent jurisdiction are called immediately. Local authorities are contacted as a matter of routine police coordination.

Identifying and questioning witnesses is critical to solving robberies of this kind. Have another investigator or an MP help get the names of everyone in the facility. Check for witnesses outside the building. Someone may have seen the suspects as they fled.

As with muggings, you need certain information. You want a list of events that happened just before the offense occurred. This includes the movements of the victim and others. You need a detailed physical description of the offender and any accomplices. Get this while the information is still fresh in people's minds. Get a detailed description of the methods and actions used by the offender and accomplices in the crime. Obtain a description of weapons and vehicles used in the offense.

Note what conversation occurred between the offender and his victim. If the robber had accomplices, note what they said to each other. The wording of verbal threats or demands uttered by the offender must be carefully documented. Written threats and demands must be retained and examined.

Some of the witnesses are likely to be customers rather than employees. They may not want to be interviewed. But all employees must be interviewed. Both positive and negative actions may have influenced the robber's plans. Fewer employees may have worked on the day of the crime because of lighter patronage. This factor may have entered into the robber's planning. Habitual movements by employees also could have been used to the robber's advantage.

In the planning stage of a robbery it is almost a must that robbers reconnoiter the target. They may even rehearse their actions. An employee's attention may have been drawn to such actions. During the course of interviewing all the employees, this may be brought out.

When you process the crime scene of a robbery of a money handling facility, pay careful attention to any methods of restraint the robbers used. Robbers sometimes restrain their victims with rope, adhesive tape, or the like. A certain type of knot may offer a clue to a robber's identity. If adhesive tape is used over the victim's mouth, fingerprints may be found on either side of the tape. You may be able to trace the material to either the manufacturer or distributor. And also look for the more usual clues. Items are sometimes carelessly left at the scene of the robbery. Clothing, shell casings, and notes handed to a victim may offer clues like fingerprints or laundry marks. If the robber abandons a vehicle, latent fingerprints and items of clothing left in the vehicle may give clues.

As with muggings, note facts pointing to a certain *modus operandi.* Matching the MO of an unsolved robbery with cases from other police agencies may lead to identifying and apprehending prime suspects. Perhaps the target was cased weeks in advance. Was there a detailed timetable of operations? Note the number of persons used to commit the robbery. Pay attention to how their tasks were split. Sometimes one man directs the operation, and others perform the actual work of the robbery. Tasks may be handled by roles: "driver", "gun man," "look-out," "inside man." Check the techniques used during the actual robbery. Note how persons were positioned. Did they use verbal commands, written or verbal demands, visual signals? Pay attention to the kind of

equipment that was used and the types of facial disguises that may have been used. Did the robbers' conversation suggest a prearranged plan for dividing the money? And be sure to check the method of escape and the route followed to achieve escape.

CHAPTER 18

Sex Offenses

As a military investigator you may be called upon to investigate the alleged commission of sex offenses contained in the MCM. You may also investigate alleged sex activity of persons subject to the UCMJ if these activities conflict with current Army policy, bring discredit on the military, or involve security matters. The investigation may result in administrative action under the provisions of Army regulations or it may result in court-martial action under the provisions of the MCM. In all cases' you conduct a complete, thorough, and impartial investigation.

Your investigation of alleged sex offenses must be tactful and discreet. Most jurisdictions do not permit disclosure of the identity of living sex offense victims. This is especially true of women and minors. Detailed information about a sex offense may become public knowledge at the time of the trial. But the investigative process must not start or add to rumors that often circulate after the discovery of a sex offense. The provisions of AR 195-2 govern the dissemination of publicity related to such incidents.

False and exaggerated sex complaints are common. The motives behind such complaints may be hard to discern. Such complaints may be the sincere thoughts of the alleged victims or of the parents of alleged child victims. But sometimes they are made without any real basis or regard for the harm they may cause.

The alleged commission of a sex offense can create public pressure to identify and apprehend the offender and to prevent future offenses. Such pressure may hurt a suspect's right to a complete and fair investigation of the charges. Because of the nature of sex offenses, you must work quickly during the preliminary efforts. But beware of hasty or rash conclusions. They can cause innocent persons to be falsely branded as sex offenders.

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Every sexual offense is different. When you arrive at the scene, it is up to you to assess the psychological and physical state of the victim. This will aid in setting a course of action. Rape is perhaps the most serious crime, excluding homicide, that you will investigate. The trauma of rape can be a long--lasting one. It is essential that investigators who are assigned rape cases have a special knowledge and understanding of both rape victims and offenders. Two investigators should be assigned to a case. It is best to have a member of each sex on the team.

Proper collection and evaluation of evidence and testimony is critical in a sex offense. Evidence, even if it seems of little value at the time, should be secured promptly and used intelligently. It is difficult to convict sexual offenders. You must do everything in your power to avoid an error in your process of the investigation.

You direct your main effort toward finding out if an offense did occur, the specific nature of the offense, and who committed the offense. You collect evidence to prove or disprove the fact of the offense. You maintain records so the chain of custody can be shown at a trial by court-martial or can support administrative action. You do not analyze the mental condition of the subject in your report. Nor do you color your report with a personal evaluation of the accused. Your efforts are directed to apprehending the offender. Legal and medical authorities will handle the disposition of the sex offender according to their professional analyses.

TYPES OF OFFENSES AND ACTIVITIES

SOLICITATION, ADULTERY, PROSTITUTION, AND PANDERING

Solicitation, adultery, prostitution, and pandering violate the UCMJ. When a person solicits or advises, with wrongful intent, someone to commit a sexual offense, it is a violation of Article 134, UCMJ. It does not matter if the solicitation or advice is acted upon. The solicitation may be by means other than word of mouth or writing. The solicitor may act alone or through other persons to commit this offense. And an attempt or conspiracy to commit any sex offense may be charged under the UCMJ. This may be important when a sex offense was planned or tried but not completed to the point that the needed elements of the offense can be shown.

Adultery, the act of sexual intercourse between a male and female when one of the two is lawfully married to a third person at the time, violates Article 134, UCMJ. Prostitution, is the engaging in sexual intercourse for pay or reward. Prostitution by members of the Armed Forces is punishable under Article 134, UCMJ. When prostitution of a person not subject to the UCMJ occurs on a military base, it is investigated by MP and referred to the proper authorities. Pandering is the wrongful or unlawful compelling, inducing, enticing, or procuring of a person to engage in acts of prostitution with persons directed to the prostitute by the panderer. It is also the arranging by the panderer for sexual intercourse or sodomy between two people.

HOMOSEXUAL ACTIVITY

A homosexual act is any bodily contact between persons of the same sex which is actively undertaken or passively permitted to get or give sexual gratification. It includes any proposal, solicitation, or attempt to perform such an act as well as the act itself. If a person involved in a homosexual act is acting against his or her will, the case may also involve assault, coercion, or fraud.

Some Army personnel claim to be homosexual. Cases of self-admitted homosexuality are referred to USACIDC for investigation under AR 195-2 to see if a criminal offense took place. Certain provisions of AR 635-100 and AR 635-200 provide for administrative action rather than court-martial action.

Should investigation disclose information involving security matters, it is referred to the proper intelligence representative. This ensures that there has not been and will not be a compromise of any classified material. The intelligence representative is kept advised of the case's progress until the case is closed or it is clearly shown that no further security interests exist.

VOYEURISM

Voyeurism invades a person's privacy. It is a trespassing of someone's property to gaze through an opening at seminude or nude persons in a building. Often, but not always, it is done for sexual self-satisfaction. Generally, the voyeur must deviate from normal activity or trespass on another's property for the express purpose of invading someone's privacy. If done from the voyeur's abode or from a public vantage point, it may not be a violation.

Because this act can bring discredit upon the Armed Forces, this offense is punishable under the UCMJ.

INDECENT ACTS

Indecent exposure is the willful, wrongful exposing to public view of the private portions of one's anatomy in an indecent manner. It applies to both male and female exhibitionists. Any oral or written communication between persons which contains indecent, insulting, or obscene language violates the UCMJ.

And so does the taking of any immoral, improper, or indecent liberties with, or the commission of any lewd or lascivious act upon or with the body of a child under age 16. The intent is to arouse or gratify lust, passion, or sexual desire. The desire can be that of the person committing the act, of the child, or of both. Actual touching is not required.

Indecent, lewd, and lascivious acts like mutual masturbation or indecent fondling of another are also violations of the UCMJ. Either or both participants may be prosecuted. Whether or not a participant is prosecuted depends on the person's ability to intend to commit or to cooperate in such an act.

CARNAL KNOWLEDGE AND SODOMY

Carnal knowledge and sodomy are violations of the UCMJ. Carnal knowledge is an act of sexual intercourse between a male and a female who is under 16 years of age and to whom the male is not married. Any penetration is enough to complete the offense.

Sodomy is an act of unnatural carnal copulation with a person of either sex or with an animal. Any penetration is enough to complete the offense. Emission is not necessary. If the act is done with a child under the age of 16 years, the penalty is more severe.

SEXUAL ASSAULTS

Indecent assault, assault with the intent to commit sodomy or rape, and rape are all in violation of the UCMJ. Indecent assault occurs when an assailant takes indecent, lewd, or lascivious liberties with a person to whom the assailant is not married. The liberties must be without the victim's consent and against the victim's will. The intent is to gratify the assailant's lust or sexual desire. The offense applies to both males and females.

Assault with intent to commit sodomy is made on a human being without the victim's consent and against the victim's will. Assault with intent to commit rape occurs when a man intends to have sexual intercourse with a woman, not his wife, by force and without her consent. It is enough that he intends to overcome by force any resistance to his penetrating the woman's person. Actual touching is not needed.

Rape is an act of sexual intercourse committed by force between a male and an unwilling female who is not his wife. Any penetration is enough to complete the offense. Among the offenses which may be included in a charge of rape are carnal knowledge, assault, assault and battery, and assault with intent to commit rape. Indecent assault and taking indecent, lewd, and lascivious liberties with the person of a female may also be used.

INVESTIGATION OF SEX OFFENSES

When called to investigate a sex offense, make a note of the time, date, and person making notification. Record weather conditions and any other information that may help when prosecuting the offender. It takes only a few minutes to record these items. Note the time you arrive on the scene.

Get as many details as you can from those who report sex offenses. The who, what, when, where, why, and how should be fixed quickly and clearly. Thus, jurisdiction can be determined and coordination begun with the required agencies and those that may be of help. And record anything you think may be relevant and of value when the suspect is caught and the case goes to court.

The first contact you have with the victim is of great importance. Do not assume that

the victim is old enough or mature enough to cope psychologically with the offense. Your interest in the victim and your concern for his or her welfare are factors in the victim's future cooperation. If the victim is a child who must be in the sole care of the military even for a short time, two mature investigators, preferably parents, should be responsible for the child. If the investigators are both male, arrange for a female member of the Armed Forces to be with the child also.

If the alleged offense is a rape or other form of sexual violence, the first job at the scene is to give aid to the victim. While one member of the team gives first aid to the victim, and conducts an initial interview to learn what occurred, the other can begin gathering physical evidence so it will not be destroyed by mistake.

All victims must be examined by medical personnel as soon as possible, as the value of serological evidence is reduced by delay. Detailed questioning of the victim can be done later to get leads and information related to the offense.

Find out by whom, and in what setting and manner, and to what extent the victim has been questioned about the offense. The more victims are interviewed, the more reluctant they may be to talk. Do not allow other interested investigators to question a victim.

All interviews should be recorded, if possible. When circumstances prevent an electronic recording, a stenographic transcript or detailed notes can suffice. All later oral or written statements of the victim are matched with what is said in the initial interview. Discrepancies must be noted and checked.

During the interview at the crime scene, advise the victim that you are qualified to investigate this crime and that you understand the situation. Gain the victim's confidence and project a truly professional image. Explain to the victim what you are doing and why. When you have enough information to start processing the scene, the victim must be taken quickly to the nearest medical facility for a thorough examination. One investigator goes with the victim. The other stays to continue the on-scene investigation. If the assault took place in the victim's home, ask the victim to take a change of clothing to the medical facility. Explain that the clothing worn during the attack must be examined for evidence. If the attack took place elsewhere, ask the victim to contact a relative or friend to have a change of clothing brought to the hospital.

Sometimes the offender is still at the scene. In such cases the offender must also be examined. Make sure the victim and suspect are not transported in the same vehicle, nor interviewed in the same office. Otherwise, trace evidence may be transferred after the crime.

Both victims and suspects subject to the MCM are examined by medical officers at the nearest military medical facility. The examining physician must be told the details he needs to make the kind of medical exam that will provide evidence to prosecute the offender.

The examination must be done in a reasonable way for both victims and suspects. Try to get consent of the suspect. Such searches are allowed if they are not unreasonable or morally reprehensible. A search of any part of the body not normally open to public view may be made without a person's consent, if it is incident to his lawful apprehension. A search may also be authorized by a person's unit commander if there is probable cause to believe a sex offense took place and that the exam will yield evidence of that crime. Use only that degree of force needed to do the search. Ensure a complete chain of custody is kept for all collected evidence.

Persons not subject to the UCMJ may choose to be examined by either a civilian doctor or a medical officer. They cannot be forced to submit to examination by a medical officer. And the fact that the suspect is military, or that only the military is investigating the offense, does not alter a civilian's right to choose an examining doctor or to refuse a military exam.

You should obtain a parent's or guardian's written permission before a child is examined or treated by a medical officer. A parent or guardian should be with the child and

present during the examination. They should be told, with tact, that an examination is needed for the case. Advise them that, in most cases, it must be shown by medical opinion that the offense did take place.

The examining physician may not be aware of the *evidence-seeking* objective of the examination unless you tell him. His main concern is for the welfare of his patient. For this reason, you should advise the physician of the areas of interest to the case and the evidence samples needed for the investigation.

The USACIL can examine most of the evidence needed for sex offense investigations. Examinations of parts of human or animal bodies and of materials from human or animal bodies require other services.

Vaginal, anal, or oral swabs and blood samples collected by the doctor who examines a victim or a suspect should be processed at Army medical laboratories and at the crime lab. But one vaginal smear should be tested by the hospital for the presence of *motile sperm* to verify a fresh complaint. Recent sperm presence would not be able to be determined by the time the specimen would reach the crime lab. Separate samples should be obtained for each lab. The samples must meet the requirements of the Sexual Assault Kit, NSN 6640-01-046-2693. And submit the swabs used to make smears on glass slides. They are best for crime lab purposes.

If the offense has occurred in the victim's home, hair and blood standards should be collected from the victim's spouse for elimination purposes. This should also be done for roommates or other persons who live in the immediate area of a crime scene. Send all physical evidence like hair and blood evidence, foreign materials taken from the body of the victim or suspect, and comparison samples to the laboratories *immediately*.

OBTAINING EVIDENCE FROM VICTIMS

The victim's body is the alleged scene of the crime. Thus, it may conceal evidence of a crime. From this evidence, the examining physician can give expert testimony. Wounds, bruises, cuts, abrasions, and irritations may help to show penetration, violence, or resistance. They should be described in the doctor's notes, reports, and testimony. This evidence may provide leads as to the type of offender and the weapons used. Photographic records are quite helpful to the prosecution.

The sexual organs and nearby areas may show traces of the victim's or offender's blood and semen. Swab specimens of material from the vagina, mouth, and anus should be taken, as needed. Swab bite marks with a saline solution. Air dry the swabs before sending them to the crime lab. Have foreign material on the pubic and anal areas and the legs and stomach collected and examined for semen, blood, or other evidence. Pubic, anal, and oral areas must be viewed for wounds, abrasions, skin damage, feces, mucous materials, and lubricants. If the active or passive roles of participants in an alleged sodomy case are unknown, the same checks must be done for both persons.

Foreign hairs and fibers on the body must be secured as evidence. Vigorous combing with a new fine-tooth pocket comb is the best way to find loose hairs and fibers. Pack the teeth of the comb with absorbent cotton along the comb's base where the teeth meet the spine. Use separate combs for head and pubic areas. Use transparent tape to collect fibers from other areas.

Ask the doctor to take samples of hair from the head, pubic area, and armpits by pulling the hairs. Entire strands of hair should be taken. Care should be taken not to dislodge foreign materials or damage the hair ends. Samples are also needed from the chest, arms, legs, and buttocks. Each sample should consist of 15 or 20 hairs. Samples of 6 to 10 hairs should be taken from the eyebrows and lashes. Hairs also should be plucked near skin level from brows and lashes. Hairs also should be pulled from dead victims.

Each hair sample must be packed in a white, totally sealable envelope or plastic bag. It must be labeled carefully and identified by the initials of the doctor who took it. The samples should be sent to the appropriate crime lab.

Saliva, urine, and blood samples should be taken for typing; testing for venereal diseases; and examining for alcohol, narcotics, and poisons. If the victim was menstruating at the time of the offense, get a sample of the menstrual flow. The sanitary napkin worn at the time of the crime should be taken to compare with evidence stains. An early morning, first-time urine specimen should also be collected for a pregnancy test. Blood samples normally are examined at a medical lab. However, sufficient samples should be sent to the crime lab to compare with evidence stains. All evidence collected by the doctor must be put in separate containers and marked.

The doctor should take fingernail clippings from each finger. Right hand clippings must be kept separate from left hand clippings. The clippings, properly packed and marked, should be sent to the crime lab.

The victim's clothing that was worn during the crime is needed for evidence. Secure the clothing of victims subject to the UCMJ in a way which conforms with the rules of search and seizure. The clothing of victims not subject to the UCMJ may not be taken without their consent. And you need the consent of a parent or guardian if the victim is a minor. If the victim or parent does not want to consent, try explaining why the clothing is needed and how it will be used.

Get the victim's clothing promptly. Valuable evidence may be destroyed by the family of the victim in an effort to clean or to dispose of the garments. Their effort is a natural reaction. There is usually no intent to destroy evidence. Even if a garment has been cleaned, it should be secured.

Mark each item for identification. Clothing must be packaged in separate paper containers to be sent to the lab. If a garment is wet or has damp blood or seminal stains, dry it at room temperature without a fan or artificial heat. The garment must not become contaminated while it is being dried or stored. Do not allow it to come in contact with your clothing or that of the suspect.

If the victim of an alleged sodomy is an animal, you must have it examined by a veterinarian. It should be searched for wounds, bruises, or abrasions; human semen, blood, and hairs; and clothing fibers. Hair and blood samples should be taken and swab samples should be taken from body openings. If the animal is to be destroyed, be sure a picture of it, showing evidence of the assault, is taken first. If the animal is dead, the veterinarian should do a complete autopsy. The veterinarian can give expert testimony in court about the examination and findings.

OBTAINING EVIDENCE FROM SUSPECTS

The suspect is examined for wounds, bruises, cuts, or abrasions. These may have been caused by the victim's struggle or from an act of forced sex. The entire body, particularly the genitals and pubic area, should be searched for blood, semen, hairs, feces, vaginal debris or other matter from the victim. For sodomy suspects the oral and anal areas should be examined as well. Foreign materials are kept to compare with materials from the victim's body or the crime scene. Hair, blood, and saliva samples and fingernail scrapings are taken. Persons suspected of sodomy with animals are checked for animal blood, feces, hairs, or feathers, and other fluids or materials from the animal's body. All evidence must be properly sealed and marked and sent to the crime lab.

TAKING PHOTOGRAPHS

Take photographs to preserve graphic evidence of the appearance of the victim. The photos can show wounds, bruises, and lacerations that may heal or disappear by the time an offender is brought to trial. Use color film if it will enhance the evidence value of the photos. Bruise evidence, for example, is hard to photograph in black and white.

Evidence photographs, including negatives, should be taken, processed, and handled in a way that preserves the chain of custody. This will ensure their admissibility in court. It also will prevent them from falling into the hands of unauthorized persons. The photographs should be used only for purposes of investigation and prosecution.

Victims

Photographs of living victims taken by law enforcement personnel on their own

initiative are limited to those parts of the body normally visible when the victim is clothed. Photographs may be needed of the private parts to substantiate and illustrate medical testimony. Photographs may not be taken of these parts of the victim's body except with their express written consent. If the victim is a minor, you must get consent of the victim's parents or guardians prior to taking these photographs. And they should only be made under the supervision of the examining physician. A female must be present when a female is to be photographed. MP may photograph the bodies of deceased victims without permission of the next of kin.

Suspects

Parts of the body of suspects subject to the UCMJ that are not normally open to public view may be photographed without their written consent. Photographs can be taken only if they are authorized by the person's commander, or a military magistrate, when he has cause to believe a sex offense was committed. He must believe the photograph will preserve graphic evidence of wounds, abrasions, or lacerations on the suspect's body which may have been incurred during the crime. The photographs must be made under the supervision of the examining physician. It is his testimony the photographs are to illustrate. A same-sex member of the Armed Forces should be present when a photograph is made.

PROCESSING THE SCENE

While the victim is receiving medical attention, the crime scene is processed. Photographs and sketches of the scene are made and items of evidence are sought. In addition to standard crime-scene processing, collect the clothing worn by both the victim and the suspect. Search for seminal stains on clothes and bedding, and pubic and head hairs of the suspect. If the sex offense involves an assault of any kind, look for blood at the scene. Check entering and exiting points when indoors, and look for items left by the assailant. Make a thorough search of the area the victim declared in the initial interview to be exact point of the attack. If the attack was made in a residence, search the bathroom. Many sex offenders will use the bathroom after committing a sex offense.

While at the crime scene, conduct an area canvass. Obtain the names and addresses of every person in the immediate area of the crime. Separate possible witnesses and detain them until interviewed. Get detailed contact information from any person who must leave the scene before being interviewed.

INTERVIEWING VICTIMS

Interviewing any victim of sexual abuse is demanding work. This is largely because you must obtain information from a victim who most likely finds it unpleasant to recount the personal aspects of the crime. If you do not use proper tact and diplomacy, the interview will fail. And more importantly, the victim may suffer emotionally.

One essential in the interview is setting rapport with the victim. There should be as few people as possible in the room when the interview begins. A victim will relate the incident more freely if only one person is present. Once rapport is gained, gradually and smoothly lead into a talk of the offense. Throughout the interview, exercise tact, compassion, and patience. It is especially important when interviewing victims of rape and other sexual assaults that you be aware of victims' fears and know how to lessen them. Encourage victims to talk freely. Be sympathetic and understanding. Their confidence in you will tend to calm them. Let them know that you are concerned for their welfare. Let them know that the reason you must ask these personal questions is because the law needs the information to prosecute the attacker. Female victims may respond more easily if a female investigator asks these questions.

Allow the victim to tell about the event in his or her own words. Record all statements carefully. When you can, use a tape recorder. Encourage the victim to relate completely and logically what happened. Do not ask leading questions. You may cause the victim to later repeat, as fact, information suggested by your statements or questions. This is often the case with a disturbed person or one who is overly eager to help. Have victims voluntarily recall all the information they possess. Then you can ask questions to test the validity of the complaints or information.

Talk only enough to keep a victim talking on the subject in a rational and cooperative manner.

There are some questions that must not be asked under *any* circumstances. Never ask victims—

- Anything unnecessarily embarrassing or humiliating.
- To relate their entire history of sexual experience.
- How many times each week they have sexual intercourse.
- If they reached a climax.
- If they enjoyed it.
- If they reached a climax with their partners during their last sexual encounter.
- If they think they brought it on themselves.
- About the size of an offender's penis or testicles.

When you ask victims if they wish to prosecute their offenders, be sure victims do not infer that they should not want to do so. And be careful not to make any promises to the victim. Do not tell them that they will not have to appear in court. Do not say that they will not have to identify the suspect. Do not tell victims that prosecuting a sex offense is easy. But *do* tell them that it will be worthwhile to see justice done. Tell them that they will help prevent someone else from suffering asexual assault. A brief description of the criminal justice system, with the chain of events in prosecuting a case, can also be of help to victims.

Interviews should never end abruptly. When you have gained all pertinent facts about the incidents, ask the victims if there is anything else they have to say.

Adults

Certain questions should be asked first, so basic information can be obtained. At the initial interview, learn if the offense occurred and exactly what took place and where. Find out if the victim knows or can describe the offender. Perhaps there is a relationship between the victim and the offender. Ask if the victim knows where the offender is or could be located. The possibility of immediate apprehension should not be overlooked.

At the second interview, you should learn more detailed information. Ask the victim's exact age. Obtain a description of the offender. Ask about the type, color, and style of the offender's hat, shoes, and other clothing. If the offender was not seen, the victim may be able to describe or give details about the clothing from touch. Ask about peculiarities in the offender's walk or other movements. Ask about buttons or accessories like military buttons, insignia, or ribbons on the offender's garments. Ask about odors. The victim may recall the smell of perfume, hair tonic, face lotion, powder, alcohol, or drugs. Some odors from clothing or shoes may be acquired from an offender's occupation or habits.

The victim may recall the offender's words and voice tone. If there were several offenders, they may have mentioned names and places that will help identify them. This information also may show the method of operation of the assailant. If a vehicle was used, get a description of it. The victim may be able to distinguish between the vehicles of several suspects. Perhaps the victim can recall the color and general appearance of the vehicle. Ask about the presence and type of grill; bumpers; head, parking, fog, and spotlights; horn; and radio antenna. Ask if bumper markings or stickers on windshields, windows, or bumpers were seen. Learn of any dangling items like baby shoes, toy animals, or squirrel or fox tails. Get the type, number, and arrangement of doors and seats. This includes the type, color, or fabric of seat covers, floor mats, and upholstery. Victims may have seen tears, worn places, or other irregularities. Get details of the dashboard. Ask about the presence of a radio or a heater, unusual gadgets, accessories, keyholders, or chains. Note the type and location of ashtrays and interior lights. Ask about the presence of unusual odors or noises. Victims may see packages, tools, clothing, or other identifiable objects. They may recall details of the rear of the vehicle. They may remember license plate numbers. Or they may recall the number and color of taillights and turn signal lights, malfunctioning lighting equipment, or trunk construction. Ask about the presence of an exterior spare tire holder or excessive smoke from the exhaust.

INFORMATION USEFUL FOR INVESTIGATING A SEXUAL ASSAULT

- What did the victim do earlier in the day or the evening, before the assault?
- Who was the victim with before the assault?
- Was the victim consuming alcohol?
- What activities could have exposed the victim to the assailant?
- What was the victim doing just before the assault?
- Where was the victim when he or she realized there was danger of an assault?
- How was the victim dressed?
- How and when did the victim get undressed if this occurred before the assault?
- When did the victim first notice the assailant?
- If the incident took place outdoors, was the victim followed or did the assailant appear suddenly?
- If the incident took place indoors, how did the assailant enter?
- Were the doors and windows locked?
- Was anyone else in the house?
- Were any lights on?
- Was the offender armed? With what?
- What exactly did the assailant say? Did the assailant imply having seen the victim before?
- What did the assailant do?
- Was the victim threatened to ensure cooperation or to avoid a report of the incident?
- Was the victim struck?
- Was the victim bruised or otherwise injured?
- What was the victim's state of mind?
- Was it calm, nervous, frightened?
- Did the victim struggle? Was the assailant scratched or marked? Was the victim afraid to do so?
- What clothing was removed from the victim? How?

  What clothing did the assailant remove?
- If a weapon was used, what did the asailant do with it while undressing or during the assault?
- What did the assailant touch? The victim's face? Belt buckle? Pendant? Glasses?
- Had the victim ever seen the assailant before? Where? When?
- Did the assailant take any clothing, objects, or money from the scene?
- How did the assailant leave the scene? Could the assailant be heard running or driving a car or motorcycle?
- About how long was the assailant there?
- What did the victim do right after the assailant left?
- How long before the victim reported the incident?
- Who called the police? If there was a delay, why?
- Did anyone remove anything that might have evidence value?
- Did the victim bathe or douche?
- What was the sex act that took place?
- Was there penetration or an attempt at penetration?
- If the assault was a rape, how long ago was the victim's last sexual intercourse?
- Did any other sex act take place?

Check a victim's reliability as a witness. Was the victim able to see and hear under the conditions present at the time and place of the crime? Find out if the victim regularly wears glasses or a hearing aid. Note whether or not the device was worn when the offense took place. Learn of any handicaps that would have limited a victim's resistance to the offense. And check to see if the victim was under the influence of alcohol or drugs during the crime. This includes at the time found or rescued, at the time of the complaint, when first seen by the MP, or during the initial interview.

When obtaining this information, explain that from the sperm and semen the rapist's blood type can be learned. If intercourse with someone else has occurred, two blood types may be found. An interview with any person with whom the victim claims to have had intercourse is proper.

Children

When a sexual assault on a child is reported, involvement usually begins with the interview of the child. It is often good to have a female investigator conduct interviews with child victims. Also, the presence of a female nurse may be useful. The nurse would not take part in the interview, but her physical presence could give security to the victim.

You must use special skills to conduct an effective interview with a child. Be aware that the emotional reactions of parents and the problems of communicating with a child often complicate the interview process. If the victim is a child, learn if the parents have punished the child regarding the offense. And try to learn if they have told the child what to tell you.

You need insight about how children perceive and relate events. And you must understand the psychological reactions of the child and the parents to the incident. An understanding of the psychological reactions of both victims and parents can avoid unneeded anguish and promote an atmosphere of trust and support. The child is likely to reflect the parents' attitude towards law enforcement officials. Hence, check the parents' reactions, if they are not involved directly in the crime, before concentrating on the victim.

Parents of a sexually abused child often have feelings of extreme guilt. They blame themselves for letting such a thing happen. Reassure the parents that the only guilty party is the offender and that they have been responsible parents. This approach may calm the parents and allow them to give the child much-needed support. Children tend to become psychologically soothed when their parents talk with them in an understanding and sympathetic manner. By calming the parent, you calm the child.

Perhaps the most common reaction of a parent of a sexually abused child is a combination of anger, fear, and sorrow. Allow parents to ventilate their feelings. Then try to assure them that their child is safe. Advise them that during the investigation, all will be done in the child's best interest.

Sometimes parents will displace their guilt on the child. The parent will blame the child for the incident. When this occurs, separate the child from the parents. Explain that their behavior will affect the child's present condition and future recovery. Tactfully convince the parents that you have seen cases where this has happened and that your only concern is for the child.

Sometimes one parent is the offender and the other parent expresses guilt. For instance, a mother may have known for some time that her husband has been sexually abusing her child. Acknowledge the mother's behavior, but do not condemn or criticize it. Antagonizing the mother only makes the interview of the child harder. And it could severely scar the mother psychologically. It costs nothing to be sympathetic and understanding.

Interview the child as soon as you can after the incident is reported. The longer you wait, the less the child will be able to recall. But the welfare of the child cannot be sacrificed for investigative expediency. The child is likely to be confused and frightened. Extensive questioning by more than one person can cause the victim emotional trauma. Avoid this when possible. But this does not preclude

the need for a detailed interview by a responsible investigator. When interviewing a child victim, obtain the elements of the offense without causing the child unneeded anguish.

Find out how advanced the child's sexual education is and if the child is being taught at home or in the classroom. It is helpful if you know the names the child uses for the sexual organs. When a written statement is taken, use the child's wording instead of formal terminology.

The victim's skill in telling time can be crucial to show when the attack took place. If a child cannot tell time, he may be able to relate to a routine. For example the child may state, "I was on my way home to eat dinner. We always eat at five o'clock. Paul's mom told me I would have to hurry if I didn't want to be late."

You must learn if the child can tell fact from fantasy. Ask the child if he or she knows what a lie is and what happens to him if he lies. If the response is positive and meaningful, you will have an insight as to the victim's moral fiber. Note not just what is said, but the way it is said. In some cases, honesty on the part of the victim can be supported by teachers, friends, parents, or ministers.

The in-depth interview of the victim should take place only after the child has been treated by a medical officer and his or her physical needs have been met. Personal needs often include washing and changing clothing. Do the interview in a private place where the child can feel some degree of security. A preferred location is the child's home, as long as it is not the site of the attack. The child's home is familiar and private. It can be made relatively quiet with the aid of the parents. If an office is used for the interview, allow the child to browse around the room to become familiar with its contents. Then they will not be distracting to the child during the interview.

Before the interview, explain to the parents the purpose and scope of the questioning. A sympathetic understanding of the parents' position can gain their support. A child's first reaction to the interview depends largely on the parent's attitude.

Circumstances will dictate if a parent should be present. If a family member is involved in the attack, it is best to do the interview without either of the parents in the room. And some children will not want to discuss the matter in front of family members. Others will not be truthful if they are present. If the child does not want his parents present, you should oblige. Explain this to the parents before the interview to avoid an uncomfortable situation. In all cases, the interview must be done with the welfare of the child uppermost in your mind.

Most children like to talk about themselves. Take advantage of this fact. Questions about their hobbies, friends, pets, and other interests let the child know you are genuinely interested in him or her. Let the child tell the story in his own words. Refrain from asking detailed questions until the child is finished making the statement. A nod of the head lets the child know he is being listened to. Use language in keeping with the child's age.

Toward the end of the interview tell the child that if he recalls anything else about the assault, he should tell his parents. If the child asks, and is old enough to understand, you can briefly outline the remaining steps in the investigation. A good way to end an interview with a child is to turn the talk back to friends, family, or pets. Then the child leaves the interview on a positive note, without the horrible remembrance of the incident first in mind.

After the interview, talk with the parents. Ask them not to question the child about the incident, as it will increase the child's emotional recovery time. It is in the best interest of the child if he does not have to continually think about the assault. But tell the parents that if the child wants to talk of the incident, they should speak frankly and without embarrassment. You may want to provide the parents with a list of social organizations they may find helpful if the child has problems adjusting.

Final reports on cases of alleged rape or illicit sex acts against minors must include some special documents. You must get a signed and properly authenticated copy of the medical report. It should cover the complete medical examination of the victim.

If the victim or the victim's parents or guardians refuse the examination, try to get a signed statement showing their refusal. You need a copy of the victim's birth certificate. If one is not available, you need other acceptable evidence of the true age and identity of the victim. Include a copy of the victim's statement with the complaint for which the investigation was done. If the victim is not legally competent to make a sworn statement, a statement by the parent or other adult who made the complaint will do. A child's statement should be placed in writing and signed under oath by two or more responsible adults who can attest to what the child said. These persons do not swear to the accuracy or truthfulness of the child's statement. They attest only to the fact that what the child said is substantially what is stated on the written document. Include a copy of the written consent by the parents or guardians for the medical examination of the child.

DETERMINING CONSENT

Whatever the age of the victim, if consent to a sex offense is material to the case, find out if the victim encouraged, resisted, or consented to the act. Intimidation, coercion, threats, or fraud may be given as reason for not resisting. If such a reason is given, make note of the acts, threats, or statements that were made. And secure a detailed description of any weapons used.

Do not assume from a victim's occupation, associates, habits, appearance, personality, or economic or social status that the victim is promiscuous and most likely consented. Do not infer this from the fact that the victim has associated with the accused. Do not do so even if the circumstances tend to compromise the victim. The courts decide whether or not consent was given. You collect evidence that may show consent or the lack of it.

Testimony on the character of the victim of a sex offense may be of value in showing whether consent was given. If there is conflicting character testimony, polygraph tests may be in order. You may also secure testimony from unbiased persons who are familiar with the victim.

Learn if the victim has a reputation for illicit intercourse. Find out if it is with or without reward and with the same or different persons. Try to learn if the victim was mentally incapable of legally consenting to sexual intercourse at the time of the act because of drugs, alcohol, age, disease, injury, or psychiatric condition.

Check to see if the victim has ever made false sex allegations. See if the person has a motive for a false complaint. The complaint may be a means of concealing an indiscretion. Did the victim fail to get the expected pay for an act of prostitution? Is the victim conscience-stricken because of a seduction? Does the victim want revenge against the accused or want to force a marriage? Does a female victim think she is pregnant and hope to remove the stigma of indiscretion? Is the victim hoping for a cash settlement from an accused or the accused's family? Does the victim believe the US government will pay damages to someone assaulted by a service member?

Statements and accusations that the victim is of lewd repute, habits, or associations, or has engaged in specific sex acts with the accused or other persons, may be admissible evidence. These points should be checked in detail. But bear in mind that such persons can be bona fide victims of sex offenses. Be on the alert against attempts by an accused to make up untrue stories of past sex acts with the victim. An accused may produce other persons who claim such experiences. On the other hand, check on efforts by relatives or friends to provide the victim a good reputation that is not deserved.

CHECKING LEADS

When checking leads keep in mind that sex crimes have no one type of offender. Anyone can commit a sex offense. Think of the unusual. Whoever had the chance to commit the crime can be suspect. This is in spite of excellent reputation, law abiding past, or high station in life.

The first steps in apprehending an offender often relate to whether the victim or witnesses know or can identify the person. If the accused is known, or a description is on

hand, send this promptly to MP patrols to make the apprehension. All resources must be used to the fullest extent to identify, search for, and apprehend the offender. Have pickup alarms, based on the best information on hand, posted on MP bulletin boards. They should also be circulated to MP patrols, investigative personnel, and civil police. Descriptions of persons recently apprehended by MPs may be matched with the description of the wanted offender.

Think about what the victim or witness said the offender wore. Make a detailed visual examination of all of a suspect's clothing. It should be examined for evidence of the offense, contact with the victim, and presence at the crime scene. Search underclothing, handkerchiefs, and all outer garments that are like those worn by the offender. Note any stains or smudges of blood, semen, lipstick, rouge, or powder. Look for efforts by the offender to remove stains or smudges. View tears, rips, and lost buttons and insignia, or efforts to repair or replace such items. Check for hairs different from those of the suspect. Search for lint or fibers from the victim's clothing or from other textiles at the crime scene. Don't overlook mud, dust, or vegetable matter like that at or near the crime scene. See if their shoes closely match casts made of footprints at the scene.

Sometimes items belonging to friends or associates of a suspect need to be examined. This is done if there is evidence that the suspect has loaned, borrowed, or exchanged clothing. Military items can be inventoried. The results may be matched with authorized allowances, legitimate shortage, known sales or purchases, and other garments or property the suspect is known to have had prior to the offense. Places where the suspect may have disposed of incriminating evidence should be searched.

Many sex offenders take items of clothing from their victims. Physical objects symbolic of sex and obscene literature and photographs are often found in the possession of offenders. As some offenders will not want these items left around their homes, you may want to get permission to search a suspect's place of business. Other items that might give a clue to the identity of a sex offender are tape recordings of previous sex acts or letters from friends discussing their shared participation in unusual sex activity.

To obtain suspect leads if the victim is dead, you must trace the victim's recent movements. Identify persons with whom he or she was last seen. Seek witnesses who saw any persons near the crime scene or the place where a dead victim was last seen alive. Photographs of the victim may help in locating witnesses. Check the victim's associates and places he or she frequented for leads. The only lead may be the name of the person with whom the victim was supposed to be. It could also be the place at which the victim was believed to be just before or at the time of the offense.

Medical personnel also can help identify and locate the sex offender. They may be asked to identify persons recently seeking treatment or advice for illnesses accompanied by the tendency to perform acts like the present offense. Often medical personnel can give good investigative leads. They may also be able to account for the activities and recent whereabouts of patients who may be suspect.

If leads do not develop elsewhere, check MO offense or offender files. Try to identify persons who have committed like crimes or other sex-oriented crimes, or who have used similar criminal methods. Accurate and detailed records of unrelated sex crimes can lead to early detection of a sex offender. If you check on these persons and their recent activities, you may find leads to your present case. Arson may sometimes be sex-related when persons suffering from pyromania set fires. They get their sexual gratification from the smell, sight, and sound of fires, and the sight and sounds of the fire equipment that respond. Check assault records. Assaults may sometimes be sex-related. Sometimes unprovoked assaults on women and children are made by an assailant with latent sadistic sexual overtones. Check on the larcenies of or mutilation of women's garments. These offenses are often treated as juvenile pranks. But experience shows that they may be a first step toward deviate sexual offenses.

Unit commanders may be asked to report soldiers who are absent without leave. Check who was on leave or pass to the locale where the crime took place. Learn who failed to return, came back late, or who has acted suspiciously since the crime. If the victim could have injured the offender, then MP, medical people, and commanders can be asked to hold any persons with such injuries for questioning.

CHAPTER 19

Death

When a person subject to or within an area of military jurisdiction dies, an investigation is made to learn if a criminal act contributed to the death. Only when a person dies from natural causes while under medical attention is this not done.

You may be called on to assess the facts of violent deaths. It is important that these deaths be looked into properly. To tell if a death is homicide, suicide, or accident requires skill, training, and experience on your part, and the technical expertise of examiners at a crime lab. Criminal blame, if present, must not be overlooked. But if the death was accidental, unjust criminal charges must not be brought against innocent persons.

RESPONSIBILITIES AND COORDINATION

Many agencies are responsible to the commander for investigating suspicious deaths. Close liaison must be made within commands between investigative. medical. and related forensic personnel for effective death investigations. Matters of mutual interest include jurisdiction; investigative responsibilities; local agreements with the civil authorities; status of forces agreements; and rules to be followed by MP, USACIDC, medical personnel, and pathologists.

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The provost marshal office and USACIDC are responsible for obtaining all facts pertinent to deaths occurring under suspect conditions. As an investigator you must determine the manner of death to be a homicide, a suicide, or an accidental or natural death. If the deaths were accidental or homicidal, you will investigate to identify the persons responsible.

The medical officer, often a specialist in pathology, determines the medical cause of death. You must cooperate fully with medical personnel and pathologists. They will work with you to learn the identity of the deceased and the approximate time and manner of death. They may depend on you to help them determine the cause of death.

You are encouraged to setup a liaison with the pathologist who does the autopsy. You must tell the pathologist of the known facts of death and initial investigative findings prior to the autopsy. This enables the pathologist not only to select proper ways to determine the cause of death but also to give an opinion about the manner of death. The medical officer must also complete certain military records and official certificates of death. You work with the medical officer to collect and preserve evidence. This includes obtaining at least two sets of major case prints from a deceased to compare with latent prints found at the death scene. You will also direct photography.

The line of duty (LOD) investigating officer determines the duty status and personal conduct of the deceased. The LOD officer has no jurisdiction with the criminal investigation. The safety officer determines the safety factors or lack of them in an accident. His or her interest in accidents is limited to safety.

Close intelligence liaison is needed and directed by AR 195-2. A report of death due to homicide, accident, or suicide must be relayed at once to the nearest intelligence agency. If the victim had access to classified material, ask the intelligence officer to find out if any of this material is missing. The intelligence officer is responsible for security measures. His or her main concern is to insure that classified material is not compromised. This is very important if the death is a suicide. Ensure that intelligence officials are kept fully advised until no further security interest exists.

In some instances, the post commander or higher authority may call a board of inquiry to find out the facts connected with a death. Such a board has broad powers and may check into all areas of the matter.

MEDICOLEGAL AUTOPSY AND POST MORTEM CONDITIONS

A medicolegal autopsy is authorized or ordered by authorities in all cases when a death is unattended. Generally, autopsies on persons who were subject to the UCMJ are done by military pathologists. Other autopsies are done by civilian pathologists on request or order of civil authorities. Procedures may differ overseas in areas over which US commanders have authority.

In a medicolegal autopsy special emphasis is placed on identifying the victim by photograph, fingerprint, dental and medical records, and/or next of kin. Final assessment of the cause and manner of death is made only after a complete medicolegal investigation reviews autopsy and toxicologic tests.

During the autopsy, you and the pathologist exchange facts and views to learn the circumstances and mechanism of death. You discuss with the pathologist all known facts, considerations, and information. You should be present at the autopsy to answer questions and to receive evidence or specimens taken from the victim. If the pathologist's findings are not understandable or if they seem to conflict with known facts, discuss them with the pathologist before he releases the body from medical control. An early and important concern that you and the pathologist consider when checking the location and character of wounds is whether or not the victim could possibly have caused the wounds to himself.

INFORMATION AN AUTOPSY MAY PROVIDE

- Estimated time of death.
- Type of blood.
- Cause of death and determination of which wound was fatal.
- Type of weapon or substance used and manner of use.
- Time interval between receiving wounds and death and if the victim was able to move.
- Drug and/or alcoholic content in the blood.
- Evidence of sexual assault, pregnancy, venereal disease.
- Opinions as to manner of death.

Take precise measurements of the body, site, number, shape, edges, and extremities of wounds. X-ray the wounds for trace evidence (metallic fragments). Also look for defense wounds. Determine the depth and direction of each wound. But remember, *never place an object in the wound.* Check all wounds carefully and collect trace evidence like glass, hair, and fibers. You may be able to tell which wounds were fatal. Collect samples for toxicologic tests. Note medical and other artifacts like embalmer's wounds or prosector's slips of the knife. Document all inner and outer scars. Check all wounds for multiple thrusts. Document your findings with photographs, drawings, and charts.

The presence of postmortem conditions in the body, as they were found and noted by you at the crime scene, are important to the pathologist as well as to you. You must be sure to mention them to the person doing the autopsy. Post mortem conditions to be looked for include low body temperature, liver mortis, contusions, bleeding, and rigor mortis. They also include the conditions of putrefaction, adipocere, mummification and consumption by insects and animals.

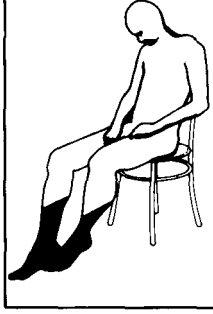
LOW BODY TEMPERATURE

After the vital functions of the body have ceased, body temperature adjusts to environmental temperature. It may be possible to learn the approximate time of death by the rate of heat loss and the temperature of the area where the body is found. When body temperature falls, the amount of heat loss depends on factors which can slow or speed the loss of heat. Age, size, weight, clothing, and environment all affect heat loss. At a temperature of 70° Fahrenheit, the average body temperature drops 1.5 degrees per hour for the first 12 hours.

LIVOR MORTIS

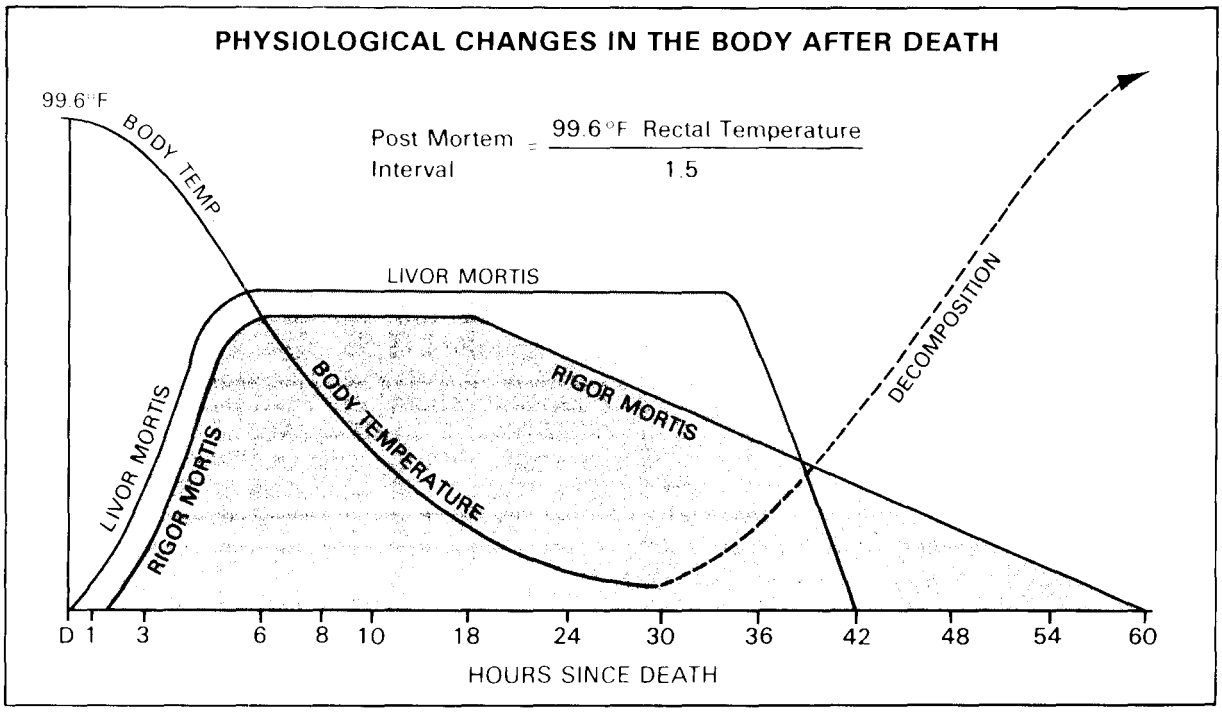
After death blood settles toward the lowest part of the body. This causes a reddish-purple discoloration called liver mortis, or postmortem lividity. It is often seen within one-half to two hours after death. The hue of the liver mortis may give some sign of the cause of death. For example, a bright cherry-red hue may suggest carbon monoxide or cyanide poisoning. Inconsistent distribution of the liver mortis may suggest that the body has been disturbed. For four to six hours after death, slight pressure to the skin stops the flow of blood settling in nearby vessels. This results in blanching in that area. After the condition is set, moving a body no longer changes the distribution of it. If the distribution of liver mortis does not conform to the body's position, then the body may have been moved after the condition set.

PATTERNS OF DISCOLORATION SEEN IN LIVOR MORTIS



The distribution of livor mortis is consistent with the pull of gravity. Blood settles toward the lowest parts of the body. If the body is seated at death, the reddish-purple discoloration may be expected to appear in the feet, lower legs, hands, and chin. If the body is lying flat, the discoloration is likely to be along a horizontal plane.

Areas of blanching appear within livor-darkened portions of the body where body weight and bone structure have compressed body tissue against an outside surface, closing blood vessels and keeping the blood from settling into the compressed area.



To record information about the liver mortis, take photographs and exact measurements before the body is moved. Note folds in clothes and positions of belt, buttons, jewelry. Look for anything which could have exerted pressure on the body.

CONTUSIONS

A contusion, or bruise, is a localized hemorrhage within the body. Bruises are caused by blood spreading under the skin. They can result from a blunt impact or from fractures or torn soft tissue like ligaments and muscles. They also may be caused by indirect trauma like twisting or falling. A recent bruise is very dark red, reddish-purple, or blue. The color of it is uniform. In a day or so, a yellowish margin appears. Later it changes from green to brown and then to brownish black. You should photograph bruises with a color scale. Try to have a medical officer estimate the age of the contusion.

BLEEDING

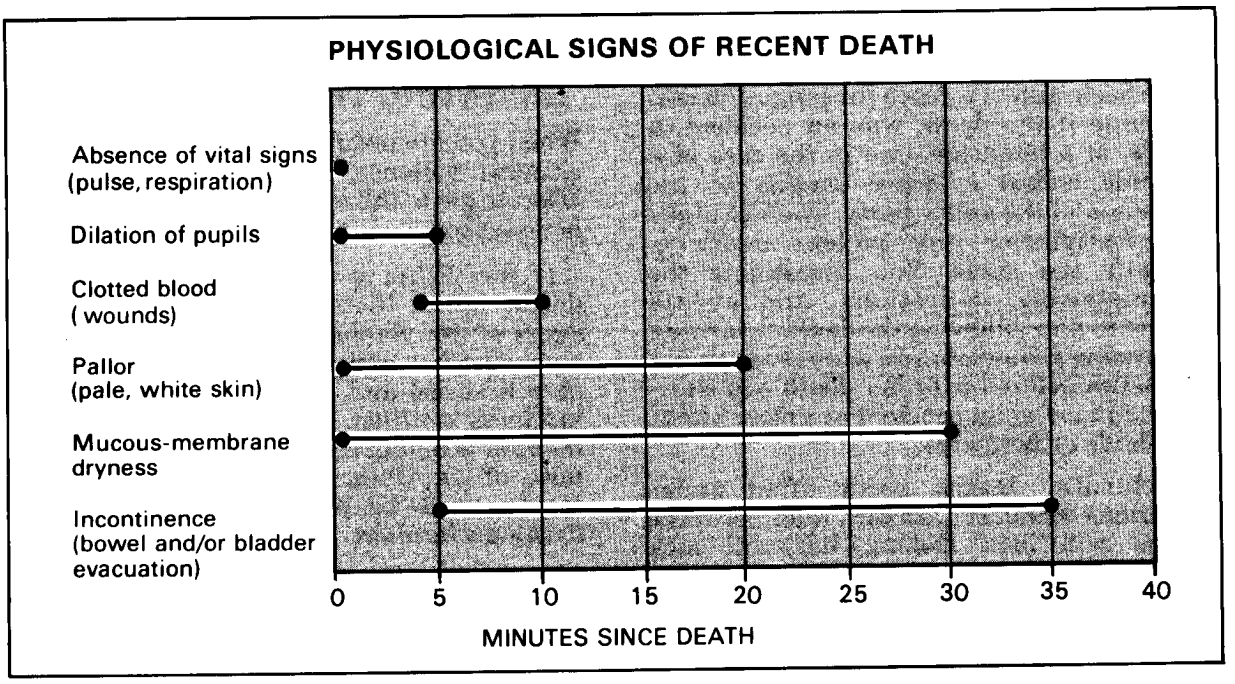
The presence and location of blood are important. When the heart stops, blood pressure drops to zero. Thus when injuries are seen, especially to the head, and there is no sign of blood or bleeding, the injuries may have occurred after death. Sometimes wounds made after death on the underside of a body may show blood, but this is from blood draining down and out of the body from the influence of gravity. You should note the amount, color, degree of coagulation, size of area covered, and types of surface on which the blood rests.

RIGOR MORTIS

Rigor mortis is a rigidity of the body caused by muscles contracting after death from chemical changes within muscle tissue. It starts in all muscles at the same time. But it is first noticed in the small muscles of the face, neck, lower jaw, hands, and feet. Its time of onset and completion depends on environmental conditions and the onset of decomposition. The rigor can be broken. For example, a leg may be straightened out, but it takes a lot of effort. If the rigor is broken after it has fully set, it will not return.

PUTREFACTION

Putrefaction is a slow decomposition of the body. It is a chemical and bacterial change. It starts at death and continues until all soft tissue of the body is consumed. Temperature is important to the speed with which it



happens. Heat speeds bacterial growth and action, while cold slows it.

One of the first signs of putrefaction is a greenish staining in the lower abdomen. The change slowly spreads and takes on a brownish look. Sometimes the skin gets so dark, it may be hard to determine race. The condition called marbling comes from bacterial action on blood in the veins. They become dark red or purple and stand out lightly on the skin. And as bacteria acts on inner organs, gases form. They bloat the body, and facial features become vague. Putrefaction goes on until the body is consumed, unless adipocere or mummification begins.

ADIPOCERE

Adipocere is a yellowish-white substance composed of fatty acids and soaps developed in post mortem changes of the fatty parts of the body like cheeks, abdomen wall, and buttocks. The chemical process is induced by enzymes and water in moist anaerobic conditions in which bacteria need no oxygen to survive. Adipocere has a greasy feel and a strong and musty odor. Although adipocere may cover wounds, the wounds can be seen in a close examination even when the process has advanced.

MUMMIFICATION

Mummification occurs when body tissue dehydrates. The skin takes on a leathery look. The process only occurs in hot, dry climates, free from the moisture needed by bacteria. Mummification is more likely to occur in infancy than at later ages. The bodies of infants who die soon afterbirth are sterile. They do not have internal bacteria. Thus bacterial action is slowed because all bacteria must enter the body from outside. And, because of their size, the drying process can be completed faster in infants than in adults.

CONSUMPTION BY INSECTS AND ANIMALS

Insects and animals may begin to consume a body soon after death. Flies, maggots, and beetles attack open areas of the body. They gather on soft body tissues. Sometimes an entomologist's study of insect larvae on a body can help estimate time of death.

Cats and dogs locked in a room with a body eventually will eat a human body. A body buried in a shallow grave often is dug up by animals for food. It is not unusual for bodies left in woods to have their parts scattered over a large area by animals.

INVESTIGATIVE ACTIONS

The basic aim of a death investigation is to determine if the death was an accident, a suicide, or a homicide, and in the case of a homicide collect evidence leading to the conviction of the guilty party. The technique of investigating any violent death is basically the same. You investigate the circumstances, conditions, and events leading to and following the death. Learning and tracing the events and actions involving the victim before his or her death can show the likelihood of an accident or a clear intent for suicide or homicide.

Accidental deaths occur often under conditions which are suspect. Many of these deaths will look violent, but will lack criminal likelihood. Circumstances may show a logical reason for a weapon's presence and if there was a chance for an accident.

On the other hand, circumstances may strongly suggest death by suicide. Prior suicide attempts and earlier written or oral statements of intent, as well as suicide notes at the scene, are strong evidence of suicide.

Homicide, too, is often shown by conditions and events leading to and following the death. A disturbed scene, wounds to nonvital areas, punctured clothing, no weapon at the scene, no signs of suicidal intent or hazardous conditions, lack of hesitation wounds, signs of a tight, and signs of flight or surprise are all factors pointing to homicide.

The lack of a visible weapon at the scene most often suggests that the death was homicidal. But a suicide victim may live long enough to dispose of a weapon. Or he or she may arrange a contraption to cause the weapon to disappear after being fired. And relatives fearing social disgrace or having an interest in a suicide's life insurance may try to hide the deceased's suicidal intent and circumstances. Similarly, a murderer may try to make things to look like a suicide or an accident. When distinguishing between suicide and homicide, it is very important that motive be learned. Opportunity is also a factor to be considered where there are signs that an apparent or alleged suicide may be a homicide.

INITIATING THE INVESTIGATION

When you are notified of a death or an act of extreme violence, make every reasonable effort to get to the scene and secure it before it is disturbed.

If the victim is still at the scene and a doctor is not there, immediately check for signs of life. *Saving a life* takes precedence over all other actions. If the victim is alive, give first aid and have the proper medical authority notified. If the victim seems likely to die or is dying, try to get a statement. Make note of anything which may permit the statement to be admissible evidence as a *dying declaration.*

You must ensure that the scene is not contaminated. Curious onlookers can cause problems at a death scene. If the victim is still alive, onlookers can destroy evidence while attempting to help you. If the victim is dead they can destroy evidence by trying to cover the body. In either case they can deposit materials that may be mistaken as evidence. When you arrive on the scene have all unnecessary persons stand back from the immediate area.

Be sure the identities of all persons at the scene are verified. Learn the identity of the person who found the victim or who was first on the scene. Also identify the person who made the report. Process the crime scene with great care, using the steps you have learned for crime scene processing. Be sure to record the time you arrived. Also note the exact address, the temperature, and the weather. You will need this information for your investigation and for future legal proceedings. Without this information, your later testimony may be vague. This could cause the value of the rest of your testimony to be minimized.

CHECKING FOR WOUNDS AND ESTIMATING TIME OF DEATH

You must check the body for external wounds or injuries. If a pathologist is with you, he can make a detailed description of the body site, direction, and measurements of the

injuries. It is desirable for a medical officer or pathologist to take part in the exam at the scene to note condition of the body, postmortem changes, environmental conditions and circumstances of death. Depending upon the conditions, a medical officer, especially a pathologist, can often give an opinion about the time of death. When certain control factors, such as climatic conditions and time of exposure to the elements, are known, a medical officer may give a broad estimate of the lapse of time since death. This is based on rigor mortis, liver mortis, loss of body temperature, and the state of putrefaction of the remains. Changes in brain, rectal, and liver temperature can be used to estimate time of death, but they are not always reliable. A search of stomach contents may be of value. Remember, the estimation is very broad; so its significance may be negligible to the investigation. Later you can match these findings at the scene with autopsy findings to determine the manner of death.

Slight abrasions may be the only outer signs of severe internal injuries. Or they may suggest the manner of death. Small fingernail marks and abrasions on the neck are notably important to manual strangulation cases. Likewise, slight abrasions of the nose, mouth, and neck, especially of infants, receive special attention. These marks may point to asphyxia by smothering. Similarly, abrasion and bruising of the thighs, especially on the inner side, raises the suspicion of rape. In many cases, abrasions and bruises are caused by the same force. They may obscure each other to some degree.

If a bullet, a blade, or other weapon passed through the victim's clothing, obtain the clothes and forward them to the lab for analysis. If possible, you remove or help remove them. Place each item in a separate, marked paper bag. If the garments are damp, they should be air dried by hanging in a dry room to preserve the evidence. Clothing should be cut from the body only as a last resort. Do not cut through *a hole* in the garment that might be connected to the cause of death. The pathologist should have the chance to examine and describe the clothing to match it to injuries on the body.

Dragging a body produces changes in the clothing and the body that can be very confusing if you do not realize the cause. If a body is dragged by the feet, the primary pressure area will be the thorax, and clothes around the thorax will be pushed upward. If the breasts become exposed, particularly on females, dragging will produce numerous parallel superficial abrasions or scratches on the surface. When the surface is extremely rough or contains sharp stones, the abrasions can be deep. If a body is dragged by the shoulders, the clothes of the lower body may be pushed downward. Bruising can be severe if the body is dragged by both shoulders and legs causing multiple abrasions.

These injuries can be distinguished from those of rape or murder by their characteristic parallel, vertical-oriented abrasions. These usually occur on the thorax front or back and on the buttocks. The series of parallel abrasions will be oriented roughly from the head to toe or vice versa. It is always worthwhile to explore these abrasions with a magnifying glass and retain samples of any foreign material that may be present.

Look for metal items, such as pocket knives, watches, rings, cigarette lighters, and belt buckles. They may be separated from the victim. Or they may be mixed with similar objects from other victims. Unless you record the exact place where these items were found, they have little value as identification.

All suspected weapons, shell casings, expended bullets, and the like recovered at the scene or during autopsies must have laboratory tests to identify them and connect them with the death. Release the body only when you are sure it will no longer be needed.

RECONSTRUCTING THE SCENE

Once the victim is removed, you can sketch the scene again, showing the action of the event and the relative positions of pertinent evidence. You may want to have someone role play the victim. Then you can replay the action and record the results with still

photographs or motion pictures to study later. The role player should be about the same height and weight as the victim. This replay of the action can help you learn if or how force was applied. It also may show if an injury was caused in a certain way or from a certain direction, Note circumstance of use and placement and conditions of any weapon.

In alleged homicide investigations it is not unusual to find the body has been removed and the scene returned to its natural state. The body may even have been interred. In cases like this, in addition to reconstructing the scene, closely check records of any other investigations of the death. Seek to establish investigative leads not yet explored. You may need to have the body exhumed for an examination by medical personnel.

Release the scene of a death only when it is certain it will no longer be needed. Early release of a scene often causes the loss of evidence and may preclude a later recheck of the scene.

IDENTIFYING THE DECEASED

The means of identifying bodies are many and varied. Often the highly technical skills of professional medical personnel are needed. Be sure to note the victim's age, sex, race, weight, height, hair color and style, eye color, skin blemishes, and odd dental characteristics. Check metal tags, identification cards, and other documents. If a document seems to have been tampered with or if it has been mutilated or burned, send it to the crime lab for study. Articles of clothing may need laboratory testing and extensive tracing of chronological ownership. Of main concern is the size, type, and condition of the clothing, laundry and drycleaning marks; and foreign substances stuck to the clothing.

Do not completely rely on visually identifying the victim nor on written identification and personal items found on a body. Fingerprints are the best means of identification. When you cannot obtain fingerprints, your next best means are dental charts. Medical records of injuries like broken bones or of operations like surgical repairs or removal of parts of the body are also very useful. Scars and tattoos may also help.

CHECKING MOTIVE AND OPPORTUNITY

In homicide cases, if there is no known suspect, or if a suspected or accused person denies being involved, it is very important to identify persons who could have a motive to commit the crime and persons who would have had an opportunity to commit the crime. These two factors are of equal value. Which one you consider first depends on the facts of your case. If you find a person who could have a motive, find out if he or she had the chance to commit the crime. Conversely, if a person seems to have had a chance to commit the crime, find out if he or she had a motive.

The facts surrounding motive and opportunity often surface through questioning. Ask witnesses what they saw. Pay special attention to events that may hint of a motive. Question acquaintances and relatives of the victim to learn of persons who may have had motive or chance. Homicide is often a crime of passion committed by someone well-known by or related to the victim. Ask associates of suspects what they know about the suspects' relationship with the victim. Question the suspects about their relationship with the victim. Find out the whereabouts and the activities of a suspect before, during, and after the incident. Check alibis having a bearing on the chance to commit the crime. Sometimes, to check leads or motives, you may want to conduct a surveillance or an intensive investigation.

DEATHS INVOLVING FIREARMS

Homicides and suicides occur most commonly as a result of the discharge of a firearm. Accidental death from the discharge of a firearm is also common. These violent deaths often are not witnessed. But unlike other forms of violent or unnatural death, deaths from firearms often have trace evidence left by the weapon in or near the

victim's body. This evidence can be scientifically compared with suspect weapons. And it often can provide information about circumstances surrounding the death.

In a medicolegal investigation of death by firearms, scientific evidence is very important. Deciding the manner of the death, and solving the homicide if there is one, often hinges on that evidence. Thus, you must take every care to ensure such evidence is not lost. For example, gunshot primer residue must always be collected from the victim's hands at the scene if this can be done. The residue is very easily lost when a body is moved. If it cannot be collected at the scene, direct transporting personnel to touch and move the hands just as little as possible.

A study of gunshot wounds in a body can tell much about the type of gun involved. It can identify ammunition, range of fire, and direction and angle of fire. Sometimes it can tell the number of shots that hit the body. And it can give an idea of the fatal or disabling effects of an injury.

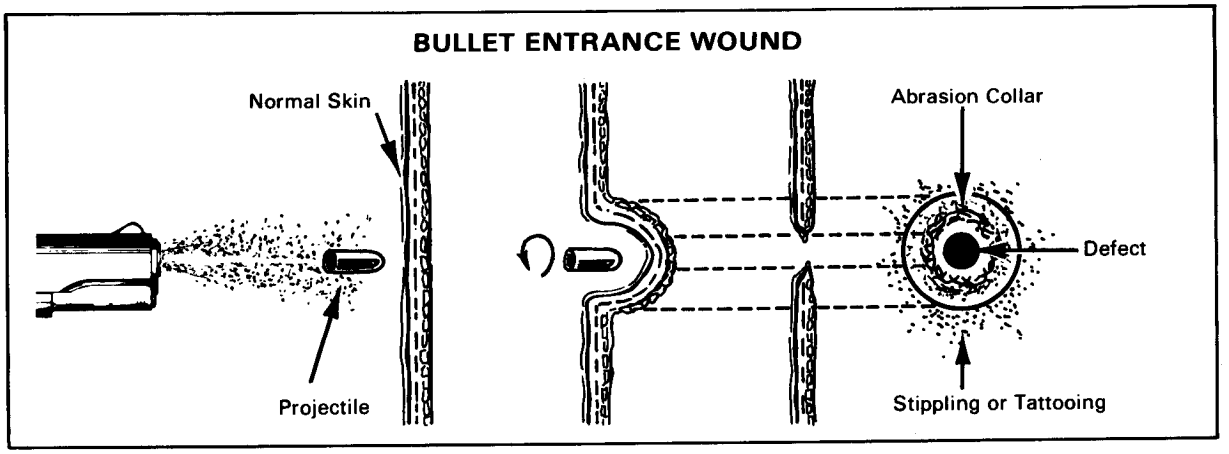
BULLET WOUNDS

A bullet passing through a body makes a wound which have traits that can be recognized. But all wounds must be medically confirmed during an autopsy. You can usually tell entry wounds from exit wounds. However, sometimes the distinction is hard to make. External determination is hard if bodies have begun to decompose or have been mangled. The uneven surface and tumbling action of ricocheting bullets may make ragged punctures. Bullets passing across a body can cut gashes that may look like knife wounds. And the energy of a high-speed bullet destroys tissue as the shock waves of its impact radiates away from the bullet. This makes a track of permanently disrupted tissue much wider than the bullet.

In tough cases, inspecting marks and effects on clothing maybe the best way to tell the direction of the bullet's flight. Autopsy examination of the bullet's track may show the path of travel by pieces of cloth, metal, and bone fragments carried forward by the bullet. Metal debris is scientifically detectable by spectrography and X-ray methods. If present, it is heavier at entrance wounds than exit wounds when the wound is in a fleshy area. Also, the nature of bone damage often shows the path of travel of the bullet. And determining which wounds are exit wounds and eliminating them from consideration helps locate entrance wounds.

Entrance Wounds

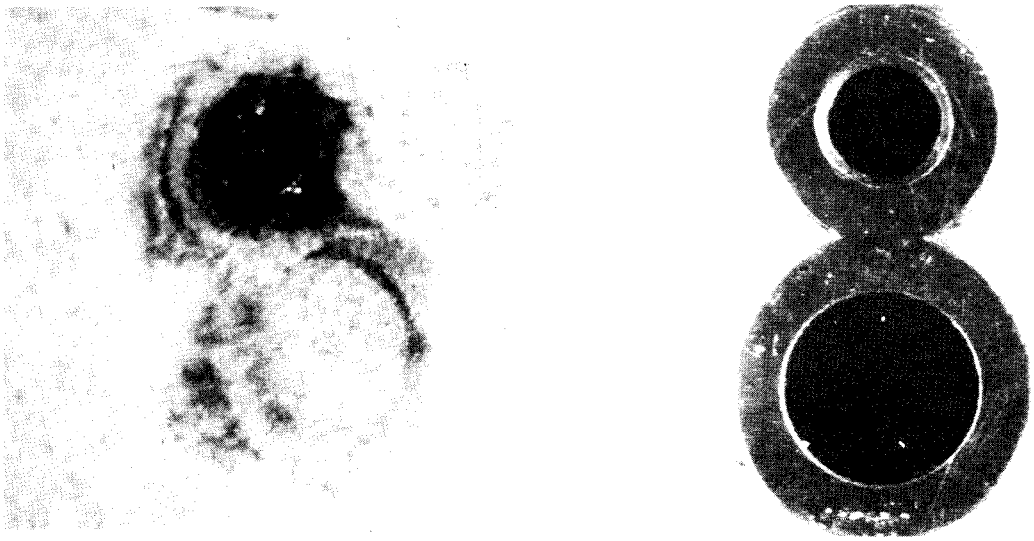
Entrance wounds are commonly round, regular holes showing minor bleeding. Often, skin resistance is stretched by the impact of the bullet. This makes the hole somewhat smaller than the bullet. Sometimes a narrow ring around the entrance shows grayish soiling from carbon and oils on the bullet and a reddish-brown abrasion collar caused by the bullet's impact. Some bullet entry wounds are inconspicuous or hidden. Such wounds are often of small caliber. They may be hidden under clothing, in hair, in body folds or openings, or behind closed eyelids."



Identifying entrance wounds does not always tell the number of shots fired into the body. A single bullet can sometimes account for a number of entry wounds by piercing the body more than once. For example, a bullet may go through an arm before entering the torso. One of the aims of a pathologist's tracing of the path of the bullet is to try to match multiple wounds to the same bullet. A bullet striking a bony surface at an angle may split into two or more projectiles. The multiple projectiles can cause many exit and reentry holes. Ricocheting bullet pieces may also cause several wounds from a single bullet. On the other hand, more than one bullet may go through the same entrance wound. In one rare suicide case, a defective round failed to exit the barrel and a second round pushed the first in tandem through a single entrance.

Bullets and other products of a weapon's discharge have characteristic effects on skin and clothing. These effects can indicate the distance from which the gun was fired. Contact and near contact wounds are made with the gun muzzle held against or less than an inch from the victim. Contact wounds, especially the ones on bony surfaces, are likely to be large, ragged stellate wounds. The explosive force of gases from the discharge often tears skin and tissues around the bullet hole, producing ragged everted lacerations radiating from the hole. But a contact wound made when exploding gases are received and expended by a large body cavity, like the chest, may not be large or irregular. On the other hand, a contact wound to the head made by a high-powered rifle may show massive bursting fractures of the skull from the explosive effect of gas forced into the skull where it has no chance to expand. Contact wounds from small caliber guns like a .25- or .22-caliber pistol tend to be smaller and less devastating than such wounds from larger caliber weapons. This is because the discharge from small caliber weapons may not be forceful enough to disrupt the surrounding tissues.

Contact wounds leave an abrasion collar. The edges of the contact wound and the bullet track are burned. If the gun is fired through clothing, the surrounding fabric is also burned. The flame and smoke may cause a sooty, grimy halo around the wound. But when the gun's muzzle is held tightly against the skin, the bullet hole is not "tattooed" with powder grains embedded in the surrounding skin like it is in intermediate-range wounds. This is because most of the unburned powder and other explosive products are blown right into the bullet track. The contact wound may also show a bruise pattern from swelling gases blowing the skin back against the gun's muzzle. It may be shaped like the gun's muzzle end, sights, or extractor spring rod.



The bruise on this contact wound repeats the pattern of the over-and-under .22-caliber rifle that caused it. Note also the even-edges of the small caliber's entry wound.

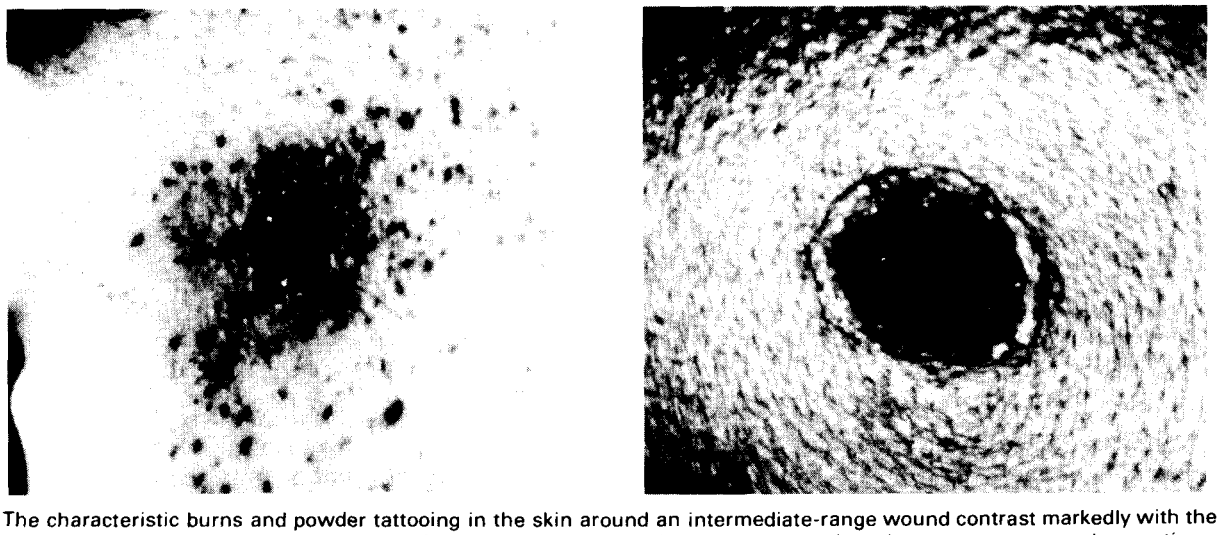
Intermediate-range wounds are made when the muzzle is held between 1 and 48 inches from the victim. The wounds are often round, but their edges may show minor splitting. They differ from contact or longer-range wounds by having burns and powder tattooing in the skin around the bullet hole. Powder residues and other discharge products are projected onto the victim in ample amounts when a gun is fired within 2 feet of the target. Recognizing powder marks and residues can help you tell entrance wounds from exit wounds. Their pattern and composition help you deduce the range of fire and the kind of ammunition used. Precise range of fire tests can be made by laboratory test-firing the same weapon and ammunition. Types of powder residues can also be distinguished by chemical, photographic, radiographic, and spectrographic tests.

The burned and tattooed area is roughly circular. It becomes larger and more diffused as the distance between weapon and victim grows. The area has three zones. The flame zone is the zone of burned skin around and in the bullet hole. This is surrounded by the second zone where most tattooing powder grains and combustion products burn and stick to the skin. The last zone is under the skin, where sparsely scattered powder grains and residues are embedded in the dermis. Washing will not remove powder grains in the dermis.

If the burned, tattooed, and abraded areas form a concentric circular margin around the entry wound, the bullet probably struck the body at right angles. Bullets striking at a shallower angle show marginal bruising and abrasions at the point where the bullet first meets the surface. Bullets striking at extreme angles may cause shallow furrowed wounds. These grazed, or tangential, wounds may be followed by an entrance wound. Or they may be followed by closely spaced entrance and exit wounds. It depends on the conformation of body surface in the path of the bullet.

If a gun is fired at close range and at an angle to the body, powder marks will seem to spread away from the bullet hole in an uneven V-shape. The point of the V will point toward the weapon. The size of the ammunition and the type of powder also affect the nature and extent of powder residues. At a distance of 3 to 4 feet, powder marks may not be present on a victim shot with a handgun.

Long-range wounds are made by muzzles held more than 48 inches from the victim. The wounds are generally rounded holes with circular abrasion collars. There are no burns or powder tattooing. Small caliber contact wounds and other contact wounds over soft-tissue areas may look like long-range wounds. But they can be distinguished by the powder residues deep in the tissues in the bullet track.

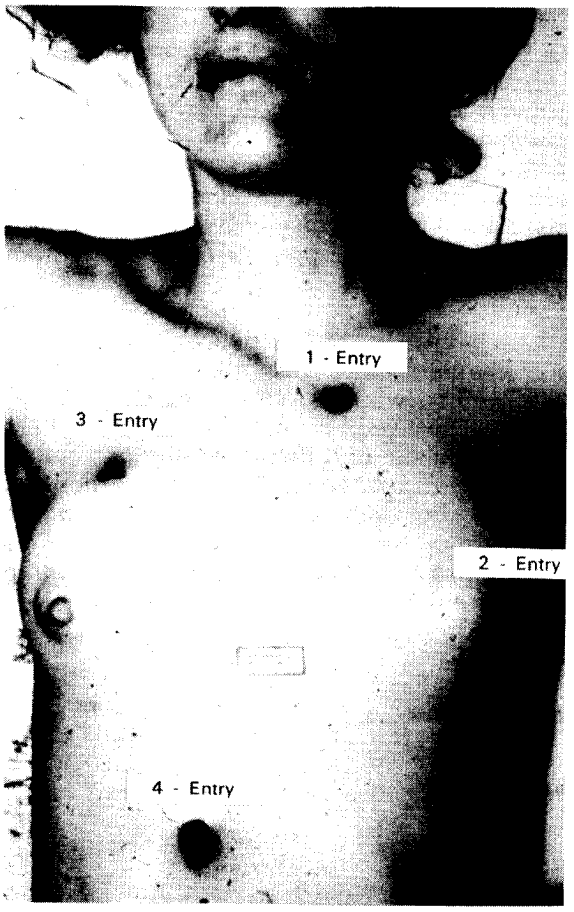


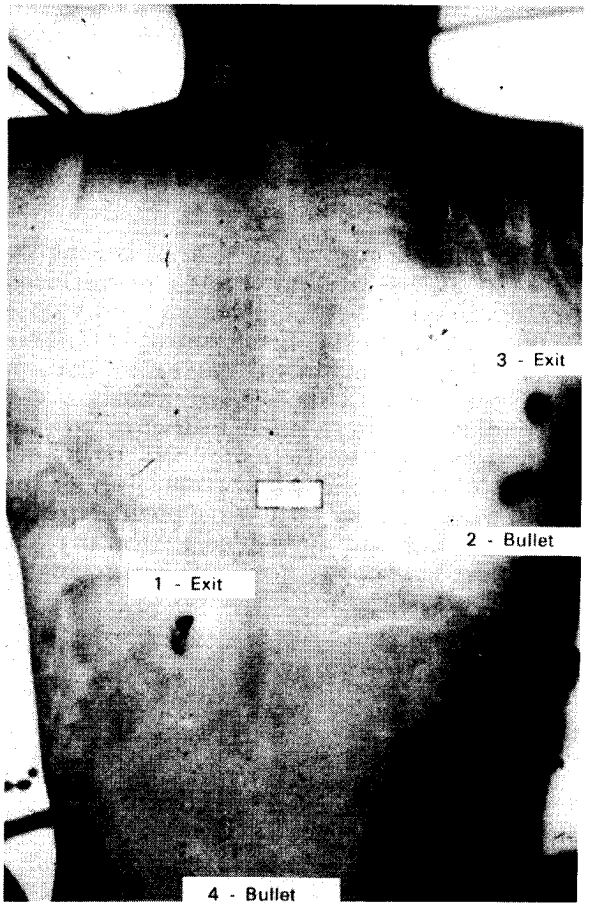
The characteristic burns and powder tattooing in the skin around an intermediate-range wound contrast markedly with the rounded hole, and circular abrasion collar of the long-range wound. Long range wounds and some contact wounds sometimes look similar, but long range wounds have no evidence of powder burn, inside or out.

Exit Wounds

Exit wounds often show more damage than entrance wounds. Exit wounds are ragged and rough in shape. And they are often larger than the bullet itself. Tissues, compressed in front of the bullet, burst when the bullet breaks through and exits the body. Also, the bullet is often fragmented, deformed, and tumbled by impact. It is therefore more destructive. Thus, exit wounds may bleed more than entrance wounds. And pieces of internal tissue may protrude from the wound.

Because a bullet loses momentum as it passes through the body and its tough, elastic skin, it sometimes uses up its remaining energy at the point of exit. Thus a bullet may be found protruding from the skin or loose in a victim's clothing. It may also be found under the skin, where it has caused swelling or bruising. If a bullet is lodged in a body, advise the surgeon of its potential value as evidence. Request he not probe for the bullet except as a last resort. If probing is needed, request that rubber tipped forceps be used to remove bullet.





The unexpected locales of the exit wounds are the result of the bullets changing paths from contact with internal organs and bones. The uneven livor mortis is the result of pressure, from a strap on the left shoulder and from the shoulder blades, that kept the blood from settling evenly.

SHOTGUN PELLET WOUNDS

Shotgun wounds are very different from wounds caused by other firearms. The destructive force of a shotgun blast at close range is great. If the wound is to the head, the shape of the head may be greatly changed. Large sections of the head or face may be blown away. Close-range wounds of the trunk and abdomen may cause loops of intestine or other organs to hang out of the body. Or it may blow away a large portion of a victim's body.

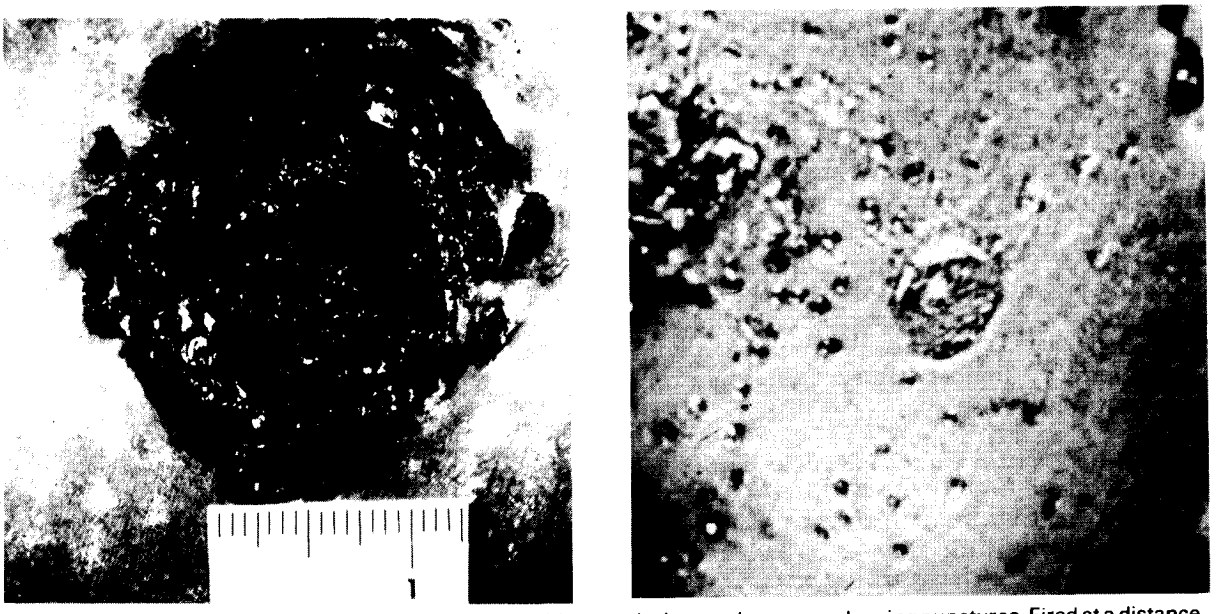
When a shotgun is fired from a distance of 10 feet or less, the charge strikes as a fairly compact mass. It leaves a large central, circular hole with very ragged edges from the many single and overlapping punctures made by the shotgun pellets. This is known as the cookie cutter effect. Scattered around the large central hole are smaller holes made by individual shot beginning to disperse in flight. When a shotgun is fired at close range, the wounds are grossly burned and tattooed. As the distance increases between weapon and victim, the wound shows less tattooing and no burning. Beyond 10 feet the shot spreads in flight and strikes the body in a more scattered grouping so that no central hole occurs.

The length of the shotgun's barrel and the type of ammunition also influence the spray of the shot and the scattered pattern of the wound. A sawed-off barrel allows quicker spreading. And the spray may be cut if the shotgun is choke-bored. The slightly narrowed muzzle focuses the shot and delays its spraying. Birdshot, even when fired at close range, usually does not go through the trunk or abdomen of an adult. But when the shot load goes through a thinner portion of the body like the neck, limb, or shoulder, it makes large lacerated exit wounds. Sometimes small, ragged exit wounds are made when only some of the birdshot exits the body. At close range, buckshot, having a greater weight and energy, causes wounds similar to those made by large bullets.

Shotgun pellets cannot be linked to a certain gun by ballistics markings as rifled bullets can. However, the size of shot may be learned from printed material on the top wad or by marks left in the wadding. It can also be learned from printed information in the shot column. The gun's gage may be learned by comparing the diameter of the wad with other wads. If the wadding has not struck an intervening zone, it can be found within 50 feet of where the gun was fired. If the gun is fired within 10 feet of the victim, the wadding is often carried into the body with the shot.

SHOOTINGS

For self-inflicted gunshot wounds, unless some special contraption is arranged, the victim generally must hold the gun close to his or her body. Rifles and shotguns are sometimes fired by using a stick or string hooked to the trigger guard or by pushing the trigger with a toe or a device. Riggings made to pull the trigger, or removal of a shoe, strongly suggest suicide. And because a suicide's hands may be close to the wound when it is caused, they may be bloodied by the entrance wound.



At less than 10 feet, pellets leave a central circular hole with ragged edges and many overlapping punctures. Fired at a distance, the pellets have a spreading flight pattern and leave no central hole.

Suicide wounds are usually single, close-range or contact wounds on a part of the body that is easily reached. But sometimes suicides shoot themselves more than once before being disabled or dying. The presence of misfired rounds in or ejected from a weapon may also hint at suicide. Suicides sometimes fire shots to check the weapon while working up nerve to complete the act. Or they may misfire the weapon from momentary loss of nerve.

Often suicides expose the part of the body being attacked. For example, they tend to open their shirts before placing the muzzles against their chests. The chest and abdomen are often the target when a rifle or shotgun is used. The temple, the mouth, and the chest over the heart are common sites for suicidal attacks with a handgun. But most handgun suicides attack the head just in front of and over the ear.

Suicide victims may guide the gun by holding the barrel with the nonfiring hand. In which case, that hand will have burns from the flame from the muzzle and breach. The hand may also show singed hairs and leave powder residues. But finding primer residue on a victim's hands is not in itself conclusive proof of suicide. It must be considered in light of other facts in the case. Residue can be present on a victim's hands because they were close to the muzzle blast of a shot fired by someone else.

Condition of the weapon can suggest the manner of death. The gun may be defective. Perhaps the gun's safety catch is defective. Or the gun may not have a safety catch. Perhaps the gun can be discharged by dropping it. Evidence may show that the trigger caught on something, discharging it accidentally. Finding a serviceable weapon, needing normal force to pull the trigger, with good safety devices, may help rule out accidental shooting.

Most accidental shootings occur because of a victim's careless handling of or unfamiliarity with a gun. Perhaps the victim was on a hunting trip or was cleaning, loading, or otherwise working on the weapon. Evidence may show that the victim was handling the weapon unsafely, showing how another person killed himself, or playing "quick-draw." Children and young people often become accident victims by playing with guns.

Accidental deaths are often witnessed and reported. If the wounds are not self-inflicted, the report is often made by the person who fired the gun. Unwitnessed accidental gunshot deaths may look a lot like suicide. But, in most cases, the known attitude and life-style of the victim, plus the lack of a clear case for suicide or homicide are strong signs of an accident.

Most deaths due to multiple gunshot wounds have proven to be homicides. The murderer, usually related to or closely acquainted with the victim, fires in a fit of rage, panic, or other strong emotion.

The location and number of empty shell cases at the scene may tell you the number of shots fired and the relative positions of the gun and victim. Lining up the final resting point of the bullet, position of the victim, and entry and exit holes on the victim can help tell the position from which a gun was fired. And a gun may have been fired close to or while resting on some surface. If so, it will have left powder residue. This also may tell you the position from which the gun was fired. All feasible surfaces of weapons, shells, magazines, must be checked for fingerprints.

When you recover bullets at a crime scene, *record exact details.* Give the location and condition of the bullet, the type of material it pierced, and its depth of penetration. Note irregularities of size and shape and the approximate angle of impact. Note any other information which may help the lab examiner. And be sure to note in your crime scene sketch the point at which each discharged bullet or fired cartridge case was found.

Markings may be placed on a bullet by the weapon's bore. Other marks may be placed on the cartridge case by the firing pin, breach block, chamber extractor, and ejector. Also, a lead bullet impacting on cloth may receive a patterned impression of the fabric's weave. This may be useful to prove that a particular bullet passed through the victim.

At the laboratory, powder residues on evidence are tested chemically and microscopically. Bloodstains, hairs, fibers and similar trace evidence are identified and compared. The lab may be able to tell from the residue or burns on the clothing the approximate range from which the bullet was fired.

DEATHS INVOLVING ASPHYXIATION

When the body or any vital part of it is deprived of oxygen, asphyxia occurs. Death from asphyxia alone is most often due to natural or accidental causes. Many diseases and infections can hinder airways. And foreign bodies like meat or bone can become trapped in the throat or windpipe, causing asphyxia. Food particles are often the cause of accidental choking deaths in adults. Choking deaths of children are common from food and from small plastic or metal toys. And pressure on the outside of the chest that restricts breathing can cause asphyxia. This pressure can occur in cave-ins, building collapses, or traffic accidents.

Inhaling chemicals like ammonia, chloroform, carbon monoxide, and carbon dioxide also may cause asphyxia. Sometimes these chemicals are the cause of suicidal or homicidal deaths. Homicide and suicide by asphyxia alone are rare. But in learning the reasons for death by asphyxia, anything suspicious must be pursued through background investigation and autopsy. Only then can the death be ruled accidental or natural.

STRANGLINGS

Strangulation is asphyxiation from compression on the neck. It can be done manually or with a ligature like a binder, a rope, a necktie. Strangulation may also be caused by hard blows to the neck. Judo or karate chops to the throat may cause damage to the larynx, followed by suffocation.

Manual strangulation is a homicide. A person cannot strangle himself with his hands, because when he loses consciousness his hands relax and his breathing resumes. In manual strangulation, the attacker's fingernails often make small tell-tale bruises or marks on the neck. But the marks on the neck will not show the direction from which the victim was attacked. Fingernails vary too much in size and shape. Another sign of manual strangulation is hemorrhaging in the throat area. This can be seen in an autopsy. Sometimes a fracture of the hyoid bone, a U-shaped bone at the base of the tongue, is also found.

Strangulation by ligature may be homicidal or suicidal. It is a fairly common form of suicide, but it is a rare form of homicide. The ligature often is made from something handy at the scene. Pajamas, neckties, belts, electrical cords, ladies' stockings, and other items can be used. Strangulation by a garrote of rope or wire sometimes is used in homicidal strangulation, but it is not seen very often. Close inspection of the marks left on the skin may show the type of garrote used. If possible, *leave the ligature in place* for a pathologist to remove during the examination.

When you investigate a strangulation, search the scene and the victim for signs of struggle. Obtain fingernail scrapings. Check the body for signs of defense wounds that may suggest homicide. But look for the presence of hesitation marks hinting at attempted suicide by other means before ruling it a homicide.

HANGINGS

Hanging is asphyxiation by strangulation using a line of rope, cord, or similar material to work against the hanging weight of the body. Hanging is most often suicidal. But sometimes it is accidental. It is seldom homicidal, except in lynchings.

A person does not have to be fully suspended to hang. Hanging may occur if a victim jumps or is pushed from a height while tied by a line to a rafter or a tree limb. If the height is more than just a few feet, the victim's neck may break. But the neck is seldom broken in suicidal or accidental hangings.

At the scene you must check the beam or rafter over which the line is laid for marks showing the direction of travel of the line. You may want to remove the line for inspection. The hanging line must be checked in a laboratory to learn if it pulled against the weight of the body. Inspect the scene for signs of a fight and signs of defensive marks or rope burns. But keep in mind that an unconscious victim may convulse, knocking over items in the immediate area.

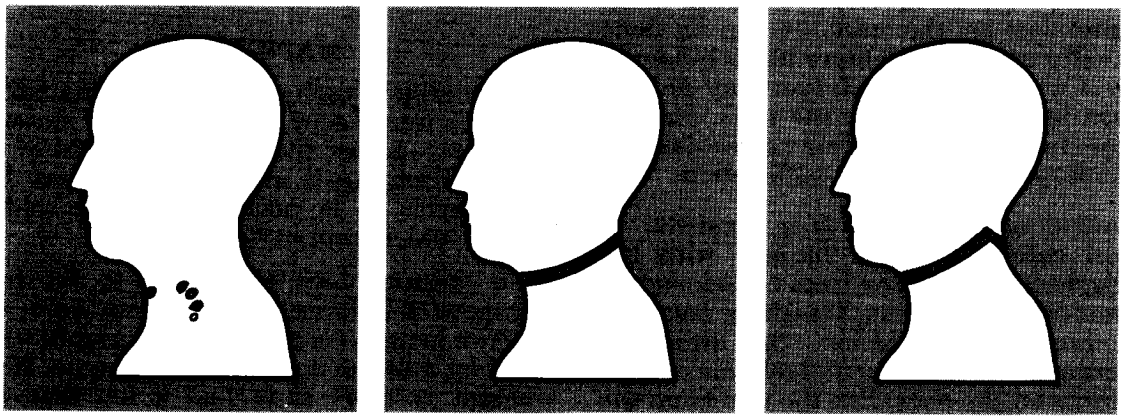
When you take down the body, *do not untie the knots.* The type of knot may give you a lead to follow. Remove the hanging line from the victim's neck by cutting the line on the side opposite to the knot. Make a careful inspection of the groove around the neck. A close look at the edges of the groove will often show black and blue marks from minute bleeding. Ruptured blood vessels in the skin mean the victim was alive at the time of the hanging. But the lack of these marks does not necessarily mean the victim was dead at the time of hanging. Combined with other conditions, however, it could raise suspicions.

Note the position of the groove as it relates to the location of the knot. The mark of the ligature should agree with the location of the knot. For example, if the knot is in front of the face, the deepest part of the groove should be on the nape of the neck. Anything different suggests homicide.

When a fixed knot is used in hanging, the groove will form an inverted V on the side of the knot. The bruise on the skin in the groove is greatest opposite the knot. It tapers off as it reaches the knot. If a slip knot is used, the groove may be uniform around the neck.

If the victim is nude, suspended before a mirror, or suspended in an unusual manner, or if any of these conditions are combined, you may suspect an accidental hanging from sexual activity. Accidental deaths may occur from autoerotic sexual acts using restraints like ropes, cords, chains, and handcuffs. The victim, trying to reach sexual contentment, uses these items to restrain his or her hands, arms, legs, and neck. When strain on the neck causes unconsciousness or when the victim loses balance during the act, accidents occur. The victims are unable to release themselves because of the binding on their hands, arms, and legs. They may end by hanging themselves. Sometimes, when they use binding material or plastic bags on their faces, they suffocate. A notable feature of this type of death is the presence of female attire and articles on or near a male body. And erotic material is often present. In the past, these deaths were often incorrectly labeled suicides. But they are accidental and they must be listed as such.

VISIBLE PATTERNS CHARACTERISTIC OF STRANGLINGS AND HANGINGS



The finger bruises of a manual strangulation.

The even pressure and straight furrows left by a ligature.

The inverted V and the angular furrows of a hanging.

Other accidental hangings differ from autoerotic deaths in the lack of female attire, erotic material, or constrained hands or feet. And accidental hangings often involve infants and young children. Infants can get caught in restraining devices. They can get their clothing caught on things. Or they can get their heads caught between crib or fence slots. If they are unable to get themselves free, they may strangle. For no known reason, young children, especially boys, will put nooses around their necks. They too may strangle to death.

DROWNINGS

Drowning is asphyxiation from water or liquid being inhaled into the airways, blocking the passage of air to the lungs. Water inhaled into the windpipe causes violent choking. The choking irritates the mucous membranes of the airways causing a large amount of sticky mucus to form. The mucus, mixed with the water and agitated by violent attempts to breathe, turns into a thick sticky foam which fills the windpipe.

Most drownings occur when the victim submerges in a body of water. A small number of "drowning" deaths among swimmers are actually caused by their hearts stopping from the shock of submersion. Most commonly, a drowning victim has a violent spasm of the neck, throat, and chest muscles. This prevents breathing. The victim submerges, inhaling water. The victim may stay submerged the first time he goes under. Or he may go under and surface many times, until he can no longer struggle to the surface. Loss of consciousness often occurs fast. Because the human body is heavier than water, when unconsciousness occurs, the victim sinks and tends to lay at the bottom with the head down. Breathing may continue briefly with varying amounts of water inhaled. The heart may beat briefly after breathing stops. Death by asphyxia occurs within a few minutes. Banning strong currents, a body sinks fast. It often comes to rest at a point close to where it was last seen on the surface.

Rigor mortis may start early because of violent muscular struggle. Postmortem lividity occurs, but is often a light red in color and is most noted in the head and upper body. This is because of the body's tendency to sink head down. The foam that formed in the airway may exude from the mouth and nose. Often, the victim's hands will be grasping gravel, mud, or grass. The hands and fingertips may be scratched from violent grasping efforts. The palms may be cut by the fingernails during the hands' violent clenching motions. And medical laboratory study of the victim's bone marrow may show microscopic bodies. These factors are good circumstantial signs that the victim was alive when he entered the water.

After a few hours, depending on temperature and movement of the water, postmortem changes peculiar to submersion begin to occur. The skin, especially on the hands and feet, becomes bleached and waterlogged. Palms develop a very wrinkled condition called washer-woman hands. The constant churning of water currents or long periods of submersion may cause maceration. This is the wearing away of skin and flesh, especially of the hands and feet. Mutilation may occur from propellers of boats. This causes the appearance of postmortem dismemberment. Parts of the body, notably the face, may be eaten by marine life. As bacteria mounts in the body, putrefaction begins. As putrefaction progresses, gases build up in the tissues, organs and body cavities. The body becomes distended with gas. This makes the white foam in the airway come out of the nose and mouth. As the gases build up, the body becomes buoyant. Warm water speeds putrefaction; cold water slows it. In warm water, buoyancy may occur in a couple of days. In winter, the action may be slowed for weeks or until spring. As putrefaction advances, the skin loosens from the tissues. Sections of skin, especially hands, feet, and scalp, may fall from the body.

Unless a body is heavily weighted down or firmly caught on underwater debris, buoyancy will eventually cause it to rise to the top and float. If a body is prevented from rising, the gases eventually escape. Then buoyancy leaves and a body may stay down forever. When a "floater" rises and is exposed to the air, decomposition proceeds at a much faster rate.

Prolonged submersion and decaying may dim or destroy the external signs of asphyxia. Signs of violence or other cause of death may also be lost. Prolonged submergence makes death by drowning medically difficult to diagnose. But medical evidence may show signs of asphyxia like foam in the airways, and an enlarged heart. It may also show changes in the blood from water absorbed during drowning. Algae and other substances from the water may be found in the stomach or airways. Chemical tests during an autopsy can show if the person was alive when he entered the water. But chemical tests are nonspecific, and none are diagnostic of drowning.

Suicidal drownings in places like bathtubs are hard to distinguish from accidents unless a reason is suggested or some other means of suicide was also attempted. Check for marks which may show suicidal intent. A weighted body strongly suggests homicide. But suicides may weight their bodies to speed drowning and stop recovery. Inspect weighted bodies carefully for injuries suggesting homicide. See if the binding and weighting method could have been done by the victim. Check for self-inflicted injuries such as cut wrists or any other sign of suicide.

Homicidal drownings are rare. Unless accompanied by signs of homicidal violence or other such conditions, the autopsy shows only signs of asphyxia by drowning. There have been times when submerged bodies have shown no signs of violence, but, after the body dried out, bruise marks and small abrasions appeared that could not be seen when wet.

ELECTRICAL SHOCKS

Death by asphyxiation can occur as a result of electrical shock. The shock stops the action of the heart, and the brain, deprived of oxygen, ceases its function. The effect of electrical shock on a person depends on many things. It depends on their health. It also depends on their location and how wet or dry it is. And it depends on the amount of voltage they receive, how long they are in contact with this voltage, and the after-effects of the shock.

Electrical shocks often leave marks, although it is possible for a body not to show outer or inner damage. Usually electrical shocks leave entrance and exit wounds on the body. These have a grey or white puckered look. Severe burns from higher voltage, called Joule burns, are often brown and take the form of the thing that caused the fatal contact. Lightning deaths leave a characteristic mark that resembles a fern leaf. High-voltage shocks may leave marks where metal objects have melted on the person. And there may be extensive fractures of the bones.

When you investigate a death by electrical shock, you need to check weather conditions, electrical appliances the victim may have been using, and the victim's location and activity at the time of death to determine if the death is accidental or not. Deaths from electrical shock are most often accidental. Murder by electrocution is rare. But it is possible.

DEATHS INVOLVING SHARP-EDGED INSTRUMENTS

The body's vital functions can be fatally impaired by injuries from sharp-edged instruments. Deaths or injuries from stabbing, cutting, and chopping are hard to evaluate without extensive experience. But the type of wound and the victim's personal history can help decide if death was an accident, a suicide, or a homicide.

STABBINGS

Stab wounds may be made by any object with a fairly sharp point. Knives, scissors, ice picks, triangular files, or hat pins can all make stab wounds. Sometimes stab wounds look like other kinds of wounds. A wound made with a stiletto or ice pick may look like a bullet wound. And the reverse may be true. If examination fails to show a sure sign of stabbing, the wound may have been made in some other way. X-rays may help to locate an unsuspected bullet or piece of a weapon, such as a knife or stiletto, which may be inside the body. Most stab wounds involve some cutting. This occurs as the weapon is pushed in or drawn out.

The shape of the wound depends on the direction from which the weapon penetrates. It also depends on the shape of the weapon. And it depends on the movement of the weapon while in the wound. For instance, a flat blade piercing a body at a right angle to the surface of the skin often causes an oval-shaped wound with pointed ends. If the blade's penetration is parallel to the cleavage lines, the wound is more or less closed. However, if the wound is at right angles to the direction of the cleavage lines, the sides pull because the fibers are elastic. A gaping wound is made. If the blade pierces a body at less than a right angle, it makes a beveled wound. If the blade moves around in the wound, an uneven-shaped scrimmage wound is made. Often the weapon is turned slightly as it is withdrawn. This causes a wound that has a notch in one side.

The depth and shape of a fatal stab wound, fixed during an autopsy, may give a clue to the type of weapon used. The track of a weapon may be very clear in fleshy areas. However, when a weapon penetrates inner organs, its track may not be accurate. Inner organs change in shape and position after death and when a body is moved. Also, a strong stabbing force against a soft area like the stomach can depress the area, making the wound deeper than the true length of the weapon. Likewise, a longer blade may not penetrate its full length. Then the wound path is shorter than the blade.

A homicidal stab wound often penetrates a victim's clothing. For this reason you must take special care when removing and checking the victim's clothing. Many times the clothing matches the real width of the weapon better than the wound does.

Pierced bony surfaces like the skull, sternum, or spine often show the shape of the part of the weapon that passed through the bone. And sometimes weapons break off or are left in the bone. The blade or portions of it may project from the inner part of the bone. If a blade is broken in a fatal stab wound, the part of the bone with the blade in it may be removed at the autopsy. It can be used as evidence of the corpus delicti, especially if the matching part of the weapon has been preserved as evidence.

To tell if a wound was made before or after death is difficult. A good inspection of the wound made before the body is moved is very important. If the wound was made before death there should be evidence of blood clot, swelling, wound healing, or infection.

Accidental stab wound deaths are rare. When they do occur, they are often caused by the victim's falling through glass doors or windows. The victim is stabbed by the larger pieces of broken glass. Other stabbing accidents may occur when victims fall on sharp pointed surfaces of tools or equipment. Sometimes victims are pierced by large splinters, by vehicle surfaces, or by horns or tusks of animals.

Most fatal stab wounds are homicidal. Often there is only one wound which pierces a vital organ or nerve center causing death from shock, hemorrhage, or the ceasing of a vital function. Homicidal stab wounds often appear on the back, neck, and upper chest. When many wounds are present on different parts of the body, homicide is strongly indicated. Wounds of the same depth, wounds of nonvital areas, scrimmage wounds, and multiple wounds of a vital area strongly support homicide. Several stab wounds to the breasts and genitals are suggestive of a sex-related homocide. And defense-type wounds on hands and arms and wounds to the back or other areas not easily reached by the victim hint of homicide.

Many stabbings are not instantly fatal. The victim may live for days and then die from acute infection or other medical problems. Stabbings usually are not immediately disabling. Unless the victim is unconscious or otherwise helpless, the scene is likely to show signs of struggle. Signs of flight and traces of blood are likely to be scattered over a large area.

Suicides most frequently stab themselves in the chest over the heart. But suicidal stab wounds may be made on any area of the body that can easily be reached. Like suicidal shootings, the victim will often open up clothing or uncover the selected stab area. Often the knife is left sticking in the wound.

In some cases, the suicide may jab the weapon into his chest a number of times. In such cases, the wounds often vary in depth.

Many of them may barely penetrate the chest. These hesitation wounds are made as the victim works up nerve to force the weapon through. Suicides sometimes stab themselves repeatedly in different directions, through the same wound, without completely withdrawing the weapon. This causes more stab tracks than outer wounds. Hesitation cuts under the wrist or thighs are good signs of the suicidal intent of a victim.

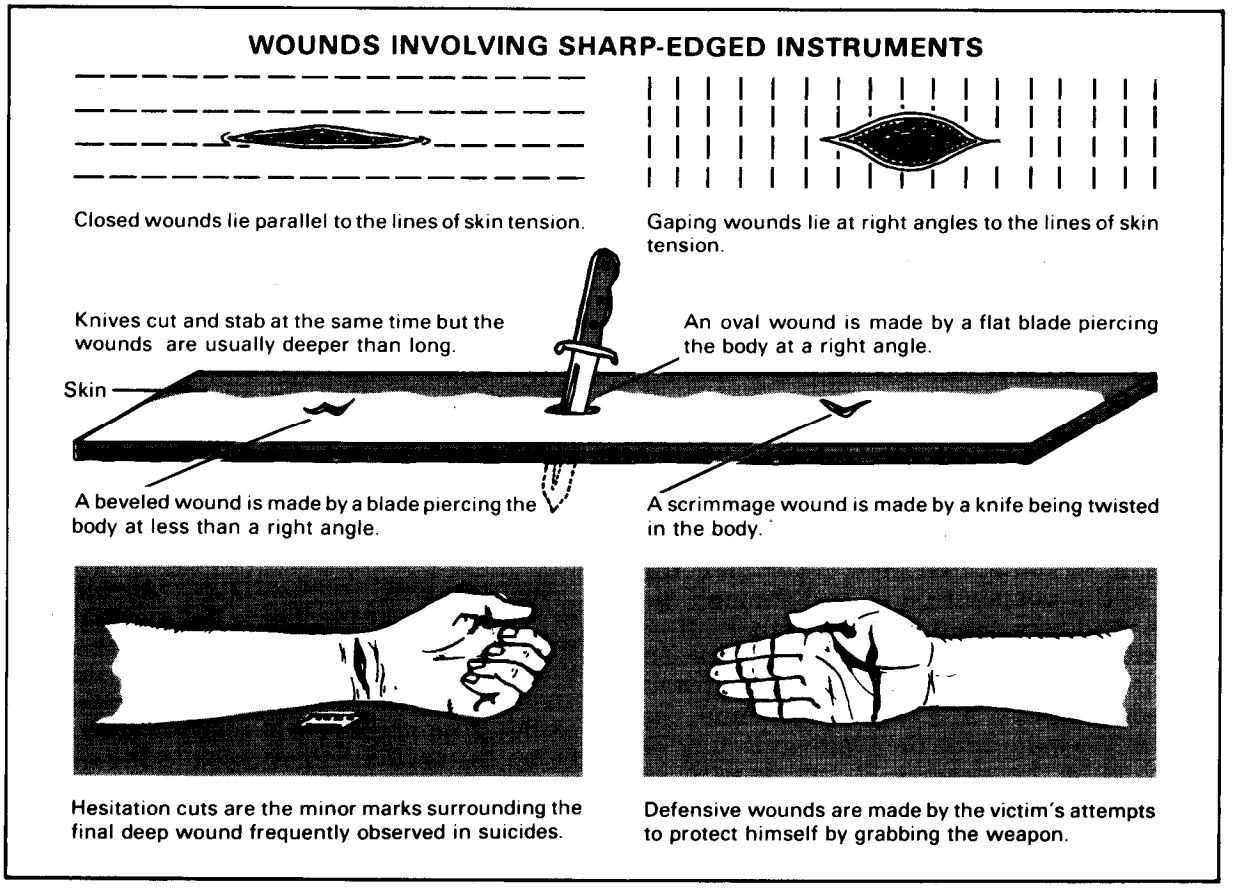
CUTTINGS

A cut is an incised wound made by a sharp-edged object. The sharp edge is pressed to and drawn over the surface of the body to inflict a cut. Knives and razors account for almost all incised wounds. Cutting wounds can cause fatal hemorrhages and infection. They also can be fatal if the victim inhales blood from a cut airway. Cuts often are made on exposed surfaces like the head, neck, and arms. Where many cuts are involved, those on the palms of the hands and the outer surfaces of the forearms of the victim are often defensive cuts. They may indicate a homicidal attack. Heavy maiming and dismemberment may accompany sex murders.

Homicidal cuttings are usually deep, clean cuts without hesitation marks. The wounds may be on various parts of the body. But most often they involve the head and neck. Homicidal slashing wounds may be present. Such a wound may be a single deep cut on the side of the face and neck. Or it may be one of many deep slashes crisscrossing each other.

Sometimes when a victim tries to dodge slashes there are small shallow cuts near larger wounds. These defensive wounds may be confused with suicidal hesitation cuts.

Suicidal cuts are often many, parallel, overlapping incisions of varying length and depth. Many times they have a lot of smaller shallow hesitation cuts on the lead edge of the injured area. Fatal suicidal cutting wounds are often on the throat. A right-handed suicide normally holds the weapon against the left



side of the neck and draws the weapon to the right and across the throat. A left-handed suicide usually does the opposite. But sometimes a suicide holds the weapon against the neck on the same side as the cutting hand and pulls forward and downward across the throat. When a throat is cut, fatal bleeding sometimes results from a fairly shallow cut which severs a large vessel. Sometimes the cut starts shallow and gets deeper, cutting deep neck structure. The cut may reach the voicebox, deep vessels, windpipe, and esophagus. It may even scratch the spine. Often, a suicide slashes the wrist opposite to the cutting hand before attacking the throat.

Other self-induced cuts may be made to the groin, thighs, ankles, knees and the inside of the forearm at the elbow. Suicidal cuts on the limbs are often not fatal. Frequently found on persons who have killed themselves some other way, they support a judgment of death by suicide.

Accidental incised wounds are rarely fatal. They occur most often from broken glass or contact with moving machinery or sharp tools. Most times the situation clearly shows the accidental nature of the injury.

CHOPPINGS

A chopping wound is a mangling, tearing cut. The wound is usually made with a heavy instrument like a cleaver, a machete, a hatchet, or an ax. Death from chopping wounds may come from shock, hemorrhage, or interruption of vital functions.

Most chop wounds are homicidal. They are usually made on the head, neck, shoulders and arms. Injuries may be multiple. Injuries received by the victim in an attempt to defend himself may include total or partial loss of fingers, hands, or arms. Fatal accidental chop wounds sometimes occur from propeller blades of fans, boats, or planes. Suicidal chop wounds are rare.

Because the shape and size of chopping wounds often resemble the shape and size of the weapon that made them, autopsies may provide medical evidence. A pathologist may be able to determine the type of weapon that was used by examining the depth, width, and appearance of the wound and the amount of tissue damage. He may be able to link the injuries to a suspected weapon. It may even be possible to take tool mark impressions of the weapon from bone or cartilage.

DEATHS INVOLVING BLUNT FORCE

Blunt force damages the body by direct physical violence. Generalized blunt force affects the whole body or a large part of it. Deaths caused by such force may happen in vehicle accidents, explosions, or falls from a height. Localized blunt force impacts on a limited area. Death involving localized blunt force can be caused by contact with a fist, weapon, or foot.

Blunt force injuries of the skin and tissues under the skin are of three general types - abrasion, bruises, and lacerations. Abrasions are surface injuries to the outer layer of skin at the point of impact. An abrasion may duplicate the surface appearance of the impacting object. It may look like the grill pattern of an automobile or the rough edges of a file. It may look like a threader pipe or the treads of an automobile tire. Bite and nail marks are considered abrasions. But they actually may be small puncture wounds. Abrasions normally are caused by direct violence from hands, blows of a weapon, or collision with a vehicle. They may also be caused as a body falls and strikes a surface.

The appearance of an abrasion, and its linear scratches on the skin, may show the direction of the injuring force. Often the end portion of the abrasion will show many small bits of loose, ragged skin. Abrasions on a live person seep blood and plasma. They develop reddish black scabs. Postmortem abrasions show little or no seepage, because blood circulation has ceased. Such abrasions look like translucent, yellow parchment as they dry. Sometimes patches of skin falling from a decaying body expose raw surfaces. These may dry like a reddish brown antemortem abrasion. But a pathologist may be able to confirm the lack of vital reactions, if decay is not too advanced.

Abrasions received at the time of death cannot be readily told from those received after death. But abrasions occurring well before death have a different appearance and color from postmortem abrasions. A pathologist can usually distinguish between them.

Bruises, or contusions, occur when blood escapes within tissues from small blood vessels ruptured by blunt force. A bruise is a red-blue area which is often raised or swollen. Unlike an abrasion, a bruise does not always lie at the point of impact. The blood may travel some distance in deeper tissues. And blows to the body may bruise body linings and inner organs without producing external bruises. Although patterned bruises are less common than patterned abrasions, they may occur and show the nature of the object that struck the body.

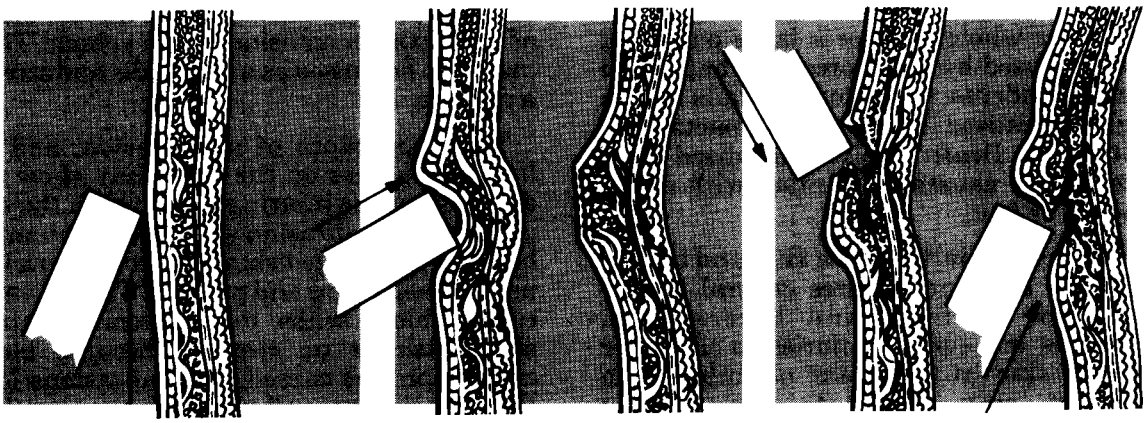
Distinguishing a bruise received at the time of death from one which occurred a few minutes before death is often not 'possible. But bruises made after death have a different appearance. They must be made by gross force to cause even minor bruising. They are not swollen, because circulation has ceased. Instead, they are often depressed at the center of impact. They are yellowish in color and translucent in appearance.

After decay starts, it may be hard to tell bruising from postmortem lividity marks. In early lividity, pressure applied to a mark blanches a lividity mark, but not a bruise. In later stages, a pathologist distinguishes bruising from lividity by microscopic inspection. Blood appears in the tissue in bruises, but only distends the vessels in lividity. However, as decay advances, gaseous pressure rises and postmortem rupture of many small vessels may occur. Then it becomes impossible to tell antemortem bruising from postmortem decay.

No precise estimate of the age of a bruise is practical. The color changes that occur as bruises age vary with the depth and size of the bruise. In general, a surface bruise is red-blue when recent. Within a week or two it looks greenish. Later it turns yellow. By the end of a month it has vanished.

The size of a bruise may indicate the degree of violence causing it. But not always. Females tend to bruise more readily than males. Bruises occur more easily on the very young, old, fat, soft-skinned, poorly-conditioned, and sick. And a light blow to soft tissues like the eyelid or genitalia may cause gross bruising, while a heavy blow to dense, fixed tissue like the scalp may cause only mild bruising.

BLUNT FORCE INJURIES TO THE SKIN AND TISSUES



Abrasions are surface injuries to the outer layer of skin, grazing linear scratches in the direction of the force.

Bruises, or contusions, are ruptured small blood vessels under the skin, causing raised red-blue area at the point of impact.

Lacerations are ragged-edged depressions in the skin from tearing or splitting of tissue in the direction of the blunt force.

Lacerations are caused by a shearing force or violent depression to the skin, which tears or splits tissues. Lacerations may be caused by blows from fists, sticks, or hammers. They also may occur from the impact of a motor vehicle or as a result of a fall. Lacerations, characteristically, are bruised and ragged-edged. The tissues are unevenly divided and the blood vessels and nerves are crushed and torn. The crushed ends of vessels may show only slight bleeding. Lacerations may contain foreign material like soil or glass from the impacting object. Lacerations of the scalp, face, eyebrow, or skin near bone have a linear splitting effect. These may be hard to tell from cuts.

Normally it is not possible to tell lacerations made at the time of death from those made shortly after death. The distinction depends on the presence or absence of vital reactions like bleeding and bruising in the wound. Lacerations made during life tend to gape. But lacerations in heavy muscles like the thigh, especially those that cross the grain of the elastic tissue fibers, tend to gape at any time.

Homicidal deaths may occur from either generalized or localized blunt force. Victims may be struck with fists or blunt objects. Or they may be thrown from heights, pushed in front of moving vehicles, or crushed with heavy objects. Sometimes homicidal blunt force deaths involve fatal injuries from negligence. This may occur in highway accidents.

Suicidal deaths from blunt force usually involve generalized blunt force. The victim jumps from a high place or in front of a moving vehicle. But sometimes a suicide may ram his head into a wall or in some other way create enough impact or crushing force to cause fatal injuries. Accidental deaths from blunt force are usually falls.

Often your investigations of death involving generalized blunt force will show that the injuries have resulted from impact with a vehicle. And you must be able to link the vehicle to the victim by trace evidence left at the scene or found on the persons or vehicles involved.

If circumstances suggest a hit-and-run accident or a vehicular homicide you must initiate an immediate search and apprehension plan. Such a plan may include setting up coordinated MP patrol activities and roadblocks. It may include searching and patrolling parking lots, service stations, residential parking areas, motels, taverns, bar rooms, garages, and body repair shops. If a military vehicle could be involved, it must include alerting and checking motor pools. And it includes checking known license and registration data at once.

At the scene, look for evidence supporting the crime and linking the vehicle and victim. Check skid marks to learn about the vehicle's speed, the alertness of the driver, and to check the accuracy of the driver's and witnesses' statements. Take samples of dirt from under the vehicle to link it to the point of impact and to use for future comparison. Photograph and cast tire tracks before they are disturbed. Take the bumper height measurements to match them to the victim's injuries. This may help you learn if the vehicle at the time of impact was braking, maintaining, or increasing its speed.

Collect material from the scene and from the victim or the victim's vehicle that may have come from the offender's vehicle. Broken glass, vehicle trimmings, paint chips, and liquids may identify vehicle-type and may be compared with a suspect's vehicle. Pieces of glass and paint too small for matching fractured surfaces can undergo spectrographic tests and other lab tests to learn specific gravity, refractive index, optical dispersion, and other physical properties to match it to the vehicles involved and to the manufacturer.

Be sure trace evidence from the victim like blood, body tissue, hairs, and textile fragments are also seized. And vehicles suspected of having been involved must be checked for signs of impact and traces of the victim or victim's clothing. Often, in hit-and-run accidents, the victim's clothing leaves patterned rub marks. The pattern may show in the chassis paint. It may also show on grease and mud on the undercarriage. Likewise, hand, finger, and even lip prints of the victim may be left on the vehicle. And hair, tissue, and bone fragments as well as fabric, fibers, and other trace evidence of the victim may be stuck to the suspect vehicle.

Blood of the victim, often found on the undercarriage, must be typed with a sample from the victim. And the sobriety of the victim at the time of death always must be learned.

Follow-up investigation may include checking on persons with a history of speeding and reckless or drunken driving. Check with insurance agents, on vehicle sales and on transfers of registration. Consider press, radio, and TV coverage. And check tradesmen, deliverymen, garbage collectors, and the like. Their schedules may place them on the scene at the time or day of the accident.

Contact medical facilities to see if anyone has sought medical attention after an accident. Check stolen vehicle reports. A driver of a hit-and-run vehicle may report that the vehicle was stolen. Likewise, a hit-and-run driver may file a false accident report to cover a real accident.

BEATINGS

Beatings involve localized blunt force. Death from a beating is usually not planned. Beatings leave extensive bruises on a body. Autopsies often show ruptured vital organs and brain hemorrhaging. When a weapon is used in a beating, it often leaves distinct pattern injuries. They may help you learn the type of weapon used. When a person is kicked or stomped, the shoe often leaves impressions and clear cut marks on the clothing or body.

Sometimes, in a beating death, the body is moved and a simulated vehicle accident is staged. Or a vehicle is driven over the body to stage a hit-and-run accident. An autopsy may show that the injuries are not like motor vehicle injuries. Search the area. There may not be a point of impact. And a thorough search of the area may show evidence inconsistent with an accident.

EXPLOSIONS

Most deaths from explosives are accidents resulting from blasts during training, construction, or military maneuvers. Homicides occur in which a deliberate blast is the cause of death. But more usually, explosions are used to hide a victim's identity or the real cause of death.

In an explosion a body may be shattered or hurled against a hard surface, causing blunt force injuries. It may receive many lacerations and punctures from pieces of the explosive device and nearby objects. It may be burned by thermal blast, flame, and steam. Compression injuries may occur in the lungs and elsewhere from swelling gases. Foreign material in the body must be examined at the autopsy to help learn the nature of the explosion and explosive device used.

FALLS

Deaths from falls are usually accidental. A person may be pushed or thrown from a height, but such events are rare. It is sometimes helpful to consider the blood alcohol content of the victim. And you must consider the height from which the victim fell and the distance from the base of the object to the point of impact. Do not overlook the fact that a victim found at the very base of an object may have been knocked out and rolled over the edge. An inspection of the point of departure of the body must get ample attention.

CRUSHINGS

Crushing deaths may occur in vehicle and industrial/construction accidents. These deaths may also occur from crowds in panic situations like fire in restaurants or theaters. The victims are usually the weak, the old, or the small.

DEATHS INVOLVING FIRE

Most deaths by fire are accidental. But connecting the death and the cause of the fire may show that homicide is involved. The fire may have been the cause of death or it may have been used to try to cover up the crime. If homicide is suspected or, in fact, the case, you must take steps to investigate for arson. Sometimes a person who commits a homicide with a firearm will try to hide the crime by setting fire to the scene. In cases of death by burning you should request that the remains be x-rayed. This may show the presence of a bullet in the body.

The two toughest facts to establish in a death by fire are the victim's identity and a

connection between the death and the cause of the fire. Investigating a death by fire is difficult. The victim may be mutilated by the fire, and the scene of the fire is often unavoidably disturbed by fire-fighting activities. Identifying unknown victims requires the help of pathologists. They can check skeletal remains for size, race, and sex distinctions. And they can compare the remains to dental records and X-rays.

Your investigation of a death from fire depends greatly on the pathologist's report of the cause of death. If the victim was alive at the time of burning, the autopsy will show inhaled smoke particles or carbon monoxide in the blood. The presence of these suggests life at the time the fire started, but its absence does not support death prior to the fire. A body is rarely burned to the point that a meaningful autopsy is not possible. Even if death occurs quite some time before the fire is brought under control, and the body is badly charred, the inner organs are usually well-enough preserved. The cremation of a body takes one and one-half hours at 1600° to 1800° Fahrenheit. Even then bone fragments are seen. The ordinary housefire rarely exceeds 1200° Fahrenheit.

You must rely on the pathologist to identify wounds on a burn victim. There are many types of burn injuries that are misleading at first glance. The body may have a "pugilistic attitude." Its fists and arms may be drawn up like a boxer's stance from contracting muscles and skin. Bones fracture in an odd, curved way when cooling begins. Skull fractures may be present. But the cracks, radiating from a common center, are made by the release of steam pressure rather than blunt force.

DEATHS INVOLVING SEXUAL ASSAULT

Deaths may come from sexual assault, either directly or indirectly. The actual way the victim is killed may or may not clearly show a sexual reason. The most common means are strangulation and stabbing.

Anytime a violent death involves a woman or a child of either sex, sexual assault or abuse may be involved. Here, medical and psychiatric opinions must be requested. Bruising of the arms, inner thighs, and of the genitalia is commonly sustained by victims of rape. Do not be misled by the fact evidence of normal sexual intercourse is not present. Anal and oral openings must be checked.

You must be alert for signs in the crime scene or on the body that might show sexual assault. These signs may differ broadly, from strange maiming of sex organs to merely an odd arrangement of clothing. Use sexual assault investigation methods, and closely inspect the crime scene and trace evidence to help track the criminal.

DEATHS INVOLVING TOXIC SUBSTANCES

Death from toxic substances may occur if substances safe only for external use are taken internally. And death from toxic levels of substances safe for internal use may occur if the substances are taken in amounts greater than the body can support. In either case, the death may bean accident, a suicide, or a homicide.

POISONINGS

The term poison is relative when describing a substance. A poison is any agent, that, when introduced into a living organism, causes a detrimental or destructive effect.

Accidental death may result from industrial, home, or food poisoning. Sometimes poisonings result from gross negligence like that occurring in bad liquor or criminal abortion cases. Poisoning as the result of bad liquor is a broader, more organized manifestation of crime than an individual homicide. Solving these cases usually requires help from civilian authorities. These cases are not common to CONUS installations. But they have occurred in oversea areas where acceptable liquor is not available in quantity, and where there are black-market transactions in liquor. They also have occurred where insurgent forces have used poisoned liquor as a method of offensive operations against US military personnel.

Although homicide by poisoning is fairly rare, it must not be ruled out without a thorough investigation. Murder by poison can often be made to look like suicide. For example, the scene of a murder by poisonous gas may be fixed to look like that of a suicide or an accident.

Investigation of the crime scene is of special importance in the case of poisoning, because postmortem detection of poison may be difficult if its presence is not suspected. The presence of any one poison may be so hard to find that it may not be identified unless medical personnel have some idea of the type of poison they are looking for. The crime scene search for such poisons is most important.

When death is suspected to be the result of poison, it is important for you to give the pathologist performing the autopsy as much information as you can about the circumstances of death, the on-the-scene investigation, and the type of poison suspected. If you provide this information before the postmortem examination it allows the pathologist to use the right autopsy methods and to keep good specimens for toxicological tests.

GROUPINGS OF COMMON POISONS

ORGANIC POISONS

Volatile	Nonvolatile
Ethyl alcohol	Alkaloids (heroin, cocaine)
Aniline	Barbiturates
Phenol	Glycosides (digitalis)
Gasoline	Synthetic drugs
Benezene	Miscellaneous (botulinus toxin, snake venom)
Chloral hydrate	

INORGANIC POISONS

Metallic	Nonmetallic
Arsenic	Cyanides
Mercury	Flouride
Lead	Iodine
Other metals	Strong acids
	Strong oxidants
	Gases

The Army Medical Department must conduct a medical inquiry to learn the immediate cause of a death by suspected poisoning. Results of the inquiry are recorded in the postmortem report. The report is a full record of all that medical authorities know about the person who has died. It includes a record of—

- Clinical treatment given victim.
- Utterance, statements or accusations made by victim before death.
- Known facts pertaining to death.
- Immediate cause of death.
- Autopsy.
- Pathological and toxicological examination conducted to support the autopsy.
- Medical examinations of items of physical evidence.

The autopsy may tell the specific poison that caused the death, its concentration in the body, and the period of time the poison was in contact with the soft tissue before and after death. In some cases the specific poison may be unidentifiable because the dose was too small to detector the materials in the compound were the same as natural body products.

Ask the pathologist to obtain specimens of the victim's blood, bile, gastric contents, and urine. These samples can be sent to the USACIL, if they are not needed by medical personnel for diagnostic and autopsy purposes. The laboratory will try to learn if poison is present. Remember that body fluids found on a floor are likely to be contaminated. They are little use in toxicological tests for poisons. Nor is fecal matter a good source of specimen for poisons.

Take samples of food, medicines, beverages, narcotics, fuels, and chemicals that the victim may have consumed. Sinks, pipes, drain traps, garbage cans, cupboards and refrigerators may contain evidence of the poison. Poison also can be easily hidden in spices, sugar, flour, baking soda and the like. Soiled linen or clothing may contain traces of poison in stains from food, liquid, vomit, urine, or other matter. Collect spilled liquid in a filter paper and put it in a clean glass jar and seal it tightly. These samples must be submitted, despite an admission or

confession, in any case that may involve criminal charges.

Collect containers that could have held a substance consumed by the victim. Include cups, glasses, and utensils that may have been used to prepare or serve food or drink. Check medicine containers for prescription numbers and the name of the dispensing pharmacy. In difficult cases you may want to take the contents of the medicine chest to search for materials that might have been taken in amounts large enough to cause toxic effects. Be sure to seize any items like hypodermic needles and syringes that could introduce a poison into a victim's body.

Identification and analysis of the poison may help locate its source. Few laymen know enough about poison in pure form to purchase or obtain any but the most well-known types. But many common retail products, not often thought of as poison, are toxic under some conditions. It is these materials that will be easily accessible to the poisoner. And their very availability may cause you to overlook them. Household sprays, paint and paint solvents, pesticides, liquid fuels, patent medicines, many antiseptics, and some cosmetics contain poison.

To learn the source of a poison, consider its availability and who would have easiest access to it. A poisoner usually uses a poison he knows. His familiarity with a substance can come from his occupation, hobbies, or past experience. Hospitals, dispensaries, laboratories, pharmacies, and illicit narcotics channels can be sources of medicines and drugs to be used as poisons. Offices, homes, and grocery stores contain cleaning substances, rodent and insect poisons, and medicines that may be toxic. Depots, warehouses, storage areas, farms, and similar places may be sources of rodent and insect poisons. Motor pools, fuel depots, and other places containing fuels with alcoholic bases and cleaning and solvent compounds may also be sources.

Locating a poison's source and determining its availability may suggest the mode of poisoning. Knowing a poison was contained in a food or beverage may help you ascertain where the victim ate the food or drank the beverage. The place where a poison takes effect is not always the place where the victim consumes the poison.

There are rarely, if ever, witnesses to an act of poisoning. Consequently, you must gather as much concrete evidence as possible to find out if a crime was, in fact, committed, and if so, who committed it. Such evidence is not limited to the poisonous substance.

To learn key information about the poisoning you must run a background check on the victim and his activities. Be sure to interview persons who may—

- Have witnessed the act of poisoning.
- Know of a suspect's utterances or actions that could establish a motive for the crime.
- Know what the victim ate or drank within the time he probably received the poison.
- Have sold drugs or medicines to the victim or suspects.
- Know of the victim's movements before he was stricken.
- Be familiar with the victim's eating and drinking habits, use of drugs or medicines, and attempts at self-medication or treatment from sources outside military medical channels
- Be familiar with the victim's eating and drinking habits, use of drugs or medicines, and attempts at self-medication or treatment from sources outside military medical channels.
- Be familiar with the victim's financial status, family background, social life, or business associates.

OVERDOSINGS

Preliminary inquiry into a death may suggest that a victim died from an overdose of drugs. General observations of the crime scene, the victim, the victim's clothing, or conclusions about the victim's life-style may suggest this. Note the quality and quantity of food and liquor supplies, the contents of a library, the style and condition of the furniture and decor. An astute evaluation of these items can give significant and reliable clues to the life-style of the drug victim. These clues may clarify the circumstances of the death or at least give explicit information concerning the resident and the life-style he or she may have led.

A frequent finding in suicide by drugs, regardless of whether or not the victim was a drug abuser, is the presence of a single capsule or tablet near the body. The single dose, commonly called the "tell-tale" tablet is usually a sample of the medication which is used to produce the fatal result. The tell-tale is usually lying free, but it may be in the medicine vial or ampule on the night table, bedding, or floor. There is often no satisfactory explanation of why a person planning suicide leaves this type of clue. The presence of a tell-tale is not generally public information, so the suicide is not really copying the style of other suicides.

Anyone who has experience in death investigations will confirm the premise that drug abusers seem to have significantly higher suicide rates than nonabusers. Suicides among drug abusers may be precipitated by the onset of various legal processes and the fear of confinement. Thus, a legal paper compelling an appearance in court found near a body can be considered the equivalent of a suicide note. It may even be true that abusive use of drugs, especially those recognized as dangerous, may be a symptom of a number of psychiatric conditions known to have a high incidence of suicide. This is especially important to bear in mind as you attempt to classify the manner of death when the cause of the death is related to the acute effects of an intravenous injection.

Suspicion of intravenous drug abuse should be aroused when long-sleeved garments are worn when the weather does not justify it. A sleeve that is severely wrinkled in contrast to the other shirt sleeve may have been used as a makeshift tourniquet. In cases where drug death is acute and related to intravenous drug abuse, frequently the abuser will not have had time to conceal his drug cache or paraphernalia prior to his or her collapse. Thus, cellophane envelopes, balloons or paper packets, syringes, needles, bottle caps or other devices used as cookers, cotton balls, matches, and cigarette lighters may be seen. Sometimes a tourniquet or other constrictive device may be dropped after a victim collapses. And syringes are commonly still at the injection site or grasped in the hand.

Check the body for needle marks and scars. Most intravenous drug injections are made with very small (26-page) needles, which are designed for intradermal injection. If there have been only a few relatively recent injections not associated with puncture hemorrhage, you may need to use a magnifying glass to detect the punctures. In most chronic addicts, of course, there is no difficulty in detecting the tracks. In addition to the linear scars of intravenous drug use, flat ovoid or circular scars from lesions caused by unsterile injections given immediately under the skin sometimes may be seen. Chronic addicts may conceal punctures by injecting at unusual anatomic sites. They often inject in and around the genitalia, the nipples, the tongue, the mouth in general, and the scalp. Some addicts, who apparently do not care whether or not puncture sites are seen, may use the jugular vein in the neck to inject. Check the body for signs of nervous tension like the short, irregular edges of fingernails characteristic of nail biting or the yellow staining of the fingers characteristic of excessive smoking. Make detailed notations of pupillary diameter, even though this is not a reliable postmortem sign of drug abuse.

Toxicologic analyses do not always specify the exact doses of a drug. Thus, it can never be determined with any degree of specificity whether or not an abuser died accidentally from taking an overdose or decided to commit suicide by taking several doses at once. This is further confused by the fact that it is not really known how death is produced in a so-called "overdose," because it is rarely possible to show a large excess of drug material."

If the cause of death appears to be accidental and there are no signs of criminal acts or negligence, record any evidence supporting your judgment. Sometimes accidental death from drugs does not lend itself to early, clear resolution. You must rule out all aspects of other than natural cause. Make sure no motive for murder was found and no threats could be learned. See that persons who may have had a chance to cause ingestion of the lethal dose, either by force or trick, have been searched for leads and that there is no credible sign that the death was other than accidental.

DEATHS INVOLVING INFANTS AND CHILDREN

Investigations of deaths of infants and children are particularly complex. You must proceed with great caution. You must fully coordinate your investigation with medical personnel, social welfare agencies, and SJA.

Suspicious deaths that involve infants and children can be grouped into three types - sudden infant death syndrome, infanticide, and battered child syndrome. Sudden infant death syndrome is believed to be the largest killer of children between one week and one year of age. The syndrome is also known as crib death, because this is where the death often occurs. In the past it was thought that these deaths were probably caused by the child smothering on bed clothes. Present medical research is investigating several theories, but none are yet proven. These deaths are generally held to be medically, rather than criminally, caused.

Infanticide is the criminal death of an infant by neglect or deliberation. Sometimes newborns are left to die of neglect in garbage cans, furnaces, restrooms, secluded places, and public dumps. Sometimes they are simply allowed to die at home or in a car in the expectation that they will be disposed of later. The cause of death in cases like these is usually a combination of acute congestion of the respiratory system, dehydration, and lack of basic life-sustaining care. Sometimes parents actively kill their infants. They may choke the baby with the umbilical cord, cup a hand over its mouth and nose, drown it in a bathtub, or drop it into a river or sewer. Sometimes, however, infants are stillborn or die soon after unattended births. Here, the criminal intent may only be to avoid reporting the birth and to illegally dispose of the body.

The battered child syndrome occurs in cases of child abuse. It accounts for a number of deaths of young children under violent conditions. Assigning criminal liability for deaths due to child abuse is often difficult. The victims are most often small children under three years old. If they are still alive when you first see them, they are usually unable or unwilling to describe what happened.

When investigating the death of a child, your first step is to get a brief background from the person finding the child. Where and in what position was the child found? When was the child last fed? Find out if the child had been ill or irritable the day or two before its death. Medical background, if known, can be of great benefit. If you are investigating an infant's death, try to learn of any problems during pregnancy and the infant's birth weight. Learn about routine visits to the doctor or well-baby clinics. Ask about the child's history of shots, illnesses, and hospital admissions. Learn the parents' ages, the number of children in the family, and if there is illness among family members.

Then check the body. Is its size consistent with its age? Consider the child's state of nutrition, sickness, dehydration, and cleanliness. Look for old scars and new or old bruises, lacerations, and abrasions. Examine the child's body, bed, and anything else relevant to the child. Include reports and interviews from neighbors, babysitters, and other children in the family.

You must find out how the child was cared for and who was responsible for the care. In most cases, there is one main person responsible for the care of the child. Get information about the family structure and number of relatives or persons frequenting the household. If the child has injuries, one of these parties may be responsible for the injuries. Include information about anyone who may feel competitive towards the child, like a mother's boyfriend. Information may be available from the local welfare agency and hospital and doctor records. Question the child's brothers, sisters, parents, neighbors, and babysitters. Many times a babysitter becomes the confidant of abused children, but from fear or disbelief she may not report the abuse that the children have related.

Cases of battered children often surface by conflicting statements of what the parents said happened and what the autopsy shows. You must listen for any conflicting statements, no matter how small. And in many cases the parents of a dead child have rehearsed their alibis.

The pathologist must have as much background about the child as possible before the autopsy. If there is no traumatic injury, the cause of death may be ruled as natural disease or crib death. When trauma from mechanical force is present, the distinction must be made between accidental injury and homicide. Bone injury may be caused by grabbing, gripping, and shaking the child by one or more extremities, as well as by blows to the child. Blunt force injury is the major cause of death of a battered child.

X-rays are crucial and vital. X-ray of new injuries will show the type and fracture, whether it be transverse or spiral from twisting forces. A radiologist can also find out the age of the injury. Some injuries to the head and stomach when used with X-ray evidence and autopsy findings of old injuries show repeated abuse and develop a pattern of injuries. Other injuries are of such a profound nature that accidental cause is hard to believe.

INFANTICIDE

Determining that a death is a case of infanticide is often difficult. Most such deaths are due to asphyxia, which also can occur from natural and accidental conditions. But when death occurs from strangulation or other forms of direct violence or when the circumstances show criminal abandonment or disposal with criminal intent, infanticide is strongly suggested.

Three questions must be resolved in a suspected infanticide: Did the infant breathe after birth? Would the infant have lived if given proper care? And, what was the cause of death?

At autopsy, the pathologist checks the infant's lungs to learn if it breathed after birth. Usually the lungs of a stillborn and a live birth appear quite different. But sometimes the signs are not distinct. Then the pathologist must make vast microscopic and hydrostatic tests to find out if lung tissues have been aerated. Even then, there is a chance that breathing may have occurred only inside the birth canal or the uterus and the infant later choked on the umbilical cord during birth or was suffocated by extruded membranes, blood, or the mother's weight and position. Tries at artificial respiration also may account for air in a stillborn's lungs. Even when signs of asphyxia are present, the death may be wholly natural or accidental.

The pathologist medically assesses the completeness of the infant's prenatal development. He also checks for certain vital changes which occur immediately after birth. He considers the apparent general health of the infant and evaluates any congenital defects and injuries received at birth. From his findings he decides whether or not the infant could have lived if given minimal care.

Identifying the victim may be impossible without finding the mother. The body of an abandoned infant usually has no identity of its own. And identifying the mother is not easy; she probably hid the pregnancy and birth. However, a suspect may be found if she seeks medical attention after the birth. She can be medically identified as the mother of the victim, if her physical condition is compatible with the birth of the dead infant. And blood tests can show close blood grouping. At all autopsies of abandoned infants, blood samples are taken and analyzed for future comparisons.

If a baby has died from injuries, you must check the child's medical record to see if the injuries were treated or hidden. Try to learn if the mother showed signs of mental depression after the birth of the child. In such a case she would be capable of seriously or fatally injuring the child or even herself. You should also review the mental history of the father. Medical personnel, neighbors, and friends of the parents can give you information about the temperament of the family. And military or civil police will have records of any complaints or past investigations of the parents.

BATTERED CHILD SYNDROME

A major step in looking into the death of a battered child is to be able to spot signs of battering.

The victim of abuse is commonly an infant, most often under 3 years of age. One child in

the family is usually the main target of abuse. This child may be the product of an unwanted pregnancy or a premarital pregnancy. Or the child may be unwanted for other reasons. The home may be basically clean and the remainder of the children in it well cared for, fed, and clothed. It should be noted that sometimes the family is financially set, well educated, and socially oriented.

Many times battering parents were targets of abuse in their childhood. A statement such as, "If you think he is mistreated, you should have seen the way my old man kicked me around," shows a trend of child abuse from generation to generation. Parents raise their children the way their own parents raised them, because they know no other way. A battering parent often shows signs of emotional immaturity and mental and environmental stress.

Another factor which you must recognize is the presence of an extreme sense of competition between the parents. This competition can cause resentment that is taken out on the child. In most abusive families there is a constant stress of one kind or another.

Emotional outbursts from aggravation or frustration are responsible for many abusive deaths. Most parents feel some degree of guilt even though their children have been injured accidentally. They make statements like, "I shouldn't have bought him such a big bike," or "Why didn't I watch him more closely," or "Why did I let his bath water run so hot." The battering parent, on the other hand, often shows anger and a hostile, argumentative outlook. They may cry harassment on the part of an investigator.

You must assess the parents to try to detect undue frustration, belligerence, or nervousness when you suspect child abuse. But you must not overlook the chance that a child was beaten by a brother or sister. A small child, 18 months and older, may think and feel that its position in the family has been invaded by the arrival of a new baby. Parents may unthinkingly talk of the new baby in a way that the older child will resent. A child has many toys and objects at hand that can cause battering injuries.

The nonfatally battered child is hard to identify. This child may appear at medical facilities with extensive bruises, a broken arm, a cut lip, or a black eye. These injuries are easily explained by parents. A fall or a toy thrown by an older child are excuses often used by battering parents. Only repetitive injuries of this type can alert the doctor to a battered child. Often, to avoid discovery, the parent will take the child to a different doctor or hospital each time.

Some battered children show no outer signs of injuries. Others show extensive injuries. There may be deep bruises of the face and arms. Deep lacerations are rare. They are probably only seen when a blunt object is used to strike a child on the head or face. Lacerations on the inside of the mouth are more common, caused by them biting themselves when hit.

Almost all children have one or two scars from falls, but multiple scars on a small child shows a pattern leading you to conclude abuse. Small round burn scars may indicate cigarette or cigar burns. Burns on the buttocks may occur when an angry parent places a child on a hot surface to dry his wet pants. Sometimes a parent bites the child. The bite often leaves a pattern of human teeth marks on the child.

Your main tool is your eyesight. Look the child over, paying attention to signs that the child was abused. Look at parts of the child's body that are normally covered by clothing, like the arm pits and the inside of the upper thighs. Check the soles of the feet for burns. Look at the child's nutritional state, as well as his general cleanliness to check the parents care of the child.

Most of a battered child's internal injuries occur in the head or the stomach. The face and scalp may not show outer signs of abuse. But heavy hemorrhaging may be present under the skull. Subdural hematomas, common among battered children, take moderate to severe force to make. They may occur from a child being dropped to the floor or beaten repeatedly on the head. Or they may occur from a child being held by the ankles and swung against a wall. Or they may occur from a child being dropped down a staircase.

Blunt force injury to the stomach often causes a lacerated, torn, or ruptured spleen spilling into the peritoneal cavity. The small and large bowels may be perforated, causing the feces to enter into the cavity. Pancreatic substances or bile may be sent to the stomach by injuries to the liver or pancreas. All of these injuries will cause much pain, crying, listlessness, shock and finally a coma. And because the lining of the stomach is soft, these injuries may not be apparent. One clue to intra-abdominal injury in the absence of obvious skin injury is a swollen stomach.

CHAPTER 20

Arson

The willful burning of someone else's property is arson. No crime is more dangerous to human life than arson. Statistically, a murderer is unlikely to kill again. An arsonist, though, is a creature of habit. He will continue to set fires until caught. And no crime has a greater potential for loss of government property. A $5,000 larceny is a big larceny, but a $5,000 fire is a small fire. Thus all suspicious fires must be investigated to determine if the crime of arson has been committed.

Arson investigation is a highly complex process involving much vital work in a short period of time. Valuable and perishable evidence may be lost forever if it is not recognized and preserved immediately. Thus, an immediate response to fires and a close liaison with the fire department are essential elements of an arson investigation. Your close liaison with the local fire department can ensure you are notified immediately of any suspect or unusual fires in the area.

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FIRE CHEMISTRY AND BEHAVIOR

There are two kinds of fires: accidental fires and incendiary or deliberately set fires. Most fires are accidental. To determine if a fire was accidental or incendiary, you must understand the basics of fire chemistry and behavior.

CHEMISTRY

Fire is a chemical reaction that takes place when fuel, heat, and oxygen combine in an uninhabited chain reaction. Fire can only exist when all four of these factors are present. Remove any one of the elements and the fire goes out because you have stopped the continuing chemical reaction.

Because only gases burn, solid and liquid fuels must be heated until they become vapor (gas) before they can burn. Heat chemically decomposes a fuel into its gaseous elements. This decomposition is known as pyrolysis. For example, when wood is heated, it pyrolyzes to form hydrogen, oxygen, ethane and methane gases, and methyl alcohol. It is these highly flammable vapors which burn. Fuel in vapor form in its normal state, like natural gas, does not need to be pyrolyzed.

Most fuels are compounds of carbon, hydrogen, and oxygen along with traces of mineral matter. When the fuels burn completely and freely in air, the carbon reacts with the oxygen, forming carbon dioxide, and the hydrogen combines with the oxygen, forming water vapor. The mineral matter remains behind as ash. As the oxygen in the fuel is used up, oxygen is drawn from the air to continue the reaction. That is why drafts and air supplies directly affect the behavior of a fire. A fire started in a

completely enclosed space soon dies. It uses up all of the available oxygen and generates noncombustible gases that smother it. On the other hand, the rate of burning is greatly increased if a chimney effect exists when the hot gases and flame contact combustible material. Disastrous fires result in large buildings where elevator shafts or stairways served as chimneys to direct the uprushing flames and gases.

It takes heat to ignite the fuel and start the chemical reaction. Once ignition has taken place, however, the reaction (fire) produces its own heat and becomes self-generating as long as fuel and oxygen remain present.

The lowest temperature at which a fuel's vapor will ignite is that fuel's ignition point. Every substance has an ignition point. When vapor is heated above its ignition point in air, it will burst into flame without direct contact with a heat source. The degree of heat needed to reach ignition point is constant for a given substance. The amount of heat required for ignition depends on the size, temperature, and dryness of the substance. For example, a pine match stick and a pine 2 x 4 board both ignite at 502° Fahrenheit. But it takes a lot more heat to raise the board to 502° Fahrenheit. And it takes more heat to raise a wet 2 x 4 to 502° Fahrenheit than it does to raise a dry one.

In addition to having an ignition point, liquid fuels have known temperatures at which they form vapors, called flash points. A liquid fuel's flash point is not the same as its ignition point. The flash point is the lowest temperature at which the liquid begins evaporating. The ignition point is the temperature at which the resulting vapor ignites. For example, the flash point of gasoline is -45° Fahrenheit. Its ignition point, depending on the blend, is between 536° and 853° Fahrenheit. Kerosene has a flash point of 100° Fahrenheit and an ignition point of 410° Fahrenheit. Local fire departments have tables which show ignition points and flash points of most substances.

It is understandable then, that fuels do not need to be touched by flame to begin burning. They simply need to be heated above their ignition points. It is for this reason that heat, not flame, is the greatest cause of fire spread. Heat can be transferred from one place to another by convection, conduction, or radiation.

Convection occurs when heat is transferred by a circulating medium like air or water. Heat convected by circulating air is the most common method of fire spread.

Conduction transfers heat by contact. Often, heat from a fire in one room is conducted throughout the structure by pipes or electrical conduit. If combustible material in another room is in contact with the pipe, it can become heated above its ignition point and start a second fire. Metallic objects are the most frequent conductors of heat. Sometimes, though, even brick walls can conduct enough heat to cause a second fire.

Radiation transfers heat in the form of energy waves through space. Heat radiates through any transparent medium like air, glass, or even water. No physical contact is needed. This is how the sun's heat is transferred through the vacuum of space to the earth. Often, a fire in one building radiates enough heat to start a fire in another building, even through a curtain of water sprayed between the buildings by the fire department.

BEHAVIOR

Fires behave according to well-defined principles of burning. Fires produce heat, flame, smoke, and gases. These combustion by-products may or may not be readily seen. Flame includes both open flame and smoldering glow. Smoke is composed of very fine solid particles and condensed vapors. The composition of fire gases emitted by the burning materials depends on the chemical makeup of the burning material, the amount of oxygen available during burning, and the temperature of the fire. Most fire gases are highly toxic. They are the biggest cause of fire deaths. The biggest single killer is carbon monoxide—not because it is the most toxic, but because it is the most abundant. When breathed in quantity, carbon monoxide causes unconsciousness and, eventually, death. At less than lethal concentrations, it causes disorientation and confusion, subjecting victims to other hazards present

in the fire. The second most dangerous gas produced by a fire is carbon dioxide. While not toxic in itself, a 2 percent increase in carbon dioxide in the air causes a 100 percent increase in a human's breathing rate. This doubles a victim's intake of other toxic gases.

Fire burns up and out. It leaves a V-shaped char pattern on walls and vertical structures. A fire which is hot and fast at the point of origin will leave a sharp V pattern. A slow fire will produce a shallow V. If fire meets an obstruction, such as a ceiling, it will burn across the obstruction looking for a place to go up.

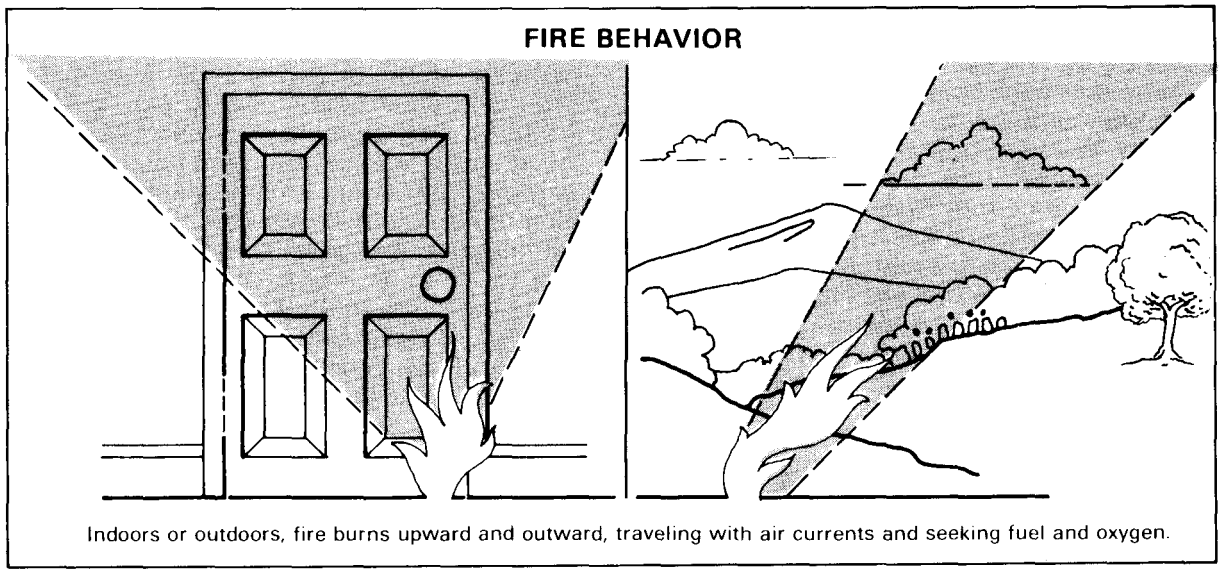
Fire travels with air currents. It never travels into the wind unless the entire fire load—the combustible material or fuel in an area—is on the windward side of the fire. If this happens, the fire slowly eats into the fire load as its tendency to follow the wind is overcome by its attraction for fuel.

Fire seeks oxygen. Because fire consumes great amounts of oxygen, it is always drawn toward new sources of oxygen when burning occurs indoors. It is not unusual to see a char pattern going up a wall to the ceiling and across the ceiling toward an open window. It is also common to find deeper charring and evidence of higher heat on window frames and doorways.

These principles of burning account for most of the fire and char patterns you see during and after a fire. But sometimes there are unusual patterns that are the result of flashover or backdraft, natural conditions which only occur during fires when conditions are right.

Flashover occurs as heat from a fire in one room causes objects in another room to heat rather uniformly. As the air becomes hotter and hotter, so do all of the objects. Because all of the objects are heated to about the same degree, they are all close to their ignition point. As the first object to reach ignition point bursts into flames, the flames "flash over" the entire room. In an instant every object in the room is burning. The big tipoff to a flashover fire is that burning is only on the top surface of items in the room.

Backdrafts occur when a building burns with all doors and windows closed and the fire uses up all of the available oxygen. It then turns into a slow smoldering fire, generating huge amounts of superheated carbon monoxide gas. The hot gases rise to the top of the room and stay there. Because the carbon monoxide is a flammable gas and it is heated above its ignition point, it only needs more oxygen to burst into flames. Oxygen entering around cracks in doors and windows keeps the fire smoldering. This produces more and more super-heated carbon monoxide. Then, when a door is opened or a window melts out, the inrushing oxygen combines with the super-heated carbon monoxide, causing an explosive fire.



Indoors or outdoors, fire burns upward and outward, traveling with air currents and seeking fuel and oxygen.

Windows will blow out, and the explosion may be strong enough to damage the structure of the building. Damage caused by a backdraft may look similar to that caused by a low explosive. But a backdraft produces an unusual char pattern. Most of the burn damage will be at the extreme top of the room. There will also be a rather sharp line of demarcation at the bottom of the char pattern on the wall. As with a flashover, no accelerant residue is present.

When wood burns, it chars a pattern of cracks which looks like the scales on an alligator's back. The scales will be the smallest and the cracks the deepest where the fire has been burning the longest or the hottest. Most wood in structures char at the rate of 1 inch in depth per 40 to 45 minutes of burning at 1400° to 1600° Fahrenheit — the temperature of most house fires. A room fire chars only the upper one-half to two-thirds of the room. Ceiling damage in a normal structural fire is usually at least five times the floor damage. Sometimes a char pattern has a sharp line of demarcation on one side. This indicates that the fire quit spreading in that direction when a draft entered and blew it back.

When glass is exposed to fire it begins to melt at about 1200° Fahrenheit. It becomes runny at about 1600° Fahrenheit. You can learn much about a fire from the glass at the scene. Remember, though, to examine all of the glass and not jump to conclusions from the appearance of just one piece. As a general rule, glass that contains many cracks indicates a rapid heat buildup. Glass that is heavily stained indicates a slow, smoky fire.

Bright metals, like the chromium on toasters, turn colors when heated. These colors may remain after the fire and indicate the temperature of the fire at that location.

FIRE INVESTIGATION

To investigate a fire you must find out five things: time, temperature, point of origin of the fire, fuel, and ignition source. You must learn how long the fire burned before it was brought under control and assess the amount of damage compared to the time involved. A great deal of damage in a relatively short time should tip you to the possibility of accelerants, multiple fire sets, or a deliberately arranged draft. You must learn the degree of heat in various areas during the fire. The amount of heat given off by a fire is governed by the fire in that area. Indicators of extremely high heat in areas with little fire load may indicate that an accelerant was present. You need to *discover* the point where the fire started. It is here you will find the cause. If you cannot find out where the fire started, you will not find out why it started. You must learn what material first ignited. Would this material be found naturally at the point of origin? If not, why was it there? And you must learn what caused the fuel to ignite. Was the heat source natural to this area? If not, why was it there?

RESPONDING TO THE SCENE

When you are notified of a fire, note the weather conditions. Pay special attention to wind direction and speed. They may change rapidly. Note if it is hot or cold. Note if the sun is shining or if it is cloudy or raining. Sunlight focused through glass has been known to start fires. Arsonists may use ignition devices triggered by moisture to enable them to establish alibis for the time of the fire.

When you arrive, do not attempt to enter the burning building. Fire department personnel are trained to fight fires and are properly equipped to do so. You are not. In the unlikely event you arrive at the scene before the fire department, enter the burning building *only* to save a human life. If you must enter, take several deep breaths before entering the fire area. While inside, hold your breath for as long as possible. But do not wait so long that you must take in a whole lung full of air at once. You might inhale dangerous fumes. Keep low, as the air will be better and cooler near the floor. *Do not ever* enter a closed, burning building if the smoke is "dirty" looking and the building creaks and groans. If you even open a door under these circumstances, you will cause a backdraft explosion.

Note precisely the time you arrive at the scene. Then quickly note whether the fire is

burning slow or fast. If the fire is burning fast, is this consistent with the type of fire load present in the building? If not, suspect the use of an accelerant. Note the color of the smoke coming from the fire. This is very important at the beginning of a fire, as it can indicate what material burned first. If you did not see the initial smoke yourself, try to find witnesses who did.

Wood smoke is usually gray to brown. At times, though, black may show where the air supply is poor or the wood is green. It is highly unlikely that a dry wood fire will show much black smoke. White clouds appearing before fire fighting operations begin indicate moist substances are burning. Reddish brown or yellow smoke indicates burning of products having a nitrocellulose base. The presence of reddish brown or yellow smoke where materials of this type are not usually found may indicate such a substance was used as an accelerant. Grayish smoke is produced by loosely packed substances, such as straw and hay, that give off flying soot and ash. Oil, gasoline, creosote, tar, paint, and similar organic materials with a petroleum base usually burn with a black smoke. This is of particular importance in arson, because such materials are commonly used to start fires. Colors of flame and smoke for substances are contained in reference material available at your fire department.

Note the location and the extent of burning. Is the fire only in one part of the structure, or is the whole building involved? Is there only one fire, or does there appear to be two or more separate fires?

Note the condition of the exterior of the building. Especially note damage to doors and the positions of doors. Are they open? Closed? Locked? Note the condition of all windows. Are they opened? Closed? Broken? Melted? Clear? Smoke blackened? Note damage to the structure which might have been caused by an explosion. Note if and where the fire burned through the side or the roof.

Note the color of the flames. If you can, take color photos to document flame color, size, and location. Take plenty of photos throughout this phase of your investigation. Different substances burn with different colored flames. The color of the flames you observe can later be compared with the fuel that should have been there. This will indicate if foreign material was present. Pay close attention to the relative brightness or lightness of the flames. Generally, flames are the lightest where the fire is burning the hottest. The fire should be burning the hottest where the fire load is heaviest. A large, hot fire where there is little fire load may involve an accelerant. Also note the direction of flying sparks from the fire. Sometimes an arsonist sets another fire near a large, ongoing fire. He will then try to claim his fire started from flying sparks.

While the firemen are fighting the fire, carefully check the area outside the building. Look for footprints and tire tracks which may have been left by an arsonist. If you find such evidence, preserve it by covering it with a garbage can lid, box, tarp, or similar object. If you do not, firefighters are likely to obliterate it while fighting the fire. And look for tools that could have been used to force entry into the building.

Examine the area carefully for traces of flammable accelerants. Especially note any such traces which appear to lead to the fire area. Look for gas cans or other containers that could transport liquid accelerants. Often arsonists abandon these items at the scene. Sometimes ignition devices like match books or cigarette lighters are dropped by arsonists in their haste. If you spot them, note their positions. Photograph them in place, if you can, before seizing them for evidence. Carefully preserve them for fingerprint comparisons. Place them in the trunk of your car or wherever they will be accessible only to you.

Note odors at the fire scene. Odor is another way to identify burning substances. Ammonia is sometimes used to keep firemen away from the fire or to offset the smell of gasoline. Gunpowder, gasoline, rubber, alcohol, manufactured gas, linseed oil, turpentine, paint thinners, and lacquers have distinctive odors. Feathers, wood, and hair give off a sulfurous odor. Vegetable materials may produce acrid or aromatic odors. You may want to become familiar with

the odors of various flammable materials and chemicals so you can identify them when you need to do so. Be careful, however, not to inhale toxic fire gases or superheated air in your attempt to detect odors.

OBSERVING THE SPECTATORS

Always have the military police identify everyone at a fire scene. This is vital. You may later have to interview all of these witnesses. Most of the time the arsonist is among the spectators at a structural arson fire. Jot down license plate numbers and descriptions of vehicles in the area. If you find vehicles that are not normally in the area, check to learn why they were there. Photograph everyone in the crowd. You can use these photos later to tell whether or not a certain person was there. You can also use them to compare faces with those seen at other suspect fires. Especially note anyone who is overly interested in the fire or who asks questions about the fire's cause. And look for people who seem out of place, like persons fully-dressed at a late night fire.

Identify anyone attempting to leave the scene. If you see a juvenile leaving a fire scene, check him closely. Most juveniles with nothing to hide will stay to watch. Finally, look for anyone who seems to get personal satisfaction from the fire. Compulsive firesetters enjoy flames and excitement. They may give themselves away at the scene by their unusual behavior.

Most fire departments are equipped with an instrument called a "sniffer." It detects hydrocarbon vapors left by flammable accelerants. Ask the fire marshal to go through the crowd with his "sniffer." It will react to anyone with hydrocarbon vapors on their persons.

If the fire occurs in government quarters, listen to the conversation of bystanders, neighbors, and witnesses. Especially note statements like these: "People who live here were having a lot of trouble." "This family has a child they're having trouble with." "Their damn kid is always playing with matches." "I heard the man say that he's been having a lot of financial trouble." "It wasn't 10 minutes ago that I saw them drive away in their car."

EXAMINING THE CRIME SCENE

Examine the crime scene with the fire marshal. As always, you must see that the crime scene is protected. But because fire scenes are especially likely to be destroyed, you must make special efforts at a fire scene. Most of the evidence is fragile or perishable. The persons most destructive to your scene will be firemen. But once the fire is put out, their responsibility stops until the fire cause is found. The cleanup, known as the overhaul, need not be immediate. Try to arrange with the fire fighters that in cases where arson is suspected, overhaul will not start until you have finished your examination.

Entry into even a fire-damaged building may involve Fourth Amendment considerations. The determination of the source and cause of a fire is normally the responsibility of the fire marshal. His entry during the firefighting operation, or immediately after the fire is extinguished, to locate the source and determine the cause is a valid administrative entry. You may accompany him on such entries to examine and take steps to preserve evidence. But once evidence has been discovered which indicates the fire was arson, you must obtain a search authorization before extending your investigation to other parts of the building. And if such information is obtained, either from fire fighters or from your investigation, before your entry into the building, then you must obtain a search authorization before your initial entry.

ASSUMING RESPONSIBILITY

Assume responsibility for the investigation when the fire marshal or fire chief tells you that arson is possible. Although much evidence may be destroyed, you can usually find some indication of its presence through scientific techniques. The general principles for examining debris from fire vary with the type of fire and the extent of damage. If all combustible material is destroyed, there may still be quite a bit of noncombustible evidence that remains. Metal tools or objects may have been used to enter or to construct an ignition device. The objects may have been brought in by the

arsonist moved or modified by him. Fortunately, fires in which all combustible material is destroyed are rare on military installations. Fires are most often extinguished in their early state. If so, much of the combustible material will remain. In these cases, wood, building material, traces of flammable accelerants, and items left by the arsonist may be found.

Sometimes an arson attempt is unsuccessful. An arsonist may arrange a device to ignite a building while he is away, so that he will have an alibi. If the device fails, or is discovered, the fire is prevented. Often the elaborateness of a fire setting device helps solve the crime. Tracing a burnt match is difficult, but tracing a complex timing device can prove relatively easy.

Take Preliminary Actions

Find out from the fire marshal or fire chief the time and method of alarm and the time the engine companies arrived. Be tactful in your asking. Fire departments are sensitive to criticism about slow responses to fires. Make sure that the fire fighters understand that this is merely to help you investigate the cause of the fire.

Ask what fire fighting techniques and chemicals were used. This is important. The chemists at the crime lab must know this to examine the evidence.

Find out how fire fighters entered the building. What was the condition of the doors and windows. If forced entry was made, who made it and how? Get a full statement later from that person. Ask fire fighters if the owners or occupants of the building were present when the engines arrived. If so, what were they doing? Ask fire fighters if they noted any unnatural fire spread or evidence of arson. Check the condition of fire hydrants in the area at the time of the fire. Arsonists like to sabotage fire hydrants to delay fire fighting.

Search Fire Scene

Search the fire scene from the area of least damage to that of most damage. That is, your search of the fire scene should begin at the outside and move inward. The perimeter of a crime scene is always the hardest area to secure. Because it is the most fragile part of the scene in which to preserve evidence, it should be done first. And if the point of origin is not obvious, it can be found more easily this way.

Sometimes a fire starts in a piece of furniture that is thrown out of the building during fire fighting. Examine items like these first. They may show remains of ignition devices or traces of accelerants that will be lost or destroyed if they are not found immediately.

Examine carefully any damage in a structural fire that cannot be explained by the principles of burning. If the damage is not explainable as a backdraft or flashover, submit the material for laboratory analysis. Unusual conditions may cause unusual but perfectly natural char patterns. However, examine all such patterns for evidence of arson.

Look at and note the condition of alarm devices. If they were working and did not go off, why not? If they were not working, why weren't they?

Inside the building watch for misarranged, scattered, piled up, or missing furniture and other contents. Note open doors on heaters. Note empty rooms or empty closets. Look for pictures missing from the walls and missing appliances like stoves, refrigerators, or TVs. Notice peeled wallpaper and old, ragged furnishings that may be replacements.

If a fire occurs in a supply room or warehouse, pay particular attention to the debris left from the fire. Was the kind and amount of debris that which would have been left if all the reported items were involved? Was an inventory due? Check the physical size of the reportedly destroyed items against the capacity of the facility. You may find the total cubic feet of the reported material is greater than the capacity of the storage area.

Find Point of Origin

You must find the fire's point of origin. If evidence of arson exists, you will find it here. If the fire was accidental, you will prove it here. Examine the char pattern. The cracks

in the alligator char are deepest and the scales are smallest at or near the point of origin.

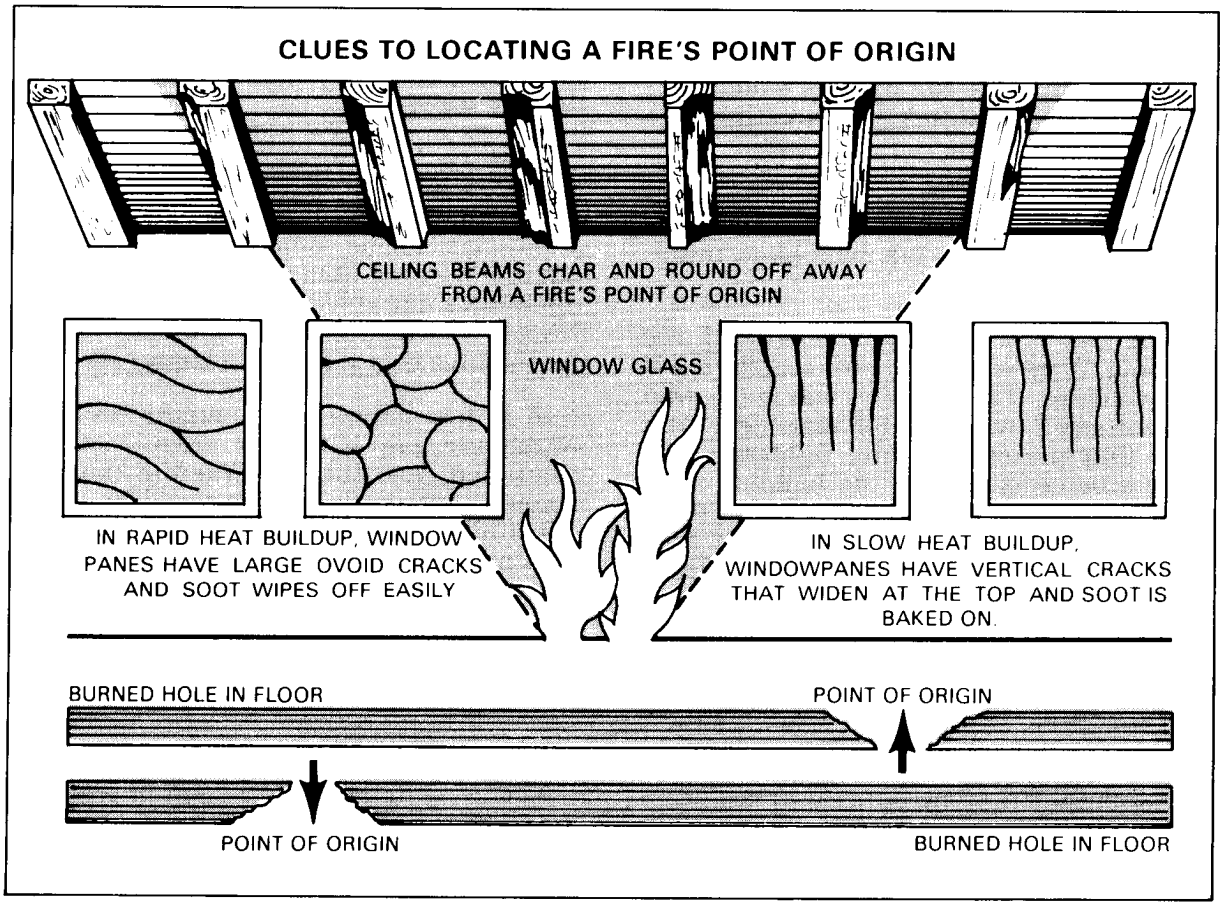
Examine beams on the ceiling. The corners will char and round off away from the point of origin and direction of fire travel. Examine the most heavily damaged ceiling area. The fire is usually hottest and climbs most rapidly at the point of' origin. Any place where the ceiling has dropped out or has burned through is likely to be over a point of origin.

Examine light bulbs and bottles found at the scene. If heated enough, glass objects melt. The side of an object closest to the point of origin gets hot faster than the other side. The object then tends to tilt and point towards the point of origin. Examine the window glass remaining in the area. The glass showing the fastest heat buildup is likely to have been closest to the point of origin.

ELIMINATING NATURAL CAUSES

Once you locate the point of origin, you find the cause of the fire. To do this, you must learn the source of the heat and the kind of fuel that fed the fire. Then attempt to reconstruct the event that combined them. The source of the heat may be chemical, electrical, or mechanical. Then consider if the event was accidental or incendiary.

All fires are presumed accidental until proven otherwise. To determine a fire as the work of an arsonist, you must first eliminate natural causes. Electrical fires often are caused naturally. So are fires started by heating systems. Fires from cigarette smoking, children playing with matches, and other possibilities must all be checked out before a fire can be declared to be incendiary. You must prove that a fire was incendiary before you can even begin thinking about a suspect. Indeed. even if you obtain a confession, the case may never go to



court if you cannot present evidence to corroborate the details in the confession.

ESTABLISHING PROOF OF INCENDIARY FIRE

You should suspect afire to be incendiary if you find circumstantial evidence of special preparation for the fire. If you can show that a fire started in two or more places and that the fires are totally unconnected, you can establish proof of an incendiary fire. You need not prove for sure what started the fire. You must prove, however, that one fire did not result from another fire. The burning material may have dropped or blown from another location. The heat could have been transferred from another fire. Or fire, shorting out electrical lines and creating overloads in other parts of the system, can cause fires elsewhere.

Look for Ignition Devices, Accelerants, and Trailers

Linking ignition devices, accelerants, and "trailers," at the point of origin are considered proof that a fire was incendiary.

The remains of ignition devices at the point of origin are the most positive means of establishing arson. Make a careful search for suspicious articles and devices like fuses, clocks, cans, candles, bottles, wires, and dry cell batteries that may have been used to ignite or accelerate the fire.

If an explosion has occurred, recognizing the nature of the explosive material can give you an indication of the types of igniting devices you should look for. If the explosive material is lighter than air, like natural gas, the walls will be blown or bowed outward near the ceiling. Explosions caused by lighter than air explosives and those caused by back-drafts are very much alike. But the explosion that ignites a fire does not leave a charred pattern on the upper part of the room like that caused by a back-draft, a result of an existing fire. If the explosive material is heavier than air, like liquid fuel, the walls will be blown out near the floor. If the exploding material is a solid-like smokeless gunpowder, it produces a "pushing" effect but leaves gaps in its force path wherever it meets heavy, fixed objects like upright posts or beams. If it is a solid material like dynamite, it creates a localized shattering effect at the center of the blast.

The most common igniter is a match. Sometimes a pan containing gasoline is left on a hot plate. Chemical ignition devices can be made from many combinations of household chemicals. One of the most common is a swimming pool chlorinating compound. The kinds of ignition devices are limited only by an arsonist's imagination. Carefully examine *anything* unusual at the point of origin. Submit debris from the point of origin of all suspect fires to the crime lab for analysis.

The presence of flammable accelerants where *none* are ordinarily kept can be considered proof of arson. Use a sniffer to detect hydrocarbon vapors after the fire is put out.

Liquid accelerants leave evidence of low burn. That is, they show burning on the floor of the structure. A normal fire chars only the upper portion of a room. Floor damage in natural fires is usually limited to about 20 percent of the ceiling damage. Low burn, shown by complete charring of large areas of the floor or the baseboards, is not natural.

Nor is fire burning downward natural. Fire burning downward is a prime indicator of use of a flammable accelerant. Patterns burned in wood floors or holes in a floor may show that an accelerant was used. Burning in the cracks of the floors, under carpets, along the bottoms of doors, or in back of baseboards also indicate use of accelerants. Heavy deep char, out of proportion to the damage in other areas, may indicate the presence of accelerants. So may burning on the underside of furniture. But be aware that some foam padding in furniture melts as it burns. It makes a low burn pattern under and around the item just like flammable liquid does. Lab analysis may be needed to tell the difference.

We tend to think of accelerants as liquids like gasoline. But paper, cloth, packing material, or trash may have been used. If so, it may have been brought in by the arsonist. It may leave traces of fibers, glass, hair, soil, metal, and the like that can be connected with the arsonist.

Trailers are trails of flammable liquid or solid material such as newspapers, clothing, rope, or waxed paper used to lead a fire from one part of a structure to another. Since there is usually only minor floor damage from fire, the marks of a trailer may be clearly visible on the floor.

Check for Special Preparations for the Fire

Sometimes arsonists make special preparations. They move or stack items to increase the fire load. They may empty fire extinguishers in the building and nearby buildings. They may block doors or cut holes in the floor to increase the draft or to hinder firemen. Often they break windows or leave them open to increase the draft. Sometimes they substitute cheap broken items for the contents of the building.

Arsonists may pull curtains that are normally kept open. Or they may place objects in front of windows to block the view into a building. They also may disconnector muffle alarms and deactivate sprinkler systems.

Arsonists often remove valuable documents and expensive items like color TVs, stereos, and guns. Other items removed from residences may include expensive clothes and jewelry, family photographs, hobby or sports equipment, and tools.

Other circumstantial evidence supporting a belief of arson may be burns on occupants who are absent when the fire department arrives. Immediately check the local hospitals for burn admissions or treatment after any major fire. And be sure to note burned or unburned newspapers at the point of origin, especially out-of-town newspapers. A professional arsonist often uses his newspaper when he makes his set.

PROCESSING THE CRIME SCENE

Once you have located the point of origin and identified evidence, you must document and collect the evidence. Because fire scenes have usually been greatly disturbed by the fire fighting, unless a death is involved, you need not make as detailed a sketch as you do for other crime scenes. It is important, though, to have a general sketch of the scene showing the position of various items of furniture in the room. And pay particular attention to the area of the point of origin and any evidence you find.

What you *absolutely* do need is photographic evidence of the fire scene. Photographing a fire scene is one of the most challenging things that you may be called upon to do. It is relatively simple, though, if a few simple guidelines are followed. First of all, whether or not flash is used, obtain a correct guideline for exposure by focusing into the darkest, blackest portion of the charred material. Set the camera at whatever exposure the meter indicates. If you are using flash, set the camera at the proper f-stop according to the guide number or distance scale on the flash unit. Then take one picture at this exposure. The lens should then be opened, up two f-stops. Take a second picture of the same area. Finally, the lens should be opened up two more f-stops. Take a third picture at this exposure. Thus, you obtain three photographs of every blackened or charred item you wish to record. One should be taken at what is normally the correct exposure, one overexposed by two f-stops, and a third overexposed by four f-stops. Usually the second and sometimes the third exposure will be the correct exposure for your purposes.

Process the arson scene, keeping in mind the unique and fragile nature of arson evidence. Make detailed notes on the fire's cause and the location of the evidence. Detailed, accurate notes are vital to your presentation of evidence. Pay close attention, and record everything the fire marshal says and points out to you. This will, of course, help you in writing the case. Moreover, the fire marshal can use your notes to refresh his memory when he is called upon to testify months or even years later.

The best place to look for evidence of arson is on the floor of the scene. Be sure that you have enough evidence. The burnt material on the floor of that building is not considered precious material. You do not have to sign a hand receipt for it. The more evidence you collect, within reason, the better the chances of the crime lab finding what caused the fire; if accelerants were used; and if so, what kind.

Collect evidence from the point of origin. And collect it from any area where the sniffer or other indicators alert you to the presence of flammable accelerants. Be sure to collect the ends of boards that might have been exposed to accelerants. Flammable liquids soak deep into the end grains of the wood. They are likely to remain in detectable quantities. Also, collect odd-colored ashes or soot, unusual formations of clinkers, and impregnated materials. Examination of ash, when possible, is important, particularly in instances of small fires such as those in a fireplace, furnace, incinerator, or bonfire. Fragments should be collected very carefully, placed in a container large enough not to exert strain or pressure, and taken to the laboratory with the minimum of disturbance. A fragment may be sprayed with a thin lacquer to strengthen it enough to handle. But if the fragment is to be checked for accelerants, do not spray it.

After you have collected the evidence, you must take steps to preserve it. Use vapor-tight containers to package volatile substances. New, unlined metal paint cans with friction-top lids are best for arson debris. You can also package debris for which no accelerant odor is apparent in heat-sealed kapok bags. Do not use ordinary plastic or paper bags or boxes for arson debris. Volatile substances can diffuse through the plastic, then accelerants are lost and/or other exhibits are contaminated. Unlined metal paint cans are available from the post engineer's paint shop or through government supply channels.

IDENTIFYING SUSPECTS

After you have processed the evidence from the crime scene, you are ready to identify suspects and begin the follow-up investigation. To find the arsonist, first analyze your target. Ask yourself these questions. Why was this target chosen? Why was the fire set? Why was it set at this particular time?

Then look for persons who had motive, means, and opportunist y to set the fire. The motive to commit arson may be to fill emotional or economic needs, or it may be to divert attention from another activity or crime. The means to commit arson may be available to a suspect at his place of work or from his hobbies. And a suspect's opportunity may be a matter of being at the fire in person or being able to hire someone to do the job.

Check for Motives

Emotional motives account for most structural arson fires on a military reservation. The motive most responsible for structural arson is spite/revenge. The arsonist, feeling wronged, wants to cause injury or hardship to a person or to damage government property because it represents an authority.

Sometimes an arsonist is dissatisfied with substandard living or working conditions. He sets fires to require repair or replacement of substandard facilities. Sometimes fires are set as wanton acts of destruction. Juveniles indulging in vandalism are likely to cause such fires. Sometimes fires are set so an arsonist can make himself a hero by discovering or putting out the fire. For this reason, the person who reports a fire is always a suspect. These vanity fires are not often large fires. They are commonly set in trash or inconsequential material. Sometimes, when there is a sequence of unexplained fires, these fires are the work of a compulsive fire setter. Compulsive fire setters suffer from a psychological disorder called pyromania that exhibits itself in an uncontrollable impulse to start fires.

Some fires are set to divert attention. They may be set to conceal occupational wrongdoing like white-collar crime, as well as crimes of a more serious nature. Unit supply personnel who are accountable for property that they lose through carelessness or sloppy procedures sometimes set fires to cover shortages. Agitators set fires as a means of causing or furthering a civil disturbance. Saboteurs set fires to create diversions to allow them to examine classified material or destroy vital military equipment. Embezzlers manipulating cash flow or stock control documents may set fires to destroy incriminating documents before inspections, audits, or crime surveys.

Economic motives account for fewer arson fires than emotional motives, but they cause more property damage because they are

usually set to destroy high value property. Most, but not all, economic motives involve insurance coverage. Since government property is not insured, this type of fire is seldom seen on a military reservation. The exception to this is an incendiary fire of a privately-owned vehicle. Most vehicle incendiary fires are set for insurance motives. Sometimes business competitors set fires to eliminate their competition. These fires may sometimes occur on a military installation where insured stocks of high fashion or similar items are stored by concessionaires. Owners or occupants of buildings sometimes attempt to pass off accidental fires as arson. They may fear higher insurance premiums, embarrassment, or that they may have to pay the cost of putting the fire out. They may also lie to protect others. This is typical of parents protecting juveniles.

Burglars and thieves sometimes set fires to cover up signs of forced entry or missing items. Thieves may set fires to cover the loss of property or to create enough confusion to allow them to fence the stolen property before it is reported stolen. And fires are sometimes set to cover evidence of homicide in hope that law enforcement officials will believe the victim died in the fire. All deaths involving fire require a thorough autopsy. See Chapter 19.

Look for Means and Opportunity

You must try to link the suspect to physical evidence found at the scene. Try to find fingerprints or documents showing that the suspect purchased materials similar to those found in the fire. Of these means, fingerprints are by far the most valuable. They may be found in protected areas. For example, look on the bottom of gas cans or in areas where the fire did not burn. You also must show that the suspect was at the scene when the fire was set, or show his connection with some other person who is believed to have set the fire-that is, with a hired torch.

ACTION PHASES FOR INVESTIGATING AN ARSON

EXAMINE THE FIRE SCENE WITH THE FIRE MARSHAL

- Assess the amount of damage in relation to the length of time the fire has burned.
- Note indicators of extremely high temperature in the presence of a small fireload.
- Locate fire's point of origin.
- Find source of heat and note kind of fuel.
- Note signs of fire behavior not explained by principles of burning.
- Eliminate natural causes.

ASSUME RESPONSIBILITY FOR THE INVESTIGATION WHEN ARSON IS POSSIBLE

- Look for evidence of multiple unconnected fires.
- Look for and link ignition devices, accelerants, and "trailers" to the fire's point of origin.
- Look for evidence that valuables have been removed, fuel stockpiles, drafts created to enhance oxygen supply or other special preparations have been made for the fire.
- Establish proof of incendiary fire.

PROCESS THE CRIME SCENE; IDENTIFY SUSPECTS; COMPLETE THE INVESTIGATION.

CHAPTER 21

Questioned Documents

Investigators are often called upon to collect evidence to prove a document genuine or fraudulent. These "questioned documents" may be military records or forms. They may be financial instruments. They may be anonymous letters, suicide notes, or official statements. Any written document of uncertain legitimacy is a questioned document.

The purpose of proving a document genuine or fraudulent varies with the purpose of the investigation and the type of document in question. Showing pay vouchers and requisitions to be false may be part of building a case of fraud against the government. Proving a document genuine or fraudulent is material to an investigation for an offense like forgery. And offenders deriving benefit from fraudulent documents often commit recurring offenses. The offender may repeat his crime many times using the same MO. Thus, investigation of questioned documents requires that attention be given to factors that may link an on-going case to other similar incidents.

Forgery is committed when a person falsely makes or alters, with the intent to defraud, a signature or any part of a document that would, if genine, appear to impose a legal liability on another or to change the victim's legal rights or liabilities to the offender's illegal advantage. Forgery is also committed when a person offers, issues, or transfers a document he knows to be falsely made or altered in an attempt to defraud another. The term false as used in defining forgery does not refer to the truth of the facts stated in a document. It refers only to the document's not being genuine.

To prove a case of forgery, you must show that a document was made by someone other than the apparent true maker. This includes a document altered to represent a different obligation than that intended by the maker.

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You must show that making or altering the document was not authorized by the apparent obligor. And you must show it was the accused who falsely made or altered the document, knowing it was falsely made. Finally, you must show that the intent of the accused was to defraud.

A "bad check" offense is committed when a person makes, offers, or transfers a check, draft, or order for the payment of money upon a bank or other depository to procure anything of value by fraud or to pay any past due obligation. To prove a bad check offense you must show the accused made, offered, or transferred a check, draft, or order payable to a named person or organization. You must show that the person did it to get something of value or to make payment for a past due obligation. You must show that the accused knew at the time of the act that the instrument would not be paid on presentment. Finally, you must show the act was committed with an intent to defraud or deceive.

Any person who signs a false record, return, regulation, order, or other official document, including the filing of false reports of crimes, knowing that it is false and having the intent to deceive is guilty of making a false official statement. For the purposes of this offense, all documents made in the line of duty are official documents. To prove the offense, you must show the accused signed a document and knew when he signed it that part of it was false. You must also show that the document was signed with the intent to deceive.

Extortion is committed when a person communicates threats to another person with the intent of obtaining anything of value, or any acquittance, advantage, or immunity. To prove extortion you must show that the accused communicated certain threats to another. You must show that the threat was received by the intended victim. And you must show that the accused intended to get something of value by unlawful means.

COLLECTING EVIDENCE

When collecting evidence involving a questioned document, take notes concerning your collection. They will later help refresh your memory if you are called to testify at a court-martial. Note the place, time, and date you collected the document. State the name of the person you received the document from and how it was marked. Include information about the history and contents of the document. Later you may add notes about the handling and disposition of the document. All of this information may be of value later in proving the government's case.

The questioned document must be identified so it will not be confused with other documentary evidence. Mark the document to identify it at any later date. Examine it to find a good place to put your initials, date, time, and the case number, if you know it. Choose this location with care. The identification data should be as inconspicuous as possible. It should not in any way interfere with any writings or impressions on the document. A corner on the back of a document is most commonly used. Then note in your records how and where it was marked.

Questioned documents must be protected from damage. A questioned document should never be folded, crumpled, or carried unprotected in a pocket. Place it in some sort of protective cover. Attach its evidence tag to the outside of the envelope. When shipping to the lab, place enough heavy wrapping material around it to stop it from being bent, torn, or folded in transit. A paper envelope in which the document will fit easily is best. Place the pieces of torn document in the protective covering in their most obvious and logical positions. Transparent plastic document protectors are not suitable for use with some document materials. They should be used with caution, if at all. Typewriting made with a carbon ribbon and the toner on some photocopies may stick to the plastic and be lifted off the paper.

Questioned documents often represent valuable transactions. Sometimes they are a victim's evidence for a civil suit to recover losses suffered because of the fraudulent transaction. Thus, the victim will need assurance that the document will be returned after the case is complete. Give a property receipt to the person who gives you the document. Make sure the receipt describes the document in enough detail to permit future identification. It should not have statements as to the value of the document. The description should be limited to the physical aspects of the document. Similar receipts should be given for any other items like pens, pencils, or paper that you collect.

The document may need to be examined for fingerprints. You should handle it with tweezers or cloth gloves, so your fingerprints are not added. The document should not be subjected to strong light for prolonged periods. But it may be viewed with ultraviolet light for a short time to compare or contrast its fluorescence or reflectance with other similar documents or possible paper sources. Documents should be handled so that any indented markings are not destroyed or added.

You may wish to make copies of the questioned document for use during the case. The original may then be placed in the evidence depository until required by the lab for examination. Reproduction methods that require you to remove the document from its protective covers should be avoided. Photocopying and photographing are acceptable methods for making copies. But avoid methods that require the document to be fed into a roller system.

Learn the difference between a charred document and ashes. A charred document is one that has become blackened and brittle, having been burned in an absence of an excess of oxygen. For example, documents that are in a closed container during a fire may burn. But as there is very little oxygen present, the paper chars instead of being consumed and turning to ash. The writing on charred fragments, if the fragments are large enough, can often be deciphered. This is usually done by infrared examination.

Charred documents are very fragile. If they are not handled carefully, they may be destroyed. If the fragments are very fragile, spraying them with a thin lacquer should strengthen them enough to handle. Unless a fragment is to be checked for the presence of accelerants, you should spray any fragments of a burned document that might be able to be read. Pick up charred documents by sliding a sheet of paper beneath them and, using this sheet as a support, transfer the charred documents to a cotton-lined box. Carefully pack the charred documents between sheets of cotton and staple the cotton to the box to prevent movement. If a single charred document is relatively flat, it may be placed between two panes of glass that you then tape together. If feasible, the charred documents should be sent to the lab by courier. This will preclude unneeded handling and prevent destruction. In some cases, the lab technician should be asked to come to the location of the document. If neither of these two preferred methods is practical, careful packaging is needed to preclude destruction.

Documents which have been torn may be restored by the lab. Do not try to assemble mutilated documents by taping the pieces together or gluing them to some other piece of paper or other backing. Successful restoration is more likely if the documents are sent to the lab in the condition in which they are recovered. Lab examination may show differences in the composition of samples of ink that to the unaided eye may seem to be identical. Very little ink is needed for lab examination. A single capital letter may furnish enough. However, the removal of this ink from a document may affect the admissibility of the document in court. The proposal to use this technique should be discussed beforehand with the SJA. If he recommends against it, it should not be used. If he decides that the removal will not affect the document's admissibility, tell the lab examiner.

For lab examinations of materials produced on copying machines, printing products, and office machines contact the lab for guidance in collecting specimen material.

For a lab examiner to reach conclusions of a demonstrable nature about a questioned document, you must furnish exemplars and standards. An exemplar is a dictated known writing. A subject writes it at your request and dictation. A standard is a collected piece of undictated writing known to have been done by a subject at an earlier time. These writings are compared with the questioned document to learn the identity of the document's author. The degree of accuracy of the examiner's conclusions depends on having specimen material similar to the questioned text. He needs enough dictated and undictated writings for a realistic comparison.

To provide as much help in this aspect as possible, you must know what is required. When a case involves the origin or validity of a document, try to contact the document section of the laboratory by telephone to learn what is required before sending the document to the lab.

CONDUCTING INTERVIEWS

Question all persons affected by the document. For example, in a case concerning a forged check, question the person who cashed the check, the person whose signature has allegedly been forged, and a representative of the bank on which the check was drawn. Any bank, business, or other organization that will be affected by the questioned document should be contacted. Information about past dealings with the person whose signature has allegedly been forged may give helpful clues. Other incidents in which the same forms or means of operation were used may be discovered.

If the document was prepared or signed in the presence of a witness, ask the witness about the method of preparation. Was it written with the right or left hand? Was it written quickly or slowly? Was it written on top of other papers or on a hard surface? Was the writer nervous or intoxicated at the time? If the questioned document is written on a special form, talk to the persons who normally use such forms. This will let you examine the place where they are kept and find out who could have had access to them.

Encourage all victims and witnesses to name possible suspects. Ascertain the reasons for their suspicions. Use this list to check on victims and suspects. It may be of help to look into their financial statuses and business practices to check for motives. Checking the emotional stability of the victims and suspects may also be of value. You can then try to reduce the number of suspects from whom you need to obtain voluntary exemplars and correct standards.

Try to learn how and when the document was made or used. Get a description of the suspect's appearance, actions, and conversation, and any credentials he may have used. The number of suspects and the number of persons present when the document was offered or found are also of value. Find out how the document was discovered to be false or why it is suspected of being false.

If the signature is that of a known person, interview the signer to verify that he or she denies writing or signing the document. In some cases the questioned document must be shown to the victim. If possible, avoid showing the document to the victim until after you have obtained undictated writings. Or else ensure there is a time lag between the two actions so the format of the questioned document is not fresh in the victim's mind. It is best if you do not let the victim handle the questioned document, as it may negate a latent fingerprint examination. And remember, it is possible that a victim in a case may have actually executed the questioned writing and be hiding this from you. For this reason, always obtain and submit known writings of the victim for lab examination.

COLLECTING UNDICTATED KNOWN WRITINGS

Get undictated writings to be familiar with a suspect's normal writing. These are specimens of handwriting produced in the normal course of events. These may be found in official files. They are documents and forms required by regulation to be in the handwriting or bear the signature of the person filling them out. Unit records, property receipts, personnel forms, and hospital records all meet this criteria. Letters previously written by the suspect may also be used. For undictated known writings in check-forgery or bad-check cases, use cancelled genuine checks in the possession of the victim or suspects.

For undictated known writings to be admissible into court as evidence, they must be authenticated. They are authentic if—

- The writer acknowledges the genuineness of the collected writings.
- The handwriting is identified as genuine by someone who is familiar with the handwriting of the person involved.
- The handwriting is identified as genuine by an eyewitness to its execution.
- The handwriting is identified by expert or judicial comparison with dictated known writings of the writer.
- The document is an official record like a military personnel or finance record.

Collect undictated known writings before you attempt to get dictated writings from suspects. This will help show if suspects are trying to disguise their handwriting. If suspects are not trying to disguise the writing, the quality of the writings should seem similar. The differences between a normal slant and a backhand or between letters written in a round style and an angular style are often quite clear. Disguised writing affects the pictorial appearance only.

Preliminary examination should show the type of instrument used to write the document. Collect known writings made with the same type of instrument. For writing done with fiber-tipped pens, crayons, nib pens,

brushes, or special-purpose writing instruments, collect several known writings with these instruments. Get the remainder with a ballpoint pen. This is because a ballpoint pen shows writing characteristics best. Note if the suspect owns a writing instrument with characteristics similar to the questioned instrument. Remember to also get at least one dictated writing using it.

Discuss the collected known writings with the SJA. Ask about their admissibility and proof of genuineness. When the genuineness of a signature is questioned, get collected writings of a known genuine signature. This is especially needed for collected writings that may have been in the possession of, or accessible to, a suspect. This may help the document examiner show if a genuine signature has been traced. It may also show the actual signature traced.

If the questioned document is typed, you may need to furnish collected typed standards too. Sometimes it can be shown that a document was typed on or about a certain date. If so, try to get collected standards of the work typed on that machine during that period. Typing done on a certain machine during a certain period of time can be compared with the typing produced by that machine at a later date. These may reveal any added defects, flaws, or changes in its typewriting characteristics.

Often many typewriters must be examined to show which one produced the questioned document. You can eliminate some of them without submitting dictated writings of their typewriting to the lab. Do this by making several fairly easy tests.

Check the upper and lower case letters M and W first, as they are often the most distinctive in style. Their differences may be more easily recognized. The bottom of the staffs of the lower case mayor may not have serifs (cross strokes) at the bottom. The two outside staffs may have serifs, and the center staff none. The center V-like formation of the capital M may descend to the baseline or stop varying distances above it. If it descends to the baseline, it may or may not have a serif. The inverted v of the center formation of the W mayor may not extend to the top of the line formed by the outer portions of the letter and may or may not have a serif at the top.

Numerals are often unique in design on varied typewriters. These should be examined. You should have no trouble when different sizes of type are involved. If the letters and numerals are not distinguishable with ease, submit dictated writings to the lab.

Collected known writings should be submitted together with the dictated writings. This lets the examiner see the normal handwriting habits of the writer. It also indicates tries at disguising the writing in the dictated writings.

OBTAINING DICTATED WRITINGS

Your preliminary examination should show the type of paper comprising the questioned document. If the document is on a standard form, get samples of that form or have facsimiles reproduced. If the document is a check, get samples of the same type of check. Get those of the same size and quality as the questioned check. Obtain samples of other types of papers that approximate that of the questioned document as closely as possible. The paper may be bond, onion skin, colored, ruled or unruled, tablet form, wrapping paper, or a piece of cardboard.

Obtain an instrument similar to the one used to write the questioned document. If it was written with a ballpoint pen, then a ballpoint pen with a similar size ball should be used to write the dictated writings. The questioned writing may have been written with a pencil. If so, use a pencil with the same degree of hardness. Sharpen it to about the same point as that which produced the questioned writing.

Use only one side of the paper. In some cases the writing on both the face and back of the original are in question. Get enough forms or checks so that the dictated sample of the writing on the back of the original will be written on different forms from the dictated sample of the writing on the front.

When taking these samples from the suspect and victim, dictate what is to be written. Do not allow the suspect to copy

written phrases. Each line is to be written without seeing a preceding line. No indications of spelling or punctuation should be given. At times the questioned document is long and has no unusual spellings or grammatical constructions. Here the material you wish the suspect to write may be typewritten for him to copy. The suspect is not shown the questioned document prior to giving the dictated writings.

The pictorial quality of a writing may help show if the dictated writings are a true representation of the writing of the suspect. This may be seen in several ways. Smooth unbroken strokes and rounded forms of letters often indicate speed in writing. A suspect's visual memory, powers of graphic expression, and manual dexterity are often shown in the general appearance of his writing. See if the dictated writing is being written slower or faster than the questioned writing would have been written. If so, change the speed of your dictation. You can also tell the suspect to write faster or slower, as the case may be. Rapid writing will often reduce the size of letters. When the suspect has finished an individual dictated writing, remove it from his sight. This will halt an attempt to copy the previously made dictated writing. Handwritten dictated writings should be obtained from the victim when the questioned document is an anonymous letter.

Think of getting dictated writings written with other than the normal handwriting of the suspect. If the writer cannot give legible writing with the other hand, one dictated writing is enough. Dictated writings may be obtained with the suspect writing standing up or holding the paper against a wall, as desired.

If the questioned writing is a signature, get about 25 dictated-writing signatures. Where one or two sentences or about 20 disconnected words comprise the questioned writing, get 10 to 15 samples. If the document is two or three pages, get one dictated writing of the entire text. Then get three to five dictated writings of the first and last two or three paragraphs. Check for words in combination with each other or unique wordings found elsewhere in the document. These should be included in the dictated writings.

Questioned writings can appear on a form. If so, the writing is often confined by means of blocks, length of lines, or the size and design of the form. Dictated writings must be similarly confined. For example, the questioned writing may appear on a form of which duplicates cannot be obtained. Here you must get paper of the approximate quality and cut it to the same size as the questioned form.

You may have a document with obscene words or phrases. Dictated writings may be made without the objectionable words or phrases if the document is long enough. But the elimination of such words must not leave the dictated writings worthless. Dictated writings of short, obscene documents normally must be produced in full. If someone objects to obscene words in the dictated writings, use non-obscene words with the same letters and letter combinations as the obscene words. Most obscene words can be replaced fully with one or two ordinary words. Ensure the dictated writing words you choose include the beginning and ending letters of the obscene word. Have them in the proper positions, though not necessarily in the same word. A similar problem comes up when the questioned document contains security information. If the dictated writing can be produced by omitting the classified portions, do so.

To provide samples of typewritten documents, you must take several from each machine. With excessive use, a manual typewriter produces typing of extreme individuality.

All dictated writings should have a heading with the name of the person producing the dictated writing. Include the make of typewriter and its serial number, whether electric or nonelectric, place where the dictated writing was produced, and the date. The signature of the person giving the dictated writing as well as yours should be added for identification needs.

Make sure the dictated writing follows the style of the questioned document. If the questioned typewriting is double spaced, the dictated writing should be. Indentations should be the same. The length of and number of words in each line should be the

same as that of the questioned writing. The word or portion of a word at the end of a line on a questioned document should be duplicated in the dictated writing. The duplicated writing should be as close a duplicate of the questioned document as it is physically possible to produce.

A second dictated writing should be typed by someone other than the person typing the first dictated writing. It should have the complete keyboard reproduced. Do one first in normal order, and then do one with a space between each letter, numeral, and symbol. If the questioned document is a carbon copy, a carbon copy of the dictated writing should be included.

A third dictated writing should be made by the carbon-stencil method. A new piece of carbon paper should be used. It is placed in contact with the paper as if the paper were going to be a carbon copy. The ribbon of the typewriter should be removed or the machine set on stencil. The type should strike the carbon paper directly. The spacing, line length, and word composition should be the same as the other dictated writings. The carbon paper need not be submitted with the dictated writing. The carbon-stencil dictated writing may be omitted if the typewriter normally uses a carbon paper ribbon.

If the questioned document consists of about one-half a page, it should be reproduced in its entirety. If the document is lengthy, the first 20 to 30 lines should be reproduced. The remainder of the questioned document should then be examined. Any words, numerals, or symbols not appearing in the first 20 to 30 lines should be added to the dictated writing. The word preceding and following the material to be added should be included and typed as it appears in the questioned document.

Compare the dictated writings and the questioned document to see if the ribbon producing the dictated writings seems to have about the same degree of wear and is of the same style and character. Find out when the ribbon on the machine was last changed. Learn the date of the latest repair work done on the typewriter, and learn what repairs were made.

EXAMINING DOCUMENTS

Document examination is based on the improbability of any two writings being exactly alike. An examiner looks at characteristics like style, speed, slant, and spacing.

Writing involves a mental process as well as a muscular coordination. Skilled writing is fluent and mature. It differs greatly from the copybook style of the unskilled. Skill and line quality go together. The lines of skilled writing will be freely written and uninterrupted. The curves will be well defined, and the pauses and pen lifts will occur in natural and appropriate places. And there are other clues to help identify a writer. The facts or terms in a letter may help identify the writer. Use of highly technical terms, punctuation, spelling, grammar, syntax, and style are all valid clues which may lead to the writer's identity.

Paper samples can be analyzed in the lab to show similarity or differences in composition. These may lead to a conclusion about a common origin with other samples. Adhesive used to hold sheets of paper in tablet form can be analyzed to see if two or more sheets of paper could originally have been a part of one tablet.

A rare, but important, examination the lab is called on to do is that of deciphering indented writing. Indented writing may result when the writing on a document has been obliterated, sometimes accidentally. Sometimes the only evidence available is "second sheets." These are sheets of paper underlying the one on which the original writing was placed. The pressure of the writing instrument will leave a trace of the writing on second sheets. If the pressure is great enough, the indented writing can sometimes be gained from the sheets under the original by several sheets. The lab can often decipher indented writing by electrostatic processing or oblique lighting.

All cases sent to the lab for document examinations should be addressed to the

documents division. Some cases may need to be examined by other sections as well as by the documents section. Query your servicing USACIL to learn the order of address that will best permit examination by the sections concerned. Some examinations, like those for latent prints, can cause unavoidable damage to the evidence. This would hamper a subsequent document examination.

Your requests for lab examination should include your unit's telephone number (AUTOVON if in the United States), along with your name. This allows the document examiner to contact you if clarification is needed.

Submit all evidence at one time. A case cannot be examined until all evidence is received. If evidence or documents are requested from another office, the added material should be obtained before forwarding the referrals to the lab. This precludes the lab having to hold referrals that cannot be examined pending receipt of other evidence. You may request documents be sent directly to USACIL from the US Army Finance and Accounting Center (USAFAC). Retain any other document evidence that is to be examined until notified by USAFAC or USACIL that such documents have been sent or received before submitting the other evidence.

CHAPTER 22

Fraud Against the US Government

Frauds against the US government are as varied as human ingenuity and imagination can contrive. They range from intentional submission of claims for travel not performed to collusion in contracting for, or disposing of, government property. Fraud against the US government may bean intentional deception to unlawfully deprive the government of something of value. Or it may be an intentional deception to secure from the government a benefit, privilege, allowance, or consideration to which the securer is not entitled.

The USACIDC and the FBI have concurrent jurisdiction over persons subject to the UCMJ that commit frauds against the US government. Frauds against the government involving a person subject to the UCMJ that are committed outside military installations are investigated by the Federal Bureau of Investigation, unless the Department of Justice determines otherwise.

Frauds against the government involving persons subject to the UCMJ that are committed on a military installation are investigated by USACIDC to determine the nature and extent of the crime. If the fraud is determined to be a minor offense as defined by AR 27-10, the investigation may be continued by the military. If the fraud is a serious offense, prompt notification is made to the FBI. While awaiting a response, the military maintains authority to apprehend and detain persons subject to the UCMJ, and the investigation is continued until the Department of Justice notifies the military commander to withdraw from the investigation. Even then, the military commander may make inquiries for administrative action related to the offense as long as no action is taken that would interfere with the FBI's investigation and the case's subsequent prosecution.

USACIDC may conduct or participate in investigations of persons not subject to the UCMJ if the military has a substantial interest in the investigation, such as identifying military property or determining facts on which to base security or administrative action. If the appropriate government agency declines to investigate, USACIDC may investigate suspected frauds for the above limited purposes, regardless of who is suspect.

In occupied territory, USACIDC may investigate all frauds against the US. In liberated areas, USACIDC investigates frauds committed against the US by persons subject to military law. In liberated countries or in countries in which US Armed Forces are present as guests, investigations by USACIDC of frauds committed by nationals of those countries against the US are conducted according to the agreements between the US and those countries.

There are five main categories of fraud against the government that you may be called upon to investigate. These are the

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frauds involving claims, supply, petroleum distribution, contracting, and property disposal. You investigate claims, supply, and petroleum distribution frauds to determine if an offense has been committed. Then, using your investigative skills and techniques, you follow the standard investigative process to bring your inquiries to a successful conclusion. You investigate contracting and property disposal frauds to determine if an offense has been committed. At that point you request assistance from economic crime investigative specialists. The successful resolution of contracting frauds and property disposal frauds generally requires the training and experience of such a specialist.

FRAUD OFFENSES INVOLVING CLAIMS

The crime of defrauding the government by the claims process is illusive in nature. It is strongly recommended that any investigation you undertake involving such frauds be closely coordinated with the office of the local SJA. His advice can help you avoid many of the pitfalls inherent in establishing the existence of offenses in this highly technical area of criminal law.

MAKING AND PRESENTING FALSE AND FRAUDULENT CLAIMS

There are two common elements of proof needed to substantiate the offenses of making and presenting false and fraudulent claims. You must show the false or fraudulent nature of the claim itself. And you must show proof that the accused knew of the dishonest or fictitious character of the claim in question. For example, a false or fraudulent claim is made against the government when a person files a claim for property lost in military service, knowing that the articles were not, in fact, lost. The making of a false or fraudulent claim, by its very nature, requires the claimant to personally make a false statement. But presenting a claim for payment when the claimant knows that it already has been paid or that he is not authorized to present it, does not require him to make a false statement. Someone who submits a legitimate voucher a second time is presenting a false claim, but he or she is not making a false statement.

MAKING OR USING A FALSE WRITING OR OTHER PAPER WITH A CLAIM

The making or using of a false writing or other paper in connection with a claim is a fraud against the government. The offense of making a false writing for the purpose of obtaining the approval, allowance, or payment of a claim is complete with the writing of the paper, whether or not the writer attempts to use the paper or to present the claim. If a person makes or uses a writing in connection with a claim, and if such writing contains statements intended to mislead government officials considering or investigating the claim, he is chargeable.

MAKING A FALSE OATH WITH A CLAIM

Proof that a fraud against the government has been committed by means of a false oath requires evidence that the accused knowingly made a false oath to a fact or to a writing to obtain an allowance, payment, or approval of a claim. For example, a claimant filing a sworn statement requesting quarters for a person to whom he is not married is making a false oath to support his claim.

FORGING A SIGNATURE WITH A CLAIM

Under the UCMJ, forgery of a signature in connection with a claim constitutes a separate and distinct offense from the crime of forgery. The offense is complete once it can be demonstrated that the accused forged a person's signature on a writing, or knowingly used a forged signature, for the purpose of obtaining the approval, allowance, or payment of a claim.

INVESTIGATING CLAIMS FRAUDS

When you are assigned the task of investigating a suspected false or fraudulent claim against the government, you should make a discreet inquiry into the circumstances surrounding the allegation of fraud. You must inquire into the circumstances to learn if an offense has been committed. But you must do so without

endangering any sources of information or placing suspects on their guard. If you determine a fraud has been committed, continue your investigation to learn the extent of the offense and to identify the persons involved.

You seek to identify suspects and to learn the specific transactions by which the fraud was committed. You identify the roles of the suspects in an alleged fraud. You check for jurisdictional problems. You make an estimate of the technical skills needed to establish the offense and identity of the offenders. And you look for the probable types and locations of evidence of the fraud.

You must carefully question persons who—

- Prepared or submitted the claim.
- Received and approved the claim at local or intermediate levels of command.
- Witnessed or attested to the circumstance on which the claim was based.
- May have been in collusion with the suspect to prepare or justify the claim.
- Witnessed or knew of any motive, incident, or circumstance that may point toward the fraudulent nature of the claim.
- Witnessed conversations or observed correspondence between persons involved in making, justifying, or approving the claim.

You may need to audit many pieces of documentary evidence to find those bearing on a suspected fraud. Claims, applications, travel vouchers, receipts, business and finance reports, audits, bank deposits and withdrawals, and records of monetary conversions and transmittals can all be used to substantiate this form of fraud against the government. In searching for documents to substantiate the allegations of a claims fraud, you must be guided by elements of proof required for the specific offense.

Take action at an early date to secure cooperation from, and refer undeveloped leads to, appropriate commands. This will expedite the investigation and give other agencies time to comply with your requests. If you need more information or additional documents on the fraudulent actions you are investigating, coordinate with any other agencies involved in the investigation. But try to do this without disclosing the results of your preliminary investigation. While awaiting replies or action, check every available local source of information. Make careful use of selected sources and seek out reliable persons who possess information material to the investigation.

Arrange your evidence to point directly to the elements of proof of the specific alleged offense. Your final case report for a fraud must be specific in its allegations and in its information. When undeveloped leads are to be checked by investigators in other fields of study, your report should provide information allowing them time to proceed logically in their work.

FRAUD IN SUPPLY

Fraud in the US Army's supply system, commonly called supply diversion, is the most frequent crime occurring within logistics channels on military installations. Supply diversion ranges from ordering self-service items for personal use or resale to requesting supplies to be shipped by rail and then routing the railcars to areas of low-density traffic to steal their contents.

COMMON SUPPLY FRAUDS

Common supply frauds include ordering items under the wrong national stock number (NSN) or a false document number and ordering unauthorized items. If a perpetrator puts the wrong national stock number of the item in the stock number block of the request form while putting a correct item description in the description block, the automated system issues and ships the national stock number item, not the description item. When the perpetrator receives the requested item, he diverts it for his own private gain. To spot the diverter, you must use the document number and trace the document from the requestor to the issuing activity and back to the receiver, obtaining copies of all requests and receipts.

If a perpetrator places an order under a false document number, you must trace the audit trail to establish the diversion pattern and find the perpetrator. If a perpetrator is ordering unauthorized items, you must trace the complete audit trail. You must take statements from key witnesses and then compare a copy of the TOE or TDA against the property book. The authorized allowances are filled out in pencil. Thus, they could be erased. But most of the time the perpetrator makes new pages because the items are not authorized, or are not authorized in the quantity ordered, under the unit's TOE or TDA.

INVESTIGATIVE APPROACH

Your first step in investigating a supply fraud is to identify the supply system in which the fraud or theft is occurring. Then you can determine if the system is at the retail (installation, organization) or wholesale (depot or manufacturer) level of the US Army's logistical system. And you must learn if the system is automated by computers or is manual. Manual and automated systems use the same forms, but their operational principles differ at local level. The manual system uses a property book reflecting TOE and TDA equipment on individual property pages. The automated system uses computer listings reflecting all equipment authorized and on hand on a single printout.

After you determine the system from which a supply item is missing, review the supply transaction register, called a document register, and see which unit or organization requested the item. Obtain the document number of the requisition. Then carefully follow it through the audit trail. You must check each level of the supply system furnishing material to the supply activity that has physically issued and shipped the item to the requestor. Obtain a copy of the request at each step of this initial investigative path for backup.

Then begin following the issue trail that leads from the supply activity that was the issuer to the requestor or user. The points along the path of issue will reflect at what point the item was taken from US Army control. Obtain copies of all requests for issue, issue documents, shipping reports, or the like. When you have copies of all these documents, continue your investigation as if you were investigating a larceny.

Not all supply frauds occur as diversions from a supply system. Many items are reported stolen from a storage area. To investigate the loss, obtain the supply documents verifying that the items were physically present at the activity reporting the loss. Determine the activity's inventory procedures. Then establish the time frame extending from the date when the items were last seen at the activity to the date when the loss was noted. If the items were last present at an inventory, apply your larceny investigative techniques and procedures to find the perpetrator. If the items were known to be missing before the last inventory and

INDICATORS OF SUPPLY FRAUD

- Regular use of maximum droppage allowances.
- Unusually high or low personnel turnovers and chronic requests for transfers.
- Regular appearance of inventory shortages or overages near the maximum allowed.
- Irregularities in the taking of inventories.
- Attempts to influence the choice of persons to take inventory.
- Repeated assignments of the same persons to take inventory.
- Attempts to confuse or deceive officials designated to take inventory.
- The appearance of articles at inventory time that using units are not able to obtain by requisition shortly thereafter.
- Perfect inventories
- Repeated reports of larcenies, burglaries, or the like, having too much or too little evidence that leads nowhere.
- Excessive use of statements of charges and reports of survey.

they were carried on the inventory as being on hand, the provisions of AR 735-5 apply. A report of survey must be made by the property book officer. Be aware that inventory shortages are often reported as supply larcenies. This is done in an attempt to cover poor supply management techniques and to generate a criminal investigation instead of a report of survey.

FRAUD IN PETROLEUM DISTRIBUTION

Fraud in the petroleum distribution system can be minor pilferage. It can be systematic theft. And it can also be falsification of multi-million dollar orders by a purchasing conspiracy among contracting officials and oil companies. A study of AR 703-1 and FM 10-69 should give you the knowledge of petroleum operations you will need to investigate most petroleum fraud. Investigations of extremely large losses from conspiracies are usually outside your purview.

Pilferage may occur in "nickel and dime" losses of petroleum in amounts as low as 5 or 10 gallons a day. The methods of pilferage may range from recording the wrong amounts on DA Form 3643 (Daily Issues of Petroleum Products) to siphoning gas from a vehicle tank. You can discover these losses by simply monitoring the amount of gas used and then comparing that amount with the amount stated on the form. If pilferage is discovered, use the gasoline theft detection kit and undertake surveillance to catch the offenders.

Larger, systematic, losses are usually from theft by a supplier. Suppliers may use false tanks. They may trap petroleum in buckets inside the delivery vehicle. Or they may add air or heat to the delivery line just before it connects to the meter. They may also conspire with a government attendant to leave some of the petroleum in the delivery vehicle. Large-scale theft usually means the government attendant is not making the checks required by AR 703-1 or is conspiring with the supplier. In the latter case, a fluid, like water, is usually mixed with the petroleum to cover the shortage.

Sometimes paperwork is falsified to cover a loss. It is easy to cover shortages by simply adding gallons to those a driver has signed as accepting on the DA Form 3643 or just completely falsifying entries on the form. The driver, for example, may be receiving 10.2 gallons and signing for 11 gallons. At a large issue point several hundred gallons a week can be lost by this method. Your use of surveillance and a cross-check of the logbook against the DA Forms 3643 can help prove the fraud.

FRAUD IN CONTRACTING

Contracts embrace all types of agreements to procure supplies or services. The investigation of crimes like fraud and bribery involving government contractors is within the purview of the FBI. But under AR 27-10, which effects a memorandum of understanding between the FBI and DOD, in cases wherein it appears that a government employee has violated a departmental regulation involving standards of conduct, but which involves no violation of federal statutes, military investigators normally conduct the inquiries. They investigate to obtain the detailed information the commander needs on which to base his action. An investigation of this nature, while mainly of administrative interest, may be conducted concurrently with a criminal investigation.

All suspected criminal conduct and noncompetitive practices related to contracting must be reported. Reports of possible fraud or violation of antitrust laws must contain a certified statement of the facts of the dereliction. The reports must include affidavits, depositions, records of action, if applicable, and any other relevant data.

This reporting may require preliminary investigation of allegations of a criminal nature for referral to the Department of

Justice and the FBI for determination of prosecutive interest. It may include supplying details for consideration of debarring persons or firms from participating in procurement contracting. And it may include furnishing information to a commander to help him decide whether or not to take administrative or disciplinary action in connection with procurement.

Government personnel engaged in contracting may violate statutory prohibitions and administrative regulations by accepting gratuities or conspiring to defraud the government. Their wrongful act and malfeasance in the performance of duty, when established as fact, maybe both legally and administratively actionable. Government contracting personnel may perform a lawful act in a manner prohibited by regulations or perform the act in a manner not directed by regulations. Their misfeasance would be administratively actionable. Their actions violate the UCMJ. Government contracting personnel who fail to follow procedures required by acquisition regulations are guilty of nonfeasance. Even if the omission is not a part of a scheme to defraud the government, it is nevertheless actionable.

VIOLATIONS OF STANDARDS OF CONDUCT

Regulatory standards of conduct and ethics apply to contracting officers and all military or civilian personnel engaged in contracting action and related processes.

In contracting, many decisions are largely a matter of personal judgment. Contracting is necessarily carried on, to a great extent, through personal contacts and relationships. Thus high ethical standards of conduct are essential to protect the interests of the government. The expected standards of conduct for government civilians and military personnel are set forth in the Federal Acquisition Regulation (FAR) and AR 600-50.

Any act that compromises the Department of the Army or that impairs confidence in the government's relations with industry or individuals must be avoided. Violations of the regulatory standards of ethics and conduct may involve such variable factors as judgment, previous experience and relationships, and individual interpretation of ethics. Whatever the circumstances, the ethical standards of all persons charged with the administration and expenditure of government funds must be above reproach and suspicion in every respect at all times.

Any indications of an abnormal need for money or of participation in activities which could place personnel at risk or open to pressure in the conduct of their duty must be checked carefully. Monetary gain is the motive for most frauds committed against the government. Persons buying items for themselves, their families, or their girlfriends or boyfriends that are above what is in keeping with their incomes or the combined incomes of family members may be open to fraudulent activity to support their tastes. Any marked change in these factors within a short time is especially worth noting. Persons indulging in recreation or entertainment that is priced above their incomes and resources or that could have been furnished by firms they deal within an official capacity may also be risking suspicion.

Gambling for high stakes, excessive drinking and entertaining, and illicit relations with persons of ill repute may tempt a person responsible for government money or property to divert some of it to his or her personal use.

INVESTIGATIVE APPROACH

Before investigating a suspected contracting fraud, you must familiarize yourself with the contracting process and the laws and regulations that apply. Contracting activities operate under many complicated and highly technical procedures. Irregularities often occur within a framework of a complex pattern of statutory provisions, administrative regulations, and departmental or agency procedures. You must be reasonably familiar with these laws, regulations, and procedures to recognize deviations from normal contractual processes.

Discovering contracting irregularities requires continuous critical scrutiny of each step of the process from the inception of the contract to its termination. Easy

identification of the exact spot where an irregularity has occurred is a rarity. It takes an extensive study of a contract and the regulations pertaining to it before you can expect to successfully undertake a contract investigation. Your familiarity with these matters is your basic tool for exploring the causes of, and contributing factors to, contract irregularities.

You must begin your investigation by methodically and carefully separating pertinent issues and reviewing completely all related records, regulations, and procedural requirements. You must approach contractors, government contracting personnel, and others connected with the issues in question on an informed and perservering basis. Appropriate curiosity is essential to definitive investigation. Take nothing for granted. Check and confirm verification information, statements, time sequences, and observations. Seek corroborative evidence. Exhaust all leads to clear up matters not fully understood or completely clear. Seek to clarify and verify dates at the beginning of the investigation. Delays may permit suspects to develop collusive measures or cover stories to alter or substitute records.

Your most valuable sources of information will be government employees. They have a basic obligation to report suspected wrongdoings. Nurture their confidence and trust. If you receive information with a stipulation of confidence, honor it.

Ex-employees are often willing to become involved in an investigation. This is particularly true if they feel they may have been unfairly treated during their employment or in connection with their separation. Review records of employees separated from government service to find those who may have observed a questioned action during their employment.

A discreet inquiry among trade groups often can produce revealing information as to whether or not procurement actions involving a particular agency or firm are "clean." And perhaps the most willing, if not the most knowledgeable, sources of information will be disgruntled, unsuccessful bidders.

Most of your human sources of information are likely to have only a general suspicion or a fragmentary knowledge of an alleged irregularity. However, some may be able to supply enough information to permit a rapid and thorough evaluation of the situation. You must use your knowledge of the contracting processes to evaluate and convert their statements into leads.

You must get full information on any allegations. They may indicate which persons and processes are suspect. If allegations are in writing, contact the writers to seek more information. Often they can provide names, dates, or places not reported initially. And check their motives for making the allegations. Anonymous allegations are often unfounded and made for ulterior motives. But you must investigate all such allegations to confirm or refute them.

Check the actions of government employees. There may have been premature and/or unauthorized release of procurement information. Contractors may have been permitted access to areas or offices where contracting actions were discussed and where prerelease information could have been obtained. Contracting officers could have failed to furnish complete information to boards of awards. Boards of awards may have failed to consider all relevant factors. This is particularly true if the senior, best-informed, or dominating member is in a position to exert undue influence. Contracting officers could have failed to enforce all provisions of a contract. Particularly open to fraud are inspections, delivery of government-furnished property, delivery schedules, or closing of completed contracts. And see if government-furnished property was released to a contractor before it was needed, enabling the contractor to use it on other products. Supervisors may have failed to ensure proper use of government-furnished or -owned property. Or they may have failed to exercise adequate controls over, or accountability for, such property, particularly upon completion of a contract.

Check inspection procedures. The preaward survey inspections may have been inadequate. The reports of inspection of the contractor's facilities may be false or misleading. Inspectors may have failed to

inspect contractor products. They may have permitted the contractor to use inferior materials. They may have allowed contractors to meet weight specifications by adding unauthorized materials. Or they may have allowed contractors to deviate from weight or density specifications. See if the contract administrator failed to document actions in the contract file that could result in savings to, or that could be detrimental to, the interest of the government.

Check the actions of contractors. Learn if gratuities were given to a government employee. See if frequent visits or telephone calls that could have gained information resulting in a more favorable position for the contractor were made to government employees. Check for substitution of rejected or substandard items with acceptable items in shipments, with or without the inspector's knowledge.

See if the contractor could have presented false data or incorrect information prior to the award of a contract. Also check specifications and sole-source procurements. Specifications can be slanted to favor the product of a particular manufacturer. And sole-source contracts must be checked to ensure that persons in engineering, supply, maintenance, or the like have not inserted specifications for their own self-interest.

FRAUD IN DISPOSAL OF GOVERNMENT PROPERTY

Defense materials like hardware and other supplies that are not consumed, as they are used eventually, become eligible for disposal through a property disposal activity. All government-owned property, including scrap, must be disposed of in a way that gives the government the most use or monetary return.

The screening of excess material is very important. Every effort must be made to learn if the government can possibly use the excess material. If the federal government cannot use the excess, then perhaps state agencies or charities eligible for limited support by the federal government can use the material. The disposal activity must take action to help interested activities obtain available property. They may circulate lists of items available for issue. They may keep records of authorized recipients' needs and screen the records against available property. They also may tag or put aside items to help prospective users find items they might want.

After use and donation screening periods expire, property becomes eligible for sale. Items for sale must meet the criteria specified in the Defense Disposal Manual 4160.21-M.

The sealed bid method is used to sell scrap, waste, or property having a commercial or technical use or interest to groups on a local, regional, or national basis. The spot bid method is used to sell property which has extensive consumer use. These spot sales, negotiated sales, and auctions are generally less time-consuming than the formal sealed bid method. Retail sales are used to sell small quantities of property appealing to individual users. Approval from the Defense Property Disposal Region (DPDR) for a retail sales program must be in writing in the Defense Property Disposal Office (DPDO) files. And property records must show the time period during which the property was made available for transfer and donation screening.

Except for retail sales conducted at the DPDO, sales offices collocated with each DPDR HQ determine the sales method. The sales offices prepare invitations for bids, maintain bidder's lists, and in general terms, execute and administer contracts.

Certain US munitions and equipment must be demilitarized before being disposed as surplus. Their military advantages, inherent in either the equipment or the material, must be destroyed. These items maybe mutilated, dumped at sea, scrapped, burned, or altered to prevent them from being used for their military and/or lethal purposes. The generating activities must show by means of demilitarization codes on the turn-in document the extent of demilitarization required for each item turned into the DPDO. But the disposal activity is ultimately responsible for ensuring that these items are not disposed of without the required action being taken.

PROPERTY DISPOSAL FRAUD

- "Salting" groups of low-cost line items with high-value items.
- Colluding to falsely downgrade the condition of property or to code it a scrap.
- Recording false scalehouse weights for vehicles removing property sold by weight.
- Concealing stolen items beneath authorized removals or scrap materials.
- Colluding to falsely demilitarize items retaining their military advantages or use.
- Manipulating accountable records to cover the loss of property diverted en route to a disposal activity.
- Granting of favoritism by sales contracting officers during the soliciting of bids and awarding of contracts.
- Falsifying the eligibility of buyers.

  Selling property at unreasonably low prices.
- Colluding to repair property at government expense before selling it at prices of unserviceable property.

CONTRACTS FOR DISPOSAL OF PROPERTY

All property sold through disposal channels, with the exception of that property which is sold through retail sales, is sold under the provisions of a legal contract and SF 114C (Sale of Government Property - General Sale Terms and Conditions). The terms of the contract and SF 114C are binding on the contractor and the government. Contracts for the sale of surplus material are negotiated through the sales offices at DPDR headquarters or defense surplus sales offices established for that purpose.

The opportunity for collusion exists in the award of contracts and in the enforcement of contracts once an award has been made. Reducing this opportunity requires the continual review of contracts and the contracting process. The contracts of bidders who are continually high bidders on certain categories of equipment must be reviewed. The type of contract that is awarded must be examined to see if the best method was used to award the contract. And attention must be paid to the award of negotiated contracts where there is an absence of competition. Changes in the terms of the original contract award or failure by the contractor to honor the terms of the contract as negotiated must also be thoroughly investigated. In oversea areas, investigation often reveals that contract provisions pertaining to the end-use of the material have not been complied with. Common violations of disposal contracts are:

- Failure of the contractor to remove material from the storage area on or before the date specified.
- Loading of material on the contractor's vehicles by employees of the disposal yard using yard equipment when the government is not required by the contract to do the loading.
- Removal of items in addition to, or more valuable than, the items that were contracted for.
- Failure to pay for material at the contracted rate.

RELEASE AND REMOVAL OF PROPERTY

Controlling the release of property at disposal activities is probably the weakest link in the internal control chain. The disposal activity must ensure that the removal is authorized. It must also ensure that the persons removing the property are properly identified and authorized to make the removal. Signature cards, letters of authorization, requisitions, and valid release documents are used to authorize release of property. Property may be released to a contractor representative only when he or she presents a Defense Property Disposal Service (DPDS) Form 1427 (Notice of Award, Statement, and Release Document). When investigating an allegation of fraud involving release or removal operations, you must check the observance of controls for issuing, loading, weighing, and documenting the release of property.

Selectively review the issuing of property to active Army organizations. See if the issues were supported by requisitions and were made to meet valid requirements. The requisitions should cite the appropriate

authorization document number and contain a certificate denoting that the property is required and authorized.

Observe loading operations. Check to see if a property disposal representative is always present to supervise the loading. Make sure the representative examines the property. It must conform to the description and quantity shown on the DPDS Form 1427. And the DPDS Form 1427 must be stamped "Paid." If the DPDS Form 1427 is not stamped, the property disposal representative must confirm the authenticity of the sale and payment with the sales officer before he releases the property.

Observe the processing of outgoing scrap shipments. See if the property to be removed conforms to that shown on the stamped copies of DPDS Form 1427. Examine the property to see if the load contains any items or scrap material that has a higher value than the property for which the contractor is paying.

Observe scale operations. Check to see if loading scales are inspected by a qualified inspector at least annually to assure accuracy. Observe the weighing of outgoing loaded vehicles. Check to see if scale weights are accurately recorded on weight tickets. If weight scales are located outside the property disposal activity, check to see if a property disposal representative accompanies the load to the scales. He must be able to verify that the load is weighed and that weights are accurately recorded.

Review the scale operator's log and weight tickets. Identify by serial number or license number the contractor vehicles that are frequently used to remove scrap material. See if any unusual patterns exist in recording the empty or loaded weights of these vehicles. If such patterns exist, check the vehicle's empty, or tare weights. If tare weights are not recorded each time these vehicles enter the property disposal yard, request, on a surprise basis, that these vehicles be weighed. Compare the results of the surprise weigh-ins with the tare weights used in previous net-weight computations. Bring any significant discrepancies to the attention of the property disposal officer. And consider having all incoming empty vehicles and frequently used vehicles weighed on a spot-check basis.

Check the procedures assuring that all loaded contractor vehicles pass weight scales and are weighed. From time to time, record the license numbers of vehicles loading scrap or leaving the area with scrap loads. Then examine the scale operator's records to see if the vehicles were weighed. If no weights were recorded by the scale operator, see if a DPDS Form 1460 (Shipment Receipt) or a DPDS Form 1427 was turned in.

If the disposal activity has term contracts for daily or weekly removal of large amounts of scrap like ferrous metal, conduct a review of documents. Determine the tare weights, gross weights, and average weight per removal for each vehicle. And if removals occur more often when a given person is operating the scales, see if he may be recording false gross vehicle weights.

CHAPTER 23

Counterfeiting

Legitimate issue of money and documents can be made only by an authorized government agency. Money and documents issued by any other source are counterfeit. Counterfeiting, because it weakens the public's trust in its government and its services, is a serious offense. The making, passing, and selling of counterfeit money or government issued documents is a felony under Title 18 of the US Code. For persons subject to the UCMJ, counterfeiting is a punishable offense under Article 134.

Memorandums of Understanding between Department of Defense and Department of Justice give the responsibility of investigating counterfeiting of US obligations to the US Secret Service. Military investigators investigate counterfeiting of DOD obligations like military payment certificates, ration cards, military passes, vehicle registrations, and similar items. But in combat areas and in countries that do not have US Secret Service agents, military investigators also investigate counterfeiting of US obligations.

US Military law enforcement agencies maintain liaison with the US Secret Service. In oversea areas, liaison is also maintained with the US State Department. Wherever they are operating, military investigators support good working relations with the local police.

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CURRENCY

The United States protects its currency by enforcing laws which prohibit counterfeiting. There are also safeguards built into currency design and production. Through liaison with the Secret Service, you can become familiar with these safeguards. They can help you recognize money which might be counterfeit.

Counterfeits usually range from deceptive to poor. A deceptive counterfeit takes more than just a cursory glance to tell the false from the real; it often requires an expert's examination. But a poor counterfeit can be readily detected by anyone having a basic knowledge of what real currency looks like.

PAPER CURRENCY

Originally, the only method of counterfeiting paper money was by engraving. Most counterfeits, today, are made by photomechanical methods. Unskilled persons with criminal intent can make good counterfeit notes on a large scale. All that is needed is a book on the photomechanical printing processes and some low cost equipment and supplies.

Offset lithography is the simplest and most common method of making counterfeit notes. About 1950, presensitized aluminum plates for offset printing were introduced. These plates, used on a small, high speed, offset press, allow fast production and long runs. Development of a photographic image of a note on the plate is done by ready-to-use methods. Instructions are printed on the containers. A beginner, following instructions, can make a plate of this type. The presensitized aluminum plate is exposed under a photographic negative of the note. Chemicals on the pretreated plate react and an image of the note appears on the plate. To print, the plate is moistened with water, which repels the ink from the nonprinting surface. The image is then inked and transferred to a rubber blanket roller which puts it on the paper.

Good counterfeit notes can also be made by straight photographic processes. Some counterfeiters, using very thin photographic paper, make separate prints of the front and back of the note they are copying. Then they glue the prints together to complete the note. Others use photographic paper that is sensitized on both sides. With this paper they get prints on both sides of the note and on the same sheet. Colors in the seal, numbers, and back of the note are often applied by hand, using photographic toners or photo coloring tints. Color photographic processes can be used, but they are not too practical. They have a high cost, a slow rate of production, and a surface gloss. Counterfeit notes also may be made using the Xerox process on a high quality paper. Bills made this way are often passed in changemaking machines, which use a scan process to check the validity of a bill.

Other counterfeiters use genuine notes, which they alter to raise the notes' value. "Raising" a $1 bill to a $10 bill is common. One way to alter a note is by pen and ink. The denomination markings or other note features are removed with abrasives. The changed design is drawn in and blended with the true features.

Another way is by the paster method. The counterfeiter tears one or two corners from notes of the same denomination. When he has four corners, he thins the corners on a good note of a smaller denomination. Then he pastes on the "new" comers, using pen and ink to blend them in.

Sometimes the pieced method is used. Different sections are tom from several notes of the same type and denomination. The torn pieces are put together to make another note. And if no more than two-fifths is torn from a real note, the note can still be redeemed for full value. Some counterfeiters split the paper of notes of several different denominations. They paste the front of the higher bill to the back of the lower bill and vice versa for the other two sections. They try to pass both notes with the higher value showing. Sometimes a counterfeited front or back is pasted on a split note. And sometimes counterfeiters bleach real notes. This removes the ink, leaving a blank piece of real currency paper. Sometimes only the denomination markings and portrait are bleached out. Using a counterfeit plate, they print notes of a higher denomination on the paper. The advantages of real paper make this method popular.

COINS

The minting of real silver coins was stopped in 1965. These coins have a true, bell-like ring that counterfeits often do not have. Real silver coins are silver-grey in color. Counterfeits are often a dull, lead grey.

The new 10-cent and 25-cent clad, or plated, coins are a bit lighter than earlier silver coins. These coins are dated 1965 and later. The surface has the same color and texture as the current 5-cent piece. A band of copper can be seen along the edge. This band turns dark during circulation. The new clad 50-cent pieces, dated 1965 and later, are identical to the earlier silver coins. Clad coins are hard to counterfeit because of their features.

COUNTERFEIT NOTES

Information about counterfeit money and US documents must be given, at once, to the closest Secret Service office. This is done even when the information seems unimportant or comes from questionable sources. Your information, when added to their files, may help piece together details of a large counterfeit ring or of the work of a suspected counterfeiter.

The Secret Service keeps a file of the work done by counterfeiters. A comparison of newly found counterfeit bills with those on file often can identify the inventor. The file also contains the denomination, type of note, check letter, faceplate number, and backplate number of known false notes. If you suspect a bill is counterfeit, these are the items of information you need to give to the Secret Service. Local standing operating procedure will tell you how to refer counterfeit cases and information to the US Secret Service.

When suspected counterfeit money is made known to you, remember that you are not the expert in deciding if the money is counterfeit. This is the responsibility of the laboratory examiners who test the currency for you. The lab examiners can give breakdowns in inks and paper. They can make detailed comparisons of counterfeit notes and coins.

And they can help identify fingerprints. But there are preliminary checks you can make to decide if suspect currency is likely to be counterfeit.

Counterfeit notes can be detected in a number of ways. They may differ in color, shade, or type of paper. They may vary in lines of design. Or they may be missing the distinctive red and blue threads which the US Treasury puts in the paper. If you suspect a bill is counterfeit, look first at the type of paper, ink, and printing technique. Then compare it with a real bill for specific evidence of counterfeiting.

Compare the texture of the papers. Usually counterfeiters use a high-grade bond paper. They soak it to give it the worn look and color of a real bill. This paper may have printed or hand-drawn red and blue fibers like those of true bills. But the fibers in a true bill can be lifted from the paper by a sharp instrument. Check for signs of watermarks on the paper by looking through the note toward a strong light. Watermarked paper is proof of a counterfeit. Check the faceplate impression. In true currency, it is larger than the backplate impression. And check the edges of the paper for signs that two pieces of thin paper have been glued together.

Compare the glossiness or dullness of the ink with the ink on a real note. Rubbing the ink off on paper or cloth is not a valid test. The ink on both real and counterfeit notes will rub off this way. Then check the features of the suspected counterfeit. The portrait on the bill is often the best indicator of a counterfeit. On a real bill, the fine crisscross lines on the background are well outlined. The eyes are clear, bright, and lifelike in the portrait. The counterfeit portrait is often lifeless in appearance. The eyes and lips of a counterfeit will often lack expression. In counterfeit bills, the background lines often appear to be almost solid black. Or there may be many white spaces showing. And the lines of the lacy design of a counterfeit bill will appear to be spotty. Instead of being smooth and even, they often appear as dots.

Examination of the treasury seal under magnification may show it lacks the heavy outline of ink used for the seal on true bills. The saw-teeth of the treasury seal in a true note are sharp and clear. In a counterfeit, they may be rounded off or almost lacking. The Latin inscription inside the true seal is legible; in many counterfeits it is not.

The serial numbers on true bills are evenly spaced and aligned. The spacing between prefix and suffix letters is the same as the spacing between numbers. Often, counterfeits are not evenly spaced and aligned. The letters and numbers also may be of a different design, shape, and appearance. The serial numbers on a counterfeit bill may differ in appearance or color from those of a true bill. And check portraits and denomination markings to detect notes whose value has been raised. All features must belong to the same denomination of note.

Most quality counterfeits are made on negatives, or plates, that have been retouched. Look for lines, dots, or printed areas that have been made heavier or extended by retouching. Look for blank areas or changes of printed areas. And look for distortion that might have been caused during the process of photography.

Counterfeit coins sometimes can be detected by you as well as by laboratory tests. If you think a coin may be a fake, compare it with a real coin of the same face value and type. Note the mint date. See if it matches the date on the counterfeit coin. Examine the quality and detail of the engraving. The edge's corrugations should appear sharp, evenly spaced, and alike.

Try rubbing the coin vigorously between the palms of your hands, against a jacket sleeve, or a piece of cloth. The heat from the friction will cause a counterfeit coin to give off a tinny odor. And sometimes fake coins feel extra greasy.

One method of testing usually done at the lab involves cutting the edge of the coin with a sharp tool. Counterfeit coins have a high percentage lead content. The outside surface may be hard to cut, but the inner metal, which is exposed on the coin's edge, will cut easily. Another method done at the lab involves mixing a solution and putting the mixture on the coin's surface. If the coin is real, nothing happens. If the coin is counterfeit, it often turns black.

DOD OBLIGATIONS AND DOCUMENTS

Black-marketing and currency manipulations can be expected in many overseas areas where US troops are stationed. To fight these problems, the DOD issues military payment certificates (MPCs) and ration cards. These are not the only government issuances. But they are the ones most often counterfeited, because they offer the greatest chance for quick profit.

MILITARY PAYMENT CERTIFICATES

The paper used for printing MPC has small red and blue plastic discs embedded init. The discs in counterfeit MPCs are often small colored dots printed on the surface of the paper. Some dots are drawn on the paper with ink. Often, no attempt is made to simulate the discs. Because the discs are scattered at random in real MPCs, some of them are inside the paper and cannot be seen on the surface. When a counterfeit MPC is held up to the light, no shadows will be seen of the discs inside. In a real MPC, many such shadows can be seen.

Real MPCs are often altered to raise the face of the bill. For example, the number 5 may be cut from a 5-cent certificate and pasted over the 1 of the 10-cent certificate so it reads 50 cents. Unless the certificates are looked at carefully, they may escape detection, because the paper and printing of the raised certificate is real.

MPCs printed on true paper give off a fluorescent color under ultraviolet light. The ink used in printing the true paper does, too. This allows large numbers of the certificates to be checked quickly by untrained people.

The fine-line designs in real MPCs are carefully done. Photochemical processes are not able to equal the line quality of real certificates. Seen under low magnification, counterfeits will show defects in the lines.

RATION CARDS

Ration cards are a control measure for post exchange and commissary items having black-market value. False ration cards are often a part of black-market operations. US soldiers are paid to use false ration cards and buy from post exchanges and commissaries. In some cases, counterfeit ID cards are used too.

The best method of detection is to compare a suspected card with a real one. False ration cards often are printed with off-color ink. And a close look will show flaws in the design, too.

INVESTIGATIVE APPROACH

The investigation of a counterfeit activity usually starts with the passing of a counterfeit. The problem is to find its source. In the Army, counterfeit money is usually passed by unsuspecting persons. Even when false bills are passed deliberately, the passer seldom carries more than one false bill at a time. That way, he may claim innocence. After a bill is successfully passed, a partner gives the passer the next false bill.

The best place to start your investigation is to ask the passer where he got the counterfeit. You should also question persons who know the passer to learn about his character and his activities. You can keep the passer under surveillance to see if he or she was aware that the money was false. If the passer is active in counterfeit rings, he may lead you to his source. You may even be led to the printing plant itself.

Because the most profitable use of false ration cards is to buy illegal amounts of rationed items, investigating these cards usually occurs as part of a black-market investigation. Finding out who buys and sells illegally-purchased items may help lead you to the counterfeiter.

CHAPTER 24

Black Marketing

The unlawful trafficking in commodities or currency is commonly called black-market activity. Black-market activities flourish whenever the availability of desirable goods is restricted to a select group or taxed beyond its economic availability to the general public.

Black-marketing theives under wartime rationing restrictions. Black-marketing also thrives when goods commonly available in developed nations are imported into developing nations on a restricted basis. And the potential for black-market activities exists whenever US forces are located in a host nation. US forces introduce, through supply and PX channels and by host nation allowances of tax exempt mail and baggage, many items that are not available to the host nation populace through commercial markets. Many of these items have potential or actual black-market value.

The impact of black-market activities on a host nation's economy can be devastating. The cost to the US of replacing military supplies and equipment that have been diverted to the black-market is expensive. And when needed supplies and equipment are not available to commanders, mission performance can be greatly reduced.

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Illegal trafficking of legally purchased PX items or of issued items of supply is a constant problem. This trafficking can be harder to stop than cargo diversions, and legal or authorized access to these items by host country and/or Third Country Nationals (TCN) also makes it difficult to halt black-marketing. Cases involving negotiable dollar instruments on the black-market need special attention, because these instruments can cause a direct dollar loss to the United States.

Black-market activities contribute to the commission of other crimes. Black-marketing can promote fraud, stealing and selling government property, counterfeiting, and forgery and drug offenses. It may also promote the violation of foreign currency exchange laws, import laws, tax laws, and status of forces agreements.

DETECTING BLACK-MARKET ACTIVITY

Black-market operations may be the result of organized or individual efforts. Often, they are the result of a combination of the two.

One type of black-market organization and operation is the black-market ring. While the type of contacts may change from one ring to another, the basic organization and its operation stay much the same. The leader and the suppliers are the most essential members in a ring. The supplier discovers a source of supply. It may be an Army facility or activity that stores, handles, or uses the item. The supplier gets the item through purchase or theft. The supplier may be a military or civilian employee at the source of supply. Or the supplier may be an acquaintance of someone who will get the item for him.

After the supplier gets the item, he takes it to the operator of a temporary storage point or uses a transporter to deliver it. The transporter may or may not be a regular member of the ring. The item is then passed, on demand, to the retailer. Sometimes a wholesaler may act for the leader and have a transporter get the item from the storage point and take it to the retailer. Or the retailer may get it direct from the warehouse. The retailer then sells the item to the consumer.

The leader may have any number of suppliers, transporters, warehousemen, wholesalers, and retailers. If he has more than one wholesaler, each will normally handle only one type of item. Most often, the only persons in the ring who have direct contact with or know the leader are the suppliers and the wholesalers.

One way to break a black-market ring is to trace commodities found on the black market. Examining these items may help you find the source of supply. When Army facilities are among the sources of supply, you may check the records of these facilities to see if items are being removed illegally. To do this you will need the help of the commanders of the facilities. Surveillance may be used to detect the supplier or the transporter. If either of them is seen, they may be placed under surveillance to find other members of the ring. You can also check on personnel or activities at the military depot or warehouse to identify ring members or persons being exploited as suppliers.

Transporters may be spotted when items in bulk storage are being removed. You may buy information from transporters. This may be easy if transporters are not members of the ring. The pay for their work may be small. They may be willing to tell what they know for a small fee or other consideration. Information may also be gained at this point in the ring's operation by planting would-be transporters. Persons like taxi drivers work well as plants in black-market areas. A retailer may approach such a plant for a one-time job. A retailer, wholesaler, or warehouseman maybe found in this manner. Another way of making contacts with retailers is by purchasing items. You may also station personnel in black-marketing locales to watch transactions. When the retailer is spotted, maintaining surveillance may reveal other members of the ring.

Large-scale diversions and inventory shortages are major signs of organized rings of black-marketeers. Good security controls over black-marketable items in supply channels can reduce these. Screening reports of supply shortages or thefts may yield important information. These reports, may be those made to the police, reports of survey, inventory adjustment reports, and the like. Because federal employment requires frequent relocation of personnel, these reports must be screened promptly. Any leads should be checked out as soon as possible. Experience will show which missing supplies are likely to go on the black market.

OBTAINING INFORMATION

People working at commissaries and post exchanges may detect irregularities on the part of fellow employees. And they may spot the sale of black-marketable items to certain individuals. Merchants often know about commodities that are being procured for the black market. The black market is competition for the merchant's business. Merchants may provide the names of persons who have such competing commodities for sale. Gateguards and taxi drivers are often good sources. Gateguards can be asked about who is taking a lot of controlled items off a compound. They can also identify the items in demand on the local black market. Taxi drivers, by virtue of the nature of their work, often come in contact with many people. They, too, may know what items are in demand. And personnel assigned to a ration control office can be good sources of information. They will provide information in the line of duty.

Men who have acquired money illegally may keep or patronize prostitutes. These women, by association with such men, may pick up information. If prostitutes can be persuaded to talk, they may give tips on men who have money in excess of normal amounts. Or they may give tips on actual black-marketeers and their operations.

Civil affairs personnel deal with the economy of a host nation area. They may be able to help you trace black-market transactions. For example, if the problem is big enough to affect the country's economy, they may be able to pinpoint where this activity exists. Such pinpointing can help you concentrate your efforts in these areas.

LOCATING A SUPPLY SOURCE

If you suspect an item on the black market is coming from a certain source, other like items at that source may be marked for future tracing. One of several inks or powders may be used for this. They are invisible unless developed by specific reagents or exposed to infrared or ultraviolet light. With commissary or PX items, you may mark the price on the items in a special ink or like substance.

With petroleum products, an identification reagent added at the POL storage and supply facilities can be used. The reagent can be detected by chemical testing after seizure of suspected petroleum products. This is normally done under the supervision of USACIDC personnel. USACIDC is responsible for local administration and control of operations where the reagent will be added. They also set the type and quantity of fuel to be identified. Normally, the additive is blended in with the POL products as the storage tanks are being filled. The proper ratios for the blending are discussed in appropriate Army Materiel Command technical bulletins. If done as described, there should be no interference in the operation of a motor. These approved additive reagents can be requested on an as needed basis. One field expedient reagent is 2 2/3 ounces of phenolphthalein in one pint of alcohol added per 1,000 gallons of gasoline. This should be coordinated with POL technical personnel.

If you have reason to believe a certain place has black-market items, you may wish to have it raided. You should consult the SJA to ascertain what authorities have jurisdiction. Civilian police may have to conduct the raid. Jurisdiction for this purpose, and with respect to the apprehension and search of persons found there, is affected by applicable treaties, laws, or other directives.

CHECKING SUSPECTS

Certain acts or conditions may show black-market involvement. A person may be suspect if he meets certain criteria. He may have more money than would normally be expected for someone of that rank or position. He may spend more money than he legally receives. Perhaps he spends large amounts on his friends. Or he may have committed allied offenses. He may purchase unusually large quantities of items. Or he may purchase items he normally does not use. A light smoker who buys large quantities of cigarettes could be suspect. A male soldier who frequently buys quantities of perfume or lipstick could be suspect. Known narcotic addicts may engage in black-marketing for money to buy drugs. Or they may obtain drugs in exchange for their services. And persons carrying a lot of goods off the compound, especially on a regular basis, may be involved in black-market activities.

If you gain enough information about a suspect to warrant an investigation, then one should be initiated. If you think a suspect has unusual amounts of money, check with the post office and finance office. In response to an official request, postal officials may provide information on the purchase of money orders. The dollar amount purchased may show that a buyer had more money than he or she might be expected to have. This information may provide grounds for further investigation. From the finance office you may learn of military personnel who have exchanged large amounts of money there. And remember that travel agencies keep records of the trips they arrange for people. Travel records also may help you spot people whose frequency of travel and constancy of destination could make them suspect.

Check on a suspect's associates. They may help you get pertinent information on the suspect. Also, a suspect's associates may disclose other members of the group. Check a suspect's habits and customs to learn about his character. This may give you some idea as to whether he would or would not engage in unlawful activities.

Check a suspect's personnel records for anything of value. Check a suspect's bank account. It may show if he has deposited more money than he is known to have

received legally. For military personnel, this check should include soldier's deposits and other authorized investments. And a check of a suspect's private property may show income exceeding that which he is known to have obtained legally.

Agencies such as the Federal Bureau of Investigation, Immigration and Naturalization Service, and Bureau of Customs may be checked in the investigation of a suspect. Local agencies often keep records that may assist you. These records may show that a suspect had money in excess of what he or she should have had legally. And civilian police records may provide information leading to a suspect, especially if they area local civilian or if they have been residing in the locale for a while.

If needed, a suspect may be put under surveillance to complete the case, You may also gain new information by letting that person lead you to others engaged in black-marketing. Surveillant may be placed at banks, finance offices, or other places that convert money instruments into dollars to watch persons who make these transactions.

CHAPTER 25

War Crimes

Investigation may be made of war crimes committed by an enemy against US personnel or of war crimes committed by US personnel against an enemy. A war crime is any violation of a law of war by any person or persons, military or civilian.

The laws of war are derived from two principal sources. They come from lawmaking treaties or conventions like the Hague and Geneva Conventions. They also come from a body of unwritten law firmly fixed by the custom of nations and recognized by authorities on international law.

The Geneva Conventions of 1949 spell out the customary laws of war. In the case of armed conflict, not *on* an international level, in the territory of one of the High Contracting Parties, each party is bound to apply some basic provisions. Persons who take no active part in hostilities shall be treated humanely. This includes members of armed forces who have laid down their arms and those removed from the conflict by sickness, wounds, detention, or other cause. No distinction in treatment will be made by race, color, religion, sex, birth or wealth, or any other similar criteria. The wounded and sick will be collected and cared for. And certain acts are prohibited at any time and place with respect to these non-participants. There will be—

- No violence to life and person, murder of any kind, mutilation, torture, or cruel treatment.
- No taking of hostages.
- No outrages upon personal dignity; humiliating and degrading treatment are expressly forbidden.
- No passing of sentences or carrying out of executions without prior judgment by a legitimate court affording all the judicial guarantees viewed as essential by civilized peoples.

More complete information about war crimes and the Geneva Conventions is contained in FM 27-10 and DA Pam 27-1.

War crimes investigations often have high-level government interest. They generate national and international news media coverage. Thus, war crimes investigations must be coordinated directly with the Army theater commander and his staff. They can deal directly with the US embassy and senior officials of an occupied country and the major combat units within the area.

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COORDINATING SUPPORT

You may be called upon by the commander to be part of a USACIDC team to investigate alleged war crimes. Your logical point of initial contact is the Army theater PM. To exploit access to the US embassy and the Army theater commander, you may ask for help from USACIDC in Washington. They can set the initial ground work with the theater commander and his staff. Gaining the help of the theater commander will hasten the initiation of steps to get the USACIDC investigation team needed support.

When the initial liaison has been made with the theater commander, help and resources from headquarters may be given to speed up the investigation. The theater headquarters can provide office space, communications, billeting spaces, and field equipment. They can also provide vehicles, priority in-country transportation via aircraft, clerical support, and partial fulfillment of interpreter requirements. Mail and DA pouch facilities are also available. And interested or involved units can be told of what is pending.

A supporting unit will be designated to help the investigative team. The supporting unit is usually, unless otherwise designated by the unit commander, one in whose area of

operation the team is working. Transportation is provided by this supporting unit as needed. A security force from the supporting unit is assigned to protect the investigators and witnesses when interviews must be in hostile areas. The size of this force often depends upon the enemy situation.

A combat arms officer is from the supporting unit assigned to the team. The officer should not be from a suspect battalion or company. If a company or battalion is involved in the investigation, the combat arms officer should be from the division or major command. The officer must have experience as a combat commander and, hopefully, also as a division staff officer. The combat arms officer develops a close rapport with the division command group and staff to gain needed support for the investigators. He advises the USACIDC team when schedules must be changed to prevent interference in division or major unit plans. He helps search for information contained in the unit files that is needed by the team. And he should coordinate your needs with the division or unit that will support the investigation.

There must be a means for reporting to the USACIDC in Washington. Message facilities, rather than voice (telephone), should be used. Messages eliminate deficiencies of the voice system like unavailability of lines and static. And the message system lessens the problems with the differences of time zones around the world. It is more secure than voice and gives an exact reference copy of the message. And it is more economical than voice.

The USACIDC team must be well supplied with proper equipment and able to operate under adverse conditions. The USACIDC team must bring the specialized equipment it will need. Typewriters, writing materials, forms, and portable files are a necessity. Maps, aerial photographs, tape recorders, or cameras may be useful. A camera and tape recorder are useful for referral to statements and individuals. Polaroid cameras should be on hand to photograph interviewees at the end of each interview. The photographs are valuable as an identification tool and maybe useful in a future trial.

In some areas the combat uniform is needed. Sometimes, civilian clothing is better. The determining factor for attire, in addition to climate and war conditions, are the witnesses. If the witnesses are more relaxed with someone in civilian clothing, then that clothing should be worn.

CONDUCTING THE INVESTIGATION

When investigating war crimes, you will work closely with the office of the SJA, which answers to the commander for the administration of war crime matters. You will also work with intelligence, counter-intelligence, and investigative agencies of both the United States and of the host nation.

When investigating war crimes, you will not discuss claims with potential claimants. Have SJA personnel on hand to answer any claims questions that arise against the US government for injuries sustained by war crimes victims and their families.

Standard interview techniques must be modified with war crimes survivors and witnesses. One problem that must be overcome is the language barrier. The investigative team must have experienced, reliable, and competent interpreters. And the interpreters must be able to convey the attitude and personality of the investigators. It is best that part of the team be fluent in languages. The investigators will be able to convey their own ideas and thoughts much more clearly to the interviewees. An alternative is to use US interpreters from a military intelligence unit or the supporting unit. But US interpreters lack USACIDC background investigative experience and the ability to reflect your personality.

A less effective alternative is to use a local national. But even with good language skills, they may hurt the investigation. Local national interpreters are often indifferent to the outcome of an investigation. They may have no patience with very old, very young, or confused witnesses. Local nationals are often unreliable or do not associate themselves with the USACIDC mission. And like US

interpreters, they lack USACIDC background and investigative experience and are often unable to reflect the personality of the investigators for whom they interpret. If US or local national interpreters must be added to the USACIDC investigation team, provisions for payment, billeting, and messing must be made.

A second problem bearing on interviews involves cultural differences. Interviewees may be not only fearful and apprehensive, they may be illiterate and/or completely unsophisticated. In some parts of the world, standard units of measure, western calendars, and direction by reference to points of the compass are nonexistent. Consideration must be made to overcome these differences.

A third problem is the human tendency of investigators to be less disciplined and systematic in their questioning when they do a long series of interviews on the same basic topic. The chief investigator can help the team by preparing a comprehensive list of key questions. Designed to elicit the most complete statements from the interviewees, it will also ensure uniformity of coverage.

Care in picking the interview site can help offset some of these problems. Interviews are best done in a desired atmosphere near the witnesses' homes. Thus, many more witnesses, including very young and very old, can be questioned and will submit to questioning. And USACIDC funds can be used to provide cigarettes, gum, and like items for interviewees. The funds also will be used to supply the team with the national currency. Thus, members can assure interviewees that they will be reimbursed for out-of-pocket expenses incurred incidental to interviews.

Submitting Evidence for Lab Examination

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING*	TRANSMITTING
		STANDARD	EVIDENCE			
ABRASIVES like carborundum, emery sand, metal filings	Label and tag container. Show type of material, date obtained, investigator's name or initials, case and evidence number.	Call lab for guidance.	Send all evidence.	No special instructions.	Use containers like ice cream boxes, metal pill boxes, or powder boxes. Seal to prevent any loss. Seal small amounts in folded paper packets, then place in container.	Send by registered mail, RR, or air express.
ACIDS	Identify as directed above.	Send up to 1 quart, but at least 15cc (1/2 ounce) if available.	Send up to 1 pint	No special instructions.	Call lab for guidance. Label "Acids, Glass, Corrosive."	Send by RR express.
ADHESIVE TAPE	Identify as directed above.	Send up to 1 foot.	Send all evidence.	No special instructions.	Place on waxed paper or cellophane. Pack in pill or powder box, paper container, or druggist's fold. Seal edges.	Send by registered mail.
ALKALIES like caustic soda, potash, ammonia	Identify as directed above.	Send up to 1 quart liquid, 1 pound solid.	Send up to 1 quart or 1 pound, but at least 15cc (1/2 ounce) if available.	No special instructions.	Call lab for guidance. Label "Alkali, Glass, Corrosive."	Send by RR express.
AMMUNITION	Identify as directed above.	If standard make, usually not necessary to send any. Otherwise, submit two rounds.	Send up to five rounds. Cite specifications and lot number if available.	No special instructions.	Pack in cotton, soft cloth in small container to prevent friction, shifting, and contact while in transit. Place in wooden box. Label "Explosive."	Send by RR express.
BLASTING CAPS	Place label and tag on outside of container. Note type of material, date obtained, investigator's name or initials, case and evidence number.	No special instructions.	Send all evidence.	**Consult with lab for guidance.**		

*In general, trace evidence should be double-packaged.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
BLOOD: Liquid	On adhesive tape on outside of test tube, write name of victim or subject, date taken, doctor's name, investigator's name, case and evidence number.	Submit 5cc (1/5 ounce) collected in a sterile test tube or Sheppard (Vac) tube.	Send all evidence.	Use sterile tube only. No preservative. No refrigerant.	Wrap in cotton, soft paper. Place in mailing tube or strong mailing carton to prevent breakage and spillage.	Send by registered mail.
		For small quantities, collect using sterile gauze.	Send all up to 1/5 ounce.	Air dry gauze.	Place in envelope, seal.	
		For drowning cases, send two specimens, one from each side of heart.	Send all evidence.	Consult laboratory if preservative is required.	No special instructions.	
	Place scrapings on paper and use druggist fold. Note type of specimens, date secured, investigator's name, case and evidence number on outside of folded paper.	Submit 5cc (1/5 ounce) blood collected from persons related to case. (See instructions for liquid blood.) Also send a control specimen of material (soil, porous matter) from which stain collected.	Send as much as possible.	Keep dry, or if partly dried, dry completely under natural conditions.	Seal tops, ends, and all folds to prevent leakage.	Send by registered mail.
BLOOD-STAINED CLOTHING, FABRIC	Use property tag and/or mark directly on clothes. Note type of specimens, date secured, investigator's name, case and evidence number.	Submit 5cc (1/5 ounce) of blood collected from persons related to case. (See instructions for liquid blood.)	Send all evidence.	If wet when found, dry under natural conditions. Use no excessive heat to dry. Use no preservative.	Wrap each article separately and identify on outside of package. Place in a strong box, packed to prevent shifting of contents.	Send by registered mail.
BODY ORGANS	Label or mark outside of container. Note victim's name, date of death, date of autopsy, name of doctor, investigator's name, case and evidence number.	Consult with lab for guidance.				

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
BULLETS	On outside of container, mark investigator's initials, date secured, case and evidence number.	No special instructions.	Send all evidence.	No special instructions.	Place bullet on cotton or soft paper. Place in pill, powder, or match box. Pack to prevent shifting of contents.	Send by registered mail.
CARTRIDGES: Live rounds	Identify as directed above.	Send two rounds.	Send all evidence.	No special instructions.	Place on cotton or soft paper. Place in pill, powder, or match box. Pack to prevent shifting in transit.	Send by UPS or by military transportation.
CARTRIDGES: Empty shells	Identify as directed above.	Send any found.	Send all evidence.	No special instructions.	When fingerprint evidence is possible, place in test tube, seal, and label.	Send by registered mail.
CHARRED OR BURNED PAPER	On outside of container note type of material, date obtained, investigator's name or initials, case and evidence number.	No special instructions.	Send all evidence.	Keep dry. Do not add moisture with atomizer or otherwise.	Pack in rigid container between layers of cotton. If fragile and brittle, consult lab for guidance.	Consider handcarrying. If necessary, send by registered mail.
CHECK PROTECTOR, RUBBER STAMP AND DATE STAMP SETS, KNOWN STANDARDS	Place case and evidence number, investigator's name or initials, date secured, name of make and model, on sample impressions.	Obtain several copies in full word-for-word order of each questioned check writer impression. If unable to forward rubber stamps, prepare numerous samples with different degrees of pressure.	Send all evidence.	Do not change the ribbon or alter the inking. Also see Typewriter specimens.	Wrap securely to prevent shifting or damage. (For transmitting standards, see DOCUMENTS.)	Send by registered mail.
CLOTHING, FABRIC	Attach property tag and/or mark directly on material. Note type of evidence, investigator's name, date, case and evidence number.	No special instructions.	Send all evidence.	Leave clothing whole. Do not cut out stains. If wet, air dry before packing. For gunpowder residue, avoid shaking.	Wrap each article individually. Identify article on outside of package. Place in strong container. For gunpowder residue, fold fabric flat, placing clean paper between folds, and wrap so no residue is lost through friction.	Send by registered mail.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
DOCUMENTS: Anonymous letters, Codes, Ciphers, Extortion letters, Fraudulent checks, Questioned and secret writings, Hand written and printed specimens, handwriting, handprinting, and forgeries Known standards or exemplars. (See also CHARRED OR BURNED PAPER.)	Place in paper envelope, seal and date. Place investigator's initials, case and evidence number on envelope.	Submit as many samples as possible of suspect's handwriting. Include sample of words used in questioned letters, if possible. For checks, obtain genuine cancelled checks. Submit fingerprint cards for all persons known to have handled document.	Send all evidence. Include original envelope. Advise if letter should be treated for latent fingerprints. Advise which parts are questioned and which are known.	Do not handle with bare hands.	Place in paper envelope inside manila envelope after inserting stiff backing to prevent bending or folding. Seal and mark for identification. Wrap securely. If burned and/or brittle, call lab for guidance.	Send by registered mail.
DRUGS: Liquid	Label or mark bottle in which found with investigator's name, date obtained, case and evidence number.	No special instructions.	Send not less than 15cc (1/2 ounce), if available.	No special instructions.	If bottle does not have stopper, transfer contents to screw-topped bottle and seal with adhesive tape. Mark "Fragile." Ensure against breakage.	Send by registered mail or RR or air express.
DRUGS: Powder, pills, and solids.	Label or mark outside of pillbox with investigator's name, date obtained, case and evidence number.	No special instructions.	Send all evidence.	Guard against pill breakage.	Seal with tape to prevent spillage.	Send by registered mail or RR or air express.
DYNAMITE, OTHER EXPLOSIVES	Call lab for guidance.	Send all evidence. Do not forward until advised to do so by the lab. Packing instructions will be given at that time.				
FIREARMS	Attach property tag with identifying data. Mark investigator's initials and date on barrel, frame, and slide or cylinder.	No special instructions.	Send all evidence.	Keep from rusting. Unload all weapons before shipping. Do not unload magazines. Identify location of each round on revolver cylinder. Advise if firearms are to be examined for fingerprints.	Wrap each piece separately in paper and identify contents on package. Place in cardboard or wooden box. Pack to prevent shifting while in transit. Label "Firearms."	Send by registered mail.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
FUZE (safety)	Attach property tag and/or gummed paper label with investigator's name, date obtained, case and evidence number.	Send a one-foot section.	Send all evidence.	No special instructions.	Place in manila envelope, box, or suitable retainer.	Send by registered mail or RR or air express.
GASOLINE	Label or mark outside of all-metal container. Note type of material, investigator's name, date obtained, case and evidence number.	Send up to 1 quart.	Send up to 1 gallon.	Use only a fireproof container.	Use a metal container packed in wooden box. Label "Gasoline."	Send by RR express.
GLASS FRAGMENTS	Separate questioned and known items. Mark investigator's name, date obtained, case and evidence number on outside of sealed containers.	Submit fingerprint cards for all persons known to have handled glass.	Send all evidence.	Avoid chipping.	Wrap each piece separately in paper. Pack in a strong box to prevent shifting and breakage Identify contents. Mark "Fragile."	Send by registered mail.
HAIRS, FIBERS	Label or mark outside of container. Note type of material, date obtained, investigator's name, case and evidence number.	Submit about 15 pulled hairs from each part of head or body in question. Keep hairs from various parts separate.	Send all evidence.	Do not use envelopes.	Wrap specimen in paper, using druggist fold. Seal edges and openings with scotch tape or adhesive tape. Place in container and seal.	Send by registered mail.
IMPRESSIONS: Plaster casts, Tire treads, Footprints	On back of cast before it hardens, mark investigator's initials and date.	No special instructions.	Send up to 2 feet.	No special instructions.	Wrap each cast in soft paper or cotton, surround with packing material in box to prevent shifting or breakage. Label "Fragile."	Send by registered mail.
IDENTED WRITINGS	(See also DOCUMENTS.)	Original writing, if available.	Send all evidence.	(See CHARRED PAPERS.)		Send by registered mail.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
MATCHES	Mark or label outside of container. Note type of material, date obtained, investigator's name, case and evidence number.	Send one to two books of paper matches, one full box of wooden matches.	Send all evidence.	Keep away from fire.	Pack in a metal container then pack in larger package to prevent shifting. Label "Keep Away From Fire."	Send by registered mail or express.
METAL	Identify as directed above.	Send up to 1 pound or 1 foot.	Send all evidence up to 1 pound or 1 foot. Provide melt number, heat treatment, and other specifications of foundry, if available.	Keep from rusting.	If metal is solid, wrap in paper. Use paper boxes or containers for filings. Seal, pack in strong paper or wooden box.	Send by registered mail, RR, or air express.
OIL	Identify as directed above.	Send up to one quart. Include specifications.	Send all evidence up to 1 quart.	Keep away from fire.	Place in metal container with tight screw-on top. Pack in strong box, using excelsior or similar material.	Send by RR express.
PAINT: Liquid	Label or mark outside of container. Note type of material; origin if known; date obtained, investigator's name, case and evidence number.	Send up to 1 quart.	Send all evidence up to 1 quart.	No special instructions.	Use a friction-top paint can or large-mouth screw-top jars. If glass, pack in heavy corrugated paper or wooden box to prevent breakage.	Send by registered mail, RR, or air express.
PAINT: Solid (dried)	Identify as directed above.	Send at least 1/2 square inch, if available.	Send all evidence. If paint is on small object, send object.	Wrap object with smears or chips to prevent paint from coming off. Do not pack paint chips in cotton or secure with scotch tape or adhesive.	Wrap chips of paint in paper, using druggist fold. Seal to prevent spillage. Do not use envelopes.	Send by registered mail or RR or air express.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
ROPE, TWINE CORDAGE	Tag and/or mark container. Note type of material, date, investigator's name, case and evidence number.	Send up to 2 feet.	Send all evidence up to 2 feet or more (if applicable).	No special instructions.	Wrap securely in clean paper. If strands or fibers, use druggist fold in pillbox. Seal edges and openings with scotch or adhesive tape.	Send by registered mail.
SAFE INSULATION, SOIL	Label or mark outside of container. Note type of material, date obtained, investigator's name, case and evidence number.	Send at least 1/2 cupful. Also send "alibi" standard.	Send all evidence up to 1 pound.	Avoid use of glass containers.	Pack in an ice cream box, pill box, powder box, or the like. Seal edges and corners to prevent spillage.	Send by registered mail or RR or air express.
SEMEN STAINS	Tag and/or mark article. Note type of material, date obtained, investigator's name, case and evidence number.	No special instructions.	Send entire article.	Air-dry. Avoid friction with stained area. Do not roll item. Do not fold or crease stained area. (See BLOOD-STAINED CLOTHING.)	Fold carefully, protect area with clean paper. Pack to prevent shifting in transit.	Send by registered mail.
TOOLS	Label and/or tag tool. Note type of tool, investigator's name or initials, case and evidence number.	Send the tool.	Send all evidence.	No special instructions.	Wrap each tool in paper. Pack in a strong cardboard or wooden box to prevent shifting.	Send by registered mail or RR or air express.
TOOLMARKS	Tag and/or mark object on the opposite end from where toolmarks appear. Note investigator's name, date obtained, case and evidence number.	Send the tool.	Send all evidence.	Cover ends of object bearing toolmarks with soft paper, and wrap with strong paper to protect ends. Keep questioned specimens separate from known standards.	After marks have been protected, wrap in strong wrapping paper, place in a strong box, and pack to prevent shifting.	Send by registered mail, RR, or air express.

	MARKING	DETERMINING AMOUNT		PRESERVING	PACKAGING	TRANSMITTING
		STANDARD	EVIDENCE			
TYPEWRITING	Place investigator's name or initials, date obtained, serial number, name of manufacturer and model of machine, and case and evidence number on printed side of paper.	Remove single-pass ribbons before obtaining standards. Send at least one copy in full word-for-word order of questioned typewriting. Attempt to copy the degree of touch on the questioned document. Also, send standard and carbon paper samples (call lab for instructions) of every upper and lower case character on the keyboard. For short texts, provide 3 to 4 copies.	Send all evidence.	No special instructions.	Wrap securely.(See also documents.)	Send by registered mail.
URINE, WATER	Label or mark outside of container. Note type of material, name of subject, date taken, investigator's name, case and evidence number.	Consult with lab for guidance.		Keep samples separate.	Seal bottle and pack, surrounded by absorbent material in a strong cardboard or wooden box to prevent breakage.	Send by registered mail.
WIRE	On label or tag, note type of material, date obtained, investigator's name, case and evidence number.	Send a one-foot section.	Send all evidence.	Keep questioned specimens separate from known standards.	Wrap securely. Pack to prevent friction, shifting, breakage, or contact while in transit.	Send by registered mail.
WOOD	Identify as directed above.	Send a one-foot section.	Send all evidence.	Keep questioned specimens separate from known standards.	Wrap securely. Pack to prevent friction, shifting, breakage, or contact while in transit.	Send by registered mail.

Glossary

ACRONYMS AND ABBREVIATIONS

AD	anno Domini
AL	Alabama
AM	amplitude modulated
AR	Army regulation
Aug	August
AUSA	Assistant United States Attorney
AUTOVON	automatic voice network
BC	before Christ
bde	brigade
BEQ	bachelor enlisted quarters
bldg	building
bn	battalion
cal	caliber
cb	citizens band
cc	cubic centimeters
CID	Criminal Investigation Division
CIDF	Criminal Investigation Division Form
CIDP	Criminal Investigation Division Pamphlet
CIDR	Criminal Investigation Division Regulation
co	company
comd	command
CONUS	Continental United States
DA	Department of the Army
DEA	Drug Enforcement Administration
Dec	December
DET	diethyltryptamine
div	division
DMT	dimethyltryptamine
DOD	Department of Defense
DPDO	Defense Property Disposal Office
DPDR	Defense Property Disposal Region
DPDS	Defense Property Disposal Service
EECI	essential elements of criminal information
engr	engineer
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FM	frequency modulated
FO	field office
ft	fort
fwd	forward
GTA	graphic training aid
HHC	headquarters and headquarters company
HQ	headquarters
ID	identification
inf	infantry
JAGC	Judge Advocate General's Corps
Jan	January
Jul	July
LO D	line of duty
LSD	lysergic and diethylomide
Mar	March
MCM	Manual for Courts-Martial
MDA	amphetamine variant
mech	mechanized
ml	milliliter
mm	millimeter
MO	modus operandi
MP	military police
MPC	military payment certificate
N	north
NA	not applicable
NCIC	National Crime Information Center
NCO	noncommissioned officer
Nov	November
NSN	national stock number
OCIR	other criminal information requirements
PCP	phencyclohexyl peperidine hydrochloride
PM	provost marshal
POV	privately owned vehicle
PX	Army exchange
RCM	Rules for Courts-Martial
rec'd	received
reg	regular
rel	released
ret	returned
ROI	Report of Investigation
RR	railroad
SA	special agent
SF	standard form
SIR	serious incident report
SJA	Staff Judge Advocate

SP4	Specialist 4
SQT	skill qualification test
SSG	staff sergeant
STANO	surveillance, target acquisition, and night observation
TCN	Third Country Nationals
TDA	tables of distribution and allowances
THC	tetrahydrocannabinol
TOE	table(s) of organization and equipment
UCMJ	Uniform Code of Military Justice
UPS	United Parcel Service
US	United States (of America)
USACIDC	United States Army Criminal Investigation Command
USACIL	United States Army Criminal Investigation Laboratory
USACRC	United States Army Crime Records Center
USAFAC	United States Army Finance and Accounting Center
USAMPS	United States Army Military Police School
VA	Veterans Administration
VIP	very important person
w/	with

References

REQUIRED PUBLICATIONS

Required publications are sources that users must read in order to understand or to comply with FM 19-20.

AR 195-5 Evidence Procedures

CIDR 195-5 Criminal Information Program

FM 19-10 Military Police Operations

Manual for Courts-Martial, United States, 1984

Uniform Code of Military Justice, 1984

RELATED PUBLICATIONS

Related publications are sources of additional information. Users do not have to read them to understand FM 19-20.

ARMY REGULATIONS (AR)

1-4 Employment of Department of the Army Resources in Support of the United States Secret Service

1-32 Disciplinary Control of US Army Personnel

10-5 Department of the Army

10-6 Branches of the Army

10-23 US Army Criminal Investigation Command

20-1 Inspector General Activities and Procedures

27-1 Judge Advocate Legal Service

27-10 Military Justice

27-20 Claims

27-50 Status of Forces Policies, Procedures, and Information

36-2 Processing Internal and External Audit Reports and Follow-up on Findings and Recommendations

36-5 Auditing Service in the Department of the Army

37-9 Validation of Disbursements Potentially Subject to Fraud or Improper Payment

37-12 Interfund Billing, Collecting, and Reporting Procedures

37-27 Accounting Policy and Procedures for Intragovernment Intradefense, and Intra-Army Transactions

37-49 Budgeting, Funding, and Reimbursement for Base Operations Support of Army Activities

37-103 Finance and Accounting for Installations: Disbursing Operations

37-104-3 Military Pay and Allowances Procedures: Joint Uniform Military Pay System (JUMPS-Army)

37-106 Finance and Accounting for Installations: Travel and Transportation Allowances

37-107 Finance and Accounting for Installations: Processing and Payment of Commercial Accounts

37-110 Budgeting, Accounting, Reporting, and Responsibilities for industrial Funded Installations and Activities

40-31 Armed Forces Institute of Pathology and Armed Forces Histopathology Centers

40-66 Medical Record and Quality Assurance Administration

55-1 CON EX/MILVAN Equipment Control, Utilization and Reporting

55-355 Interstate Commerce Commission

75-14 Inter service Responsibilities for Explosive Ordnance Disposal

75-15 Responsibilities and Procedures for Explosive Ordnance Disposal

190-11 Physical Security of Arms, Ammunition and Explosives

190-13 The Army Physical Security Program

190-14 Carrying of Firearms

190-21 Security Identification Credentials and Application

190-22 Searches, Seizures and Disposition of Property

190-24 Armed Forces Disciplinary Control Boards and Off-installation Military Enforcement

190-27 Army Participation in National Crime Information Center (NCIC)

190-28 Use of Force by Personnel Engaged in Law Enforcement and Security Duties

190-30 Military Police Investigations

190-31 Department of the Army Crime Prevention Program

190-45 Records and Forms

195-1 Army Criminal Investigation Program

195-2 Criminal Investigation Activities

ARMY REGULATIONS (AR) CONTINUED

195-3 Acceptance and Accreditation of Criminal Investigative Personnel
195-4 Use of Contingency Limitation .0015 Funds for Criminal Investigative Activities
195-5 Evidence Procedures
195-6 Department of the Army Polygraph Activities
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*USACIDC forms, pamphlets, regulations, and USACIDC supplements to Army regulations are available on request from Commander, USACIDC, ATTN: CIPA-AD, 5611 Columbia Pike, Falls Church, VA 22041

**USAHSC supplements to Army regulations are available on request from Commander, US Army Health Services Command, ATTN: HSAG-P, Fort Houston, TX 78234-6000.

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