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EXTERNAL RELATIONS SUBJECTS

COURSE CONTENT INFORMATION

LESSON PLAN OUTLINES

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STATE OF MICHIGAN
DEPARTMENT OF STATE POLICE
LAW ENFORCEMENT OFFICERS TRAINING COUNCIL

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EXTERNAL RELATIONS SECTION

LESSON PLANS

A Report to
The
Michigan Law Enforcement Officers Training Council
In Accordance with
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by

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LIQUOR LAWS AND ENFORCEMENT

I. Liquor Violations and the Prevailing Michigan Laws Regarding Them.

A. The ownership or possession of any of the following articles is a violation of law:

1. Unregistered stills or distilleries are in violation.

2. So are non-taxed distilled spirits such as alcohol, whiskey, brandy, rum, vodka, gin, and cordials.

3. Also fermented mash which is usually a grain, sugar, water and yeast mixture.

4. Raw materials including sugar, grain, or yeast, when intended for use in the manufacturing of illegal liquor are violations if in possession.

5. If one is in the possession of containers such as kegs, barrels, cans, jugs and other containers with the intent of using such articles for storage of illegal liquor, the possession is a violation.

B. The police role in the investigation of liquor violations.

1. Law enforcement agencies are concerned with the investigation, prevention, and detection of violators of the internal revenue laws and state laws that relate to the manufacturing, sale, and transporting of illegal liquor.

2. The purpose of liquor law enforcement is to enforce the illegal liquor laws because the seizures of illicit distilleries and arrests of the operators save an untold number of lives of those who otherwise might die or become seriously ill from drinking mixtures which are not fit for human use.

a. Another reason for importance is that the production of non-taxed paid liquor defrauds the federal as well as the state government of millions of dollars in tax-revenue each year.

b. The profits from illegal liquor permit criminal groups to finance other illegal activities.

C. The distilling process used in making spirits.

1. The process used in the manufacturing of non-tax spirits at a large, elaborate unregistered alcohol plant is similar to that required to produce spirits on a kitchen stove.

a. Mash which is usually a grain, water, sugar and yeast mixture is allowed to ferment.

b. At the fermentation peak, the point at which the mash contains the greatest percentage of alcohol by volume, heat is applied to the mash.

c. When the alcohol vapor rises and is condensed, whiskey or alcohol, depending on the type of still used is the product.

2. There are many sizes and types of illicit distilleries that exist. Each gallon of non-tax paid spirits produced, results in a tax fraud on the United States Government of $10.50.

D. Clues in locating an unregistered distillery would include unusual activity in a private residence, farm buildings, warehouses or vacant manufacturing plants and wooded areas.

1. Distilleries are frequently found in unexpected spots and there is the possibility that a distillery could be located in a private residence.

2. Water and electric meter readers might be able to furnish some evidence of unusual activity or equipment in a particular home or building you suspect.

3. The odor of fermenting mash can be described as full, ripe, yeasty, and not unpleasant. The odor is somewhat similar to that of home brew and beer, a decaying sawdust pile or rising bread dough.

4. Coke, which gives intense heat with little smoke, is a favorite fuel of "moonshiners," especially those operating large distilleries in rural areas. Therefore, be on the lookout for the odor of coke gas outside industrial areas.

5. Large and unusual purchase of sugar or numerous small purchases can be made by one person.

a. Though sugar is not absolutely essential in preparing mash for fermentation and distillation, it is used at 99% of the distilleries.

b. Sugar greatly increases the alcohol content of mash, making the subsequent yield of non-tax paid spirits higher.

6. Purchase of yeast in large quantities should be checked for the same reason.

7. Signs of unusual automobile or truck travel into wooded areas to vacant farms or apparently unoccupied buildings in urban areas might also be an indication of illegal activity. Equipment necessary for a reasonably large size still are: fermenter vats or barrels, boiler, and still fuel.

8. Though illicit distilleries have been found in buildings in close proximity to police stations and downtown areas, distilleries are usually located in remote wooded areas and may be spotted by the abnormally well-worn appearance of infrequently travelled roads or saw mill roads.

9. Since scrap timber is handy as a fuel, small distilleries are frequently set up near old saw mills. Those sites in the vicinity of creeks and branches are frequently chosen.

10. Unknown or unidentified vehicles appearing around suspected premises should be checked.

    a. When you suspect an illicit distillery is located at a certain farm, private dwelling or urban building, note the license numbers of the cars and trucks parked on the premises.

    b. Check the past history of the registered owner; it might prove to be an additional lead in your investigation.

11. The presence of known violators around previosly legitimate places should also be checked out.

    a. Be suspicious if a known violator frequents what in the past has been the home of a law-abiding citizen or a reputable place or business.

    b. Try to discover why he goes there, if the property has changed hands, etc., in order to determine if it is now being used to conceal a distillery or to store non-tax paid spirits.

12. Presence of spent mash in creeks and branches suggests the strong possibility of a still in the vicinity.

    a. Violators operating in rural areas have the problem of disposing of spent mash.

b. In wooded areas, spent mash is usually dumped into the creek or stream below where water is obtained for use at the still. After a time its presence is readily detected as a thick tough foam adhering to driftwood or obstructions in the stream, floating in eddies or by the ropy appearance of the water.

c. If the distillery is located on a farm, spent mash is often disposed of by dumping it into an unused well, cistern, or purposely-dug pit; by emptying it into hog lots, or chicken yards.

E. Informers.

1. The location of an illicit distillery or storage point for illicit spirits can often be ascertained through the use of informers.

2. The Alcohol and Tobacco Tax Division is authorized to pay private citizens for information leading to the seizure of an unregistered distillery or non-tax paid spirits or vehicles transporting same.

F. The Police and the Sheriff should attempt to secure the cooperation of possible suppliers of materials essential to illegal distillery operations. This might be accomplished in the following ways:

1. Have dealers in such substances as sugar, syrup, molasses, yeast, grain, and grain derivatives voluntarily refuse to make sales to known violators.

2. Exhort dealers to report certain data regarding suspicious purchases.

G. Enforcement of other types of liquor violations.

1. Another form of illegal liquor is the sale of taxed liquor by unlicensed persons.

a. Within most municipalities there are establishments (houses, restaurants, and poolrooms) which sell whiskey by the glass or bottle without a license. They may be a:

1) House

2) Restaurant

3) Poolroom.

4) Taxicab

5) Shoe shine parlor

6) Dry cleaners

b. These establishments are hard to find and are scattered throughout many cities.

2. Frequently it is possible for an officer to make a case against the seller.

a. Use of paid informants who will testify in court as to the purchase of some liquor by the unlicensed seller is most frequent successful method.

b. Another method of obtaining evidence could be by the officer's gaining entrance to one of these establishments and making a purchase himself.

II. The Michigan Law Regarding Illegal Liquor Manufacture and/or Sale Is Covered by:

The Public Acts of 1933 which makes it lawful to manufacture for sale, sell, offer for sale, possess and/or transport any alcoholic liquor, subject to conditions and limitations provided for in this act and under restrictions enumerated by a liquor control commission of the State of Michigan.

The Public Act of 1951, No. 219 defines and classifies the following alcoholic liquors which are covered by Stat. Ann. 18.972; C.L. 1948:

A. "Alcoholic liquors" to include any spirituous, vinous, malt or fermented liquor, liquids and compounds, whether or not medicated, proprietary, patented, and by whatever name called, containing one-half of one per cent or more of alcohol by volume which are fit for use of beverage purposes. The commission shall define and classify alcoholic liquid according to their alcoholic content as belonging to one of the varieties hereinafter defined.

B. "Beer" to mean any beverage obtained by alcoholic fermentation of an infusion or decoction of barley, malt, hops and/or other cereal in potable water.

C. "Wine" to mean the product made by the normal alcoholic fermentation of the juice of sound, ripe grapes, or any other fruit with the usual cellar treatment, and containing not more than sixteen per cent of alcohol by volume. The term "wine" shall

include fermented fruit juices other than grapes, and/or fortified or rectified products containing alcohol of not more than sixteen per cent volume.

D. "Spirits" to mean any beverage which contains alcohol obtained by distillation, mixed with potable water and other substances in solution, and includes, among other things, wine containing an alcoholic content of over sixteen per cent by volume.

E. "Alcohol" to mean the product of distillation of fermented liquid, whether rectified or diluted with water or not, whatever may be the origin thereof. It does not mean ethyl and/or industrial alcohol, diluted or not, that has been denatured or otherwise rendered for beverage purposes."

III. Rules and Regulations of the Liquor Control Commission of the State of Michigan.

A. Rules and regulations pertaining to sales in general.

1. Sales to minors, consumption, and conduct by licensee and patrons.

a. "No licensee shall sell or serve any alcoholic liquor to any person who shall not have attained the age of twenty-one years."

b. "No licensee shall permit any person under the age of twenty-one years to consume any alcoholic liquor upon his licensed premises."

c. "Sale" to include exchange, barter or traffic, furnishing or giving away any alcoholic liquor.."

2. Intoxicated person.

a. "No licensee shall sell or serve any alcoholic liquor to any person in an intoxicated condition."

b. "No licensee shall permit any person in an intoxicated condition to consume any alcoholic liquor upon the licensed premises."

c. "No licensee shall be in an intoxicated condition upon the licensed premises or allow an intoxicated person to frequent, loiter or be employed upon the licensed premises."

3. Improper conduct.

   a. "No licensee, his agent, or employee shall engage in any illegal occupation or illegal act on or beyond his licensed premises."

   b. "No licensee, his agent, or employee shall refuse, fail or neglect to cooperate with any law enforcement officer in the performance of such officer's duties to enforce the provisions of Act 8, Public Acts of Michigan, 1933 (Ex.Sess.) as ammended and the Rules and Regulations promulgated thereunder."

   c. "No licensee, his agent, or employee shall allow in or upon his licensed premises any improper conduct, disturbances, lewdness, immoral activities, indecent, profane or obscene language, songs, entertainment, literature, pictures or advertising material, or cause to have printed or distributed any lewd, immoral indecent or obscene literature, pictures or advertising material."

   b. "No licensee, his agent, or employee shall suffer or allow in or upon his licensed premises the annoying or molesting of patrons or employees by other patrons or employees, nor any accosting and/or soliciting for immoral purposes."

   e. "No licensee, his agent, or employee shall permit his licensed premises to be frequented by or to become the meeting place, hangout, or rendezvous for known prostitutes, homosexuals, vagrants, or those who are known to engage in an illegal occupation, or business; provided, that no licensee shall be disciplined hereunder until he has been warned by the Commission or the law enforcing agency having jurisdiction thereof, and has failed for a period of not more than five days to comply with the requirements of this section."

4. Sales on Sunday - consumption.

   a. "No licensee shall sell, give away or furnish and no person shall knowingly and wilfully buy any spirits between the hours of 2:00 a.m. and 12:00 o'clock midnight on any Sunday..."

   b. "No licensee shall sell or serve any alcoholic liquor (beer, wine, or spirits) between the hours of 2:00 a.m. and 12:00 noon on any Sunday.

c. "No licensee shall permit the consumption of spirits on his licensed premises between 2:30 a.m. and 12:00 midnight on any Sunday, nor the consumption of beer or wine under 16% alcohol by volume between the hours of 2:30 a.m. and 12:00 noon on any Sunday..."

5. After legal closing hour (on premise licenses)

"No licensee shall sell any alcoholic beverages after 2:00 a.m. No licensee shall permit his premises to be occupied by persons other than himself or his bona fide employees from 2:30 a.m. to 12:00 noon on any Sunday or from 2:30 a.m. to 7:00 a.m. on any other day, unless such licensee shall first obtain a permit approved by the chief of police, sheriff or other chief law enforcing officer in his community and the Liquor Control Commission..."

6. Sale on Election days.

a. "No licensee or other person shall sell at retail, give away or furnish and no person shall knowingly and wilfully buy any alcoholic liquor other than beer and wine on any primary election day, general election day or municipal election day until after the polls are closed. The Attorney General has ruled that school elections are considered in this category."

7. Sales on Christman Eve, Christmas Day and December 26.

"No licensee, or any other person, shall sell at retail, give away or furnish and no person shall wilfully buy alcoholic liquor (beer, wine or spirits) between the hours of 9:00 p.m. on December 24 and 7:00a.m. on December 26. When December 26 falls on Sunday, the hours of closing hereunder shall be extended to 7:00 a.m. on December 27. "

8. Sale to registered truck drivers.

"No licensee shall sell, give or furnish any alcoholic beverage to a registered truck driver employed by a licensed manufacturer, wholesaler or importer while such truck driver is on duty or in the course of his employment."

9. Employees mingling with patrons.

"No licensee shall permit any person engaged in the serving of food or alcoholic liquor (beer, wine or spirits) in his establishment to eat, drink or mingle with the patrons."

10. Gambling.

"No licensee shall allow upon his licensed premises, slot machines, pin ball machines, baseball, football, golf or hockey machines, electric ray machines, baffle boards, punch or pull boards, dice games, or any gambling or gaming devices or paraphernalia of any nature, type or description, machine or apparatus, or gambling or game of any kind whatsoever."

"It shall be the further rule of the Commission that the presence of any such device, machine, or apparatus upon the premises of any establishment licensed by the Commission shall be prima facia evidence of a violation of this rule.

11. Spirits on premises licensed for sale of beer and wine only.

"No licensee shall sell, offer or keep for sale, furnish or possess any alcoholic liquor except that which he is authorized to sell by his license."

"...No spirits shall be consumed in any place licensed under this act to sell beer and/or wine and not licensed to sell spirits."

IV. Regulation Pertaining Only to Specially Designated Distributor Licenses (SDD).

A. Delivery to purchase by SDD license holder.

"Specially Designated Distributors shall make no deliveries of alcoholic spirits from their stores to the residence or other location of a purchaser, unless the purchaser thereof shall have appeared and placed such order in person and made payment for same at the licensee's establishment. Deliveries shall not be made into the hands of a person less than 21 years of age..."

B. Open bottles of liquor on premises of SDD license holder.

"Specially Designated Distributors shall not permit on their licensed premises any bottles of alcoholic liquor on which the seal has been broken."

C. Hours and days of operation for Special Designated Distributors.

"No Specially Designated Distributor shall sell at retail, give away, furnish or transfer possession of any spirits between the hours of 11:00 p.m. and 7:00 a.m. on any day; provided, that

spirits shall not be sold at retail, given away or furnished on any Sunday, nor on any election day, general election day or municipal election day until after the polls are closed; and provided further, that spirits shall not be sold at any otherttime when the sale of such spirits is prohibited in conformity with the provisions of Act. No. 8, P. A. 1933 (Ex. Sess.), as amended, or the Rules and Regulations promulgated thereunder.

V. Regulations Pertaining Only to Specially Designated Merchant Licenses (SDM)

A. Open bottles of beer or wine on premises of SDM license holders.

"Specially Designated Merchants shall not permit on their licensed premises, any bottles of beer or wine which have been opened; nor shall such licensee open or uncap bottles for purchasers."

B. Consumption on premises.

"Specially Designated Merchants shall not permit the consumption of beer and/or wine on their licensed premises."

C. Delivery to purchaser.

"Specially Designated Merchants may make deliveries of the alcoholic liquors permitted to be sold under the terms of their license from their stores to the residence or other locations of the purchaser; provided, however, that no such delivery shall be made into the hands of a person less than 21 years of age nor payment therefore accepted from such person."

VI. General Information - Law Enforcement Officers.

A. "No person who holds or whose spouse holds, either by appointment or election, any public office which involves the duty to enforce any of the penal laws of the United States of America, or the penal laws of the State of Michigan, or any penal ordinance or resolution of any municipal subdivision of the State of Michigan, except civil defense volunteer policemen, shall be issued any license, nor shall a person have any interest, directly or indirectly, in any such license."

B. Penalties, intent for violations of the act.

1. "Any person, other than persons required to be licensed under this act, who shall violate any of the provisions of this act shall be guilty of a misdemeanor."

2. "Any licensee who shall violate any of the provisions of this act, or any rule or regulation of the commission promulgated hereunder, shall be guilty of a misdemeanor, punishable by imprisonment in the county jail not more than six (6) months or by a fine of not more than five hundred ($500) dollars, or both, in the discretion of the court."

3. "Any person, who shall do any act for which a license is required under this act, without first obtaining said license or any person who shall sell any alcoholic liquor in any country which shall have prohibited the sale of alcoholic liquor in any country which shall have prohibited the sale of alcoholic liquor under the provisions of section fifty-seven (57) hereof, shall be guilty of a felony, punishable by imprisonment in the state prison not more than one (1) year or by a fine of not more than one thousand ($1,000) dollars, or both, in the discretion of the court."

4. "It is the intent of the legislature that the court, in imposing punishment under the provisions of this section, should discriminate between casual or slight violations and habitual sales of alcoholic liquor or attempts to commercialize violations of this act or any of the rules or regulations of the commission promulgated hereunder."

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COMMUNICABLE DISEASES

I. Definition and Scope of Communicable Diseases.

A. Communicable diseases are defined as those diseases which can be transmitted from one individual to another.

B. The means of transmission depend on the type of germs causing the disease. Germs may be transmitted through direct contact or indirectly through contaminated water and food.

II. Special Care Should be Exercised for Some Diseases.

A. In any dealings with persons who are carriers of communicable diseases, the officer should take whatever precautions advisable for that particular disease.

B. More precautions should be taken in degree to the hazards involved.

C. The hazard of the disease is rated by:

1. The disease itself!

a. Is it fatal?

b. It is extremely serious?

2. The method of transmission!

a. Through bodily contact.

b. Through breathing.

c. Other ways.

3. The availability of a quick medical cure for infection.

D. In the more infectious diseases, the patient or carrier may be isolated or quarantined.

III. Agencies to Assist in the Control of Communicable Diseases.

A. The local health department is the most active and available center for assisting and coordinating the control of communicable or infectious diseases.

B. The local health department provides many services for the community:

1. Examine and establish purity of water supply.

2. Supervise disposal of sewage.

3. Inspection of food and places where food is sold, processed, dispersed, or cooked.

4. Assists in the control of communicable diseases and certain non-communicable diseases.

5. The dissemination of health information.

6. Provides laboratories for diagnostic services.

7. Inspect places where animals or animal foods are prepared for human consumption.

C. The state maintains the Michigan Department of Public Health to coordinate health services on a state-wide basis.

D. The Michigan Department of Public Health is responsible for enforcing compliance with public health laws.

E. The Michigan Department of Public Health performs certain minimum functions, some of which follow:

1. Study state health problems and plan for their solution.

2. Coordination and technical supervision of local health activities.

3. Coordinate financial aids to local police departments for various programs.

4. Recommend the enactment of disease and sanitation regulations.

5. Establish minimal standards for local health departments.

6. Maintain a central or branch laboratories for diagnostic, sanitary, chemical, biological, and research activities.

7. Collection, tabulation and analysis of vital statistics.

8. The collection and distribution of information concerning preventable diseases.

9. The maintenance of a safe water supply.

10. The control of waste disposal.

11. Establishment and maintenance of minimal standards for milk sanitation.

12. Provision of services to aid industry in the control of occupational hazards.

13. Establish qualifications for health personnel.

14. Formulation of plans in cooperation with other organizations for meeting all health needs.

IV. Major Types of Venereal Diseases.

A. Venereal diseases are those diseases having to do with sex or sexual intercourse or transmitted by sexual intercourse.

B. Venereal diseases are contagious, affecting body tissue. It usually may be cured medically, particularly in the early stages of infection.

C. The venereal disease called gonorrhea.

1. The definition of gonorrhea.

a. Gonorrhea is a venereal disease in which there is a contagious, pus-producing inflammation of the genital mucous membranes caused by a microorganism.

b. It is the most common form of venereal diseases.

2. The contagion of gonorrhea.

a. Gonorrhea is usually transmitted through an act of sexual intercourse.

b. In adults, infection through non-sexual contacts is rare, because the gonococci die quickly at a temperature lower than the body or in the absence of moisture.

c. Gonorrhea in an epidemic form may be found in young girls transmitted through non-sexual contacts.

3. The danger of gonorrhea.

a. Adults who have apparently been cured may still be infectious.

b. Gonorrhea infection is thought to be the most frequent cause of diseases of the female reproductive organs.

c. The incubation period of gonorrhea is usually three to ten days, but may be longer.

4. The symptoms of gonorrhea.

a. In the male, gonorrhea infections usually begin in the anterior uretha causing inflammation and painful urination. Pus is produced in amounts proportionate to the stage of the disease. Complications in the male may cause sterility.

b. In the female, the external genitalia becomes infected first and if not controlled may spread to the reproductive organs. Complications may cause sterility with the fallopian tubes becoming sealed.

c. Both sexes may experience inflammation of the bladder, rectum, mouth, joints, kidneys, bones, heart valves, spinal cord membrances, and blood poisoning.

d. Gonorrhea infection of the eyes may occur in adults but most frequently occurs in newborn infants.

5. The treatment of gonorrhea.

a. Treatment by a physician is mandatory.

b. Sulfonamide is used in the cure of gonorrhea.

c. Syphilis may be masked in diagnosis by gonorrhea.

d. Terramycin and aureomycin are also drugs used in control of gonorrhea. There is no one drug which cures all forms of gonorrhea.

6. The prevention and control of gonorrhea.

a. There is a need for public health education on the disease, emphasizing prompt treatment of the disease by a physician.

b. The use of prophylactic devices and a thorough cleansing of the exposed parts with soap and water, and the area thoroughly dried are of great value in the prevention of the disease.

c. A diluted solution of silver nitrate is applied to the eyes of the newborn as a prevention aganist the disease.

D. The venereal disease call syphilis.

1. The definition of syphilis.

   a. Syphilis is a venereal disease caused by a cork-screw shaped microorganism which infects body tissue.

   b. Syphilis is sometimes called lues and is also referred to as:

      1) Hard chancre a skin lesion of the primary stage of syphilis.

      2) Soft chancre or chancroid caused by another form of bacteria.

      3) Great pox distinguishes the skin eruption of the second stage.

   c. Syphilis is widespread today and is considered a major scouge of mankind with more than 500,000 new cases reported each year.

2. Contagion of syphilis.

   a. In 99.9% of all cases of syphilis, the disease is transmitted through sexual means.

   b. In .1% of all syphilis cases reported, the disease is transmitted through non-sexual means.

3. Danger of syphilis.

   a. Persons apparently cured of the disease have transmitted the disease.

   b. Syphilis is the only venereal disease transmitted congenitally from mother to unborn offspring and may cause abortion or stillbirth to result.

4. Symptoms

   a. Within a few hours after exposure, the syphilis spirochete penetrates the skin or mucous membrane and enters the blood stream and tissues.

   b. Symptoms appear only after 10, but before 90 days, with the average being about three weeks.

   c. Syphilis is divided into three stages of symptoms.

D

b. Avoidance of exposure to infected persons is of paramount importance.

c. If exposure to an infected person does occur, then prophylactic measures should be instituted immediately.

d. Venereal diseases are kept to a minimum with strong educational programs and chemical and mechanical prophylactic measures adopted, the spread of the disease is kept to a minimum.

e. To control the spread of syphilis.

1) Those infected must be located.

2) Those infected must receive prompt treatment.

3) All persons contacted by the infected person should be examined.

4) Blood tests before marriage and early in pregnancy for syphilis.

5) Massive public education program.

f. Congenital syphilis can be prevented by treatment of the pregnant woman, even though the treatment may not cure the mother.

V. The Problem of Hydrophobia (Rabies).

A. Definition of hydrophobia.

1. Hydrophobia or rabies is a virus produced disease.

2. It is carried by animals.

3. It is transmitted to humans through bites.

4. It causes swift destruction of nerve cells in the hindbrain.

B. Body regions which may be diseased.

1. The disease seriously affects the brain's nerve tissue.

2. The disease usually affects the spinal cord.

3. The disease may affect other nerves.

C. Contagion or spread of disease.

1. The disease is usually spread through dog bites.

2. Bites by other animals may also transmit the disease, animals such as squirrels, bats, skunks, wolves, etc.

D. Symptoms of the disease.

1. The incubation period is usually four to eight weeks, but may be dormant for a year.

2. When the bites are about the face, head and neck, the incubation period may be less, particularly when the bites are deep.

3. Primary symptoms will be a soreness or numbness of the area of the bite. This is followed by insomnia, headaches and nausea.

4. Mild spasms and hoarseness in the throat area, with breathing becoming increasingly difficult.

5. Convulsions and a strong desire for water - the hydrophobia - occur. At the site of water, painful spasms grip the throat.

6. Behavior then becomes wild and delerium sets in.

7. In a day or so the patient lapses into a quiet state that progresses into death.

E. Treatment of hydrophobia.

1. Once the disease sets in, medication will only lighten the spasms.

2. After being bitten by a rabid animal, the victim can prevent being stricken by the disease by taking rabies shots, during the incubation period.

3. After being bitten, the area of the bite should be cleaned thoroughly with soap and water.

F. The prevention and control of rabies.

1. Healthy animals should be penned up and watched carefully for 12 days. During this quarantine period, the animal should be checked for symptoms of rabies.

2. If any symptoms occur the victim should be vaccinated at once with injections under the skin each day for 14 consecutive days. Bites about the head and shoulders may require longer vaccination treatment.

3. Other diseases may be prevented with the use of antitoxins and antibiotics.

4. A rabid dog is first excited and restless then snaps or bites at anything nearby. A weakness may occur in his hindquarters and spread forward.

5. Animals can receive yearly injections which keep them from getting rabid.

VI. Tuberculosis - A Respiratory Disease.

A. Definition of tuberculosis.

1. Tuberculosis is an infectious, contagious, inflammatory disease.

2. It may occur in any organ of the body.

3. It most frequently occurs in the lungs.

B. Body region which may be diseased.

1. Usually appears in the lungs.

2. May appear in other organs of the body.

C. Contagion or spread of the disease.

1. It is caused by a long, slender, rod-shaped bacterium.

2. The bacterium may live for long periods of time, outside the body, especially in the cold of winter.

3. There are four main types of the organism.

4. Cows spread a benign form of the organism. The incidence of benign tuberculosis has diminished significantly due to the practice of:

a. Testing cows for tuberculosis.

b. The pasteurization of milk.

D. Resistance to tuberculosis.

1. Man is more susceptible to tuberculosis than any other form of animal.

2. Tuberculosis affects all men differently, that is some have more natural resistance than others.

3. Racially, Negroes have a higher rate of tuberculosis than white people. They have a lower resistance to the disease.

4. Tuberculosis is not inherited from parents. One or both parents having the disease will yield a child with more exposure time to the disease, but this is communicated, not inherited.

5. The body may acquire resistance to the disease or a partial immunity is never attainable.

6. Many factors lower the body's resistance to the disease.

   a. Poor nutritional habits.

   b. Lack of proper hygiene.

   c. Overcrowded living conditions.

   d. Fatigue or overwork lowers resistance.

   e. Mental strain or emotional stress.

E. Symptoms of the disease.

   1. Acute military tuberculosis symptoms.

      a. This acute disease usually occurs in children and young people appearing in adults occasionally.

      b. Military tuberculosis is disseminated throughout the whole body.

      c. Usually there are no preliminary signs, as the patient is apparently doing well.

      d. There are three forms of military tuberculosis.

         1) Pulmonary tuberculosis attacks the lungs, causing sudden shortness of breath, cough, high fever, and a bluish color of the skin with a rapid pulse.

         2) Meningeal tuberculosis attacks the mininges or covering of the brain. This is divided into three stages.

a) The prodromal stage characterized by nausea, headache, loss of appetite, irritability, etc.

b) The initiation stage characterized by vomiting, delirium, and a rigidity of the neck.

c) The paralytic stage characterized by stupor, convulsions and paralysis.

d) Each stage lasts from one to two weeks.

e) Death follows in around a month if not treated.

3) Generalized tuberculosis often presents a symptoms similar to typhoid fever. The disease begins rather slowly and resembles influenza or acute bronchitis, with headaches. The disease is spread throughout the whole body.

2. Acute active pulmonary tuberculosis symptoms.

a. Acute active pulmonary tuberculosis is often called galloping consumption and may be difficult to initially diagnose.

b. The symptoms are variable but loss of weight and appetite occur along with weakness or debility and sometimes vomiting.

c. Blood stained spitum may be coughed up. Hoarse sounds may be heard in the lungs.

d. An X-ray picture of the chest area is an excellent diagnosing device for the physician.

e. Spitum will be examined under a microscope for tubercle bacilli.

f. The patient may also suffer from fatigue, night sweat, chills and fever, and loss of weight.

3. Chronic pulmonary tuberculosis symptoms.

a. Chronic pulmonary tuberculosis has many and varied symptoms.

b. The lesions cause spitting up of blood, with fever, fast pulse, and loss of appetite.

c. Influenza or colds may accompany other symptoms.

d. A persistent cough is most usually present, dry at first, but with thick phlegm later on.

e. Pain in the chest may accompany the disease.

f. If treatment is instituted and the response is favorable, the disease regresses.

g. The patient may have many complications which may include plurisy, a collapsed lung, ulcers of the tongue, tonsils, pharynx or soft palate.

h. Inflammation of the larynx may occur. Long-time patients may have bacilli in the intestines and stomach from swallowing contaminated spitum for so long.

F. Treatment of tuberculosis.

1. Drugs have been used for hundred of years in the treatment of tuberculosis, many of them failures.

2. Streptomycin has proved to be the most effective of the antibiotics drugs. Some newer drugs like isonicatonic acid have had milder successes.

3. There is no one known cure for tuberculosis.

4. The most acceptable method of treatment has been complete bed rest, usually in a sanitorium. The protracted rest period gives the lungs a change to heal.

5. The lung is collapsed to promote more rapid recovery.

6. Occasionally, a lobe of the lung is removed by surgery for promotion of recovery.

G. Prevention and control of tuberculosis.

1. Tuberculosis can be prevented.

2. One main duty of physicians is to report all patients who contract a communicable disease.

3. Laws forbid expectoration in public places.

4. Removal of factors which lower natural resistance also helps decrease incidence of the disease.

5. Annual X-ray examinations are also extremely helpful in lowering incidences of the disease.

6. Several skin tests for tuberculosis are also available of which intrademial is the most accurate.

7. Other tests such as subcutaneous and the patch test are also used.

8. Massive public education programs are the very best way to prevent tuberculosis.

9. All active cases of tuberculosis must be isolated to prevent the spread of the disease.

10. When a member of one family has contracted tuberculosis, every member of the family should be checked for the disease as well as all associates.

11. With modern techniques, tuberculosis is becoming a scourge of the past.

VII. Viral Diseases

A. The virus is a disease producing organism.

1. Virus is the smallest form of disease visible under a microscope.

2. Virus can exist outside their host for a long period of time but are thought to be able to grow and reproduce only within living tissue.

B. Immunity in viral diseases.

1. Immunity is the power of a living organism to resist and overcome infections.

2. Some diseases when once contracted by an organism build their own immunity to the disease any further.

3. Injection of a weakened virus to produce immunity is known as vaccination.

4. The vaccination or injection process builds up anti-bodies in the organism to resist the disease.

5. Vaccinations, whenever possible, assist in preventing contracting the disease.

C. General method of contagion in viral diseases.

1. Virus may be present in body secretions such as blood, urine, high fever, etc.

2. The transmission process is a complicated process since it can travel from organism to organism through various methods of transmission.

3. Virus may reside in water, the air, insects, salivary secretions, etc.

D. Classification of viral diseases.

1. Dermotrophic viruses have an affinity for the skin.

2. Pneumotropic viruses generally affect the lungs.

3. Viscerotropic viruses damage the internal organs or viscera.

TABLE OF REPRESENTATIVE VIRAL DISEASES

Common Name of Disease	Technical Name of Disease	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Smallpox	Variola	Chiefly skin	Usually droplet	7 to 18 days	High temperature, chills, headaches, backache, and muscular pain. Typical smallpox lesions on the body.
Measles	Rubeola	Chiefly skin	Droplet or contact	10 to 14 days	Similar to an ordinary cold, High temperature. Spots in the throat. Typical skin rash.
German measles	Ruebella	Chiefly skin	Droplet or contact	14 to 21 days	Mild symptoms of a cold. Rash. Enlargement of lymph nodes back of the ears.
Chicken pox	Varicella	Chiefly skin	Droplet or contact	14 to 16 days	Mild symptoms of a cold. Rash may appear as successive crops of vesicles.
Fever blisters	Herpes simplex	Skin	Droplet or contact		Sores on face or lips often follow colds, fevers, or severe diseases.
Shingles	Herpes zoster	Skin and sensory nerves	Droplet	7 to 14 days	Small vesicles surrounded by redness. Fever and aches. Rash may follow the skin area supplied by the sensory nerve.
Warts	Verruca	Skin	Uncertain	4 weeks to 6 months	Appearance of the characteristic wartshaped bodies on the skin surface.

CONTINUED

1 OF 4

TABLE OF REPRESENTATIVE VIRAL DISEASES continued

Common Name of Disease	Technical Name of Disease	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Mumps	Contagious parotitis	Salivary glands and often reproductive organs. Occasionally central nervous system.	Prolonged contact	17 to 21 days	Mild symptoms in children, more severe in adults. Swelling of the salivary gland. May also involve the testes or ovaries.
Bubo	Lympho-granuloma venereum	Lymph nodes in groin, genitals, and in the rectum.	Sexual Intercourse	7 to 21 days	Primary sore in a small chancre. Secondary swelling of lymph nodes in the groin. Strictures in rectum.
Infantile paralysis	Poliomyelitis	Spinal cord and brain	Droplet, food, feces, flies	Uncertain	Mild sore throat with respiratory cold-like symptoms followed by all degrees of paralysis from none to fatal.
Hydrophobia	Rabies	Brain and nerves	Usually bite of rabid animal	Usually 6 to 9 weeks	Headache, difficulty in swallowing convulsions, paralysis, violent spells, and hydrophobia.
Sleeping sickness (North American)	Equine encephalomyelitis	Nerves, brain, meninges, and blood	Thought to be transmitted by bites of several types of mosquitoes	Uncertain	High fever, convulsions, vomiting, drowsiness, coma, and muscle twitchings.
Flu	Influenza	Respiratory tract including the lungs	Droplet	1 to 3 days	Fever; aching in muscles of back, arms, and legs; headache; chest pains which may be complicated by pneumonic type of disease.
Virus pneumonia	primarily a type of pneumonia	Respiratory system	Droplet	7 to 14 days	Weakness, fatigue, headache, cough, and moderate fever; x-ray shows the lungs to be affected.

TABLE OF REPRESENTATIVE VIRAL DISEASES continued

Common Name of Disease	Technical Name of Disease	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Parrot fever	Psittacosis	Respiratory system	Droplet	7 to 14 days	Headache, sore throat, chills, and fever. Involvement of the lungs. Mental depression. Collapse.
Yellow fever	yellow fever	Various internal organs	Aedes aegypti mosquito	3 to 6 days	Fever, abdominal pain, vomiting of blood. Delirium and prostration. Yellow coloration of the skin. (jaundice).
Infectious hepatitis	Infectious hepatitis or catarrhal jaundice	Liver, spleen, and lymph nodes.	Food, milk and water; perhaps direct contact; rat urine or feces.	10 to 40 days	Fever, weakness, nausea, vomiting, abdominal cramps; jaundice often is present; enlarged and tender liver.

VIII. Bacterial Diseases.

A. The bacteria or disease-producing organism.

1. Bacteria are one-celled, microscopic organisms.

2. These organisms divided by a process known as fission - they grow longer then pinch in two and separate into two separate sections.

3. Louis Pasteur led science with pasteurization processes and preservation of food and milk which killed bacteria.

4. Most types of bacteria are not harmful to human beings, in fact, bacteria is essential to living.

5. Pathogens are those bacteria which attack the living bodies of man and produce disease.

B. Common types of bacteria.

1. Those bacteria which must live in the presence of oxygen are called aerobic.

2. Those bacteria which cannot live in the presence of oxygen are called anaerobic.

3. Those bacteria which do well with oxygen but get along without it are called faculatative anerobes.

C. Destruction of bacteria.

1. Disinfectants cause the destruction of bacteria.

2. Any substance which prevents infection or inhibits the growth of microorganisms is called antiseptic.

3. Some of the more common disinfectants and antiseptics are chlorine gas, phenol or carbolic acid, hypochlorides, iodine, bechloride of mercury, merthiolate, etc.

4. Alcohol 50% -70% solution is a dependable disinfectant.

5. Bacteriostatic agents slow down the rate of growth and reproduction so that the natural protective mechanisms, so that the natural protective mechanisms, so the body can overcome the infection. These are the sulfonamide drugs.

6. Antibiotics also are used which inhibit the growth of bacteria and destroy them.

7. The mycin group of drugs has been important in the control of bacterial diseases.

D. General method of contagion in bacterial diseases.

1. The common respiratory diseases, such as sore throat, pneumonia, whooping cough, etc., are transmitted by droplets of spitum and nasal secretions.

2. Droplets are propelled a considerable distance by a person who coughs or sneezes. Infection occurs when an infected droplet is absorbed by the mucous membranes of a susceptible person.

3. Some others such as syphilis or gonorrhea are transmitted by direct personal contact.

4. Other forms of bacteria are transmitted by water, milk, or foods which have become contaminated by a carrier. Most intestinal diseases are transmitted in this matter.

5. Indirect contacts with objects contaminated by another person also transmit the disease.

6. Insects and particularly the housefly transmit bacterial diseases.

7. Bacteria producing diseases usually can't penetrate unbroken skin, hence they enter through wounds, abrasions or scratches, etc.

8. The practice of sanitation and the prevention of infection are based on the knowledge by the individual of how to avoid infection.

9. Sanitary and construction codes properly enforced reduce incidents of bacteriological infection.

E. Resistance to bacteriological diseases.

1. The most important means of resisting infection is to prevent entrance of the microorganisms into the body.

2. The skin is the principal barrier.

3. Secretions of the skin and mucous membranes of the throat also retard bacterial invasion.

4. The digestive juices of the stomach and intestine destroy most of the bacteria which are swallowed with food.

5. Once the harmful bacteria have entered the body, a number of important defenses are mobilized by the body to resist invading bacteria.

   a. White blood cells take bacteria into their protoplasm and destroy them.

   b. The plasma of the blood contains substances which make bacteria clump or adhere to each other.

   c. White blood cells surround invading bacteria preventing their spread.

   d. The body uses antitoxins built up over the years to fight toxious bacteria.

6. Immunity can also be produced through innoculations forming anti-bodies. Booster injections are given periodically to keep up the body's antitoxins.

7. The total body is mobilized to fight invading bacteria, with each part doing its job.

TABLE OF REPRESENTATIVE BACTERIAL DISEASES

Common Name of Disease	Technical Name of Disease	Organism Responsible	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Septic sore throat	Streptococcus sore throat or tonsilitis	Streptococcus (several species)	Throat and nasal membranes	Droplet and direct contact	3 to 5 days	Sore throat often accompanied by fever and a cough.
Scarlet fever	Scarlatina	Streptococcus (Streptococcus scarlatinae)	Throat, tonsils, and often other tissues	Carrier, direct contact, droplet, and food.	3 to 5 days	Sore throat, headache, fever, swollen tongue, pink or red rash, rapid pulse, & "strawberry tongue."
Pneumonia	Pneumococcal Pneumonia	Diplococcus (Diplococcus pneumoniae)	Respiratory tract, including the lungs.	Droplet	Variable	Chills, pain the the chest, rusty spitum, rapid breathing, abdominal pain, jaundice.
Spinal meningitis	Epidemic meningitis	Diplococcus (Neisseria intracellularis)	Respiratory tract, nervous system, and sometimes blood	Carrier, droplet	1 to 5 days	Severe headache, violent vomiting, high fever, delirium and rigid neck and back. Rash may be present.
Clap	Gonorrhea	Diplococcus (Neisseria gonorrhoeae)	Reproductive organs	Sexual intercourse	2 to 8 days	Redness, swelling, penile or urethral discharge, and frequent burning urination.
Bacillary dysentery	Shigellosis	Short rod (shigella dysenteriae)	Intestine	Flies, food, feces, water, and carriers.	1 to 4 days	Fever, nausea, vomiting, severe abdominal pain, blood in the stools and diarrhea.

TABLE OF REPRESENTATIVE BACTERIAL DISEASES continued

Common Name of Disease	Technical Name of Disease	Organism Responsible	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Typhoid and paratyphoid fevers	Enteric fever	Short rod (Eberthella typhosa) Salmonella paratyphi)	Intestine	Flies, food, feces, water, and carrier	10 to 14 days	Fever, nausea, vomiting, severe abdominal pain, chills, and diarrhea
Whooping cough	Pertussis	Small short rod (Hemophilus pertussis)	Respiratory tract	Droplets projected during cough	7 to 14 days	Cold-like symptoms. Series of coughs followed by a whoop.
Bubonic plague	Pestis	Short rod (Pasteurella pestis)	Blood, spleen liver, and lymph nodes.	Rat flea spreads disease from rat to man.	2 to 10 days	Sudden onset, high fever, vomiting, hot dry skin, thirst, black spots on skin, lymph nodes in groin swollen.
Rabbit fever	Tularemi	Short rod (pasteurella tularensis)	Lymph nodes, spleen, liver kidney and lungs	Contact with animals that have the disease.	1 to 10 days	Sudden onset, chills, fever, nausea and vomiting, Prostration. Local sore and enlarged regional lymph nodes.
Undulant fever	Brucellosis	Short rod (Brucella abortus)	General infection throughout the body.	Milk and direct contact with animals.	5 days to 3 weeks	Periods of fever alternating with periods of normal temperature, recurrent attacks, loss of weight, backache, weakness and insomnia.
Botulinus	Botulism	Sporeforming rod (Clostridium botulinum)	Nervious system	Organism produces poison in food.	18 to 66 hours	Severe gastrointestinal upset, vomiting and diarrhea, fatigue, disturbance of vision, paralysis.

TABLE OF REPRESENTATIVE BACTERIAL DISEASES continued

Common Name of Disease	Technical Name of Disease	Organism Responsible	Body Regions Involved	Mode of Transmission	Incubation Period	Chief Symptoms or Characteristics
Lockjaw	Tetanus	Sporeforming rod (Clostridum tetani)	Nervous System	Organism in soil; enters through wound	2 to 40 days	Spasms of muscles and convulsions. Lockjaw
Gas gangrene	Gas gangrene	Sporeforming rod (Clostridium perfringens)	Wounded areas	Organism in soil; enters through wound	Variable	Gassy swelling of the wounds, foul odor.
Tuberculosis or Consumption	Phthisis or tuberculosis	Irregular rod (Mycobacterium tuberculosis)	Lungs, bones, and other organs.	Direct contact droplet, infection, food and milk.	Variable	Symptoms vary with the organ affected, cough, fever in the evening, fatigue, loss of weight, x-ray pictures show infection in the lungs.
Syphilis	Lues	Spiral-shaped organism (Treponema pallidum)	Blood and nervous system	Direct contact chiefly sexual intercourse	10 to 90 days	A hard, painless sore or chancre on the genitalia, variable types of skin eruptions, and serious tissue destruction in any part of the body.
Diphtheria	Diphtheria	Irregular rod (Corynebacterium diphtheriae)	Respiratory tract	Carrier, direct contact, droplet and food.	1 to 7 days	Sore throat, fever, vomiting, prostration, formation of a gray membranous deposit in the throat, difficult breathing.

IX. Care and Procedure when Contaminated

A. Actual contamination versus suspected contamination.

1. Whenever possible, upon an officer's exposure to any disease, a determination should always be made as to what the disease is.

2. After correctly finding out what the disease is, the officer should consult a supervisor if the disease is communicable or if there is doubt as to whether or not the disease is communicable.

3. Treat all diseases which are not known specifically as communicable.

4. Act as if suspicions are confirmed until proven otherwise.

B. Potential areas of contamination.

1. The air breathed.

2. Water, food, or anything entering orally.

3. Areas of the skin open for contamination.

4. Direct personal contact.

C. Prevention and control of communicable diseases.

1. Practically all viruses, bacteria, and other communicable diseases can be controlled by medication either orally or by injection of innoculating or vaccinating drugs.

2. Those which can't be controlled or prevented by drugs can be controlled by other medical means.

3. Many diseases can be controlled by extra medical measures, such as the control of insects, construction and sewage laws, etc.

4. The individual officer should know how to control or avoid infection by a communicable disease.

D. Sanitation control.

1. Water purification or disposing of harmful bacteria in drinking water.

2. Water should be filtered after dumped as sewage to collect

waste and chemically treated to destroy bacteria producing organisms.

3. Cleanliness and proper processing of food and fluid operations for human consumption.

4. The control of insects - flies, lice, mosquitoes, and various other species of insects.

5. The control of rat or vermin.

6. The use of insecticides and germicides in control of infectious communicable diseases.

E. Protection procedure when dealing with infectious communicable diseases.

1. Use the form of protection for the disease based on how the disease is spread.

   a. Transmitted by air - cover skin and mucous membranes.

   b. Water, food, etc. - don't eat that which may be contaminated.

   c. Open areas of skin - particularly cover those areas of the skin exposed by cut or wound, etc.

   d. Direct personal contact - avoid and place material between the bodies.

2. Seek assistance from a physician.

3. Report exposure to the supervisor.

4. Decontaminate the exposed area wherever possible.

   a. Destroy clothing or contaminated article where necessary.

   b. Scrubbing of exposed skin with hospital soap and rinse thoroughly and dry thoroughly.

F. The most important thing about dealing with any communicable disease is to use good common sense.

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PRECISION DRIVING.

I. Introduction to Precision Driving.

A. Background statistics to indicate need for precision driving.

1. Traffic scene is complex due to the more than 80,000,000 drivers of widely varying abilities in America.

2. Twice that many pedestrians - toddlers to old folks.

3. More than 75,000,000 motor cars of varying ages on highway today.

4. More than 4,000,000 miles of roadway of differing design, construction, and condition.

5. Within the past 50 years, traffic accidents have killed or injured more people than there are in the states of New York, Texas, Massachusetts, and Wisconsin combined.

6. Each year the traffic toll amounts to more than 50,000 people killed, over 2,000,000 injured (of whom an estimated 100,000 are permanently crippled or disfigured) and over $4,000,000,000 (billion) in financial loss.

7. During the four years of our participation in World War II, 1941-1945:

a. 1,070,000 servicemen were killed or wounded in combat.

b. 3,394,000 people killed or injured in traffic accidents during the same period.

8. America is a nation on wheels.

a. Ownership of vehicles.

1) 73% of families own one auto.

2) 14% of families own two or more autos.

b. Use of vehicles.

1) 32% of families use cars for business.

2) 73% of families use cars for family shopping.

3) 21% of families use cars to take children to school.

9. International comparison: for every one vehicle, there are:

   a. 2.6 persons in the United States.

   b. 10 persons in Great Britain.

   c. 70 persons in the U.S.S.R.

10. State and national statistics.

   a. National traffic summary:

Deaths	1967	1966
12 mo. survey	52,800	52,758
Mileage (billions)	800.8	772.7
Death rate (mileage)	5.3	5.6

   b. State traffic death statistics for 10-month period, January - October (1965 - 1967).

      1) 1965 - 1,651.

      2) 1966 - 1,811.

      3) 1967 - 1,603.

      4) Number of traffic deaths per 100,000 population in 1967 - 22.4.

      5) Number of traffic deaths per 100,000,000 vehicle miles in 1967 - 4.2.

      6) In 1966, Michigan reported over 1,200 traffic deaths.

      7) In 1966, Michigan reported over 86,000 injured in traffic accidents.

11. Statistics of one major city in Michigan (Flint) in 1967.

   a. Population of Flint.

      1) City: 214,000.

      2) County: 435,800 (Genesee).

   b. Vehicle registrations in Flint.

      1) City: 155,000.

      2) County: 222,950.

c. Accident data for city of Flint only.

1) 5,056 total accidents.

2) 3,181 were property damage accidents.

3) 1,854 were injury accidents.

4) 21 were fatal accidents.

d. Human loss due to accidents.

1) 28 persons killed.

2) 2,910 persons injured.

e. Estimated losses resulting from accidents in the past three years.

1) 1965: $ 7,574,000.

2) 1966: 7,748,000.

3) 1967: 8,262,000.

4) Total: $23,584,000.

12. Indications of Michigan State Police statistics of 1965 on accidents involving troopers.

a. 85% of accidents involving troopers occurred during routine patrol (non-pursuit and non-emergency driving).

b. Of their 213 accidents, over 46% were preventable.

c. Of their 213 accidents, 78 (36%) resulted in a trooper's either violating a traffic law or an unsafe driving act.

d. Damage to Michigan State Police vehicles totaled nearly $40,000.

B. The training procedures discussed herein are designed to improve techniques of driving for maximum performance with safety.

1. Recruits should gain knowledge of limits of their vehicles and own personal capabilities.

2. Aim is not to develop expert pursuit drivers, but to improve to the maximum the capabilities of everyone taking the course.

3. It is far more important to drive well then to drive fast.

4. Extraordinary driving techniques should be regarded as inherently dangerous, something to use only in an emergency.

C. Precision driving demands mechanical skill, knowledge of laws and rules of the road, normal eyesight, reflexes, knowledge of highway and streets in your patrol area, mature judgment, and proper attitude.

1. Experience is a valuable factor in precision driving, acquired through:

   a. Long hours of correct driving practice.

   b. Close supervision by more experienced officers.

   c. Concentration on driving expertly.

2. The officer must do more than the average driver to avoid accidents.

   a. The officer must anticipate hazards.

   b. The officer must drive defensively.

3. Do not assume that the police uniform or marked police vehicle will make you right or improve your status as a driver.

4. Previous occupation, though it may have included considerable driving, may not prove useful in pursuit driving where decisions have to be made quickly and with grave consequences.

5. Reaction to emergencies must be prompt and correct.

6. Driving proficiency will be acquired through years of experience and training.

D. Procedures established in this course have been made after careful study and extensive experience and will be strictly adhered to by recruit drivers.

1. Constant observation will be made to detect unsafe driving practices by recruits.

2. All maneuvers in this course must be done according to set standards in order to develop skill.

E. The fact that an officer is engaged in pursuit of a violator does not in any way relieve him nor protect him from the

consequences of a reckless disregard for the safety of others.

1. Precautions must be taken to protect innocent motorists and pedestrians.

2. The pursuit driver involved in an accident may be subject to criminal indictment or civil damages for injuries inflicted if guilty of negligence.

F. Exposure to accidents is frequent for law enforcement officers.

1. Many officers drive 30,000 to 40,000 miles per year.

2. Some of these miles are in emergencies or in pursuit.

3. Officer may have to operate his vehicle 1,000 to 2,000 hours per year under varied weather and traffic conditions.

4. The violator may be operating on roads more familiar to him than to the pursuing officer.

5. Distinctively marked and well equipped vehicles may give an officer a sense of false security.

a. The vehicle does not improve eyesight, judgment, or reaction to emergencies.

b. The vehicle adds nothing to the officer's knowledge or ability as a driver.

1) Knowledge and ability can only be expanded through a well-defined learning process.

2) This learning process can be speeded up by supervised instruction.

c. A marked car does subject the driver to close public scrutiny. Any deviation from rigorous standard of safe driving practices may subject officer to adverse criticism.

6. Generally an officer is successful in apprehending motorists he pursues; but occasionally he must give up pursuit.

a. The officer must give up pursuit if his driving unduly endangers the public or his partner and himself.

b. Some reasons for stopping the pursuit may be:

1) Flight down dusty road is hazardous and the officer cannot afford to continue blindly.

2) Passing on a blind curve.

3) Passing on the crest of a hill.

4) Passing in face of oncoming traffic.

c. Use of radio to warn other units will often be successful against the type of driver who takes foolish chances.

d. Such drivers do not normally escape apprehension for long or else become accident victims.

C. Basic qualifications for the pursuit driver.

1. Certain basic qualifications must be met if an officer is to successfully apprehend violators and have an accident-free driving record.

a. Driving experience essential.

b. Driving record free of accidents and traffic violations.

c. The pursuit driver should have good eyesight:

1) 20-20 vision corrected.

2) Normal depth perception.

3) Normal color vision.

d. The pursuit driver must have proper attitude:

1) That which lends itself to safe driving.

2) That which improves with each adverse driving experience.

e. The pursuit driver must consistently use good judgment:

1) Ability to perceive danger in split second.

2) Ability to respond correctly to any emergency that arises.

f. The pursuit driver must have sufficient emotional stability and the ability to refrain from becoming angry while driving.

g. The pursuit driver should have thorough knowledge of traffic laws and safety rules.

h. The pursuit driver should have thorough knowledge of roads where pursuit may take place.

i. The pursuit driver should have the ability to instantly respond to any emergency in a correct and responsible manner.

2. The qualifications should be adhered to as strictly as possible.

H. Movies (either of the following):

1. "Mechanized Death."

a. Time: 28 minutes (in color).

b. Producer: Ohio State Patrol.

2. "Signal 30."

a. Time: 28 minutes (in color).

b. Producer: Ohio State Patrol.

II. Outside Forces That Affect Motor Vehicles.

A. Definition of forces (kinetic energy - centrifugal force - centripetal force - gravity) - behavior of solid bodies in motion - how this force reacts on motor vehicles.

B. Newton's first three laws of dynamics and how they pertain to the automobile:

1. First law - a body at rest will remain at rest, and a body in motion will continue moving at the same speed in straight line unless acted upon by an external force.

a. The external force that moves vehicles under their own power is the friction force between the road and tires.

b. Some force slows it by braking and changes direction when steered.

c. This force is limited a small degree by vehicle's weight and condition of pavement.

2. Second law - the rate of change of momentum is proportional to the force acting on a body and takes place in the direction of the force.

   a. Because the body (vehicle) doesn't change weight, the change in momentum will be due to its change in speed (speeding up or slowing down).

   b. Acceleration or speeding up is proportional to and in the direction of the force.

   c. Therefore, the same force acting on two objects, one weighing twice as much as the other, will accelerate the lighter one twice as fast as the heavier.

3. Third law - every action or force has an equal and opposite reaction or force.

   a. When applied to a vehicle in a side skid, the force of the momentum carrying the vehicle sideways is also being applied to the tires in the opposite direction.

   b. The average car will tip over while sliding sideways into a curb or any other object lower than the center of gravity of the vehicle.

C. Kinetic energy - produced or caused by motion - everything that has weight and motion has kinetic energy - its relationship to the automobile's motion.

1. Formula for kinetic energy.

   a. $KE = \frac{1}{2} \frac{WV^2}{32}$

      1) Key.

         a) KE - kinetic energy.

         b) W - weight of vehicle.

         c) V^2 - velocity of the vehicle in feet per second, squared.

         d) 32 - is a constant figure and represents gravity.

i) Know how to convert miles per hour to feet per second.

(a) General rule of thumb, even accepted in many courts.

(b) Multiply miles per hour by one and one-half to get feet per second.

(c) To be accurate, use 1.47.

2) Important to know as speed doubles.

a) Braking distance increases by four times:

i) It takes four times as long to stop at 40 miles per hour as at 20 miles per hour.

3) As speed triples.

a) Braking distance increases by nine times:

i) It takes nine times as long to stop at 60 miles per hour as at 20 miles per hour.

2. Kinetic energy increases with the weight of the object and with the speed at which the object is moving.

3. This energy varies with the square of the velocity. When speed is doubled, kinetic force is four times as great.

4. To stop a vehicle, the kinetic energy must be dissipated.

a. Accomplished by friction between brake shoe and drum or tires and the road. Energy is converted to heat.

b. If the efficiency of the brakes is greater than the tire friction, the energy will be dissipated between the tires and road surface - thus a skid.

5. Quality of tire tread makes little difference in stopping on dry surface if wheels are locked. Tires with tread are better on wet surfaces due to "squeegeeing" effect.

6. Size of tires or car's weight make little difference in stopping distance.

7. On glare ice, a bald tire is better than a new one, due to the fact that the weight of the car is distributed over a larger portion of the road surface.

8. A vehicle will slike as far sideways as it will straight ahead under like conditions.

D. Effects of friction on the vehicle.

1. Complete control of vehicle (accelerating, slowing, stopping, maintaining constant speed, and turning) depends on the friction between tires and road.

   a. Each of the four points is not much larger than the sole of a shoe.

2. As the force of friction is reduced, the other forces acting on the car are substantially increased and the car may go out of control.

3. Starting on ice, mud, or sand.

   a. Don't spin wheels - this causes loss of friction.

   b. Apply power gradually so tires can grip the surface.

   c. If wheels are dug in, "rocking" will often be the solution.

   d. On ice, spread cinders, old rug, or anything else that will increase friction between road and tires. If one wheel has traction while the others spin, increase the traction by spreading material in front of and behind the spinning wheel.

   e. New type differentials will apply power to wheel that has traction.

4. Stopping - friction is more important here than in starting.

   a. The kinetic energy must be dissipated either between brake shoe and drum or tire and road surface.

   b. These two sources of friction working together, provide the breaking force to stop the vehicle.

   c. Brake friction depends on the condition and adjustment of the brake shoes and drums.

d. Road friction depends on type and condition of the tires and road surface.

e. Force available to stop the car depends on these three elements: brakes, tires, and road surface.

5. Conversion of the braking energy.

a. Energy can be neither created or destroyed.

b. Energy may be converted to another form.

c. The kinetic energy present in a moving vehicle must be converted into BTU's (British Thermal Units) of heat by friction of brake shoes against the brake drums to stop the vehicle.

1) A 4,000-pound vehicle traveling 130 miles per hour develops 2 million pounds of energy.

a) This 2 million pounds of energy is enough to lift a 2,000,000-pound building one foot from the ground.

b) This 2 million pounds of energy must be converted to heat by applying the brakes.

i) Extreme heat is generated in the brake drums.

ii) As heat expands brake drums, brakes fade.

(a) All stock cars presently manufactured in United States have brake fade.

(b) Disc brakes are an improvement because they dissipate the heat generated at a greater rate.

d. As an example of how much heat is generated in the brakes by high speed:

1) Brakes will generate identical amounts of heat.

a) Slowing of a vehicle from 90 miles per hour to 70 miles per hour.

b) Slowing of a vehicle from 70 miles per hour to stop.

2) Speed of the vehicle greatly affects the amount of heat the brakes produce.

6. Coefficient of friction.

a. Is expressed as the amount of grip between two surfaces.

b. Is calculated by dividing the amount of force necessary to pull one surface over another by the amount of force pressing the two surfaces together (tires against road surface).

1) Example: If it takes 2,000 pounds of force to pull a 3,000-pound vehicle with the brake set over a gravel road, the coefficient of friction between the tire and road would be .67.

c. Several factors affect the gripping efficiency of road surfaces.

1) Dry surface is much better than wet.

2) Loose sand, gravel, mud, or wet leaves lowers efficiency.

3) Ice and snow near melting point of 32^{o} F. have only about half the frictional grip of hard frozen ice or snow at 0^{o} F.

4) Bumpy and washboard-type roads also greatly reduce the frictional grip of tires on the road.

5) Water reduces friction:

a) On concrete particularly with oil drippings.

b) On bituminous it may increase braking distance by 1/3 or more at high speed.

c) On gravel or cinders it may shorten distance due to the tendency that water will compact this material.

6) Speed - at 40 -50 miles per hour, some pavements have only one-half the coefficient of friction as at 10 miles per hour (especially when wet).

7) Tires - little effect on pavement.

8) Chains on pavement will double coefficieny on ice.

9) Pavement texture:

a) Gritty concrete made with sharp-edged aggregate is better than smooth.

b) The same is true for bituminous surface.

d. Illustration of a method of testing the coefficient of friction.

e. Chart indicating coefficient of friction for good tires on various road surfaces.

Type of Pavement	Dry	Wet
Concrete	.90	.60
Asphalt	.85	.65
Brick	.85	.65
Oiled gravel	.90	.65
Gravel, cinders	.65	.65
Packed snow	.45	.45
Ice or sleet	.20	.20
Mud on pavement	.20	.30

SOURCE: National Safety Council.

7. Skidding on the pavement.

a. Occurs when tires lose their rolling grip on pavement and start to slip like sled runners.

b. Engine loses its pulling effect.

c. Brakes lose braking effect.

d. Wheels cannot keep the car in line, annnot track.

e. Types and causes of skids:

1) Sudden increase in braking or acceleration.

2) Sideslip occurs in turning corners or curves.

3) Unequal grip of brakes causes car to pivot or "fishtail."

f. Speed is one of the most important factors in increasing the possibility of a skid. Speed must be reduced when road is slippery or when turning.

g. Keep tires and brakes in good condition.

h. If car is in a skid, stay off the brakes and try to regain control by steering in the direction of the skid.

1) This allows tires to regain traction which will enable driver to gain minimum control.

2) Slight acceleration may help if rear wheel angle is less than 45^{o} in the direction of the skid. Be aware of counterskid, caused by over-steering to correct skid.

8. Slope of the road.

a. If the vehicle is going downhill, braking distances are increased.

b. Stopping distances are decreased on uphill slope.

c. Percentage of the grade may be added to the coefficient of friction for uphill grade and subtracted from downhill grade to get the stopping effort of the vehicle.

d. Example of the effect of slope of the road.

1) If you can stop on level in 25 feet from 20 miles per hour, the car has braking effort of 53.5% of its weight.

2) A 10% downgrade subtracts 10% from this braking effort, leaving 43.5% and increasing braking distance 31 feet.

9. Dynamic hydroplaning of the tires.

a. Occurs in heavy rain or slush.

b. Tires climb up on a tough film of rain or slush and actually leave the road surface.

c. This fact was discovered by scientists at NASA doing research on plane landing and ground-handling problems.

d. Experiments indicated:

1) At less than 30 miles per hour (tire pressure of 24 pounds) front tires begin to lose contact with pavement.

2) At 50 miles per hour, they are lifted up on tough film of water and only the outer ribs are touching.

3) At 55 miles per hour, front tires lose all contact.

4) Above 60 miles per hour, front wheels can actually coast to a stop, though vehicle continues at high speed.

e. Counter-measures for dynamic hydroplaning.

1) Slow down if road surface is wet, stay below estimated hydroplane speeds.

2) Increase tire pressure as high pressure tires cut between road and rain film better.

3) Have good tires as new treads are about 11/16" deep, if tire midtreads are worn over 80%, get off road until rain stops.

4) Drive in "tire wipes" left by other cars, but don't tailgate.

5) "Jab" brake to stop in a rapid continuous manner.

a) Better chance to break through rain film to road surface.

b) Don't pump brakes sluggishly.

6) Don't lower tire inflation.

a) Tire with 25 pounds of pressure will hydroplane at 50 miles per hour, but raising pressure to 40 pounds will delay hydroplaning to 60 miles per hour.

b) Danger is that a high inflation pressure will be more likely to skid at lower speed since there is less rubber contact with the road, and thus less friction.

c) The new wider tires have greater tendency to hydroplane due to the lower inflation and greater road to tire surface.

7) Hydroplaning is predictable and foreseeable.

a) The key is the dynamic pressure of the piling-up water balanced against the air pressure within the tire.

b) This can be expressed in a somewhat empirical equation: The square root of the tire pressure multiplied by 10.3 will give speed in miles per hour that the tire will hydroplane.

c) Example: If car has 25 pounds of air pressure in tires, the square root of 25 is 5, then multiplied by 10.3 it equals 51.5 miles per hour and this is the speed at which the tire can hydroplane.

10. Viscous hydroplaning of the tires.

a. Viscous hydroplaning is more dangerous than dynamic hydroplaning, because you are less aware of the danger.

b. Viscous hydroplaning occurs on mirror-smooth pavements with badly worn tires.

c. Viscous hydroplaning occurs at speeds much lower than needed for hydroplaning and on a film of water as thin as 1/25 of an inch.

d. The water has a tough surface tension that even hundreds of pounds of pressure from a smooth tire cannot break. This tension is the same thing that causes water to encapsulate in a dew drop.

e. Car weight has no appreciable affect, since the heavier cars have larger tires and the weight per square inch remains the same as lighter cars with smaller tires.

f. NASA also detected this hydroplaning effect on a dry road as indicated in the following sequence.

1) Danger observed by driver who slams on brakes.

2) Brakes lock and the tires skid.

3) At the time the driver thinks the skid is about over, it continues at the same or even faster pace (on downhill grade).

g. Cause of viscous hydroplaning.

1) In the first moment of the skid, tires get hot.

2) Tires suddenly lay down a slick trail of molten rubber.

3) The vehicle actually rides on this molten rubber, much as a stick of solder suddenly slides in its own melt.

h. Viscous hydroplaning can be prevented by driving at proper speeds, with good tires, and using brakes effectively.

11. Important points to remember about hydroplaning.

a. Driver should determine the hydroplaning speed of his vehicle tires by multiplying the square root of the tire pressure by 10.3; he should stay below this speed on wet pavement, especially if his tire tread is worn.

b. Driver should add a margin of safety during wet weather by increasing tire pressure 10 pounds per

square inch above the specified pressure. The greater the tire pressure, the higher the speed at which hydroplaning can occur.

c. Driver should remember that a tire can hydroplane on as little as 4/100ths of an inch of water, a depth bound to occur on roadways during normal rainfall.

d. Driver should remember that once a tire hydroplanes, even when the car is traveling in a straight line, he can lose control. A crosswind of no more than 10 miles per hour can send him into a spin. This can occur from the draft of a passing truck.

e. Driver should protect himself by driving in the "tire wipes" or tracks left by cars and trucks ahead of him. He should not tailgate.

f. Driver should try not to lock brakes, keeping all four wheels rolling.

g. Driver should correct a skid by instant counter-steering and should be aware of the possibility of a reverse-skid.

h. If a dry road surface looks especially smooth or driver can see reflections on rain-dimples on a wet road, conditions for hydroplaning are present.

E. Momentum as a force.

1. Description of momentum is a body in motion tends to remain in motion in a straight line at a constant velocity, unless acted upon by an external unbalanced force.

2. Direction of travel for motor vehicles.

a. Vehicles are built to run in a straight line.

b. There is the least amount of stress on a vehicle running in a straight line.

3. External unbalanced forces always in effect upon the vehicle.

a. Wind.

b. Grade of roadway.

c. Foreign material on roadway.

d. Friction within the vehicle itself.

4. The faster a vehicle travels, the greater the momentum; thus a greater distance is needed to stop the vehicle.

5. By expressing speed in feet per second, this can be mathematically demonstrated as such:

a. $\frac{\text{Number of miles per hour}}{3,600} \times 5,280 = \text{Number of feet per second.}$

1 mile = 5,280 feet.
1 hour = 3,600 seconds.

b. A quicker and simpler method, though less accurate, is to take the number of miles per hour and add half of it. Therefore, a car traveling 20 miles per hour travels approximately 20 plus 1/2 of 20, or 20 plus 10, which is 30 feet per second.

6. Driver should not make the mistake of thinking that when his speed is doubled, his braking distance also doubles; instead, braking distance is increased four times as speed doubles.

7. To move from a straight line, other forces must be applied.

F. Centripetal and centrifugal forces and their effects.

1. Definition of centripetal force is accelerating a body from a straight line.

2. Meaning of centripetal force is center-seeking or toward the center.

3. Definition of centrifugal force is the force which a body in motion has because of centripetal force.

4. Meaning of centrifugal force is center-fleeing or from the center. It is always equal and opposite to centripetal force.

5. Clarification of centripetal vs. centrifugal forces.

a. Common example is a boy swinging a ball on the end of a string in a circle around his head.

1) The string is the centripetal force which keeps the ball moving in a circle.

2) The ball is held at the end of the string by centrifugal force while the string remains taut with the ball at the end.

b. If centripetal force were lost, the string breaks and the ball flies off into space in straight line tangent to the arc.

6. How the ball and string are related to a vehicle on the roadway.

a. The arc of the circle becomes the roadway.

b. The ball represents the vehicle.

c. The centripetal force is the driver controlling the vehicle by friction.

1) When friction and roadway is reduced, the centrifugal force is reduced, thus straightening the arc desired.

2) If centripetal force is lost, the vehicle will fly off into space in a straight line in tangent to the arc.

3) It becomes obvious that retaining control of the vehicle is imperative.

7. Practical conclusions to be drawn.

a. Before entering a curve, driver should reduce speed to where centrifugal force can be overcome by the grip of the tires or the road surface.

b. The sharper the curve, the greater the centrifugal force, the slower one has to drive.

c. The grip of the tires depends on the conditions and contour of the road surface.

1) If wet or icy, there is less grip; speed must be reduced.

2) If the outer edge of the road is banked higher than apex of the curv, higher speeds can result.

3) If the outer edge is lower than apex or the road is crowned (high in the middle), speed is to be reduced.

G. The effect of gravity upon a vehicle.

1. The force with which a car is pressed against the road is known as its weight.

a. Weight is caused by the pull of the earth - gravity.

b. The force of gravity affects all objects.

2. Newton's Law of Gravitation.

a. All objects attract each other and the force of their attraction depends on their masses and the distance between them.

b. The attraction increases in proportion to the masses of the bodies, because the greater the masses, the greater the force.

c. The attraction decreases in proportion to the square of the distance between the centers of gravity; the longer this distance, the smaller the force.

3. Effects of gravity on a vehicle.

a. As the center of gravity of a vehicle is lowered, a greater force is needed to react on the vehicle and move it from the roadway.

1) The kinetic energy and centrifugal forces have to be greater to affect a vehicle as its center of gravity is lowered.

2) This is the reason racing vehicles are built with the minimum of road clearance.

b. All other forces being equal, gravity exerts a greater force on a heavier object.

1) If two vehicles possess the same kinetic energy, and all other conditions are equal, the heavier vehicle will stop quicker because of the greater pull of gravity.

2) However, if two vehicles (one weighing less than the other) are traveling at the same speed and

all other forces are equal, they will stop in approximately the same distance, since the kinetic energy of the heavier vehicle is greater; thus a greater reaction against the force of gravity.

H. Factors relating to stopping distance of a vehicle.

1. Stopping distance depends on three factors.

   a. The driver's perception time.

   b. The driver's reaction time.

   c. The driver's brake or tire-road stopping ability.

2. Driver's perception time.

   a. This is the time it takes a driver to be aware of a dangerous situation after it could have been perceived. Example: If a driver sees a car moving at 30 miles per hour from behind an obstruction at the intersection, after four feet of the car has become visible.

      1) From the moment the car could have been observed, about .09 seconds have passed.

      2) Driver's perception time is less than 1/10 of a second.

   b. Perception often depends on driver's attention. The close attention to driving cuts perception time in stopping a vehicle.

   c. It is impossible to know what the average perception time is for all people in all driving situations.

3. Driver's reaction time.

   a. Driver's reaction time is that time taken by a driver after he becomes aware of a hazardous situation until he makes the vehicle begin to take preventive action.

      1) Driver's reaction time includes:

         a) The driver's mental reaction time.

         b) The driver's muscular reaction time.

2) The driver's mental reaction time depends on:

   a) The time taken to make the decision.

   b) How complicated the situation is or how many choices for avoiding the accident the driver has to make. An example of a series of choices would be when a pedestrian crosses in front of the driver and stops in the driver's path. The driver must decide whether to turn left or right or stop.

   c) A driver with well-formed driving habits is able to make correct decisions more quickly than one whose driving habits are not well-formed.

3) Physical reaction time depends on:

   a) The muscular reflex after the decision has been made.

   b) The driver's health (physical).

b. A reaction time of three quarters of a second for thinking plus muscular reaction is average.

c. The following chart shows distances covered by driver after seeing danger, vehicle braking distance, and total distance of both. Driver reaction distance is based on reaction time of three-quarters of a second, which is typical of most drivers under most traffic conditions.

M.P.H.	Driver Reaction Distance (Feet)	Vehicle Braking Distance (Feet)	Total Stopping Distance (Feet)
20	22	25	47
30	33	56	89
40	44	100	144
50	55	155	211
60	66	225	291
70	77	306	383
80	88	400	488
90	99	506	605
100	110	625	735

Note: Figures in table above have been rounded to the nearest whole number.

III. Defensive Driving

A. Introduction to defensive driving

a) The perfect driver is [illegible] from controls [illegible] the driver of himself and of his vehicle.

b) The [illegible] of the controlled [illegible] in traffic [illegible] the application of skills in anticipating, [illegible] and [illegible] traffic [illegible].

c) All driving is defensive in the sense that the [illegible] and [illegible] failure [illegible].

d) Experienced and committed drivers [illegible] to a particular situation.

e) The anticipation and recognizing of hazards.

1) Driving [illegible] under favorable conditions [illegible] changeable [illegible].

2) [illegible] and [illegible].

3) The time [illegible] in making [illegible] decision.

(a) Anticipating [illegible] directions [illegible] [illegible] the good driver [illegible] the decision and [illegible].

(b) [illegible]

f) [illegible] to make a good defensive driver.

1) Good physical condition [illegible] strength [illegible] [illegible].

2) Good [illegible] attitude.

3) Knowledge of vehicle and forces acting on it.

4) Ability to anticipate road and weather conditions.

5) The ability to [illegible] the analyze potentially dangerous situations.

f. Development and maintenance of good driving habits.

B. Attitudes in defensive driving.

1. Driving skills alone do not make a good defensive driver.

a. Poor attitudes negate qualities of skill, such as:

1) Impatience.

2) Egotism.

3) Over-aggressiveness.

4) Impoliteness.

5) Irrational behavior.

6) Nonconformism.

7) Impulsiveness.

8) Domineering attitude.

9) Combativeness.

10) Intolerance.

2. The driver's attitude is the key to most accidents in all types of driving weather, regardless of where a person is going or how fast.

3. People drive as people are.

a. Our attitudes with driving are likely to be the same as in other social situations.

b. This "style of life" theory simply proposes that a correlation exists between our behavior on and off the highway.

c. Many chronic offenders are characterized by social maladjustments, such as:

1) Anti-social attitudes.

2) Record of court appearances.

3) Disrespect for authority.

e. False ideas, misconceptions about stopping in time.

f. Self-righteousness.

g. Impatience, taking needless chances and getting into tight situations.

7. The important point is to recognize our attitudes and change them when necessary.

a. Don't be lulled into a false sense of security or smugness.

1) Recent study of 30,000 cases of persons involved in fatal traffic collisions indicated.

a) Over 70 per cent had never been involved in a traffic accident nor had they received a traffic citation.

C. Good defensive driving techniques.

1. Entering the vehicle.

a. Entering from right side (curb side).

1. This is safest, but not always practical because of the presence of another officer, radio, or other equipment.

2. Enter from right side when practical. This practice is readily observed by the public and may serve as instruction to them as well as enhancement of good police image.

3. Some insurance companies will not pay claims on accident involving entry from traffic side.

b. Entering left side (traffic side).

1) Most drivers do so, but it is not a safe practice because of exposure to moving traffic.

2) If an officer must use this side, the approach to the door should be parallel and close to the vehicle.

3) Observe traffic, open door with left hand, but only far enough to allow room to slide into seat.

4) Close door promptly.

5) During entry into car, door should be held tightly to prevent it from being blown open or from being opened by the suction created by passing traffic.

2. Exiting from a vehicle.

a. Exiting from right side is the safest way to exit when practical.

b. Exiting from left side.

1) Be certain the vehicle is completely stopped; apply emergency brake so vehicle will not roll.

2) Check traffic approaching from rear by use of mirrors and direct observation.

3) When opening door and exiting from vehicle, use same practices as when entering.

3. Starting from a stopped position.

a. Check for any obstacles at front or rear of car.

b. Carefully check traffic conditions. Be sure to have ample distance between your vehicle and on-coming cars before pulling into traffic lane.

c. Accelerate smoothly; a "jack rabbit" or wheel-spinning start creates poor public image, can damage vehicle, and lose time.

4. Drive within the speed limits unless on call or emergency.

a. Proper patrol dictates good observation, and this cannot be accomplished at high speeds.

b. Set an example for the public who continually look to you for examples of good driving practices.

5. Give the proper signals while driving, to indicate your intentions to turn or change lanes.

a. Hand or electrical signals.

1) Electrical signals are not always safe.

a) Glare from sun on directional signal.

b) Bumper to bumper traffic.

2) Hand signals are most effective during daylight hours and not effective at night or during inclement weather.

3) The driver responsible must give a clear signal that is clearly understood by both pedestrians and other motorists.

4) When the signal is given:

a) At all times prior to:

i) Making a stop.

ii) Making a turn.

iii) Any reduction in speed.

iv) Changing traffic lanes.

v) When stopping at a curbside parking place and before leaving a curbside parking place.

vi) When vehicle is stopped at roadside or on roadway for any reason (traffic accident, etc.) all vehicle flashers should be activated.

b) Signals, when required, should be given not less than 100 feet away from contemplated maneuver.

c) Use of hand signals.

i) Left turn is forearm raised upwards, fingers extended.

ii) Right turn is the forearm parallel to the ground, fingers outstretched.

iii) Stop or decrease speed is the forearm down at a 45^{o} angle to the ground.

6. The backing of a motor vehicle.

   a. The correct method of backing a motor vehicle.

      1) Ascertain that right-of-way is clear.

      2) Turn body slightly to right with right arm over the back of the seat; look directly through rear window.

      3) Steer with left hand at top of steering wheel.

      4) Use right rear fender as guide.

   b. The incorrect method of backing a motor vehicle.

      1) Looking over left shoulder (not enough angle of view).

      2) Opening door and using left rear fender as guide (does not allow driver view of right rear area of car).

      3) Relying exclusively on the rear-view mirrors (blind spots in field of view from rear roof supports).

7. Skills in parallel parking.

   a. Proficiency in this technique important because:

      1) Of observation by citizens.

      2) Of instructions and assistance often requested by public.

      3) The public is skeptical of driving ability if proper parking ability isn't demonstrated.

   b. Proper procedure for parallel parking.

      1) Select parking space prior to stopping and signal for same.

      2) Check the rear traffic and don't turn, slow, or stop unless maneuver can be performed safely.

      3) Signal for stop 100 feet prior to stopping.

4) Stop car two feet to the left and parallel to the car parked in front of the desired space. Rear bumpers should be aligned, since cars may vary in length.

5) Shift into reverse and check traffic in all directions.

   a) Turn steering wheel two complete turns in a clockwise direction in first six feet of travel.

   b) Observe the position of vehicles over right shoulder.

   c) Continue backing until the car is at a 45° angle to the street.

6) Turn the steering wheel counter-clockwise until the front wheels are in a parallel line with the rear axle of the front car.

7) At this point, stop the vehicle and observe its relationship to the parking space.

8) Continue backing slowly as wheels are straightened (two or more turns to the left, counter-clockwise).

9) As front bumper clears the rear bumper of the car parked in front, turn steering wheel two or more cycles counter-clockwise and back to within six inches of the car parked behind. Stop.

10) Turn steering wheel clockwise four turns while moving slowly forward.

11) Park equal distance between front and rear vehicles.

12) When parking on a hill:

   a) If level or downhill grade, turn the wheel toward curb.

   b) If facing uphill, turn the wheels away from curb.

   c) When facing uphill where there is no curb, turn wheels to the right.

13) Before alighting from car, set brake, shift to park or reverse position, and remove ignition key.

14) Be sure car is parked in legal zone if not on an emergency. Otherwise, the public will receive a poor impression, and rightfully so.

8. Proper turns.

a. Make the determination of where you are going to turn.

1) Proper depth perception is necessary, so the approach to the corner isn't too fast.

2) Consider the traffic in the rear.

a) Give the signal for speed reduction.

b) Give the signal for direction of turn.

b. Making right turns.

1) Use the proper signals - move as close to the right side of the road as is safe.

2) Slow the momentum of the car when approaching the corner.

3) Check traffic and complete the turn at a safe speed, being alert to other vehicles, pedestrians or obstructions.

c. Making left turns.

1) Instructions are the same as for right turns, except for the following:

a) Drive as close to the left center of the road as is safely possible.

b) Be alert to traffic both to your left, right, and that approaching.

c) Make left turn so as to enter the intersecting road just to the right of its center line.

d. Do not shift while in process of making turns. Select the proper gear or drive range prior to starting your turn. This will insure proper acceleration or deceleration as needed.

9. When passing a stopped motorist:

a. Defensive action begins when a vehicle is noted parked or parking alongside the roadway ahead.

b. When this danger is noted, anticipate that the driver will open his door into the path of your vehicle and step out. To lessen this danger:

1) Give warning of approach by sounding horn.

2) Slow down.

c. Traffic permitting, give proper signal, change lanes and pass parked car.

d. The width of roadway permitting: The passing vehicle should pass at a minimum of six feet to the left of the parked car.

e. In the case of heavy oncoming traffic:

1) Give the signal of slowing or stopping to traffic in the rear.

2) Wait for break in oncoming traffic before passing the stopped vehicle.

f. Always look for the unexpected, and scan left and right side of roadway for an emergency exit if needed.

g. Be aware of pedestrians walking or running from or toward the stopped vehicle.

D. Unexpected situation which may arise when driving.

1. When confronted with blocked road due to slower or stopped traffic:

a. Always allow yourself an out.

b. It is best to use the emergency brake, and then if you have room, take the shoulder or even the ditch.

c. Practice good observation and anticipation of emergencies.

2. When coming into a corner, driving too fast to make it:

   a. Look for an escape road or route.

   b. If not available, it is better to go off the road in a straight line than to attempt a turn and slide off sideways and turn over.

   c. Look for fence or bushes to slow down the vehicle.

3. When experiencing a blowout:

   a. The average driver wants to jump on the brakes (reflex action); do not do this.

   b. The natural tendency is for the car to pull toward the side on which the tire failure has occurred.

   c. A blowout should be handled the same as if the vehicle were trying to go out of control for any other reason, with proper power and steering.

   d. Throttle action is very important.

   e. The steps to be taken are as follows:

      1) Maintain or increase power slightly and steer accordingly.

      2) As you maintain control, bring the left foot to the brake pedal.

      3) While power is still on, start very gradual braking action.

         a) This will help you maintain control.

         b) There will be very little transition from the pulling force to the braking force.

      4) While gradually applying the brakes, reduce acceleration power.

      5) When full braking force is reached, the throttle should be completely closed.

      6) Continue to brake by the pumping method.

      7) Stay alert for any new pulling forces and be ready with the throttle if they occur.

8) The pumping method of braking the vehicle:

a) Allows the tire that failed, to keep its shape.

b) Prevents the tire from bunching up and locking the affected wheel.

9) After slowing to about 30 miles per hour, normal stop can be made and right foot can take over the braking if desired.

10) Above all, do not panic.

E. Proper driving posture.

1. To assure a correct driving posture and reduce fatigue, the following habits should be developed.

a. The buttocks should be firmly positioned against the angle where the seat and back of the seat meet.

b. The seat belt and shoulder harness should be firmly fastened.

c. The legs should be spread in a natural and comfortable position.

d. The right heel should be firmly on the floor, so that the ball of the foot is centered on the accelerator.

e. The right foot should be so positioned on or near the accelerator so that movement to the brake can be rapid and positive.

f. When practical and comfortable, the left knee can be braced against the door for additional stability.

g. Steering position is determined by arms' length, the recommended position for normal driving.

1) Hands at "twenty after ten" or " ten after eight" in clocklike position.

2) Hands should never be directly opposite each other or close together.

h. Sit with body leaning slightly forward, not too stiff or erect; do not slouch.

i. Do not hold the steering wheel too rigidly. If the knuckles turn white, grip is too tight.

F. Driving conditions on the road.

1. No two miles of travel will present the same driving conditions.

a. Driving conditions are constantly subjected to adjustments because of various elements:

1) The road surfaces.

2) The weather.

3) Traffic control devices.

4) Other traffic.

2. Road surfaces vary and require different driver action.

a. Concrete surface:

1) Is probably the safest surface when in good repair.

2) Is subject to cracking and joint separation during severe temperature changes.

3) Maintains fair braking surface during the rain.

4) When worn smooth, is very dangerous.

b. Blacktop or macadam surface:

1) Is safe in good weather.

2) Is subject to pot holes and oil slicks.

3) Often has high crown on secondary routes.

4) Is exceptionally slippery during rain.

c. Gravel, dirt, stone surfaces:

1) Usually have poor traction.

2) Is subject to holes, puddles, washouts.

3) Usually does not have level surface, because of minimum maintenance.

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4) Give off hazardous dust clouds and thrown stones from moving vehicles.

d. Snow, rain, or ice will negate any good road surface.

e. If road surface glistens in sunlight, it will be slippery when wet.

3. Weather conditions.

a. Adverse weather, such as snow, rain, fog, or ice creates problems.

1) Snow.

a) As the snow reduces visibility, reduce speed of a vehicle correspondingly.

b) As it starts to adhere to roads, the surface becomes slippery.

c) Added traction is afforded by snow tires or chains.

2) Fog.

a) Visibility is often reduced to zero.

b) Following distance becomes critical.

c) Speed should be reduced, so braking distance is shortened.

d) Headlights become ineffective for seeing; however, they do warn other motorists of your presence.

e) Fog reflects light; do not use a high beam.

3) Rain.

a) Visibility is also reduced.

b) Rain can cause the vehicle to hydroplane.

c) Rain mixes with oil and dirt and makes surface slippery.

d) Required stopping distances are increased.

e) Rain can cause smear on windshield when wipers are first used; avoid turning wipers on until road ahead is clear of traffic.

f) Worn tires are a decided detriment.

4) Ice.

a) Steering becomes a critical problem, as well as braklng.

b) Traction is practically lost.

c) Manuevering becomes dangerous.

d) Snow tires are ineffective; chains are a necessity.

e) Braking is accomplished by intermittent pressure just short to locking brakes.

f) Down-shifting is helpful in slowing the vehicle and maintaining control.

G. The wearing of seatbelts as a safety device.

1. Seatbelts should be used anytime one is driving or riding in an automobile.

2. Findings from Cornell University's Automotive Crash Injury Research confirm this point.

3. Study showed that people are 35% to 60% safer with seatbelts than without.

4. Seatbelts could save 5,000 lives yearly simply by keeping people in the vehicle who are thrown out.

5. In the Cornell study:

a. 12.8% of car occupants ejected through doors or windows were killed.

b. Only 2.6% of those remaining in the vehicle were killed.

c. Indications were that the risk of death is 5 times greater if thrown from the car.

d. Those remaining inside vehicle and using seatbelts were found to be 60% safer than those remaining inside the vehicle without seatbelts.

1) Seatbelts prevent being thrown forward into the dashboard or windshield.

2) It is the violent reduction in speed by striking a solid object in the car that kills or injures.

6. If the driver is kept firmly anchored and in control behind the wheel, through the aid of seatbelts, an accident may be prevented.

H. The importance of good vision.

1. Whether corrected or normally good, vision cannot be emphasized enough in safe driving.

2. Defined in Webster's New Collegiate Dictionary, vision is, "actual sight; ocular perception, the sense by which light and color are apprehended," etc.

3. As an optical instrument, the eye is defective; no one has "perfect" vision, because of optical conditions, defects of the eye.

4. Optical defects are usually of two types.

a. Those accruing from the curvature of the reflective surfaces.

b. Those caused by the dispersion of the light by the refractive media.

5. Acuity - the capacity of either eye to recognize small space intervals in the discrimination of form.

a. Example: Draw two lines on a blackboard or a piece of paper parallel to each other and at close intervals. At equal distances, some people will not be able to distinguish the intersecting space.

b. Example: With eyes kept perfectly still, look at a page and you will only be able to read two or three words.

c. The central region of the eye where the acuity is high is called the fovea, and the surrounding retina the parafovea.

d. Example: Hold hand near the edge of the visual field with fingers extended.

1) It will be impossible to count the fingers, so low is the visual acuity.

a) Movement can easily be detected, however.

b) Peripheral retina has much higher acuity for movement than for shape.

e. Visual acuity is closely related to light intensity and can be reduced at low levels of illumination.

1) Fine work or reading is not possible when lighting is poor.

2) Bright headlights are scarcely noticeable in the daytime but appear unbearably bright at night.

3) The difference is due to the process of dark or light adaptation, and is the process by which the sensitivity of the retina becomes increased or reduced.

6. Depth perception.

a. Definition:

1) Encyclopedia Britannica: "The perception of objects involves not only their identity, size, shape, brightness, and color, but also their positions relative to each other and the observer.

2) Depth perception is not the perception of space as such, but of objects in their spatial (geometrical) relationship to each other and to the observer.

b. Depth perception is one of the most important aspects of vision as it affects the driver, since it is the ability to estimate distances between vehicles or other objects.

c. Although some people suffer from lack of depth perception, they remain accident-free drivers by learning to compensate for their deficiency in other ways.

7. Vertical or lateral balance and imbalance.

   a. Normal eye movement is controlled by six pairs of balanced muscles working together.

   b. If muscles are out of balance (one or more exerting extra effort or not functioning properly), the following can occur:

      1) Hyperphoria - tendency for the eye to turn upward.

      2) Hypophoria - tendency for the eye to turn downward.

      3) Esophoria or overconvergence - eye turns inward.

      4) Exophoria or underconvergence - eye turns outward.

      5) Cyclophoria - tendency of eyes to rotate.

   c. Muscle imbalance is related to proper fusion of objects viewed and to the accommodation function of the lenses of the eye.

8. Fusion.

   a. Integration into one of the two images of an object seen by the two eyes.

      1) Each eye picks up the image on the retina.

      2) The images are fused into one and transmitted to the brain.

      3) This is the reason why muscle balance is related to fusion.

   b. Example:

      1) Hold a pencil 18 - 25 inches from the eyes, holding the lead perfectly still.

      2) Fix gaze on an object beyond the pencil.

      3) At this point, two pencils will be seen.

      4) Slowly draw gaze to pencil and the images will fuse. Sensation of the eyes converging can be felt.

c. Diplophis (double vision).

1) This condition occurs because the eyes are not balanced.

2) This condition is not tolerated by the eyes and soon suppression occurs, with one eye failing to function.

9. Color perception.

a. Each color has a different wave length.

b. The retina of the eye is sensitive to these wave lengths of light, thus providing for color perception.

c. Little can be done in cases of "color blindness."

d. Extreme caution should be exercised by persons suffering from this.

1) Color perception becomes a hazard in driving, due to traffic lights and signs being specific colors for warnings.

2) Color perception can be compensated for by knowing the position of red, yellow, and green lights and the shape of warning signs.

e. Fatigue can cause mild forms of color blindness.

10. Peripheral vision (field of vision).

a. Peripheral vision is the ability to detect objects to either side of the line of vision, while looking directly ahead.

b. Usually objects can be detected at 90° to either side of the line of vision.

c. If the field is as low as 60°, eye examination by a qualified professional is indicated.

d. Extremely important is this vision to drivers at intersections,etc., to detect objects moving toward them from the side.

e. As the speed of the vehicle is increased, peripheral vision decreases, since concentration centers on greater distances ahead. This is known as "tunnel vision."

6. Leave yourself an out.

   a. Never get trapped in a situation where there is no escape:

      1) Driving blind with dirty windshield.

      2) Getting pocketed by other vehicles.

      3) Depending on the other drivers' presumed intentions.

7. Blend with traffic flow.

   a. Never break a traffic pattern with sudden or erratic changes.

   b. Adjust your direction and speed to that of the mass of other cars.

   c. Accomplish necessary changes or shifts with the least disturbance possible.

J. In conclusion, make your driving job easy on yourself and on others.

   1. Be as efficient as possible.

   2. Plan a course of action for various situations.

   3. Remember that an automobile is a tool of your trade. The mark of a professional is:

      a. His familiarity with the tools of his trade.

      b. The smoothness and efficiency with which he uses them.

IV. Precision Driving.

A. The need and reasons for precision driving.

1. To drive for maximum performance.

2. To improve the techniques driving.

3. To realize the limits of each driver's personal ability.

4. To know the maximum limits of the vehicle.

5. To make safer drivers.

6. To lower departmental expenditures which would result if there were fewer accidents.

B. Precision driving requirements.

1. The acquisition of mechanical skill.

2. Possession of knowledge of laws governing motor vehicle operation.

3. Possession of knowledge of rules of the road.

4. Normal eyesight.

5. Normal reaction of physical reflexes.

6. Possession of knowledge of highways and roads in your patrol area.

7. Mature judgment - good attitude.

8. Maintenance of departmental policies on driving.

9. The ability to safely and efficiently operate a motor vehicle.

10. The ability to anticipate hazardous movements by other motorists and act accordingly.

11. It must be emphasized that the purpose is not to develop expert pursuit drivers, but to improve to the maximum the capabilities of everyone taking the course.

C. Responding to emergencies with precision driving.

1. High speed vehicles.

a. Prior to World War II most cars had a maximum speed of around 100 m.p.h.

b. Today the public drives vehicles ranging from 200 to 400 m.p.h., which has increased acceleration.

c. The top-end speeds have increased from 85 miles per hour to in excess of 130 miles per hours.

d. A four-thousand-pound vehicle traveling at about 120 m.p.h. has about 2,000,000 foot pounds of energy.

e. Most police vehicles are capable of operating in excess of 120 m.p.h.

2. A police officer must have ability to maneuver his vehicle.

a. In emergency driving an officer must of necessity execute some maneuvers in a manner not acceptable in routine patrol driving.

b. It is intended under the emergency vehicle laws that right of way provided through use of red lights and siren is to compensate to a degree for the extra hazards of pursuit driving.

1) The police officer will soon learn that personal judgment and defensive driving are real protection.

2) The average man sometimes can hardly cope with normal driving problems and has a tendency to panic when presented with the presence of pursuit vehicles driving at high speed.

3. Police officers have a tendency to regard all calls as emergencies.

a. Usually the inexperienced officer responds this way.

b. There are very few times when a minute or two makes a considerable difference.

1) If the police officer doesn't make it safely to the scene, he is of no value.

2) Additional personnel may be required if the responding officer has an accident.

c. Unless a police officer knows the call is an emergency, he should consider it a non-emergency problem.

d. It is better to delay the arrest or lose pursuit than needlessly injure or kill an innocent person.

D. The Michigan law regarding emergency vehicles.

1. An authorized emergency vehicle as defined in the Michigan Motor Vehicle Code includes vehicles of:

a. The fire department.

b. The police department.

c. Ambulances.

d. Emergency vehicles of governmental departments.

e. Vehicles of public service corporations and privately owned vehicles of volunteer and paid firemen as authorized by the Commission of State Police acting directly or through his duly authorized officers, agents, and employees.

2. The Michigan Motor Vehicle Code - Section 603.

a. This section sets forth the exercise of privileges of an authorized driver of an emergency vehicle when responding to an emergency call, but <u>not</u> returning therefrom.

b. The driver of an emergency vehicle may:

1) Park or stand, irrespective of the provisions of the act.

2) Proceed past a red or stop signal or stop sign, but only after slowing down as may be necessary for safe operation.

3) Exceed the prima facie speed limits as long as this does not endanger life or property.

4) Disregard the regulations governing direction of movement or turning in specified direction.

c. These exemptions granted to an emergency vehicle shall only apply when:

1) The driver, when in motion, sounds an audible signal as reasonably necessary by:

a) A bell.

b) A siren.

c) An exhaust whistle.

2) The vehicle must be equipped with:

a) At least one lighted lamp displaying:

i. A flashing, oscillating, or rotating red or blue light.

ii. The light must be visible under normal atmospheric conditions from a distance of 500 feet in front of each vehicle.

b) Since January 1, 1964, the blue emergency light is only authorized for:

i. Publicly owned police vehicles.

ii. A privately owned vehicle if at least 50 percent of its mileage is driven on law enforcement business on behalf of the state or any political subdivision, and the driver is reimbursed by either the state or political subdivision.

3. The Michigan Motor Vehicle Code - Section 653, provides the legal obligation of the motorist to yield right-of-way to emergency vehicles.

4. The Michigan Motor Vehicle Code - Section 653.

   a. Upon the immediate approach of an authorized emergency vehicle equipped with at least one flashing, rotating or oscillating lamp exhibiting a red or blue light visible under normal atmospheric conditions from a distance of 500 feet to the front of such vehicle, and when the driver is giving audible signal by siren, exhaust whistle, or bell, the driver of every other vehicle shall yield the right-of-way:

      1) The driver shall immediately drive to a position parallel to and as close as possible to the right hand edge or curb of the roadway, clear of any intersection.

      2) The driver shall stop and remain in such position until the authorized emergency vehicle has passed.

      3) The exception to this is when the driver is otherwise directed by a police officer.

      4) This section shall not operate to relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons using the highway.

5. The Michigan Motor Vehicle Code - Section 706, Paragraph D.

   a. Any authorized emergency vehicle may be equipped with a siren, whistle, or bell.

      1) It must be capable of emitting a sound audible under normal conditions from a distance of not less than 500 feet.

      2) Such siren shall not be used except:

         a) When such vehicle is operated in response to an emergency call.

         b) In the immediate pursuit of an actual of suspected violator of the law.

      3) In this event the driver of such a police vehicle shall sound the siren when necessary to warn pedestrians and other drivers of his approach.

b. In a police emergency, use common sense and good judgment when operating the emergency vehicle.

1) The effectiveness of the siren is usually not so great as expected.

2) Assume the following in emergency driving:

a) That many motorists are deaf.

b) That motorists' attention is on driving and other traffic.

c) That the windows of other vehicles may be closed.

d) That motorists may be playing their radios loudly.

e) That conversations are taking place in other vehicles.

f) That drivers tend to become confused when they hear a siren.

c. These conditions and distractions should have bearing on the speed at which a police officer operates the patrol vehicle.

E. Passing and overtaking (in same direction).

1. Constantly scan the area adjacent to the left of the roadway for:

a. Exit points.

b. Obstacles preventing exit if needed.

2. Distinct and audible signals for passing should be given before passing is undertaken.

3. If in pursuit, endeavor to retain speed while passing. It is better to slow down 10 m.p.h. in approaching and passing a vehicle than to slow down 20 m.p.h. when passing at high speed.

a. After slowing down, it takes considerable time to rebuild speed.

b. Speed can be reduced 10 miles per hour per second by braking at normal speeds, but it may take one second to increase speed by 2 m.p.h.

4. Abrupt braking is dangerous because brake bands heat and braking effort may "fade."

5. Brakes out of adjustment may cause the vehicle to swerve to the left or right and go out of control.

6. If brake bands are exposed to water, they should be tested immediately, before an emergency arises.

7. Safer way to slow down prior to passing:

   a. Prepare for slowing down well in advance.

   b. Pump the brakes gradually.

8. In pursuit watch out for:

   a. The car ahead making sudden stop.

   b. The car ahead making left turn.

   c. The car ahead swinging left of center, then turning right.

   d. The cars to rear or left passing as you attempt to pass.

   e. Any on-coming traffic.

   f. The cars entering your desired path of travel from side road to your left or right.

9. It is unsafe to cut in sharply after passing another motorist.

   a. It creates dangerous element for you and the other driver.

   b. It creates unnecessary strain on vehicle components.

   c. It invites cricism by the public.

F. Traversing curves.

1. Factors involved in making a sharp curve safely.

   a. Knowledge of the physical layout of the curve is desirable.

      1) A top safe speed can then be predetermined.

      2) The elevation and degree of the grade should be known.

   b. The slope of the curve (upward or downward).

   c. Knowledge of the police vehicle, its maneuverability and capability.

   d. The driver must have an established safe technique or be able to follow a safe plan of operation.

2. For maximum safety, all braking should be accomplished prior to actual entry into the curve.

3. If braking is accomplished prior to entry, acceleration may be carried out throughout entire process of traversing curve.

4. Steering left of center is extremely dangerous as the cruiser may meet an oncoming car head on.

5. Sudden sharp turning while traversing a curve is dangerous because of:

   a. Undue strain on tires, wheels, steering mechanism.

   b. Loss of control due to loss of friction between tires and the road surface and centrifugal force.

6. When driving through a curve:

   a. Remain just right of the centerline.

      1) This insures 4 to 6 feet of leeway to drift if it becomes necessary to steer right to avoid collision.

      2) As a last resort, consider the shoulder of the road if it is available and usable.

b. Inside travel on a sharp curve increases centrifugal force.

c. If the car begins "creeping" toward the center of the road in a right curve, or toward the edge in a left curve, the cause is usually excessive speed.

1) If creeping occurs, acceleration must be decreased.

2) The vehicle should be allowed to drive in the direction of the creeping movement in order to allow time for gaining traction.

d. If the rear wheels slide:

1) Steer in the direction of the slide.

2) Accelerate slightly to regain traction.

3) Avoid using the brakes during the skid, for this tends to increase the skidding action.

7. The reaction time of the driver is important.

a. The driver must react instantly and correctly.

b. At a high rate of speed it is almost impossible to react quickly enough to recover.

8. If, through too much speed, the car leaves the surface of the roadway:

a. Decrease acceleration.

b. Don't brake bacause it will cause a skid.

c. Regain control of vehicle.

d. Reenter the roadway at a 30 to 45 degree angle.

9. Where loose material is on the roadway:

a. Decrease the speed of the vehicle.

b. Straighten the front wheels while driving through the material.

c. Slowly resume speed after passing over the debris.

10. Check the speedometer when approaching curves at high speed.

a. With high-powered cars it is easy to be 20 to 30 m.p.h. over the speed possible to negotiate curves.

b. An example is approaching a 40 m.p.h. curve at 90 m.p.h.

1) The slow down point is 450 feet before reaching the curve.

2) This is one and one-half times the length of a football field.

11. Some important points to remember:

a. Go into a curve at the speed where you know you can make it.

b. Halfway through the curve accelerate smoothly.

c. While in the curve, don't take the eyes from the road and know the wheel position within six inches.

d. Consider using all of the road legally possible, using it illegally if it is to avoid an accident.

e. Under pursuit conditions a police officer may have to use all of the road in order to maintain or advance his position.

f. Be sure there is no oncoming traffic.

g. Do not attempt this maneuver on any curve that does not have good vision all the way.

h. Know the road surface and be alert for:

1) Any gravel or sand.

2) Any lumps, swells, or chuck holes.

3) Any grease spots.

4) Any water, snow, or ice.

i. Be alert for stopped or stalled vehicles that block or partially block the road.

G. Exercising the use of force in reasonably effecting an arrest.

1. State law permits an officer to use whatever force is reasonably necessary to effect an arrest.

a. Whether the crime is a misdemeanor or a felony determines the amount of force that can be used.

b. Never use a gun in attempting to stop a motorist for a violation of the traffic code.

c. If pursuing an escapee or felon, extreme caution must be used if gunfire is indicated.

1) In pursuit the following should be considered:

a) Can identification be made so that apprehension would be possible later?

b) Is the crime minor and not serious enough to take a life?

c) Are you positive the person you are pursuing committed the crime?

d) Is there any possibility that innocent persons could be in the vehicle being pursued?

e) Is there any possibility that an innocent bystander or motorist could be injured or killed?

f) Is it possible to blockade the vehicle with the assistance of other units?

2) If an affirmative answer can be given to any of the above, it is unlikely that gunfire could be justified.

2. The practice of bumping cars or forcing a vehicle to stop by ramming it is dangerous, and all other methods should be tried before resorting to this force.

a. Bumping or ramming cannot be justified unless:

1) The driver represents an extreme hazard to other highway users.

2) The driver has demonstrated a dangerous felonious intent.

b. Any bumping or ramming maneuver involves some risk to the officer and his car.

c. It is far safer to:

1) Sound the siren.

2) Use the blinker lights.

3) Use the spotlight to blind through the rear view mirror.

4) Radio for assistance, with roadblocks following at a reasonable distance.

3. Patience while in pursuit will pay dividends to the persevering officer.

4. Realize that your reputation is at stake, and conduct yourself in a manner above reproach while driving.

H. In stopping motorists with a police cruiser.

1. The motorist's safety.

a. This is the primary concern of the police officer and the driver and passengers of the car being stopped.

b. Restraint must be observed in the use of the horn and siren because:

1) It is possible to startle an unsuspecting motorist, causing him to lose control of his vehicle.

2) Many drivers are nervous, high-strung, or emotionally unstable.

3) Women may refuse to stop, particularly at night, fearing rape or robbery.

c. Correct action by the officer can minimize hazards.

1) In approaching a violator from the rear, get his attention by using red blinking light.

a) Pull along side if necessary.

b) Indicate to him that he is the one being stopped and where to stop.

2) If the light fails to gain his attention, use the horn.

3) Use the siren as a last resort.

4) The blinking light on a well-marked cruiser not only identifies it as a police vehicle, but also warns other motorists.

5) At the time of identification, the officer should be wearing his hat or helmet with a uniform so his identification is never in doubt.

6) The results will be poor if an unmarked police vehicle is utilized or the officer is in plain clothes. Attempting stops under these conditions is extremely poor policy and should be undertaken only in extreme emergencies because:

a) There is a good possibility the officer will be ignored.

b) Driver will mistake him for a "smart alec."

c) The fear of impersonation.

d. In stopping a motorist the safety of the operation takes precedence over the speed of the operation.

1) Select a spot to stop the motorist that is safe.

2) Select a spot that will allow both motorist and police vehicles to get safely off the roadway.

a) Never stop a motorist on the crest of a hill.

b) Never stop a motorist on a blind curve.

c) Never stop a motorist in or near a congested intersection.

3) Watch the shoulder or roadway for hazards or obstructions.

a) Watch for narrow shoulders, deep ditches.

b) Watch for culverts or bridges.

c) Watch for soft shoulders, holes, deep ruts, and steep embankments.

d) Watch for signs, posts, or other obstructions.

4) If stopping is hazardous in the immediate area, the stop must be delayed until a safe location is available.

2. The safety of the general public.

a. An officer must be concerned with the safety of other motorists and pedestrians who may be affected by his actions and must take all precautions to insure their safety.

b. The fact that an officer has a red or blue light and a siren gives him no legal or moral right to force other highway users off the road or otherwise endanger them.

c. The actions of a pursuing officer may also affect traffic behind him. The officer's intentions should be indicated prior to pulling into passing lane or abreast of the car to be stopped. Turn indicators or a stop signal should be given. This allows the following driver to adjust his driving to the officer's maneuvers.

d. If the following motorist is in the process of passing, the officer should wait before proceeding to make the stop.

3. For the safety of the officer, to protect himself as well as others, the following precautions should be taken:

   a. Avoid stopping motorists on high speed roadways unless both vehicles can be removed entirely from the road to the shoulder or a safe parking area.

   b. If a stop must be made where it is impossible to be off the roadway, select a spot away from the crest of a hill, or the point of a curve, and in plain view of approaching traffic.

   c. Keep close watch on the driver being stopped for slowing or other changes in speed, stopping, or turning.

   d. Park six to ten feet to the rear of the car being stopped and approximately three feet to its left, which will provide a three-foot safety zone to occupy while contacting the driver.

   e. Keep the cruiser's engine idling:

      1) It is then prepared for instant pursuit should the driver run.

      2) Keeping the engine running will maintain engine heat and the battery won't lose charge due to radio drain.

   f. Maintain six feet of the road's shoulder to your left for maximum safety.

4. Standard stopping procedure.

   a. Prior to stopping, maintain safe distance (safety rules).

      1) One car length for each ten miles of speed.

      2) Following distance in feet should be twice the speed.

   b. While maintaining distance, pick out a spot 500 to 600 feet ahead to make the stop.

c. Check traffic in front, rear, and side, and increase speed five to seven m.p.h., pulling to the left of the car being stopped.

d. At the same time, activate rotobeam and other warning lights.

e. Pull along side the motorist until the front bumper of the cruiser is even with the left front door of the motorist's car. Then maintain this speed and get the motorist's attention.

f. If the motorist doesn't notice the oscillating light, blow the horn. Use the siren only as a last resort.

g. When the motorist's attention is gained, indicate by pointing the spot where you want him to stop.

   1) At this point, begin reducing speed so you can pull behind the motorist.

   2) Do not allow yourself to be put in a position of having to stop ahead of the motorist.

   3) Be alert for sudden stops, increase in speed, or changing lanes.

h. When pulling off the pavement be sure you don't lose control.

   1) Keep a firm grip on the steering wheel.

   2) Be aware of soft shoulders, holes, ruts, etc.

i. If an escape attempt is made:

   1) Radio for assistance.

   2) Get and give full description of car:

      a) The model, make, and license number of the vehicle as well as its color.

      b) Its present location and direction of its flight.

3) When first attempting to stop, get a good look at the driver so that identification can be positive if he should make good his escape and it is necessary to get a warrant for his arrest.

j. Once stopped stand near the right front of the cruiser for maximum safety if it is necessary to converse with the driver for an extensive period of time.

k. If officers are operating in a two-man car the officer opposite the driving officer can watch for moves of resistance, unseen dangers in the driving area, and can record and radio any necessary information. In addition:

1) Constantly observe side roads and intersections for dangers of conflict in vehicular or pedestrian movement.

2) Constantly observe the occupants of any car which is to be stopped for possible resistance or concealment of objects.

a) This observation should continue until the driver has been stopped, checked, and released.

b) When necessary, he should supervise the actions of passengers and keep them seated and apart from the officer who is checking the driver.

3) Once a lone motorist has been stopped he may position himself to left rear of the motorist's car.

a) To direct traffic around the officer conversing with the driver.

b) To be in a position to hear conversation for possible future testimony and render assistance if necessary.

V. Field demonstration and practice of precision driving.

A. Reaction time and stopping distance.

1. Test student reaction time.

2. Indicate distances student will need to stop the car at various speeds.

3. Demonstrate the coefficient of friction by changing the road surface or types of tires:

a. By pouring water or oil on road surface to change the coefficient of the pavement.

b. By using both bald tires and tires with good tread on the various surfaces.

4. Give the student the opportunity to feel out the vehicle.

B. Parallel parking.

1. The student should accomplish this as the previous chapter indicates.

2. Proper method of entering and exiting from the vehicle should also be demonstrated and practiced.

3. Proper procedure for pulling into traffic should be practiced at this point.

C. Pursuit turns.

1. Practice making these various turns.

2. Discuss time needed for each type.

3. Demonstrate proper positioning of the hands on the steering wheel.

4. Discuss and demonstrate proper angles and wheel positions.

5. Demonstrate proper acceleration after completing turns (notice squeeling, smooth acceleration).

D. Precision driving.

1. Simulate passing procedures.

2. Demonstrate proper wheel placement.

3. Conduct this at various and increasing speeds.

4. Discuss forces reacting on car.

E. Skid pan.

1. Traverse first with dry road surface.

a. Discuss forces reacting on vehicle.

1) Kinetic energy.

2) Centrifugal force.

3) Coefficient of tires on road surface.

b. Demonstrate proper method of traversing curves.

2. Apply water, oil, or foam to curve areas.

F. Stopping motorists.

1. Discuss proper procedures.

2. Have the driver of the vehicle being pursued participate in various evasive maneuvers.

a. The sudden stop.

b. The swerve left.

c. Restarting after being stopped.

d. A sudden right turn onto side street if available.

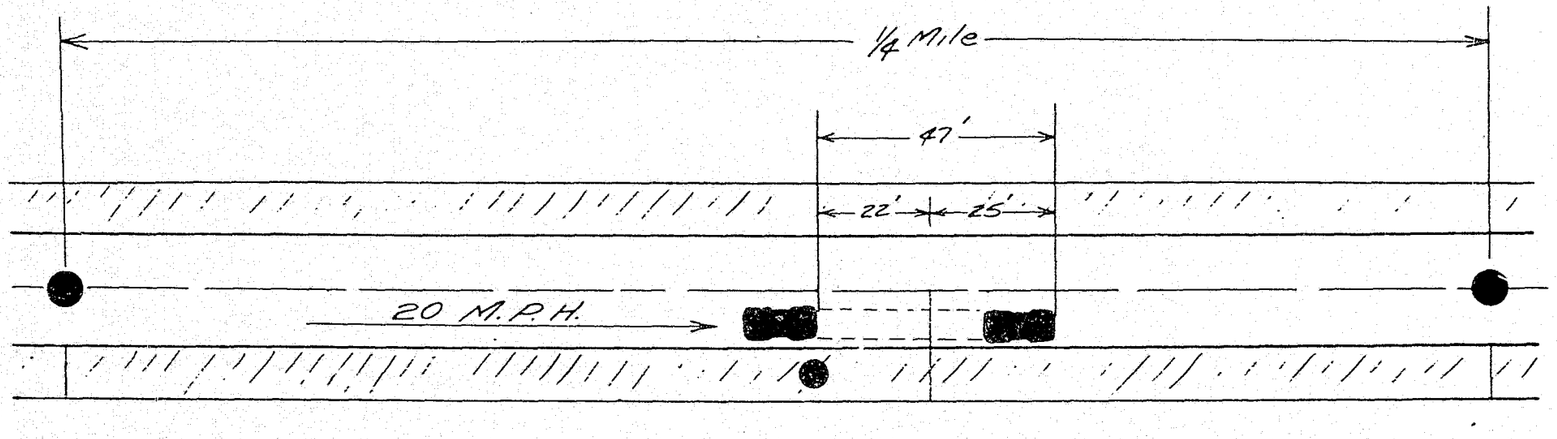
G. Critique.

1. Criticism of each driver by other classmates.

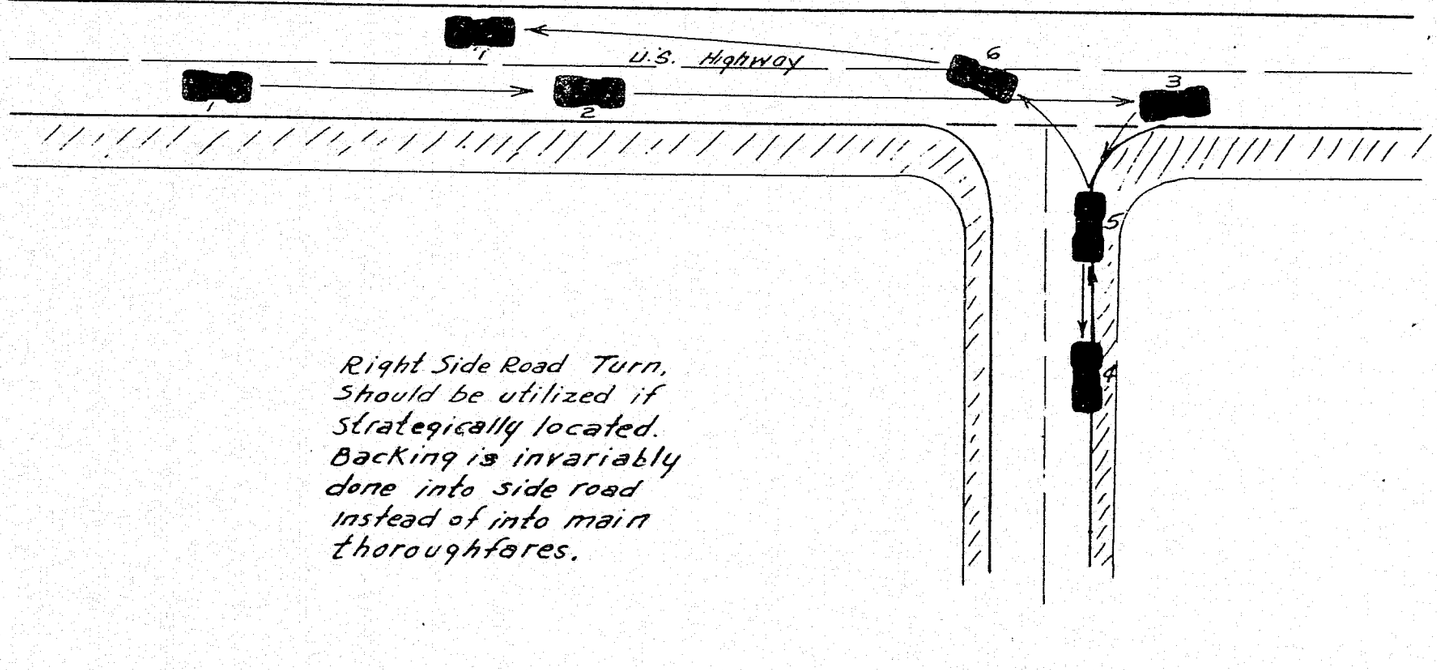
2. Comments (good and bad) on each driver by instructors.

3. Evaluation of course and suggested improvements.

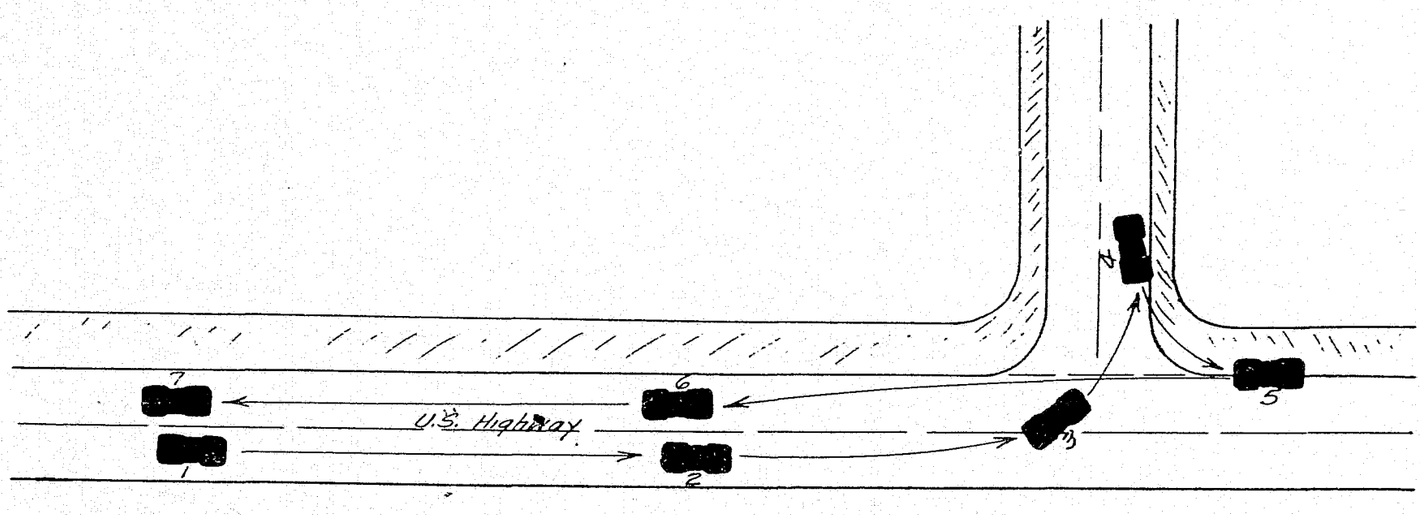
Reaction Time
&
Stopping Distance
Plan



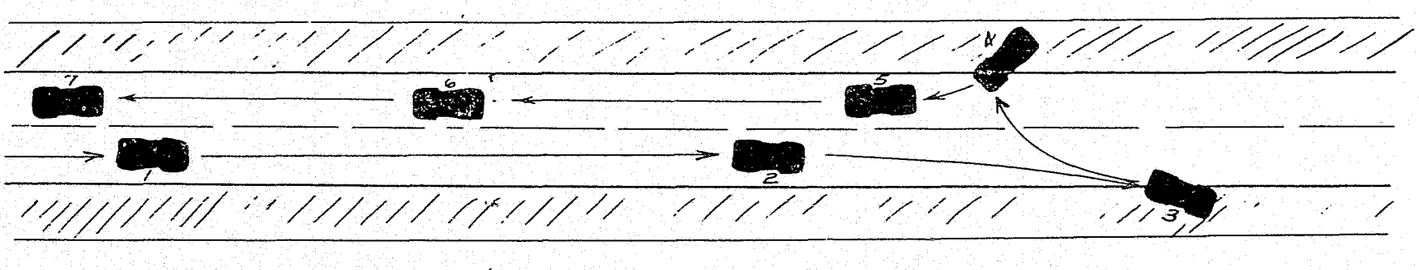
Parallel Parking



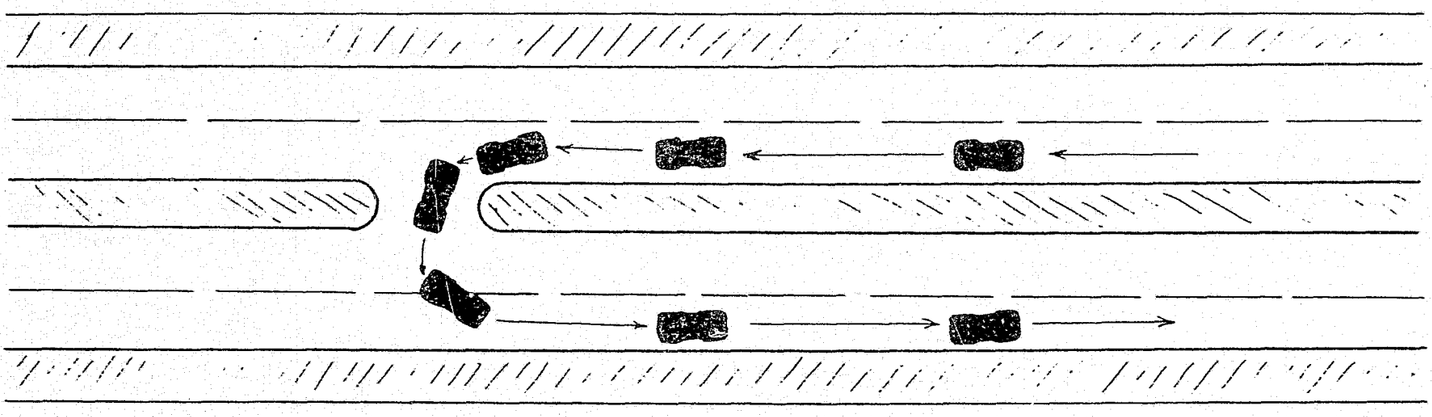
Right Side Road Turn. Should be utilized if strategically located. Backing is invariably done into side road instead of into main thoroughfares.



Left side Road Turn
Prorides turning space over and above "Y" Turn. Backing Should be done cautiously onto Shoulder if arailable

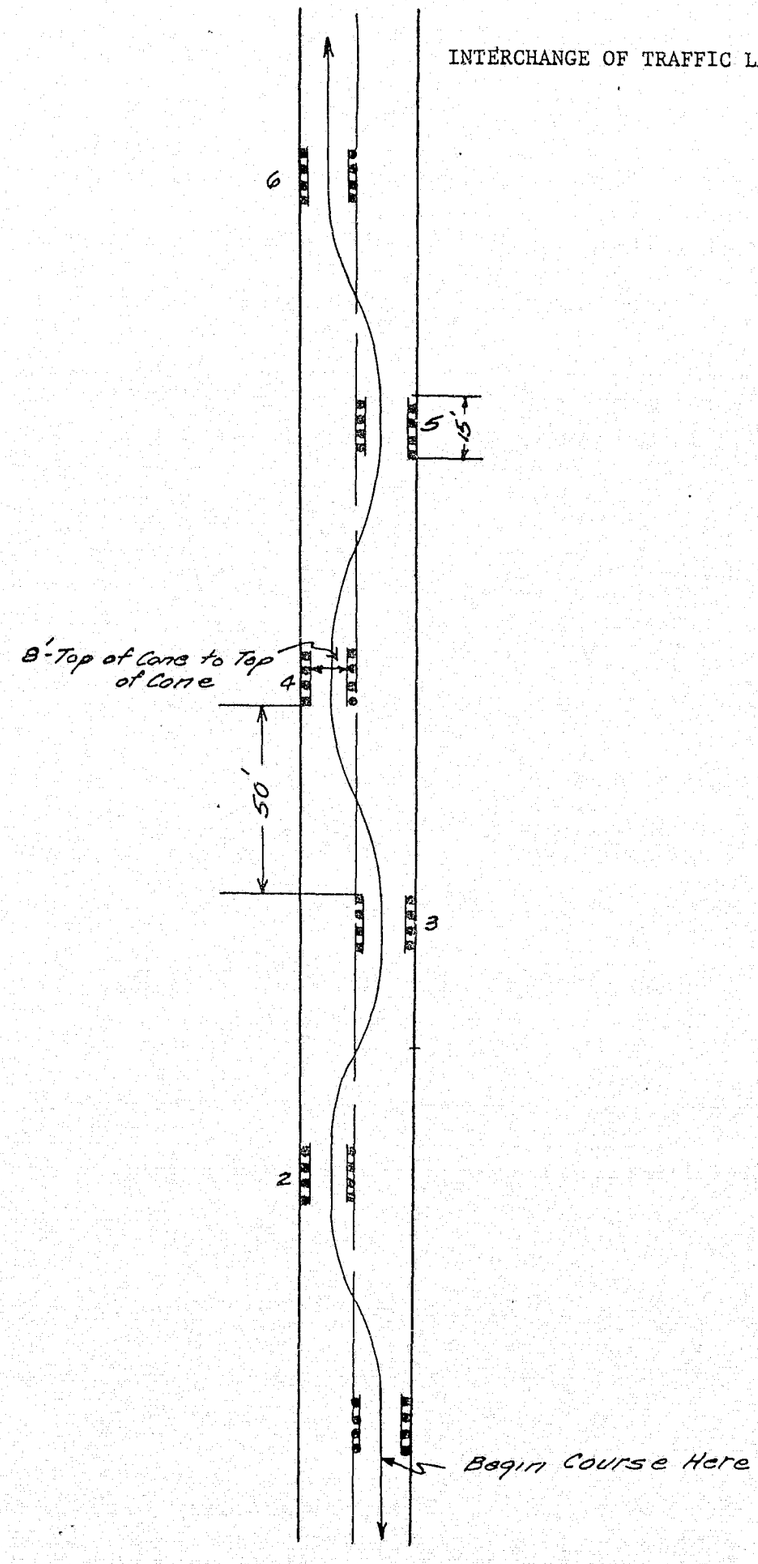


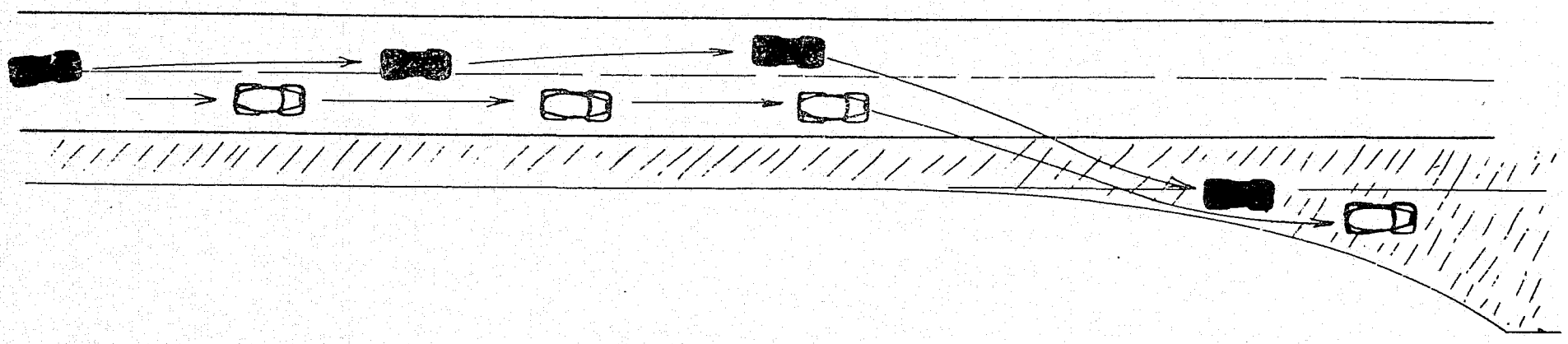
"Y" Turn can be executed if 25-30 feet of surface is usable, Care must be exercised to avoid dropping a wheel off the shoulder on either side of the road or of backing into the path of an oncoming Vehicle



"U" Turn May be utilized eren though Median strip is 10 feet wide Crossing of one traffic lane is necessary, but is clearly visible to the front

INTERCHANGE OF TRAFFIC LANES

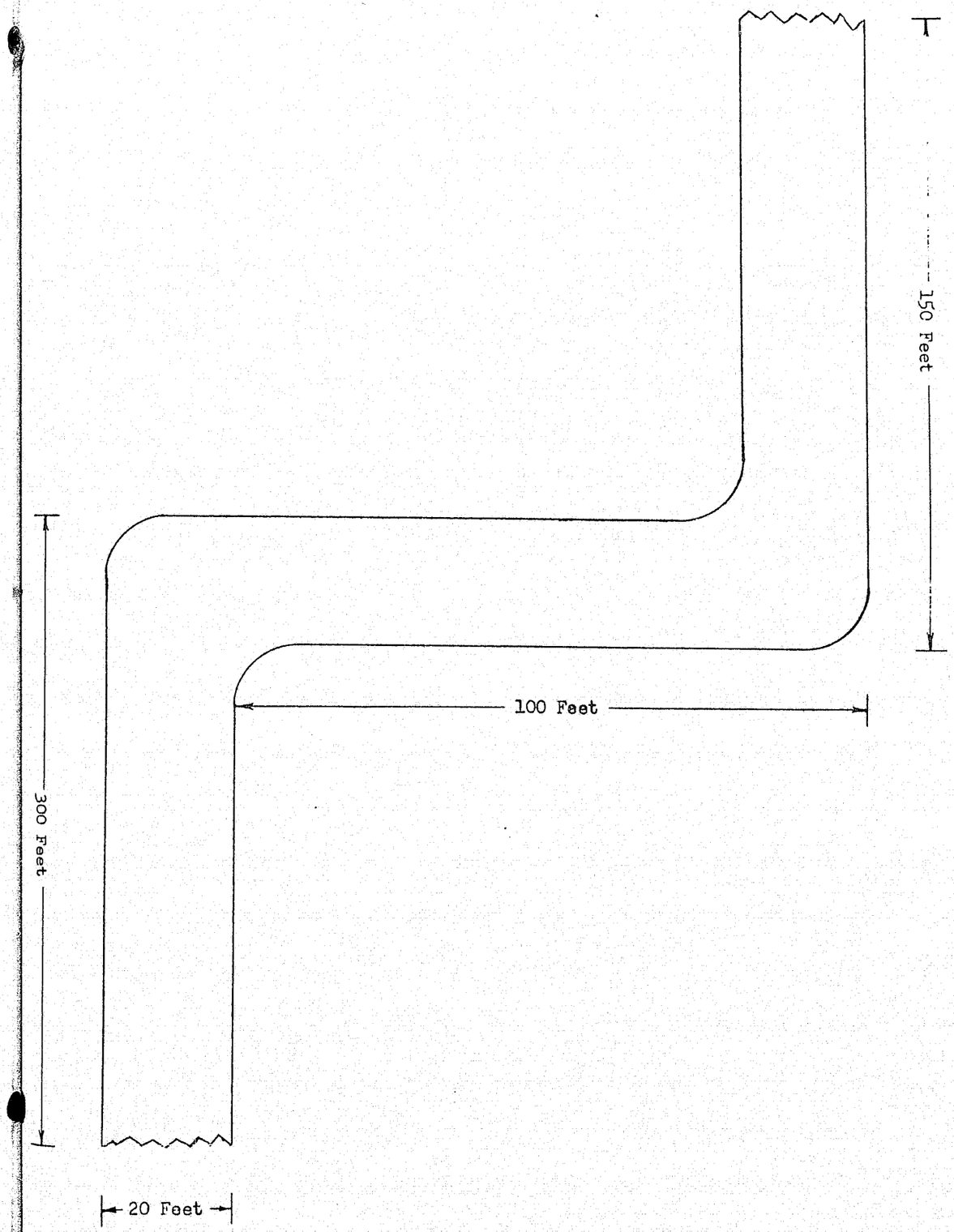




Correct Procedure
For stopping motorist

1. Follow at safe distance - Move left Just right of Center Line. Survey Traffic and Parking area.
2. Signal for left turn, and Change traffic Lanes.
3. Pull up to within 6 feet of Car and Recheck traffic
4. Turn on blinker - Slow down to same speed by braking.
5. Signal Motorist to Stop.
6. Signal for Right turn - Park 6 feet to Rear & 3 feet left.

SKID PAN



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ROADBLOCKS AND BLOCKADES

I. Introduction to Roadblocks and Blockades.

A. Reason and needs for roadblocks and blockades.

1. Roadblocks are designed for public safety and service.

a. They are primarily used to apprehend fleeing felons.

b. They are occasionally used to halt traffic violators, particularly reckless drivers who are being pursued by police officers.

2. Roadblocks should not be used for repetitious stopping of cars for questioning of drivers or inspection of their license.

a. Such tactics are legally questionable.

b. Such tactics are irritating to the public and causes adverse public relations.

3. A blockade is an emergency action which is infrequently used. Law enforcement's reputation and prestige with the public depends on proper handling of the situation.

a. A blockade must not be handled with a haphazard method or approach.

b. The proper method of setting up and maintaining blockades should be uniform and efficient.

4. It is essential that a blockade be effective, efficient, and handled with minimum of danger to all parties involved.

5. Training needs of today are entirely different from those of the past and operations of roadblocks require constant re-evaluation and improvement to meet the needs of an ever increasing and highly mobilized population.

6. Understanding the terms used - Roadblock and blockades.

a. A roadblock is an operation, usually by individual police vehicles designed to control the flow of traffic for a specific objective.

b. A blockade is the area or point at which the road is blocked by individual police vehicles designed to control the flow of traffic for a specific objective.

c. In common police usage the blockade system is a design of carefully placed roadblocks or individual police vehicles to accomplish a specific objective.

d. Oftentimes in police vernacular the terms are used interchangeably to generally mean the stopping and inspecting of all vehicles and their occupants.

B. History of the blockade system.

1. Prior to 1957, Michigan did not have any effective statewide blockade system.

a. Although the Michigan State Police had statewide communications with their own units, other police departments were not part of the net, nor could they be depended upon to maintain specific blockade locations.

2. An incident on September 20, 1957, indicated with glaring clarity the ineffectiveness of the limited roadblock plans that then existed.

a. Two Michigan State Police Troopers were shot near Clinton, Michigan, while attemting to arrest two wanted subjects. One trooper died.

b. Despite blockades, the killers escaped into Indiana.

c. They were captured (one killed) near Auburn, Indiana, but not before they had:

1) Kidnaped a citizen in Michigan.

2) Killed one Indiana and one Michigan State Police Trooper.

3) Wounded an Indiana Trooper, Michigan State Police Trooper and a North Vernon, Indiana Patrolman.

3. The September 20, 1957, incident demonstrated the fact that the escape was successful because:

a. Of faster transportation and improved highways.

b. The killers outpaced the old network and were beyond the blockade points before there was time to effectively set them up.

4. A solution was sought to end the shortcomings of the limited blockade system.

a. At Michigan State Police Headquarters, East Lansing, law enforcement officials of State, county, and city departments met to discuss this common problem.

b. They formed a committee to devise a plan to accomplish three objectives.

1) To increase the speed in establishment of a blockade.

2) To create greater uniformity among all police agencies in the State.

3) To reduce the confusion in the communications system of all departments at such a time as a blockade is requested.

c. Committee consisted of three members each from the Michigan State Police, Michigan Sheriffs Association, and the Michigan Association of Chiefs of Police.

d. This group was known as Michigan Law Enforcement Blockade Committee.

e. The committee discussed many plans and ideas and agreed that a plan of predetermined locations which would make it possible to establish a blockade with a minimum of time and communication should be utilized.

5. The present plan was devised and named the Michigan Law Enforcement Blockade System.

C. Participants in Michigan Law Enforcement Blockade System.

1. Blockade Committee contacted each law enforcement agency in the Lower Peninsula.

a. It covers an area of 41,250 square miles.

b. The committee determined what locations were the most effective blockade points in each respective area.

c. There are 253 law enforcement agencies, including city, village, township, sheriff departments, and state police posts which have predetermined blockade points to cover in this plan.

d. Over 100 other police agencies whose limited man power prohibits specific blockade points are included and freelance in their areas of jurisdiction.

e. The locations assigned to the various agencies were determined by:

1) The number of officers each would always have available for an immediate blockade on a 24 hour basis.

2) Their proximity to each location.

2. State areas not covered by the blockade plan.

a. Metropolitan area of Wayne, Oakland, and Macomb Counties of which Detroit is the Center.

1) Could not be blocked off in the same manner as other sections due to congestion.

2) The Metropolitan area around Detroit has a separate system which can operate independently or coordinated with the State Plan.

b. The Upper Peninsular does not have a specific statewide plan due to limited avenue of escape.

II. Michigan Law Enforcement Blockade Plan.

A. The Michigan Law Enforcement Blockade Committee.

1. The Michigan Law Enforcement Blockade Committee shall consist of three members each of the Michigan State Police, Michigan Association of Chiefs of Police and Michigan Sheriffs' Association. The members are appointed by the respective heads of each organization.

2. This Committee is responsible for the formulating and planning of the Michigan Law Enforcement Blockade System. They will be responsible for the periodical review of the system and the coordination of any necessary changes or corrections recommended by participating agencies.

B. The participating agencies.

1. Each Sheriff Department in the lower peninsula.

2. Each State Police Post in the lower peninsula.

3. Each municipal police department in the lower peninsula.

C. The purpose of the Blockade Plan.

1. The apprehension of an escaping criminal fleeing from the scene of a crime.

2. The prevention of a criminal who has committed a crime in one area from seeking refuge in another section of the state.

D. The Blockade Communications Center.

1. The Operations and Communications Bureau of the Michigan State Police, East Lansing, has been designated as the Communications Center for blockade dissemination. It shall be the responsibility of this agency to immediately, upon request of an investigating agency, to disseminate the information which will place a blockade in effect.

2. The Blockade Communications Center will have no authority in the investigation of the crime, but is merely the central dissemination point for blockade information.

3. The Blockade Communications Center shall be responsible for the forwarding to the investigating agency(ies) for any additional information which they may obtai-.

E. Responsibilities of participating agencies.

1. Each participating agency will be responsible for the assignment of personnel to blockade locations which they have agreed to police.

2. Each participating agency will assume the responsibility of furnishing relief personnel if such is necessary unless cooperative agreements have been made with another police department to furnish such relief.

3. Each agency will be responsible for the prompt reporting to the Blockade Communications Center of any temporary or permanent difficulty in the proper policing of a blockade point assignment.

4. Each agency shall be responsible for the reporting to the Blockade Committee of any necessary change or correction in the blockade assignments.

F. The responsibilities of investigating agencies.

1. The police agency investigating a crime will be responsible for the request for the erection of a blockade. This should be done immediately upon receipt of such a crime as delay will reduce the effectiveness of a blockade.

2. The investigatingppolice agency will be responsible for furnishing all possible information obtained to the

Blockage Communications Center for dissemination to participating agencies on blockade points. Such information may be given to the Blockage Communications Center through the available communications facilities.

G. Establishment of a blockade.

1. Any police agency investigating a crime may request the erection of a blockade to assist in the apprehension of the person(s) involved. Such action can be initiated by either:

   a. Notifying the nearest police agency having communications contact with the Blockade Communications Center.

   b. Direct contact with the Blockade Communications Center.

2. The Blockade Communications Center may erect such a blockade without waiting for a directive from the investigating agency if:

   a. There is indication that the crime is such that a blockade should be erected to insure the protection of the citizens of surrounding counties or communities.

   b. There is indication that a blockade will be or should by erected and further delay will reduce its effectiveness.

   c. The police agency involved is unable to request such action due to injury, etc.

H. The termination of a blockade.

1. A blockade which has been erected will be terminated through the combined agreement of the investigating agency and the Blockade Communications Center.

2. The broadcasting of the information terminating a blockade shall originate from the Blockade Communications Center. The information terminating a blockade shall be disseminated through the same channels as the original information.

I. The Michigan Law Enforcement Blockade Plan.

1. The Blockade Committee has reviewed each county in the lower peninsula. The respective counties have been divided into equal sections or areas and each have been designated alphabetically as A - B - C - D - E, and in the case of some of the larger counties F.

2. Predetermined blockades have been set up for each area so designated in each respective county.

3. A large blockade map in the Blockade Communications Center will have each location so lettered for reference.

4. The blockade information will be placed in a multiple binder type of book known as the Blockade Book.

5. The following agencies will have a blockade book containing the information on what locations they will be responsible for on each blockade and what police agencies, if any, they should notify.

   a. Each Sheriff Department.

   b. Each State Police Post.

   c. Each municipal police department with radio facilities for dispatching information to their own and other police units.

J. An example of the operations of the plan (see map attached).

1. A crime occurs in Eaton County. The investigating agency advises the Blockade Communications Center that a a blockade is requested and gives the crime and location.

2. The officer in the Blockade Communications Center will check the large blockade map and determine that it is closest to the letter "A" in Eaton County. The blockade plan for Eaton County shows the State Police Posts involved. He would then advise these Posts by radio that, "The blockade plan for Eaton County 'A' is in effect."

3. The posts above would refer to Eaton County "A" in their blockade book which would show the other police agencies involved in the blockade. They would then notify such departments that the "blockade plan for Eaton County 'A' is in effect." They would also dispatch their cars to their designated locations.

4. The respective sheriffs and municipal police departments so advised would refer to blockade plan for Eaton County "A" in their blockade books which would show their blockade points and what agencies, if any, they should advise. They would notify such departments that the "blockade plan for Eaton County 'A' is in effect." They would also dispatch their cars to their designated locations.

5. Police departments not having blockade points, but in the blockade area, would also be given the information on the crime by the reporting department having radio communications with them.

K. The blockade report (see sample attached).

1. Upon erection of a blockade the following agencies will complete and forward a blockade report to the Michigan Law Enforcement Blockade Committee.

   a. Each State Police Post involved.

   b. Each Sheriff Department involved.

   c. Each municipal police department involved which was responsible for the dispatching of mobile units of their own or other departments.

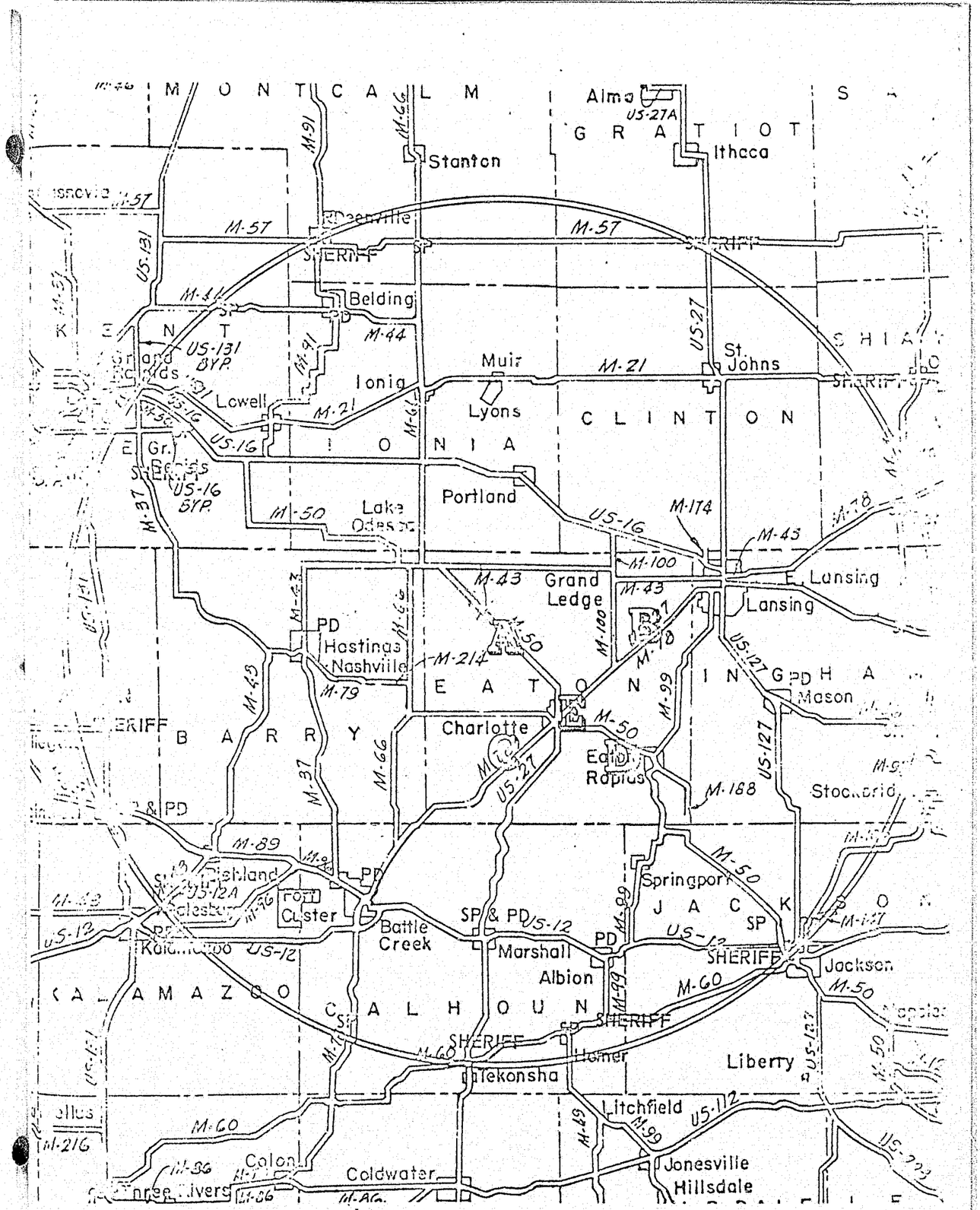
2. This should be done as soon as possible after the termination of a blockade.

3. The Blockade Report shall be used by the Blockade Committee for further study to attempt a continued improvement upon this system.

L. Freelancing by involved and non-involved police agencies.

1. Police agencies not assigned to a particular blockade assignment on or within the blockade perimeter shall be responsible for the freelancing operation of all available mobile units in their area of jurisdiction.

2. Police agencies assigned to blockade points shall utilize any extra mobile units available for freelancing in their area of jurisdiction.


MONTCALM
Alma
US-27A
GRATIOT
Ithaca
Stanton
M-57
Greenville
SHERIFF
US-131
M-44
Belding
M-91
M-46
M-21
US-27
St. Johns
Muir
Ionia
Lyons
CLINTON
Lowell
US-16
M-66
M-37
Grand Rapids
US-16 BYP
M-50
Lake Odessa
Portland
M-174
M-43
M-100
Grand Ledge
Lansing
PD
Hastings
Nashville
M-79
M-214
EATON
M-99
INGHAM
Mason
Charlotte
US-27
Eaton Rapids
M-188
Stockbridge
BARRY
M-89
Springport
JACKSON
Battle Creek
Marshall
Albion
Jackson
M-60
CALHOUN
SHERIFF
Homer
Tekonsha
Litchfield
Liberty
M-49
Colon
Coldwater
Jonesville
Hillsdale
KALAMAZOO
Kalamazoo
Fort Custer
Three Rivers

MICHIGAN LAW ENFORCEMENT BLOCKADE REPORT

DEPARTMENT COMPLETING THIS FORM _____

LOCATION _____

INFORMATION RECEIVED FROM _____ DATE _____ TIME _____

INFORMATION CANCELLED BY _____ DATE _____ TIME _____

BLOCKADE AREA _____

INFORMATION DISSEMINATED

DEPARTMENTS NOTIFIED	TIME	CANCELLED	TIME
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

POLICE UNITS ASSIGNED

UNIT NO.	OFFICERS	LOCATION	TIME ARRIVED	RELEASED

CONTINUED

3 OF 4

EXTENSION REPORT (Narrate): _____

_____

_____

_____

_____

_____

PROBLEMS ENCOUNTERED AND REMARKS: _____

_____

_____

_____

_____

_____

Signed _____

Mail completed form as soon as possible after the termination of each blockade to the Michigan Law Enforcement Blockade Committee, c/o Operations & Communications, Michigan State Police, East Lansing, Michigan.

III. The Functioning of a Blockade.

A. The purposes of a blockade.

1. The advantages of using a roadblock in police operations.

a. May result in the apprehension of fugitives.

b. The blockade may make it possible to solve a crime by providing the immediate step in identifying the criminal and revealing that he was involved in a crime.

1) A roadblock can result in discovering the fruits of the crime or in locating the weapon with which the crime was committed.

2) Stolen goods, contraband, deadly weapons, and other violations of the law may be revealed by a roadblock which otherwise may go undetected.

c. May curtail the movements of a fugitive to such a degree that he will confine his activities to a limited area and ultimately result in his arrest.

2. The disadvantages of a blockade.

a. Inconvenience that it causes to a great number of police officers.

b. It disrupts normal police schedules and tours of duty.

c. It is expensive in time, personnel and equipment.

d. Police officers may call a roadblock when it is not actually required.

e. It provides hazards to both the public and the police officers.

B. Factors which should be considered in establishing a blockade.

1. Determine for which type of crime the blockade is to be established.

a. Generally used in crimes of violence such as murder, robbery, kidnapping, etc.

b. Some local jurisdictions have passed ordinances prohibiting the erection of permanent roadblocks because of the inconvenience it causes to other motorists and the potential danger it creates for the drivers and the police.

2. The time element in a blockade.

   a. A blockade must be erected very quickly after the commission of a crime; otherwise, it is ineffective.

   b. Time element requires an effective coordinated plan that will establish a blockade very quickly.

3. All available information concerning the crime must be quickly transmitted to blockade posts.

   a. The description of the fugitive.

   b. The vehicle he is operating.

   c. The crime which he has committed.

   d. Anything that will help the officers at the block point in identifying the criminal.

4. Blockade Headquarters in Lansing will be responsible for transmitting information to agencies participating in blockade.

5. Each officer must clearly understand what he is to do at the point of the roadblock.

   a. The officers should be familiar with area in and around the roadblock point.

   b. The officers should know what action to take and be familiar with the people in the area.

6. Do not set up a roadblock where some access road intersects the highway within sight of the block point.

7. Select a place on the highway where the roadway is narrowed down such as cut through a hill, a bridge, culvert, etc.

8. Select a point that will enable the officer at the point of block to observe traffic flow in both directions and to spot a car that is reversing its line of travel.

9. Select a point, if possible, where no private homes are immediately adjacent to the roadblock. Being conscious of this point may prevent some civilian from being shot in any ensuing gun battle.

10. Select a point where the radio reception is adequate.

11. Each officer at the roadblock must be thoroughly schooled as to when he is authorized to use his fire-arms in connection with the assignment.

    a. Mere fact that a motorist goes through the roadblock is not sufficient grounds for shooting.

    b. Experience has shown that some motorists are tempted to run through a roadblock because of infractions of the law that amount only to a misdemeanor or summary offense.

    c. The "trigger happy" officer must be curbed to prevent loss of his job or civil suit.

12. If spotlights are available, they should be focused on the driver of the car <u>after</u> his vehicle has come to a stop.

13. A vehicle should not be passed through a roadblock simply because the officer recognized the operator. The criminal may have commandeered the vehicle and forced the operator to drive the car.

    a. Consider that the driver of any car, or one or more occupants may be kidnapped or held by force.

    b. Consider the practice among fugutives of picking up hitch-hikers.

14. The officer at the point of the roadblock should transmit all available information to the communication center promptly.

15. The roadblock should not be discontinued until such instructions are received from the proper authority.

16. What is the officer to do if a car runs through the blockade?

    a. If it is a fugitive car, obviously he should follow in pursuit.

b. Instructions as to this situation should be clear and specific.

17. The officer should not stay in the center of the intersection to control the flow of traffic.

C. Types of blockades.

1. The moving type of blockade.

a. Patrol car is placed at strategic spot off the highway to act as the "spotter" car. This vehicle, equipped with a radio, is preferably placed in a spot that does not make it visible to on-coming traffic.

b. When the "spotter" car observes the fugitive vehicle it falls in behind and remains within sight of the criminal vehicle. This information is immediately relayed to the communication center, and the dispatcher arranged for a police car to get in front of the fugitive vehicle and another police car to get in position behind the "spotter" car.

c. The police car behind the "spotter" car travels at a slow rate of speed and prohibits anyone from effecting a pass.

d. The police car in front of the fugitive car also slows down and the attempt here is to box the criminal car and force it to stop or go off the roadway.

2. The permanent type of roadblock.

a. Is used in cities or built up areas. Equipment stored near block points is accessible to the officer assuming the control of the post.

b. In rural areas, equipment may be stored similarly at service stations, fruit stands, or at point of entry at toll roads.

3. The concentric or circle type of roadblock.

a. Schematic illustration of this type of block.

b. First circle of blocks are established about 20 to 40 miles from the city in which the crime was committed.

1) Block assignments on first ring.

a) Officers in immediate area.

b) Assign roving patrols within first ring.

2) All new information should be transmitted to units on block.

a) Keeps officer alert.

b) Keeps interest up.

c. Second circle of blocks are established about 50 to 70 miles from the center radius of the crime.

1) Two ring system of block with roving patrol best.

a) First ring 20 to 25 miles.

b) Second ring 50 miles.

2) Moving or roving patrols and blockade cars report useful information or suspicious occurrences to the commander and to each other.

3) Reponsibility of roving patrol.

a) Can be one-man patrol, better with two.

b) Check all suspicious cars, etc., to first ring.

c) Contacts within first ring.

i. Highway workers.

ii. Gas stations and other business places.

iii. Utility workers (telephone, power company).

iv. Farmers.

v. Railroad workers.

vi. Other police agencies in first ring.

vii. Conservation men.

viii. Any person who may have information concerning crime.

d) If suspects are sighted, advise route of of travel, etc. Airplane may be used in the inner circle to scout for abandoned cars and may continue this operation until there is reason to believe the fugitive car is out of the inner circle.

e) Additional police vehicles are dispatched to patrol the farm to market roads to pick up information about the fugitive car.

f) Small town police units go to designated roadblocks either in the inner or outer zones.

D. Conducting the roadblock.

1. When stopping cars for search, make sure that each car stops and is inspected thoroughly.

a. Take time to inspect completely the interior of car, because subject may be hidden on floor or rear of car.

b. Don't wave by any cars merely because you recognize the driver, because he may be covered by subject, hidden in car.

c. If a suspicious person is stopped, don't leave post assignment to investigate. Call for assistance, if available.

d. Attempt to keep out of line of fire of other officers who may be located near scene of roadblock.

e. At night a spotlight directed on car being searched is good protection.

f. Firearms should be readily available.

g. Stay out of traffic lane, and never step in front while motor is running.

2. When to use firearms.

   a. Generally the rule which applies is to shoot only in self defense. Reckless use of firearms by one officer might cost the lives of innocent persons and fellow officers. Extreme care should be taken at night.

   b. If a vehicle runs the blockade, don't shoot at the car, but run it down and investigate. The driver might be a respectable citizen who became frightened at being stopped.

3. Contact with drivers.

   a. On stopping cars be firm but courteous. Attempt to solicit cooperation of drivers. If several roadblocks are set up along a road, drivers can be on the lookout for subject who may desert his behicle and attempt to walk or hitch-hike away.

   b. If operated properly and courteously and in a businesslike way, a roadblock can do much to promote good will among citizenry.

E. Methods of blocking roads.

   1. Physically blocking the road.

      a. Types of physical blocks.

         1) Wire across the road at radiator height is impractical for civil authorities.

         2) Chicken wire across road.

         3) By using a vehicle or some other obstruction.

      b. Traffic would move in one line of flow and police vehicles would be used as protection devices.

      c. This plan at best is limited to areas where traffic is not heavy.

      d. Because of the heavy flow of traffic, this plan is seldom used today.

2. The cable or rope technique.

   a. Cable or rope anchored to some permanent object like a tree at an angle of 45 degrees.

   b. Sign indicating stop is suspended from the center of the line.

   c. When spotter car observes fugitive vehicle, information is relayed to block area and line is stretched taut across the highway.

   d. Theory is that fugitive vehicle will either stop or be forced off the roadway by the extended cable.

3. The use of private cars to act as blocks.

   a. Not used too much today because of risk. Municipality is subject to civil suit. If used, the operator ought not be in the car. Arrangements should be made as to how damages are to be paid.

4. The modern technique for establishing roadblocks.

   a. Police vehicles act as shields in case of gunfire.

   b. Extra officers cover fellow officer checking traffic.

   c. If fugitive car runs through the block, there is nothing to prevent the police car from pursuing it.

   d. In heavy flow of traffic, this system must be used and police car may be used simply as a spotter car and fall in behind the fugitive car to prevent its reversal of direction.

F. The basic location of roadblocks.

   1. A natural obstruction helps to slow down and channel traffic. Examples: bridges, underpasses, road construction projects, road repair jobs, sharp curves.

   2. Locating beyond a gradual curve gives oncoming traffic less advance warning than on a straight road; this permits a subject's car less opportunity to turn and run.

3. Locating at an intersection or junction allows more space to operate, which may or may not be advantageous. Intersections or junctions also permit more avenues of escape and may complicate the problem of traffic control.

4. In a residential area, there is greater danger to the public and a fugitive car can turn off without causing suspicion.

G. The responsibility of units on blockade points.

1. Equipment to be used by officers on a roadblock.

a. A rifle or other weapon, plus sidearm.

b. Flashlights.

c. Clothing to fit situation.

d. Fuses, flares, or pot torches.

e. Portable searchlight helpful.

f. Radios on and manned.

g. Patrol car properly fueled and kept running.

2. Set up blockade at assigned location.

a. Secure as many of these advantages as possible.

1) Proper position.

2) Sufficient manpower.

3) Enough firepower.

4) Cover, in case of attack.

5) A plan of action for contingencies.

b. The specific blockade point should be flexible for the following reasons:

1) Amount of manpower.

2) Type of terrain.

3) Flow of traffic.

4) Physical location of business places or homes.

5) Amount and location of pedestrian travel.

6) Light, natural or artificial, conditions available.

c. Do not place block where innocent persons will be involved. If small town request assistance of local authorities.

d. Place the police cruiser in position for a fast getaway.

1) With the radio on.

2) With the covering officer using car for cover.

e. Covering officer's position (#2).

1) In position to survey scene, never losing sight of officer stopping cars.

2) Use Rule of Triangle to avoid cross fire.

3) Not hidden, but cover available.

4) Where radio can be monitored.

5) Rifle or machine gun in hand for use.

f. Stopping officer's position (#1).

1) In roadway where visible to #2.

2) Stop cars before they come up alongside.

3) Scrutinize thoroughly before bringing up for final check.

4) Assume position where all occupants can be observed.

5) Do not put any part of body in car or stand inside open door.

6) Observe actions and emotions of passengers; may be kidnapped, etc.

7) Sidearm in holster ready for immediate use.

8) If fired upon, "hit the dirt."

9) Be alert and cautious, always.

IV. Mechanics of County of City Roadblock, Independent of the Michigan Blockade System (Local Use).

A. This is not a "block" in that generally traffic is not stopped. It is more of a "surveillance" of exits of a city or a small county for one particular "wanted car."

B. The police department or sheriff's office should have a planned pre-arranged system for blocking the roads leading out of the city (or county). When necessary to "bottle up" a criminal, each officer should know what his station is for this purpose.

C. How to formulate such a city (or county) plan.

1. Prepare a map of the city (or county) showing all roads and their converging points, leading out of the city (or county).

2. Designate proper stations, by number, at each strategic point upon such roads, where the participating officers will be stationed to effect the block or cordon.

3. Use radio equipped prowl cars at each station, if available. Also consider number of radio equipped detective bureau cars which will be available to supplement the prowl cars.

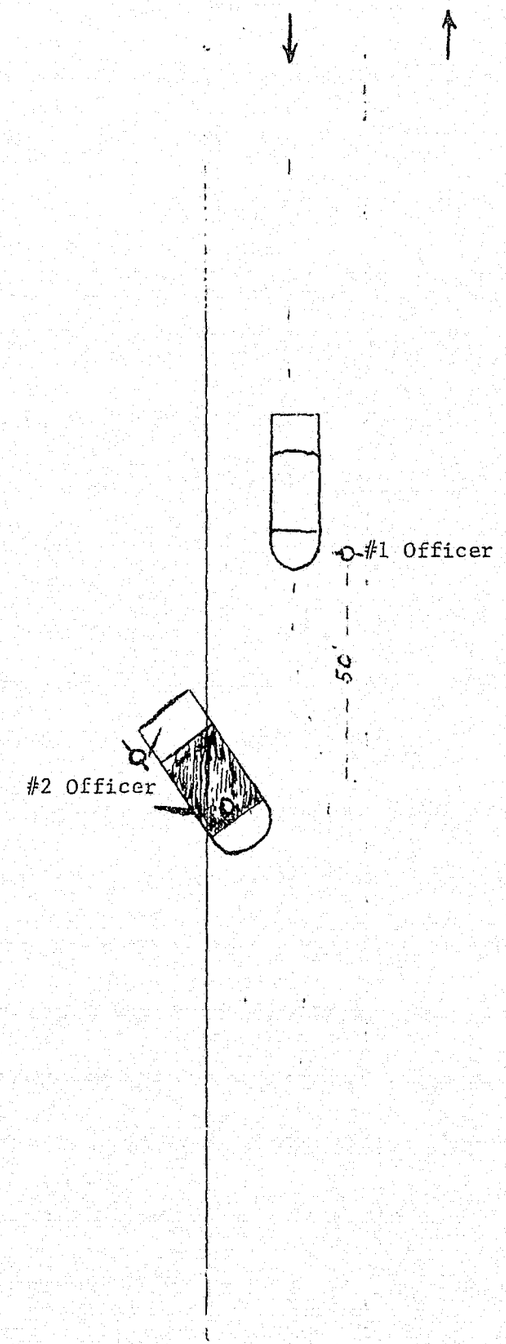
4. Consider availability of personnel at different times of day and night, when it might be necessary to put such a roadblock cordon into effect.

5. Police radio station (or sheriff's radio station) should be the central clearing house for the blockade plan, and should direct its operation.

6. All officers should be thoroughly familiar with the plan.

7. Consider also the advisability of using broadcasts by commercial radio stations within the city (or county) asking the public to be alert for the wanted automobile.

#1 ILLUSTRATION--SINGLE CAR BLOCKADE



V. Illustrations of Blockade Point Control.

A. Illustration #1 of single car blockade (2 lane roadway).

1. Only cars coming into the blockade point are stopped. Cars leaving blockade area are not stopped or checked.

2. The #1 officer advances 50 feet toward incoming traffic, maintaining a position on the dirver's side of approaching cars.

3. The #2 officer takes up position behind and toward rear of the police vehicle where he has a unobstructed view and field of fire and some measure of protection. This triangulates officers and provides ability to hold suspect in crossfire without the officers being in line of each others fire.

4. Police vehicle is in position to partially block road and still allow cars stopped to circumvent the police vehicle without crossing into the path of on-coming cars to pass through blockade point at the center lane.

5. Police vehicle should be parked at a 45 degree angle and facing toward the direction of travel of the cars being halted.

   a. This allows for quick pursuit of any vehicle who fails to stop without backing up or turning around.

   b. If a vehicle turns prior to reaching the blockade point, a simple and quickly executed "U" turn puts the police vehicle in position for immediate pursuit.

6. The #2 officer should leave the right door of the police vehicle open so he can hear any radio messages and it allows him quick access to the radio. He should never take his eyes off the #1 officer, who is always in a highly vulnerable position.

7. Roto beams and parking light flashers should be operating.

   a. During hours of darkness, flares or other warning implements should be set up 500 feet toward the path of oncoming traffic to warn traffic of danger and to slow down cars approaching the blockade.

   b. At night, the scene will appear as an accident to approaching traffic.

B. Illustration #2 of two car blockade (4 lane roadway).

1. The #1 officer from Police Unit #1 advances to a point 50 feet toward oncoming traffic, maintaining a position on the left front side of the vehicle being stopped.

2. The #2 officer from Unit #1 takes a position behind the right front of the cruiser which will provide him cover from the hood and engine compartment, and allows for a clear field of fire. If there is any indication of a gun fight the #1 officer is quite vulnerable and should be prepared to move toward the centerline to be sure he is out of line of fire of his partner and the officers from Unit #2.

3. The #1 officer from Police Unit #2 should take up a position at the side of the road about 10 to 15 feet past the position of officer #1 from Unit #1.

4. The #2 officer from Unit #2 takes up a position behind the trunk of Unit #2 and is also responsible for all radio transmissions.

5. Both police vehicles should be at a 45 degree angle to the path of traffic with Unit #1 facing toward this traffic.

   a. This will allow for immediate pursuit of any suspect vehicle that should turn prior to reaching the blockade point.

   b. In this event, Unit #2 would remain in position and continue as one-car blockade plan.

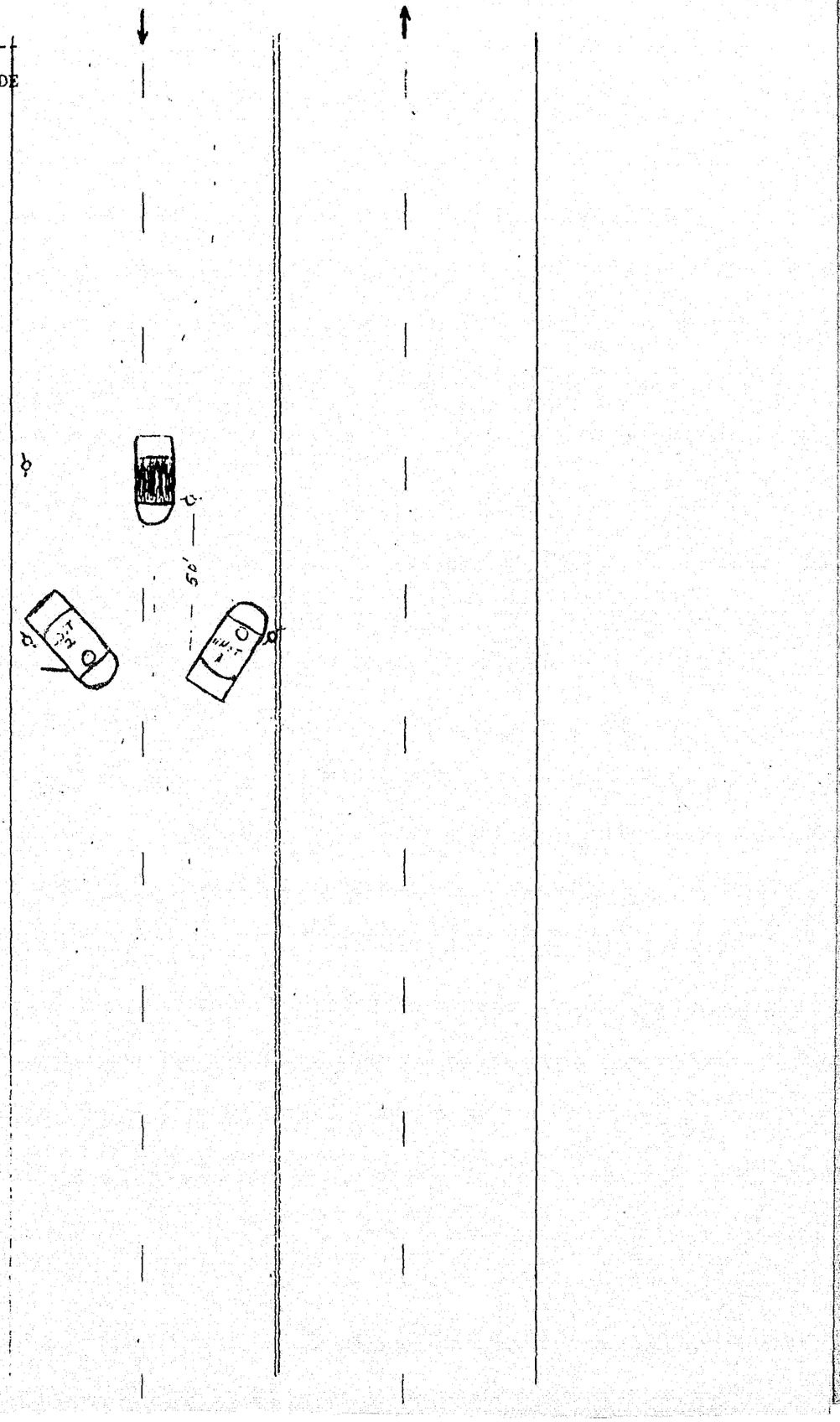
6. Unit #2 is in position to pursue any vehicle that fails to stop at blockade point. In this event, Unit #1 would assume position of Unit #2 and continue as one-car blockade.

7. All approaching vehicles are forced to pass between the two police vehicles.

8. All other precautions for safety as mentioned with the one-car blockade would also apply.

#2 ILLUSTRATION-

2-CAR BLOCKADE



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END