This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
Table of Contents

Introduction........................................................................3

Reponses based upon threat assessment............4

Handcuffing........................................................................9

Searching suspects..............................................................10
**INTRODUCTION**

This study guide is designed to provide the law enforcement explorer with the basic principals concerning arrest and search procedures. This guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide, should allow the law enforcement explorer to successfully handle various law enforcement situations safely and professionally. The principals in this guide are utilized by the Federal Law Enforcement Training Center to train federal officers and agents from more than 72 federal agencies.

**THREAT ASSESSMENT**

There is an inherent danger associated with the law enforcement profession. Whether an officer is in a metropolitan area or a rural community, wearing a badge and a gun will put him in dangerous situations.

Threat assessment is the act of becoming aware of a situation directly through the senses, including hearing and seeing, thereby making a reasonable determination about the risks involved. Any suspect potentially can be assaultive and use deadly force. However, approaching every suspect in a high-risk mode (e.g., guns drawn) would be unreasonable. There can be many articulable facts that support threat assessment. Some of the facts used in this judgment decision are listed below; it is not a comprehensive list:

- NCIC Information
- BOLO Information
- Physical actions
- Suspect statements and/or spontaneous utterances
- Suspicion level - Some or Mere/Reasonable/Probable Cause
- Time of day
- Number of officers/suspects
- Size & ability of officers/suspects
- Prior history/Criminal History
- Officer’s experiences
- Age - Officer vs. Suspect
- Visible awareness - visible weapons/unusual bulges/unusual nervousness/hands in view
- Frailness of suspect
- Physical/mental disability of suspect
- Magnetometer results

Some of the facts above can be aggravating or mitigating. For example, if the suspect is elderly his age could be a mitigating factor reducing the perceived threat level. Remember, no matter what age a suspect is, guns are the great equalizers. Remember, no matter what age a suspect is, guns are the great equalizers. In 1997 at Calexico, California, a seventy-four year-old man was
taken to be searched after a Customs Canine Enforcement Officer's dog alerted on his vehicle for narcotics. In the search room the elderly man shot two officers. One of the injured officers returned fire and stopped the attack. His shots killed the suspect.

In addition to the prior list, there are also a number of articulable verbal and nonverbal signals that indicate an assault is probable or even imminent. Assessing behavior and preventing a physical assault should be accomplished whenever possible. It is critical for an officer to recognize and assess aggressive verbal and physical actions of a person. Recognizing verbal and nonverbal aggressive behavior signals will aid the officer in preventing and de-escalating situations. Also, it prepares the officer mentally and physically to take immediate counter actions should a physical assault occur.

Before physical action by an aggressor occurs, that individual usually begins to threaten to attack, in an attempt to intimidate the opponent, through a process sometimes called posturing, ritualized combat, or affective aggression. These “pre-assault indicators” are listed below. This is not an all-inclusive list:

- Verbal aggression - yelling, swearing, etc.
- A change in posture - stands taller, sets head and shoulders, moves away/moves closer, points, forms fist and/or loads the arm.
- Face becomes red, lips separate to show teeth, breathing becomes faster, and perspiration appears on the skin.
- Individual ignores others, looks away or stares through people.
- Creates a false sense of security by becoming very cooperative or acting incapacitated.
- Aggression redirected to something/someone else, such as breaking pencils, kicking, chairs, yelling at bystanders
- Individual's stance changes - blades body, lowers center of gravity, shifts weight.
- Lips become tight as breathing, though still rapid, deepens. The face loses its flush to become pale.
- Hands tighten, open or closed, arms and shoulders will shift.
- Individual may bob or rock while shifting eyes to possible targets.
- Individual may stop all motion in defiance.
- Head will come down, chin tucked, eyebrows tightened and dropped.

RESPONSES BASED UPON THREAT ASSESSMENT

**Position of advantage**

Officers should position themselves so they have a position of advantage over those persons they contact. Threat assessment is the key to determining which position of advantage an officer should use. Positions of advantage can provide safety but must be balanced with efficiency. For example, when issuing the driver of a vehicle a speeding ticket the officer notices a weapon. It is likely that he will go from a position of low hands ready to a position of cover/distance and a high ready (pistol) position. Why not take the position of cover before seeing the weapon? Safety vs. efficiency, he cannot issue routine traffic tickets from behind cover. However, by being alert he can maximize his safety even during face-to-face encounters. Remember an
officer’s position of advantage changes based on his threat assessment because different situations necessitate different positioning. No two situations are exactly alike.

**Field Interview Stance**
The purpose of the field interview stance also known as the field interrogation stance or F.I. stance is to give the officer a proactive non-aggressive approach to self-defense. Officers should be in a F.I. Stance whenever they are armed and near any member of the public. To assume this stance, an officer must blade the trunk of his body with the gun (dominant) side turned away from the person addressed. He positions his feet about shoulder width apart, with the knees slightly bent to have good balance. The non-dominant leg is forward and the dominant leg back. He distributes his body weight equally to allow for quick movement in any direction. He keeps his arms close to his sides, his dominant arm’s elbow close to his handgun and his hands near his centerline. The non-dominant hand is used for gesturing if necessary. This position keeps the officer's firearm farther away from a potential threat.

**Low Ready Position**
The low hands ready position is almost the same as the F.I. Stance except the hands are held just up from the waist line in a palms down manner almost as if to gesture “calm down.” This hand position is a very good method to calm or keep a situation non-aggressive while ensuring the officer is ready for self-defense against a spontaneous face-to-face attack. This position should be used during any low threat face-to-face detention or arrest.

**High Ready Position**
The high ready position is slightly different than the low ready position. In the high ready position, the officer’s hands are brought up to protect the head, while simultaneously widening their feet and lowering their center of gravity. Widening the feet is known as “getting a base”. When getting a good base, the officers should have their feet more than shoulder width apart (wide), there feet should be offset, with the non-dominant foot forward (deep), and they should lower their center of gravity keeping their head over their center. This allows the officer the best position for defending themselves and allows for tactical movement.

When moving to the high ready position, the officer should provide loud verbal commands to the suspect such as “get back, don’t resist”. This asserts that the officer is in control of the arrest situation as well as identifying to the suspect and other possible witnesses what the officer wants the suspect to do.

**Contact and cover**
Contact and cover is a principal that allows multiple officers to control subjects during a law enforcement encounter. Designated roles of contact officer and cover officer are given so the responsibilities of the officers at the scene of an enforcement situation are clearly defined. Having clearly defined responsibilities will provide greater safety for all officers. When referring to safety most officers think about preventing an assailant, not a partner, from hurting them. Contact/cover procedures are safer than working alone only if each person understands how to work with a partner. If the officers do not understand how to work as a team, there is little benefit to having a partner. In fact, a partner can actually hurt other officers through accidental shootings or creating a false sense of safety.
The contact officer is responsible for communication with the suspect and such things as recording incident information, searching suspects, issuing citations, and radio communications. The cover officers are there for scene safety, to witness/back up the contact officer, for control of all suspects, and to ensure integrity in the chain of custody for evidence.

When positioning themselves, the officers should approach the suspect in what is known as a tactical “L” position. This is when the contact officer is position in front of the subject at a slight angle, and the cover officer positions themselves just outside the peripheral vision of the subject. The positioning allows both officers to observe the subject(s) without getting involved in a crossfire situation.

**Arriving on scene**
When arriving on scene, or sometimes prior to arriving on scene, a law enforcement officer will start the threat assessment process as was described earlier in the study guide. When the officer physically arrives on scene, they can assess some of the physical characteristics that can be used to their advantage such as cover and concealment.

**Cover**
The term "cover" for law enforcement officers means an object or barrier that stops, deflects or substantially slows down bullets. Cover is better than concealment for officers in a high-risk situation because it provides better protection. Cover will change depending upon the type of weapon and bullets used. Some commonly available types of cover include:

- Ballistic shields
- Car engine blocks
- Car tires (brakes and brake drums)
- Metal or concrete structural columns
- Corners of buildings
- Large trees
- Mail boxes
- Dumpster
- File cabinets filled with paper files
- Structural columns

**Concealment**
The term "concealment" means something that can hide a person from view but that would not stop bullets. Although cover is preferable to concealment, concealment is better than plain view when officers are in a high-risk situation. The following are some examples of concealment:

- Darkness/shadows
- Car doors
- Residential trash cans
- Shrubs and small trees
- Most office walls, made of concrete blocks or sheet rock
- Partitions
Barriers
A barrier is an object that will stop a suspect from having a clear path to the officer. Barriers can be as simple as a table, a desk, a car or any other object that a suspect will have to go around or over before accomplishing a hand-to-hand attack. A barrier is very useful during routine administrative functions and in lower threat enforcement situations. A barrier may not necessarily stop bullets or provide concealment. Therefore, good cover should be sought in those situations. By using a barrier, the suspect may never attack an officer even though the suspect has the ability and intent to do so. The presence of a barrier may prevent the suspect from having the opportunity to assault and may allow an officer to use non lethal control options.

Relative Positioning
Relative positioning describes the placement of officers in comparison to the suspect. One method used to describe the relative positioning uses the number zero as the position directly in front and three as the position directly behind the suspect. The number two represents the position out from either shoulder. Another method uses compass degrees such as zero, 90, 180, and 270. Regardless of the numbering system used, the approach and subsequent contact of any suspect should be initiated from specific angles or avenues to provide the officer with a physical advantage and a greater margin of safety. These angles are used in enforcement situations where a distance interval has been established with the suspect such as during an interview or when an attempt is being made to control the suspect using an intermediate weapon. For an officer with a firearm aimed at a suspect, the changing of the officer’s relative positioning may allow for target isolation, keeping innocent persons out of the sight picture.

Communication Skills
An officer’s communication can be broken down into three categories: officer presence, verbalization, and listening, all of which are part of a continuous communication process. Ninety seven percent of law enforcement work involves communicating with the public. An officer can inflame a situation through miscommunication or misinterpreting the communication received. The officer can also de-escalate a potentially violent situation through appropriate application of good communication skills. It is always better to talk someone into voluntary cooperation than to fight them into compliance.
**Officer presence**
The mere presence of an officer on the scene can sometimes defuse a volatile situation and prevent an assault. Command presence, which includes the officer’s appearance, mannerisms, tone of voice, posture, gestures, facial expressions, and eye contact, should convey a sense of authority, tempered with compassion. Like actors, officers need to change their nonverbal and symbolic communication for varying situations. In some situations, officers must be a compassionate and caring friend to a victim while other situations may require the stoic enforcement of an unpopular law. Remember it is human nature to make judgments about how someone looks and everything else being equal, a suspect is more likely to challenge an officer who looks inattentive and weak.

**Verbalizing**
The goals of verbal communication for the law enforcement officer are to direct, to control, and to gather information. Officers should make every effort to de-escalate situations by voice commands and by asking for cooperation. The words used and the tone of voice must convey the message the officer wants to send. Eliminate barriers to communication. When giving directions, keep it simple.

**Low Threat Assistance/Interview Situations**
When dealing with compliant suspects and passive resisters, verbal commands and requests for assistance are often adequate to accomplish the desired behavior. Always calibrate the intensity of voice to the context of the situation. Ask them their name: personalize the interaction. Give them options, and point out why they would want to cooperate. With victims, provide psychological first aid. Paraphrase their responses and meaning.

**High Threat/Assaultive Situations**
Be firm, authoritative. Tell them specifically what they must do. Do not use threatening or fighting words or profanity. Continue to give commands while employing other use of force options. When working with a partner, do not give conflicting commands.

**Emotionally Disturbed Persons/Abnormal Behavior**
Abnormal Behavior can be caused by a variety of conditions, including diminished mental or emotional capacity, drug and alcohol influences, and numerous medical conditions. While generally not dangerous, many people displaying abnormal behavior are highly unpredictable. They are easily frightened and often do not understand simple commands. Techniques for handling abnormal behavior include using extreme caution, assessing the cause of the behavior, calling for assistance, speaking slowly and softly, removing distractions, explaining actions in advance, and using physical contact as a last resort.

**Listening**
Listening is a critical part of the officer’s job. Almost all aspects of law enforcement involve active listening. Hearing is not the same as listening. Listen for the intended meaning of the words used. Listen for feelings and emotions involved. Listen for the nonverbal sounds that indicate understanding. Listen for verbal clues that could indicate an attack. Words and actions should match. Listen for communications/signals between suspects. Listen for tone of voice and
volume. A change in tone or volume could indicate a change in intent. Listen for clues of compliance or surrender. Listen to other officers on the scene: send the same message.

During high stress situations, people often experience auditory exclusion, where the ability to hear is diminished or distorted. For that reason, during most high threat situations (rapid raids, suspect with a weapon) officers should speak loud, clear, and concise using short repetitive commands. Officers should identify themselves as the police to keep it simple and clear. Over accentuate the word “POLICE” so that it will not be confused with the word “PLEASE”, which may happen when it is said rapidly under stress. In extreme situations such as an assault be sure to yell commands loud enough to warn innocent bystander and to get backup.

**HANDCUFFING**

**Handcuffing**
Regardless of the specific type of technique or style used to handcuff a suspect there are a few principles that are common to any handcuffing:

**Position of Advantage/Disadvantage**
Before attempting to apply handcuffs on a suspect, the officer should be in a position of advantage. This usually means the officer is behind the suspect and the suspect is positioned standing with his feet spread wide, toes out and hands behind his back. The kneeling position of disadvantage is with the suspect’s knees together, ankles crossed and sitting back on his ankles with his arms behind the back. The prone position of disadvantage is with the suspect’s feet spread wide, toes out and arms out to the side with his palms up. When positioning the suspect for handcuffing, the officer should have cover officers and distance (minimum of >5 ft. for low threat) and, if necessary, using cover/concealment/barriers. During a face-to-face interaction that spontaneously becomes a handcuffing situation, it is unlikely that distance or cover will be used. Instead, the officer would likely keep close contact to the suspect and direct him to the proper handcuffing position.

**Speed Counts**
Once in the contact zone (0-5 feet) and the decision to handcuff has been made, get the handcuffs on quickly. Do not get caught up about what direction the keyholes are facing. It is important to have the suspect’s thumbs up and palms out but during a noncompliant arrest even this consideration is not weighted heavily.

**Handcuff Suspects behind Their Back**
For different handcuffing styles, the suspect’s hands may start in a different position (i.e. on the head), but once both handcuffs are on, the suspect’s hands must finish behind his back. Preferably with the palms out and thumbs up. If the suspect cannot bring his wrists close together behind his back, then two sets of handcuffs secured together may work. Physical restrictions of the suspect, length of time in the handcuffs, court orders and other considerations may justify handcuffing the suspect with his hands in front even though it is less safe. If handcuffing in front, use a martin chain (belly chain).

**Proper Placement**
Apply the handcuffs around the notches at the wrist, the styloid process of the radius and ulna. Ensure they are properly tightened so that circulation is not cut off to the suspect’s fingers and so
the suspect cannot slip out of the handcuffs. Never leave handcuffs applied over the suspect's clothing i.e., jacket sleeves, because it gives a false sense of tightness and the suspect may easily slip out of the cuffs.

**Double Lock**
Always double lock the handcuffs before transporting a suspect. This is usually done immediately after tightening although during multiple arrests and other extenuating circumstances it may be better to temporally delay double locking the handcuffs for tactical purposes.

**SEARCHING SUSPECTS**

**Principles of Searching**
The following are principles of doing a hands-on search of a suspect. Individual techniques will vary but these general principles should be followed.

**Position Of Disadvantage**
Based on the threat assessment the suspect must be in a position of disadvantage. This is done to allow for an easier search and to prevent the suspect from harming the officers. Positions of disadvantage may include standing, kneeling or prone positions.

**Holstered Weapon**
The searching officer must not search with his firearm drawn although cover officers may have a weapon drawn under appropriate circumstances. If prior to the search the officer’s firearm was out, such as during a weapon recovery, the firearm must be holstered securely prior to any searching of the suspect.

**Ask About Sharp Objects**
Ask the suspect if he is carrying any needles or sharp objects before the search begins. This question is not a violation of *Miranda* regardless of whether the *Miranda* rights have been read or invoked. Visually inspect personal property before physically searching. Smaller bags and purses may be carefully emptied and contents visually examined before being handled.

**Wear Gloves**
If an officer who is not wearing gloves encounters soiled or possibly contaminated clothing, he must wash or wipe his hands immediately and put on a pair of gloves before continuing the search. If it is necessary to handle soiled articles as the search continues, do so with extreme caution. If a hypodermic needle, knife or other sharp object is found, one option is to carefully place it in a puncture resistant container.

**One Searching Officer**
Only one officer should conduct the search of the suspect. This does not preclude a backup officer from helping to restrain the suspect rather; if more than one person conducts the search areas are often overlooked.

**Systematic and Thorough**
The search should be done in a systematic and thorough manner. There must be a logical sequence to the search or the searcher will miss something. Head to toe and back to front is a simple systematic method. An officer looking where he is searching will also help.

**Feel, Crush, and Twist**
To prevent accidental punctures the technique of feeling, crushing, and twisting the clothing is used. Conduct a lighter feel search of the areas where needles and sharp items may be located before employing the crush/twist search. Never reach into a pocket without first feeling the outside. There should not be hand to skin (underneath clothing) contact unless necessary to recover something during the search.

**Secure Items**
All items taken from the suspect should be secured by the searching officer or a backup officer unless it is too dangerous to handle.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
BOMB THREAT RESPONSE STUDY GUIDE

EVALUATION CRITERIA

Foreword
Bombing and the threat of being bombed are harsh realities in today's world. The public is becoming more aware of those incidents of violence that are perpetrated by vicious, nefarious segments of our society through the illegal use of explosives. Law enforcement agencies are charged with providing protection for life and property, but law enforcement alone cannot be held responsible. Every citizen must do his or her part to ensure a safe environment.

This pamphlet is designed to help both the public and private sectors prepare for the potential threat of explosives-related violence. While the ideas set forth herein are applicable in most cases, they are intended only as a guide. The information provided is compiled from a wide range of sources, including the actual experiences of special agents of the Bureau of Alcohol, Tobacco and Firearms (ATF).

If there is one point that cannot be overemphasized, it is the value of being prepared. Do not allow a bomb incident to catch you by surprise. By developing a bomb incident plan and considering possible bomb incidents in your physical security plan, you can reduce the potential for personal injury and property damage.

In making this pamphlet available to you, we hope to help you better prepare to deal with bomb threats and the illegal use of explosives.

Bombs
Bombs can be constructed to look like almost anything and can be placed or delivered in any number of ways. The probability of finding a bomb that looks like the stereotypical bomb is almost nonexistent. The only common denominator that exists among bombs is that they are designed or intended to explode.

Most bombs are homemade and are limited in their design only by the imagination of, and resources available to, the bomber. Remember, when searching for a bomb, suspect anything that looks unusual. Let the trained bomb technician determine what is or is not a bomb.

Bomb Threats
Bomb threats are delivered in a variety of ways. The majority of threats are called in to the target. Occasionally these calls are through a third party. Sometimes a threat is communicated in writing or by a recording. Two logical explanations for reporting a bomb threat are:
1. The caller has definite knowledge or believes that an explosive or incendiary bomb has been or will be placed and he/she wants to minimize personal injury or property damage. The caller may be the person who placed the device or someone who has become aware of such information.

2. The caller wants to create an atmosphere of anxiety and panic which will, in turn, result in a disruption of the normal activities at the facility where the device is purportedly placed. Whatever the reason for the report, there will certainly be a reaction to it. Through proper planning, the wide variety of potentially uncontrollable reactions can be greatly reduced.

Why Prepare?
If you accept the two aforementioned explanations for reporting that a bomb is about to go off, you can better prepare to foil the bomber or threat maker. Through proper preparation, you can reduce the accessibility of your business or building and identify those areas that can be "hardened" against the potential bomber. This will limit the amount of time lost to searching, if you determine a search is necessary. If a bomb incident occurs, proper planning will instill confidence in the leadership, reinforce the notion that those in charge do care, and reduce the potential for personal injury and property loss. Proper planning can also reduce the threat of panic, the most contagious of all human emotions. Panic is sudden, excessive, unreasoning, infectious terror. Once a state of panic has been reached, the potential for injury and property damage is greatly increased. In the context of a bomb threat, panic is the ultimate achievement of the caller not taking every step necessary to meet the threat.

How to Prepare
In preparing to cope with a bomb incident, it is necessary to develop two separate but interdependent plans, namely a physical security plan and a bomb incident plan. Physical security provides for the protection of property, personnel, facilities, and material against unauthorized entry, trespass, damage, sabotage, or other illegal or criminal acts. The physical security plan deals with prevention and control of access to the building. In most instances, some form of physical security may be already in existence, although not necessarily intended to prevent a bomb attack.

The bomb incident plan provides detailed procedures to be implemented when a bombing attack is executed or threatened. In planning for the bomb incident, a definite chain of command or line of authority must be established. Only by using an established organization and procedures can the bomb incident be handled with the least risk to all concerned. A clearly defined line of authority will instill confidence and avoid panic.

Establishing a chain of command is easy if there is a simple office structure, one business, one building. However, if a complex situation exists, a multioccupant building for example, a representative from each occupant entity should attend the planning conference. A leader should be appointed and a clear line of succession delineated. This chain of command should be printed and circulated to all concerned parties.

In planning, you should designate a command center to be located in the switchboard room or other focal point of telephone or radio communications. The management personnel assigned to
operate the center should have the authority to decide whatever action should be taken during the threat. Only those with assigned duties should be permitted in the center. Make some provision for alternates in the event someone is absent when a threat is received. Obtain an updated blueprint or floor plan of your building and maintain it in the command center.

Contact the police department, fire department, or local government agencies to determine if any assistance is available to you for developing your physical security plan or bomb incident plan. If possible, have police and/or fire department representatives and members of your staff inspect the building for areas where explosives are likely to be concealed. (Make a checklist of these areas for inclusion in command center materials.) Determine whether there is a bomb disposal unit available, how to contact the unit, and under what conditions it is activated. In developing your bomb incident plan, you must also ascertain whether the bomb disposal unit, in addition to disarming and removing the explosives, will assist in searching the building in the event of a threat.

Training is essential to deal properly with a bomb threat incident. Instruct all personnel, especially those at the telephone switchboard, in what to do if a bomb threat is received. Be absolutely certain that all personnel assigned to the command center are aware of their duties. The positive aspects of planning will be lost if the leadership is not apparent. It is also very important to organize and train an evacuation unit which will be responsive to the command center and has a clear understanding of the importance of its role.

We have suggested that the command center be located near the switchboard or focal point of communications. It is critical that lines of communication be established between the command center and the search or evacuation teams. The center must have the flexibility to keep up with the search team progress. In a large facility, if the teams go beyond the communications network, the command center must have the mobility to maintain contact and track search or evacuation efforts.

Security Against Bomb Incidents

We mentioned earlier that, in dealing with bomb incidents or potential bomb incidents, two interrelated plans must be developed, the bomb incident plan and the physical security plan. Heretofore, we have primarily addressed the bomb incident plan. Now, before continuing with that plan, we will discuss security measures as they apply to "hardening" against the bomb attack.

Most commercial structures and individual residences already have some security in place, planned or unplanned, realized or not. Locks on windows and doors, outside lights, etc., are all designed and installed to contribute toward the security of a facility and the protection of its occupants.

In considering measures to increase security for your building or office, it is highly recommended that you contact your local police department for guidance regarding a specific plan for your facility. There is no single security plan that is adaptable to all situations. The following recommendations are offered because they may contribute to reducing your vulnerability to bomb attacks.
The exterior configuration of a building or facility is very important. Unfortunately, in most instances, the architect has given little or no consideration to security, particularly toward thwarting or discouraging a bomb attack. However, by the addition of fencing and lighting, and by controlling access, the vulnerability of a facility to a bomb attack can be reduced significantly.

Bombs being delivered by car or left in a car are a grave reality. Parking should be restricted, if possible, to 300 feet from your building or any building in a complex. If restricted parking is not feasible, properly identified employee vehicles should be parked closest to your facility and visitor vehicles parked at a distance.

Heavy shrubs and vines should be kept close to the ground to reduce their potential to conceal criminals or bombs. Window boxes and planters are perfect receptacles for the bomber. Unless there is an absolute requirement for such ornamentation, window boxes and planters are better removed. If they must remain, a security patrol should be employed to check them regularly.

A highly visible security patrol can be a significant deterrent. Even if this "patrol" is only one security guard/night guard, he/she is optimally utilized outside the building. If an interior guard is utilized, consider the installation of closed circuit television cameras that cover exterior building perimeters. Have an adequate burglar alarm system installed by a reputable company that can service and properly maintain the equipment. Post signs indicating that such a system is in place.

Entrance/exit doors with hinges and hinge pins on the inside to prevent removal should be installed. Solid wood or sheet metal faced doors provide extra integrity that a hollow core wooden door cannot provide. A steel door frame that properly fits the door is as important as the construction of the door. The ideal security situation is a building with no windows. However, bars, grates, heavy mesh screens, or steel shutters over windows offer good protection from otherwise unwanted entry. It is important that the openings in the protective coverings are not too large. Otherwise, a bomb may be introduced into the building while the bomber remains outside. Floor vents, transoms, and skylights should also be covered. Please note that fire safety considerations preclude the use of certain window coverings. Municipal ordinances should be researched and safety considered before any of these renovations are undertaken.

Controls should be established for positively identifying personnel who are authorized access to critical areas and for denying access to unauthorized personnel. These controls should extend to the inspection of all packages and materials being taken into critical areas.

Security and maintenance personnel should be alert for people who act in a suspicious manner, as well as objects, items, or parcels which look out of place or suspicious. Surveillance should be established to include potential hiding places (e.g., stairwells, rest rooms, and any vacant office space) for unwanted individuals.

Doors or access ways to such areas as boiler rooms, mail rooms, computer areas, switchboards, and elevator control rooms should remain locked when not in use. It is important to establish a
procedure for the accountability of keys. If keys cannot be accounted for, locks should be changed.

Good housekeeping is also vital. Trash or dumpster areas should remain free of debris. A bomb or device can easily be concealed in the trash. Combustible materials should be properly disposed of, or protected if further use is anticipated.

Install detection devices at all entrances and closed-circuit television in those areas previously identified as likely places where a bomb may be placed. This, coupled with the posting of signs indicating such measures are in place, is a good deterrent.

We in ATF recognize the necessity for businesses to maintain good public relations. Corporate responsibility, however, also encompasses the safety and protection of the public. The threatened use of explosives necessitates that in the interest of safety and security, some inconvenience may have to be imposed on visitors to public buildings. The public is becoming more accustomed to routine security checks and will readily accept these minor inconveniences.

Perhaps entrances and exits can be modified with a minimal expenditure to channel all visitors through someone at a reception desk. Individuals entering the building would be required to sign a register indicating the name and room number of the person whom they wish to visit. Employees at these reception desks could contact the person to be visited and advise him/her that a visitor, by name, is in the lobby. The person to be visited may decide to come to the lobby to ascertain that the purpose of the visit is valid. A system for signing out when the individual departs could be integrated into this procedure.

Such a procedure may result in complaints from the public. If the reception desk clerk explains to the visitor that these procedures were implemented in his/her best interest and safety, the complaints would be reduced. The placement of a sign at the reception desk informing visitors of the need for safety is another option.

**Responding to Bomb Threats**

Instruct all personnel, especially those at the telephone switchboard, in what to do if a bomb threat call is received.

It is always desirable that more than one person listen in on the call. To do this, a covert signaling system should be implemented, perhaps by using a coded buzzer signal to a second reception point. A calm response to the bomb threat caller could result in obtaining additional information. This is especially true if the caller wishes to avoid injuries or deaths. If told that the building is occupied or cannot be evacuated in time, the bomber may be willing to give more specific information on the bomb's location, components, or method of initiation.

The bomb threat caller is the best source of information about the bomb. When a bomb threat is called in:
- Keep the caller on the line as long as possible. Ask him/her to repeat the message. Record every word spoken by the person.

- If the caller does not indicate the location of the bomb or the time of possible detonation, ask him/her for this information.

- Inform the caller that the building is occupied and the detonation of a bomb could result in death or serious injury to many innocent people.

- Pay particular attention to background noises, such as motors running, music playing, and any other noise which may give a clue as to the location of the caller.

- Listen closely to the voice (male, female), voice quality (calm, excited), accents, and speech impediments. Immediately after the caller hangs up, report the threat to the person designated by management to receive such information.

- Report the information immediately to the police department, fire department, ATF, FBI, and other appropriate agencies. The sequence of notification should be established in the bomb incident plan.

- Remain available, as law enforcement personnel will want to interview you.

When a written threat is received, save all materials, including any envelope or container. Once the message is recognized as a bomb threat, further unnecessary handling should be avoided. Every possible effort must be made to retain evidence such as fingerprints, handwriting or typewriting, paper, and postal marks. These will prove essential in tracing the threat and identifying the writer.

While written messages are usually associated with generalized threats and extortion attempts, a written warning of a specific device may occasionally be received. It should never be ignored.

**Decision Time**

The most serious of all decisions to be made by management in the event of a bomb threat is whether to evacuate the building. In many cases, this decision may have already been made during the development of the bomb incident plan. Management may pronounce a carte blanche policy that, in the event of a bomb threat, total evacuation will be effective immediately. This decision circumvents the calculated risk and demonstrates a deep concern for the safety of personnel in the building. However, such a decision can result in costly loss of time.

Essentially, there are three alternatives when faced with a bomb threat:

1. Ignore the threat.
2. Evacuate immediately.
3. Search and evacuate if warranted.

Ignoring the threat completely can result in some problems. While a statistical argument can be made that very few bomb threats are real, it cannot be overlooked that bombs have been located in connection with threats. If employees learn that bomb threats have been received and ignored, it could result in morale problems and have a long-term adverse effect on your business. Also, there is the possibility that if the bomb threat caller feels that he/she is being ignored, he/she may go beyond the threat and actually plant a bomb.

Evacuating immediately on every bomb threat is an alternative that on face value appears to be the preferred approach. However, the negative factors inherent in this approach must be considered. The obvious result of immediate evacuation is the disruptive effect on your business. If the bomb threat caller knows that your policy is to evacuate each time a call is made, he/she can continually call and force your business to a standstill. An employee, knowing that the policy is to evacuate immediately, may make a threat in order to get out of work. A student may use a bomb threat to avoid a class or miss a test. Also, a bomber wishing to cause personal injuries could place a bomb near an exit normally used to evacuate and then call in the threat.

Initiating a search after a threat is received and evacuating a building after a suspicious package or device is found is the third, and perhaps most desired, approach. It is certainly not as disruptive as an immediate evacuation and will satisfy the requirement to do something when a threat is received. If a device is found, the evacuation can be accomplished expeditiously while at the same time avoiding the potential danger areas of the bomb.

**Evacuation**

An evacuation unit consisting of management personnel should be organized and trained. The organization and training of this unit should be coordinated with the development of the bomb incident plan, as well as with all tenants of a building.

The evacuation unit should be trained in how to evacuate the building during a bomb threat. You should consider priority of evacuation, e.g., evacuation by floor level. Evacuate the floor levels above and below the danger area in order to remove those persons from danger as quickly as possible. Training in this type of evacuation is usually available from police, fire or other units within the community. You may also train the evacuation unit in search techniques, or you may prefer a separate search unit. Volunteer personnel should be solicited for this function. Assignment of search wardens, team leaders, etc., can be employed. To be proficient in searching the building, search personnel must be thoroughly familiar with all hallways, rest rooms, false ceiling areas, and every location in the building where an explosive or incendiary device may be concealed. When police officers or firefighters arrive at the building, the contents and the floor plan will be unfamiliar to them if they have not previously reconnoitered the facility. Thus, it is extremely important that the evacuation or search unit be thoroughly trained and familiar with the floor plan of the building and immediate outside areas. When a room or particular area is searched, it should be marked or sealed with a piece of tape and reported to the supervisor of that area.
The evacuation or search unit should be trained only in evacuation and search techniques and not in the techniques of neutralizing, removing or otherwise having contact with the device. If a device is located, it should not be disturbed. However, its location should be well marked and a route back to the device noted.

Search Teams
It is advisable to use more than one individual to search any area or room, no matter how small. Searches can be conducted by supervisory personnel, area occupants or trained explosive search teams. There are advantages and disadvantages to each method of staffing the search teams.

Using supervisory personnel to search is a rapid approach and causes little disturbance. There will be little loss of employee working time, but a morale problem may develop if it is discovered that a bomb threat has been received and workers were left unaware. Using a supervisor to search will usually not be as thorough because of his/her unfamiliarity with many areas and his/her desire to get on with business.

Using area occupants to search their own areas is the best method for a rapid search. The occupants' concern for their own safety will contribute toward a more thorough search. Furthermore, the personnel conducting the search are familiar with what does or does not belong in a particular area. Using occupants to search will result in a shorter loss of work time than if all were evacuated prior to search by trained teams. Using the occupants to search can have a positive effect on morale, given a good training program to develop confidence. Of course, this would require the training of an entire work force, and ideally the performance of several practical training exercises. One drawback of this search method is the increased danger to unevacuated workers.

The search conducted by a trained team is the best for safety, morale and thoroughness, though it does take the most time. Using a trained team will result in a significant loss of production time. It is a slow operation that requires comprehensive training and practice.

The decision as to who should conduct searches lies with management, and should be considered and incorporated into the bomb incident plan.

Search Technique
The following room search technique is based on the use of a two person searching team. There are many minor variations possible in searching a room. The following contains only the basic techniques. When the two person search team enters the room to be searched, they should first move to various parts of the room and stand quietly with their eyes closed and listen for a clockwork device. Frequently, a clockwork mechanism can be quickly detected without use of special equipment. Even if no clockwork mechanism is detected, the team is now aware of the background noise level within the room itself.

Background noise or transferred sound is always disturbing during a building search. If a ticking sound is heard but cannot be located, one might become unnerved. The ticking sound may come from an unbalanced air conditioner fan several floors away or from a dripping sink down the hall. Sound will transfer through air conditioning ducts, along water pipes, and through walls.
One of the most difficult buildings to search is one that has steam or hot water heat. This type of building will constantly thump, crack, chatter, and tick due to the movement of the steam or hot water through the pipes and the expansion and contraction of the pipes. Background noise may also include outside traffic sounds, rain, and wind.

The individual in charge of the room searching team should look around the room and determine how the room is to be divided for searching and to what height the first searching sweep should extend. The first searching sweep will cover all items resting on the floor up to the selected height.

You should divide the room into two virtually equal parts. This equal division should be based on the number and type of objects in the room to be searched and not on the size of the room. An imaginary line is then drawn between two objects in the room; e.g., the edge of the window on the north wall to the floor lamp on the south wall.

First Room Searching Sweep

Look at the furniture or objects in the room and determine the average height of the majority of items resting on the floor. In an average room, this height usually includes table or desk tops and chair backs. The first searching height usually covers the items in the room up to hip height. After the room has been divided and a searching height has been selected, both individuals go to one end of the room division line and start from a back-to-back position. This is the starting point, and the same point will be used on each successive searching sweep. Each person now starts searching his/her way around the room, working toward the other person, checking all items resting on the floor around the wall area of the room. When the two individuals meet, they will have completed a "wall sweep." They should then work together and check all items in the middle of the room up to the selected hip height, including the floor under the rugs. This first searching sweep should also include those items which may be mounted on or in the walls, such as air conditioning ducts, baseboard heaters, and built-in wall cupboards, if these fixtures are below hip height.

The first searching sweep usually consumes the most time and effort. During all the searching sweeps, use the electronic or medical stethoscope on walls, furniture items, and floors.

Second Room Searching Sweep

The individual in charge again looks at the furniture or objects in the room and determines the height of the second searching sweep. This height is usually from the hip to the chin or top of the head. The two persons return to the starting point and repeat the searching technique at the second selected searching height. This sweep usually covers pictures hanging on the walls, built-in bookcases, and tall table lamps.

Third Room Searching Sweep

When the second searching sweep is completed, the person in charge again determines the next searching height, usually from the chin or the top of the head up to the ceiling. The third sweep is
then made. This sweep usually covers high mounted air conditioning ducts and hanging light fixtures.

**Fourth Room Searching Sweep**

If the room has a false or suspended ceiling, the fourth sweep involves investigation of this area. Check flush or ceiling mounted light fixtures, air conditioning or ventilation ducts, sound or speaker systems, electrical wiring, and structural frame members.

Have a sign or marker indicating "Search Completed" conspicuously posted in the area. Place a piece of colored Scotch tape across the door and door jamb approximately 2 feet above floor level if the use of signs is not practical.

The room searching technique can be expanded. The same basic technique can be applied to search any enclosed area. Encourage the use of common sense or logic in searching. If a guest speaker at a convention has been threatened, common sense would indicate searching the speaker’s platform and microphones first, but always return to the searching technique. Do not rely on random or spot checking of only logical target areas. The bomber may not be a logical person.

In conclusion, the following steps should be taken in order to search a room:

1. Divide the area and select a search height.
2. Start from the bottom and work up.
3. Start back-to-back and work toward each other.
4. Go around the walls and proceed toward the center of the room.

**Suspicious Object Located**

It is imperative that personnel involved in a search be instructed that their only mission is to search for and report suspicious objects. Under no circumstances should anyone move, jar or touch a suspicious object or anything attached to it. The removal or disarming of a bomb must be left to the professionals in explosive ordnance disposal. When a suspicious object is discovered, the following procedures are recommended:

1. Report the location and an accurate description of the object to the appropriate warden. This information should be relayed immediately to the command center, which will, notify the police and fire departments, and rescue squad. These officers should be met and escorted to the scene.
2. If absolutely necessary, place sandbags or mattresses, never metal shields, around the suspicious object. Do not attempt to cover the object.
3. Identify the danger area, and block it off with a clear zone of at least 300 feet, including floors below and above the object.
4. Check to see that all doors and windows are open to minimize primary damage from blast and secondary damage from fragmentation.

5. Evacuate the building.

6. Do not permit reentry into the building until the device has been removed/disarmed, and the reentry.

**Handling of the News Media**

It is of paramount importance that all inquiries from the news media be directed to one individual appointed as spokesperson. All other persons should be instructed not to discuss the situation with outsiders, especially the news media.

The purpose of this provision is to furnish the news media with accurate information and to see that additional bomb threat calls are not precipitated by irresponsible statements from uninformed sources.

**Summary**

This pamphlet serves only as a guide and is not intended to be anything more. The ultimate determination of how to handle a bomb threat must be made by the individual responsible for the threatened facility. Develop a bomb incident plan. Draw upon any expertise that is available to you from police departments, government agencies, and security specialists. Don't leave anything to chance. Be prepared!

**Bomb Incident Plan**

1. Designate a chain of command.
2. Establish a command center.
3. Decide what primary and alternate communications will be used.
4. Establish clearly how and by whom a bomb threat will be evaluated.
5. Decide what procedures will be followed when a bomb threat is received or device discovered.
6. Determine to what extent the available bomb squad will assist and at what point the squad will respond.
7. Provide an evacuation plan with enough flexibility to avoid a suspected danger area.
8. Designate search teams.
9. Designate areas to be searched.
10. Establish techniques to be utilized during search.
11. Establish a procedure to report and track progress of the search and a method to lead qualified bomb technicians to a suspicious package.
12. Have a contingency plan available if a bomb should go off.
13. Establish a simple to follow procedure for the person receiving the bomb threat.
14. Review your physical security plan in conjunction with the development of your bomb incident plan.

**Command Center**

1. Designate a primary location and an alternate location.
2. Assign personnel and designate decision making authority.
3. Establish a method for tracking search teams.
4. Maintain a list of likely target areas.
5. Maintain a blueprint of floor diagrams in the center.
6. Establish primary and secondary methods of communication. (Caution-the use of two-way radios during a search can cause premature detonation of an electric blasting cap.)
7. Formulate a plan for establishing a command center, if a threat is received after normal work hours.
8. Maintain a roster of all necessary telephone numbers.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
BURGLARY IN PROGRESS STUDY GUIDE

**SITUATION/SCENE**

Apartment or simulated residence. Explorers will respond to a call from an individual who claims his/her home has been burglarized and the suspects may still be in the residence. Upon arrival, the explorers are faced with a situation with many unknown dangers. Another explorer team is available for backup.

**EVALUATION CRITERIA**

1. Direct the complainant/witness to safety. Remove the complainant/witness away from the scene. Place them in your patrol car or behind cover, advise them to stay there until you or another unit advises that the scene is safe. You are responsible for their safety.

2. Interview the complainant/witness before approaching the residence. Ask the following questions:
   
   A. How many suspects are in the residence?
   B. Are the suspects armed?
   C. What is the layout of the residence?
   D. Are there any weapons inside and where are they?
   E. Do you know the suspects personally? If yes, what could their motive be?
   F. How did they gain entry into the residence?

Remember the more questions you ask, the more information you can find out that will allow for a safe resolution.

3. Enter the residence quietly, orderly and quickly. Use a silent approach and come from an unexpected direction. Get as close to the objective as possible without the suspects becoming aware of your presence. Using an unexpected and silent approach will allow more time to assess the situation. Whenever possible, approach on a side that offers the most protection, away from windows and doors. The explorers should position their vehicle so it is out of view of the site, but not so far that it cannot be reached in an emergency.

4. Use available cover and concealment. Cover is anything that will stop, slow down or deflect incoming rounds. Concealment is something that can hide a person from view. Although cover is preferable to concealment, concealment is better than plain view when officers are in a high-risk situation. *If you can see the suspect they can see you.*

5. Position yourself to the side of the door, not in front of it. Building and room entries are dangerous because explorers must enter through fatal funnels. A fatal funnel is any area that narrows and constricts movement or an area that focuses the suspect’s attention. The suspect knows the explorers will use these passageways. Common fatal funnels are doorways, windows, hallways, stairwells, elevators and alleys. *Don’t be predictable.*
6. Should I draw my weapon? This is left up to the individual explorer and the amount of threat perceived, how many suspects there are and if armed. There are many unknowns in this situation, so gather as much information as you can.

7. Always maintain proper target acquisition. During the initial encounter with a suspect, the explorer should recognize and evaluate the threat level paying particular attention to all verbal and non-verbal cues that could indicate a suspect’s intention of attacking the explorer’s weapon.

8. Remember that weapons safety is paramount and we be aware of the direction of the muzzle. Specific circumstances such as being behind cover and far from the suspect, doing a building search, performing a weapons recovery or being in a crowded area will dictate how you will carry your weapon. The gun should be carried in your dominant hand with the help of the support hand. The muzzle is pointed in the area of the threat and there is never a finger on the trigger. Never point your weapon at your partner.

9. Always use proper verbal and or hand signals. During a slow and deliberate search it is often inappropriate to talk to other members of the team because conversation may give away the position of the explorers or reveal the next move. A simple whisper to a partner may reveal a plan or direction of searching, thereby jeopardizing the explorers. If conversation is unavoidable, try talking in a low tone such as in a murmur through clenched teeth. The vibrations may be overheard but the words will be unintelligible except to those in close proximity. Hand signals can provide a form of communications. These signals should be simple and universal. Always use your non-gun or weak hand when using hand signals.

10. Be careful about creating unnecessary noise by rubbing against walls or other surfaces. Be aware of foot, voice and radio noise. Perform a “jump test” prior to entering the building. Jump up and down several times. Secure or remove anything from your person that makes noise and could compromise your position. For example loose change or keys.

11. Maintain proper positioning in relation to your partner. Avoid crossfire and always maintain a visual site of your partner. Never split up and try to do it alone. Communicate with your partner and let him know what you see or hear. Time is on your side don’t be careless.

12. Search and secure the primary areas first such as living rooms, closets, bathtubs and large cupboards unless there is specific information indicating secret hiding places. Primary areas are where there is the greatest probability of persons hiding themselves. Then search secondary areas. Secondary areas are those areas that require a greater amount of time and agility to get into such as under beds or in kitchen cabinets.

13. Once an explorer has observed the suspect(s), he/she should go to a position of cover and then verbally order the suspect into the open. In most Law Enforcement situations, the suspects are compliant and will do everything that is asked by the officer. This compliant mode does not mean a suspect is not a threat or will not attack. In fact most fatal attacks...
come from persons who try to deceive and lure officers into a sense of security by acting compliant. To prepare for a possible attack, an explorer must put him/herself in a position of advantage, behind cover. Don’t let your guard down, prepare for the worst, hope for the best.

14. Once an officer has observed the suspect, he/she should go to a position of cover and then verbally order the suspect into the open. The explorer should identify themselves in a loud clear voice as the “POLICE”. Attempts to bluff a suspect to come out from a hidden position may not be successful. However once an explorer has seen the suspect, he/she can identify them by giving a clothing description and the location seen. By placing in the suspects mind that they have been discovered the officer achieves a psychological advantage. If the explorer believes the suspect is armed, the suspect should be told to turn away from the Explorer. Always be clear and concise when giving verbal commands.

15. Always secure your weapon before handcuffing a suspect. The searching explorer must not search with his/her firearm drawn although the explorer behind cover may have a weapon drawn under appropriate circumstances. If, prior to the search, the explorer’s firearm is out, such as during a weapon recovery, the firearm must be holstered securely prior to handcuffing or searching the suspect.

16. The searching explorer must not search with his/her firearm drawn although the explorer behind cover may have a weapon drawn under appropriate circumstances. Always point your weapon in the area of the threat and not at your partner.

17. The searching explorer must never search a suspect(s) with his/her firearm drawn.

18. Regardless of the specific type of technique or style used to handcuff a suspect there are a few principles that are common to any handcuffing. Always place the suspect(s) in a position of disadvantage. Handcuff the suspect(s) behind their back and always double lock the handcuffs.

19. Upon contact with the suspect(s), handcuff, search area accessible to hands and remove the suspect to a safe and secure area for a thorough and proper search.

20. The “handheld” search is done grasping the interlocked hands of the suspect and the handcuffed search is done by keeping chain control. Check the waistband, the entire backside and the entire front side, do not skip any areas. Be methodical and work from the top to the bottom. A good search will mean that you will not miss any weapons.)

21. Once you have located the suspect’s weapon you must secure it away from the suspect. The weapon can be placed in one’s rear waistband or can be handed off to your partner. Either way never place the weapon where the suspect(s) can retrieve it and use against you or your partner.
22. Once the suspect is placed under arrest, always advise him for what he/she is being arrested. Know the elements of the crime for which they are being arrested.

*Burglary:* A person commits the offense of burglary when, without authority and with the intent to commit a felony or theft therein, he enters or remains within the dwelling house of another or any building, vehicle, railroad, car watercraft, or any other structure designed for the use as the dwelling of another or enters or remains within any other building, railroad car, aircraft, or any room or any part thereof.

*Elements of Crime:*
1. The defendant entered or remained within a structure specified by the statute.
2. The defendant did this act without authority.
3. The defendant did this act with the specific intent to commit a felony or theft in the place he/she entered.

23. Explorers should be in a F.I. stance whenever they are armed and near the any member of the public. Blade the trunk of your body with the gun side turned away from the person addressed. Keep your arms close to your side, your dominant arm’s elbow close to your handgun. The nondominant hand is used for gesturing if necessary. This position keeps the Explorers firearm away from a potential threat.

24. Always think “one more.” If you find one gun look for a second, if you have one suspect, look for another. When clearing a building or room, remember to search all areas of the room, under beds, in closets, behind curtains and always look up. If you see bystanders, ask them if they saw anything. A lot of times people will not get involved unless you ask.

25. Stand behind the handcuffed suspect. Using a “C” clamp around the outside of the suspects elbow, the explorer will grasp the suspect’s elbow with his dominant hand. On the suspect(s) same arm, with his nondominant hand, the explorer grasps the wrist so the suspect’s knuckles are in his palm. Bend the suspect’s elbow, placing the upper and lower arm in a position that looks like the letter “L”.

26. Select one explorer in your group to be the team leader. The team leader is responsible for handing out assignments and for any questions that any member of the team may have during the operation. Safety is of paramount importance during all law enforcement operations. The team leader will make sure that everyone involved is operating on the “same sheet of music”. Conduct a debrief with all personnel involved at the end of the operation. Talk about the things that went right but also talk about things that could have gone better.

27. Not everyone can be a team leader. Therefore, once you have selected one it is the responsibility of each team member to listen to the team leader. Discuss all options available and be willing to be flexible. Law Enforcement is about working together and being part of a team. We can’t do it alone so let’s use all available resources.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
CRIME SCENE SEARCH STUDY GUIDE

Initial Action Prior to Entering the Crime Scene
Team leader obtains preliminary information from the first officer.
Secured room and hallway upon arrival
Team leader assigns specific duties to each team member.
Verified reported information from the complainant
Requested permission to search complainant’s room
Kept complainant from entering room
Kept other unauthorized personnel out of the scene.
Team leader conducts preliminary observations to locate possible items of evidence
Team member to check hallway for possible evidence dropped by the fleeing suspect
Ensured that they had the necessary equipment to process scene
Team leader briefs the team on the results of the preliminary observations.

Documentation of the Crime Scene
Documented the scene through the use of notes
Documented the scene through the use of overall photographs (or simulation)
Photographed items of evidence w/o scale first
Photographed items of evidence with scale/number
  • Band aid packaging
  • Cash box
  • First aid kit
  • Gloves
  • Plastic bag
  • Screwdriver
  • Wallet
Each photograph should be listed on the photo log.

Crime Scene Sketch
Overall of the room
Consistency with measured units
Used fixed points
Not to scale on sketch
North arrow for direction
Relevant item included
  • Band aid packaging
  • Cash box
  • Desk
  • First aid kit
  • Gloves
  • Screwdriver
  • Wallet
Camera positions indicated on sketch
Legend listing
• Measurements
• Symbols used for items
Title block on each page listing
• Date
• Exact location
• Type of case
• Officers name and assistants

**Collection and Preservation of Evidence**
Latent prints located/recovered from cash box
• Properly developed
• Properly lifted
• Properly preserved on lift card
• Properly marked on the back
Band aid packaging
• Properly collected
• Properly preserved
• Properly marked
Cash Box (After Dusting)
• Properly collected
• Properly preserved
• Properly marked
First aid kit
• Properly collected
• Properly preserved
• Properly marked
Golf gloves
• Properly collected
• Properly preserved
• Properly marked
Plastic bag
• Properly collected
• Properly preserved
• Properly marked
Screwdriver
• Properly collected
• Properly preserved
• Properly marked
Wallet
• Properly collected
• Properly preserved
• Properly marked
Evidence Custody and Control Form
Each item of evidence that was collected should be documented on this form.

Band aid packaging
Cash Box
First aid kit
Golf gloves
Latent print lift cards
Plastic bag
Screwdriver
Wallet

SITUATION/SCENE:

Background information
There has been a series of “home invasion” type crimes. Where women have been home alone, and attacked by a masked intruder. The intruder forced the door open when the victims looked out to see who was at the door. The women had been assaulted, tied up and robbed.

Each victim related that the man was very tall, slender, wore a dark blue mask and leather type “golf” gloves. The suspect carried a plastic bag that contained the duck tape that was used to tie the victims up, along with various tools used to break into locked cabinets and desks in the victim’s home. The victims also stated that the suspect “sounded” young.

The Case
There has been a burglary of a female student’s dorm room. The first officer is on the scene along with the complainant.

The first officer has interviewed the complainant and found out that the student was supposed to be home waiting for a friend. She suddenly remembered that she needed some makeup, and went to the corner store. Upon returning approximately 25 minutes later she found her door open. Upon entering the room she found the drawers from her desk lying on the floor, along with an empty gray cash box. She immediately called the police from her cell phone.

The Scene
The door to the room will have been kicked open, and a partial shoe print should be visible on the door. The teams should find the door in the open position.

Upon entering the room the team will see that the room, with the exception of the desk, appears not to have been disturbed which can be verified by the complainant. The focus of the team’s attention will be drawn to the desk.

Several drawers will be on the floor with the others open. The top of the desk will have a large CD container that holds the jewel cases with the CD inside. (The container should be of the type that has a clear plastic top and solid color bottom.) The container will have several jewel cases,
but only one will contain a CD. On the jewel case that has the CD there will be an impression of what appears to be finger impressions in blood but closer observation will reveal that the impressions have been made a glove that has openings to allow for air flow (golf glove). The other cases will only have blood spots on them.

One of the drawers appears to have been pried open, as does the cash box.

A screwdriver will be located on the floor near the desk. On the handle of the screwdriver there will be blood along with several large drops on the floor. A partial footprint, facing the door, will be visible in the blood.

Another desk drawer will be open containing a first aid kit that has been opened and a band aid has been used, the packaging from the band aid will be on the floor under the desk. (Team member will have to bend down to see this piece of evidence.) There will be signs of blood on the kit and the discarded packaging will contain a clear fingerprint. (Suspect took off gloves to open packaging) One glove will be located near the first aid kit.

As they conduct a search of the room they will find a plastic bag behind the open door that contains a roll of duck tape, pliers, and a blue mask. In the area of the bag they will discover a campus ID card listed to a male student. The physical description on the card will list the student as 6-2 and 180 pounds.

**Team Work**

- Team should talk with the first officer to see what type of information he acquired from the complainant.
- Insure the security of the scene.
- Found out who entered the room since the call.
- Briefly talk with the complainant to verify information and ask permission to search her room.
- Complainant should tell them that only the desk has been tampered with and that the cash box contained several hundred dollars from an event.
- Team leader should look around the room and determine what will be done.
- Team leader should make assignments if not done so already.
- Prepare a narrative description of the room.
- Start taking pictures of the room.
  - Photograph evidence with and without scale.
- Start a sketch of the room, using separate page for legend.
- Systematically search for evidence.
- Evidence:
  - Footprint on door
  - Blood sample from floor near shoe print.
  - Screwdriver
  - CD jewel case
  - First aid box
  - Band aid wrapper
  - Golf glove
- Bag from behind door (duct tape, pliers and mask)
- Id card

Partial foot print in blood near desk will turn out to be the first officer on the scene, but he/she will not volunteer the information.

**Props**

- Screwdriver
- First aid kit
- Band aid wrapper
- CD holder with CD’s in jewel cases
- Plastic bag w/mask, pliers, duck tape
- ID card with male student information
- Footprint on door
- Cash box
- Simulated (water soluble) blood
- Golf Glove
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
I. INTRODUCTION ........................................................................................................ 1

II. PHYSICAL EVIDENCE ............................................................................................... 1
   A. Purpose of Physical Evidence ........................................................................... 1
   B. Physical Evidence ............................................................................................. 1
   C. Evidence Triangle ............................................................................................. 2
   D. Principle of Interchange .................................................................................... 2
   E. Identification and Comparison ........................................................................... 3
   F. Class vs. Individual Characteristics ................................................................... 4

III. EVIDENCE TEAMS ................................................................................................... 5
   A. Personnel, Duties and Responsibilities ............................................................. 5
   B. Major Assignments, as well as corresponding general duties and responsibilities: ........................................................................................................... 5

IV. CRIME SCENE SEARCH ............................................................................................ 8
   A. Stages ............................................................................................................... 8
   B. Preparation ....................................................................................................... 8
   C. Basic Premises ................................................................................................. 8
   D. Approaching the Scene ..................................................................................... 9
   E. Initiate a Preliminary Survey of the Scene ........................................................ 9
   F. Evaluate Physical Evidence Possibilities Around and Within the Scene .......... 10
   G. Document the Scene ...................................................................................... 10
   H. Conduct a Detailed Search ............................................................................. 14
   I. Record and Collect Physical Evidence ............................................................ 16
   J. Conduct a Final Survey ................................................................................... 17
   K. Release Crime Scene ..................................................................................... 17

V. COLLECTING, PACKAGING AND PROCESSING SOME ITEMS OF EVIDENCE FOUND WITHIN THE SCENARIO ............................................................................................................. 17
   A. Handling Evidence .......................................................................................... 17
   B. Evidence ......................................................................................................... 18

VI. CHAIN OF CUSTODY ............................................................................................. 23

VII. CONCLUSION ........................................................................................................ 24

VIII. REFERENCES ........................................................................................................ 26
   A. Notes .............................................................................................................. 27
I. Introduction

Criminal Investigations are concerned with people and things. People commit crimes through the medium of things. These things become physical evidence. As an investigator, it is necessary to have a basic understanding of what physical evidence is and how it can help with the investigation of any criminal incident.

The recovery of physical evidence during an investigation is one of the most important aspects of contemporary law enforcement. Often, the tangible items of evidence and the descriptive information derived during the execution of a search warrant or from a crime scene investigation make the difference between the success and failure of an investigation and whether a case is brought to trial. With the expanded capabilities of modern forensic science, even more attention must be devoted to locating, recovering and documenting evidence that will be examined by experts in the crime laboratory and used in the furtherance of justice.

II. Physical Evidence

Physical – Real Evidence

- Evidence in the form of material objects (e.g. weapons, tools, fingerprints, etc.). When an object is admitted in evidence, it is usually marked as an exhibit. Documents are not usually classified as real evidence, but may be treated as such, if the physical characteristics of the document (rather than its content) are of significance.

A. Purpose of Physical Evidence

Physical evidence is as a rule more reliable than eyewitness testimony and is an important investigative aid to the investigator. Today, more than ever, the courts are placing emphasis on physical evidence to determine the guilt or innocence of a defendant. When physical evidence is properly handled and introduced in a court of law it is a very powerful tool in resolving the case. In addition, the court may use physical evidence to determine the length of sentencing.

B. Physical Evidence

Physical evidence is any object, smell, marking or impression, no matter how small, which may assist the investigator in the reconstruction of the crime, lead to the identification of the criminal, provide a link between a crime and its victim, or a crime and its perpetrator. It can be as large as a house, small as a fiber, or ingenious as an odor.

1. In practically every case, the criminal will leave or carry away some physical evidence.

2. Physical evidence may require laboratory processing to render it useable in

---

1 Real evidence is material, tangible evidence such as an object, a tape recording, a computer printout or a photograph. Real evidence does not usually stand-alone. The court will normally hear evidence from a witness (often an expert witness) explaining the significance or the relevance of the real evidence.

2 Reconstruction is a method used to support a likely sequence of events by the observation and evaluation of physical evidence, as well as statements made by those involved.
the investigation or in court.

3. Physical evidence usually plays several important roles in the judicial process:
   a) It helps establish the elements of the crime.
   b) It helps reconstruct the crime or the crime scene.
   c) It may help associate or dissociate defendants with crimes.
   d) It can furnish proof as to the truth or falsity of an allegation.

4. Some additional benefits and/or expectations of physical evidence:
   a) A suspect confronted with physical evidence may confess.
   b) It can be used to corroborate eyewitness testimony.
   c) Juries have come to expect physical evidence in criminal cases.

C. Evidence Triangle

The evidence triangle, through physical evidence, establishes a link between the various facets of the crime scene, the victim, and the suspect. All of these components must be connected for a successful resolution of the case.

D. Principle of Interchange

Based on the Locard\(^3\) Exchange Principle that, "Every Contact Leaves its Trace."

The basis for trace analysis in forensic science is the statement made in 1910 by the French criminologist, Dr. Edmond Locard: "Every contact leaves a trace." Since physical contact is involved in almost every crime, the analysis of trace evidence plays a crucial role in crime scene investigation.

No one can enter an environment without leaving some trace of his or her presence and without carrying away some trace of that environment (e.g., a crime scene).

Some examples of interchange:

---

\(^3\) Doctor Edmond Locard, French criminalist, founder and director of the Institute of Criminalistics University of Lyons, France.
1. Blood – drops on floor, suspect clothing, etc.

2. Hair – pulled from victim or suspect.

3. Finger Impressions – Victim on suspects’ property or suspects’ at crime scene.

E. Identification and Comparison

Identification has, as its purpose, the determination of the physical or chemical identity of a substance with as near absolute certainty as existing analytical techniques will permit.

Comparison is an analysis that subjects specimen (unknown) and a control specimen (known) to the same tests and examinations for the ultimate purpose of determining whether or not they have a common origin. Control and unknown specimens;

1. Comparison Standards

Those items of physical evidence recovered from a known source and subjected to the same laboratory analysis as the items recovered from an unknown source to find out if they have a common origin.

a) May be recovered from scene, suspect and/or victim.

b) Must be processed in the exact manner and with the same care as all other items of evidence.

c) Examples of known items:

   (1) Broken glass removed from a window frame that had been broken during the commission of a crime is from a known source.

   (2) A test bullet fired from a specific weapon

   (3) Handwriting exemplars

   d) Examples of unknown items:

     (1) Glass recovered from the suspect vehicle or clothing.

     (2) Bullet removed from a crime scene or a victim.

     (3) Fibers left at crime scene or on victim.

2. Control Samples

This is a materiel from a known source that was uncontaminated by the crime.

The collection of blood for example:

a) Absorb the suspected liquid blood onto a clean cotton cloth or swab.
Leave a portion of the cloth or swab unstained as a control. Air-dry the cloth or swab and pack in clean paper or an envelope with sealed corners. Package the control in a separate bag.

b) Absorb the suspected dried blood onto a clean cotton cloth or swab moistened with distilled water. Leave a portion of the cloth or swab unstained as a control. Air-dry the cloth or swab and pack in clean paper or an envelope with sealed corners. Package the control in a separate bag.

3. Elimination Samples

Elimination samples are taken from a source that had lawful access to the crime scene such as the first officer, EMT's or the victim.

The collection of friction ridge evidence for example:

Investigators process a victim’s office for latent prints after the desk had been broken into. The investigators would take a set of “elimination prints” to compare against latents that had been found. Once the victim’s prints had been eliminated, it could be assumed that the ones left may belong to the suspect.

F. Class vs. Individual Characteristics

1. Class Characteristics

Properties of evidence where the features or characteristics are not unique for that item but which are shared by other items of the same class (general).

a) Class characteristics cannot measure the unique features to find the source, but we can reduce the evidence to a certain class.

b) Examples of evidence with class characteristics:

(1) Flat tip screwdriver, tire iron, etc.
(2) Hair, fibers, etc.
(3) Tires, shoes, etc.

2. Individual Characteristics

Individual Characteristics are properties of evidence that can be associated with a common source with an extremely high degree of certainty. It is a feature, even among members of the same class, resulting from nature, accidental or chance occurrences, wear and tear, use and abuse, which demonstrates uniqueness or individuality.

Unique features can be analyzed as to source; at least they have the capability of identifying the source.
a) Examples of evidence with individual characteristics:

(1) Fingerprints

(2) Tire tracks and foot impressions made by worn tires and shoes.

(3) Irregular edges of broken or torn objects

III. Evidence Teams

The proper documentation, collection and preservation of physical evidence is important in any type of investigation. There is only one way to collect physical evidence, the “Proper Manner.” The following are some guidelines to assist you with the basic steps.

A. Personnel, Duties and Responsibilities

There are certain personnel, duties and responsibilities, which are necessary in almost any major search operation. The following concentrates on those duties and responsibilities that are considered crucial to insure that search efforts are conducted in an organized and methodical fashion. It is important to note it may not be feasible to have one person assigned to each duty. It is relatively common for one person to be responsible for two or more aspects of the search.

B. Major Assignments, as well as corresponding general duties and responsibilities:

1. Team Leader

The team leader is the focal point of the crime scene investigation and it is absolutely imperative that this person exerts positive control of the entire crime scene operation. In many instances, outside agencies and personnel have an interest in the crime scene in question and may wish to intrude on the scene. The Team Leader must be able to control actions and access to the scene at all times to insure the investigative efforts are properly coordinated and that the scene is not compromised.

a) Assume control—insure safety of personnel and security at scene.

Obtain all preliminary information from the initial responding officer(s)

If necessary talk with the complainant to verify information.

b) Conduct initial walk-through for purposes of making a preliminary survey, evaluating potential evidence and preparing a narrative description.

c) Brief all team members relative to the scope and purpose of the search.

d) Determine search patterns and make appropriate assignments.

e) Designate command post location

f) Insure that sufficient supplies and equipment are available for
personnel.

g) Control access to the scene and designate an individual to log everyone into the scene.

h) Release the scene after a final survey and inventory of the evidence.

2. Photographer and Photographic Log Recorder

a) Photograph entire scene with overall, medium and close-up coverage, using measurement scale when appropriate.

b) Photograph each item of evidence before it is moved

c) Photograph all latent fingerprints, and other impression evidence, before lifting and casting is accomplished.

d) Prepare photographic log and photographic sketch.

e) Photograph the scene as you left it.

3. Sketch Preparer

a) Diagram a rough sketch of the immediate area of scene

b) Set forth on the sketch(s) all fixed points that are being used as reference, all items of evidence and coordinate evidence nomenclature with Evidence Recorder/ Custodian and Evidence Recovery Personnel.

c) Indicate adjacent buildings, rooms, furniture, and so forth, as needed

d) Designate and label areas to be searched and advise Team Leader and all other search members of nomenclature for designated areas

e) Obtain appropriate assistance for taking measurements and list assistant(s) on sketch.

4. Evidence Recorder/ Custodian

a) Prepare evidence recovery log

b) Coordinate evidence packaging and preservation

c) Coordinate evidence nomenclature with Sketch Preparer and Evidence Recovery Personnel

d) Receive and record all evidence

e) Maintain chain of custody and control of evidence.

5. Evidence Recovery Personnel

---

4 See crime scene search for additional information.
a) Have all evidence photographed and videotaped before it is collected
b) Keep Team Leader apprised of significant evidence located
c) Initial and date all evidence and turn it over to the Evidence Recorder/Custodian, after noting where the item was located.
d) Insure that appropriate safety measures are adhered to, especially with respect to proper protective clothing, including gloves.

6. Specialists

It is sometimes necessary to bring in expertise from outside an agency. The field of forensic science is so broad today no agency will have every form of specialty service available from among its ranks. Typically, specialists are brought in from industry, the academic community, private scientific laboratories and similar concerns.

Examples of specialty assistance to be considered:

Medical Examiner/Coroner   Geologist
Odontologist               Surveyor
Anthropologist             Engineer
Entomologist               Bomb Technician
Blood Pattern Analyst      Crime Laboratory Examiner
Computer Investigative Specialist
IV. Crime Scene Search

A. Stages

1. Preparation
2. Basic premises
3. Approach the scene
4. Initiate a preliminary survey of the scene and brief team.
5. Evaluate physical evidence possibilities around and within the scene
6. Document the scene
7. Conduct a detailed search
8. Record and collect all physical evidence
9. Conduct a final survey
10. Release the scene when you are satisfied that you have accomplished everything you can.

B. Preparation

1. Evaluate the current legal ramifications of crime scene searches. (e.g., obtaining of search warrants)
2. Accumulate packaging and collection materials necessary for typical search circumstances.
3. Prepare the preliminary format for the paperwork needed to document the search.
4. Discuss upcoming search with involved personnel before arrival at scene, if possible.
5. Make preliminary personnel assignments before arrival at scene, if practicable.
6. Organize communication with services of an ancillary nature (e.g., medical examiner, prospective attorney) in order that questions, which surface may be resolved. Take steps to organize a “command post” headquarters for communication, decision-making, etc. in major/complicated investigations.

C. Basic Premises

1. The best search options are typically the most time consuming.
2. You cannot over document the physical evidence.
3. There is only one chance to perform the job properly.

D. Approaching the Scene

1. Approach every scene in a safe manner. Officer safety is always the first priority.

2. If necessary render aid to the victim(s).


4. Make pertinent notes.

5. Establish frame-of-mind to take control of scene regardless of circumstances observed on arrival.

6. Is this a HAZMAT situation?

7. Secure and protect the scene.
   a) Take control aggressively on arrival.
   b) Determine extent to which scene has thus far been protected.
   c) Check for adequate scene security even if advised that it has been protected prior to arrival.
   d) Obtain information from logical personnel who have entered scene and have knowledge relative to its original condition.
   e) Identify one individual who is designated as the person-in-charge for final decision-making and problem resolution.
   f) Take extensive notes—DO NOT rely on memory.
   g) Keep unauthorized personnel out — begin recording who enters and leaves (entry log).

E. Initiate a Preliminary Survey of the Scene

1. The survey is an organizational stage to plan for the entire search.

2. A cautious walk-through of the scene is accomplished.

3. Select appropriate narrative description technique.

4. Acquire preliminary photographs.

5. Delineate extent of the search area—expand initial perimeter if necessary.

6. Organize methods and procedures needed—recognize special problem areas.
7. Determine personnel and equipment needs—make specific assignments.

8. Identify and protect transient physical evidence.


10. Brief team

F. Evaluate Physical Evidence Possibilities Around and Within the Scene.

1. Based on preliminary survey (type of crime), establish evidence types most likely to be encountered.

2. Insure collection and packaging equipment is sufficient for task at hand.

3. Concentrate on the most transient evidence and work to the least transient forms of this material.

4. Focus first on the easily accessible areas in open view and progress eventually to possible out-of-view locations—look for purposely hidden items.

5. Consider whether the evidence appears to have been moved inadvertently.

6. Evaluate whether or not the scene and evidence appears intentionally “contrived.”

G. Document the Scene

Documentation of a crime scene is extremely important. *The Golden Rule Is; Do Not Touch, Move, Or Alter Any Evidentiary Item Until You Document The Scene.*

The following formats are specifically designed to assist the crime scene investigator/search leader from a planning perspective. These formats, the Photographic Log, the Video Shot Log, the Diagram/Sketch, the Evidence Recovery Log and the Latent Print Lift Log provide detailed documentation of the actual search process.

The following documents are examples of important categories of documentation that are considered directly applicable to virtually any search:

1. Prepare a Narrative Description

Notes are indispensable and considered the nucleus of all documentation techniques no matter what additional methods are being used. You should always use a bound type of notebook to document your notes. The notes should be written in ink not a pencil unless absolutely necessary. Number the pages consecutively, in advance, to avoid any subsequent allegations about removing or destroying pages. Draw a single line through any errors you may make rather than obliterating the error or removing the entire page. Date the error, initial and then make any corrections. Try to make all
entries in chronological order leaving with no blank spaces. It is a good practice to initial and date each page as you complete them.

a) Basic requirements:
   (1) Legible
   (2) Accurate

b) Purpose
   (1) Assist with the preparation of your written reports.
   (2) Refresh your memory during the investigation and at trial.

c) Rough notes would include:
   (1) Your assignment
   (2) What you observed while performing your duties.
   (3) People contacted, interviewed, or arrested
   (4) Evidence found or recovered.
   (5) Time cleared.
   (6) What did you observe upon your arrival?
   (7) Names of the first officer/agent, and agency on the scene?
   (8) Who else was on the scene? (e.g. fire, medical personnel, etc)
   (9) What were the conditions inside the business/residence?
   (10) Methods of narrative—written, audio, video (sight/sound or sight only).

Remember your written notes will bring together all other forms of documentation. Notes should be accurate, legible and they should begin with the date and time you received the assignment and end with the time you cleared the assignment. Record facts, observations, and victim and witness statements, avoid making conclusions and evaluations in your notes. Each investigator should keep notes of their activities including the search methods employed. All of your written notes need to be preserved for court.

2. Depict the Scene Photographically

You should recognize the importance of photography to document a crime scene or search site, even though it is not used to its maximum potential at many incidents. Photography is an excellent means of documenting a great amount of detail. Remember photographs should be fair and accurate, and represent the crime scene exactly as you found it.
a) Begin photography/video as soon as possible—plan before taking shots

b) Start a photography log, which should include information such as the photographic conditions, date, time, frame number, subject matter, location, and so forth. This information can be very important for interpretation of photographs.

c) Insure that a progression of overall, medium and close-up views of the scene is established. Do not place numbers in these pictures.

d) Use a recognized scale device and evidence number for size determination and identification when applicable.

e) When a scale device and evidence number is used, be sure to take a picture without them in the scene.

f) Photograph/videotape evidence in place before its collection and packaging.

g) Be observant of, and photograph/video tape areas adjacent to, the crime scene—points of entry, exits, windows, attics, etc.

h) Photograph/videotape items, places, etc., to corroborate the statements of witnesses, victims, and suspects.

i) Take photographs/ videotape from eye-level, when feasible, to represent scene as it would be observed by normal view.

j) Photographs are two-dimensional and are usually supplemented by diagrams/sketches.

k) Create a photo diagram if necessary.

l) Prior to lifting latent fingerprints, photographs should be taken 1:1, or using appropriate scale.

m) Videotape can be used to supplement your narrative and photographs, and video can best be used in the overall shot or documentation of the scene.

3. Prepare a Diagram/Sketch of Scene

Sketches and photographs compliment your field notes, they do not replace them. They refresh your memory of the event and they provide a permanent record of the incident. Distances are best documented by creating rough drawings or sketches with all the significant dimensions accurately recorded.

a) The diagram establishes a permanent record of; items, conditions and distance/size relationships. Diagrams supplement photographs.

b) A rough sketch is drawn at scene and changes may not be made once
you have left the scene.

c) Number designations on sketch should be coordinated with same number designations on the evidence log.

d) The sketch should contain sufficient measurements and detail to be used as a model for a drawn-to-scale, or smooth, diagram, if necessary.

e) Be sure to select a sketch technique before beginning the sketch—insure that enough room is allowed to include all pertinent information.

f) Accurate and consistent measurements must be taken before the evidence is collected. Triangulate for exact distance. Use the lowest scale on the ruler/tape that you use for taking the measurements. The measurements should be recorded on a separate piece of paper, the key or legend, rather than on the rough sketch itself.

(1) Straight Line - Measurements are taken from fixed points to either side of the object.

(2) Rectangular Coordinates – The Baseline technique is the simplest form of the rectangular coordinate system. Using a straight line between two known points, items are measured along the line and perpendicular from the line. Inside or outside of a house, this line can be a straight wall. Outdoor scenes can use a string or long measuring tape as the reference or base line.

(3) Triangulation - Measurements are taken from two fixed points to point on the item as to create an imaginary triangle. This is usually done from two or more points on the evidentiary item.

g) Insure necessary administrative information, such as the scale disclaimer (not drawn to scale), is recorded on sketch and a;

(1) Title block that contains, at a minimum:
   (a) Case number
   (b) Exact location
   (c) Date and Time
   (d) Person preparing the sketch and all those who assisted.
   (e) Compass orientation (North arrow)

(2) Key or legend containing
   (a) Evidence is represented by numbers (DO NOT USE I and O)
   (b) Fixed points and large objects, represented by letters
   (c) Measurements
(d) Other symbols used such as:
   (i) Direction of stairway
   (ii) Direction a door opens

h) General Progression of Sketches:
   (1) Overall or area sketch
   (2) Scene/incident sketch
   (3) Place fixed objects, furniture, etc.
   (4) Insert evidence as it is recovered
   (5) Record appropriate measurements
   (6) Place the key/legend compass orientation, etc.

Do not overcrowd the sketch with nonessential items or details. The rough sketch may also be required to be produced at the trial.

**Remember, you must complete the rough sketch and all necessary corrections before leaving the crime scene.**

H. Conduct a Detailed Search

The search for physical evidence must be thorough and systematic. If you fail to recognize an item as a piece of evidence, or improperly collect the item, it will not serve any purpose in your investigation. Remember that all scenes are three-dimensional never forget to look up.

1. Search Patterns

   a) Strip or Lane Search Method

   Usually used for covering large or open areas.
   Personnel will line up shoulder to shoulder; usually an arm’s distant away from each other and move slowly along examining parallel strips of terrain.
   When a suspected piece of evidence is located they will call the Team Leader before taking any action. Personnel should try to maintain the straight line and move forward together to avoid missing areas.

   b) Grid Search Method

   Variation of the strip search method-best used outdoors. Personnel will search a strip along one axis, east to west and then come back and cover the same area on a north to south axis. This method provides a double check of the search area.
c) Zone or Sector Search Method

Area to be searched is divided into zones or sectors. Each person is assigned a sector to do a thorough search. The sectors can then be searched by another if necessary.

d) Point to Point

Even though this is not very systematic, it can be used in small confined areas.

e) Spiral or Circular Search

Typically used for outdoor scenes. This search pattern is usually conducted by a single searcher who walks in a slightly decreasing, less-than-concentric circle from the outermost boundary towards the center. The process should not be reversed. Can be used for underwater searches.

f) Clockwise – Counter Clockwise - Inside

This search pattern involves two agents working together. One agent would search in a clockwise direction searching the area from the waist up to the ceiling. The second agent would search counter clockwise waist down to floor. Once you have completed one pass you will reverse roles and repeat the process.

2. Searching

The Team Leader should analyze and evaluate the crime scene before they or other personnel enter the area. Determine where other personnel have walked, mark and try to adhere to that path of travel, if practical, to avoid additional destruction of evidence. Visually locate the essential items of evidence. Record in your mind or in notes what will you have to measure, photograph and collect. Remember to brief those who will be assisting you.

If you are part of the search team listen carefully to the Team Leader’s briefing and limit your movements to those areas designated. A crime scene is not a place to fool around. Take the assignment seriously; when you have located any suspected items of evidence notify the Team Leader before taking any action.

a) Accomplish search based on previous evaluation of evidence possibilities.

b) Conduct search in a general manner and work to the specifics
regarding evidence items.

c) Use of one of the specialized search patterns listed above when possible.

I. Record and Collect Physical Evidence\(^5\)

1. Photograph or videotape all items before collection and enter notations in photographic or video log (remember—use scale when necessary).

2. Mark evidence locations on the diagram/sketch.

3. Complete evidence log with appropriate notations for each item of evidence.
   a) Have at least two persons:
      (1) See evidence in place before collection
      (2) Observe it being recovered
      (3) Mark the evidence (mark item itself whenever feasible)
      (4) Count currency, or inventory valuables seized as evidence/contraband.
      (5) Place identifying marks on evidence containers, e.g. date, time, case number, name of agent, etc.
   b) If feasible, have one person as an evidence custodian.
   c) Do not handle evidence excessively after recovery.
   d) Seal all evidence containers at the crime scene.
   e) Do not guess on packaging requirements—different types of evidence can necessitate different containers.
   f) Do not forget entrance and exit areas at scene for potential evidence.
   g) Be sure to obtain appropriate “known” standards (e.g., fiber sample from carpet).
   h) Be sure to obtain appropriate “known” standards (e.g., fiber sample from carpet).
   i) Be sure to obtain appropriate “known” standards (e.g., fiber sample from carpet).
   j) Constantly check paperwork, packaging notations and other pertinent

\(^5\) See Section VI Collecting, Packaging and Processing Some Common Items of Evidence.
recordings of information for possible errors, which may cause confusion or problems at a later time.

J. Conduct a Final Survey

1. This survey is a critical review of all aspects of the search.
2. Discuss search jointly with all personnel for completeness.
3. Double-check documentation to detect inadvertent errors.
4. Check to insure all evidence is accounted for before departing scene.
5. Insure all equipment used in the search is gathered.
6. Make sure possible hiding places or difficult access areas have not been overlooked in detailed search.

K. Release Crime Scene

1. Release is accomplished only after completion of the final survey.
2. At minimum documentation should be made of:
   a) Time and date of release
   b) To whom released
   c) By whom released
3. Insure that appropriate inventory has been provided, as necessary considering legal requirements, to person to whom scene is released. Once the scene has been formally released, re-entry may require an additional warrant. In addition, evidence recovered during a re-entry may not have the integrity as that recovered during the original search.
4. Only the person-in-charge should have the authority to release the scene.
5. Consider the need to have certain specialties observe the scene before it is released (e.g., blood pattern analysis, medical examiner).

V. Collecting, Packaging and Processing Some Items of Evidence Found within the Scenario

A. Handling Evidence

Each class of evidentiary items is handled differently. Remember that there is no set procedure applicable to every case. There are general principles and guidelines that must be followed and used in most cases. One of the most
important principles is that evidence of a fragile nature must be collected first as it can easily be destroyed by personnel, changing environmental or other conditions.

Examples of fragile evidence include:

a) Trace materials such as hairs and fibers.
b) Various body fluids (DNA evidence)
c) Latent friction ridge evidence
d) Volatile liquids

When collecting evidence it is suggested that you wear gloves to protect yourself and the item. Always be aware of possible hazmat difficulties in collecting evidence especially with body fluids and volatile liquids.

*Each item of evidence collected should be marked for identification. This marking is accomplished by placing your initials, date, item and case number on the item, package or tag as appropriate. Seal container and place your initials and date along the seal edges where they make contact with the packaging.*

You should mark the item whenever possible if the mark does not destroy potential evidence. If there is a possibility that you could destroy evidence mark on the container you put the item in.

If you are unsure of what type of packaging to use, and the item is not a liquid or very wet, place the item in a porous container.

B. Evidence

1. Blood and Other Body Fluids

Moist or wet biological evidence from a crime scene can be collected in clean, unused plastic containers at the scene and transported back to an evidence receiving area if the storage time in sealed plastic does not exceed two (2) hours. This is done to prevent contamination of other evidence. Once in a secure location, wet evidence whether packaged in plastic or paper, must be removed and allowed to completely air dry. The evidence can then be repackaged in a new, clean, unused, dry paper container. Under no circumstances should evidence be sealed in a plastic container for more than two (2) hours. Moisture allows the growth of microorganisms that can destroy or alter evidence.

Blood evidence must never be exposed to excessive heat or humidity. If possible, the bloodstained evidence should be refrigerated until it can be transported to the crime lab.

a) Clothing or fabrics

Do not expose the wet item to excessive heat. Allow the wet item to air dry naturally by hanging it on a clean hanger or on a clean surface.
The item should be placed over a clean piece of collection paper. Handle the item as little as possible. When the item is dry, package it in paper or a porous container. Be sure to package the paper that was placed under the item as it was drying. This paper should be packaged in a separate porous container. (Usually collect wet bloody items first)

b) Non porous surfaces, dry stain

After photography, scrape the stain onto a clean piece of paper with an unused razor blade or similar instrument; use only one blade for each stain. Collect the scrapings into a druggist fold, along with the razor blade and submit to the lab. Be sure to note “Sharp Hazard” on the packaging.

c) Other

If the blood spatter is located on an item that can be collected, collect and properly package the item for submission to the lab. Then seal with evidence tape and mark on the outside for identification purposes.

2. Friction Ridge Impressions (Fingerprints, Palm Prints and Barefoot impressions)

There are three basic types of friction ridge impression evidence that may be left at the crime scene. These are referred to as visible, plastic and latent impressions. Friction ridges that are stained make visible friction ridge impressions with colored substances such as blood, ink, paint, grease or dirt. A visible print usually requires no further development techniques to be seen by the naked eye. A plastic impression is actually an indentation into a soft substrate such as chewing gum, wax, soap, putty, tar, butter or clay. Plastic impressions are usually photographed but may also be cast with a casting material to lift the impression. Latent impressions in the true sense means hidden or not visible. These impressions require some sort of developing technique to be seen by the naked eye.

In this day and age all friction ridge impression evidence recovered from or in conjunction with a crime is referred to as latent prints or latent impression evidence.

Surfaces: There are two types of surfaces, non-porous and porous. Consider that on a non-porous surface, the latent impression “rests” on the surface, and special care must be taken as to not wipe the latent print from the surface. While the latent prints deposited onto porous surfaces are “absorbed” into the item.

A systematic search of the crime scene should be used to locate latent impression evidence. Depending on the type of crime, the search should
start at possible points of entry continuing into the immediate area surrounding the actual crime scene. Once that is completed, the search should continue in a logical way trying to follow a path of exit that may be the same as the point of entry that the suspect may have taken. Search for friction ridge impressions on any item that has been moved or seems out of place. If possible, ask the victim to assist you with locating what has been moved. The following are some suggested areas and objects to consider:

a) The pathway traversed by the criminal, which may include the doors, windows, hallways, staircase handrails, windowsills, and other possible points of entry and exit.

b) Objects or materials that may have been touched by the criminal such as light switches, tables, drawers, doors, door knobs, mirrors, desks, closets, telephones, refrigerators, liquor cabinets, counter tops, and toilet seats.

c) Weapons or tools used by the criminal, such as knives, screwdrivers, credit cards, flashlights, or vehicles.

d) Locations where valuables are kept such as a wallet or pocketbook, cash register or security boxes.

e) Objects or materials destroyed by the criminal, such as broken glass, broken doorknobs, torn papers, etc.

f) Articles or materials that the criminal may have left at the scene, such as bottles, cans, cigarette butts, empty cigarette packages, matchbooks or any personal property.

Visible or plastic prints must be photographed as found. In some cases you may be able to collect or cast the impression but before doing anything be sure to photograph the impression. A data card should be prepared which would contain the case number, your initials, date, location of impression, the name of the officer who discovered the print, and the name of the photographer. Take a second photograph containing the data card and a ruler for scale. The aim is to compose a photograph with clear friction ridge detail along with the documentation necessary for later identification. You should also complete a sketch of the object on which the impression was found. Indicate the exact location of the impression and the orientation of the impression if you are able to determine that.

g) Basic Methods for Developing Latent Impressions

Physical Methods: Physical methods depend on the adherence of inert materials to friction ridge residues. The most common method for developing latent impression evidence is the use of powder dusted onto the surface of an object using a special bush.

(1) Locating and developing latent impressions using the powder
dusting procedure:

*If crime scene photographs will be taken, they should be taken prior to any search for latent impression evidence. If it is a major crime you may also have to complete other examinations prior to your search for latents.*

Search surfaces to find visible latent impressions through the use of a strong flashlight held at an oblique angle to check the surfaces. If latent impressions are visible before processing you should photograph them, using a close up lens. Remember that just because you don’t see the impression doesn’t mean it’s not there. That is why they are called latent prints.

Don’t examine just the obvious, but also look for the not so obvious places that a suspect may have touched. As an example if you find a flashlight, examine the batteries; a gun the magazine and each cartridge; the bathroom the toilet seat.

You should recover all latent print impressions that show signs of friction ridge detail no matter how small it may be. The decision “of value” or “not of value” should be left to the latent print examiners.

(2) Select an appropriate powder and brush.

If you are unsure of the type to use, place a test impression on the surface away from the suspected area. Dust this area and check the results.

(3) Brush selection

Non-magnetic versus magnetic.

For field use the most common practice is to use a powder brush.

Magnetic "brushes" can be used to “dust” almost any surface type but are mainly used within a laboratory environment.

(4) Powder

Select a powder color that contrasts with the surface.

Before starting be sure that the fingerprint powder does not contain lumps. Shake or stir the powder in the container. If the
fibers of the brush are wider than the mouth of the jar do not put
the brush into the jar.

Before using a regular powder brush, “fan” the brush to get rid of
powder residues, contaminants and “open” up the fibers. Dip the
tips of the brush in a SMALL amount of powder poured out from
the container. Do not attempt to put a powder fiberglass brush
inside a container, if the mouth is smaller than the diameter of the
brush. This will damage the fibers.

Gently “fan” off the excess powder. Too much powder is one of
the most common mistakes made.

Carefully dust the suspected area using gentle
strokes, or a light spinning of the brush. As the
impression develops follow the flow of the
ridgelines.

If you dust across the ridgelines, you could
destroy the impression.

Gently clean up the developed impression until the ridges
become clear and distinct.

Occasionally you may notice that certain latent impressions
develop with very poor contrast. One reason this may occur is the
presence of only a slight amount of residue. You may be able to
add residue and improve the contrast by breathing very lightly on
the impression, allow the impression to “dry” and then process
the impression with powder.

h) Collection of latent impressions

Once a fingerprint has been developed, and photographed, other
methods of preserving and collecting it may be attempted. With
objects such as paper or glass, which are small, you may retain the
entire object as evidence. The object should be handled with gloves
or a handkerchief and touch the object as little as possible.

When the print appears on a moveable object, such as a weapon or a
bottle, it may be advisable to cover the print with the fingerprint tape,
and then transfer the entire item to the laboratory. Use care in
applying the tape so as not to destroy the ridge details. All such
Evidence should be placed in proper containers, secured, labeled and sealed, before transporting it to the laboratory.

If a fingerprint appears on an immovable object, such as a wall or a counter top, the print can be lifted after it has been photographed. In applying the lifting tape, the end is placed a little distance away from the print and the tape is carefully smoothed out over it. Hopefully, air bubbles may be avoided by using a gradual but deliberate technique to apply the tape. The tape is carefully removed and placed on a backing card.

**Remember** Latent impressions like all physical evidence must be properly documented and protected.

Each lift-backing card should contain important information such as the date, time, location, case number, and the object from which the impression was recovered. The name of person lifting the impressions, and a small diagram illustrating the specific area from which the impression was lifted should also be included.

Create a chain of custody for the lift backing cards and secure them until they are submitted to the laboratory for comparison with a known suspect.

3. Hairs and Fibers

When possible submit the entire garment or textile. Loose hairs and fibers should be placed in a clean folded piece of paper or an envelope with sealed corners. Collect standards for the laboratory. Control samples for hair should include about 25 combed and pulled hairs from the head and pubic region. These hairs should be placed in a clean folded piece of paper or an envelope with sealed corners.

Mark the envelope on the outside for identification.

### VI. Chain of Custody

A chain of custody records the movement of the evidence. It is the “life history” of the item from the time that it was discovered until it is no longer needed.

Complete continuity in the chain of custody is essential to the admissibility of an item of evidence in judicial proceedings. An item of evidence, whose custody cannot be firmly established from the time of discovery to court presentation, may not be admitted no matter how potentially informative it could be.

To maintain a secure chain of custody:

---

6 Establishing a chain of custody requires that the whereabouts of the evidence at all times since the evidence was involved in the events at issue be established by competent testimony.
1. Mark each item for identification purpose in such a manner as to not destroy any evidentiary value of the item.

2. Enter the item on the chain of custody when found, ensuring that the item number is the same as entered on your evidence log, placed on the item and on the sketch if one is drawn.

3. Ensure that you properly record the chain of custody information at every stage of evidence handling or transfer from one person to another and document the reason for the transfer.

4. Store the items in a secured vault or special room with limited access.

5. Limit the number of personnel who are involved in the movement of the evidence.

6. The longer the chain the more potential there will be for a weak link to exist.

VII. Conclusion

All items that have been recovered as evidence at the crime scene should be considered significant and handled properly. Cases are never lost because too much evidence had been gathered and preserved. Cases are often lost because the officer or investigator conducting the crime scene search decided that some pieces of evidence were not important and failed to collect and preserve them. Always recognize that physical evidence must be in its original state when received by the laboratory in order to obtain a good scientific analysis.

All evidence found must be carefully collected. Handle the evidence in a manner that will avoid contaminating it. Then mark, log and package the evidence so that it will not be contaminated or damaged during transportation.

The finder must identify all evidence. This is necessary for use as evidence in court. Usually, we identify evidence by marking on the evidence itself. If this is not practical, the identification markings should be placed on the container in which the
evidence is placed. If the identification markings are placed on the evidence itself be sure they are in a place where they will not hinder a laboratory examination. Usually, initials, dates, and identifying number will sufficiently identify evidence. The identifying number refers to an agency case number or evidence number. Then record that number in your notes, where you record the complete details concerning the finding of the evidence.

Keep accurate and complete notes. It is impossible to remember the circumstance surrounding the finding of several items of evidence. Besides just recording the usual data about the piece of evidence, your notes should contain something about the piece of evidence. As an example, note that blood and hair were found on the barrel, the position in which the weapon was found and anything else unusual that you may observe about this piece of evidence.

After you have collected the evidence, package each item of evidence separately. This prevents contamination by the transfer of small evidence items such as hairs and fibers from one item of evidence to another.

Maintain the chain of custody for the evidence. In order for physical evidence to be admissible in court, you must account for every step in its handling. This includes the time when the evidence was found at the crime scene until it is presented as evidence in court. This is another reason to have accurate and complete notes. Keep the number of persons involved in the handling of evidence to a minimum. Remember that it may be necessary for all those who handled the evidence to testify. If possible, the officer who collects the items of evidence should also handle transportation of shipment to and from the laboratory.

Do not delay in getting evidence to the laboratory. If practical, take it. Otherwise, send it by registered mail or other agency-approved carriers.

Common Errors:
1. Lack of organization and communication between team members
2. Improper protection of the scene
3. Failure to secure the scene from unauthorized personnel
4. Too many personnel involved in the scene search
5. Failure to take proper notes.
6. Taking too few rather than too many photographs.
7. Using improper search techniques
8. Failure to investigate beyond the immediate scene
9. Improper handling, collection and packaging of evidentiary items
10. Moving/collecting items before documentation
11. Placing wet items in plastic bags for longer than two hours
12. Failure to recognize evidence
13. Failure to canvass the area for witnesses
14. Jumping to conclusions
15. Failure to restrict your information, evidence, etc.

VIII. References
Criminal Investigation, Swanson, Chamelin and Territo, McGraw Hill, 2003
Handbook of Forensic Services, Federal Bureau of Investigation, DOJ 1999


A. Notes

Name: ________________________________ Class #: ______________
Case #: __________________ Start Time: _________ End Time: __________
Type of Incident: ___________________________ Date: __________
Location: _________________________________ State: ___________
Weather: _________________________________

TEAM MEMBERS
Team Leader: _______________________ Photographer: ______________
Evidence Custodian: __________________ Sketcher: __________________
Others: ____________________________                  __________________

Purpose of the Operation:
                                                                                           
                                                                                           
                                                                                           
Initial Observations:
                                                                                           
                                                                                           
                                                                                           
Duties and Synopsis of actions:
                                                                                           
                                                                                           
                                                                                           
Victim: _________________________________ DOB: __________
Address: _____________________________________________________________
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
INTRODUCTION

The word conflict in and of itself seems to carry an automatic reaction of fight or flight. A stress reaction seems to begin with just the slightest inclination that conflict is afoot. It is not, however, like stress itself, a negative word. It just seems to have evolved into a negative linkage that is tied more to mismanaged conflict than conflict itself.

The fact of the matter is that the world would not have developed as it did without conflict. In some cases the conflict was between supply and demand and the result was invention. In some cases it was between freedom and tyranny and the result was revolution. The point still exists, though, that as long as man exists, so will conflict.

Conflict is often good because it brings about change. The problem lies in the violent reaction to conflict. This is where you, the law enforcement officer, become involved.

What happens when you arrive on the scene of a conflict that is very volatile but not yet involving physical assault or battery? What is your role? Is it time to take sides and fight for the right?” Must you protect the side to which you are vehemently opposed? Do your values get convoluted in the uncertainty of the fray?

Conflict, for our purposes is “any action or activity that is incompatible between two of more persons.” When referring to a law enforcement officer approaching conflict, we are speaking of one who should be “an objective third party with authority.”

This objectivity, in many cases, may be one of your most effective tools for officer safety and survival. How can this be?

As you arrive on the scene of a conflict, it is easy to make a snap decision as to who is the “aggressor” and who is the “victim.” Your role may be perceived by you as a rescuer. There are, however, other perceptions at play here.

The aggressor may see himself as a “victim” facing an “aggressor” law enforcement officer. If we make their perception a reality, they will surely defend themselves. The other party (who may have a strong bond with the original “aggressor”) may perceive you as a threat to that individual and attack you as well.

This misperception is particularly true in the case of domestic disputes. While a spouse may be in conflict, it is frequently seen as a personal problem and you may be perceived as an unwelcome aggressor.
DOMESTIC VIOLENCE

In the not too distant past, in those situations where battery of a spouse occurred, the battery was viewed as a crime against the person and the victim would have to file a “complaint” in order for the battery to be prosecuted.

After some extreme cases of spousal abuse caused a public outcry (see Appendix 1A), the justice system, as a whole, began to look at domestic violence in a pro-active way.

A study was conducted in Duluth, Minnesota, where laws were changed to not only allow officers to arrest based upon probable cause, but also mandated that arrests take place. The end result was a decrease in domestic battery repeat offenses; fewer call backs to violence.

Laws have been changed now in most states, making domestic abuse a crime against the state and no longer requiring a “complaint” by the victim. In many of these states, and the District of Columbia, officers are not just allowed to arrest if probable cause exists that a domestic battery or even (in some jurisdictions) threats, but are mandated under penalty of law to make such arrests. Law enforcement officers must know the laws in the area where they patrol, as well as their jurisdiction to enforce those laws.

There are some dangers here that need to be addressed. With these new laws, discretion is greatly reduced and arrest may be mandatory. This can cause some officers, from a perception of self-defense, to arrest too quickly. Remember your primary role: an objective third party with authority. Objectivity cannot be discarded in favor of prejudice or poor questioning skills.

Domestic violence, like sexual harassment, is frequently associated with men abusing women. This is a dangerous prejudice that can result in tragedy! Domestic violence is not an exclusive man against woman offense. Upon arriving on a scene where a female shows signs of injury, it is easy to reach a “knee jerk” reaction and ask, “Did he hit you?” That doesn’t sound very objective, does it? “Tell me what happened” to both sides individually and apart from the other may give you a better picture and assure the probable cause that you need. Good interviewing skills are essential! (See Appendix 1B).

Signs that you may see as abuse may in fact be defensive. Some states also have laws related to mutual battery that may require that both parties be arrested to provide courts the vehicle to mandate help with the problem.
RECOMMENDED TECHNIQUE

All these theories steps and skills sound really nice, but how do we put these to work in the "real world" as law enforcement officers? We need to combine them into a simple set of workable steps that can be followed.

1. **DATA GATHERING** – This begins with the dispatch call, a complaint from the reporting party, or your initial observation, and continues throughout the process of conflict management and resolution. Gather as much data as possible before arriving on the scene. Information used to assess the situation and potential danger may be available from the dispatcher, i.e., type of incident reported, criminal history checks, and prior calls to that location.

   You should remain observant and open to verbal and nonverbal communications from all available sources until the situation has been resolved.

2. **APPROACH AND ENTRY** - Look for personal effects at the scene that indicate lifestyle and behavior patterns of the involved parties (i.e., hunting trophies or deer antlers may warn of a gun on the premises). Observe the exterior and interior of homes, buildings, vehicles, tents, campsites and other facilities. Consider possible environmental hazards and note areas of cover or concealment. Identify possible escape routes.

   Determine the safest direction for your approach. Listen and observe to determine the nature of the conflict, level of emotions, if weapons are present, and the potential for violence before entering the scene. If there are bystanders, you may be able to get valuable information by talking to them and getting their perceptions of the conflict before entering the scene. Don’t forget, however, that bystanders are often not objective and may have a stake in the outcome of the conflict.

   Do NOT be in a hurry! Enter with caution! This is no time to be careless! Remain as calm as possible and observe appropriate officer safety and survival tactics.

3. **DISTRACTION** - Announce your presence, identify yourself (even if you are in uniform) and move to a location where all parties can see you. Distraction may be accomplished by your mere presence as a law enforcement officer. Sometimes, the conflict may be so intense that you will need to give a command in a loud voice, use a loud whistle or other distracting noises to gain attention.

   There may be situations where a quiet, calming voice may be more distracting to disputants than your loud command or noise. Be flexible. If something isn’t working, try something else!
After the initial distraction is created, it is necessary for you to **take advantage of the often brief break in the conflict**. Further distraction may be created by asking for names, addresses and other background information before going into the specifics of the situation. Remember that anonymous people are not accountable for their actions and are more likely to cause problems for you. **Get their names as soon as possible.** Ask the person to speak slowly and clearly, and to spell names.

Whatever method is used to distract the disputants from the conflict, it is critical that you display a professional appearance, a non-threatening demeanor and self-assurance. An “I am here to help” demeanor is more effective than an “I am here to settle this” demeanor.

4. **SEPARATE AND POSITION** – Once the distraction is achieved, you should **separate the disputants and interview them individually**. The separation will minimize a flare-up of accusations or attacks between the disputants. This also will give you better control and facilitate interviews on a “one-on-one” basis.

If you don’t have a backup, try to keep both parties in your sight, but separated where they do not have direct eye contact. If you have a partner, try to get them back to back to avoid eye contact and to ensure eye contact between you and your partner.

It is sometimes possible to move people without touching or even saying anything to them about the move. Our knowledge of eye contact tells us that a person who is sincerely listening will keep a general eye contact with the speaker. We can use this to our advantage by moving while we talk to get the other person to move to a more desirable position.

Disputants should be separated by distance or moved into separate rooms as long as the officers can **maintain eye contact with their partners**. If outside, natural barriers or available man-made barriers, such as squad cars, can be used to separate people. Remember that **officer safety** is of paramount concern.

In an enclosed area, you should remain closest to the exit for safety and to prevent persons leaving or entering the scene without authorization. After de-escalation, you may choose to move to other locations, still keeping officer safety in mind and having an escape route.

5. **LISTEN** – Use all the communications skills in your training to ensure that you **get the entire story**. Remember than an angry person needs to vent, but they cannot be allowed to continue to be disruptive forever.

If you have a partner or backup, remember that you only have one side of the story. Your partner has the other person’s side and you will need to discuss the situation with your partner before you proceed. Ensure that the disputants will not escalate the conflict while you **talk with your partner to establish the real reason for the conflict from both perspectives**.
CONFRONT THE PROBLEM - Are the issues tangible or intangible? Is this a value conflict? Are both parties open to a negotiated solution?

Diagnosing the nature of the conflict is the starting point for dealing with any conflict. This allows you, the law enforcement officer, to select, from the continuum, the option appropriate to the circumstances. Here avoidance is not an option since you have been sent to the scene.

Arrest is an option if the elements of a crime exist. Remember to be objective and get the whole story, unless exigent circumstances require quick action.

Defusion may be appropriate if a cooling off period seems to be in order. If the parties are not likely to see each other again, this may end the conflict permanently. Otherwise, if time allows, a more complete solution should be found.

Arbitration may be effective, especially in disputes over which you have direct power. An example of this would be a traffic accident where you will listen to both sides and then make your decision.

Referral is an option where a conflict has complicated underpinnings. Referral to other professionals may also be the result of a negotiated solution between parties.

Negotiation/mediation offers the best long term solutions to most problems but is only possible if all parties are willing to participate in the mediation and when time is available for the officer to help them work out a solution. Make sure that you confer with your partner to ensure that both parties are open to mediation.

If you feel that the parties are ready to talk to one another, under your guidance, the time has come to bring them back together, but some “ground rules” must be agreed upon.

You, the law enforcement officer and objective third party with authority, must initiate the process, create the atmosphere, and set ground rules for the discussion.

This not only distracts the parties from the conflict, but helps reduce tension by telling them what they can expect, what you are going to do, and assuring them that each one will get a chance to tell his/her side of the story.

-- One person talks at a time. Interruptions should not be allowed, but the interrupting party should be given assurances that his/her point of view will be heard. It is a good policy to let the person who seemed most aggressive or emotional to speak first; he/she would be more inclined to interrupt, and speaking first may allow the person to vent and relax.
-- Disputants should not attack or demean the other party. This may be accomplished by asking them to begin each sentence with the word “I” (i.e., “I think,” “I feel,” “I want,” “I see”). This creates less defensiveness in the other party and helps the speaker understand his/her own position better.

-- Each party should state the tangible effects the conflict has or will have on them.

7. PROBLEM SOLVING - There are some simple questions that can assist you with the problem solving process to negotiate a consensus decision. These are simple questions, but they are effective.

To clarify the problem ask the disputants, “What do YOU see as the problem?” or “What do YOU see as causing the problem?” Listen carefully to their answer and then paraphrase the answer, “What I hear you saying is . . .?” or “Do I have this right . . .?”

Try to get the disputants to then offer all possible solutions to the conflict. Ask “What do YOU think are the possible solutions?” Again listen and paraphrase the list of solutions.

To clarify a starting point, ask “What do YOU think is the best solution?” There will usually be some common ground amongst the solutions offered, and negotiation can move freely from that point (under your continued guidance).

8. RESOLVING AN IMPASSE - There will often be times when the communication stops, when neither side seems willing or able to see the other point of view or to make a compromise. This is called an impasse. When an impasse is reached, you should be aware that to the disputant(s) there is a very strong need or compelling reason behind the impasse. Often the reason for the impasse is tied directly to the reason for the conflict.

- There may be a need for the relationship to continue even though conflict is an on-going part of the relationship. This can occur in marital relations, business partnerships, and other workplace conflicts. The need for the continuation of the relationship out weighs all other considerations. Fear that any change in the relationship would jeopardize it may keep a party from seeking resolution.

- There may be a desire in one of the parties for the relationship to end and the conflict may be a means to accomplish that goal.

- There can be a desire to force the other party to “wake up” and face “reality” as the disputant sees it.

- A need for attention or affiliation (belonging) may cause a person to turn to conflict when nothing else has worked.

- A need to maintain or develop self-esteem can keep a party from being able to compromise, if he/she perceives compromise as “losing.” The need to “save
“face” is very strong.

In order to reach beyond this impasse, an officer may try several techniques.

- **Summarize the points of agreement while minimizing disagreement.** This is accentuating the positive while minimizing the negative aspects of the dispute. This shows disputants their progress so far and lets them feel that they can resolve this conflict themselves.

- **Use affirmation.** Praise the effort that they have displayed in getting to the point they have reached (i.e., “You are working very hard to resolve this and I appreciate it” or, “You are responsible for the success of this agreement.”

- **Use “What if...?” questions.** Try to reopen the channels of communication by offering logical, hypothetical solutions. Even if they do not like the solution you present, it will get the disputants communicating again and often will result in the disputants coming up with additional suggestions.

9. **PLANNING IMPLEMENTATION AND EVALUATION** - After a solution has been agreed upon by the parties involved, it is necessary for you to help with planning for the implementation of the solution to assure that it is clearly understood and will be adhered to by all involved parties.

   How? When? By whom? It is important that the parties know exactly what is expected from each of them and to understand what the expected outcome will be. This may result in more discussion or even in starting over again, but uncertainties and misconceptions must be dealt with before the resolution will be effective.

After a reasonable period of time, agreed upon by the disputants, they should review the solution and its results. You may decide to remain part of the process and make arrangements to meet with them at a specific date and location. Regardless of whether you are involved in the evaluation process or the disputants meet on their own, you should make sure that a specific date, time and location have been agreed upon for the evaluation.

At this point, it is important that you again affirm their efforts to resolve the conflict. Tell them again that they have worked hard to resolve the problem and that you appreciate their cooperation and hard work.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
Index

- Introduction 1
- Role of the Responder 2
- Scene Safety 2
- Personal Protective Equipment 3
- Recognizing Emergencies 3
- Activating the EMS System 3
- Obtaining Permission to Treat a Patient 4
- Patient Assessment 5
- Cardiac and Respiratory Emergencies 6
- Bleeding and Soft Tissue Injuries 8
- Injuries to the Head, Neck and Spinal Column 10
- Injuries to Muscles and Bones 11
- Treating for Shock 12
- Moving and Transporting Patients 13
- Heat and Cold Emergencies 15
INTRODUCTION

Every year, thousands of people in this country die or are permanently injured because they did not receive proper emergency care in time. As a Responder, you can make a difference.

This course will help you gain the knowledge and skills you will need as a Law Enforcement Explorer to effectively identify basic life threatening conditions and render the appropriate level of care.
ROLE OF THE RESPONDER

As a Responder, you play a vital role in the emergency medical care of patients experiencing an illness or injury. Perhaps the most important reason your role is so crucial is that you are responsible for the first few minutes with the patient. The Emergency Medical Service (EMS) system depends on your action during this time to set the foundation for the remainder of the call.

It is during this time that correcting a breathing problem or stopping bleeding will actually save a life. You will also help patients who are not in critical condition when you prevent further injury, perform the proper assessments, gather a medical history, and prepare for the arrival of the Emergency Medical Technician (EMT) or paramedics.

SCENE SAFETY

Remember that it is always better to prevent danger that is to deal with it. Observation and awareness are the best ways to accomplish this goal.

Observation begins early in the call. As you approach the scene, observe the neighborhood as you look for house numbers. If possible, do not park directly in front of the call. This provides two benefits. First, you may be able to approach the scene unnoticed, which allows you to size it up without distraction. Second, since many first response units do not transport, the area directly in front of the call is left open for the ambulance.

As you approach the emergency scene, look for the following signs of potential danger:

*Violence.* Any indication that violence has or may take place is significant. These signs include arguing, threats, or other violent behavior. Also, notice any broken glass, overturned furniture, or anything else that may be out of place.

*Weapons of any kind.* If a weapon is on the scene, it is a serious potential danger.

*Signs of intoxication or drug use.* When people are under the influence of alcohol or drugs, their behavior is unpredictable. In addition, even though you may see yourself as there to help, other people may not.

*Potential Hazards.* Nothing is more important at an emergency situation than your safety. Hazards may include downed power lines or hazardous materials. Do not overlook the dangers at other scenes such as car crashes, unstable vehicles, unstable surfaces (slopes, ice, etc.) and dangerous pets. Place your safety first. If you do not, you may become a patient yourself and quite possibly prevent others from caring for the patient you were sent to help. When there is danger, three words sum up the actions required to respond appropriately: plan, observe, and react.
PERSONAL PROTECTIVE EQUIPMENT

Universal precautions must be taken on every call. Personal protective equipment includes:

*Latex Gloves* – Wear latex gloves when there is any chance of coming in contact with a patient’s blood or body fluids.

*Eye Protection* – Wear eye protection when there is a chance of blood or body fluids splashing into your eyes.

*Masks* – Wear a mask when there is a chance of blood or body fluids splashing into your nose or mouth.

*Barrier Devices* – Use barrier devices when performing CPR and/or rescue breathing to prevent disease transmission.

Remember that you should always have personal protective equipment available. When you approach a scene, anticipate which items may be needed. A good time to don personal protective equipment is while you are checking the scene for safety. Waiting too long may cause you to become so involved that you forget to protect yourself.

RECOGNIZING EMERGENCIES

Emergencies are often recognized by unusual sounds, odors, or sights. In some cases, they are recognized as unusual behavior if the person is known to the Responder or bystanders.

After determining that an emergency exists, a Responder must remain calm and follow the Emergency Action Steps: Check – Call – Care.

- Check the scene for safety. Determine what happened, how many victims there are and if any by-standers are present who can assist.
- Call 911 or the local emergency number
- Care for life-threatening conditions, i.e. respiratory emergencies or profuse bleeding.

ACTIVATING THE EMS SYSTEM

An ill or injured patient may need immediate medical care to prevent permanent disability or death. Too often those who arrive first at the scene of the emergency are not trained to give proper care. As a result, patients may have a worse outcome than if action was taken quickly.
In general, the Emergency Medical Services (EMS) system is a network of resources linked together for one purpose. That purpose is to provide emergency care and transport victims of sudden illness or injury to the hospital. For example, when an emergency occurs, a citizen at the scene recognizes it and calls for help. If the citizen has dialed 911, or another emergency number, he/she will receive patient care instructions from an EMS dispatcher. When Responders arrive, they will assess the situation and take over care. **If you as a Responder have arrived and EMS has not been activated, you are to do so immediately.** When necessary, inform dispatch of the need for additional EMS resources. For example, fire and rescue units with the necessary equipment to gain access to patients involved in automobile accidents or victims in isolated areas. Usually, EMS rescuers with higher levels of training are called to the scene. They continue care, and transport the patient to the hospital.

**OBTAINING PERMISSION TO TREAT A PATIENT**

By law, you must get a patient’s consent, or permission before you can provide emergency care. In order for that consent to be valid, the patient must be competent and the consent must be informed. Therefore, it is your responsibility to fully explain the care you plan to give, as well as the related risks. There are two general types of consent: expressed consent and implied consent.

**Expressed Consent** - Expressed consent may consist of oral consent, a nod, or an affirming gesture from a competent adult. To obtain consent, you must explain your plan for emergency care in terms that the patient will understand. Be sure to include the risks, too. In other words, the patient needs a clear idea of all the factors that would affect a reasonable person’s decision to either accept or refuse treatment.

You must get a responsive, competent adult’s expressed consent before you render treatment. To do so, first tell the patient who you are. Identify your level of training, and then carefully explain your plan for emergency care. Make sure you identify both the benefits and the risks. To make sure the patient understands, question him or her briefly.

**Implied Consent** – In an emergency when an unresponsive patient is at risk of death, disability, or deterioration of condition, the law assumes that he or she would agree to care. This is called implied consent. It applies when you assume that a patient, who cannot consent to life-saving care, would if he or she were able to do so.

Implied consent also applies to a patient who refuses care but who then becomes unresponsive and to a patient who is not competent to refuse care.

**Children and Mentally Incompetent Adults** – Depending on state law, a minor usually is any person under the age of 18 or 21. A parent or legal guardian must give consent before you can treat a minor. The same is true for a mentally incompetent adult.
Law Enforcement Exploring Training Key
Emergency Field First Aid

However, if a life-threatening condition exists and the parent or guardian is not available, provide emergency care under the principle of implied consent.

PATIENT ASSESSMENT

Initial Assessment – The initial assessment may be the most important part of the patient assessment process. In it you must identify and treat conditions that cause an immediate threat to the patient’s life. Life threatening conditions usually involve breathing problems or severe bleeding.

The initial assessment includes getting a general impression of the patient; assessing responsiveness, assessing the ABC’s (airway, breathing, circulation); and updating incoming EMS units about the patient’s condition.

General Impression - Form a general impression as you approach the patient. Your impression should include the patient’s chief complaint and quick scan of the immediate environment in which the emergency has taken place.

The general impression is not designated to be the final word in the patient’s condition. Rather, it allows you to get started on the right track to patient care. During this phase of your assessment, you should determine the injury complaint or illness complaint. Do these by listening to what the patient or bystanders tell you regarding the injury or illness and the circumstances by which it happened.

Responsiveness – As a Responder, you must determine the patient’s level of responsiveness. This is important for many reasons. One of the most important is the patient who has an altered mental status. (A change in his or her normal mental state). The patient will need airway care as well as other life-saving first aid. If the patient is confused, be sure to let him or her know who you are. Always make your identity clear as you approach a patient and that you are here to help.

Airway – The patient’s airway status is the foundation of patient care. No patient can survive without an adequate airway. It is important that you make sure that the patient’s airway is open and clear. The ways you will assess a patient’s airway depend on whether the patient is responsive or not.

- **The responsive patient.** When a patient can respond to your questions, notice if they can speak clearly. Gurgling or other sounds may indicate that something like teeth, blood or other matter is in the airway. Also, make sure the patient can speak full sentences.
- **The unresponsive patient.** A patient who is unresponsive needs aggressive airway maintenance. Immediately make sure the airway is open. If the patient is ill with no sign of trauma, use the head tilt/chin lift maneuver to open the airway. If trauma is suspected, use the jaw-thrust maneuver with great care to avoid tilting the head.
Inspect the airway for blood, vomit or secretions. Also look for loose teeth or other foreign matter that could cause an obstruction. Clear the airway using suction or a gloved finger. Remember that the airway check is not a one-time event. Some patients with serious trauma or unresponsive medical patients who are vomiting will need almost constant suctioning and airway maintenance.

Breathing – After securing an open airway, look, listen and feel for breathing. If there is breathing, determine if respirations are adequate. There will be times when a patient is breathing, but not at a sufficient depth or rate to sustain life. Adequate breathing is characterized by three factors: Adequate rise and fall of the chest, ease of breathing, and adequate respiratory rate. If you determine that the patient’s respirations are absent or inadequate, you must begin ventilating immediately. Do not stop until you are relieved by another trained rescuer or until the patient regains adequate respirations.

Circulation – When you assess circulation, you are checking to see that the heart is pumping blood to all parts of the body.

The responsive patient – If the patient is a verbally responsive adult, use the radial pulse to assess circulation. Always use the brachial pulse for an infant. Use either the radial or brachial pulse point for the responsive child.

The unresponsive patient – Check the pulse of an unresponsive adult at the carotid artery. Check the pulse of unresponsive children at the carotid or femoral arteries. Remember, the pulse check for all infants is done at the brachial artery. If the pulse is absent, begin CPR.

CARDBIAC AND RESPIRATORY EMERGENCIES

Clinical death occurs when a patient is in respiratory arrest (not breathing) or cardiac arrest (the heart is not beating). Immediate CPR may reverse that state and restore a patient without damage. However, if a patient is clinically dead for 4 to 6 minutes, brain cells begin to die. After 8 to 10 minutes without a pulse, irreversible damage occurs to the brain.

Cardio Pulmonary Resuscitation – To provide CPR, you must obtain an open airway, provide artificial ventilation, and provide artificial circulation by means of chest compressions. CPR must begin as soon as possible and continue until:

- The Responder is exhausted and is unable to continue.
- Another trained rescuer or hospital staff assumes care.
- The patient is resuscitated.
- The patient has been declared dead by a proper authority.
- The scene becomes unsafe.

Before providing CPR, you must first:

- Determine unresponsiveness
Law Enforcement Exploring Training Key
Emergency Field First Aid

• Determine absence of breathing
• Determine absence of pulse

To determine unresponsiveness, tap or gently shake the patient and shout “Are you okay?” If the patient does not respond, immediately activate the EMS system. Open the patient’s airway using the head tilt/chin lift maneuver. Place your hand on the patient’s forehead. Use the hand that is closest to the patient’s head. Apply firm, backward pressure with the palm of your hand to tilt the head back. Place the fingertips of your other hand under the bony part of the patient’s lower jaw. Lift the chin forward. At the same time, support the jaw and tilt the head back as far as possible. Remember not to over extend the head. Continue to press the other hand on the patient’s forehead to keep the head tilted back. A modified jaw thrust maneuver may be used instead of the head tilt/chin lift if you suspect a head, neck or spinal injury. To perform the modified jaw thrust maneuver, kneel above the patient’s head. Place your elbows on the surface where the patient is lying. Place one hand on each side of the head. Grasp the angles of the patient’s lower jaw on both sides. Use a lifting motion to move the jaw forward with both hands. This pulls the tongue away from the back of the throat. Turn your head in the direction of the patient’s chest and place your cheek above the patient’s mouth. This enables you to look for the rise and fall of the patient’s chest, listen for the sound of breathing and feel for breath on your cheek. If breathing is absent, begin artificial ventilation by giving two slow, initial breaths. Be sure to use personal protective equipment when administering artificial ventilations.

To determine the absence of a pulse, gently place your index and middle finger on the larynx (Adam’s apple). Slide your fingers toward you to the groove on the side of the neck, between the larynx and large neck muscle, feeling for the carotid pulse. Check for 5 to 10 seconds. If there is no pulse (circulation), begin chest compressions.

Chest compressions consist of rhythmic, repeated pressure over the lower half of the sternum. They cause blood to circulate as a result of the the build-up of pressure in the chest cavity. To perform chest compressions, follow these steps:

• Position the patient – The patient must be placed on their back on a flat, firm surface such as the floor.
• Get in position – Kneel close to the patient’s side. Have your knees about as wide as your shoulders.
• Locate the xiphoid process – First feel the lower margin of the rib cage on the side nearest to you. Use the middle and index fingers of your hand, the one closest to the patient’s feet. Then run your fingers along the rib cage to the notch where the ribs meet the sternum in the center of the lower chest.
• Locate the compression site – Place your middle finger on the xiphoid process (the notch). Put your index finger of the same hand on the lower end of the patient’s sternum. Then place the heel of your other hand alongside your fingers. There should be two finger widths between the tip of the sternum and the place where you rest the heel of your hand. Put your free hand on top of the hand that is
on the sternum. Your hands should be parallel. Extend or interlace your fingers to hold them off the chest wall during compressions.

- **Position your shoulders** – Square your shoulders directly over your hands.
- **Perform chest compressions** – Keeping your arms straight and your elbows locked, thrust from your shoulders. Apply firm, heavy pressure. Depress the sternum 1.5 to 2 inches on an adult. Be sure the thrust is straight down into the sternum. Use the weight of your body as you deliver the compressions. If necessary, add force to the thrusts with your shoulders. Never add force with your arms. This could fracture the sternum. Compressions should be about 50% of the cycle. That is, compression and release time should be about equal. Completely release pressure after each compression, letting the sternum return to its normal position. Do not lift or move your hands in any way. You could lose proper positioning.

- **Count as you administer compressions** – You should be able to say and do the following in less than 2 seconds:
  One – push down
  And – let up
  Two – push down
  And – let up.
  This procedure should let you administer 80 to 100 compressions per minute to an adult. The ratio of compressions to ventilations for an adult when performing one-rescuer CPR is 15:2.

**BLEEDING AND SOFT TISSUE INJURIES**

It is imperative that as a Responder, you understand the basic steps for stopping bleeding and be able to recognize when an injury needs advanced care. Since the circulatory system is responsible for transporting the oxygenated blood to all cells of the body, any bleeding must be controlled quickly.

Bleeding and soft tissue injuries are classified into two different categories, open and closed. A closed wound is where the skin has not been broken. Whether open or closed, the injury may either be minor or severe.

Care for a closed wound would include elevating the wound above the heart and applying ice to reduce blood flow to the area. If the patient experiences any of the following signs or symptoms, EMS should be notified immediately:

- Change in Level of Consciousness
- Restlessness or irritability
- Rigid abdomen
- Excessive Thirst
- Cool, pale, clammy skin
- Difficulty breathing
- Vomiting or passing blood
The first step in caring for an open wound is to stop the bleeding. This is accomplished by applying direct pressure to the wound. Using a gloved hand or having the patient follow your directions; apply pressure directly on the wound. Place gauze over the wound, elevate it above the heart, unless you suspect a fracture, and continue to apply pressure. If the gauze becomes soaked with blood, apply additional gauze. **DO NOT** remove any gauze that is direct contact with the wound. If the wound continues to bleed utilize a pressure point. These points are only used for extremities. The two that will be used are the Brachial and Femoral. The Brachial is located on the inside of the arm between the Bicep and Tricep; apply the pressure directly into the arm. The Femoral is located on the front of the body. To locate this point, find the midpoint between the top of the hip and the naval. Follow this point to the crease between the thigh and the pelvic girdle. Apply pressure directly into the hip joint.

Minor wounds should be cleaned with soap and water. Apply an anti-bacterial ointment and cover with a band aid. **DO NOT** attempt to clean severe wounds. Any severe wound should be cared for by medical professionals.

*Amputations and Evolutions (Partial or Complete)*

These wounds are not typically the types of injuries that you will come across. These injuries are when the body part is either partially or completely removed from the person. The difference between amputations and evolutions is amputations involve the bone. Care guidelines follow the guidelines for controlling bleeding. In addition to this, the Responder should attempt to locate the missing body part. Once it is located, wrap it in a sterile cloth, place it in a plastic bag, put it on ice and transport it to the hospital with the patient.

*Impaled objects*

These wounds are any injury where an object is stuck into the body. The Responder should control bleeding as in the general guideline; however, **DO NOT** apply direct pressure on the object or remove the object. Secure the object in place with a bulky dressing and ensure that it does not move.

If the object is in the cheek, it can be removed if it is interfering with breathing. Apply gauze to both the internal and external portion of the cheek. Be cautious of placing your fingers in the patient’s mouth.

If the object is in the eye, **DO NOT** remove it. Stabilize it in place. Cover one the effected eye. This will allow the person to see with other eye, thus cutting down on eye movement. Studies have shown that by covering both eyes, the mind will subconsciously move the eye in the direction of sounds. This will cause unnecessary movement.

*Sucking Chest Wounds (and Neck)*
Breathing is the result of a negative pressure system. This means that when we inhale, the muscles of the respiratory system expand the chest cavity, thus creating less pressure in the chest than in the outside environment. This causes air to enter the nose and mouth to fill the lungs. When we exhale, the muscles contract making the cavity small causing the pressure to increase. Because of this fact, open wounds to the chest or neck is life threatening. Either the chest or neck will allow air to enter the chest cavity without going into the lungs. This will cause the lungs to not inflate properly and eventually lead to respiratory arrest and death.

Care for this injury is time critical. The Responder needs to control any external bleeding. Along with this, the Responder needs to stop air from entering the chest cavity. This is accomplished by applying an occlusive dressing (airtight) over the wound. Once the dressing is in place, tape the dressing to the victim. Tape all sides of the dressing except the lower outside corner. This will create a one way valve. Roll the victim onto the effected side and monitor for breathing difficulties. DO NOT elevate the feet to treat for shock. If the patient experiences breathing difficulties, release the pressure by lifting up on the dressing and then reapply.

**Eviscerations (Open Abdominal Wound)**

This is when the abdomen has been cut causing the organs to be exposed. DO NOT touch the organs or try to replace them into the abdomen. Treatment will include controlling bleeding. Cover the organs with a moist sterile dressing. An occlusive bandage can be used to prevent air from drying out the dressing. DO NOT elevate the feet to treat for shock. The patient’s knees can be bent to reduce the blood flow to the lower extremities.

**INJURIES TO THE HEAD, NECK AND SPINAL COLUMN**

These types of injuries are not as frequent as other injuries, however, they account for about 70 percent of fatalities in vehicular accidents. When treating these injuries, the patient’s movement should be reduced especially the head, neck or spine. Inform the patient not to move and provide in-line stabilization to reduce the chance of additional injuries. In-line stabilization is accomplished by placing your hand on the top of the head. This will prevent the patient from moving easily.

Signs and symptoms of head, neck, or spinal injuries may vary depending on the nature of the injury. The following are some signs to look for:

- Altered Level of Consciousness
- Deformity of the skull, neck of spinal column
- Loss of body functions
- Severe lacerations to the head, or spinal column
- Severe bruising of the eyes or behind the ears
Some additional things that may lead the Responder to believe that one of the injuries has occurred are:

- Falls from greater height than the victim
- Vehicle accidents where seatbelts were not worn
- Blunt trauma to the head or torso
- Ejection from a moving vehicle
- Cracked helmets

Treatment will include basic life support. This is supporting respiratory and circulation. The airway will be opened with a Modified Jaw Thrust rather than a Head Tilt/Chin Lift. If the patient has these, control any external bleeding. Care should be taken as to not push directly on a depression or any area that a fracture is suspected. **DO NOT** elevate the feet to treat for shock. This will increase the amount of blood flow to the brain and may worsen the condition. Once In-Line Stabilization has been applied, it will not be released until you are told do so by EMS personnel.

### INJURIES TO MUSCLES AND BONES

The Musculoskeletal system is made up of tendons, ligaments, bone, cartilage, and muscle. Tendons connect muscle to bone. Ligaments connect bone to bone. Bone is the supporting and protective structure of the body. Cartilage is semi-hard substance similar to bone. Its purpose is to allow bone to move in areas of protection. Muscle is the supportive tissue that allows the body to move. It also helps protect vital organs.

The soft tissues of the musculoskeletal system are the tendons, ligaments and muscle. The types of injuries to these tissues are sprains and strains. Sprains happen to ligaments at a joint. Sprains are usually the result of a twisting force at a joint location. Strains happen to muscles and tendons, usually the result of over extension.

The treatment for sprains and strains are the same. The treatment is usually remembered by a simple acronym of RICE. **R** is for Rest. **I** is for Ice. The application of ice helps reduce the swelling. **C** is for compression. Compression is to help support the injury site and reduce swelling. **E** is for elevation. Elevation should be above the heart. This reduces the amount of blood sent to the injury site.

Injuries to the bones are either fractures or dislocations. Fractures are either open or closed. An open fracture is one that has bone fragments visible out of the skin. Dislocations are when the bone is moved from its normal location. The best way to tell an injury to an area is to compare one side to the other. The signs and symptoms of a severe injury are:

- Felt or heard a snap or pop
The treatment for these fractures and dislocations are similar for all types. The only difference is on an open fracture, and that would be to control any external bleeding. The rest of the treatment is the same. Comfort the patient and place them in a position of comfort. Splint the injury only if you need to move them, and you can do so without causing additional harm. Splints are in three different categories, soft, rigid, and anatomical. Soft splints are blankets, pillows, etc. They are used in areas where a rigid splint would not fit properly such as ankles, ribs, etc. Rigid splints are items that are hard such as boards, magazines, etc. These are used on longer portions of the body such as legs, and arms. Anatomical splints are using one body part to stabilize another. An example of this is finger to finger. If you need to splint the area follow the steps below:

- Splint in the position that you find it
- Check for circulation below the injury, if no circulation note and continue
- Pad the splint
- Apply the splint, to include the joint above and below the injury site
- Pad any gaps between the splint and the limb
- Secure the splint, but not over the suspected injury site
- Check for circulation below the injury
- Elevate if possible

**SHOCK**

Shock is the condition where the body is not supplying oxygen to the cells of the body. This is a life-threatening condition and needs to be stopped immediately. There are three different levels of shock that the human body will go through. The first is Compensating shock, where the body can maintain the blood flow by shunting different areas of the body. The next step is Decompensating shock; this is when the body is no longer able to maintain itself. The last stage is known as Irreversible shock. Just as the name implies, this level has a very poor chance of surviving. Shock is always present at any injury. The severity depends on the nature and extent of injury. Therefore it is imperative for the Responder to understand this and start treating for it before physical signs are present. Once you notice signs of shock the patient is already entering the decompensating phase.

As stated previously shock is the body’s inability to supply oxygen to the cell level of the body. There are many different kinds of shock. Some different examples are Cardiogenic Shock, Neurogenic Shock, Hypovolemic Shock, Hemorrhagic Shock and Anaphylaxis Shock. Cardiogenic Shock is when the heart fails to do a sufficient job pumping the blood. This may be the result of a Heart Attack, Cardiac Arrest or Congenital Heart Failure. Neurogenic Shock is when the nervous system does not
respond to the demand level for blood. This may be caused by head trauma, spinal cord damage or cervical spine damage. Hypovolemic Shock is when there is not enough fluid in the body. This fluid may be blood or water. If the cause is blood, it is usually called Hemorrhagic Shock. Anaphylaxis Shock is a type of respiratory shock that is associated with allergic reactions. The signs and symptoms of shock are generally the same for all shock.

The signs and symptoms of shock generally include:

- Restlessness and irritability (usually the first sign)
- Pale, cool, clammy skin
- Nausea and vomiting
- Pulse Increase
- Breathing increase
- Excessive thirst
- Dilated pupils
- Blue around the lips and nail beds

Anaphylaxis has all of the above signs and symptoms plus the following:

- Hives
- Red blotchy skins
- Difficulty breathing (audible wheeze or whistle)

The treatment is the same for all of the shocks except Anaphylaxis.

- Notify EMS
- Monitor the ABC
- Comfort the victim
- Maintain normal body temperature
- Elevate the legs 8-12 inches unless you suspect a head, chest or back injury

Anaphylaxis treatment can be cared for in the same manner, however these efforts will not stop the shocks progress. The only way to stop the process is to administer specific types of medicine. Most people who suffer from this disorder carry an Epi-Pen with them. The only thing that you can do additionally at your level is to retrieve the Epi-Pen so that THEY can administer it. Notification of EMS and rapid transport to a hospital is the only and biggest difference in this emergency.

Remember that any injury can result in shock; therefore, the Responder must be ready to handle the care effectively. It is best to treat for shock, even though the patient is showing no outward signs.

**MOVING AND TRANSPORTING VICTIMS**
Gaining access to the victim is time when emergency responders are most likely to become a victim themselves. Due to the excitement of the situation and the rush of adrenalin, we as emergency responders often overlook our own safety. The following are some steps to minimize danger to ourselves as emergency responders.

- Be aware of dangerous conditions at the scene.
- Is help available?
- What is the size of the victim?
- What is your physical ability?
- What is the victim’s condition?

By taking these factors into consideration we can greatly reduce the risk to ourselves and the victim. Here are more items that will help reduce the risk of injury to ourselves and the victim.

- Only attempt to move a victim you are sure you can comfortably handle.
- Bend your body at the knees and hips.
- Lift with your legs, not your back.
- When possible move forward rather than backward.
- Always look where you are going.
- Support the victim’s spine and head, if necessary.
- Avoid bending or twisting a victim with possible spine or head injury.

You can move a person to safety in many different ways, but no one way is best for every situation. The objective is to move the victim without causing further injury to them, and to not injure yourself. The following are four common types of emergency moves.

- Walking assist
- Pack-strap carry
- Two-person seat carry
- Clothes drag

All of these emergency moves can be done by one or two people and without any equipment, which is important because with most rescues, limited resources are available.

*Walking Assist*

This is one of the most basic emergency moves. One or two rescuers can perform this method with a conscious victim. To perform the walking assist, place the victim’s arm across your shoulders and hold it in place with one hand. Support the victim with the other hand around the victim’s waist. By doing this your body acts as a crutch for the
victim. If a second rescuer is present they can support the victim the same way on the other side. This assist is not appropriate to use if you suspect the victim has a spinal or head injury.

Pack-Strap Carry

The pack-strap carry can be used on a conscious or unconscious victim. To use this carry with an unconscious victim requires a second person to assist you in positioning the victim on your back. To perform the pack-strap carry, have the victim stand or have a second person support the victim. Position yourself with your back to the victim, back straight, knees bent, so that your shoulders fit into the victim’s armpits. Cross the victim’s arms in front of you, and grasp the victim’s wrist. Lean forward slightly and pull the victim up onto your back. Stand up and walk to safety. This carry is not appropriate to use if you suspect a spinal or head injury.

Two-Person Seat Carry

The two person seat carry requires a second person. This carry can be used for any conscious or not otherwise seriously injured person. Each of the rescuers place one hand behind the back and one hand behind the victim’s thighs and clasp each others wrist. Lift the victim in the seat formed by the interlocked wrists.

Clothes Drag

The clothes drag can be used to move a victim with suspected spine or head injury. This type of move helps to stabilize the victims head and neck and back while moving to a safe environment. Grasp the victim’s clothing behind the neck, gathering enough to secure a firm grip. Using the clothing, pull the victim headfirst to safety. During the move the victims head and neck are supported by the clothing and the rescuers arms. This type of emergency move is physically exhausting and may cause back strain for the rescuer, even when done properly.

HEAT AND COLD EXPOSURE

Preventing heat and cold emergencies

Generally, illnesses caused by overexposure to extreme temperatures are preventable. To prevent heat or cold emergencies from happening to you or someone you know, follow these guidelines:

- Avoid being outdoors during the hottest or coldest part of the day
- Change your activity level according to the temperature
- Take frequent breaks
• Dress for your environment
• Drink large amounts of fluids (water is preferred) before, during, and after activity

Although everyone is at risk for possible heat and cold related illness, some people are more at risk than others. People at risk include:

• Those who work or exercise strenuously
• Elderly people
• Young children
• Those with predisposing health problems, such as diabetes or heart disease
• Those who have had heat or cold related illness in the past
• Those who have cardiovascular disease or other conditions that cause poor circulation.
• Those who take medications to eliminate water from the body (diuretics)

**Heat Emergencies**

Heat cramps, heat exhaustion, and heat stroke are conditions that are caused by overexposure to heat. Heat cramps are the least severe but if not cared for may be followed by heat exhaustion and or heat stroke.

**Heat Cramps**

Heat cramps are painful spasms of skeletal muscles. The exact cause of heat cramps is not known, although it is believed to be a combination of loss of fluid and salt from heavy sweating. Heat cramps develop fairly rapidly and usually occur after heavy exercise or work in warm or moderate temperatures. Most cramps occur in the legs and abdomen, but can occur in any voluntary muscle. Body temperature is usually normal and the skin is moist. However, heat cramps may also indicate that a person is in the early stages of a more severe heat related illness.

To care for heat cramps, have the victim rest comfortably in a cool place. Lightly stretch the muscle and gently massage the affected area. Provide the victim with water or a sports drink that contains nutrients such as carbohydrates, electrolytes, and simple sugars to replace those lost during heavy sweating. Usually rest and fluid replacement are all that are needed for the victim to recover. Do not give the victim salt tablets or salt water to drink. Ingesting high concentrations of salt can hasten the onset of heat related illness. Once the cramps stop, a person can usually resume activity. The person should be observed for signs and symptoms of other heat related illness. He or she should also continue to drink plenty of fluids during and after activity.

**Heat Exhaustion**
Heat exhaustion is the early stage and most common form of heat related illness. It typically occurs after long periods of work or strenuous exercise in a hot environment. Although heat exhaustion is commonly associated with athletes, it can affect anyone who is very active and or works in a hot, humid environment. Strenuous activity is not a prerequisite for heat exhaustion—it can happen when a person is relaxed and standing still in the heat.

Heat exhaustion is an early indication that the body’s temperature regulating system is being overwhelmed and is not always preceded by heat cramps. Over time the body loses fluid through sweating and blood volume decreases. Blood flow to the skin then increases, reducing blood flow to vital organs. Because the circulatory system is affected, the person goes into a form of shock.

The signs and symptoms of heat exhaustion include:

- Normal or below normal body temperature
- Cool, moist, pale skin
- Headache
- Nausea
- Dizziness and weakness
- Exhaustion

Heat exhaustion in its early stages can usually be reversed with prompt care. Often the victim feels better when they rest in a cool place and drink cool fluids. If the heat exhaustion progresses, however, the victim’s condition worsens. Body temperature climbs, the victim may vomit and show changes in levels of consciousness. Without prompt care, heat exhaustion can quickly advance to a more serious, life threatening stage of heat related illness- heat stroke.

Heat Stroke

Heat stroke is the least common and most severe form of heat related illness. Heat stroke most often occurs when people ignore the signs and symptoms of heat exhaustion or do not act quickly enough to provide care. Heat stroke develops when the body systems are overwhelmed by heat and begin to stop functioning. Sweating often stops because body fluid levels are low. When sweating stops, the body cannot cool itself effectively through evaporation and the body’s temperature rapidly rises. If the body is not cooled, the brain and other vital organs begin to fail. Once vital organs begin to fail, convulsions, coma, and death may soon occur. You must recognize the signs and symptoms of this heat related illness and provide care quickly and immediately.

The signs and symptoms of heat stroke include:
Law Enforcement Exploring Training Key
Emergency Field First Aid

- High body temperature, often as high as 106 degrees F
- Red, hot skin, which may be dry or moist
- Change in level of consciousness
- Rapid, weak pulse
- Rapid, shallow breathing

Someone in heat stroke may at first have a strong, rapid pulse, while the heart works hard to rid the body of excess heat by dilating blood vessels and sending more blood to the skin. As consciousness deteriorates, the circulatory system begins to fail and the pulse becomes weak and irregular. Without prompt care, the victim will die.

Care for Heat Related Illness

When you recognize heat related illness, it must be determined if the victim is in early or late stage of the illness. Steps for care are different for early and late stage heat illness.

Care in the Early Stage

When a victim is suspected to be in the early stage of heat illness, follow these steps immediately:

- Cool the body
- Loosen tight, restrictive clothing
- Give fluids if victim is conscious
- Minimize shock
- Remove clothing soaked with perspiration
- Place wet cloths on wrists, ankles, armpits, groin, and back of neck
- Fan the victim to increase evaporation
- Do not let the victim drink too quickly, give ½ glass of water every 15 minutes (water is preferred, because it is least likely to cause vomiting and is more quickly absorbed into the body)
- DO NOT ALLOW THE VICTIM TO RESUME ACTIVITY THE SAME DAY

Care in the Late Stage

Refusing water, vomiting, and changes in the victim’s level of consciousness are indications that the victim's conditioning is getting worse. Call EMS immediately if you have not already done so. If the person feels nauseated or vomits, stop giving fluids and position the victim on their side. Make sure the airway is clear and monitor breathing and consciousness. Cool the victim by any means available, preferably using ice. Pack the ice on wrists, armpits, groin, and neck to cool the body’s large blood vessels and more
effectively cool the blood. A person in heat stroke may experience respiratory or cardiac arrest, so be prepared to do rescue breathing and/or CPR.

**Cold Emergencies**

Frostbite and hypothermia are two types of cold related emergencies. Frostbite occurs in body parts exposed to the cold. Hypothermia develops when the body can no longer generate sufficient heat to maintain normal body temperature.

**Frostbite**

Frostbite is the freezing of body tissues. It usually occurs in exposed areas of the body, depending on the air temperature, the length of exposure, and the wind. Frostbite can be superficial or deep. In superficial frostbite, the skin is frozen but the tissue below is not. In deep frostbite, both the skin and the underlying tissue are frozen. Both types of frostbite are serious. The water in and between the cells freeze and cause ice crystals which swell and cause damage to and/or destroy cells. Frostbite can cause the eventual loss of fingers, toes, hands, feet, arms, and legs. The signs and symptoms of frostbite are:

- Lack of feeling in the affected area
- Skin that appears waxy
- Skin that is cold to the touch
- Skin that is discolored (flushed, white, yellow, blue)

When caring for frostbite, handle the affected area gently. Never rub the affected area. Rubbing can cause further damage because of the ice crystals in the skin. If there is no chance that the affected area will refreeze you may begin rewarming the area gently by soaking the affected area in water no warmer than 100 to 105 degrees F. Do not allow the affected area to come in contact with the side or bottom of the container. This will minimize further tissue damage. After the affected area looks red and feels warm, then gently dry and bandage the area with a sterile dressing. Place cotton or gauze between affected fingers and toes. Do not break blisters that may form. Seek professional medical attention as soon as possible.

**Hypothermia**

In hypothermia, the entire body cools when its warming mechanisms fail. The victim will die if not given care. In hypothermia the body’s temperature falls below 95 degrees F. As the body cools, an abnormal heart rhythm may develop (ventricular fibrillation). The heart may eventually stop and death occurs. The signs and symptoms of hypothermia are:

- Shivering
- Slow, irregular pulse
The air temperature does not have to be below freezing for people to develop hypothermia. Elderly people in poorly heated homes, people with poor nutritional practices who get little exercise, the homeless and ill can get hypothermia at higher temperatures. People who abuse certain substances such as alcohol and barbiturates are also at risk. There are many other problems such as infection, insulin reaction, stroke, and brain tumors that may cause a person to be more susceptible to hypothermia.

To treat hypothermia, move the victim to a warm area and slowly and gradually warm them by wrapping the victim in a blanket and warm dry clothing. Hot water bottles and electric blankets may also be used. Be sure to place a barrier between the victim and the hot water bottle or electric blanket to prevent burns. In severe cases of hypothermia, the victim may lose consciousness, breathing may be slowed or stop completely. Be prepared to perform rescue breathing. If the victim is rewarmed too rapidly, dangerous heart rhythms may occur and CPR may be called for. Keep a close eye on the victim until EMS arrives.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
HOSTAGE NEGOTIATION TRAINING KEY

Hostage taking has occurred throughout recorded history including ancient Greek, Norse and Roman mythologies. In recent history, political events in Algeria, Kenya and Vietnam demonstrate horrific examples. Infamous Mao Tse-tung and Che Guevera defended the ideology. Patty Hearst’s kidnapping demonstrated the organized manipulation of the individual and the media. Hostages virtually guarantee media coverage showing the governments inability to protect the public. With repeated hostage takings, the government may become overly restrictive and provide rumor or media material for fostering civil discontent to the media.

Criminals, mentally disturbed, prisoners and terrorists are often the categories for hostage takers. Hostage situations have occurred from escalations of family member-on-member, family member-on-employee, intoxicated co-worker domestic dispute situations, angry client-on-employee and angry employee-on-client workplace violence (such as at the VA hospitals and clinics). In 1993, 2.2 million people were attacked at their work, 16 million were harassed, 6.3 million were threatened with violence and one sixth was attacked with lethal weapons (McMain, Mullens, 1996). Unlawful demonstrations at government buildings have disrupted governmental proceedings and have escalated into hostage situations (UCLA, Berkley, CA; Howard University, Washington, DC; and the Secretary of Agricultures office, Washington, DC).

Hostage takers participate in either well planned or spontaneous reactions to a situation. Professional criminals (robbers, burglers, and carjackers) may take a hostage accidentally or as a fight or flight panic reaction when the criminal act is discovered and interrupted, trapping the criminal(s) without a preconceived plan. The hostages are then used as barter for escape. Inadequate personalities are emotionally disturbed persons that may take a hostage to obtain and maintain prolonged attention to themselves or their plight. Mental and/or emotionally disturbed employee(s), or other(s) visiting a facility (State Department incident) can result in a potential hostage, a high risk suicide or acting out disgruntled employee situation. Although it is certainly possible for you to become the victim of a terrorist hostage situation, you are far more likely (statistical) to be taken hostage by a criminal or emotionally/mentally unstable individual. Loose groups such as incarcerated criminals have accomplished takeovers and obtained hostages in Federal office buildings, courthouses, and at Oakdale, CA; Louisiana and Atlanta, GA prisons. Prison inmates with unplanned spontaneous hostages may respond more quickly to an effective tactically compressed window-of-time frame and an early show of force. However, a carefully planned hostage taking window-of-time frame should be tactically stretched out with delaying tactics to minimize immediate harm to hostages. Structured groups such as terrorists maximize the propaganda effect (of individual or multiple events of violence) for political or social change through media exposure. Terrorist victim hostage(s) may be carefully selected, the operation well thought out, even rehearsed. Terrorists may penetrate facilities for media coverage or as retaliation for real or imagined acts carried out by a government. The participant may be between 29 and 35 years of age, well educated, dedicated and willing to die for their cause, well trained and armed and experienced with explosives and automatic weapons.

There are three choices for the hostage taker. The first is to choose martyrdom, kill the hostages and commit suicide. The second is to lessen the demands to a more achievable proportion and continue negotiations. The third is to surrender to police.
HOSTAGE NEGOTIATION TRAINING KEY

There are generally four choices for police commanders at a hostage situation. The first traditional confrontational response is to amass officers and massive firepower and assault. The second is to use selective sniper fire. The third is to use chemical agents. The fourth is to contain the area and negotiate with a specially trained negotiator. The first three will almost always result in injury. The Israeli government investigates the martyr site for intelligence information, very quickly cleans it up, repairs and normalizes the trade traffic to minimize the (media publicized) effectiveness of the “terror” of suicide bombers on the “target” general public.

The average domestic crisis negotiation team response is about 45 minutes to one hour (Spaulding, 1987). Therefore, the most crucial moments of the situation will be with the talents of the first responding officer(s). Overseas travel may be entirely different. Contemporary law enforcement officers responding to, arriving, during and leaving all hostage/barricade calls must be aware of their own safety to ensure the safety of others. Identifying and properly utilizing effective cover and/or concealment will aid personal safety. Additional tactics such as contact and cover officer roles and responsibilities increase safety for both officers.

Upon arrival, the investigating patrol officer(s) employs the ICER concept to the call. Isolate physical and psychological activities on the scene and keep onlookers beyond the police safety line. Contain the hostage taker mobility to the smallest location in the building or exterior area and deny the opportunity to observe the police presence activities. This begins the confines of the inner perimeter and also allows time for crisis stabilization. Evaluate because the original report may or may not be what the situation actually is. Gather as much cursory information as possible. Assess the threat(s) and estimate the location(s) of the command post(s), and the number and proposed positions of backup officers needed to establish a temporary inner perimeter. Report the number and identities of hostage takers and hostages and their clothing descriptions, precipitating events, size and locations of the dangerous zones, inform responding officers of recommended entry routes, types of weapons involved and directions or line of fire.

Patrol officers recognize that hostage situations require additional backup personnel, and equipment and expertise beyond what is required for standard patrol responsibilities. They will often request tactical specialists for this type of call. Tactical teams may be known by many terms: Special Weapons and Tactics (SWAT), Special Operation Response Team (SORT), Special Operations Group (SOG), Emergency Response Team (ERT) or Hostage Rescue Team (HRT) and many other acronyms. Tactical officers arriving will replace the backup officers on the inner perimeter, allowing the uniformed officers to report to the command post for operational debriefing and then be reassigned to reinforce the outer perimeter.

Tactical teams will immediately establish physical and organizational boundaries for their operations. Establishing inner and outer perimeters and cordons allow containing the crisis objective into sterile zones. All personnel assigned should be made aware of the included and excluded description of areas and reference points, police positions, command post locations, and law enforcement support services staging areas with VIP and media briefing positions. Access into and out of the objective, through cordons, are required for evacuating persuaded people (often not wanting to leave homes or offices without their valuables) to predetermined
debriefing locations. Cordons also limit unauthorized personal and media communications, 
food, water, drink, and utilities such as water, heat, air conditioning, cable, natural gas or oil 
heating and cooking fuel. These then become negotiable utilities.

The responsible decision makers Commander, Strategic Operations Command (SOC), 
Commander, Tactical Operations Command (TOC), and Supervisor, Crisis Negotiations Team 
(CNT), utilize the Incident Command System (ICS) management procedures by delegating 
authority to empower and supervise leaders and specialists, track situations, events, and any 
decisions made, and produce outcome reviews including the use of force Rules Of Engagement 
(ROE).

Strategic Operations Command (SOC) command post (CP) sites are generally located at 
the outer perimeter. They contain and disseminate the command and control (logistics, liaison 
and coordination), communications and intelligence (CCI) requirements to support the severity 
and complexity of the operation. Some examples would be site security; access control; 
operational, administrative, communications, financial, supply, liaison and intelligence personnel 
check in; helicopter landing sites with ground and air vehicles parking control; VIP and media 
briefing areas; staff arrival and scheduling, assembly, staging and departure areas; electrical and 
telephone control; toilet, medical, mental health, legal advisory, feeding and sleeping areas. 
Communications equipment often includes multiple frequency and interagency radios; landline, 
cellular and satellite telephones; broadband cable, internet and standard broadcast television; 
teletype and NLETS/NCIC/TECS/EPIC/DOD with state criminal history and personal credit 
history computer access. Recorders maintain historical events/decisions/actions chronology with 
site blueprints, topographical maps and situation maps. The SOC controls all personnel on scene 
and authorizes execution of tactical plan except emergency situational operations.

Tactical Operations Command (TOC) command posts are primarily located within the 
inner perimeter and within proximity of the situation. The TOC formulates the tactical plan, 
makes recommendations to the SOC and executes plan with SOC approval. The TOC controls 
the inner perimeter, probing for intelligence information, enhancing the CNT/TIE/EOD and 
tactical team response and counter-sniper position, and encourages continuing negotiations and 
shared information developed with the CNT supervisor. Technical Investigative Equipment 
teams may be attached to the TOC to provide color, monochromatic, infrared and thermal long 
range observation through miniature video and auditory surveillance devices mounted to 
stationary platforms, man carried, or vibration gimbled to Remotely Piloted (RPV) or Unmanned 
Aerial or Ground Vehicles (UAV/UGV), and send site and environmental sensory signal 
information to the SOC, TOC and CNT unit sites.

Crisis Negotiation Teams (because of their training, special skills, knowledge and police 
experience) are used to resolve a myriad of incidents such as barricaded subject, trapped armed 
robbers, hostage situations, stalking victims and perpetrators, high risk suicide, mental health 
warrants, high risk warrants, gang violence and applying stress reducing debriefing techniques to 
crisis victims, police officers and other public service employees. Equipment needed for CNT 
operation will usually include service weapons and issued equipment, civilian soft clothes, duty 
dress uniform or tactical utility clothing with weather support outerwear and footwear with body
HOSTAGE NEGOTIATION TRAINING KEY

armor. Personal accessory equipment often includes pen, pencil, writing pad or notebook, penlight and flashlight, knife, watch, compass, whistle, pocket mirror, electrical or masking or duct tape, first aid kit, personal medicines, camping trail mix or field foods like Meals Ready to Eat (MRE’s) with fruit juices, de-caffeinated coffee and water. Support equipment might include chalkboards, map overlays, throw telephones with reel extension land lines, recorders with voltage adaptors and listening headsets, and small mechanical tool kit. CNT members ask, determine and re-ask certain questions throughout operations, they may include: Is this a hostage or non-hostage incident? That answer is often determined by the situation. Is it a hijacking or terrorist situation with political statements requiring bargaining/negotiation skills (passing of time increases the safety of the hostages) or an incident more personal in nature, such as a domestic incident or a barricaded suspect that is an emotionally disturbed individual or trapped criminal (passing time increases the risk of the hostages)? Active listening/crisis intervention skills might be more applied in these types of situations. Is this a negotiable incident, or can it be made into it? This can be answered by determining if the hostage taker has the need to live, if authority has threatened force, if there are substantive instrumental or expressive demands (if not, the potential for violence increases), if the negotiator is viewed as willing to help, if there are good communications and the number of hostage takers that believe they are in charge. Non-negotiable demands would be weapons, personnel exchanged for hostages, release of prisoners and non-prescription drugs. What kinds of strategies and tactics can/should be used, at what risks and what are the options? Negotiation strategies include: Demand Theories (Selye) that require action (stress) and a (performance expectation) perception with a time frame. Another strategy deals with personnel safety. The Cox-Mackay (1976) Transactional Model of Stress deals with environment, abilities, dealing with stress demands, and measuring effectiveness, the Yerkes-Dodson Law relates to measuring (appropriate) performance. Time effects are a tactic that increase basic human needs and produce the opportunity of the negotiator to meet these needs in exchange for something. The critically monitored Positive and Negative Transference may occur due to shared experiences, dependency, proximity and tension of the situation. This could (negotiator encouraged) develop into a classic Stockholm Syndrome (alignment of hostage taker and hostages).
## Negotiator Checklist Situation Board

<table>
<thead>
<tr>
<th>Arrival interview with first responder:</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>What has occurred?</td>
<td></td>
</tr>
<tr>
<td>Who initiated the call?</td>
<td></td>
</tr>
<tr>
<td>Time of occurrence?</td>
<td></td>
</tr>
<tr>
<td>Police injuries?</td>
<td></td>
</tr>
<tr>
<td>Suspect injuries?</td>
<td></td>
</tr>
<tr>
<td>Hostage injuries?</td>
<td></td>
</tr>
<tr>
<td>Others injuries?</td>
<td></td>
</tr>
<tr>
<td>What kind of contact has been made with suspect?</td>
<td></td>
</tr>
<tr>
<td>When?</td>
<td></td>
</tr>
<tr>
<td>Is the situation locked in?</td>
<td></td>
</tr>
<tr>
<td>Where are the suspects located?</td>
<td></td>
</tr>
<tr>
<td>Where are the hostages located?</td>
<td></td>
</tr>
<tr>
<td>Where are the non-hostages?</td>
<td></td>
</tr>
<tr>
<td>Where is the floor plan?</td>
<td></td>
</tr>
<tr>
<td>Where are the telephones and types?</td>
<td></td>
</tr>
<tr>
<td>Where are the suspect’s observation points?</td>
<td></td>
</tr>
<tr>
<td>What firearms are used/located on the site?</td>
<td></td>
</tr>
<tr>
<td>What explosives/chemicals are located on the site?</td>
<td></td>
</tr>
<tr>
<td>What is the description/profile of the hostage taker?</td>
<td></td>
</tr>
<tr>
<td>What is the description/profile of the hostage?</td>
<td></td>
</tr>
<tr>
<td>What is the nature of the surrounding scene</td>
<td></td>
</tr>
<tr>
<td>What is the offender affiliation/public support like?</td>
<td></td>
</tr>
</tbody>
</table>
**Negotiator Checklist Situation Board**

**Data collection of subject in a hostage situation:**

<table>
<thead>
<tr>
<th>Full name</th>
<th>Nickname</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>DOB</td>
</tr>
<tr>
<td>Height</td>
<td>Weight</td>
</tr>
<tr>
<td>Hair color</td>
<td>Eyes color</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scars, birthmarks, tattoos and other marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing and jewelry description</td>
</tr>
<tr>
<td>Marital history and current status/locations</td>
</tr>
<tr>
<td>Criminal history including violence/convictions/sentencing/disposition</td>
</tr>
<tr>
<td>Physical health/disease (self and family) factors</td>
</tr>
<tr>
<td>Sleep and eating patterns history</td>
</tr>
<tr>
<td>Mental health history, helpless/hopeless/suicide statements/attempt/sand in this situation</td>
</tr>
<tr>
<td>Temperament? Coping skills?</td>
</tr>
<tr>
<td>Histrionic, Schizoid, Compulsive, Avoidant, Dependent, Narcissistic, or Aggressive personality style?</td>
</tr>
<tr>
<td>Family mental health history/actual or potential stressors/(in)voluntary commitments</td>
</tr>
<tr>
<td>Significant others/family members/friends/neighbors in life</td>
</tr>
<tr>
<td>Relationship to anyone in situation</td>
</tr>
<tr>
<td>Religion/participation</td>
</tr>
<tr>
<td>Military history/MOS/assignments/theatres of operations</td>
</tr>
<tr>
<td>Weapons/explosives history/and in this situation</td>
</tr>
<tr>
<td>Education and specialized skills/license training</td>
</tr>
<tr>
<td>Employment and experience history</td>
</tr>
<tr>
<td>Socioeconomic status history</td>
</tr>
<tr>
<td>Financial (real property/assets/funds acquisition/disposal) history</td>
</tr>
<tr>
<td>Residential stability</td>
</tr>
<tr>
<td>Daily activities/recreational/sporting/activity or behavioral changes</td>
</tr>
<tr>
<td>Wills (recently drawn/verbalized) or Power of Attorney issued</td>
</tr>
<tr>
<td>Substance use/dependency/abuse history/and in this situation</td>
</tr>
<tr>
<td>Transference (+/-) and Stockholm Syndrome history/and in this situation</td>
</tr>
<tr>
<td>Treatment from/to hostage takers/other hostages history/and in this situation</td>
</tr>
<tr>
<td>Newspaper records and media involvement</td>
</tr>
<tr>
<td>Traumatic incidents in life and recent history/reactions during and after</td>
</tr>
<tr>
<td>Involvements in negotiation history/and in this situation</td>
</tr>
<tr>
<td>Movement and stress behaviors history during this situation</td>
</tr>
<tr>
<td>Demands during this situation</td>
</tr>
<tr>
<td>Released, rescued, injured, surrendered or other status at resolution of this situation</td>
</tr>
<tr>
<td>Situation outcome</td>
</tr>
</tbody>
</table>

**Notes or remarks:**

---

6
# Negotiator Coach Situation Board

<table>
<thead>
<tr>
<th>Stage</th>
<th>Disposition</th>
<th>Methods</th>
</tr>
</thead>
</table>
| Crisis      | Establish common ground relationship  
Probing cause of the problem  
Establishing credibility  
Encouraging safety  
Encouraging ventilation  
Identifying and assessing problem(s)  
Validating feelings  
Alerting for suicide/homicide,  
Preventing impulsive acting out,  
Probing for survivors/succumbers,  
defense mechanisms/coping strategies,  
positive/negative transference & allowing Stockholm Syndrome development | Active listening  
Overcoming communication boundaries/reassurance  
1st/2nd content information  
Paraphrasing  
Likeability/similarity influence  
Requests/consistent concern  
Maslow’s Hierarchy of Needs  
Mirroring  
Using effective pauses  
Clarifying meanings  
Clarifying feelings  
Active listening |
| Negotiations| Facilitating prediction of outcome and consequences  
Facilitating planning different solutions  
Eliminating unacceptable solutions  
Encouraging choosing solution  
Planning implementation | Problem-oriented questioning  
1st/2nd content information  
Problem-solving questions  
Advantage identification  
Summarizing solution  
Utilizing command structure |
| Solution    | Resolution of situation  
Managing protracted situations stress  
Post-shooting trauma | Guided viewing  
Hostage taker, hostages and negotiator stress management and mediation procedures  
Defusing and Debriefing |
# Negotiator Coach Situation Board

<table>
<thead>
<tr>
<th>Instrumental or Expressive Demand</th>
<th>Deadline</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Negotiator Coach Situation Board

<table>
<thead>
<tr>
<th>The HT...</th>
<th>Conversation or content has...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows positive signs of progress</td>
<td>Diminished references to violence; Occurred more often and longer; Slowed rate and diminished volume; Diminished threats; Moved to personal issues; Moved past deadline without incident; Resulted in released hostages; and Resulted in no one killed or injured since onset of negotiations.</td>
</tr>
<tr>
<td>Shows negative signs of progress and could become suicidal</td>
<td>Set a deadline for own death; Insisted or provoked face-to-face negotiations (suicide by cop ritual); Denied thoughts of suicide (by depressed personality HT); and, Moved to disposition of property (suicide ritual).</td>
</tr>
<tr>
<td>Shows negative signs of progress and could become volatile</td>
<td>Tied weapon to HT and/or hostage; A history of violence; Insisted or provoked a particular third person be brought to the scene; Become more angry since negotiations; Become more emotional in content since negotiations; and Has no social outlet for expressing anxiety, fear or frustration.</td>
</tr>
<tr>
<td>Shows negative signs of progress and lack of cooperation and rapport</td>
<td>No rapport and no clear demands or outrageous demands after significant time period with negotiator. Possible factors include use of alcohol or drugs by HT during negotiations; and Significant multiple stressors in HT’s life</td>
</tr>
</tbody>
</table>
## Stress Reactions of Subject

<table>
<thead>
<tr>
<th>Stage</th>
<th>Anxiety</th>
<th>Behavior</th>
<th>Mind State</th>
<th>Speed of Action</th>
<th>Intervention Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mild</td>
<td>Reality oriented External world</td>
<td>Normal</td>
<td>Normal</td>
<td>None/Active</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>Needs help from outside to focus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Severe</td>
<td>Poor productiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can’t cope alone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Needs support and direction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>from outside</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Panic</td>
<td>Disorganized</td>
<td>Feeling oriented</td>
<td>Fast</td>
<td>None/Passive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-perceiving or Mis-perceiving</td>
<td>Internal world</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Severe physical reactions to stress</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Negotiator Supervisor Situation Board

<table>
<thead>
<tr>
<th>Tasks Evaluated</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can trained members function without supervisor?</td>
<td></td>
</tr>
<tr>
<td>Are appropriate personnel available?</td>
<td></td>
</tr>
<tr>
<td>Is intelligence gathered in timely way?</td>
<td></td>
</tr>
<tr>
<td>Can communications be established/maintained?</td>
<td></td>
</tr>
<tr>
<td>Are appropriate records of the negotiations kept?</td>
<td></td>
</tr>
<tr>
<td>Is commander kept informed?</td>
<td></td>
</tr>
<tr>
<td>Hostage or non-hostage situation?</td>
<td></td>
</tr>
<tr>
<td>Negotiable now?</td>
<td></td>
</tr>
<tr>
<td>To make it negotiable?</td>
<td></td>
</tr>
<tr>
<td>Is tactical intelligence available for planning?</td>
<td></td>
</tr>
<tr>
<td>Has on-scene MHC completed suicide and Aggression Risk evaluation?</td>
<td></td>
</tr>
<tr>
<td>Has a threat assessment on hostages/hostage taker been developed?</td>
<td></td>
</tr>
<tr>
<td>Siege strategy and integrated tactics/negotiations plan developed?</td>
<td></td>
</tr>
<tr>
<td>Are negotiation strategy and defusing tactics developed?</td>
<td></td>
</tr>
<tr>
<td>Commander and tactical team commander briefed?</td>
<td></td>
</tr>
<tr>
<td>Are primary and secondary negotiators briefed?</td>
<td></td>
</tr>
<tr>
<td>Have negotiators discussed options?</td>
<td></td>
</tr>
<tr>
<td>Are support people on the job?</td>
<td></td>
</tr>
<tr>
<td>Is the right equipment on the job?</td>
<td></td>
</tr>
<tr>
<td>Has introduction been developed and practiced?</td>
<td></td>
</tr>
<tr>
<td>Is intelligence about incident being gathered and updated?</td>
<td></td>
</tr>
<tr>
<td>Is intelligence about people being gathered and updated?</td>
<td></td>
</tr>
<tr>
<td>Are words, tones, demands, promises, deadlines and outcomes monitored?</td>
<td></td>
</tr>
<tr>
<td>Are content, affect and paralinguistics monitored?</td>
<td></td>
</tr>
<tr>
<td>Are situation boards completed, updated and shared?</td>
<td></td>
</tr>
<tr>
<td>Are primary and secondary negotiators reviewing what has been done and assessing the results?</td>
<td></td>
</tr>
<tr>
<td>Are negotiators managing stress with breaks etc.?</td>
<td></td>
</tr>
<tr>
<td>Has MHC monitored negotiators throughout operation for stress tactics?</td>
<td></td>
</tr>
<tr>
<td>Are operational debriefings for team members and MHC arranged?</td>
<td></td>
</tr>
<tr>
<td>Are CISM defusings scheduled for all CNT and MHC members?</td>
<td></td>
</tr>
</tbody>
</table>
## Negotiator Rating Assessment

<table>
<thead>
<tr>
<th>Negotiation Supervisor and MHC Rating</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety of hostages is the primary concern</td>
<td></td>
</tr>
<tr>
<td>Negotiates basic human needs (to live, biological, safety, social ego and self actualization)</td>
<td></td>
</tr>
<tr>
<td>Keeps possibility of escape alive in the mind of the HT</td>
<td></td>
</tr>
<tr>
<td>Keeps HT’s mind off killing hostages. Avoids deadlines.</td>
<td></td>
</tr>
<tr>
<td>Makes negotiations easier by reducing anxiety, avoids perception of superiority when adapts posture,</td>
<td></td>
</tr>
<tr>
<td>language and vocabulary to HT’s</td>
<td></td>
</tr>
<tr>
<td>Defers decisions on HT demands to higher authority</td>
<td></td>
</tr>
<tr>
<td>Maintains rapport with HT by reducing emotionality increasing rationality. Reacts to changes in HT’s</td>
<td></td>
</tr>
<tr>
<td>feelings or demands.</td>
<td></td>
</tr>
<tr>
<td>Does not bargain for additional/replacement hostages</td>
<td></td>
</tr>
<tr>
<td>Receives something in return for something and increases hostages chances of escaping</td>
<td></td>
</tr>
<tr>
<td>Communicates intelligence gathered with CNT coach and MHC for better decision making</td>
<td></td>
</tr>
</tbody>
</table>

**Given these circumstances I expect this negotiator will**

<table>
<thead>
<tr>
<th></th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Become fatigued, argument, angry or unsettled, thereby exacerbating the crisis situation</td>
<td>5</td>
</tr>
<tr>
<td>Freeze and become irrelevant in the crisis situation</td>
<td>15</td>
</tr>
<tr>
<td>Become judgmental, or interpretive, losing trace of the HT’s motivation</td>
<td>25</td>
</tr>
<tr>
<td>Become too probing, causing the HT to become defensive</td>
<td>35</td>
</tr>
<tr>
<td>Show concern, but not sufficient empathy</td>
<td>45</td>
</tr>
<tr>
<td>Show concern and empathy, but not be able to offer insightful alternatives</td>
<td>55</td>
</tr>
<tr>
<td>Show empathy and general ability to seek alternatives</td>
<td>65</td>
</tr>
<tr>
<td>Show empathy and ability to guide HT to meaningful alternatives</td>
<td>75</td>
</tr>
</tbody>
</table>

**Comments**
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
INTRODUCTION

One of the greatest trusts placed upon a law enforcement officer is the responsibility of balancing the constitutional interest of an individual against the interest of a society that believes the use of force against an individual is constitutionally permissible, when reasonable and necessary requirements, under the law, have been met. This balance of responsibility holds law enforcement officers strictly accountable for the discriminate use of force based on the lawfulness of the officer’s decision. Law enforcement officers must be ready to justify their use of force, within the constitutional and judicial standard of reasonableness, at the instant the force was used.

Every use of force application by an officer will be reviewed, critiqued and ultimately judged by society, the courts (civil/criminal) and the law enforcement officer’s agency or department. This evolving standard mandates a reasonable decision, by the officer, when confronted with a situation where use of force is applied. In most cases, this decision must be made in a split second, in circumstances which are tense, uncertain and rapidly evolving. (Training Key #249, Taking Prisoners into Custody.)

No decision to use force is more difficult or critical than the decision to use ultimate or “deadly” force. While the term “deadly force” can be defined as any force, exerted by a law enforcement officer, that could purposely or unintentionally result in loss of life, this study guide will restrict its application to the force applied with a law enforcement firearm. (Training Key #277, Use of Deadly Force.)

The standards of conduct controlling the law enforcement use of deadly force are based on common law statutes, modified common law statutes and model penal code. These standards are further modified by individual state and federal statutes, on-going court decisions and departmental or agency policy and guidelines. The law enforcement officer must know what the laws, policies and guidelines of his jurisdiction are, how they govern his use of deadly force and how that use of force may result in departmental action or civil/criminal actions against him in state or federal court (Training Keys #278, Improper Use of Deadly Force; #324, Police Shootings and the Law; #325, Police Shootings and Department Policy.)
TOTALITY OF THE CIRCUMSTANCES

Any use of force decision, including use of deadly force, by law enforcement officers must be made within the “totality of circumstances” surrounding each specific incident the officer confronts. There are many considerations within this totality that affect the necessity to use reasonable and appropriate force. They may include, but are not limited to:

- Can the subject who is resistant, physically comply with the issued commands or directions?
- Does the officer have the ability to disengage or engage a contact?
- Will the officer’s actions or tactics precipitate a higher use of force level?
- Will the use of force that is presently appropriate have the desired results?
- Is the officer placing himself or herself in a position of disadvantage by using a tactic, even though consistent within the reasonable officer response and perception confines, that is not appropriate for the threat being presented, such as in multiple assailant contacts?
- What is the ability, age, gender, physical condition and size of the officer compared to that of the subject?
- What is the law enforcement experience level of the officer?
- What are the numbers of officers, compared with the numbers of subjects?
- What is the environment (night, day, rain, snow, ice, heat, water, terrain, etc) of the contact?
- What available weapons are in the immediate vicinity of the subject?
- What is the distance from the officer to the subject?
- What is the background or history of the subject?
- What is the severity of the crime that led the officer to be in contact with the subject?
- Was the subject attempting to evade arrest by flight, stealth or hiding?
- What is the officer's intended result from the escalating force?
Is there an immediate presence of innocent bystanders?

Answering these questions may assist the officer in justifying and/or determining the necessity for the escalating or de-escalating of the reasonable use of force level. The officer must keep in mind that these considerations can change at any time and must be mentally aware and able to adapt to the changing circumstances.
JEOPARDY TRIANGLE

In conjunction with the totality of the circumstances, the application of force by an officer will be based on meeting the requirements of what may be called the Jeopardy Triangle. The triangle exists within the necessity to escalate the use of force. The principle or concept of the Jeopardy Triangle can apply to the officer, other people, an arrest or an enforcement action. The Jeopardy Triangle does not necessarily mean the officer is in jeopardy. The three sides making up the triangle are: Ability/Capability, Opportunity and Intent.

**Ability/Capability** addresses the subject’s ability or capability to carry out a threat he/she has insinuated.

Example:

An assailant in physical possession of a gun has ability/capability because he has a gun and can pull the trigger; however, it would be highly unlikely that an assailant who can use neither arms nor legs would be capable of carrying out a threat of physical battery. The ability/capability to carry out any threat professed must be logical.

**Opportunity** indicates that the threat perceived by the officer is imminent, but not necessarily instantaneous.

Example:

An assailant is throwing rocks at an officer who is standing 40 feet out of the range of the thrown rocks. The assailant has the ability/capability, but lacks the opportunity because the officer is out of range. At this point, there is no imminent danger of being struck by the rocks. An assailant saying, “I will shoot you tomorrow” or “one of these days” does not constitute opportunity because the threat must be in the present and the danger or action must be imminent.

**Intent** can be expressed or implied by the initiation of an overt act in the furtherance of the threat or action.

Example:

An officer approaches a subject who is armed with a knife. The subject has a cutting instrument and is able bodied, so the ability or capability is present. The subject will have opportunity as the officer approaches and the threat becomes imminent due to proximity, but no intent has been established because the subject has not done anything against the officer other than a possible
warning. Now, holding the knife in a threatening manner and looking intently at the officer, the subject begins moving towards the officer, making stabbing and slicing motions as he moves. Intent has now been demonstrated by the initiation of the overt acts in the furtherance of the threat or action.

Each time the use of force is escalated, the triangle for jeopardy must exist. The level of force the officer determines to use must be reasonable and based on the officer’s perception of the threat/risk and the necessity to act.
USE OF DEADLY FORCE

Setting policy and/or guidelines for the use of deadly force that would encompass and adhere to all federal, state, local statutes and all departmental and agency policies is not only beyond the scope of this study guide, it would be an impossibility. Therefore, for the purpose which this study guide was developed:

“Law enforcement officers may use deadly force only when necessary, that is, when the officer has a reasonable belief that the subject of such force poses an imminent danger of death or serious physical injury to the officer or to another person.”

**Necessary (Necessity)**

Necessary means no other reasonable alternative is available to you. All other available means of preventing imminent and grave danger to you or other persons have failed or would be likely to fail. There is no safe alternative to using deadly force, and without it, you or others would face imminent and grave danger of death or serious physical injury.

An officer is not required to place him or herself, another officer, a suspect or the public in unreasonable danger of death or serious physical injury before using deadly force.

**Reasonable Belief**

Probable cause or a reason to believe, for purposes of this guide, means, facts and circumstances, including inferences drawn by the officer when deadly force is used, would cause a reasonable officer to believe that the point at issue is probably true. The reasonable belief or decision must be viewed from the perspective of the officer on the scene, who may often be forced to make split second decisions in circumstances that are tense, unpredictable and rapidly evolving. Reasonable belief is not to be viewed from the calm vantage point of hindsight. Included in the totality of circumstances used to determine reasonable belief are the following factors:

**Ability**

The suspect must have the ability to inflict serious bodily harm or death. This ability must be depicted by a deadly weapon (gun, knife, etc.) or the person’s overwhelming physical advantage (size, fighting skills [karate, boxing, etc.]).

**Opportunity**

The suspect must be in a position in which the suspect can use his/her ability to threaten human life,
i.e., a person threatening to kill an officer with a baseball bat stands 50 feet away. Although this suspect has the ability, because of the distance he/she is from the officer, there is no opportunity.

**Manifest Intent**

The suspect must demonstrate, through words and/or deeds that the suspect intends to inflict serious physical injury or death to the officer or other persons. The intent of the perpetrator is sometimes nebulous and will require the officer to articulate all the surrounding facts, both direct and circumstantial.

**Imminent Danger**

Imminent danger, as used in this context, has a broader meaning than immediate or instantaneous. The concept of imminent danger should be understood to be elastic, that is, involving a period of time dependent on the circumstances, rather than the fixed point of time implicit in the concept of immediate or instantaneous. Imminent danger may be easier understood when the totality of the circumstances are considered. This includes the previously mentioned use of force considerations. Thus, a subject may pose an imminent danger even if he or she is not at that very moment pointing a weapon at the officer. For example, if he or she has a weapon within reach or is running for cover carrying a weapon or running to a place where the officer has reason to believe a weapon is available.

An example may be a knife attack from five feet away versus thirty five feet away. Five feet is clearly self-defense and imminent. You are not required to await the imminent thrust. From 35 feet away, the attacker may not necessarily pose an instantaneous threat, but the threat can still be imminent. It is crucial that each law enforcement officer be able to articulate the presence of the elements of the policy forcing him to utilize deadly force.

**Death or Serious Physical Injury**

The necessity to use deadly force arises when all other available means of preventing imminent and grave danger to officers or other persons have failed or would be likely to fail. Thus, employing deadly force is permissible when there is no safe alternative to using such force, and without it the officer or others would face imminent and grave danger. An officer is not required to place him or herself, another officer, a suspect or the public in unreasonable danger of death or serious physical injury before using deadly force.
Determining whether deadly force is necessary may involve instantaneous decisions that encompass many factors, such as the likelihood that the subject will use deadly force on the officer or others if such force is not used by the officer, the officer’s knowledge that the subject will likely acquiesce in arrest or recapture if the officer used lesser force or no force at all, the capabilities of the subject, the subject’s access to cover and weapons, the presence of other persons who may be at risk if force is or is not used, and the nature and the severity of the subject’s criminal conduct or the danger posed.

**Warning Shots**

Firing a weapon should be with the intent of rendering the person at whom the weapon is discharged incapable of continuing the activity prompting the agent or police officer to shoot. Warning shots, therefore, are prohibited.

This guideline simply means that when a law enforcement officer fires his/her weapon at someone, the officer doesn't shoot to kill, doesn't shoot to wound, but shoots to stop the suspect’s activity, thereby eliminating the imminent danger.

**Moving Vehicle**

Firing at a moving vehicle with the intent of rendering it incapable of being operated poses a formidable danger to innocent parties. The possibility of a ricochet is greatly increased when the target is a car body or a spinning tire. Utmost caution must be exercised when considering such action.

This doesn't suggest that one cannot fire at a moving vehicle. If an officer has reason to believe that a driver or occupant poses an imminent danger of death or serious physical injury to the officer or others, he/she may fire at the driver or an occupant only when such shots are necessary to avoid death or serious physical injury to the officer or another, and only if the public safety benefits of using such force reasonably appear to outweigh any risk to the officer or the public, such as from a crash, ricocheting bullets, or return fire from the subject or another person in the vehicle.

**Fleeing Felon**

Firing at a fleeing person will not be considered justified unless the officer reasonably believes that the person he/she is considering shooting poses an imminent danger of death or serious physical injury.
The word **unless** indicates the fact that an officer can shoot at a fleeing person in certain situations. For example, if a person fired on an officer, turned and ran with the gun still in hand, the officer could shoot at him/her. The rationale would be that the person still depicted an imminent threat by retaining his/her weapon. The person could be running to cover or could turn and fire at any time. If the person turns to fire, action being faster than reaction, the probability of the officer firing first is unlikely.

**Public Display of Weapons**

As a general rule, when in the presence of the public, a handgun should be drawn only when the police officer has sufficient cause to expect the handgun will be used and the officer is preparing for its use. Shoulder weapons (long arms) may be displayed when the appropriate situation dictates its possible use.

There are times when simply drawing the weapon is inappropriate. Once the weapon is drawn, and the situation de-escalates or wasn't what it appeared to be, the officer can re-holster. This is especially true in the presence of the public.

**Bystanders**

The authority to bear firearms carries with it an obligation and responsibility to exercise discipline, restraint and good judgment. The law enforcement officer must keep in mind that when firing a weapon, a danger to innocent parties always exists. As a general rule, when there are innocent people behind or near the perpetrator who may be endangered by the officer's returned fire, the officer should not return fire but should **take cover**. (Position of Advantage)

If the perpetrator is firing at innocent bystanders, they are no longer considered bystanders. They are now innocent victims. The officer should fire at the perpetrator (even at the risk of injuring one of the victims), to stop the perpetrator from continuing this activity.
PROCEDURES FOR CONDUCTING
SHOOT/DON’T SHOOT

Participants are considered in uniform and easily recognized as law enforcement officers.

The “officer” will stand approximately twelve feet from a projector screen, on to which a series of short situations will be projected by a computerized training system. They will be using a specially designed weapon. This weapon may be a real revolver or semiautomatic pistol, altered to fire a harmless infrared laser beam, or replica weapon designed for this purpose. If holsters are not available, the weapon may be placed in a pocket or held down to the side before each scene until such time as the officer reasonably believes that he/she or another person is or is about to be placed in imminent danger of death or serious bodily injury.

Preceding each scenario, a narrator will give a short description of the situation. The narration will be brief and will place the officer in the situation as the scene starts. Although the scenes are short (about one minute), there will be reasonable time to determine whether or not the elements that constitute a shoot situation are present. The officer is the lens of the camera and is to become part of the scenario. If a character in the scenario is talking into the camera lens, he/she is talking to the officer. The officer should interact with the scenario, using verbal commands, drawing on and challenging suspects appropriately-- in effect, being part of the scenario.

The officer should draw (or raise) his/her weapon whenever he/she has reasonable cause to expect it will be used and is preparing to use it. The drawing of the weapon, for the purpose of this exercise, will be the same as in real life. The weapon may be drawn based on the situation in the scenario or possibly even the narrator’s description of the situation.

The participant will be scored on gun handling skills, timely reaction, verbalization, accuracy of the shot, and foremost, judgment according to the guidelines set forth in the Study Guide and Training Keys.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION ONE

INTRODUCTION
SYLLABUS

Introduction to Accident Investigation

LENGTH AND METHOD OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LABORATORY</th>
<th>PRACTICAL EXERCISE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td>0:00</td>
<td>0:00</td>
<td>1:00</td>
</tr>
</tbody>
</table>

DESCRIPTION

This unit of instruction introduces the students to the necessity for accurate, impartial and professional traffic accident investigation and reporting. The objectives to be met at the scene of accident investigations are presented. Additionally, the qualities and abilities of a professional traffic accident investigator are discussed. Approaches to accident reduction through the application of education, engineering and enforcement are also introduced.

TERMINAL PERFORMANCE OBJECTIVE

The student will identify the proper objectives of a traffic accident investigation. The student will be able to identify and differentiate between the qualities and abilities needed by a traffic accident investigator and be able to demonstrate an understanding of traffic accident reduction by application of education, engineering and enforcement.

INTERIM PERFORMANCE OBJECTIVES:

1. Identify the objectives of traffic accident investigation.
2. Identify qualities needed by an accident investigator.
3. Identify abilities needed by an accident investigator.
4. Identify the three "E's".

METHOD OF EVALUATION

Written examination
Instructor Guide

METHODOLOGIES:

Classroom lecture with questions

TRAINING AIDS AND EQUIPMENT:

1. Instructor
   A. Transparencies and overhead projector

2. Student
   A. Note taking materials

Outline of Instruction

I. INTRODUCTION:

A. ESTABLISH RAPPORT:

1. Since more people are killed and injured and more economic loss suffered due to traffic accidents than all other types of accidents combined, the importance to traffic accident investigation cannot be overstated. The objectives of this type of investigation range from providing the basic police function, the protection of life and property, to restoring the flow of traffic.

2. A traffic accident investigator must be enthusiastic, sincere, responsible and impartial as he/she delivers this vital public service. The information in his/her reports may be useful in preventing future accidents through the application of Education, engineering and enforcement, (the three E’s). However, the resources expended on the investigation and reconstruction of an accident as well as the diagramming process utilized will, generally, be dictated by the seriousness of the accident.

B. TERMINAL PERFORMANCE OBJECTIVE

The student will identify the proper objectives of a traffic accident investigation. The student will be able to identify and differentiate between the qualities and abilities needed by a traffic accident investigator and be able to demonstrate an understanding of traffic accident reduction by application of education, engineering and enforcement.

C. INTERIM PERFORMANCE OBJECTIVES:

1. Identify the objectives of traffic accident investigation.
2. Identify qualities needed by an accident investigator.

3. Identify abilities needed by an accident investigator.

4. Identify the three "E's".

II. PRESENTATION

A. Identify the objectives traffic accident investigation.

1. The objectives of a traffic accident investigation are those things that the traffic accident investigator would be expected to accomplish each time he/she is dispatched to the scene of an accident. As previously stated these objectives range from the basic police function to the restoration of an orderly flow of traffic. Although not necessarily all inclusive, a list of objectives would include:

   a. The basic police function, the protection of life and property. If this objective is not fulfilled, then the job by definition has not been accomplished. Note also that the protection of your life as the first responder is THE top priority. Apart from the selfish aspects of this statement, the logic is inescapable. An injured or deceased officer can do no good for anyone.

   b. Prevent further collisions—This objective goes hand in hand with the first in that it will go a long way in protecting life and property. However, since subsequent collisions are certainly not the only way for damage or injury to result on the scene of an accident, this objective must stand alone.

   c. Gather evidence for prosecution—Just as in any other type of case where a violation of law may have occurred, the responding officer must go in with an eye toward prosecution as an end result. Many times officers raise the objection that accident investigation is merely doing the job of the insurance companies. While it is certainly true that the insurance companies benefit from a good investigation, the fact that a traffic and/or criminal law may have been broken puts the responsibility squarely in the lap of law enforcement.

   d. Properly record the facts surrounding the collision. Since the investigating officer may well be the only emotionally and financially detached person on the scene, his/her report of the event is logically the most accurate rendition of the
e. Determine the cause(s) of the collision. This is important in prevention of future accidents as well as in the accomplishment of the first four objectives. While one school of thought is that placing blame is not an objective of accident investigation, determining the cause(s) may in fact determine who bore the responsibility for the event. In other words, identifying the "at fault party."

B. Identify qualities needed by an accident investigator.

1. The qualities of a good accident investigator are those traits, both personal and professional, that the officer displays on each scene. While it is easy to sympathize with the victim of a criminal act, the routine nature of, at least, minor accidents tend to channel some officers into apathetic patterns. While not all inclusive the traits listed below attempt to portray the qualities that will get the job done in an effective manner while presenting a professional image of the profession.

a. Enthusiasm--This entails the willingness to thoroughly investigate all accidents assigned. While it is easy to procrastinate and do the minimum acceptable on "routine" fender benders, this is unacceptable for at least two reasons. First, to the people involved, our customers, this is a very traumatic event. A motor vehicle is the single largest investment in many people's lives and a major one to all. Secondly, accidents are often the result of other crimes. A person who has just stolen a car may not be familiar with its operation, a drug user or runner may not be able to resist "a taste" while in route. Suffice it to say that what appears as a "routine PDO (property damage only)" may be a maelstrom for the officer who steps in unaware and less than alert.

b. Sincerity--To the parties involved, this event may be quite traumatic for the reasons mentioned above or a myriad of others unknown to the officer. For the average law abiding citizen this may be one of a very few contacts with law enforcement. The accident investigator has it within his or her power to garner public support or lose it based on the level of professionalism displayed.

c. Responsibility--Accident investigation represents a fairly frequent opportunity to be a good representative for your department. If your appearance, bearing and decisions present a professional and service-orientated attitude, then a favorable impression will be created and generally the entire
investigative process will run more smoothly.

d. Impartiality--Avoid pre-conceived ideas. Admittedly it is hard to avoid forming early judgments as your experience grows and certain types of accident become "routine." However, the ability to treat each situation as unique and avoid conclusions until all the evidence is in, is the mark of a professional. This would include avoiding fixations on certain groups of drivers, such as juveniles, even though they may be involved in a disproportionately high number of accidents.

C. Identify abilities needed by an accident investigator.

1. If the qualities of an accident investigator describe what is expected of the person in terms of traits, the abilities describe the skills that may be needed on the scene. While it is trite to say that each scene is different, many truly do present new challenges given the variety of people, cargos and uses for motor vehicles. Still a list of frequently needed skills would include the following:

a. To properly represent authority--The officer/agent must be a good representative of his/her agency. He/She must be able to quickly take charge and establish the order of priorities necessary to establish safety and accomplish the other objectives.

b. To investigate--The investigation process will be centered around three basic areas. The proficient investigator will need skills in all three.

1. By observation--the process of observation begins as soon as the officer/agent arrives on the scene. Although initially the person doing the investigation may not understand the significance of everything he/she sees, it is important to make accurate observations to be able to verify or refute the statements of those involved.

2. By interviewing--This is the investigator's stock in trade. Although all people do not tell the truth all the time, the ability to conduct good interviews and ask pertinent questions remains one of the best sources of information for the accident investigator.

3. By analyzing the situation--In this phase the investigator makes a comparison between what is seen, the physical evidence and the statements of the
involved persons.

c. To render first aid

d. To regulate traffic

e. To control fires

f. To take photographs--Although generally accepted as a part of accident investigation, photography is a skill that is often underrated by officers/investigators. Well taken photographs not only allow the scene to be presented accurately at a later date, but also may present a second chance for the interpretation of evidence by experts.

g. To make reasonable decisions--Although officer and public safety are first and foremost in any accident investigation the order in which the other tasks are performed may take almost any order depending on the situation. Flexibility, an organized approach and the ability to set priorities based on situations are key to being an effective accident investigator.

h. To testify in court--This ability must exist and be in the forefront of the investigator's mind at all times. While not an immediate priority on the scene, the ability to be effective in court is one very important test of the investigator's effectiveness. The best case in the world may not be successfully litigated if it is presented in an inept manner.

D. Identify the three "E's".

1. The "three E's refer to processes involved in attempts at accident reduction. The "E's" stand for **Education, Engineering** and **Enforcement**.

   a. Education--The key to a successful education program is to identify the target group. Through analysis of traffic accident reports, violation notices and officer observations the drivers who are over represented in accidents should receive the most attention.

   b. Engineering--In addition to proper engineering prior to the construction of traffic related structures an **on-going** analysis is necessary. This may take the form of information sharing in which copies of accident reports are forwarded to personnel responsible for construction and maintenance. Engineering changes may affect specific problems such as hydroplaning accidents in flood prone areas. However,
through the study of trends and information sharing, problems of a much larger scope can be addressed. An example of this would be uniform signing on a national level which has led to earlier recognition and as a result less confusion. Through standardization of shape, color and message or symbol motorist comprehension has been increased.

c. Enforcement—Enforcement may be the most obvious attempt at accident reduction to the general public. What may be less obvious is that it is the most expensive. With this in mind and given the increasing demands on generally decreasing personnel power resources an organized approach is called for. This approach should be based on analysis of the problem. This may be as simple as a pin map showing areas of frequent accidents or graphic representations of accidents by severity, location day and time. The point is that while traffic enforcement will in all likelihood be a part of uniformed patrol activities this method alone is not always sufficient. If personnel levels permit, specialized enforcement units such as alcohol, speed safety enforcement units cannot only target problems by time day and area, but also develop a high level of expertise in detection and apprehension. This approach combined with selective enforcement on the part of patrol officers can result in significant reductions in accident rates with minimized impact on patrol activities.

III. SUMMARY

A. Identify the objectives of traffic accident investigation.

B. Identify qualities needed by an accident investigator.

C. Identify abilities needed by an accident investigator.

D. Identify the three "E's".

E. Conduct question and answer period.
References

Federal Law Enforcement Training Center, Course number 7020, *Introduction to Accident Investigation*, original date and author unknown

George W. Allison, (1983)  
*Basic Motor Vehicle Accident Investigation Student Text*,  
Federal Law Enforcement Training Center

*Traffic Accident Investigator's Handbook*,  
Charles C. Thomas, Publisher

*The Traffic-Accident Investigation Manual*  
*At scene Investigation and Technical Follow-up*  
Northwestern University Traffic Institute  
Evanston, Illinois 60204
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Training Center.
SECTION TWO

TOOLS OF AN ACCIDENT INVESTIGATOR
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYLLABUS</td>
<td>4</td>
</tr>
<tr>
<td>INSTRUCTOR GUIDE</td>
<td>5</td>
</tr>
<tr>
<td>OUTLINE OF INSTRUCTION</td>
<td>6</td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>6</td>
</tr>
<tr>
<td>A. ESTABLISH RAPPORT AND MOTIVATING STATEMENT</td>
<td>6</td>
</tr>
<tr>
<td>B. LESSON PLAN OVERVIEW</td>
<td>6</td>
</tr>
<tr>
<td>II. PRESENTATION</td>
<td>6</td>
</tr>
<tr>
<td>A. EPO #1: IDENTIFY FIVE MARKING TOOLS, SIX MEASURING TOOLS, EIGHT RECORDING TOOLS, AND THREE DRAWING TOOLS NECESSARY TO CREATING A VISUAL REPRESENTATION OF AN ACCIDENT SCENE</td>
<td>6</td>
</tr>
<tr>
<td>B. EPO #2: IDENTIFY THE TECHNIQUES NECESSARY TO TAKE MEASUREMENTS WITHOUT MEASUREMENT TOOLS</td>
<td>9</td>
</tr>
<tr>
<td>III. SUMMARY</td>
<td>10</td>
</tr>
<tr>
<td>A. REVIEW THE PERFORMANCE OBJECTIVES</td>
<td>10</td>
</tr>
<tr>
<td>B. REVIEW THE TEACHING POINTS</td>
<td>10</td>
</tr>
<tr>
<td>IV. APPLICATION</td>
<td>10</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>11</td>
</tr>
</tbody>
</table>
SYLLABUS

COURSE TITLE: Tools of an Accident Investigator

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>P.E.</th>
<th>TOTAL</th>
<th>PROGRAM</th>
<th>OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td></td>
<td></td>
<td>1:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course teaches the student how to use tools to record, measure, mark, and diagram an accident scene.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

The student will identify the common tools used in accident investigation, their advantages and disadvantages, and a method for taking measurements when tools are not available with seventy percent accuracy.

ENABLING PERFORMANCE OBJECTIVES:

EPO #1: Identify five marking tools, six measuring tools, eight recording tools, and three drawing tools necessary to creating a visual representation of an accident scene.

EPO #2: Identify the techniques necessary to take measurements without measurement tools.

STUDENT SPECIAL REQUIREMENTS:

There are no special requirements.
Instructor Guide

METHODOLOGIES:

1. Lecture.
2. Discussion.
3. Demonstration.

TRAINING AIDS AND EQUIPMENT:

1. Instructor
   a. Clipboard (with a pivot hole).
   b. Traffic template.
   c. Drafting compass.
   d. Magnetic or electronic compass.
   e. 100-foot steel or fiberglass measuring tape.
   f. 25-foot steel or fiberglass measuring tape.
   g. "Rolatape" or measuring wheel.
   h. Yellow lumber crayon.
   i. Spray chalk (optional).

2. Student
   a. Pen and paper for writing notes.

INSTRUCTOR SPECIAL REQUIREMENTS:

There are no special requirements.
Outline of Instruction

I. INTRODUCTION

A. Establish Rapport and Motivating Statement

1. The field of law enforcement is a professional career.
2. This is especially true in the area of traffic accident investigation.
3. Many agencies have specially trained officers designated as accident investigators.

B. Lesson Plan Overview

1. Your ability to investigate a traffic accident is a critical skill for every patrol officer to master.
2. An accident investigator needs to know how to use special tools to process an accident scene.
3. Recording equipment expedites documenting and interviewing at the accident scene.
4. Measuring equipment aids in accurately positioning physical evidence to diagram the scene for later presentation in court if required.
5. The traffic template and calculator help the accident investigator determine the speed of the vehicles from skid marks and draw to scale diagrams of the accident scene.
6. Other equipment helps insure the safety of accident victims, public, and personnel working at the accident scene.

II. PRESENTATION

A. EPO #1: Identify five marking tools, six measuring tools, eight recording tools, and three drawing tools necessary to creating a visual representation of an accident scene.

1. Marking tools:
   a. **Yellow lumber crayon** – You can mark most surfaces, in most weather conditions with lumber crayons. You can buy these crayons in most home centers or lumber yards.
b. **Chalk** – Chalk is easy to carry and store, but a little messy. In addition, chalk marks wash off in the rain.

c. **Spray chalk** – Surveyors use a bright orange spray chalk.
   (1) It is a good tool for marking the position of vehicles on dry surfaces.
   (2) However, it will wash off the pavement in rain or even wear off after several days in dry weather.

d. **Spray paint** – You should use spray paint only as a last resort. Why, because it is semi-permanent, so use it with caution.

e. **Bottle caps, washers, and nails** – You can nail a bottle cap or metal washer to mark zero on the base line and establish a reference point (RP).

2. **Measuring tools:**
   a. 100-foot, steel or fiberglass measuring tape.
   b. 25-foot, steel or fiberglass measuring tape.
   c. Eight-foot, steel measuring tape.
   d. Measuring wheel – This is a lightweight, wheeled device that provides excellent accuracy for measuring distances.
      (1) Caution, these devices follow the terrain and may introduce error when making linear measurements.
      (2) For example, using the wheel to measure across a ditch.
   e. Surveyor pins – used to anchor tapes, etc.
   f. Hammer and nails – used with washers, etc. to create reference points.

**NOTE:** There are pros and cons to both steel and fiberglass tapes. Steel tapes tend to hold a straight line better, but are easily damaged if run over by vehicles. They require frequent cleaning to prevent rust and the accumulation of grit. Fiberglass tapes must be monitored while being used to maintain a straight line, as they are much lighter and easily disturbed by wind. They can be run over without problems, but can soak up fluids from accident scenes.
3. Recording tools:
   a. Clipboard – You can modify the clipboard with a pivot hole for using with a traffic template as a clinometer.
   b. Traffic accident report forms.
   c. Pre-drawn intersection diagrams (check for acceptance in your local courts).
   d. Paper.
   e. Mechanical pencils.
   f. Pens.
   g. Clear plastic sheet (8.5 x 11 inches) or plastic bag to cover reports, etc., while working in rain.
   h. Micro tape recorder (optional) – A small tape recorder is convenient for recording field notes and witness statements taken at the scene. You can transcribe the notes and statements later and maintain the tape as evidence.
   i. Camera (e.g. film, instant exposure Polaroid, or digital) – Officers must balance the advantage of producing instant pictures against the advantage of having negatives as evidence.

4. Drawing tools:
   a. Templates – There are several templates available to help officers make scaled drawings of accident scenes including:
      (1) Northwestern Accident Investigator’s Template.
      (2) NJ Templates (A-D).
      (3) Institute of Police Technology and Management (IPTM) Blue-Blitz Template.
      (4) “Go-Write” Traffic Template.
   b. “Flexi-curve” for drawing irregular contours to scale.
   c. Drafting compass.
   d. Pre-drawn intersection diagrams
e. **Mechanical pencils** for drawing fine lines of uniform width (.05 or .07 mm).

f. **Vinyl-based drafting eraser.**

g. **Eraser shield.**

5. **Other tools:**

   a. Flashlight – three or more cells, extra batteries, and a spare bulb.

   b. Evidence envelopes.

   c. Magnetic or electronic compass.

   d. Emergency flares.

   e. Emergency blanket.

   f. Traffic cones.

6. **Container or carrying case for accident investigation tools:**

   a. Attaché case.

   b. Briefcase.

   c. File box.

B. **EPO #2:** Identify the techniques necessary to take measurements without measurement tools.

1. When measuring equipment is not available:

   a. Walk off distances while counting the steps.

   b. If there is less than a step at the end, estimate it as a quarter, a half, or three-quarters of a step.

   c. Record the number of steps.

2. Later, when you have access to a tape measure, step the distance off and measure the distance with the tape.

   a. As an accident investigator, you should know how long your pace is.

   b. Measure off a distance of 100 feet.
(1) Walk the distance using your normal gait and count the number of steps it takes you to cover 100 feet.

(2) Repeat this process about 20 times to get a good average number of steps.

(3) Once you establish the average number of steps, it takes you to cover 100 feet, divide 100 by the average number of steps.

(4) The result is the average length of your gait.

III. SUMMARY

A. Review the performance objectives.

1. EPO #1: Identify five marking tools, six measuring tools, eight recording tools, and three drawing tools necessary to creating a visual representation of an accident scene.

2. EPO #2: Identify the techniques necessary to take measurements without measurement tools.

B. Review the teaching points.

1. Obtaining and using the proper tools will allow the traffic accident investigator to work in the most efficient manner possible.

2. Moreover, the selection of proper marking devices can contribute to better community relations in that the scene is not permanently marked.

3. The selection of a few inexpensive tools for marking, measuring, recording and drawing will also make the traffic accident investigator’s job easier.

4. With proper tools, the officer can accomplish the job quickly and without frustration.

5. Work performed under these conditions and in relative comfort is usually more accurate

IV. APPLICATION

None.
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION THREE

HIGHWAY TERMINOLOGY
TABLE OF CONTENTS

SYLLABUS ........................................................................................................................................... 1
INSTRUCTOR GUIDE ............................................................................................................................... 2
OUTLINE OF INSTRUCTION .................................................................................................................. 3

I. INTRODUCTION ................................................................................................................................. 3
   A. ESTABLISHING RAPPORT AND OPENING STATEMENT ................................................................ 3
   B. LESSON PLAN OVERVIEW ........................................................................................................... 3

II. PRESENTATION .................................................................................................................................. 3
   EPO #1: IDENTIFY THE CORRECT TERMINOLOGY USED IN DESCRIBING
   THE ACCIDENT SITE .......................................................................................................................... 3
   EPO #2: IDENTIFY THE CORRECT TERMINOLOGY USED IN DESCRIBING
   THE PHYSICAL EVIDENCE FOUND AT AN ACCIDENT SCENE ......................................................... 4

III. SUMMARY ....................................................................................................................................... 10

IV. APPLICATION .................................................................................................................................... 10

REFERENCES ......................................................................................................................................... 10
SYLLABUS

COURSE TITLE: Highway Terminology

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>P.E.</th>
<th>TOTAL</th>
<th>PROGRAM</th>
<th>OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td></td>
<td></td>
<td>2:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course introduces the student to the need for the use of uniform terminology in describing factors and events in the course of an accident investigation. The student will become familiar with the terminology used in traffic accident reports.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

Given a written, multiple-choice examination, the student will identify and define the correct terminology used in accident reports and court testimony with 70 percent accuracy.

ENABLING PERFORMANCE OBJECTIVES:

EPO #1: Identify the correct terminology used in describing the accident site.

EPO #2: Identify the correct terminology used in describing the physical evidence found at an accident scene.

EPO #3: Identify the correct terminology for various tire and skid marks.

EPO #4: Identify the terminology used to describe the “chain of events” in a traffic collision.

STUDENT SPECIAL REQUIREMENTS:

None
INSTRUCTOR GUIDE

METHODOLOGIES:

1. Lecture.
2. Discussion.

TRAINING AIDS AND EQUIPMENT:

1. Instructor
   b. Magnetic cars.
2. Student
   a. Note taking material.

INSTRUCTOR SPECIAL REQUIREMENTS:

None
OUTLINE OF INSTRUCTION

I. INTRODUCTION

A. Establishing rapport and opening statement.
   1. The traffic accident report may be the only source of unbiased information in an accident investigation. The details and information included in this report often determine the outcome of a serious legal action for defendants or individuals involved and reflects on the officer and the agency involved in the investigation.
   2. It is imperative that officers use proper, consistent, and uniform terminology in the traffic accident report. This is an official document, which may be examined by many individuals including U.S. Magistrates, prosecutors, defense attorneys, insurance companies, media, public officials, other law enforcement agencies, and the public.

B. Lesson Plan Overview
   1. Identify the correct terminology used in describing the accident site.
   2. Identify the correct terminology used in describing the physical evidence found at an accident scene.
   3. Identify the correct terminology for various tire and skid marks.
   4. Identify the terminology used to describe the “chain of events” in a traffic collision.

II. PRESENTATION

A. EPO #1: Identify the correct terminology used in describing the accident site.
   1. One of the duties of a law enforcement officer with road patrol responsibilities includes handling and investigating motor vehicle accidents. To assist in effectively carrying out this task, an officer must have a strong knowledge and understanding of general and specific vocabulary/terms related to the investigation and documentation of traffic accidents. An appreciation of the proper terminology involved enables the officer to write more accurate and understandable reports and present a professional and comprehensive case in court.
      a. ACCIDENT - According to the Northwest Traffic Accident Investigation Institute an accident is defined as, “That
occurrence in a sequence of events which usually produces unintended injury, death or property damage."

b. ROADWAY – That portion of the highway improved, designed, or ordinarily used for vehicular travel, excluding the berm or shoulder.

c. ROAD – The part of a highway that includes both the roadway and the shoulder.

d. TRAFFICWAY – The entire width of the road from property line to property line. The property line and “the first harmful event” determine which jurisdiction investigates the accident.

e. ROAD SURFACE MATERIALS – Materials used alone or in combination to create a road surface:

   (1) PORTLAND CEMENT CONCRETE – A form of concrete made with Portland cement.

   (2) ASPHALTIC CONCRETE – Any paving material using asphalt as a binding medium.

   (3) OTHER COMMON MATERIALS – Dirt, gravel, sand, etc.

f. GRADE – the change in elevation along the centerline of a roadway. This change in elevation can be determined with the traffic template.

g. SUPERELEVATION (bank) – the degree to which the outside edge of a roadway is higher than the inside edge of the curve.


NOTE: Both grade and superelevation can have an effect on the speed estimated from skid marks. An uphill grade will slow down a vehicle and cause it to slide less. A downhill grade will cause the opposite to happen.

h. ENCROACH – To move into an area properly assigned to another vehicle, or traffic unit.

B. EPO #2: Identify the correct terminology used in describing the physical evidence found at an accident scene.

   1. When arriving at an accident scene, the officer should look for different marks, fluids, and debris (CLUES) that are evidence of
what may have caused or contributed to the accident. The physical evidence can make the difference in the outcome of the accident investigation. Areas that deserve particular attention include actual damage caused to the road surface, and debris and damage left by the vehicle(s) on the traffic way. Marks left on the roadway can be critical in determining vehicle positions at the time of the collision.

a. **GOUGES** - Places where pavement material has been dug out by a strong metal part (tire rims, broken axle...).

   (1) Three types of gouges:

   (a) **Chips** – Small, deep gouges, usually created during maximum engagement. This generally indicates the point of maximum engagement due to the compression of the vehicle’s suspension. Normally there are no striations.

   (b) **Chops** – Broad, shallow gouges that clearly indicate the direction of motion from the deep sharp side to the shallow, ragged side. This may result in striations and scratches on the more shallow side.

   (c) **Grooves** – Long and narrow indentations that are made by a vehicle part dragging on the road. These marks may continue for some distance beyond the point of maximum engagement.

b. **FURROW** – A channel in loose or soft material, such as snow or soil, made by a tire or some part of a moving vehicle.

c. **UNDERBODY DEBRIS** – This is debris consisting of mud, dust, snow or road tar, etc. that has been loosened by a collision or impact.

d. **LIQUID DEBRIS** – This is debris consisting of liquids from a vehicle or its cargo, i.e., oil, transmission fluid, or radiator fluid. Liquid debris can be broken down into five categories or patterns found at the accident scene.

   (1) **Spatter** – Spatter is the collection of spots on the road made by liquid squirted from the vehicle or its cargo by the force of collision. One example is coolant from the radiator.
Dribble – Dribble is the liquid from a vehicle or its cargo that drops to the ground. This may often leave a trail if the vehicle is moving. The spatter pattern may also give an indication of the direction of travel/motion at the time of impact.

Puddle – Wet area where dribble accumulates after a vehicle has come to rest.

NOTE: This is an important piece of evidence. If there is a puddle and the vehicle is not over it, the vehicle was moved. Now the investigator will have to compare verbal statements of witnesses or parties involved.

Run-off – Run-off is rivulets of liquid from a puddle area flowing downhill toward soak-in at the edge of the pavement.

Soak-in – An area saturated with liquid, either at the end of the run-off or as a puddle marking the rest position of a vehicle.

C. EPO #3: Identify the correct terminology for various tire and skid marks.

1. TIRE PRINTS/MARKS – the marks left on a surface by a rotating wheel. They can be found in dirt, mud, snow, and sometimes are left on pavement by tires that have passed through liquid debris. Tire prints can be an essential element in an accident investigation. It is important that the accident investigator have a knowledge and understanding of the different types of tire marks and what they indicate, to accurately evaluate the sequence of events at the accident scene.

2. SKID MARKS – a skid mark is defined as a friction mark left on a surface by a tire that has limited rotation or is locked and sliding. Skid marks may be broken down into many different categories or types. We will cover the seven most common:

NOTE: Recognizing skid marks may assist in determining the location brakes were applied, the minimum speed the vehicle was traveling when the skid began, location of the vehicle on the roadway (both before and after the collision), direction of travel, and the number of wheels active in the braking process.

a. IMPENDING SKID (shadow) – skid mark left by a wheel that is still rotating, but at a reduced rate.
(1) This is the point where braking is most effective.

(2) The visual mark may appear as a cleaning action, which leads into the skid mark.

(3) The impending skid may be difficult to see; however, it is an important factor in determination of speed from skid marks.

(4) Most skid marks left by ABS equipped vehicles will resemble the shadow or impending skid. May be difficult to see and may disappear quickly.

b. **LOCKED WHEEL SKID** (skid mark) – A skid mark that is left on a surface by a tire that is sliding without rotation. This type of skid is less efficient at stopping a vehicle than an impending skid.

c. **GAP SKID** (intermittent skid marks) – A braking skid mark which is interrupted by the release and reapplication of the brakes.

(1) Drivers can cause these types of skids by “pumping” defective brakes or through their indecision (i.e. applying, releasing, and reapplying the brakes).

(2) The blank spaces or gaps in between the visible skid marks are usually a minimum of 15-20 feet, and are dependent on the speed of the vehicle at the time of the accident and the operators’ reaction time.

(3) When taking measurements of these skids, measure the series of obvious skid marks (omitting the gaps) and add them for the total length.

d. **SKIP SKID** (bounce skids) – A braking skid mark interrupted at frequent, regular intervals.

(1) Made when a locked vehicle/wheel bounces on the roadway. May be caused by potholes, bumps, suspension problems, or colliding with another vehicle or object, resulting in the rear of the vehicle lifting off the roadway.

(2) This type of skid mark is often observed in tractor-trailers that are not fully loaded.

---

7
(3) Skid marks are usually very dark, short, and usually two to three feet in length.

(4) Unlike gap skid marks, with the skip skid, measure the entire distance, as though there is no gap. (The weight pushing down at the end of the bounce offsets the loss of friction while air born.)

e. CENTRIFUGAL SKID (yaw mark) – The mark left on the surface by a rotating tire that is slipping or sliding. Also known as a SCUFF MARK.

(1) These marks are left when a vehicle is “yawing” (moving sideways or in direction other than the vehicle was originally heading). The centrifugal force, such as when going into a turn at a high speed, is pushing the vehicle to the outside, or away from the center. This force overcomes the adhesion or frictional resistance between the tires and the roadway resulting sliding or skidding.

(2) This particular skid mark is characterized by striations left on the pavement.

f. ACCELERATION SKID (acceleration scuff) – Vehicles may leave these skids when drivers apply sufficient power to the driving wheels to cause them to skid on the road surface (i.e. lose adhesion with the road surface). The beginning portion of the mark is very dark, from the weight transfer of the vehicle (inertia). Tire tread rib marks may be visible.

g. OFFSET SKID (bends, crooks) – Skid mark that changes direction due to an outside force.

(1) An offset mark shows the position of a tire at the onset of the collision. (This is not necessarily the first point of impact).

(2) These marks are often the end of pre-impact skid marks and the start of after impact tire marks.

D. EPO#4: Identify the terminology used to describe the “chain of events” in a traffic collision.

1. It is the responsibility of the officer investigating the accident to determine what happened at that scene. In order to accomplish this, the officer must piece together evidence found at the scene and information supplied by witnesses to establish a sequence of
events or chain of events that resulted in the accident. Accurately “mapping out” these events can determine the outcome of court decisions as well as help to alleviate some of the mental suffering of survivors.

a. POINT OF POSSIBLE PERCEPTION – The place and time, at which the hazard could have been perceived, e.g. entering an intersection.

b. POINT OF PERCEPTION – The time of actual recognition and comprehension of a hazard. This point may not occur, resulting in the accident. This may also occur at or after the Point of No Escape, thus resulting in an accident, e.g., entering an intersection, and not observing another vehicle entering from a side road, or seeing it too late.

c. POINT OF NO ESCAPE – The place and time after or beyond which the accident cannot be prevented, e.g., both vehicles in the intersection.

d. FIRST CONTACT – The initial touching of objects involved in a collision. This was formerly called “point of impact,” e.g., the vehicles touch front bumper to driver’s side.

e. FIRST HARMFUL EVENT – The first occurrence that results in appreciable damage or injury. This element explains:

(1) When the accident actually occurred,

(2) Where the accident actually occurred, e.g., front bumper pushes into driver’s side door.

f. MAXIMUM ENGAGEMENT – The greatest penetration of one body by another during a collision, e.g., front bumper is pushed into other vehicle at its deepest point.

g. LAST CONTACT – The final touching of objects in a collision before separation, e.g., last point/moment cars remain in contact, bumper to door prior to separating or coming to complete rest.

h. STABILIZED POSITION – The condition prevailing after motion and other actions constituting the events of an accident have ceased. At this point, no further harm or damage will follow unless a new series of events are initiated by different means.
i. **FINAL POSITION** – The specific location of a vehicle or object after the collision or accident. This is the position prior to change of location by other means (such as moving a vehicle to the side of or off the roadway after vehicle has come to rest). This position may or may not be the same as the stabilized position.

### III. SUMMARY

**A. Summarize the enabling performance objectives.**

1. Identify the correct terminology used in describing the accident site.
2. Identify the correct terminology used in describing the physical evidence found at an accident scene.
3. Identify the correct terminology for various tire and skid marks.
4. Identify the terminology used to describe the “chain of events” in a traffic collision.

**B. Summarize main teaching points.**

1. Investigating traffic accidents is an important and integral part of the law enforcement officers’ duties.
2. The accident report often times is the only official document substantiating the occurrences that resulted in the event.
3. It is important to remember the accident report is an official court document that may be viewed and scrutinized by many officials as well as laypersons. This document may also be the determining factor which driver(s) is (are) at fault. For this reason, accident investigators must have a strong understanding and knowledge of the terminology used to describe every aspect of traffic collisions.

### IV. APPLICATION

None
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SYLLABUS

COURSE TITLE:  Traffic Template

LENGTH OF PRESENTATION

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>PE</th>
<th>TOTAL</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td></td>
<td></td>
<td>2:00</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course of instruction will enable the student to become familiar with the various features, uses, and functions of the Northwestern Accident Investigator's Traffic Template.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

The student will be able to identify and use the different traffic template cutouts used for diagramming purposes; the various scales used to determine speed, drag factor, or skidding distance; and be able to use the template as a clinometer in determining the grade or superelevation of the road surface. Additionally, the student will be able to identify and use the different scales on the radius calculator.

ENABLING PERFORMANCE OBJECTIVES (EPO):

EPO #1: Identify the various traffic template scales and cutouts used for diagramming purposes.

EPO #2: Identify the traffic template speed nomograph and demonstrate familiarity with its use to determine speed, drag factor, and skidding distance when given two of the three required known quantities. Identify the mathematical calculations performed by the nomograph.

EPO #3: Identify the use of the radius nomograph to determine the radius of a circle or arc, and demonstrate the ability to determine and calculate radiiuses using both the nomograph and/or mathematical calculations.

EPO #4: Demonstrate the use of the traffic template as a clinometer to determine the grade or superelevation of a road surface.

STUDENT SPECIAL REQUIREMENTS:

1. Participate in classroom discussions.
2. Take notes as desired.
3. Review instructions on "How to Use the Traffic Template" provided in the template envelope.
Instructor Guide

METHODOLOGIES:

1. Lecture.
2. Discussion.
3. Demonstration.

TRAINING AIDS/EQUIPMENT:

1. Instructor:
   a. Classroom and lesson plan.
   b. Writing board or lecture pad with markers.
   c. Traffic Accident Template
   d. Clipboard.
   e. Vugraph and transparencies.
   f. Radius nomograph.
   g. Mathematical calculator.
   h. Computer and overhead projection.

2. Student:
   a. Note taking materials.
   b. Traffic template.

INSTRUCTOR SPECIAL REQUIREMENTS:

None.
Outline of Instruction

I. INTRODUCTION

A. Rapport and Opening Statement.
   1. There is probably no one tool more valuable to the traffic accident investigator than the traffic template.
   2. With this one piece of equipment the trained investigator will be able to draw scale diagrams, compute speeds of vehicles, determine drag factors of road surfaces, change miles per hour into feet per second, determine the angle of roadway intersections, and, with a slightly modified clipboard, be able to determine road grades and superelevations.

B. Lesson Plan Overview.
   1. Terminal Performance Objective.
      The student will be able to identify and use the different traffic template cutouts used for diagramming purposes; the various scales used to determine speed, drag factor, or skidding distance; and be able to use the template as a clinometer in determining the grade or superelevation of the road surface. Additionally, the student will be able to identify and use the different scales on the radius calculator.
   2. Enabling Performance Objectives.
      a. EPO #1: Identify the various traffic template scales and cutouts used for diagramming purposes.
      b. EPO #2: Identify the traffic template speed nomograph and demonstrate familiarity with its use to determine speed, drag factor, and skidding distance when given two of the three required known quantities.
      c. EPO #3: Identify the use of the radius nomograph to determine the radius of a circle or arc, and demonstrate the ability to determine and calculate radiuses using both the nomograph and/or mathematical calculations.
      d. EPO #4: Demonstrate the use of the traffic template as a clinometer to determine the grade or superelevation of a road surface.

II. PRESENTATION
A. EPO #1: Identify the various traffic template scales and cutouts used for diagramming purposes.

1. **Template scales:** The two straight edges of the template are used for drawing straight lines and each straight edge has a different engineering scale for diagram measuring.

   a. **Long edge** - commonly referred to as the large scale.
      
      (1) It is represented as 1 in. = 10 ft.
      
      (2) This scale can also be represented as 1:120 (one inch equals 120 inches).

   b. **Short edge** - commonly referred to as the small scale.
      
      (1) It is represented as 1 in. = 20 ft.
      
      (2) This scale can also be represented as 1:240 (one inch equals 240 inches).

2. **Diagramming cut-outs:** You will notice that the template contains various cut-outs for both the large and small scales. Many of these are the same, with the exception of their size. Usually, but not in every case, whenever you have a cut-out for the large scale, there is a corresponding cut-out on the small scale. Some of the cut-outs of particular importance are;

   a. **Vehicle cut-outs:**
      
      (1) Large or full size vehicle.
      
      (2) Mid-sized vehicle.
      
      (3) Compact vehicle.
      
      (4) Tractor.
      
      (5) Trailer.
      
      (6) Motorcycle (only one size on template).

   b. **Other cut-outs:**
      
      (1) North Arrow - used to indicate NORTH on scale diagram.
(2) **Sign Symbol** - used to indicate traffic control signs (stop, yield, speed, etc.).

(3) **Circles of various diameters** - used to draw such items as light poles, fire hydrants, manhole covers, etc. Notice that on each of the circle cut-outs, the **radius** of the circle is provided in both the large and small scales.

3. **Protractor**: One end of the template is graduated into **degrees** up to a right angle (90 degrees). This feature of the template is particularly useful for measuring or drawing the angle at which two roads intersect.

4. **Curve radius cutouts**: Within the area of the protractor there are several commonly used radius cut-outs. These are used to draw curves rather than having to use a drawing compass. The radii are marked for both large and small scales.

5. **Corners of the template**: Three of the four corners of the template have different radii in both the large and small scales.

B. **EPO #2**: Identify the traffic template speed nomograph and demonstrate familiarity with its use to determine speed, drag factor, and skidding distance when given two of the three required known quantities.

1. **Nomograph definition**: A nomograph is a graph consisting of three scales whereby a straight line drawn through all three scales intersects the related value of each scale. In other words, you can always find an unknown value on one scale if two of the values of the other scales are known.

2. **Skidding or sliding distance scale**: On the **left** side of the template you will find a scale from 3 feet to 1300 feet, read from bottom to top. These numbers correspond to the average skidding distance of either an accident or test skid vehicle.

3. **Speed scale**: The **middle** scale of the nomograph enables you to convert miles per hour (**right side** of the scale) to feet per second, or velocity (**left** side of scale). For the most part, the majority of work in this class will be accomplished by using the miles per hour, right side of this scale.

4. **Drag factor and acceleration/deceleration scale**: The scale to the extreme right of the template, like the middle scale, also has two corresponding values. The **left** of the scale represents the acceleration or deceleration of a vehicle in feet per second squared.
(or g factor), and the right side of the scale represents drag factor (f). The majority of work in this class will deal with the right side of this scale - drag factor.

5. Practice problems: As stated earlier, a nomograph will enable you to find an unknown third value if two of the three values are given. In order to use the nomograph, you must begin by drawing a fine straight line on a plain piece of paper. You can use a straight edge, such as a ruler, or the edge of a piece of paper. When intersecting the three scales, it is important to look straight down onto the template in order to obtain correct values.

6. Speed problems:
   a. Exercise #1:
      (1) Locate .70 (drag factor) on the right side of the right hand scale.
      (2) Locate 58 feet (distance) on the left-hand scale.
      (3) Determine minimum speed on the right side of the middle scale in mph (35) (do not read the left side, which gives you feet per second).
   
   b. Exercise #2:
      (1) Locate .78 on the drag factor scale.
      (2) Locate 107 feet on the distance scale.
      (3) Determine minimum speed (50 mph) on the speed scale.
   
   c. Exercise #3:
      (1) Locate .85 on the drag factor scale.
      (2) Locate 150 feet on the distance scale.
      (3) Determine minimum speed (63 mph).

7. Drag factor problems:
   a. Exercise #1:
Given a vehicle traveling 30 mph and sliding 45 feet after locking the brakes, determine the drag factor of the road surface. Locate 45 feet on the left-hand (distance) scale.

(2) Locate 30 mph on the right-side of the middle scale.

(3) Determine drag factor (.66) on the right side of the right-hand scale.

b. Exercise #2:

(1) Locate 60 feet on the distance scale.

(2) Locate 45 mph on the speed scale.

(3) Determine drag factor (1.12) on the drag factor scale.

c. Exercise #3:

(1) Locate 100 feet on the distance scale.

(2) Locate 35 mph on the speed scale.

(3) Determine drag factor (.40) on the drag factor scale.

8. Skidding distance problems:

a. Exercise #1:

(1) How far will a vehicle slide before coming to a stop when traveling 45 mph on a road surface with a drag factor of .70? Locate .70 on the drag factor scale.

(2) Locate 45 mph on the speed scale.

(3) Determine skidding distance on the distance scale (96 feet).

b. Exercise #2:

(1) Locate .85 on the drag factor scale.

(2) Locate 65 mph on the speed scale.

(3) Determine skidding distance (165 feet) on the distance scale.
c. Exercise #3:

(1) Locate .40 on the drag factor scale.

(2) Locate 65 mph on the speed scale.

(3) Determine skidding distance (355 feet) on the distance scale.

NOTE: At this point you could call to the attention of the class how drag factor will affect stopping distances. As the speeds in Exercise 2 and 3 were the same, there is a great deal of difference in the drag factor.

9. Using mathematical calculations to determine speed, drag factor and distance problems.

NOTE: It is not a requirement of this course that the students be able to calculate speed, distance, or drag factor derived from mathematical formulas, this information is provided for familiarity purposes only.

a. Speed problems (using formulas):

\[ S = 5.5 \sqrt{df} \quad \text{or} \quad S = \sqrt{30df} \]

(1) Using the same figures used in previous nomograph speed calculations, demonstrate to the class the computation of speed estimates using the formula and a mathematical calculator.

(a) Exercise #1:

\[ \begin{align*}
  d &= 58 \text{ feet} \\
  f &= .70 \\
  S &= 35.04 \text{ mph}
\end{align*} \]

(b) Exercise #2:

\[ \begin{align*}
  d &= 107 \text{ feet} \\
  f &= .78 \\
  S &= 50.24 \text{ mph}
\end{align*} \]

(c) Exercise #3:

\[ d = 150 \text{ feet} \]
\[ f = .85 \]
\[ S = 62.10 \text{ mph} \]

b. Drag factor (using formula):

\[
2 \quad f = \frac{S}{30d}
\]

(1) Using the same figures used in previous nomograph drag factor calculations, demonstrate to the class the computation of drag factor estimates using the formula and a mathematical calculator.

(a) Exercise #1:

\[
S = 30 \text{ mph} \\
d = 45 \text{ feet} \\
f = .66
\]

(b) Exercise #2:

\[
S = 40 \text{ mph} \\
d = 60 \text{ feet} \\
f = .88
\]

(c) Exercise #3:

\[
S = 35 \text{ mph} \\
d = 100 \text{ feet} \\
f = .40
\]

c. Distance calculations (using formula):

\[
2 \quad d = \frac{S}{30f}
\]

(1) Using the same figures used in previous nomograph distance calculations, demonstrate to the class the computation of distance using the formula and a mathematical calculator.

(a) Exercise #1:

\[
S = 45 \text{ MPH} \\
f = .70
\]
d = 96.42

(b) **Exercise #2:**

\[ S = 65 \text{ MPH} \]
\[ f = .85 \]
\[ d = 165.68 \text{ feet} \]

(c) **Exercise #3:**

\[ S = 65 \text{ MPH} \]
\[ f = .40 \]
\[ d = 352.08 \text{ feet} \]

C. **EPO #3:** Identify the use of the radius nomograph to determine the radius of a circle or arc, and demonstrate the ability to determine and calculate radiiuses using both the nomograph and/or mathematical calculations.

1. **Radius nomograph/calculator (handout).**

   a. **Radius nomograph:** A nomograph consists of three scales so arranged that a straight line drawn through two known values will intersect the third scale at the unknown (sought) value. In accident investigation, you will be required to calculate the radius of a circle on at least two different occasions.

   (1) When computing the **radius of a skid mark** to determine speed in a centrifugal skid.

   (2) When computing radiiuses, such as **curbs** at road intersections, etc.

   b. **Radius:** The distance from the center of a circle to a point on its perimeter.

   c. **Chord:** A straight line connecting the ends of an **arc**, or two points on a curve.

   d. **Middle ordinate:** The perpendicular distance between an arc and its chord at the **middle of the chord**.

   e. **Radius nomograph scales:**

      (1) The **left-hand** scale consists of full chord measurements on the left-side and half-chord measurements on the right-side. We will be primarily working with the **full chord** measurement on the **left-**
(2) The middle scale consists of a middle ordinate measurement in feet on the left-side and in inches on the right-side. In most cases, you will be using the left-side of the scale (feet).

(3) The right-hand scale consists of radius measurements depicted in feet. By knowing the chord and the middle ordinate measurements, the radius can be determined by using this nomograph.

2. Practice problems:

a. Exercise #1:

   (1) Given a chord measurement of 100 feet, and a middle ordinate measurement of 6 feet, determine the radius of the circle;

   (a) Locate 100 feet on the left-hand scale.

   (b) Locate 6 feet on the middle scale.

   (c) With a straight edge (template), determine the radius of the circle (211 feet).

b. Exercise #2:

   (1) Given a chord measurement of 50 feet, and a middle ordinate measurement of 1 foot, determine the radius of the circle;

   (a) Locate 50 feet on the left-hand scale.

   (b) Locate 1 foot on the middle scale.

   (c) With a straight edge (template), determine the radius of the circle (313 feet).

3. Using mathematical calculations to determine radiiuses.

   NOTE: It is not a requirement of this course that the students be able to calculate radiiuses derived from mathematical formulas, this information is provided for familiarity purposes only.
\[
R = \frac{C^2}{8M} + \frac{M}{2}
\]

b. **Practice problems:**

(1) Using the same figures provided for radius calculations with the nomograph, demonstrate to the class the mathematical calculations to determine radiiuses by using the radius formula and mathematical calculator.

(a) **Exercise #1:**

\[
\begin{align*}
C &= 100 \text{ feet} \\
M &= 6 \text{ feet} \\
R &= 211 \text{ feet}
\end{align*}
\]

(b) **Exercise #2:**

\[
\begin{align*}
C &= 50 \text{ feet} \\
M &= 1 \text{ foot} \\
R &= 313 \text{ feet}
\end{align*}
\]

C. EPO #4: Demonstrate the use of the traffic template as a clinometer to determine the grade or superelevation of a road surface.

1. **Definition:** A clinometer is a device used to measure grade or superelevation of the road surface. We will now show you how to determine either of these by using your template and a clipboard modified for such purpose (refer students to page 15, "How to Use the Traffic Template" booklet).

2. **Measuring grade:** The grade is the rise or fall of a road (in the direction of travel). The grade determines if the vehicle was going up-hill or down-hill. The grade figure must be added to, or subtracted from, the coefficient of friction of the surface to get the effective drag factor.

   a. Place a pencil through the pivot hole in the template.

   b. Place the pencil into the hole on the clipboard, assuring the template will swing freely.
c. Place the edge of the clipboard, pivot hole and pencil at the top, on the pavement parallel to, or on, the centerline of the road.

d. Allow the template to swing to a neutral position. Grasp the template and clipboard firmly to hold the template in its neutral position.

e. Read the grade of the road surface (plus or minus) on the bottom of the template at the point where the line on the clipboard crosses the grade or superelevation scale.

3. **Measuring superelevation:** Superelevation is the grade across the roadway at right angles to the center line from the inside to the outside edge on a curve, or expressed as the rise or fall of the road perpendicular to the direction of travel (banking of the road). Superelevation affects the speed at which a vehicle may safely round a curve. The procedures for measuring the superelevation are identical to those for measuring grade, except the edge of the clipboard is placed at a right angle to the centerline of the road.

4. **Measuring grade or superelevation on uneven road surfaces:** When the road surface is too uneven to accommodate the use of the clipboard on the road surface, hold the clipboard using the line-of-sight method. DEMONSTRATE METHOD TO CLASS.

III. SUMMARY

A. Review performance objectives.

   EPO #1: Identify the various traffic template scales and cutouts used for diagramming purposes.

   EPO #2: Identify the traffic template speed nomograph and demonstrate familiarity with its use to determine speed, drag factor, and skidding distance when given two of the three required known quantities. Identify the mathematical calculations performed by the nomograph.

   EPO #3: Identify the use of the radius nomograph to determine the radius of a circle or arc, and demonstrate the ability to determine and calculate radiuses using both the nomograph and/or mathematical calculations.

   EPO #4: Demonstrate the use of the traffic template as a clinometer to determine the grade or superelevation of a road surface.
B. Review the teaching points.

As we have seen the template is a truly versatile piece of equipment. In the hands of a trained investigator it can be used to render scale diagrams in either of two scales. It contains cut outs to assist in drawing, as well as a multitude of scaled curves and circles with the scaled radii inscribed. It has a protractor for angular measurements as well as a nomograph for computation of speed, distance, drag factor, velocity in feet per second or feet per second squared. When used with an adapted clipboard it will yield measurements of grade and superelevation in percent to an accuracy of .015.

C. Practical Exercise.

None.
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION FIVE

GETTING TO THE SCENE QUICKLY AND SAFELY
# TABLE OF CONTENTS

SYLLABUS ........................................................................................................................................ 1

INSTRUCTOR GUIDE .......................................................................................................................... 3

I. INTRODUCTION ............................................................................................................................ 4
   A. RAPPORT AND OPENING STATEMENT ................................................................................. 4
   B. LESSON PLAN OVERVIEW ............................................................................................... 4

II. PRESENTATION ............................................................................................................................ 4
   A. EPO #1: IDENTIFY THE THREE COMPONENTS/EQUIPMENT REQUIRED TO CONSTITUTE AN “EMERGENCY” VEHICLE ........................................................................ 4
   B. EPO #2: IDENTIFY SAFETY FACTORS THAT MUST BE CONSIDERED WHEN RESPONDING TO MOTOR VEHICLE ACCIDENTS ........................................................................ 6
   C. EPO #3: IDENTIFY RESPONSIBILITIES OF THE OFFICER ONCE AT THE ACCIDENT SCENE ........................................................................................................................ 7
   D. EPO #4: GIVEN AN ACCIDENT SCENE SCENARIO, THE STUDENT WILL IDENTIFY THE PROPER LOCATION TO PARK THE PATROL VEHICLE FOR OPTIMUM SAFETY AND CONTROL OF THE SCENE .................................................. 9

III. SUMMARY ................................................................................................................................... 9
   A. REVIEW OF PERFORMANCE OBJECTIVES ......................................................................... 9
   B. REVIEW OF TEACHING POINTS ....................................................................................... 10

IV. APPLICATION ............................................................................................................................... 10

REFERENCES .................................................................................................................................... 11
SYLLABUS

COURSE TITLE: GETTING TO THE SCENE QUICKLY AND SAFELY

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>PE</th>
<th>TOTAL</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td></td>
<td></td>
<td></td>
<td>1:00</td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course of instruction introduces the student to the hazards involved in responding to emergency situations with particular emphasis on responding to traffic accidents. The student will become familiar with different parking positions, which provide accessibility to equipment as well as optimum protection of the scene, and need for recognition of and compliance with individual state law and departmental policy.

TERMINAL PERFORMANCE OBJECTIVE:

Given a presentation encompassing tactics of responding to and arriving at an emergency scene quickly and safely, as well as protection of that scene, the student will identify the proper actions and responsibilities required of a Law Enforcement officer.

ENABLING PERFORMANCE OBJECTIVES:

1. Identify the three components/equipment required to constitute an “emergency” vehicle.
2. Identify safety factors that must be considered when responding to motor vehicle accidents.
3. Identify responsibilities of the officer once at the accident scene.
4. Given an accident scene scenario, the student will identify the proper location to park the patrol vehicle for optimum safety and control of the scene. (This EPO to be discussed in class and demonstrated during the PE, which is in the Diagramming lesson plan.)

STUDENT SPECIAL REQUIREMENTS:

1. Take notes as desired
2. Participate in class discussion
Instructor Guide

METHODOLOGIES:

1. Lecture
2. Discussions

TRAINING AIDS:

1. Instructor:
   a. Classroom and lesson plan.
   b. Magnetic props (cars, people, flares).
   c. Overhead monitor, transparencies, computer program.

2. Student:
   a. Note taking materials.

SPECIAL REQUIREMENTS:

NONE
Outline of Instruction

I. INTRODUCTION

A. ESTABLISH RAPPORT AND OPENING STATEMENT

Responding to and handling emergency situations such as traffic accidents is a particularly hazardous aspect of the law enforcement officer’s duties. Many people are killed or injured each year through traffic accidents with law enforcement personnel responding to emergency situations. More law enforcement officers die in traffic related incidents than any other work related situation. Therefore the first priority must be to get to the scene safely.

In addition to the responsibility of arriving at the scene safely, the investigating officer or the first one on the scene is responsible for the protection of the scene and all individuals and evidence in that area. It is the responsibility of the law enforcement officer to be familiar with the local (state) laws as well as departmental policy with regards to traffic regulations and the emergency response to any given situation or incident. It must be remembered that YOU are responsible for the safety of all individuals on the road and for your actions in executing your duties.

B. LESSON PLAN OVERVIEW

Given a presentation encompassing tactics of responding to and arriving at an emergency scene quickly and safely, as well as protection of the scene, the student will identify the proper actions and responsibilities required of a Law Enforcement officer.

II. PRESENTATION

A. EPO #1: IDENTIFY THE THREE COMPONENTS/EQUIPMENT REQUIRED TO CONSTITUTE AN “EMERGENCY” VEHICLE.

1. Law Enforcement officers are governed by the same traffic codes as any other individual on the road. Due to the unique nature of Law Enforcement duties and responsibilities, exceptions are usually granted in the response to emergency situations, such as motor vehicle accidents. Remember that these exceptions are a privilege contingent upon the exercise of “due regard” on the part of the officer for the safety of others. They are not rights to violate traffic laws. The designation of Emergency Response status for Law Enforcement vehicles can vary from state to state. It is imperative that the
individual officer become familiar with the requirements in his or her area.

2. In order to receive the right of way during response to emergency situations, other operators must be able to recognize the Law Enforcement vehicle and understand the intentions of the officer, i.e., the desire to pass. This requires the use of certain equipment, which is generally understood to mean, when activated, that there is an emergency and this vehicle (the patrol car) is in an expedite mode.

   a. Most jurisdictions require at least three components of equipment be activated when responding to an emergency:

      1) EMERGENCY OVERHEADS/LIGHT BAR (visible 360 degrees). (Some agencies and jurisdictions do not consider “Kojak” lights to be Emergency response equipment.)

      2) HEADLIGHT ACTIVATED (some headlights may be wig-wag equipped).

      3) SIREN ACTIVATED

   b. When at the accident scene, certain equipment must be activated to alert other motorists of the situation and any dangers. This serves to also protect the scene and any victims and evidence.

      1) EMERGENCY OVERHEAD LIGHTS. These may be amber caution flashers on the light bar, or the entire light system on the overhead light bar. It is acceptable in some jurisdictions to have only the rear light system activated if you are parked on the same side of the road as the accident. If in doubt or you are at all concerned about visibility, activate the entire light bar.

      2) EMERGENCY FOUR WAY FLASHERS - This helps to increase your visibility to others, especially at night or in poor visibility area such as a dangerous curve.

B. **EPO #2: IDENTIFY SAFETY FACTORS THAT MUST BE CONSIDERED WHEN RESPONDING TO MOTOR VEHICLE ACCIDENTS.**

   1. Responding to a motor vehicle accident, as with any emergency response situation, can illicit certain emotional and physiological responses in the officer. The officers' attention may be diverted to thinking about what they will find at the scene, what tools they may
need, listening to radio traffic. There may also be an increase in pulse, respiration and blood pressure. These normal reactions can result in a narrowing of peripheral vision, known as tunnel vision, which prevents the officer from being fully aware of his or her surroundings. Keep in mind that the sights and sounds of emergency equipment may trigger the same effects in motorists as well as momentary panic and confusion.

2. One of the easiest ways to assist an officer and to help minimize his or her difficulty in responding to an accident scene is, knowing the area. Be aware of any detours, shortcuts and areas and periods of congestion.

3. States may have laws or regulations requiring motorists to respond to emergency vehicles in a certain manner. **(These vary from state to state, and even if your jurisdiction has such requirements, it is always best not to expect other motorists to do what they are supposed to. EXPECT THE UNEXPECTED!!!).** The most typical requirements include:

   a. PULL TO THE RIGHT AND LET THE EMERGENCY VEHICLE PASS.

   b. STOP FOR EMERGENCY VEHICLE.

   c. SIGNAL INTENTION AND PULL INTO A NON-OCCUPIED TRAFFIC LANE OR ROAD SHOULDER.

4. Some of the unexpected behavior that may be encountered when responding to a scene with full emergency equipment activated includes, but is not limited to:

   a. REFUSING TO MOVE FROM YOUR TRAFFIC LANE.

   b. STOPPING SUDDENLY IN FRONT OF YOU.

   c. PULLING INTO YOUR LANE.

   d. VEHICLE IN PASSING LANE PULLING ONTO MEDIAN AND STOPPING.

   e. CHANGING LINES WITHOUT LOOKING FOR OTHER TRAFFIC.

It is best to wait until you are absolutely sure what the other motorists are going to do before executing your pass.
5. Other factors to consider when responding to an emergency include the effectiveness of your siren and lights. There are many situations that reduce the effectiveness of a siren and light bar.

a. NOISES WITHIN OTHER VEHICLE (air conditioning, radios, people talking and improved insulation of vehicles).

b. PATROL VEHICLE OUT RUNNING SIREN - Be aware that a vehicle outruns a siren at approximately 55 miles an hour. You may get to the object in front of you BEFORE your siren does, i.e. before the person realizes you are approaching from behind.

NOTE: As you approach the vehicle, watch the operators’ reaction. Observe if they appear to notice you. DO NOT GET RIGHT UP ON THEIR REAR BUMPER. THIS IS JUST INVITING A PROBLEM. Remember, you do no good to anyone if you get into an accident. ARRIVE ALIVE!

c. MORE THAN ONE PATROL CAR RESPONDING:

1) Different siren tones.

2) Special care for second vehicle at intersections.

C. EPO #3: IDENTIFY RESPONSIBILITIES OF THE OFFICER ONCE AT THE ACCIDENT SCENE.

1. Upon arriving at the scene, the officer must take certain precautions to protect him or herself, the scene, and any victims or evidence. These responsibilities will be covered in greater detail in Accident Scene Procedures, however, it is necessary to review some of the basic concepts and procedures here.

2. It should be noted that some agencies may have S.O.Ps regarding the particular use of a patrol vehicle in the protection of an accident scene. It is incumbent on the officer to be aware of those guidelines.

3. PARK TO PROTECT THE SCENE - Park the patrol vehicle so as to protect any victims who may be in the roadway or still in the accident vehicle. These people should not be removed until Emergency Medical Services arrive or the scene becomes unsafe.

a. Gear shift in park
b. Set the Emergency Brake

c. Emergency lights activated to alert oncoming traffic in one or both directions

d. Set out flares, cones or reflective triangles to maneuver traffic around or away from the accident. Be sure not to place flares downhill of potential fire or explosive situations such as spilled fuel.

e. If accident is around blind curve or crest of a hill, put out flares before passing the view obstruction.

4. PROPERTY DAMAGE ACCIDENTS - the officer’s responsibility is still to protect the scene; trying to create the least amount of hazard to individuals at the scene as well as oncoming traffic. Place warning devices far enough back to provide motorists time to react properly.

a. If the scene permits, park the patrol car legally, on the same side of the highway as the accident.

b. Set out traffic flares, cones or triangles to divert traffic. Be careful not to place flares downhill of possible fuel leaks.

5. PARK TO PROVIDE ACCESSIBILITY TO EQUIPMENT - If the situation allows, it is helpful to have your patrol vehicle parked in such a manner as to allow quick and easy access to the tools and equipment that will be needed. There will be times, however, when this may not be possible. As the first responding officer on the scene, you will have to make the decision as to where the priority will lay. Equipment which is necessary to have accessible includes:

a. Radio - particularly if you do not have a portable or you are in an area that requires a strong signal.

b. Flares – they will need to be replaced in 20 or 40 minute increments or may be damaged or knocked away.

c. First aid kit

d. Fire extinguisher

e. Emergency blanket

f. Measuring devices (accident investigation equipment)
6. KEEP THE ACCIDENT SCENE FROM BECOMING WORSE –
   a. Place warning devices far enough back from the scene to provide time for motorists to react.
      1) Bridges
      2) Curves in roadway
      3) Dips in roadway
   a. Avoid covering emergency lights with open trunk. Get in, get what is needed, and get out.

D. EPO #4: GIVEN AN ACCIDENT SCENE SCENARIO, THE STUDENT WILL DEMONSTRATE THE PROPER LOCATION TO PARK THE PATROL VEHICLE FOR OPTIMUM SAFETY AND CONTROL OF THE SCENE. (This EPO will be discussed in class and demonstrated during the PE.)

III. SUMMARY
A. REVIEW OF PERFORMANCE OBJECTIVES
   1. EPO #1: Identify the components/equipment required to constitute an “emergency” vehicle.
   2. EPO #2: Identify safety factors that must be considered when responding to emergency situations.
   3. EPO #3: Identify responsibilities of the officer once at the accident scene.
   4. EPO #4: Given an accident scene scenario, the student will demonstrate the proper location to park the patrol vehicle for optimum safety and control of the scene.

Getting to and securing an emergency/accident scene is an integral part of most law enforcement jobs. It is imperative that the responding officer(s) recognize the emotional and psychological effects that may be encountered by both the officers and the public. The responding officer(s) must be aware of and prepared to act accordingly to prevent “becoming part of the problem”. Once at the scene, the officer(s) must make rapid decisions as to vehicle placement with respect to protection of life and property and the accessibility of equipment.
B. REVIEW OF TEACHING POINTS
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION SIX

ACCIDENT SCENE PROCEDURES
COURSE TITLE: Accident Scene Procedures

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE/CLASSROOM</th>
<th>LABORATORY</th>
<th>PRACTICAL EXERCISE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>02:00</td>
<td>00:00</td>
<td>00:00</td>
<td>02:00</td>
</tr>
</tbody>
</table>

DESCRIPTION:

This unit of instruction provides the student with the techniques for collecting information from drivers and witnesses. It emphasizes the need for comparing verbal descriptions with physical facts to determine how and why the accident occurred. It also emphasizes the importance of prioritizing the events that are to take place upon arriving at the scene of an accident as the first responding officer.

TERMINAL PERFORMANCE OBJECTIVE:

At the conclusion of this unit of instruction, the student will be able to identify the duties of the first officer at the scene of an accident in accordance with the principles delineated during the course of instruction.

INTERIM PERFORMANCE OBJECTIVES:

1. Identify immediate priorities at the scene of the accident.
2. Identify procedures for gathering statements from the victims and/or witnesses.
3. Identify procedures for the protection of personal property at accident scenes.
4. Identify the procedures of traffic control and crowd control at the scene of an accident.
Instructor Guide

METHODOLOGIES:

1. Lecture.
2. Discussion.
3. Demonstration

TRAINING AIDS/EQUIPMENT:

1. Instructor
   a. Magnetic cars
   b. Transparencies
   c. Power Point
2. Student
   a. Pen and paper for note taking.

SPECIAL REQUIREMENTS:

None
Outline of Instruction

I. INTRODUCTION:

A. Establish rapport:

1. The traffic accident scene is often in complete confusion and chaos when the investigator first arrives. Priorities must be established and responsibilities met in very little time.

2. No two accidents are alike and a check list type of operation is totally unacceptable. Flexibility and leadership are very important in accident investigation.

B. Terminal Performance Objective:

At the conclusion of this unit of instruction, the student will be able to identify the duties of the first officer at the scene of an accident in accordance with the principles delineated during the course of instruction.

C. Interim Performance Objectives:

1. Identify immediate priorities at the scene of the accident.

2. Identify procedures for gathering statements from the victims and/or witnesses.

3. Identify procedures for the protection of personal property at accident scenes.

4. Identify the procedures of traffic control and crowd control at the scene of an accident.

II. PRESENTATION:

A. Identify immediate priorities at the scene of the accident.

1. To keep the accident scene from getting any worse.

   This is most often accomplished by the way the officer parks his/her patrol unit.
2. Survey the scene for potential dangers to self and others  
   a. Electrical wires down  
      Clear the area and have dispatch notify Power Company  
   b. Fire Hazard  
      Have dispatch notify Fire Dept. and advise them of problem.  
      Attempt to control the spread of spilled fuel.  
      Have fire extinguisher from patrol unit ready (will knock down small fires)  
   c. Ruptured tankers; possible toxic materials  
      Maintain distance; resist running in to help  
      Attempt to locate placard on vehicle to identify contents  
      Establish a perimeter to keep others away  
      Notify proper authorities as well as all responding agencies.  
3. Injured persons (once the scene is safe)  
   a. Do the injured persons need an ambulance?  
      If there is any question in your mind activate EMS  
      Certain persons or groups may refuse medical treatment; it is best to have them do that to someone more qualified in that field. Someone that can explain the injury and dangers of not being treated.  
      Note any refusal in your report.  
   b. Do the injured need first aid?  
      Watch out for shock.  
      Have victim sit or lie down, cover with blanket to reduce chills, and loosen clothing to improve breathing.
Reassure the victim and try to keep them calm.

Keep onlookers away from victims to eliminate remarks about the victim’s condition. With multiple victims you may have to use onlookers to keep the victim calm. Instruct them not to talk about the injury.

c. Determine where victim/s are being transported too.

Question ambulance drivers

B. **Identify procedures for gathering statements from the victims and/or witnesses.**

1. Locate drivers and obtain their driver’s licenses

   Assures that they remain at the scene.

   Provides early recognition of hit-and-run.

2. Locate witnesses and request their driver’s licenses.

3. Interview drivers and witnesses separately.

   Eliminates arguments

   Keeps them from becoming contaminated by other versions of what happened.

   Make field notes of their statements.

   Ask if they would write a brief statement for you and provide them pen, paper, and a place to do so (patrol car)

   Determine location of witnesses when accident occurred.

   Question if in doubt.

   Do not develop prejudices

   Do not take sides.

4. Depending on the circumstances you may wish to interview drivers together. (Use good common sense here)

   Helps to verify their statements.
Inaccuracies can be pointed out.

5. Never use the word “witness” when looking for information.
Understand why people are reluctant to be a witness.

6. Consider allowing the witness to correct you.
Witness will want to show how much he/she knows.

7. Indicate on report where interview took place.
Accident scene.
Hoag Memorial Hospital
Police Department

8. Use a person’s own words.
Do not insert police technical terms.

Obtain permission from attending doctor or head nurse before interviewing victim.

10. Obtain permission from responsible parties prior to interviewing in some cases
Children – have parents present
Military personnel on base – notify base commander
Hospital patients – speak to patients doctor
C. Identify procedures for the protection of personal property at accident scenes.

1. Remember that property of injured persons at an accident scene can and most often is one of your responsibilities.

   Know your agencies policy

   Inventory vehicles prior to storage or release to wrecker drivers.

   Protect against looting; if necessary lock valuables in the trunk of your patrol unit.

   Check for property that is scattered at the scene.

   Theft is likely to occur at any time, but especially when:
   - Too few officers are present.
   - There are large crowds and a lot of confusion.
   - Officers are delayed in reaching the scene.
   - Articles are scattered over a wide area.
   - Accident occurred at night.

   Request additional units for assistance if the scene is too large for you to control or assistance is needed with crowd control.

D. Identify the procedures of traffic control and crowd control at the scene of an accident.

1. One of our first priorities is to keep the scene from becoming any worse than it already is.

   Position patrol unit/s in such a manner as to warn motorist of the upcoming danger. Use all emergency lighting available.

2. Traffic control by citizens.

   Know your agencies policy regarding this matter. Use as a last resort.

   Pick responsible people.

   Give ample instructions, demonstrate if time permits, and stress safety.
As soon as additional officers arrive have them relieve the volunteers.

Make it a point to thank the volunteers for their assistance.

3. Safety at the scene.

Motorists passing the scene focus on items of interest, not on control measures.

*Note: Of the 155 police officers killed in the line of duty in the year 2000 vehicles struck twenty-two.*

Officers should not:

  - Lose sight of their own safety
  - Rely on flares
  - Stand between vehicles
  - Stand too close to cables on tow rigs
  - Turn your back on traffic
  - Attempt to move heavy objects without help
  - Forget to check the scene over prior to leaving

Are additional officers needed?

  - Traffic control
  - Assist in investigation
  - Crowd control
  - Transportation of arrested persons
  - Evacuation of the area
4. Crowd Control

When controlling bystanders movements, give them a place to go.

   Sidewalk
   Off the roadway

Expedites removal of victims and vehicles.

Lessens fire danger.

Protects property and reduces thefts.

Aids in investigation by protecting physical evidence.

5. Is the Coroner needed?

If in doubt, treat as though victim is alive.

Have EMS check all victims.

Work with your local coroner or ME, know what they want, and know what they will allow.

Do not remove items from the victim without the coroners consent. (wallet, ID, etc.)

Cover the deceased with emergency blanket.

Guard against theft.

   Wallet
   Rings
   Wrist Watch
   Purse
   Cash
6. Are tow trucks needed?

Know your agencies policy regarding towed vehicles.

Consider motorist preference if time and circumstances permit.

Consider the use of a rotation list.

III. **SUMMARY:**

A. Review the performance objectives.

1. Identify immediate priorities at the scene of the accident.

2. Identify procedures for gathering statements from the victims and/or witnesses.

3. Identify procedures for the protection of personal property at accident scenes.

4. Identify the procedures of traffic control and crowd control at the scene of an accident.

B. Review teaching points.

Make the scene safe both for yourself and others.

Check for injured persons, activate EMS, and do what you can for the victims until assistance arrives.

Obtain licenses from drivers; and witnesses when possible, in order to keep them at the scene.

**Request** a written statement.

Use victim/witness own words.

Inventory vehicles prior to storage or release to wrecker drivers.

Check scene for scattered property.

Use citizens for traffic control as a last resort.

Never turn your back on traffic.

When controlling crowds give them somewhere to go.
Keep crowds away from the scene to protect physical evidence.

Don’t hesitate to call for assistance if it is needed.

Know your agencies policies.

**Safety first.**
References


California Highway Patrol Academy *Accident Investigation* Sacramento, California
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION SEVEN

DIAGRAMMING
SYLLABUS

COURSE TITLE: TRAFFIC ACCIDENT DIAGRAMMING

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>PE</th>
<th>TOTAL</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00</td>
<td>1:00</td>
<td>3:00</td>
<td>7:00</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course provides the students with the knowledge and skills to accurately measure and record the position of evidence found while processing a vehicle accident scene. These items of evidence may include tire marks, debris, victims, signs, markings, vehicles, etc. The students participate in a laboratory exercise to practice transferring measurements taken at an accident scene to a scaled drawing of the accident scene. Instructors will evaluate student performance during a conference competition involving all aspects of accident scene processing.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

Given a staged vehicular accident, the student will describe and demonstrate the process of taking measurements at an accident scene, provide a diagram and supporting documentation with acceptable accuracy.

ENABLING PERFORMANCE OBJECTIVES (EPO):

EPO #1: Drawing a field sketch of a vehicular accident.

EPO #2: Describe and apply three types of reference points used in accident scene diagramming.

EPO #3: Define and apply the coordinate and triangulation methods of measurement.

EPO #4: Create a table of measurements from data collected at the accident scene.

EPO #5: Complete a final scale drawing of an accident scene and include supporting documentation (e.g., Identifying Information, Table of Measurements, and Legend).

STUDENT SPECIAL REQUIREMENTS:

1. The students will complete a final scaled drawing of the accident scene during the practical exercise.
Instructor Guide

METHODOLOGIES:

1. Lecture.
2. Demonstration.
3. Laboratory exercise.

TRAINING AIDS:

1. Instructor:
   a. Accident diagramming “tool kit” including:
      (1) Steel measuring tape.
      (2) Lumber crayon.
      (3) Traffic template.
      (4) Vehicles for the laboratory exercise and the conference competition.
      (5) Safety devices (e.g., flares, traffic cones, reflective triangles, etc.) sufficient to mark the accident scenes during the laboratory exercise and the conference competition.

2. Student:
   a. Clipboard.
   b. Unlined white paper.
   c. Pencil.
   d. Art gum eraser.
   e. Traffic template.
   f. Drafting compass.
   g. Radius nomograph.
   h. Portable radio.
i. Traffic accident “tool kit.”

**SPECIAL REQUIREMENTS:**

1. The instructor will stage a vehicular accident for demonstration in the laboratory exercise.

2. The instructor will stage a vehicular accident for evaluation of student performance during the conference competition.
TABLE OF CONTENTS

OUTLINE OF INSTRUCTION .................................................................................................................. 1
I. INTRODUCTION ........................................................................................................................... 1
   A. RAPPORT AND OPENING STATEMENT ................................................................................ 1
   B. TERMINAL PERFORMANCE OBJECTIVE (TPO) ............................................................. 1
   C. ENABLING PERFORMANCE OBJECTIVES (EPO) .......................................................... 2
II. PRESENTATION ............................................................................................................................ 2
   A. EPO #1: Drawing a field sketch of a vehicular accident ..................................................... 2
   B. EPO #2: Describe and apply three types of reference points .............................................. 4
   C. EPO #3: Define and apply the coordinate and triangulation methods ................................ 7
   D. EPO #4: Create a table of measurements from data collected ........................................... 9
   E. EPO #5: Complete a final scale drawing of an accident scene .......................................... 11
III. SUMMARY .................................................................................................................................. 13
   A. REVIEW OF PERFORMANCE OBJECTIVES ................................................................... 13
   B. REVIEW OF TEACHING POINTS ..................................................................................... 13
IV. APPLICATION ............................................................................................................................. 14
   A. LABORATORY ....................................................................................................................... 14
   B. CONFERENCE COMPETITION ...(see section 10) ...............................................................
REFERENCES .................................................................................................................................... 16
ATTACHMENTS ............................................................................................................................... 17
   A. Application Guide ...(see section 10) .................................................................................. 17
   B. Practical Exercise Standards ............................................................................................... 17
OUTLINE OF INSTRUCTION

I. INTRODUCTION

A. RAPPORT AND OPENING STATEMENT

1. Preparing an accurate, legible accident diagram is one of the most important tasks performed by traffic accident investigators.

   a. The accident diagram is a graphic representation of the accident scene.

   b. The accident diagram and the narrative accident report are records that insurance companies, courts, traffic engineers, and others may review.

   c. Accident diagrams serve to refresh the accident investigator’s memory as well as accurately record what the investigator observed at the accident scene.

   d. Should the case ever be litigated, professionally drawn accident scene sketches and professionally written reports aid in establishing the credibility of the accident investigator.

2. This course will teach you how to produce accurate and legible accident diagrams to scale.

   a. We will go through the process including with field sketching, measuring, reconstructing arcs and angles, plotting the position of vehicles, bodies, or other items of evidence.

   b. We will demonstrate this process during a laboratory exercise.

   c. Finally, you will demonstrate how to diagram a vehicular accident scene in a graded practical exercise.

NOTE: If there is not enough time, the instructor may omit the in-class laboratory exercise.

B. TERMINAL PERFORMANCE OBJECTIVE (TPO):

Given a staged vehicular accident, the student will describe and demonstrate the process of taking measurements at an accident scene,
provide a diagram and supporting documentation with acceptable accuracy.

C. ENABLING PERFORMANCE OBJECTIVES (EPO):

1. EPO #1: Drawing a field sketch of a vehicular accident.

2. EPO #2: Describe and apply three types of reference points used in accident scene diagramming.

3. EPO #3: Define and apply the coordinate and triangulation methods of measurement.

4. EPO #4: Create a table of measurements from data collected at the accident scene.

5. EPO #5: Complete a final scale drawing of an accident scene and include supporting documentation (e.g., Identifying Information, Table of Measurements, and Legend).

II. PRESENTATION

A. EPO #1: Drawing a field sketch of a vehicular accident.

1. The field sketch is the first step in the process that will culminate in a formal diagram of the accident scene (either to scale or not to scale).

   a. The field sketch (also known as a “preliminary field sketch”) is a rough drawing that “maps” the accident scene as observed by the accident investigator on his or her arrival.

      (1) The purpose of the field sketch is to assist the investigator in recording measurements taken at the scene.

      (2) It should depict only features of the accident and road configuration features observed by the accident investigator.

      (3) It should not contain anything that the accident investigator would not be able to explain when testifying in court.
b. Like rough investigative notes, attorneys may review the field sketch should the accident result in litigation (an accident may result in either civil or criminal litigation).

(1) Therefore, even a field sketch should be neat, accurate, and complete.

(2) The accident investigator should retain the field sketch and rough investigation notes in the case file.

2. The investigator draws the field sketch by first recording the outline of the roadways and then drawing all things relevant to the accident in their relative positions.

3. The field sketch should include the following information which will appear in the final accident diagram:

a. Features of the roadway (e.g., fog lines, centerlines, etc.)

b. Positions of vehicles, bodies, debris, blood, etc.

c. Positions of traffic control devices, including advanced warning devices.

d. Environmental factor such as snow, ice, standing water, etc.

e. Any item or terrain feature that may have been a factor in the accident.

(1) It is better to sketch and make measurements of something that is later determined to be irrelevant than to overlook a potentially important piece of evidence.

(2) The rule of thumb is, if you have any doubt about whether something is relevant, include it.

f. Names of streets and addresses, if applicable.

g. Type of road surface or other surface information when the accident is off the road.

h. Anything that may have obstructed the driver’s vision and contributed to the accident.
i. Types and locations of road lights if the accident occurred at night.

j. Skid marks or other relevant marks (e.g., tire prints in the snow or in mud) or gouges.

k. Debris related to the accident.

l. Road grade or super-elevation.

m. Lane and road widths.

n. Reference points.

4. Use numbers to identify the vehicles involved in the accident.

5. Use letters to identify reference points.

6. Orient the sketch so that north is at the top of the page.

7. Write all information on the sketch so that it is parallel with the top and bottom edges of the sketch.
   a. This makes the sketch look neater.
   b. It also makes reading the information of the sketch easier.

B. **EPO #2: Describe and apply three types of reference points used in accident scene diagramming.**

1. Reference points are positions on the terrain from which to take measurements.
   a. You should select reference points that can be easily located for future reference.
   b. Locate the reference points on the field sketch and the final diagram and describe them in the table of measurements.

2. In this course, you will use three types of reference points (i.e., tangible, semi-tangible, and intangible).
   a. **Tangible** – A tangible reference point is a landmark that is in place, will likely remain in place, or that can be relocated from a survey or blueprint if it is removed. Examples include:
(1) Fire hydrants.
(2) Parts of a bridge.
(3) Parts of a building.
(4) Power poles.
(5) Light poles.
(6) Manhole covers or drainage grates.

b. **Semi-tangible** – These reference points are marks that the accident investigator places at the scene and references to permanent landmarks (i.e., tangible reference points).

(1) Semi-tangible reference points can be a mark made by the investigator or a pin the investigator drove into the ground directly opposite of a tangible reference point.

![Figure 1: Semi-tangible reference point referenced to the corner of a tangible reference point.](image)

(2) The investigator uses semi-tangible reference points to eliminate the need of making repeated measurements to a remote reference point.

c. **Intangible** – The investigator may place intangible reference points on the roadway where the edges of two roadways would meet if not connected by curves. Examples of the use of intangible reference points include:

![Figure 2: A= An intangible RP](image)
Reconstructing an arc in an intersection.

Figure 3: Reconstructing the arc of an intersection.

Note that in the example at the right the intersecting arcs locate the point where the compass must be anchored to draw in the curved to scale. First the radius is calculated and the compass opened to this value. Next the point of the compass is placed at A & B and arcs are drawn in lightly. Where these arcs cross locates the point where the compass point is placed to draw in the curve.

**NOTE:** This is not the only way to draw an intersection with a curved portion of road. The accident investigator can also use the coordinate method measuring from a baseline to points “A” and “B”. However, establishing an intangible reference point at “C” may help take measurements to locate other objects relevant to the accident scene.

Figure 4: Using an intangible reference point for angular reconstruction and to establish the radius of a curve.

In this example A could be used as an intangible reference point. A-B-C form a triangle, the dimensions of which can be used to reconstruct the angle of the intersection. In
addition, in this example the investigator has placed B & C at the points where the curve begins. B to C is now the cord measurement which can be used with the middle ordinate to calculate the radius. Although this will save time, the two processes do not have to be combined.

(1) Investigators can use intangible reference points to locate objects within the accident scene.

Figure 5: Using intangible reference points to locate objects.

Note that when intersecting lines are used to establish a reference point the designations RP 1, 2, etc. are normally used.

C. Define and apply the coordinate and triangulation methods of measurement.

1. Coordinate method – In this method of measurement the investigator takes all measurements as right angles (90 degrees) from a baseline. An object with a known 90 degree angle, such as a clipboard can be used to maintain a right angle off the baseline.

   a. An easy way to do this is to use one measuring tape as your baseline and a second measuring tape to make your measurements from the baseline.

   b. You can designate the distances measured being approximately in a northerly, southerly, easterly, or westerly direction from the baseline.
c. Investigators can use the coordinate method for a majority of accidents when:

1. Taking measurements on a roadway with defined edges (e.g., curb, edge of pavement, etc.).
2. Taking measurements on objects that are all within 30 feet of the baseline.

2. **Triangulation method** – In this method of measurement, the investigator locates the position of an object by using distances from two fixed points a known distance apart.

a. When using the triangulation method, the reference points should be at least 20 feet apart; avoid using long, narrow triangles.

b. Investigators may use the triangulation method when:
(1) The edge of the roadway is indistinct.

(2) Locating the position of objects that are more than 30 feet from a baseline.

(3) Taking measurements on traffic circles or other similar curved roadways.

3. Investigators may choose to use the coordinate method and the triangulation method together if terrain or other factors make using just one method impractical.

D. Create a table of measurements from data collected at the accident scene.

1. After completing the field sketch, the investigator must measure distances to objects and record these measurements on a table of measurements.

   a. A table of measurements describes the reference points and spots measured by the investigator and lists in tabular form the actual distances and directions to or from these locations.

   b. An investigator needs to make enough measurements at the accident scene to avoid conjecture about locations when drawing the final scaled drawing or testifying in court.

   c. The investigator records these measurements as follows:

      (1) When using feet and inches, write feet in large numerals and inches as smaller (superscript), underlined numerals to the right of the feet.

      (2) This prevents misinterpreting the number “1” with the symbol for feet (‘) and the number “11” with the symbol for inches (”).

      (3) An alternative is to record measurements as feet and tenths of a foot (e.g., 10.5) if you have a tape measure made for that purpose.
2. There are three methods of recording measurements.

a. The investigator may choose to record these measurements directly on the field sketch.

![Diagram of a road intersection with measurements labeled.]

**Figure 8: Recording measurements on a sketch.**

**NOTE:** In this course, the students **must** produce a table of measurements using one of the following tabular formats.

b. Alternatively, the investigator may use a form that combines the field sketch with a table of measurements.

<table>
<thead>
<tr>
<th>Description: RP #1</th>
<th>Description: RP #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot on Road</td>
<td>North</td>
</tr>
<tr>
<td>Vehicle #1 RF</td>
<td></td>
</tr>
<tr>
<td>RP #1 RF</td>
<td></td>
</tr>
<tr>
<td>Vehicle #2 LF</td>
<td></td>
</tr>
<tr>
<td>RP #1 LF</td>
<td></td>
</tr>
<tr>
<td>Vehicle #2 LF</td>
<td></td>
</tr>
<tr>
<td>RP #2 LF</td>
<td></td>
</tr>
<tr>
<td>Vehicle #1 Width:</td>
<td></td>
</tr>
<tr>
<td>Vehicle #2 Width:</td>
<td></td>
</tr>
<tr>
<td>Spot A</td>
<td></td>
</tr>
<tr>
<td>Spot B</td>
<td></td>
</tr>
<tr>
<td>Chord</td>
<td>Middle Ordinate</td>
</tr>
<tr>
<td>Stop Sign</td>
<td></td>
</tr>
<tr>
<td>Road Conditions:</td>
<td>Road Width:</td>
</tr>
</tbody>
</table>
Figure 9: Example of a form that combines the table of measurements with an area for the traffic accident sketch.

c. A third alternative is to draw the field sketch on one piece of paper and record measurements on a separate table of measurements.

<table>
<thead>
<tr>
<th>Table of Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of point(s) from which measurements were taken:</td>
</tr>
<tr>
<td>RP #1 is</td>
</tr>
<tr>
<td>RP #2 is</td>
</tr>
<tr>
<td>Point or Item Measured</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

RECORD ITEMS NOT MEASURED FROM A REFERENCE POINT AS “A TO B.”

Officer: | Badge #: | Date: | Case #: |
E. Complete a final scale drawing of an accident scene and include supporting documentation (e.g., Identifying information, Table of Measurements, and Legend).

1. The accident investigator should plan the final scaled drawing.
   a. Check the maximum north-south and east-west axes to determine the orientation of the paper on which you plan to make the drawing.
   b. Choose the scale of the drawing (e.g., 1” = 20 feet, 1” = 10 feet, etc.).
   c. An investigator can draw scale maps of most accident scenes using a traffic template.

2. Draw the streets first.
   a. The investigator can draw many intersections as pairs of parallel lines arranged in either a “+” or “T” configuration.
   b. The investigator can reconstruct angled intersections from measurements taken by extending the curb lines to form a triangle.

3. Next, add the reference point(s) to the drawing.

4. Finally, draw all other items in their relative positions.

5. During the practical exercise, you will produce a final scale drawing of a staged motor vehicle accident using the following criteria:
   a. Use the one inch equals 10 feet scale expressed as a ratio (i.e., 1:120).
   b. Draw all geographic and object locations within one scale foot of actual measurements.
   c. Mark clearly at the scene and plot all "spots" which are not tangible reference points, so that an instructor can verify all measurements.
d. Orient your drawing with approximate north at the top of the page and mark the drawing with the appropriate direction symbol and the word “Approximate.”

e. Present all measurements in a tabular form either on the accident scene diagram or on a separate sheet of paper.

f. The accident scene diagram will contain only numbers, letters, drawings, symbols, or other information needed to interpret the accident scene.

g. Put all other information in one of the following documents:

   (1) Identifying Information detailing who, what, where, when, why, and how.

   (2) Legend listing any non-standard symbols used in the diagram.

   (3) Table of Measurements.

h. Label all vehicles with a circled number (e.g., 1 )

i. Label all reference points with the letters “Rp” followed by a number (e.g., Rp1, Rp2, etc.).

j. Label all “spots” by uppercase letters (e.g., A, B, C, etc.).

k. Do not draw freehand anything that you can draw using the traffic template.

l. Draw construction lines lightly so no obvious erasure marks appear on the final drawing.

m. Identify all streets and roads by name or number, composition of the road surface, grade, and super-elevation.

n. Write all numbers and letters on the drawing parallel to the bottom and top edges of the paper.

o. Indicate the front of each vehicle with a small triangle drawn with the traffic template as follows:
III. SUMMARY

A. REVIEW OF PERFORMANCE OBJECTIVES

1. EPO #1: Drawing a field sketch of a vehicular accident.

2. EPO #2: Describe and apply three types of reference points used in accident scene diagramming.

3. EPO #3: Define and apply the coordinate and triangulation methods of measurement.

4. EPO #4: Create a table of measurements from data collected at the accident scene.

5. EPO #5: Complete a final scale drawing of an accident scene and include supporting documentation (e.g., Identifying Information, Table of Measurements, and Legend).

B. REVIEW OF TEACHING POINTS

1. Drawing a preliminary accident diagram provides you with a picture of accident scene conditions when you arrived on the scene.
   - It is the basis for the final accident diagram.
   - It assists the investigator in making and recording measurements of the accident.
   - Courts treat the preliminary sketch just like investigative notes.

2. There are three types of reference points used in accident diagramming.
   - Tangible,
   - Semi-tangible, and
   - Intangible.

3. Accident investigators can take measurements using either the coordinate or triangulation methods.
   - In the coordinate method, you take measurements at 90 degrees from a baseline.
b. In the triangulation method, you take measurements to two or more reference points (or landmarks) at least 20 feet apart.

4. As you take measurements, record them in a table of measurements.

5. When you draw the final accident diagram, orient it so north is at the top of the page.
   a. Use a traffic template to simplify the mapping process.
   b. Use the appropriate scale.
   c. Draw construction lines lightly so you can erase them easily.

See Section 10 for details of laboratories and Conference Competition.
REFERENCES


TRAFFIC ACCIDENT DIAGRAMMING

PRACTICAL EXERCISE STANDARDS

1. Complete the final diagram using the one inch equals 10 feet scale expressed as a ratio (i.e., 1:120).

2. Plot all geographic and object locations within one scale foot (i.e., one tenth of an inch).

3. Plot and mark clearly at the scene all “spots” which are not tangible reference points.

4. Orient the drawing with north at the top of the page and include the proper direction symbol and the word “Approximate.”

5. Present all measurements in a tabular form either on the diagram or on a separate sheet of paper.

6. Include only those numbers, letters, or other information necessary to interpret the accident scene.

7. Include all other information in the identification section (investigator, time, date, case number, weather, surface conditions, etc.).

8. Identify all vehicles with a circled number (e.g., 1).

9. Label all reference points with the letters “Rp” followed by a number (e.g., Rp1, Rp2, etc.).

10. Label all “spots” by uppercase letters (e.g., A, B, C, etc.).

11. Do not draw freehand anything that you can draw using the traffic template.

12. Draw construction lines lightly so no obvious erasure marks appear on the final drawing.

13. Identify all streets and roads by name or number, composition of the road surface, grade, and super-elevation.

14. Write all numbers and letters on the drawing parallel to the bottom and top edges of the paper.
15. Indicate the front of each vehicle with a small triangle drawn with the traffic template as follows:
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION EIGHT

ACCIDENT SCENE PHOTOGRAPHY
# TABLE OF CONTENTS

SYLLABUS .................................................................................................................................................. 2
INSTRUCTOR GUIDE .................................................................................................................................. 3
OUTLINE OF INSTRUCTION .................................................................................................................... 4

I. INTRODUCTION ................................................................................................................................... 4
   A. RAPPORT AND OPENING STATEMENT ......................................................................................... 4
   B. LESSON PLAN OVERVIEW ............................................................................................................. 4

II. PRESENTATION ................................................................................................................................... 4
   A. EPO #1: IDENTIFY THE IMPORTANCE OF ACCIDENT SCENE PHOTOGRAPHS ................................................................................................................. 4
   B. EPO #2: IDENTIFY EIGHT SOURCES OF ACCIDENT SCENE PHOTOGRAPHS ................................................................................................................. 6
   C. EPO #3: IDENTIFY EIGHT AREAS OF THE SCENE TO BE PHOTOGRAPHED AS WELL AS SIX AREAS ON THE VEHICLES .................................... 7
   D. EPO #4: IDENTIFY THE IMPORTANCE OF A PHOTOGRAPHIC LOG AND NINE KEY BITS OF INFORMATION THAT COMPRISE IT ..................... 9

III. SUMMARY .......................................................................................................................................... 1
   A. REVIEW OF PERFORMANCE OBJECTIVES .................................................................................... 1
   B. REVIEW OF TEACHING POINTS ..................................................................................................... 1

IV. APPLICATION ...................................................................................................................................... 1
   A. LABORATORY ..................................................................................................................................... 1
   B. PRACTICAL EXERCISE ..................................................................................................................... 1

REFERENCES ............................................................................................................................................. 1
COURSE TITLE: Accident Investigation Photography

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>P.E.</th>
<th>TOTAL</th>
<th>PROGRAM</th>
<th>OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td></td>
<td></td>
<td>1:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION:
This course teaches the students the importance of photography in completely recording an accident scene during an accident investigation. It emphasizes what to photograph, how to sequence the photographs, and when to take the photographs as the officer controls and processes the accident scene.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

The student will identify the proper photographic procedures necessary to document a traffic accident scene.

ENABLING PERFORMANCE OBJECTIVES (EPO):

EPO #1: Identify the importance of accident scene photographs.

EPO #2: Identify eight sources of accident scene photographs.

EPO #3: Identify eight areas of the scene and the six areas on the vehicles that investigators should photograph.

EPO #4: Identify the importance of a photographic log and nine key bits of information.

STUDENT SPECIAL REQUIREMENTS:

There are no special requirements.
Instructor Guide

METHODOLOGIES:

1. Lecture
2. Class discussion

TRAINING AIDS/EQUIPMENT:

1. Instructor:
   a. Transparencies and overhead projector.
   b. Computer, overhead projector.
   c. Writing board and markers.
   d. Photographs of accident scenes

2. Student:
   a. Note taking materials.

INSTRUCTOR SPECIAL REQUIREMENTS:

1. There are no special requirements
Outline of Instruction

I. INTRODUCTION

A. RAPPORT AND OPENING STATEMENT

1. Perhaps nowhere is the old adage "a picture is worth a thousand words" more true than when an accident investigator uses photographs in court to clarify a point at issue.

2. This is especially true in traffic accident investigation since even gifted speakers find it difficult to describe degrees of damage or shading of tire-marks, etc.

3. Photographs not only convey the information, but also provide a tangible item of evidence that jurors can hold in their hands while they absorb the information.

B. LESSON PLAN OVERVIEW

1. We will identify the importance of accident scene photographs.

2. Next, we will identify eight sources of accident scene photographs.

3. Then, we will identify eight areas of the scene and the six areas on the vehicles that investigators should photograph.

4. Finally, we will identify the importance of a photographic log and nine key bits of information.

II. PRESENTATION

A. EPO #1: IDENTIFY THE IMPORTANCE OF ACCIDENT SCENE PHOTOGRAPHS.

1. The importance of accident scene photography rests largely with the way people learn.

   a. Just as most students display a preference for visual, auditory, or hands-on learning, so do the people concerned with accident investigations.

   b. Supervisors, investigators, safety officers, judges, and most importantly juries absorb information best by one of the aforementioned three methods.
c. While it is not always possible to provide a hands-on situation, photographs can supply the next best thing and do provide a tangible item for people to mull over.

d. Bolstered by good reporting and testimony, photos may provide a jury the next best thing to a full-blown scene reconstruction.

2. Photos provide a permanent record of the accident scene.

a. Pictures often reveal details of the scene that investigators may have overlooked at the scene.

b. They often save time while testifying in court and may reduce the time the investigator spends on the stand during cross-examination.

c. Photographs supplement notes, reports, and diagrams.

1) Photos do not replace good observations, notes, reports, and diagrams.

2) The accident investigator should take photographs to accurately record information and not for dramatic impact.

3) In other words, restrict shots of blood and gore to those that are necessary.
B. **EPO #2: IDENTIFY EIGHT SOURCES OF ACCIDENT SCENE PHOTOGRAPHS.**

1. Usually, the accident investigators take the photographs themselves.
   a. However, the picture is important (not who took it); try to locate other sources of relevant photographic evidence.
   b. Sources might include, but not necessarily be limited to:
      1) The patrol officer.
      2) Assisting investigators.
      3) Mobil crime lab personnel or crime-scene search officer.
      4) Media personnel, this may require a subpoena.
      5) Freelance photographer, again this may require a subpoena.
      6) Amateur photographers, such as tourists in park areas, etc.
   c. In short, try to locate all possible sources of photographic evidence.
      1) Do not overlook videotapes.
         a) Estimates are that the average person appears on videotape 12 times a day because of security cameras at automatic teller machines (ATMs), stores, and other locations.
         b) Technicians can enhance digitally and make useable even tapes that appear to be of very poor quality at first glance.
      2) Cameras in the interior of buildings may yield valuable information if their field of view includes the entrance and adjacent plate glass windows looking out on the street such as in many banks, etc.
C. EPO #3: IDENTIFY EIGHT AREAS OF THE SCENE AND THE SIX AREAS ON THE VEHICLES THAT INVESTIGATORS SHOULD PHOTOGRAPH.

1. The circumstances of the crash will largely dictate what areas and items the accident investigator should photograph.
   a. An accident may be very serious and yet present a somewhat straightforward scene.
   b. For example, a vehicle into a tree with no marks indicating evasive action.
   c. Likewise, a less serious accident involving only property damage may involve several vehicles and a complex intersection with various view obstructions, etc.

2. Most important are overall shots.
   a. The best single picture would show vehicles in their rest positions with skid marks visible.
   b. Show where the tire-marks start and shoot in the direction of movement.
   c. Show view obstructions (parked vehicles).
   d. Position and condition of traffic control devices.
   e. Point of view of drivers (remember that eye level is normal).
   f. Point of view of witnesses (remember that eye level is normal).
   g. Show all the important marks on the roadway that may help in fixing the course of the vehicle immediately before and during the crash.
      1) Tire marks,
      2) Gouges,
      3) Ruts or furrows,
      4) Liquid debris,
5) Any other mark of significance,

6) Debris on roadway, and

7) Debris dislodged from the underside of a vehicle.

8) Lane markers.

h. If the marks or items you photograph extend over a large area, you may have to take a series of photographs.

i. Overlapping shots can be used to show two sides of a vehicle. The standard would be four shots, one for each side of the vehicle plus front and back shots.

3. Areas of the vehicles to photograph may include, but not be limited to:

a. Lamp damage,

b. Damage to the load,

c. Friction, abrasion or transfer marks,

d. Tire damage,

e. Parts failure, and

f. Damaged areas showing extent of crush, etc.

4. When you should to take photographs is as important as what you photograph
a. Photos taken as early as possible in the investigation will present more of a "true and accurate representation of the scene" as the investigating officer saw it.

1) Less chance of alteration by emergency personnel and citizens.

2) Less vulnerable to attack when introduced in court.

3) Not contaminated by crayon marks, paint, etc., used to mark positions, etc.

4) Early photos and/or tapes may reveal potential witnesses or involved parties not obvious at the time of the investigation.

5) Photograph all damage to the vehicles at the scene to prevent allegations that the towing company caused the damage.

b. The accident investigator may take follow up photographs if needed.

1) This is a frequent request of the prosecuting attorney.

2) This may be to show details obscured by night, rain, or snow.

   a) However, beware of waiting too long to take follow up photographs because the scene may change.

   b) Changes in foliage can occur because of changes in seasons, pruning, etc., that may substantially alter points of view.
D. **EPO #4: IDENTIFY THE IMPORTANCE OF A PHOTOGRAPHIC LOG AND NINE KEY BITS OF INFORMATION THAT COMPRIS...**

1. A photographic log serves as a validation of the traffic accident investigator's work.
   a. The log can serve to counter the assertion that the photographs taken at the scene do not fairly represent the situation in court.
   b. With all the important information recorded, the defense could be invited to duplicate the pictures. In other words, the same settings, position and equipment would produce the same results.
   c. Information recorded should include:
      1) Date and time.
      2) Weather conditions, especially lighting conditions.
      3) Position photograph taken from (show on diagram).
      4) Camera type, make, model, and serial number.
      5) Lens type, make, model, and serial number.
      6) Film type.
      7) Shutter speed.
      8) Lens aperture setting (i.e., f-stop).
      9) Distance shown on focus ring.

* If you used an automatic camera, note the settings shown in viewfinder (if your camera provides that information)

2. Provision should also be made on the log to indicate the disposition of the film for the purpose of establishing the chain of custody.
III. SUMMARY

A. REVIEW OF PERFORMANCE OBJECTIVES

1. EPO #1: Identify the importance of accident scene photographs.
2. EPO #2: Identify eight sources of accident scene photographs.
3. EPO #3: Identify eight areas of the scene and the six areas on the vehicles that the investigator should photograph.
4. EPO #4: Identify the importance of a photographic log and nine key bits of information that comprise it.

B. REVIEW OF TEACHING POINTS

1. Photographs represent an excellent medium for conveying information to personnel involved in the disposition of motor vehicle accidents.
2. They convey information in a format that is easy to understand and which serves as a valuable adjunct to reports, diagrams, and testimony.
3. As with all means used to prove a point in court, the investigator must be concerned with the source, content, and accountability of the photographs.
4. In other words, the investigator must treat them like any other items offered into evidence.

IV. APPLICATION

A. LABORATORY

None

B. PRACTICAL EXERCISE

None
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
SECTION NINE

DETERMINING THE ACCIDENT CAUSE
# TABLE OF CONTENTS

SYLLABUS .................................................................................................................................................. 1

INSTRUCTOR GUIDE .................................................................................................................................. 2

OUTLINE OF INSTRUCTION ...................................................................................................................... 3

I. **INTRODUCTION** .................................................................................................................................. 3  
   A. ESTABLISHING RAPPORT AND OPENING STATEMENT ................................................................. 3

II. **PRESENTATION** ................................................................................................................................. 4  
   A. EPO #1: IDENTIFY HOW TO GATHER ALL THE FACTS AS ACCURATELY AS POSSIBLE AND RECORD THEM IN A LOGICAL SEQUENCE .................................................................................. 4
   B. EPO #2: IDENTIFY THE THREE GENERAL AREAS IN WHICH AN ACCIDENT INVESTIGATOR WILL OBTAIN FACTS AND EVIDENCE RELEVANT TO THE INVESTIGATION ................................................................... 5
   C. EPO #3: IDENTIFY WHAT PHYSICAL EVIDENCE TO NOTE AND RECORD AT THE SCENE OF A VEHICULAR ACCIDENT .................................................................................................................. 11

III. **SUMMARY** ........................................................................................................................................ 14  
   A. REVIEW THE PERFORMANCE OBJECTIVES ..................................................................................... 14
   B. REVIEW TEACHING POINTS ............................................................................................................. 14

IV. **APPLICATION** ....................................................................................................................................... 14  
   A. LABORATORY ....................................................................................................................................... 14
   B. PRACTICAL EXERCISE ....................................................................................................................... 14
COURSE TITLE: Determining the Accident Cause

LENGTH OF PRESENTATION:

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>LAB</th>
<th>P.E.</th>
<th>TOTAL</th>
<th>PROGRAM</th>
<th>OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td></td>
<td></td>
<td>2:00</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

DESCRIPTION:

This course teaches the student what evidence and information the officer needs to collect at the scene of a motor vehicle accident to determine the cause of the accident.

TERMINAL PERFORMANCE OBJECTIVE (TPO):

The student will identify the proper procedures for determining the cause of a vehicular accident.

ENABLING PERFORMANCE OBJECTIVES:

EPO #1: Identify how to gather all the facts as accurately as possible and record them in a logical sequence.

EPO #2: Identify the three general areas in which an accident investigator will obtain facts and evidence relevant to the investigation.

EPO #3: Identify what physical evidence to note and record at the scene of a vehicular accident.

STUDENT SPECIAL REQUIREMENTS:

There are no special requirements
Instructor Guide

METHODOLOGIES:

1. Lecture.
2. Discussion.

TRAINING AIDS AND EQUIPMENT:

1. Instructor.
   a. Computer enhanced media presentation (optional).
2. Student
   a. Note taking materials

INSTRUCTOR SPECIAL REQUIREMENTS:

There are no special requirements
Outline of Instruction

I. INTRODUCTION

A. Establishing Rapport and Opening Statement

1. In most vehicle accidents, the scene is usually in a state of chaos.
   a. The vehicles involved or debris may block or partially block traffic.
   b. There may be electrical power lines, leaking hazardous materials, or other dangers at the scene.
   c. There may be a crowd of spectators gathered at the scene that might interfere with emergency personnel working the scene.

2. All this chaos would undoubtedly hamper the investigation of the accident if officers did not effectively control it.
   a. The chaos and confusion could permit the destruction or loss of physical evidence.
   b. In addition, the chaos and confusion could cover the theft of personal property belonging to the accident victims by onlookers.

3. It is the responsibility of the officers on scene to control, secure, and investigate the accident scene.
   a. Remember that your first priority is to make the scene safe for the victims, public, and emergency personnel.
   b. This may require extreme measures like evacuating the neighborhood or rerouting traffic.

4. Officers should never allow anyone to tamper with the accident scene until they have completed their investigation.
   a. Tow truck operators will want to remove the vehicles and firefighters will want to hose down the road. Every effort must be made to prevent these actions until you complete the at scene investigation.
   b. Remember that once they “clean up the scene,” all the evidence is lost.
c. It is very important that you “get it right the first time.”

B. Lesson Plan Overview

1. First, you will learn how to gather all the facts as accurately as possible and record them in a logical sequence.

2. Next, you will learn the three general areas in which an accident investigator will obtain facts and evidence relevant to the investigation.

3. Finally, you will learn what physical evidence to note and record at the scene of a vehicular accident.

II. PRESENTATION

A. EPO #1: Identify how to gather all the facts as accurately as possible and record them in a logical sequence.

1. It is difficult and sometimes impossible for an investigator to gather all the facts and evidence involved in a vehicular accident.

2. Investigators can improve their chances by:

   a. Getting to the accident scene safely and quickly.
   b. Making sure the scene is safe.
   c. Conducting a thorough initial survey and assessment of the scene to establish priorities.
   d. Obtaining all the facts relevant to the accident.
   e. Assessing all facts and evidence objectively.

3. Do not make hasty decisions about the accident.

   a. Compare the physical evidence found at the scene with the statements of the driver(s) and witness(es).

      (1) Remember that people often have different recollections of the same event.

      (2) In addition, the drivers involved may try to slant their version of the event to minimize their own liability.
(3) Keep in mind that witnesses may not have actually seen the accident, but rather reacted to the sound and observed after crash events.

b. Try to reconstruct the accident in your mind as you investigate, but avoid jumping to a conclusion before you have all the facts.

c. Do not discount evidence or statements because they conflict with your theory.

4. If the accident was at night, return to the scene in daylight the next day, and make sure you did not overlook any evidence.

5. Remember that the plain view doctrine applies while you investigate the scene. Your observations may include, but not necessarily be limited to:

a. Evidence that would lead you to believe a vehicle involved in an accident is a stolen vehicle.

b. Illegal drugs or other evidence that would lead you to believe a vehicle involved in an accident is used to traffic narcotics.

c. A weapon that might be evidence of other crimes or itself is a stolen weapon.

d. Evidence or contraband that would lead you to believe the operator may have used the vehicle in the commission of burglaries or other crimes.

e. Evidence that would lead you to believe that alcohol or drug use may have contributed to the accident.

B. EPO #2: Identify the three general areas in which an accident investigator will obtain facts and evidence relevant to the investigation.

1. Your investigation of the accident scene will focus on three areas:

a. The driver(s) and pedestrians (people) involved.

b. The vehicle(s) involved.

c. The road or driving environment.
2. The driver – In a majority of vehicle accidents the primary contributing factor is the driver.

a. By definition, an accident is an unforeseen and unplanned event resulting especially from carelessness or ignorance.

b. Driver inattention, pre-occupation, recklessness, and poor judgment can all contribute to causing an accident.

c. A classic example of this is the modern phenomenon of people using cellular telephones while driving.

d. There are many conditions that can impair a person’s ability to operate a vehicle including, but not limited to:

(1) Alcohol consumption.

(2) The use of drugs including illegal drugs, prescription drugs, and over the counter medications.

(3) Carbon monoxide poisoning, the symptoms of which include:

(a) Flushed face.

(b) Dizziness or weakness.

(c) Headache.

(d) Inattention or confusion.

(e) Drowsiness, or fatigue.

(f) Nausea.

(g) Tightness across the chest.

(h) Lack of coordination.

(i) Severe poisoning can cause brain or heart damage, and even death.

(4) Drowsiness and fatigue.

(5) Sudden disablement due to medical conditions.

(a) Heart attack.

(b) Stroke.
(c) Seizure.

(6) Lack of knowledge:
(a) Ignorance of traffic control devices.
(b) Ignorance of rules of the road.
(c) Poor accident avoidance judgment.
(d) Lack of familiarity with the vehicle.

(7) Driver attitude and temperament including:
(a) “Road rage” or aggressiveness.
(b) Risk taking.
(c) Emotion.
(d) Suicidal acting out.

(8) Distractions including:
(a) Talking on a cellular telephone.
(b) Insect inside the vehicle.
(c) Lighting a cigarette, cigar, or pipe.
(d) Tuning the radio.
(e) Changing CD or tape cassette.
(f) Animals, or children, in the vehicle.
(g) Distractions outside the vehicle.
(h) Reading, applying makeup, etc.

(9) Impaired vision:
(a) Check the license(s) of the operator(s) for restrictions due to vision impairment.
(b) If they were not wearing glasses or contact lenses as required, it may have been a contributing factor in the accident.
(10) Other restrictions:

(a) Physical handicaps – check to see if their vehicle had handicap controls.

(b) Age –

(i) The slower reaction time common in elderly drivers can contribute to the accident cause.

(ii) However, look for serious conditions (e.g., senility, senile dementia, or Alzheimer’s disease).

(iii) If you can determine that age was a contributing factor in an accident, you can request a re-examination of their operator’s license.

3. The vehicle:

a. When arriving on the scene, use all cautionary measures, just as when making a traffic stop.

b. Check the identification of the vehicle by running a registration check through your dispatcher and determine the following:

   (1) Is the registration current?

   (2) Does the license plate match the registration of the vehicle? (For example, the plates are issued to a Ford, but they are on a Chevrolet.)

   (3) Does the vehicle identification number (VIN) match the registration of the vehicle?

c. Thoroughly examine the vehicle, checking for the following:

   (1) Damage –

      (a) Is all the observed damage the result of this collision?

      (i) Driver may try to make a false claim for damage not sustained in this accident.
(ii) Some people “stage” accidents for insurance money.

(iii) If there is rust present, the damage did not occur in this accident.

(b) Could the damage be evidence of an earlier hit and run accident?

(c) Does the damage type and location, agree with statements and evidence?

(2) Check mechanical defects including:

(a) Brakes,

(b) Tires (e.g., the amount of tread – most states require $3/32$ of an inch of tread),

(c) Headlights,

(d) Brake lights, and

(e) Turn signals.

(3) Look at the skid marks for evidence of improperly adjusted or defective brakes.

(a) If the brakes were working properly, there should be four skid marks or two overlapping skid marks.

(b) If the vehicle has anti-lock brakes, there may be “shadow” marks where conventional skid marks would be.

NOTE: The instructor may choose to engage the class by asking the following questions:

1. What happens to a vehicle when three tires skid and the right, front tire keeps rolling? Answer – The vehicle will slide or pull to the left.

2. What happens to a vehicle when the rear tires of a vehicle skid but the front tires continue to roll? Answer – The vehicle turns around and skids backwards.

3. What effect does the crown of the roadway have on a skidding vehicle? Answer – The vehicle will gradually slide down toward the edge of the roadway.
(4) Other things to check:

(a) Rearview mirrors,

(b) Windshield, including:

(i) Cracks or damage resulting from this accident.

(ii) Obscured and impairing visibility.

(iii) If the accident occurred in the rain, were the windshield wipers functioning correctly?

(c) Driver’s vision obscured to the side or rear (e.g., decals, clothes hanging from coat hook, cargo carried in back seat, etc.).

(5) Safety devices –

(a) If the accident occurred in the snow, did the vehicle have snow tires or chains?

(b) Were the occupants using safety belts?

(c) Did the airbags deploy?

4. Physical condition of the roadway and driving environment –

a. Establish the conditions that existed at the time of the accident.

b. Roadway surface:

(1) Dry, or wet,

(2) Snow, or ice,

(3) Gravel, or sand, on road surface,

(4) Oily surface or other slick condition,

(5) Ruts, or potholes,

(6) Drop off at edge of pavement,

c. Good or bad visibility (e.g., blind corners, foliage obscuring visibility, fog, rain, etc.).
d. Natural or man-made obstructions preventing driver(s) from seeing oncoming traffic including:
   (1) Parked vehicles,
   (2) Buildings,
   (3) Signs,
   (4) Topography,
   (5) Vegetation.

e. Glare (e.g., headlights, sun, or fixed lighting).

f. Traffic control devices present and working properly.

g. Railroad crossing signals present and working properly.

h. Roadway markings present and legible.

i. Control and warning signs –
   (1) Accurately record all traffic signs and control devices on field sketch and diagram of the accident scene.
   (2) Note the condition of signs and traffic control devices.
   (3) Record the height of signs and traffic control devices.

**NOTE:** If the accident destroyed a traffic sign or traffic control device, an officer should remain at the scene to direct traffic, until highway crews repair the damage. If this is not feasible take other reasonable measures such as placing temporary signs until the damage is repaired.

C. EPO #3: Identify what physical evidence to note and record at the scene of a vehicular accident.

1. The accident investigator must look for marks on the vehicle, roadway, and surrounding area for indications of what happened during the accident.

2. Flips and vaults involve the vehicle contacting an obstacle, usually the curb, in a way that produces an upward lift as the vehicle pivots around the obstacle.
   a. Flips are sideways somersaults.
b. Vaults are end-over-end somersaults.

c. Record skid marks, gouges in ground or road surface, and areas of impact.

d. If the accident causes ejection of the occupants from the vehicle, record their positions.

e. Make over-all photographs of the scene.

3. Rollovers occur during centrifugal skids or during a yaw.

a. The higher the center of mass and the greater the drag from "sticky" tires the greater the likelihood that weight shift will result in a rollover situation.

b. Rollover is more likely to occur in vehicles like vans, campers, or special utility vehicles (SUVs).

c. Record skid marks and areas of impact.

d. If the accident causes ejection of the occupants from the vehicle, record their positions.

e. Make over-all photographs of the scene.

4. Record any evidence that a tire blowout or loss of a wheel contributed to the accident.

a. Debris from tire on roadway.

b. Marks from roadway on metal rim.

c. Irregular width tire marks before point of impact.

5. Record any evidence that a steering problem contributed to the accident.

a. Any marks indicating swerving before the collision.

b. Statements of drivers, witnesses, etc.

NOTE: This in itself might no be conclusive since the marks could be from avoidance or a loss of control from other means.
6. Record any evidence that malfunctioning lights contributed to the accident.

a. One or more headlights burned out.

b. Operating without headlights at night or during periods of low visibility.

c. One or more taillights burned out or taillights not turned on.

d. Brake lights not working.

e. Turn signals not working or the driver failing to use turn signals.

**NOTE:** Newer model vehicles have headlights that come on automatically when the driver turns on the ignition switch. Some models also display a warning when there is a light malfunction.

f. If possible, check the condition of the filament in light bulbs.

   (1) If the light is on at the time of the impact, the filament **may** become deformed and stretch because the filament is hot and therefore malleable. This is called hot shock.

   (a) If a vehicle is struck from the rear, the filament **may** stretch toward the rear.

   (b) If the vehicle strikes something with its front end, the filaments in its lights **may** stretch toward the front of the vehicle.

   (2) If the lights are off at the time of impact and the impact is severe enough, the filament **may** break. This is called cold shock.

   (3) If a sealed beam headlight is on at the time of impact and the glass breaks, oxidation of the filament will leave evidence of burning.

**NOTE:** According to Northwestern University, there can be other causes for the stretching and breaking of filaments in bulbs including sudden starts or stops or the action of gravity on an old bulb. Therefore, the accident investigator should not place total confidence in this evidence.
7. Make every attempt to collect all the evidence pertinent to your investigation.

III. SUMMARY

A. Review the performance objectives.
   1. EPO #1: Identify how to gather all the facts as accurately as possible and record them in a logical sequence.
   2. EPO #2: Identify the three general areas in which an accident investigator will obtain facts and evidence relevant to the investigation.
   3. EPO #3: Identify what physical evidence to note and record at the scene of a vehicular accident.

B. Review teaching points.
   1. The object in responding to an accident scene is to get there safely and quickly.
   2. If there are hazards like downed power lines or hazardous materials, you may have to evacuate the surrounding areas
   3. You must secure the scene to preserve the evidence and insure the safety of those at the scene.
   4. Your investigation should focus on three areas, the driver(s), the vehicle(s), and the roadway.

IV. APPLICATION

A. Laboratory.
   NONE

B. Practical exercise.
   NONE
REFERENCES


This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
One of the most dangerous tasks that a law enforcement officer must do is stopping a motor vehicle. We classify vehicles stops into categories of risk and high risk stops. There is no such thing as a “routine” vehicle stop. An officer can never know what he or she might encounter during a risk vehicle stop. Officers must remain on guard at all times during vehicle stops. It is important that officers be suspicious yet remain professional in their interaction with the occupants of the vehicle.

Law enforcement officers must apply knowledge, skills, and abilities to make a variety of decisions regarding the mechanics of initiating and conducting vehicle stops. These decisions are based on various conditions which include but are not limited to: law, court precedents, agency policy, training, geography, and changing environmental factors such as weather, roadway, traffic, and the threat level of occupants in the vehicle. Officers must make and carry out these decisions during high-stress situations while operating a vehicle.

The vehicle stop process consists of five phases:

1. Preparation phase.
2. Pre-stop phase.
3. Stop phase.
4. Contact phase.
5. Closure phase.

**The Personal Preparation Phase**

For officers to safely execute a vehicle stop they must realize that the process begins with having a proper mental attitude before the vehicle stop ever begins. To compound the problem, the basic stops can easily escalate into a high-risk stop.

Officers sometimes have no way of knowing who the occupants of a vehicle are. The occupants may be innocent motorists, fugitives, criminals, under the influence of alcohol or drugs, or mentally ill. Therefore, officers can never predict what the occupants might do. Officer must always be cautious during a vehicle stop and display a confident and professional attitude.

Officer survival rests on three foundational pillars of physical conditioning, mental conditioning, and tactical thinking.

**Physical Conditioning**: Vehicle stops are often high stress situations that make physical demands on the officer. For this reason, it is imperative for officers to be in good physical condition. Once the fight or flight reaction activates, our bodies react in many ways including:
1. Increased heartbeat rate.
2. Dilation of the coronary arteries.
3. Higher blood pressure.
4. Increase in muscle tension (muscle bracing).
5. There is increased moisture on the skin (sweat).
6. Increased secretion of acid in the stomach.

**Mental Conditioning:** Vehicle stops also make mental demands on the officer. The officer must control his or her anxiety and the other effects of stress. He or she must possess self-confidence, alertness, and mental preparedness to remain clear-minded and focused on the task. The proper attitude is essential in gaining and maintaining the tactical advantage. To maintain proper attitude, officers must constantly be aware of the potential dangers involved in vehicle stops. Proper attitude will help keep the officer alert to dangers.

**Tactical Thinking:** Thinking tactically helps the officer to remain calm during stressful situations. Survival often depends on being able to make the correct tactical decisions in a decisive manner. Proper tactics can also reduce the number of incidents that escalate in violence. Remember that no two incidents are exactly alike. Thinking tactically allows the officer to react from a range of options. Officers need to hone their tactical thinking to the point that it becomes a reflex.

To prepare themselves for the unexpected during vehicles stops, officers should routinely conduct:

1. **Personal Attitude Checks.**
   a. Every officer must leave personal concerns and prejudices at home.
   b. Are you mentally prepared to do the job?
   c. Are you overconfident?
   d. Are you complacent?
2. **Vehicle Inspection Checks.** During a vehicle stop, officer survival may depend to a great degree on the operational readiness of the officer's vehicle. At the beginning of your shift, it is imperative that you thoroughly inspect your assigned vehicle including its public-address system (PA), radio, and emergency signaling equipment. You need to know how to operate your equipment before needing it.
3. **Personal Equipment Checks.** The winning edge in tactical situations is often your personal equipment. Routinely check the condition and serviceability of your body armor, service holster, ammunition, firearm, portable radio, handcuffs, chemical agent and expandable baton.
4. **Tactical Response Checks.** Visualize different vehicle stop scenarios and think through your tactical options. Play the “what if” game in your mind. If you have a partner, think through your tactical options together. Analyze your decisions and the tactics you chose. Evaluate the scenario based on different vehicle occupant responses (i.e., if the suspect had done X instead of Y, what would you have done?).

5. **Procedural Checks.** Officers should mentally review the protocol for making a vehicle stop before each stop. There are many things which should take place prior to initiating the stop, such as:
   a. Selecting a site appropriate for making the stop.
   b. Communicating with your dispatcher (location, description of vehicle, purpose of stop, number of occupants, etc.)
   c. Waiting for backup.
   d. Preparing to exit the vehicle in an emergency and making sure you have all the necessary equipment on your person.

6. **Skills Checks.** Verbal skills can help you control the situation and prevent it from escalating into a volatile confrontation. Physical skills can help you to properly perform a vehicle stop. Practice the procedures and physical moves used in a vehicle stop.

In summary, your preparation starts long before you ever attempt to make a risk stop. Whether or not you are prepared will become crucial during the pre-stop, stop, contact, and closure phases.

---

**The Pre-Stop Phase**

There are three reasons why you might stop a vehicle.

1. **Investigation** – you have reasonable suspicion that an occupant in the vehicle has committed a crime or is about to commit a crime.
2. **Citation** - to issue a citation for an offense committed.
3. **Arrest** - you have probable cause to believe that an occupant in the vehicle has committed an offense that warrants an arrest.

Each of these reasons for making a vehicle stop has a different degree of danger and risk. You should always use sound survival techniques. Never become complacent. Always remember there is no such thing as a "routine stop."

Selecting an appropriate site for a vehicle stop is an important step in the stop process. In the interest of public safety and for the officer's own safety, officers should select a site for executing a vehicle stop that poses minimum risk to the officer, innocent bystanders, and the occupants of the vehicle being stopped. Keep in mind that drivers are normally compliant during risk stops and that when you initiate the stop the driver will come to a stop.

Start thinking about a suitable location to stop the vehicle as soon as you decide to execute it. Know your operating area.
1. Avoid hills, bridges, curves, or areas that might provide vehicle occupants easy escape routes.
2. Avoid areas with soft shoulders, mud, sand, or ditches.
3. Select an area that provides you maximum cover and visibility.
4. At night, choose a lighted area such as a parking lot provided there is not a lot of civilian traffic in the lot.
5. Check the flow of traffic and avoid making a stop in a high-volume traffic area.
6. Avoid heavily congested areas, especially those with heavy pedestrian traffic like shopping centers, schools, downtown areas during business hours, and the like.
7. Choose an area that has enough space to insure your safety and the safety of the occupants in the stopped vehicle.
8. If possible, do not make a vehicle stop near an establishment or location where intoxicated persons might interfere with the vehicle stop.
9. For any vehicle stop, try to select a site that provides the maximum amount of room to position the primary and secondary enforcement vehicles.
10. Select a site that gives you enough room to remove the suspects from the stopped vehicle and position them for handcuffing in case the stop escalates into a high-risk vehicle stop.

Communicate with your dispatcher before making any vehicle stop. This is important because it lets your agency know what you are doing and where you are in case you need help. The dispatcher might be able to give you valuable information about the vehicle that you are stopping and this might have a bearing on how you conduct the stop. Give your exact location and direction of travel to the dispatcher. Use the nearest crossroad or other landmark to identify your location. If your location changes, update the dispatcher. Give as much information about the suspect vehicle as possible.

1. License plate number.
2. Make, model and color.
3. Style (e.g., 2-door, 4-door, van, pick-up truck, sport utility vehicle, etc.)
4. Number and description of occupants.
5. Note any damage or other identifying characteristics such as CB/cellular telephone antennas, bumper stickers, and a dirty tag on a clean vehicle or visa-versa. (This information will help distinguish that particular vehicle from other vehicles of the same make, model, and color.)

Once you decide to initiate the stop, request backup if it is available. There is safety in numbers. If you requested a backup unit, ask the dispatcher what the estimated time of arrival for that unit is.

Ensure the PA in your vehicle is on and ready for use. Make sure you know how it works.
Keep the dispatcher updated throughout the period of the stop on any changes in location, activity, and any other significant information.

Do most of your radio communicating while driving on straight sections of road. It is hazardous to try handling the radio microphone while negotiating turns. If you have a partner, you should concentrate on the driving and let your partner operate the radio.

Remember, once you initiate the stop by activating your emergency equipment the violator may react in a way you did not expect. Try to do all pre-stop actions before turning on your emergency lights.

**The Stop Phase**

Once you have completed the pre-stop phase, you are ready to initiate the stop.

If two officers are present determine which officer will be the primary/contact officer and which officer will be the secondary/cover officer. This will prevent miscommunications between all those involved in the stop, including officers and suspects. The secondary/cover officer works with the primary/contact officer as an additional set of eyes and ears to ensure safety. Usually, both the primary and secondary officers will approach the stopped vehicle.

Emergency Signaling Equipment. As a rule, you should activate your emergency signals when approximately 4 to 6 car lengths behind the vehicle you are stopping. You may adjust this distance due to high speeds or adverse conditions.

Activate emergency lights, flash headlights, and sound the horn as needed to get the attention of the driver. If this does not get the attention of the driver, then activate your siren.

After the violator has pulled to the edge of the roadway leave your emergency lights and flashers on. At night, use all the lighting on your vehicle including high beam headlights, take downs, and spot lights.

As you bring your vehicle to a stop, unbuckle your seatbelt, unlock your door, and roll down your window. This will allow you to tactically react should the driver or other occupant of the stopped vehicle exits and approaches your vehicle.

If the driver of the stopped vehicle does not pull their vehicle out of the traffic lane then you should tell the driver to do so by using the PA.

Choose the appropriate vehicle position depending on number of officers in your vehicle and on whether or not there is a backup unit on scene. We recommend using one of the three following positions. In each, the distance between your vehicle and the vehicle you stopped should be enough to allow you to read the license plate on the stopped vehicle, usually one to two car lengths.
1. The In-line Position: Position your vehicle behind the stopped vehicle with your front wheels turned out. Advantages of the in-line position are
   a. Gives officers in two-officer units more protection.
   b. Illuminates the suspect vehicle better at night.
   c. We recommend this position if you plan to approach the stopped vehicle from the right or passenger side.

2. Offset Position: Offset your vehicle to the left of the stopped vehicle with your wheels turned out. This allows you to illuminate the driver sides of the car and provides protection from traffic as you make you approach and contact with the driver.

3. Angled Position: Angled towards the center of the road. This position is not recommend for night stops because you lose the use of you headlights and/or take-down lights. In addition, your highlights shine into oncoming traffic. In this position, your wheels should remain straight. Advantages of the angled position are
   a. The engine block gives the primary officer more protection.
   b. There is more of the officer's vehicle between the officer and the suspect vehicle.

Turning your front wheels of your vehicle towards traffic during in-line or offset positioning allows the wheel and tire to protect your legs from hostile fire. In addition, if another vehicle strikes your vehicle from behind during the stop, the turned wheels may direct your vehicle away from the area where you will be working.

You should leave the engine of your vehicle running and place the transmission in park. Leaving the engine running guarantees that the vehicle will be ready to pursue the stopped vehicle if the driver tries to flee. Put the emergency brake on for safety.

The Contact Phase

The contact phase of any vehicle stop begins after the officers have pulled over the vehicle they are stopping. Remember that the officers should properly position their vehicle(s) in relation to the vehicle they have stopped. Once properly positioned, the officer(s) will determine how he or she will approach the stopped vehicle. Tactical considerations in this decision include:

1. Environmental factors such as time of day, lighting, roadway conditions, and the presence of hazards.
2. The presence of bystanders.
3. The number of occupants in the stopped vehicle.
4. Known criminal history or threat level of the driver or other occupants.
5. Information received from the dispatcher before making the stop (vehicle or tag may be reported stolen or the vehicle may be listed as being utilized during the commission of a crime)
6. Whether or not backup units are available.

When initiating the contact phase of the risk stop, check for traffic before exiting your vehicle. Check the rearview and side-view mirrors and take a quick look over your left shoulder for any oncoming traffic. Once safely out of your vehicle, quietly close the door to the first notch.

If you have a partner and you have a portable radio, your partner can move forward and take a position to the right rear side of the stopped vehicle. This is a good tactic at night when the occupants of the stopped vehicle do not know there is a second officer present.

If a one-officer unit is making the stop, the officer must observe the driver and occupants as he or she approaches the stopped vehicle.

If a two-officer unit is making the stop, the primary officer observes and makes contact with the driver while the secondary officer watches the actions of the occupants and looks for potential threats from bystanders.

Use your PA system to ask the driver to turn off the vehicle. At night, use the PA system to ask the driver to turn on the dome light in his or her vehicle.

The primary officer approaches the stopped vehicle on driver's side, as follows:

1. For safety, the officer(s) should not stand between their vehicle and the stopped vehicle. Later in the stop, the officer(s) should also not have the occupants of the stopped vehicle stand in this area either. Another vehicle could collide with the law enforcement vehicle injuring or killing anybody in front of it.

2. As you approach violator’s vehicle look for the following:
   a. License plate or registration tab expired or altered.
   b. Trunk lid partially open (be especially careful if the trunk lock is missing).
   c. The backup or brake lights coming on (the back-up lights coming on might show that the driver put the transmission in reverse and the brake lights coming on could mean the driver is shifting out of park).
   d. "Print" the trunk of the vehicle and check the trunk lid to ensure that it is closed and locked. Your handprint on the trunk lid will tie you to that specific vehicle in the event the driver decides to drive off or you are injured or killed during the stop.
   e. As you move forward of the trunk, watch occupants of the vehicle through the rear window and, if there is an someone in the rear seat:
      o Stop at the trailing edge of rear door and look through rear and side window(s).
      o Check the occupant(s), rear seat, floor, and rear window ledge for obvious weapons or contraband.
f. If there is an occupant in the rear seat of the vehicle, you should not position your self forward of the rear-seat. A decision to pass an occupied rear seat is a judgment call based on the situation. Control the rear occupants' hands by having them place them on the back of the front seat. This allows you to watch their hands with your peripheral vision while making contact with the driver.

When dealing with multiple occupants within a vehicle one option is to have the driver get out of the vehicle. Have them bring the keys with them. Make contact with the driver behind and to the side of the stopped vehicle. Another option is to have all occupants exit the vehicle for officer safety.

If there are no occupants in the rear seat, check the area of the rear seat and floor for weapons or contraband and then move forward to the trailing edge of the driver-side door. Do not position yourself forward of the trailing edge of the driver side door.

Identify yourself to the driver of the stopped vehicle and give the reason for the stop. Ask driver of the stopped vehicle for specific identification like a driver license, vehicle registration, and insurance information. Have the driver remove the identification from the wallet. Never accept the driver's wallet. Check that the photo on the license matches the appearance of the driver.

You may direct the driver to turn off the vehicle. You should have the driver put their hands on the steering wheel.

If you are going to return to your vehicle to run checks or issue a citation, do not lose sight of the occupants of the stopped vehicle. Tell the driver and occupants to remain in their car. Stay alert so that you can retreat or take cover quickly should the need arise. Stay alert so that if the stopped vehicle attempts to flee you can pursue.

After you run the vehicle and license checks, return to the stopped vehicle. Your approach should be similar to your initial approach and you should observe the same safety precautions.

An alternative method of making contact with driver is to approach on the passenger side of the stopped vehicle. This approach allows the officer to approach on the side of the stopped vehicle away from traffic and reduces the possibility of passing vehicles hitting the officer. This approach adds the element of surprise because the driver of the stopped vehicle usually expects the officer to approach on the driver-side.

Should the stop escalate in violence the officer may have more avenues of escape, more cover, and more concealment on the passenger side (e.g., guard rails, trees, ditches, etc.). To make this type of approach, walk around the rear of your vehicle to its passenger-side (do not walk between your vehicle and the stopped vehicle). Approach the stopped vehicle slowly as you make your approach on its passenger-side.

Use the same procedures and precautions as with the driver-side approach. You will have to talk louder or tap on the window to get the attention of the driver. The driver will have to lean or slide over the seat to hand you his or her identification. This tactic is very effective in a night
vehicle stop. One disadvantage in this tactic is that the driver is on the opposite side of the vehicle and you will need to reposition yourself to effect an arrest.

A third alternative method of contacting the driver of the stopped vehicle is to tell him or her to come back to the your vehicle. This is a good tactic to use when dealing with multiple occupants in a vehicle, when you stop a vehicle with darkly tinted windows, or when you stop a paneled van.

When you tell the driver of the stopped vehicle to come back to your vehicle, you should follow these basic procedures:

1. Move to the right side of your vehicle, away from traffic.
2. Request the driver to step out of his or her vehicle, with their driver’s license, registration, and insurance card, and come back toward your vehicle.
3. Tell the driver of the stopped vehicle to stand at the right-rear side of his or her vehicle or near the right-front fender of your vehicle.

Do not allow the driver to stand between his or her vehicle and your vehicle. Maintain a proper safety zone between you and the driver of the stopped vehicle. If there is a sidewalk, both the driver of the stopped vehicle and the officer should stand on the sidewalk. Keep the driver of the stopped vehicle facing you with his or her back toward the stopped vehicle. This allows the officer to observe the driver of the stopped vehicle, any occupants still in the stopped vehicle, and the stopped vehicle itself. Control of the driver of the stopped vehicle is particularly important at this stage, especially if there are other occupants in the vehicle. Officer safety is your primary concern.

Remember too; be aware of where your violator is when your dispatcher has information for you. You do not want the violator to overhear your dispatcher giving you critical information on them. When the dispatcher has information for you tell them to standby then separate yourself from the violator. Once you are clear, ask the dispatcher to transmit the information.

If you are going to affect an arrest after completing the driver and vehicle checks, you should plan how you will accomplish the arrest safely.

If you have a partner, plan whether or not your partner will approach the vehicle with you.

If you do not have a partner, consider the risk of making the arrest alone. If you feel that the risk is controllable and that you can safely arrest the driver go ahead and do so.

Call for a backup unit if you feel you need assistance in making the arrest safely.

If a the stop escalates to a high-risk stop, consider the following emergency procedures:

1. Put as much distance between you and suspect as quickly as possible.
2. Look for a position of advantage that will give you a tactical advantage. Remember you may not always be able to get back to the safety of your vehicle.
3. If you can reach your vehicle, try to retreat by backing away from the threat but be sure to straighten the front wheels of your vehicle before backing up.

4. Communicate with your partner and your dispatcher immediately when you recognize the threat.

**The Closure Phase**

The threat involved in a vehicle stop does not end until the officer releases the stopped vehicle. After completing the vehicle stop, the officer should help the driver maneuver the vehicle safely back into traffic. The stopped vehicle should depart before you do.

You may have to direct traffic to help the vehicle safely enter the traffic flow.

In summary, be professional, maintain your composure and do not overreact to the situation. Maintain visual observation of the driver of the stopped vehicle along with all occupants and be aware of potential threats around the area of the stop. Do not let the driver or any of the occupants of a stopped vehicle approach you while you sit in it – get out of your vehicle. The risk traffic stop deserves all of your attention from the preparation phase through the closure phase.
This study guide is designed to provide the law enforcement Explorer with basic principles. The guide is not all inclusive, and does not delineate specific techniques that must be used. The focus of this guide is to provide principals that are flexible and adaptable to various law enforcement situations.

Following the basic principals in this guide should allow the law enforcement Explorer to successfully handle various law enforcement training activities safely and professionally.

The study guide was developed through the cooperation of International Association of Chiefs of Police and the Federal Law Enforcement Training Center.
STUDY GUIDE – White Collar Crime Scenario

This scenario is designed to test individuals on the following law enforcement tactics and techniques.

1. **Raid Preparation**

   The team must meet as a group before conducting the raid and executing the search warrant. This meeting is to determine what type of building will be entered, anything unique about the building, occupants of the building, any special needs to gain access, identify points of escape and ensure the points of escape are covered by law enforcement personnel. This meeting must take place in an isolated area away from the raid site.

   *What equipment would you have available to you during a daytime raid?*

   - Bull Horn
   - Flashlights
   - Containment Tools (pepper spray, taser, baton, handcuffs)
   - Battering Ram
   - Cell Phone / Portable Radios
   - Strategically placed uniformed officers

2. **Intelligence Gathering**

   As mentioned in the team instructions, an intelligence officer was watching the facility for the last 24 hours. It is his/her job to brief you on everything, which transpired within that time frame and any other information they might have collected prior to the last 24 hours. Most importantly is suspect information, number of people on the premises and if there are any weapons known to be on the premises. **Note:** Any raid should be conducted with the assumption there are weapons available to the suspects, whether observed or not.

   *What other information would you want from your intelligence officer?*

   - Phone numbers of target location
   - Vehicles owned / used by target or associates
   - Associates of target (including photos and physical descriptions)
   - Any alias or phony identities used by target or associates
   - Other vehicles / people of interest
   - Unusual / suspicious deliveries to building
   - Other building occupants / businesses

3. **Inspection of Search Warrant and Associated Documents**
Though the search warrant and other associated documents were reviewed prior to leaving the magistrate or judge’s office, it is good practice to review them again before executing the search warrant. Items to be aware of is ensuring the descriptive information for the raid is accurate. Raiding and executing a search warrant at the wrong residence or commercial business has been known to happen. Not only is this an embarrassment and liability to the agency, it can also be a deadly situation to unsuspecting and innocent citizens.

The search warrant should also clearly state what is being searched for and the search team MUST be briefed on where said items may/can be found. Searching in areas where items identified in the warrant cannot be placed should be avoided. For example, your search warrant indicates you are looking for a 56” big screen television and you are rummaging through a sock drawer. If you cannot articulate the purpose for being in the drawer, any other seized items may not be acceptable to the court. Of course, it could be articulated a search of the drawer was conducted to find the remote control for the television.

What other information would you want to know about the search warrant?

- Address
- Description of location
- Items to searched for and seized
- Date and time search warrant issued

4. Entry into the Building

Entry into the building should be quick and fast. Entry people should immediately take cover positions to allow the remaining team members to enter quickly and safely. In a high-risk entry situation, detectives should use (if available), their agencies tactical entry team. These officers are specially skilled, trained and equipped to make such entries and can neutralize any suspects who may wish to be combative either through physical contact or the use of firearms. In the event such a team is not available, the detectives MUST ensure it is very clear who they are by wearing appropriate badges and other markings identifying them as law enforcement officers. In addition, loud verbal commands must be used to alert the suspects of your identity. Anything less may develop into a violent confrontation, with the suspect claiming he did not know you were a law enforcement officer, but instead felt you were an intruder.

How would you expect your team to be dressed for such an operation?

- Properly marked raid jackets
- Official agency badge
- Ballistic vest
5. **After the Building is Secure**

Once the building is secure and all suspects are either in your control or not in the building, the search may begin. Team members should have been given search assignments to ensure all proper locations are closely examined. Since in this case you are dealing with an organization possibly involved in terrorist financing and in addition one of your suspects had some involvement in a bombing conspiracy, it may be advisable to have an EOD (Bomb) Tech available for any suspicious items. In all probability the search warrant will identify and authorize seizure of papers, documents and other items or methods of recording data. It is required that an individual responsible for the premises be given a copy of the search warrant. If no one is available then a copy should be left in plain view.

*What other specialty units would you consider having on the scene or available?*

- Canine unit for apprehension and/or bomb or drug identification
- Fire and EMS units
- EOD (bomb) technician

6. **Results of Search**

The results of the search reveal documents that clearly link this facility with a known charity providing funding to international terrorism. In addition, other contraband is found on the premises. As you know, law enforcement must exercise caution when collecting, preserving and packaging evidence obtained at a crime scene or as a result of a search warrant. Precise steps must be taken to adequately collect and preserve what has been found at this scene. Documents should be collected and secured in large envelopes. If at all possible, documents and other evidence should be carefully handled using latex gloves and/or tweezers. This will ensure that there is no contamination by law enforcement personnel and preserve any evidence, which might be on the documents but not visible to the naked eye.

*What other types of collection equipment would you have with you?*

- Crime scene search kit
- Camera (both still and video)

7. **Leaving the Scene**

Once the search is complete, all evidence identified and seized should be removed. It is not the goal of law enforcement, depending on the what and where to be searched, that a residence or business be torn apart. It is law enforcement's responsibility to conduct a search with as little destruction and turmoil as possible. Though the search warrant gives the law enforcement officer
the authority to enter, discover and remove property, evidence or contraband from another individual or their premises, it does not give authority to arbitrarily destroy, damage or harass the suspect or other individuals.

Upon conclusion of the search, the following should be completed/considered:

- Ensure the search site is secure if there is no one there
- A full report must be filed
- Ensure all evidence is secured, transported and stored properly
- Ensure the “chain of custody” remains intact
- Notify PIO/media liaison of the action